PEARSON ECONOMICS 12

AUSTRALIA IN THE GLOBAL ECONOMY

2024



Tim Dixon • John O'Mahony

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Welcome



The textbook team (L–R): Tim Dixon, Toby Suckling, Michelle Mountford, Ben Lorschy, Michael Pahos, Luke Goldman, Gavin Brennan, John O'Mahony. Not pictured: Zain Ahmed, Natalie Baker, Joel Bank, Vanessa Li, Ben Robinson.

We live in an extraordinary time in world history. The era of globalisation has seen a transformation in the size and power of the world's major economies. It has also seen a transformation in the way that people live, work and communicate all across the world. But the first two decades of the 21st century showed that globalisation has not brought about stability. Instead, it has contributed to rising uncertainty. By the end of the first decade, we had witnessed a global financial crisis and the worst economic downturn in 75 years. By the end of the second decade, the architecture for managing the global economy had begun disintegrating, with the United States – once the anchor of the global economy – abandoning many of the principles and institutions that had shaped American leadership of the global economy for almost a century. The third decade began with two global shocks: the COVID-19 global pandemic, and then Russia's invasion of Ukraine, which together drove inflation to 50-year highs. The accelerating application of artificial intelligence in many sectors also highlighted new systemic shocks to the global economy from technological change.

With the acceleration of technology, global supply chains and cross-border investment, governments have found that their power to implement domestic economic policies is becoming limited in the face of powerful global forces. It is made more challenging when many multinational corporations have a larger annual turnover than most national economies.

Globalisation is probably the most important force at work at this time in history. It is changing what products are bought, where people travel, what is studied, what careers are chosen, how people entertain themselves and what people believe in. It has increased living standards around the world, but its downsides have also created a backlash against globalisation that continues to gather momentum.

Despite the growth of the global economy and spread of new technology, significant gaps remain both between rich and poor countries and between the rich and poor people within countries, with just under half of the world's population living in poverty. Incomes have stagnated in many wealthier nations, jobs have become more insecure and there is heightened anxiety about the future.

Since the 1980s, Australia has embraced globalisation, placing a high priority on integrating its economy with other economies in its region and throughout the world. As a small economy in a world dominated by much larger economic powers, Australia cannot escape the impact of global economic developments. However, we've seen in the past three decades that Australia can prosper in this new era, owing to a combination of good economic policy, a business sector that responds quickly to changing conditions, and good luck from developments like the global resources boom.

The Year 12 Economics Course gives you the opportunity to grapple with many of these issues. It blends theory with current developments, a global perspective, a sensitivity to the factors that determine economic performance and government policies and a focus on the impacts of those policies. Quite apart from keeping you busy during Year 12, it introduces a smorgasbord of issues that you may choose to pursue in greater detail in further study or in your working life.

The first topic of this book examines the global economy. The second examines Australia's relationship to the global economy and trade performance. After these topics establish where Australia fits into the world economy, the third topic reviews the major problems and issues in the Australian economy, such as the goals of economic growth, low unemployment, low inflation, external balance and environmental sustainability. The final topic examines the macroeconomic and microeconomic policies used by governments to meet these challenges.

This textbook is a collaborative effort of a team of economic researchers. Each year, the book is comprehensively revised and refined to reflect feedback from students and teachers as well as changes in global and domestic economic conditions and developments in the economic policy environment. The 2024 update reflects changes and developments right up to the day of going to press, including a major international war, high inflation, rising interest rates and political instability in many countries. Our thanks to all of the team involved in the production of this textbook both for this year and previous years. We hope that this text helps you make sense of the complex topic of Australia and the global economy and that we can pass on to you some of our passion for it.

Tim Dixon and John O'Mahony

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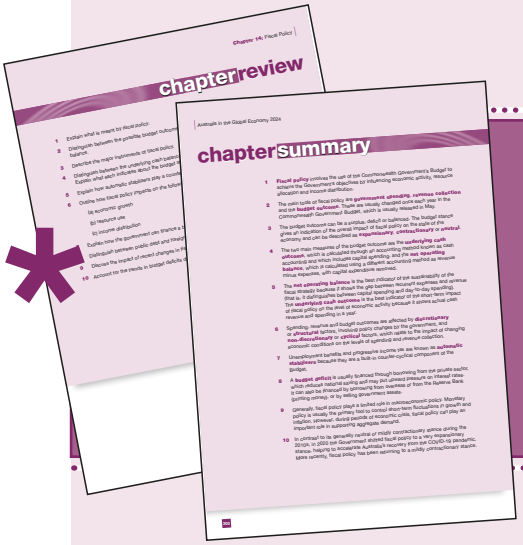
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How to use this book

Congratulations on choosing ***Pearson Economics 12: Australia in the Global Economy*** as your Year 12 Economics text. Before you use ***Australia in the Global Economy***, we'd like to highlight some of its key features.

The text is divided into four Topics, following the structure of the Year 12 Economics syllabus. Each Topic is introduced by a page that includes the relevant Focus, Issues and Skills for that Topic, reflecting the syllabus objectives. This is followed by a clear introduction to each chapter within the Topic.





Each Chapter concludes with a 10-point **Chapter Summary** and 10 **Chapter Review** questions. The Chapter Summary is a good starting point for your notes on each Chapter, and the review questions are a great way to test your understanding of the Chapter.



This year's edition also includes:

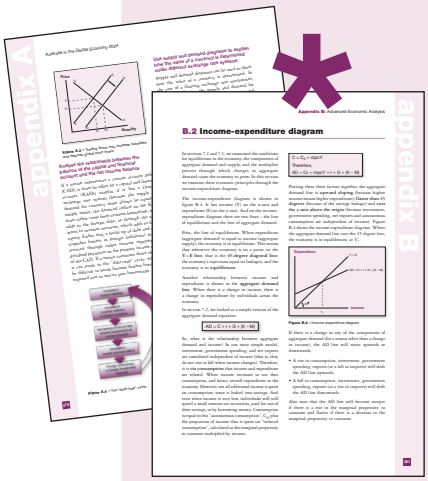
- analysis of changes in economic policy under the Albanese Government, including reforms to the RBA, the labour market and climate policy
- the impact of rising interest rates and the cost-of-living crisis
- the global shift towards increased support for domestic industries
- a detailed analysis of the 2024 Budget.



The comprehensive Glossary at the back of the text provides a ready reference for more than 350 key economics terms and concepts.

Throughout the text, you will find references to organisations whose websites are relevant to that area of study.





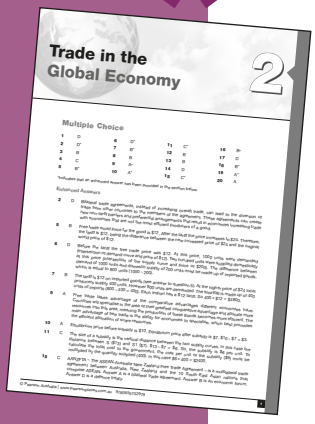
A unique feature of ***Australia in the Global Economy*** is its two appendices, located at the back of the book.

Appendix A: Key Economic Skills gives you the opportunity to master the 23 skills outlined in the Year 12 Economics syllabus. The appendix covers three main areas: drawing and interpreting economic diagrams, equations and calculations, and interpreting economic data and information. By working through this material you will develop and reinforce the key economic skills.

Appendix B: Advanced Economic Analysis provides extension material beyond the Year 12 Economics Syllabus for students seeking an extra challenge.

Pearson Economics 12: Australia in the Global Economy Workbook Eleventh Edition

The accompanying workbook *Australia in the Global Economy Workbook Eleventh Edition* is a great resource to further help you in your study of Year 12 Economics.



Included are **enhanced answers** to the workbook answers, including worked solutions for answers that require calculations and additional explanations for answers that require you to demonstrate a deeper understanding of key concepts and knowledge. These will allow you to not only confirm whether you arrived at the right or wrong answer, but to understand why.

How to access answers to the Workbook

You can download the answers to all multiple choice questions and example responses to short answer questions by following these simple steps:

1. Go to **www.pearsonplaces.com.au**
2. Activate your code to access *Australia in the Global Economy eBook*
3. Click on the 'Explore resources' tab in your eBook.

We really hope that this text makes your study of economics more enjoyable and rewarding. The book is revised and updated each year to ensure it stays sharp and up to the minute – and to save you from having to spend time chasing down information when you should be focusing on understanding the content and developing your skills as an economist.

TOPIC 1

THE GLOBAL ECONOMY

Focus

The focus of this study is the operation of the global economy and the impact of globalisation on individual economies.

Skills

Topic 1 skills questions can ask you to:

- Analyse statistics on trade and financial flows to determine the nature and extent of global interdependence
- Assess the impact on the global economy of international organisations and contemporary trading bloc agreements
- Evaluate the impact of development strategies used in a range of contemporary and hypothetical situations

Issues

Topic 1 economic issues questions can ask you to:

- Examine the effects of globalisation on economic growth and the quality of life, levels of unemployment, rates of inflation and external stability
- Assess the potential impact on the environment of continuing world economic development
- Investigate the global distribution of income and wealth
- Assess the consequences of an unequal distribution of global income and wealth
- Discuss the effects of protectionist policies on the global economy

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Topic 1

Introduction

This section (chapters 1 to 3) covers Year 12 Topic 1 *The Global Economy* and focuses on the structure of the global economy and the key features of globalisation. To understand the Australian economy we need to start with a global perspective. Topic 1 is critical to the rest of the course because it provides the overall perspective for when we later examine other topics such as Australian economic issues and policy.

Chapter 1 provides an overview of the global economy. It discusses the main components of the global economy – international trade, international flows of finance and investment, and the role of technology and people movements in strengthening links between individual economies. These links are highlighted with a review of international and regional business cycles.

Chapter 2 examines the main economic theory that underpins globalisation – the concept of free trade and the economic benefits that trade brings. Chapter 2 then examines the reasons for countries restricting trade and protecting their own industries, and how recent years have seen many international agreements to reduce barriers to trade. This chapter concludes with a look at the role of international organisations and government economic forums in managing the global economy.

Chapter 3 examines the divisions within the global economy. Understanding the gaps in the living standards between rich and poor nations is essential to an analysis of the global economy. This chapter looks at the distinction between economic growth and economic development. It discusses the main categories into which different economies are grouped and examines the global and domestic factors that contribute to inequality. Chapter 3 also discusses the impacts of globalisation on economic development.

Topic 1 concludes with case studies of Brazil and Indonesia. Understanding the impacts of globalisation on individual economies is an important complement to any analysis of globalisation at the global level and is a requirement of the Year 12 Economics Course.

Brazil is one of the four largest emerging economies in the world. Like Australia, Brazil is a major commodity exporter, but unlike Australia it has not opened up its economy fully to global forces, and it has had significant economic problems in the past decade. As a case study, Brazil highlights the opportunities and challenges of increased economic integration.

Indonesia is the largest emerging economy of South-East Asia – a region that experienced rapid industrialisation and improvements in economic development in recent decades. The increasing linkages between Indonesia and Australia make understanding the Indonesian economy especially valuable for future Australian economists.

The case studies may complement another country that you choose to study. You may decide to compare the impacts of globalisation on these two economies or you may choose to make either Brazil or Indonesia your case study in 2024.

Introduction to the Global Economy

1

1.1 The global economy

1.2 Globalisation

1.3 The international and regional business cycles

1.1 The global economy

The study of economics has traditionally focused on how individual economies operate. While countries have always traded with each other, economic theories have generally assumed that economies operate separately from each other and that the structure and performance of economies is mainly the result of local developments and influences.

This way of looking at economics no longer describes the real world. Today we live in a **global economy** – where the economies of individual countries are linked to each other and changes in a single economy can have ripple effects on others. For many advanced and developing countries, the value of what they buy and sell from overseas is often greater than half of the value of the economy's annual output. When conditions in the global economy change, these changes can have an impact on the economies of far-flung countries almost immediately. The importance of global factors in driving economies has been starkly illustrated in the 2020s by the COVID-19 pandemic and the war in Ukraine. Both of these events resulted in global economic impacts on supply chains, production and prices.

In many respects there is nothing new in the fact that major economic developments can have impacts across the world. For example, the Great Depression of the late 1920s and 1930s had a global impact with many countries experiencing a severe economic downturn. On the other hand, economies are more closely integrated now than at any previous time. The linkages between economies are deeper and more far-reaching than ever before. There are few aspects of life that have not been affected by the waves of global influences washing across the world. This is especially the case in a smaller economy such as Australia, which has embraced the global economy and pursued policies to integrate its economy with those of its region and around the world.

In the past three decades, **globalisation** has become a dominant economic, political and social theme. Globalisation is the integration between different countries and economies and the increased impact of international influences on all aspects of life and economic activity. Unlike many previous times in world history when one major empire often dominated the relationships between economies, globalisation in recent decades has involved layers of influences in all directions. The United States is still the leading world economy, but its power is increasingly constrained by China and other major economies.

Globalisation refers to the integration between different countries and economies and the increased impact of international influences on all aspects of life and economic activity.

Globalisation is also a phenomenon with increasing impacts on national politics. Recent years have seen a backlash against globalisation in many countries. Numerous leaders (such as Donald Trump, who was President of the United States from 2017 to 2021) have come to power promising to strengthen their country against global economic forces. The COVID-19 pandemic added to public concerns about the impact of globalisation, as

travel between countries accelerated the spread of the coronavirus, and countries ran short of medical supplies because of their reliance on global supply chains. Some economists describe the past decade as "slowbalisation" because of low growth in trade volumes, increased restrictions on trade, and rising geopolitical tensions.

From an economic point of view, the major indicators of integration between economies include:

- international trade in goods and services
- international financial flows
- international investment flows and transnational corporations
- technology, transport and communication
- the movement of workers between countries.

There are many dimensions to globalisation and there are many statistics that can be used as measures of globalisation. For example, some indication of the extent of globalisation can be gained from examining the proportion of programming on television networks and streaming services that is made in Australia versus made overseas; or similarly, the proportion of music downloads that are local versus overseas artists. These would be classified as social or cultural indicators of globalisation. Each of these indicators provides an insight into the way in which economies are now linked to each other and re-shaping the global economy.

> "Even in the face of substantial shocks over the last few years, international flows have shown great resilience. By 2021, global flows of trade, capital, and information had surpassed their pre-pandemic levels. And while people flows were stagnant in 2021, they made progress towards recovery in 2022. To be sure, today's geopolitical tensions are reshaping some types of flows, and the war in Ukraine and worsening macroeconomic conditions have caused the growth of international flows to slow. But international activity shows no sign of a retreat.
> …
> As leaders have confronted the possibility of deglobalization, some have begun to call instead for reglobalization. This does not refer to a mere reversion to earlier growth trends, or even a return to prior policy approaches. Instead, the focus is on reforming globalization to make it work better, expanding its pool of beneficiaries and better managing its challenges.
> …
> As policymakers continue to confront major global and national challenges, one of the clear lessons from the Covid-19 pandemic is that international connections dramatically expand our capacity to solve problems."
>
> *– Steven A. Altman and Caroline R. Bastian*
> *DHL Global Connectedness Index 2022*
> *15 March 2023*

1.2 Globalisation

Trade in goods and services

International trade in goods and services is an important indicator of globalisation because it is a measure of how goods and services produced in an economy are consumed in other economies around the world. The value of exports of goods and services has grown rapidly in recent decades, increasing from US$4.3 trillion (19 per cent of global output) in 1990 to over US$27.9 trillion (29 per cent of global output) in 2022. The size of the **Gross World Product (GWP)** – the aggregate value of all goods and services produced worldwide each year in the global economy – is now 9 times its nominal level in 1980, but the volume of world trade has grown to over 12 times its 1980 level.

Gross World Product (GWP) refers to the sum of total output of goods and services by all economies in the world over a period of time.

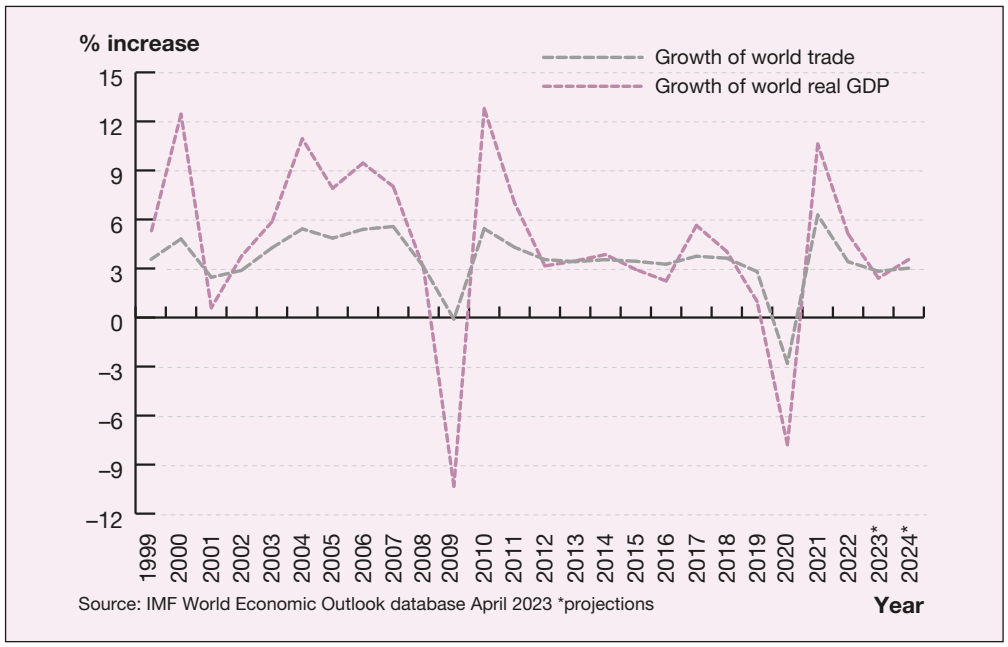


Figure 1.1 – Gross World Product and world trade

Annual growth in the value of trade has generally been around the same level as world economic growth since the global financial crisis. During economic downturns, such as in the early and late 2000s and in 2020, the growth of global trade has contracted faster than world economic output, highlighting the **greater volatility** of trade compared with the GWP. The impact of the COVID-19 pandemic on supply chains, tourism and international education led to a contraction in global trade of 7.8 per cent, followed by a strong rebound in 2021.

The high volume of global trade reflects the fact that economies do not produce all the items they need, or they do not produce them as efficiently as other economies, and have to import goods and services. Global trade grew strongly for decades because of new technology in transport and communications, which reduced the cost of moving goods between economies and providing services to customers in distant markets. Over the same period, governments have encouraged trade by removing barriers and joining international and regional trade groups such as the **World Trade Organization (WTO)**, European Union (EU), and the Association of South-East Asian Nations (ASEAN). These developments have been a major force behind increasing global trade.

World Trade Organization (WTO) is an organisation of 164 member countries that implements and advances global trade agreements and resolves trade disputes between nations.

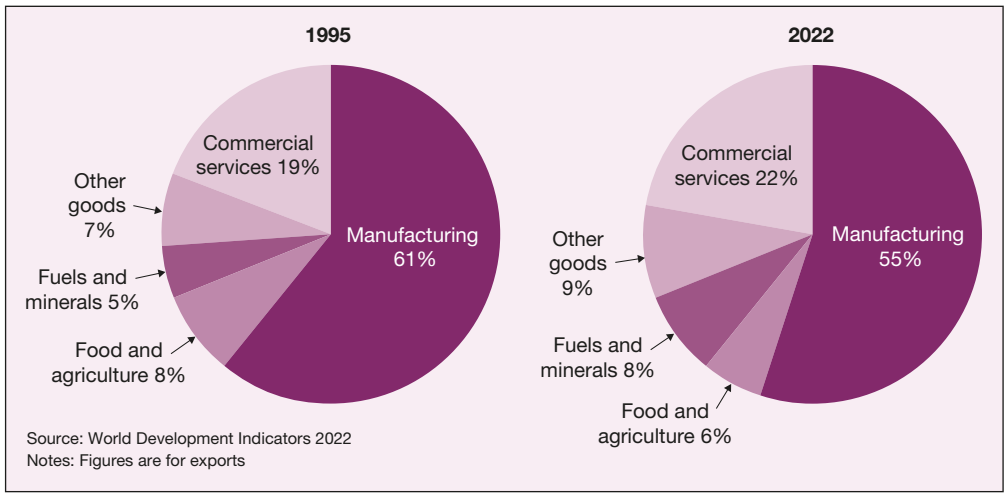
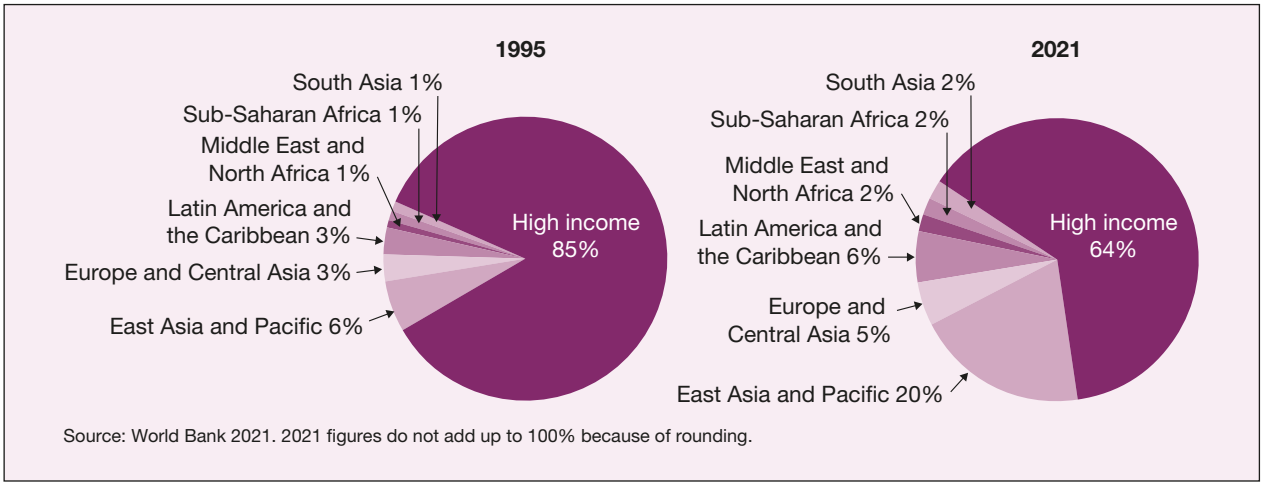


Figure 1.2 – Composition of global trade, 1995 and 2022

The mix of what goods and services are traded, known as the **composition of trade,** can have an impact on individual economies. Figure 1.2 shows that global trade is dominated by manufactured goods, such as vehicles, clothing and electronic goods. Trade in services, such as finance and communication, is the fastest-growing category of trade and makes up two-thirds of global output, but it currently makes up less than one-quarter of global exports. In particular, digital service exports are likely to be strong future drivers of global trade growth, already tripling in value since 2005 according to the WTO. Countries such as Australia should continue to benefit from the growth in services trade because countries with highly educated workforces are best positioned to compete in growing global markets for services. Nevertheless, the COVID-19 pandemic resulted in a change in the composition of world trade, at least in the short term, with services sectors such as tourism and international education severely affected by travel restrictions.

The **direction of trade flows** has changed in recent decades, reflecting the changing importance of different economic regions. Between 1995 and 2020, high-income economies (concentrated in North America and Western Europe) saw their overall share of global trade fall from 85 per cent of exports to 64 per cent, as shown in figure 1.3. Over the same period, the fast-growing economies of East Asia and the Pacific region (which includes China, Indonesia and Vietnam) experienced the most rapid increase in trade, with their share of global trade surging from 6 per cent to 20 per cent.



Source: World Bank 2021. 2021 figures do not add up to 100% because of rounding.

Figure 1.3 – Share of world's exports by region, 1995 and 2021

Trends in the direction of trade can also have an impact on individual economies. For example, recent decades have witnessed strong growth in the Chinese economy, resulting in stronger trade relationships and inter-linkages in global supply chains. Countries such as Australia have prepared for stronger economic relations with China by encouraging students to learn Mandarin at school. At the same time, concerns about Australia being too reliant on exports to China are a factor in Australia's growing emphasis on expanding trade with India and other growing economies in the region.

reviewquestions

1. Explain TWO reasons for the increase in trade in goods and services in the global economy.
2. Describe trends in the composition and direction of trade flows in the global economy.
3. Discuss the impacts of changes in global trade flows on economies.

Financial flows

International finance now plays a leading role in the global economy. Because finance is crucial to so many aspects of how modern economies work, the globalisation of finance has had a major impact in terms of linking economies around the world. Finance is the most globalised sector of the world economy because money moves between countries more quickly than goods and services or people.

International financial flows expanded substantially following financial deregulation around the world, which in most countries occurred in the 1970s and 1980s. Controls on foreign currency markets, flows of foreign capital, banking interest rates and overseas investments in share markets were lifted. Technological change also played an important role. New technologies and global communications networks linked financial markets throughout the world, allowing events in major international markets such as New York, Tokyo, London and Hong Kong to produce immediate results.

While there is no single measure of international financial flows, all have shown a dramatic increase during the globalisation era. Figure 1.4 shows the growth of exchange-traded derivatives, which are a major instrument in global financial markets. The volume of financial flows fluctuates in response to global conditions. Sharp falls in financial flows have been followed by strong recoveries in 2008 (with the global financial crisis), 2013 (with the Eurozone crisis) and 2020 (with the COVID-19 pandemic).

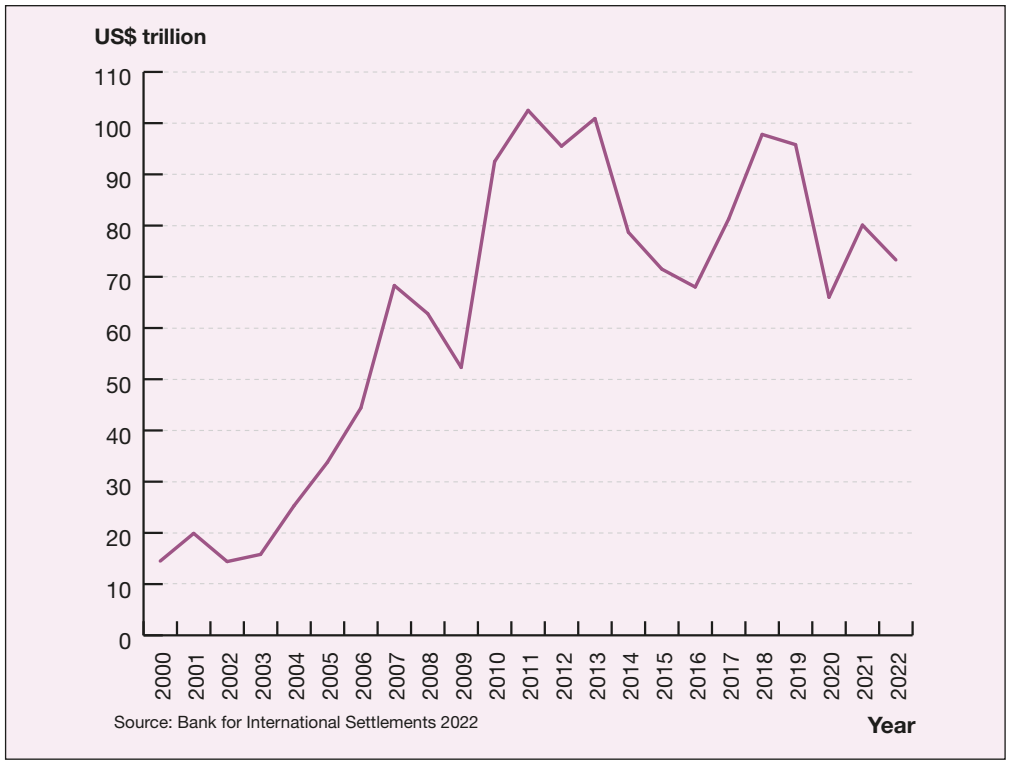
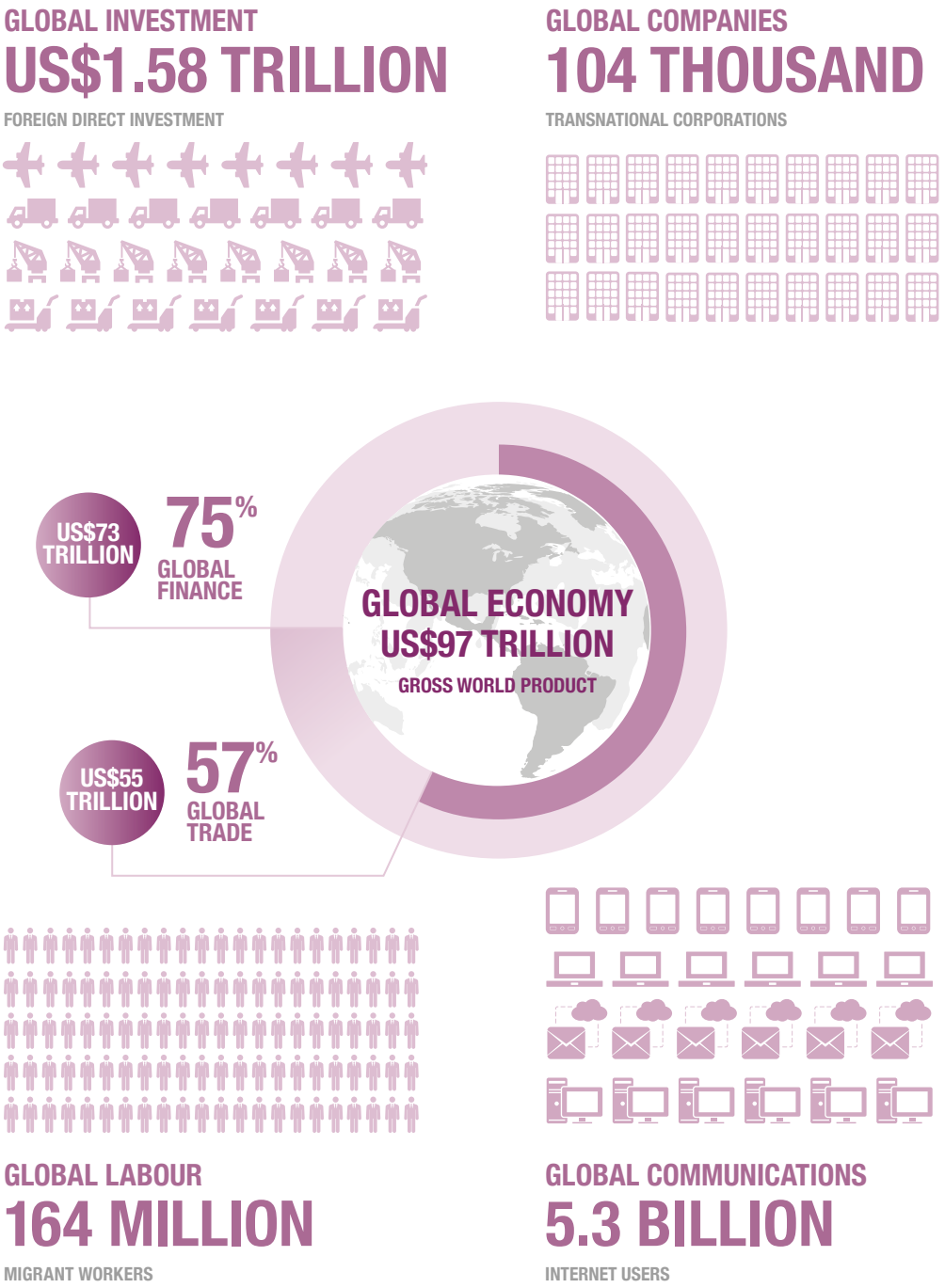


Figure 1.4 – The growth of global financial flows: exchange-traded derivatives

An important feature of international finance is **foreign exchange markets** (or forex markets), which are networks of buyers and sellers exchanging one currency for another in order to facilitate flows of finance between countries. Foreign exchange markets have experienced extraordinary growth in recent years, with average daily turnover reaching over US$7.5 trillion by 2022, up from US$4 trillion in 2010. The value of a currency is expressed in terms of another currency and is known as the **exchange rate** between two currencies. As will be discussed in chapter 5, most countries determine the value of their currency through the interaction of the forces of supply and demand in foreign exchange markets.

Speculators are investors who buy or sell financial assets with the aim of making profits from short-term price movements. They are often criticised for creating excessive volatility in financial markets.

The main drivers of global financial flows are **speculators and currency traders** who shift billions of dollars in and out of financial markets worldwide to undertake short-term investments in financial assets. Based on data from the Bank for International Settlements' (BIS) Triennial Survey of foreign exchange transactions, only a small share is for "real" economic purposes such as trade and investment. The vast majority is for speculative purposes – to derive short-term profits from currency and asset price movements – or for technical purposes, such as hedging against future exchange rate movements and swapping funds between currencies. International investment banks and hedge funds, often based in the United States, are generally responsible for most of these transactions. The aim of these transactions is either to gain from short-term movements in asset prices – namely currency and share price fluctuations – and to generate profits, or to hedge against future movements and minimise the risk of losses.



SOURCES: World Bank, Bank for International Settlements, International Telecommunications Union, United Nations Conference on Trade and Development, International Organization for Migration. Excludes migrants who have taken citizenship in their new country.

The main benefit of greater global financial flows is that they enable countries to obtain funds that are used to finance their domestic investment. In particular, investors in countries with low national savings levels would not otherwise be able to obtain the necessary finance to undertake large-scale business and investment projects if their economies were closed off to global financial flows. In this regard, global financial flows may enable a country to achieve higher levels of investment (and therefore economic growth) than would otherwise have been possible if finance from overseas were not available.

However, changes in global financial flows can also have significant negative economic impacts. Speculative behaviour can create significant volatility in foreign exchange markets and domestic financial markets. This is because speculators are often accused of acting with a herd mentality, meaning that once an upward or downward trend in asset prices is established it tends to continue. Speculative activity has been blamed for large currency falls and financial crises in several countries over the past decade, including Britain in 2016, Türkiye in 2021 and repeatedly in Argentina. As discussed further in chapter 2, the **International Monetary Fund (IMF)** is responsible for the overall stability of the global financial system. One of its roles is to stabilise individual economies experiencing currency crises or financial turmoil, in order to prevent flow-on effects to other economies.

International Monetary Fund (IMF) is an international agency that consists of 190 members and oversees the stability of the global financial system. The major functions of the IMF are to ensure stability of exchange rates, exchange rate adjustment and convertibility.

reviewquestions

1 Account for the trends in international financial flows during the globalisation era.
2 Examine the role of speculators and currency traders in global financial markets.
3 Discuss the impact of global financial flows on economies.

Investment and transnational corporations

Another indicator of globalisation is the rapid growth of investment between countries over the past two decades. Since the 1980s, the global economy has witnessed rapid growth in movements of capital. While there are similarities in the growth of global finance and global investment, the two concepts can be distinguished by describing the shorter-term, speculative shifts of money as *finance*, and the longer-term flows of money to buy or establish businesses as *investments*.

One measure of the globalisation of investment is the expansion of **foreign direct investment (FDI),** which involves the movements of funds that are directly invested in economic activity or in the purchase of companies. Reforms in developed and developing countries led to a surge in FDI flows from the 1980s onwards. Figure 1.5 demonstrates the dramatic increase in FDI flows over the past three decades. FDI flows are strongly influenced by the level of economic activity. The global recession in the late 2000s reduced FDI flows sharply, but they gradually recovered and the 2010s decade saw sustained high levels of FDI. The COVID-19 pandemic caused another sharp downturn in FDI flows in 2020, with UNCTAD recording a fall to under US$1 trillion for the first time in almost two decades, but this was a brief downturn, with FDI flows recovering quickly the following year.

Foreign direct investment (FDI) refers to the movement of funds between economies for the purpose of establishing a new company or buying a substantial proportion of shares in an existing company (10 per cent or more). FDI is generally considered to be a long-term investment and the investor normally intends to play a role in the management of the business.

FDI flows have traditionally favoured developed nations. With greater industrial capacity and larger consumer markets, economies in Europe, North America and Japan were the natural destination for foreign investment during the globalisation decades of the 1990s and most of the 2000s. But this dominance has changed, with the share of FDI destined for developing and other economies significantly exceeding the developed world's share since 2020. The majority of FDI inflows to developing countries flow to economies in Asia. Of the US$916 billion inflows to developing countries in 2021, US$662 billion went to

Asia ($307 billion to China and Hong Kong, $141 billion to Singapore and $49 billion to India). The increase in FDI inflows to developing countries since 2020 reflected stronger returns on FDI, relative to the returns on investment in developed countries.

Developing economies have also become a major source of investment funds in the global economy. In 2021 these economies contributed 31 per cent of global FDI funds, compared to around 15 per cent in the mid-2000s.

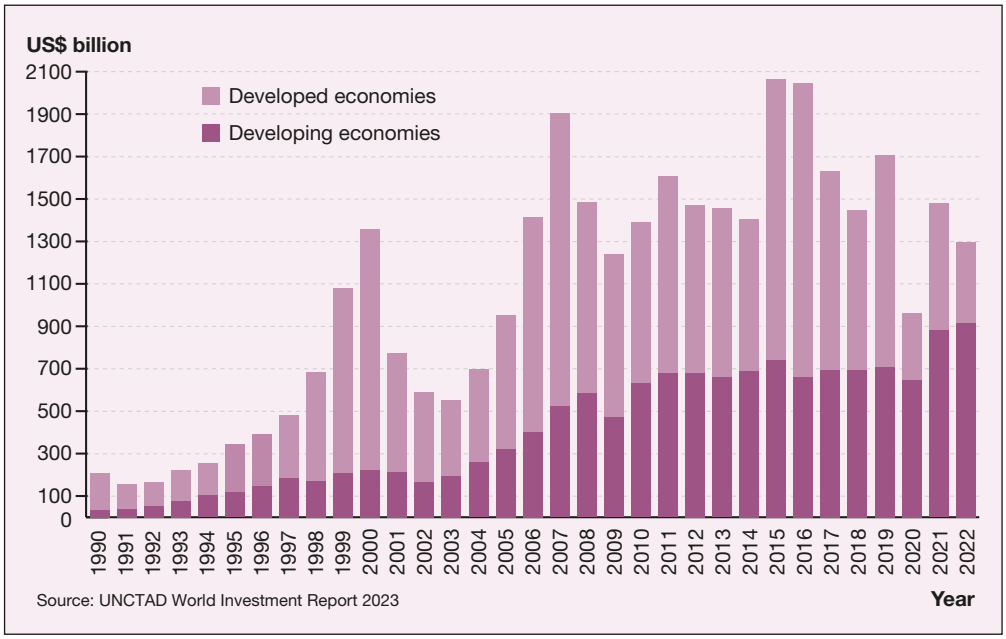


Figure 1.5 – Total world FDI inflows

Transnational corporations (TNCs) play a vital role in global investment flows and account for roughly one-half of global trade. Often, they will have production facilities in countries around the world, sourcing inputs from some countries, doing most of the manufacturing in another country, and doing other packaging and marketing tasks in another country. Around 80 per cent of trade occurs in global value chains, according to UNCTAD analysis.

As TNCs such as Apple, Amazon and Tesla establish or expand production facilities in a country, they bring foreign investment, new technologies, skills and knowledge. Because of the capital and job opportunities they bring, governments often encourage TNCs to set up in their country through supportive policies like subsidies or tax concessions. Since the early 1990s, the number of TNCs has grown from 37,000 to 104,000, and the number of affiliates to TNCs has grown from 170,000 to over 1,116,000. Foreign affiliates of TNCs employ over 83 million people globally.

TNCs in digital industries have experienced particularly rapid growth due to increased adoption of digital solutions during the pandemic. Total sales for the top 100 digital TNCs grew 159 per cent over the five years to 2021, four times faster than the top 100 traditional TNCs. As TNCs continue to increase in both volume and significance, there has been an associated increase in cross-border cartels between large corporations, which reduces competition in economies and disadvantages local consumers. Global fines for cartels were $4.6 billion in 2021. However, many cartel arrangements are never uncovered by regulators, and fines are unlikely to fully capture the true cost of harm caused by cartels.

A significant cause of the growth of international investment is the increased level of international mergers and takeovers. During recent decades, there has been a spate of mergers between some of the world's largest corporations – most recently between technology companies Salesforce and Slack, pharmaceutical companies AstraZeneca and Alexion Pharmaceuticals, and media companies Walt Disney Company and 21st Century

Fox. These mergers have seen the formation of companies worth hundreds of billions of dollars and reduced the number of truly global companies in different product markets. The peak year for cross-border mergers and acquisitions (M&As) was 2007, when US$1 trillion of mergers took place, as shown in figure 1.6. International M&As typically move in line with changes in global economic conditions – investment falls when economic growth is lower. In 2022, M&As stood at US$706 billion.

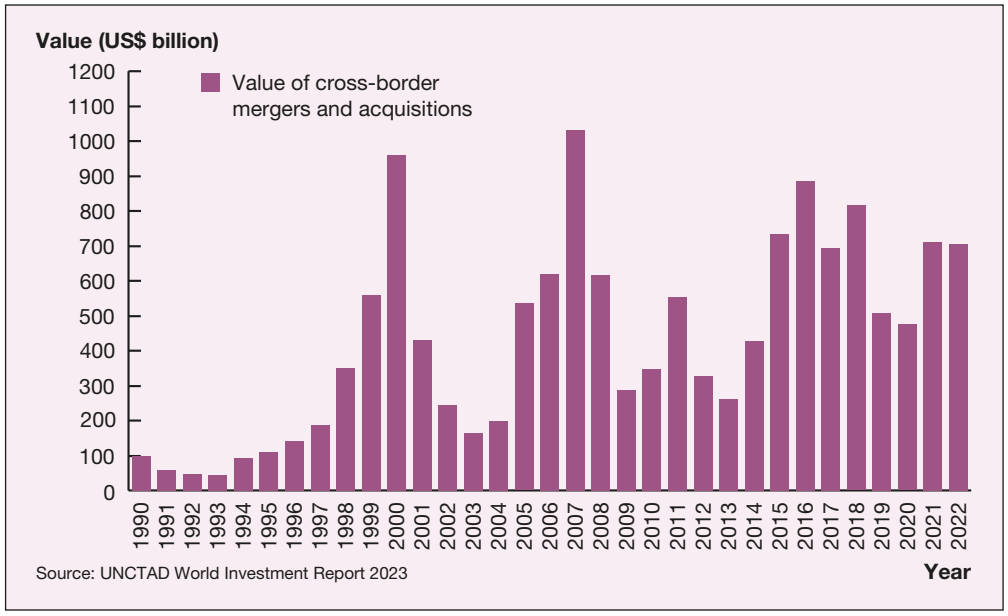


Figure 1.6 – Cross-border mergers and acquisitions

In overall terms, most investment in economies around the world still comes from domestic sources. FDI typically accounts for less than 20 per cent of total investment, meaning that over 80 per cent of investment still comes from within national economies.

reviewquestions

1 Distinguish between global financial flows and global investment flows.
2 Outline trends in the growth and direction of FDI flows.
3 Explain the role that TNCs play in global investment flows.

Technology, transport and communication

Technology plays a central role in globalisation. In part, this is because technological developments facilitate the integration of economies. Consider the following examples:

- Developments in freight technology, such as the use of micro warehouses nearer customers to improve "last mile" logistics and increased use of blockchain technology to simplify tracking and facilitate greater trade in goods. The WTO has estimated that the digitisation of trade has the potential to cut trade costs by 6 per cent.
- Cheaper and more reliable international communication through high-speed broadband allows for the provision of commercial services to customers around the world. A 2023 OECD study estimated that digital connectivity is having a three times larger impact on reducing trade costs today than in 1995. The proportion of the global population using the internet increased from 7 per cent in 2000 to 67 per cent in 2022.

- In finance and investment, technology plays a key role in facilitating globalisation through secure, high-speed networks that allow money to move around the world in a fraction of a second.
- Smartphones and mobile internet access are fundamentally changing the structure of many industries, from retail and transport sectors to education, leisure and professional services. Technology is causing disruptive change to the structures of many of these industries as huge populations embrace online technologies. The number of mobile phone subscriptions is now over 8 billion, which is roughly equal to the number of people in the world.
- Advances in transportation, such as longer non-stop flights and high-speed rail networks, allow greater labour mobility between economies and increased accessibility to tourism and travel for consumers.



Technology is one of the strongest drivers of globalisation because it allows integration at a depth unthinkable in previous decades and centuries. OECD research in 2023 found that a 1 per cent increase in bilateral digital connectivity increases both domestic trade (2.1 per cent) and international trade (1.5 per cent). Economies that adapt to new technologies rapidly also tend to be the economies that are most closely integrated with other economies in their region or around the world. The COVID-19 pandemic also highlighted the disparity in access to technologies between countries, a phenomenon known as the "digital divide". Countries where digital technology use was high (such as Israel, the Netherlands and Australia) were better able to cope with the physical lockdowns necessary to prevent the spread of the virus by continuing normal activities through digital marketplaces, virtual meetings and online learning.

SOCIAL MEDIA AND GLOBALISATION

Social media platforms have accelerated globalisation at many levels. By creating new online communities, social media platforms such as Facebook, Instagram, TikTok, YouTube and X (formerly Twitter) connect individuals on an unprecedented scale. Of all internet users, over 90 per cent are active on social media. Facebook, for example, claims 2.9 billion members.

As well as accelerating the globalisation of cultures, social media platforms have major economic impacts. Social media is central to marketing consumer products and services. Firms may use professional networks such as LinkedIn to source the best talent from global labour markets. Google Chief Economist Hal Varian has even suggested that word-search data for terms like *unemployment benefits* and *holidays* could be used to predict trends in consumer confidence and economic conditions.

Social media platforms are also worth vast sums. Elon Musk bought Twitter for US$44 billion in 2022. Google earned over US$280 billion in 2023, mostly from advertising revenue. Apple Inc. became the world's first trillion-dollar company by selling the phones, tablets and laptops through which people access social media. Social media platforms can rise and fall quickly (TikTok, for example, launched globally in 2017 and had over 3 billion downloads by 2023), but they are reshaping the economics of many sectors beyond media and telecommunications.

Another way that technology influences globalisation is as a driver of growth in trade and investment. For the leading technology innovators and exporters, technology represents a major trade opportunity. The United States earns substantial export revenues from its global leadership in many areas of new technologies. This reflects the geographical distribution of the top 100 digital TNCs' headquarters, with 59 per cent in the United States. Other countries rely on importing technology from a small group of developed economies with the hope that, over time, as they adopt new technologies, they can become innovators and develop their own technology exports as countries such as India, South Korea and Israel have done in recent years. Trade, therefore, spreads new technologies. Because innovation is an ongoing process, the leading country can often retain its technological superiority for a long period of time.

Business corporations that play a leading role in developing new technologies will often move directly into overseas markets in order to sell their products and services direct to local buyers. For example, leading information and communications technology corporations such as Google, Salesforce and IBM all have extensive global operations. These corporations bring extensive know-how into a new market and will often invest substantially in the new countries that they enter, particularly in education and training. In this way technology drives increased foreign investment. This is particularly apparent for digital TNCs, which have less reliance on physical assets. E-commerce TNCs increased their greenfield investments (a type of FDI that involves building a foreign subsidiary from the ground up) by 120 per cent in 2020 and a further 10 per cent in 2021.

The internet provides a communications backbone that links businesses, individuals and nations in the global economy. This not only allows greater communication within and between firms but also reduces business costs that have in the past been a barrier to integration between economies. The World Information Technology and Services Alliance (WITSA) has estimated that the global marketplace for information and communications technology is worth almost US$5 trillion. The surge in worldwide internet usage to five billion users highlights the rapid spread of technologies across countries in recent years and the increasingly interconnected nature of the global economy. COVID-19 accelerated this trend, with international internet traffic roughly doubling in 2020. At the same time, as online information flows have become more globalised, regulations have been required to mitigate cybersecurity attacks, which, around the world, increased by almost 40 per cent in 2022. Figure 1.7 shows the number of internet users in selected countries.

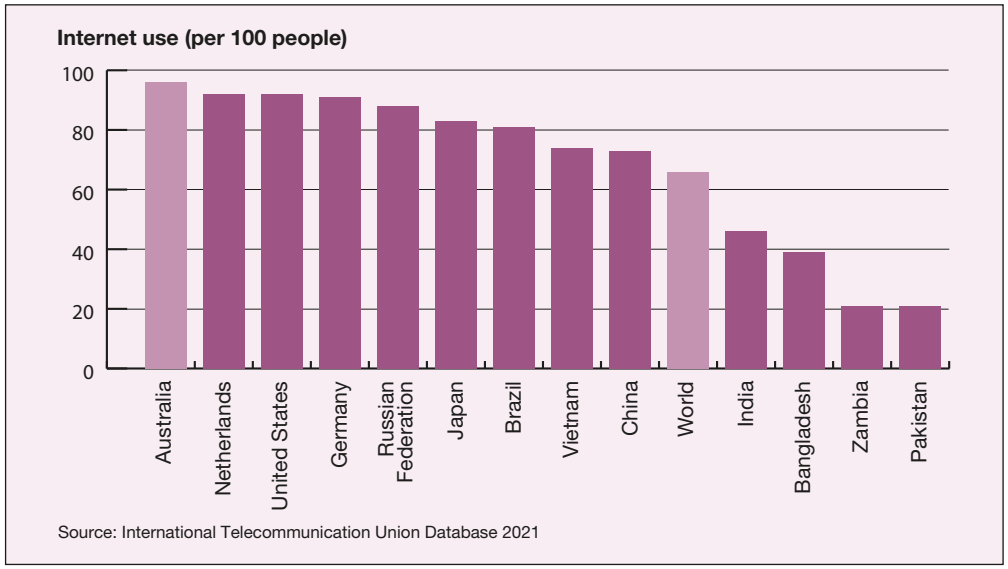
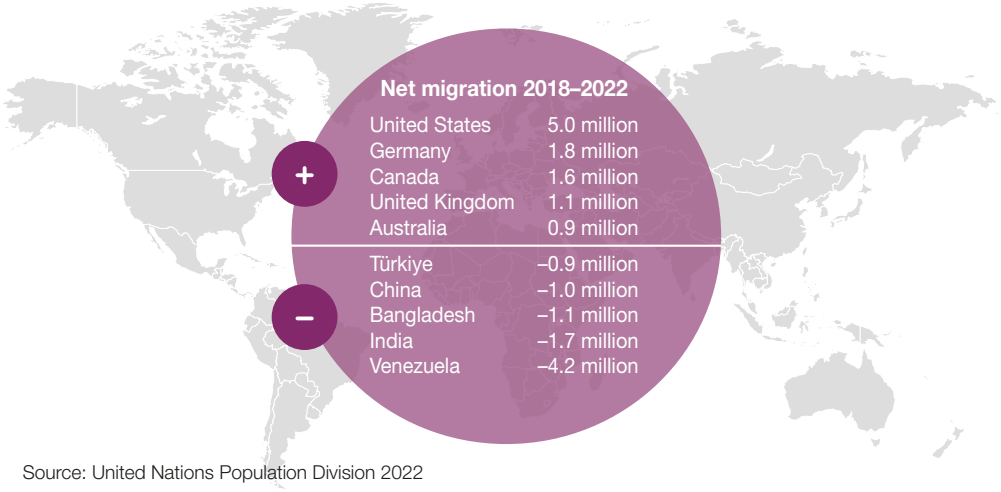


Figure 1.7 – Internet users in selected countries

International division of labour and migration

Labour markets differ from markets for goods and services, finance and investment, in that they are far less internationalised. While money can move around the world in fractions of a second, goods and services can move in days and investments can be made in weeks, people do not move jobs quite as freely. In fact, in recent years, the industrialised world has become more restrictive about immigration of people from poorer countries.

Nevertheless, more people than ever before are moving to different countries to take advantage of the better work opportunities that other countries offer. The World Bank estimates that 184 million people are living outside their country of nationality, with around half coming from low- and middle-income countries. The International Labour Organisation (ILO) estimates that around 164 million people (around 2 per cent of the world's population) are migrant workers. Labour migration into Organisation for Economic Co-operation and Development (OECD) member countries fell because of reduced job opportunities following the global financial crisis, gradually recovering during the 2010s. The number of migrants has continued to grow despite the impacts of COVID-19, reflecting both 'push' factors (such as people leaving their country because of conflict and violence) and 'pull' factors (the demand for workers in many countries). The net migration statistics in figure 1.8 show that with rare exceptions, the number of people on the move across the world remains low relative to country population sizes. In 2023, over 8 million Ukrainians were displaced because of war.



Source: United Nations Population Division 2022

Figure 1.8 – Net migration by region and country (over past five years)

The movement of labour between economies appears to be concentrated at the top and bottom ends of the labour market. At the top end, highly skilled workers are attracted to larger, higher-income economies, such as Europe and the United States, because of the higher pay and better job opportunities available in these countries. The ILO estimates that two-thirds of international migrant workers have moved to high-income economies. Smaller advanced economies, such as Australia and New Zealand, suffer from a "brain drain" of some of their most talented and skilled workers, who are attracted to other countries by greater rewards. In effect, there is a global market for the most highly skilled labour.

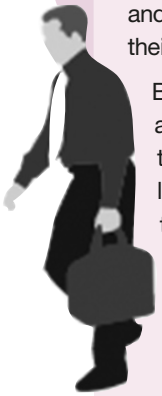
At the bottom end of the labour market, low-skilled labour is also in demand in advanced economies where it may be difficult to attract sufficient people born locally to do certain types of work. Jobs that only require basic skills (and perhaps do not require advanced language skills) are often filled by migrants. In the United States migrants are predominantly from Latin America; in European countries migrants are mainly from Eastern Europe and Africa; in richer Asian countries migrants are mainly from lower-income economies in the region. Low-skilled labour migrants often remit their earnings from countries with higher wages back to their families at home. Economies received remittances from overseas of US$614 billion in 2021, with India, Mexico and the Phillipines the main destinations.

International division of labour is how the tasks in the production process are allocated to different people in different countries around the world.

These trends in migration reflect an **international division of labour** whereby people move to the jobs where their skills are needed while the globalisation of the labour market is increasing but there are still significant barriers to working in other countries. These barriers include immigration restrictions, language, cultural factors and incompatible educational and professional qualifications. Most people would prefer to stay in the country of their birth, where their family and friends live, and where they are most familiar with the language and culture. Against this preference, domestic instability and geopolitical turmoil may force people to flee their countries, with the UNHCR estimating that 103 million people were forcibly displaced by mid-2022, the highest figure on record.

The international division of labour is also evident from another aspect of the world economy – the shift of businesses between economies, rather than the shift of people. Just as people may move countries in search of the best job opportunities, corporations shift production between economies in search of the most efficient and cost-effective labour. In a globalised business environment, many producers operate what is called a global supply chain (or global value chain), with production facilities in several countries. The process called "offshoring" allows companies to shift production between countries to reduce costs. In 2022, research by the IMF found evidence that global supply chains had

BRAIN DRAIN OR BRAIN GAIN?



Around 169 million people worldwide have migrated because of work. The proportion of these "economic migrants" who are highly skilled heavily outnumbers those who are low-skilled in almost all countries. In some countries, like Haiti and Jamaica, more than 80 per cent of the skilled labour force has moved overseas. Not even high-income countries are immune to the brain-drain problem, with Hong Kong and Ireland losing between one-third to one-half of their college graduates.

Brain drains have traditionally been perceived as a negative outcome for an economy in terms of both development and welfare. High levels of skilled labour emigration increase the technological gap between developed and developing countries as human capital flows towards more advanced economies and the source country may experience shortages of skilled workers. For example, health systems in developing countries can suffer when qualified doctors and nurses move to high-income economies where they are in demand.

On the other hand, economies experiencing outwards migration can benefit from remittance inflows, interconnected business networks and increased sharing of technological developments. The World Health Organisation (**WHO**) and the EU recently launched a project focused on the migration of health workers: From Brain Drain to Brain Gain. The program aims to manage and improve the flow of health workers from developing economies in Sub-Saharan Africa and Asia to maintain health standards and ensure that source countries retain some ability to deal with potential medical crises.

Sources: IZA World of Labor; WHO Health Workforce Alliance and the Health Workforce Department



operated successfully during the COVID-19 pandemic, with less-affected countries able to supply goods when other countries were harder hit. Nevertheless, in many countries governments have taken steps since the COVID-19 pandemic to reduce their reliance on global supply chains and promote "on-shoring" of essential industries. While offshoring has been occurring for decades, particularly for labour-intensive manufacturing processes, recent years have also seen services functions such as IT support, data management and accounting move to more competitive locations to reduce costs.

The international division of labour reflects the economic concept of "comparative advantage" that is discussed in chapter 2. This theory states that economies should specialise in the production of the goods or services that they can produce at the lowest opportunity cost. Developing economies have a large population of workers with only basic labour skills and education levels, giving them a comparative advantage in labour-intensive manufacturing. Advanced economies have generally shifted away from labour-intensive manufacturing to focus on specialised service aspects of the economy that use more highly skilled workers who are in greater supply in advanced economies.

reviewquestions

1. Explain the role of innovations in technology communications and transport in driving the process of globalisation.
2. Outline key trends in migration in recent years.
3. Explain how migration and offshoring reflect an international division of labour between different economies.

Business cycle refers to fluctuations in the level of economic growth due to either domestic or international factors.

Gross Domestic Product (GDP) is the total market value of all final goods and services produced in an economy over a period of time.

1.3 The international and regional business cycles

The level of economic activity in individual economies is never constant (that is, never in a state of equilibrium). Economic growth usually moves in cycles – in other words, instead of sustaining a steady rate of growth from year to year, most economies go through periods of above-average growth that then lead into periods of below-average growth. These ups and downs of the **business cycle** (that is, the general level of economic activity) are caused by changes in the level of aggregate supply and demand. This is shown in figure 1.9, which also shows that economies usually experience an overall trend of growth in output (measured by increases in **Gross Domestic Product**).

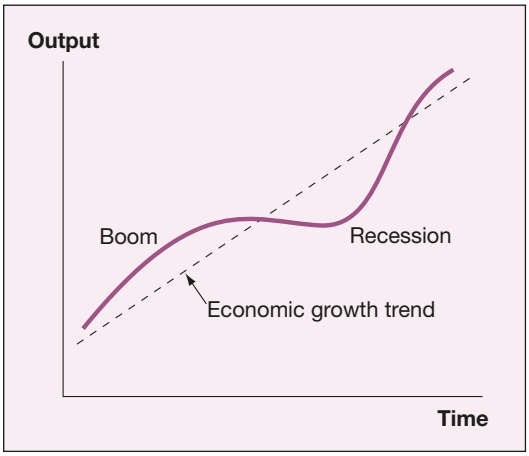


Figure 1.9 – The business cycle

Just as individual economies experience stronger and weaker periods of economic growth, so too does the global economy. This ebb and flow of world economic growth is known as the **international business cycle**, which refers to the changes in the level of economic activity in the global economy over time. Although the levels of economic growth each year often differ greatly between countries, for most countries economic growth is stronger when the rest of the world is growing strongly, and weaker when other countries are experiencing a downturn. The extent of synchronisation of economic growth levels across individual economies is highlighted by the global recession resulting from the COVID-19 pandemic. Even countries where the pandemic was less severe still suffered immense economic damage, in part because of the flow-on effects of the recession in other countries.

International business cycle refers to fluctuations in the level of economic activity in the global economy over time.

Figure 1.10 highlights the strong relationship between the economic growth performances of the world's major economies. The United States, the Euro Area economies, Japan and Australia all experienced a long period of moderate growth during the 2000s, followed by a sharp collapse in growth after 2008. Each of these advanced economies experienced slower rates of growth during the 2010s before the severe impact of the COVID-19 recession in 2020.

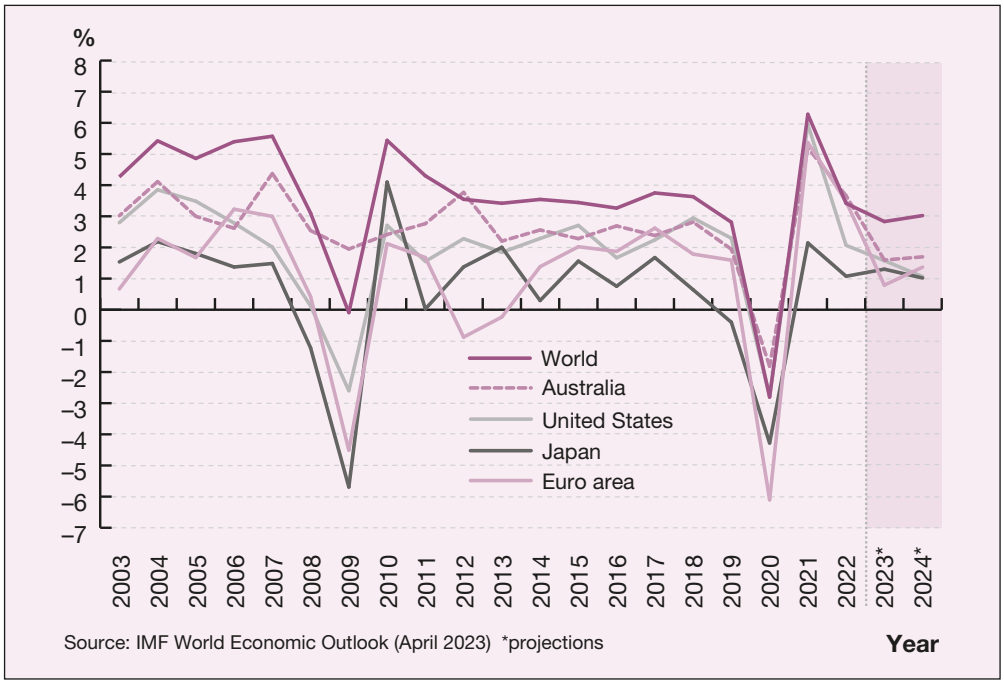


Figure 1.10 – Economic growth performance of major economies

The world economy rebounded strongly from the pandemic in 2021 with 6.2 per cent growth in output, before growth rates stabilised at around pre-pandemic levels from 2022. Emerging and developing economies outperformed the advanced economies, with 6.9 per cent and 5.4 per cent growth in GDP, respectively.

As a small open economy, the Australian economy is particularly affected by economic growth rates overseas. Research by the Reserve Bank of Australia (RBA) has found that 63 per cent of changes in the level of output in Australia can be explained by the changes in interest rates, growth levels and inflation rates in the Group of Seven (G7) largest industrialised countries. This means that for Australia, domestic factors have half as much influence as international factors on economic growth in any given year.

The transmission of economic conditions from one country to another is made more immediate by the increased integration of economies during the globalisation era:

- **Trade flows**: If there is a boom or recession in one country, this will affect its demand for goods and services from other nations. The level of growth in an economy will have significant flow-on effects on the economic activity of its trading partners.
- **Investment flows**: Economic conditions in one country will affect whether businesses in that country will invest in new operations in other countries, affecting their economic growth. For example, Brazil's weak economic performance in the past decade has meant that it has invested less in other economies. On four occasions since 2015, its annual FDI outflows have been negative.
- **Transnational corporations**: TNCs are an increasingly important means by which global upturns and downturns are spread throughout the global economy. For example, following reductions in the headcounts of major US technology companies Microsoft, Amazon, Google and Meta, in 2023 Australian technology company Atlassian also reduced its total staff by around 5 per cent.
- **Financial flows**: Short-term financial flows also play an important role in transmitting the international business cycle. A 2019 Reserve Bank Bulletin identified that Australia has benefited from being open to global capital markets, but that the financial integration of advanced economies exposes the Australian economy to shifts in their financial conditions.
- **Financial market and confidence**: Consumer confidence and the "animal spirits" of investors are constantly influenced by conditions in other countries. This is highlighted by the strong correlation between movements in share prices of the world's major stock exchanges – that is, they tend to go up and down at the same time. Events that threaten global stability – such as an increased risk of war, sovereign debt default or the collapse of a major business – can spark an immediate downturn in share values. This effect was seen in 2023 when the collapse of Silicon Valley Bank in the US and Credit Suisse in Switzerland sparked fears of another banking sector crisis, and prompted debate about regulation adequacy.
- **Global interest-rate levels:** Monetary policy conditions in individual economies are strongly influenced by interest-rate changes in other countries. If higher economic growth makes it necessary for the central bank to increase interest rates in the United States, this places pressure on central banks in other economies to follow suit. Inflationary pressures across the world in 2022 saw central banks raising interest rates. The Reserve Bank of Australia followed suit, with interest rate rises in 2022 and 2023.
- **Commodity prices:** The prices of key commodities such as energy, minerals and agricultural products are set by global markets. Their prices, in turn, influence the levels of inflation, investment, employment, growth and other features of the international business cycle. Historically, changes in oil prices have had major impacts on international growth (with lower prices boosting growth overall). In 2022, global sanctions against Russia, the world's second largest supplier of oil,

resulted in the largest global energy price increases in half a century, following contractions to worldwide supply. As a result, the World Bank reduced its growth forecast for 2022 by one percentage point.

- **International organisations**: International forums such as the Group of Twenty (G20) or Group of Seven (G7) economies can play an important role in influencing global economic activity. Discussions of global economic conditions at summit meetings mean that the G20 or G7 can act as the unofficial forum for coordinating global macroeconomic policy, especially during periods of economic uncertainty. These meetings can also resolve tensions between countries that threaten the economic outlook.

FACTORS THAT *STRENGTHEN* THE INTERNATIONAL BUSINESS CYCLE

- Trade flows
- Investment flows and investor sentiment
- Transnational corporations
- Financial flows
- Technology
- Global interest rates
- Commodity prices
- International organisations

FACTORS THAT *WEAKEN* THE INTERNATIONAL BUSINESS CYCLE

- Domestic interest rates
- Government fiscal policies
- Other domestic economic policies
- Exchange rates
- Structural factors
- Regional factors

Nevertheless, it is important to note that despite these linkages between economies, the pattern and the pace of economic growth differ between countries. Even countries that are at similar stages of economic development, such as the United States and European economies, experience differing levels of economic growth. Despite the global linkages described above, many of the factors that influence the business cycle reflect distinctive national conditions:

- **Interest rates** have a significant impact on the level of economic activity, and interest rates differ between countries (or regions, in the case of European countries that share a common interest-rate policy). Higher interest rates will dampen economic activity while lower interest rates will stimulate economic activity.
- A government's economic policy decisions can influence their economic growth rate. For example, the UK's decision to leave the EU in 2016 reduced the rate of economic growth as investor confidence in Britain's economy fell. **Fiscal policies** also have a significant effect upon the level of economic growth in the short to medium term. If a government in one country raises taxes while the government in another country cuts its taxes, economic growth is likely to move in opposite directions in those two countries.
- **Exchange rates** differ between countries and impact on the level of trade competitiveness and confidence within economies. In turn, these factors will influence the level of economic growth. The BIS has noted that exchange rates are having an increased impact on domestic economies, particularly in the past decade as government policy has less ability to target economic shocks.
- **Structural factors** differ between economies. For example, countries have different levels of resilience in their financial systems; different levels of innovation and takeup of new technologies; different attitudes towards consumption and savings; different population growth rates and age distribution; different methods of regulating labour markets, educating and training employees and regulating businesses. These structural factors influence the competitiveness of economies and their level of growth.
- **Regional factors** between economies differ. Some economies are closely integrated with their neighbours and are therefore very influenced by the economic performance of their major trading partners. Research by Colombian academics found that regional business cycles in emerging markets experience different levels of synchronisation depending on factors such as the productive structure and trade integration of the country. For example, whilst Mexico has a high level of synchronisation with North America, economic conditions from nearby Latin American countries have a lower impact on Mexico's activity due to less trade integration.

In summary, there is an international business cycle and when there is a substantial economic downturn, such as in the mid-1970s, the early 1990s, the late 2000s and early 2020s, this downturn is shared across almost all countries. However, the factors influencing individual economies differ and the level of world economic growth is one of several factors that influence economic conditions.

Regional business cycles

Regional business cycles are the fluctuations in the level of economic activity in a geographical region of the global economy over time.

Similar to the international business cycle, the term **regional business cycle** refers to the changes in economic activity in a particular region. In the same way that countries' activity can be affected by global changes, they can also be affected by regional changes. While changes in the US economy will have ripple effects around the world, they can have more pronounced impacts on the nearby economies of Canada and Mexico, which are most closely integrated with the US economy. Likewise, many of the 27 economies of the **EU** are influenced by activity levels in Europe's largest economies, Germany and France.

In the **East Asian region**, economic conditions are dominated by the influences of China and Japan – the world's second- and third-largest economies. While the regional business cycle in Asia has been weaker than in other regions, it has strengthened in recent years because of increased integration between Asian economies. On the other hand, as growth rates in China and Japan slowed down in recent years, the region continued to experience stable growth due to moderate upswings elsewhere in the region.

Other regions around the world have a higher proportion of developing or low-income countries, and they tend to be less regionally integrated. In **Sub-Saharan Africa,** for example, many economies such as Chad, Uganda and Sierra Leone are dependent on high-income economies for more than 80 per cent of their exports, and are therefore as likely to be influenced by conditions in the world economy as they are by neighbouring African economies. In the **South Asia and Latin American regions,** regionally dominant economies such as India and Brazil respectively play a key role alongside influences from outside the immediate region.

While regional business cycles tend to be dominated by the largest and most globalised economies, it is also important to recognise the complexity of conditions at the regional level. In the early 2010s, economic conditions in European economies were weakened by financial turmoil in the relatively small economy of Greece. A financial crisis in Argentina and the severe impact of COVID-19 in Brazil weakened economies in **Latin America** in 2020. The war in Ukraine in 2022 reduced growth, trade and economic policy across **Europe and Central Asia**. In this way, smaller economies can affect the performance of regional economies even if they are not dominant economies or strongly integrated.

Clearly, regional business cycles can be quite different from patterns in global economic activity, with some regions performing more strongly than others and fluctuating more independently from other regions. However, regional cycles are also part of the phenomenon of globalisation because they result from increased cross-border integration. These business cycles of different regions interact in complex ways to influence the level of economic activity around the world.

reviewquestions

1. Define the terms *international business cycle* and *regional business cycle*.
2. Using the example of a specific economy, discuss the extent to which this economy's performance has reflected economic growth trends globally and in its region.
3. Outline the factors that strengthen and weaken the relationship between the economic cycles of individual economies.

chapter summary

1 **Globalisation** refers to the integration between different countries and economies, leading to the increased impact of international influences on all aspects of life and economic activity.

2 The **global economy** is a way of describing the activities of all the economies of the world as a whole, reflecting the fact that they are now increasingly linked together into one larger economic system.

3 The **gross world product** is the sum of the total output of goods and services produced by all economies in the world over a given period of time.

4 The growth of **world trade** is an important indicator of the extent of globalisation. During the period of rapid globalisation in the decades to 2010, trade grew at a much faster rate than world economic growth. In the 2010s, trade grew at close to the same level as overall economic growth.

5 The pattern and direction of world trade has changed to reflect the increasing importance of advanced technology and services and the growth of the Asia Pacific region.

6 The process of globalisation has occurred most rapidly in global finance which faces few barriers and is driven mostly by speculative activity (that is, investors seeking to make short-term profits out of fluctuations in exchange rates, interest rates and other financial indicators).

7 **Foreign direct investment (FDI)** is the injection of funds into an economy to establish a new business or purchase an existing business. FDI flows are driven by **transnational corporations (TNCs)** and often involve the transfer of technological innovations between economies.

8 **Technology, transport and communication** have driven increased economic integration by facilitating linkages between businesses individuals and nations in the global economy.

9 Globalisation has also contributed to the **international division of labour** in part because of the migration of workers to countries where jobs are plentiful or better paid, and also because of the shift of business between economies in search of the most efficient and cost-effective labour.

10 The concept of **international and regional business cycles** refers to the extent to which economies tend to experience a similar pattern of boom, downturn and recovery at similar times. Although the shape and the length of the business cycle differs from one economy to the next, the level of economic growth between different economies is closely related, and recessions and booms tend to occur around similar times.

chapter review

1. Explain what is meant by *globalisation*, using recent trends to illustrate your answer.
2. "Just as the COVID-19 pandemic spread fast because of the contagious nature of the coronavirus, the COVID-19 recession spread fast because of the connected nature of the global economy." Discuss what this statement is saying about the global economy in the 2020s.
3. Describe the role of trade flows in globalisation.
4. Summarise recent changes in the direction and composition of international trade in goods and services.
5. Explain how technology drives growth in the trade of goods and services.
6. Explain the difference between *investment flows* and *financial flows*.
7. Outline the role of foreign-exchange markets in international financial flows.
8. Discuss the role played by transnational corporations (TNCs) in globalisation.
9. Discuss the impact of globalisation on the international division of labour.
10. Explain how changes in the level of economic growth in one economy can impact on economic growth in other economies.

2 Trade in the Global Economy

2.1 Advantages and disadvantages of free trade

2.2 Reasons for protection

2.3 Methods of protection

2.4 Trade agreements

2.5 International organisations

2.6 Government economic forums

Trade has played a critical role in the expansion of the global economy. The periods of the fastest growth in the global economy have also been periods of rapid growth in trade. In the 21st century the world's fastest-growing economies are typically economies with rising levels of trade. Trade has brought countries together, created wealth and re-shaped the structure of many economies.

This chapter examines the economic theory behind trade relationships, government policies that have restricted and facilitated trade, and the role played by international institutions in trade flows, financial flows and foreign investment.

2.1 Advantages and disadvantages of free trade

Comparative advantage is the economic principle that nations should specialise in the areas of production in which they have the lowest opportunity cost, and trade with other nations so as to maximise both nations' standards of living.

Opportunity cost represents the alternative use of resources. Often referred to as the "real" cost, it represents the cost of satisfying one want over an alternative want. This is also known as economic cost.

Among economists, there is widespread agreement on the principle that economies will achieve higher levels of growth in a free trade environment. Although barriers to trade remain significant (even rising in recent years), the world has experienced a long-term trend towards greater free trade in the global economy.

Free trade can be defined as a situation where governments impose no artificial barriers to trade that restrict the free exchange of goods and services between countries with the aim of shielding domestic producers from foreign competitors.

The argument for free trade is based on the economic concept of **comparative advantage**. The principle of comparative advantage states that even if one country can produce all goods more efficiently than another country, trade will still benefit both countries if each specialises in the production of the good in which it is comparatively more efficient. This comparative efficiency is measured by the **opportunity cost** of producing each good within that country. Thus, if the opportunity cost of producing iron ore in Australia is lower than in China (that is, in order to produce an extra tonne of iron ore, Australia gives up producing a smaller quantity of smartphones than does China), then Australia is said to have a comparative advantage in iron ore production. At the same time, if the opportunity cost of producing smartphones in China is lower than in Australia, then China is said to have a comparative advantage in smartphones.

ADVANTAGES OF FREE TRADE

- Trade allows countries to **obtain goods and services that they cannot produce themselves** or in sufficient quantities to satisfy domestic demand. This would generally occur because of a lack of adequate resources. For example, a country may lack the necessary technology to produce certain manufactured goods.
- Free trade allows countries to **specialise** in the production of the goods and services in which they are most efficient. This leads to better resource allocation and increased production within countries and throughout the world.
- Free trade encourages the **efficient allocation of resources**. Resources will be used more efficiently because countries are producing the goods in which they have a comparative advantage.
- A greater tendency for specialisation leads to **economies of scale**, which will lower average costs of production while increasing efficiency and productivity.
- **International competitiveness** will improve as domestic businesses face greater competitive pressures from foreign producers, and governments will encourage domestic industrial efficiency.
- Free trade **encourages innovation** and the adoption of new technology and production processes throughout the world.
- Free trade leads to **higher living standards** as a result of lower prices, increased production of goods and services and increased consumer choice, as countries have access to goods that a lack of natural resources may otherwise prevent. The opening up of global markets leads to higher rates of economic growth and increased real incomes.

Free trade is a situation where there are no artificial barriers to trade imposed by governments for the purpose of shielding domestic producers from foreign competitors.

DISADVANTAGES OF FREE TRADE

- An increase in **unemployment** may occur as some domestic businesses may find it hard to compete with imports. The short-term rise in unemployment should correct itself in the long term as the domestic economy redirects resources to areas of production in which it has a comparative advantage. Nevertheless, some specific industries, workers and regions may lose out in the longer term as a result of free trade.
- It may be more difficult for less advanced economies to **establish new industries** if they are not protected from larger foreign competitors.
- Production surpluses from some countries may be **dumped** (that is, sold at unrealistically low prices) on the domestic market, which may hurt efficient domestic industries.
- Free trade may encourage **environmentally irresponsible production methods** because producers in some nations may win markets by undercutting competitors' prices – only because they also undercut environmental standards. For example, they may use production methods which add to pollution in the air and in river systems.
- **National security** may be undermined if an economy is dependent on trade in a time of emergency, such as war or pandemic. If supply chains are disrupted, it may not be possible to source essential items such as defence equipment and vaccines.

reviewquestions

1. Explain the principle of comparative advantage.
2. Describe how the idea of comparative advantage supports the arguments in favour of free trade.
3. Define *free trade*.
4. Examine the costs and benefits of free trade.

Appendix B:
For more information on the economic theory of comparative advantage and gains from trade, go to section B.1 in the Advanced Economic Analysis appendix at the back of the textbook.

2.2 Reasons for protection

Protection refers to government policies that give domestic producers an artificial advantage over foreign competitors, such as tariffs on imported goods.

Protection can be defined as any type of government action that has the effect of giving domestic producers an artificial advantage over foreign competitors. The main protectionist measures include tariffs, import quotas and subsidies.

Despite the economic benefits of free trade and the costs associated with protecting domestic industries, historically, most countries have tended to use at least some forms of protection to assist local producers in the face of foreign competition. A number of arguments have been put forward to justify why countries impose protectionist barriers to trade, including the need to assist infant industries, protecting industries from overseas firms dumping goods, reducing unemployment and arguments for self-sufficiency for some essential areas of production.

Infant industries

New industries generally face many difficulties and risks in their early years. They usually start out on a small scale with costs that are relatively higher than those of established competitors in other countries. These "infant industries" may need to be shielded from competitors in the short run to enable them to build capacity, establish markets and achieve economies of scale so that they can compete in the global economy. This approach to the development of new industries has been used by many emerging economies in recent decades.

The key test for economic credibility of the infant industry argument is whether industry protection is removed over time. If protectionist policies are not removed, there will be no real incentive for the industry to reach a level of efficiency that would enable it to compete without protection. This means that governments should provide temporary assistance only to industries that have a good chance of achieving some comparative advantage in the long run so they can compete in the global economy.

Historically, many industries that have received assistance as infant industries have continued to rely on this assistance for many years (for example, national airlines in the global aviation industry). The infant industry argument has been used to support many industries that would never have survived otherwise. For this reason, economists are generally reluctant to accept businesses seeking protection based on the infant industry argument. Today, when governments provide help to new industries (such as manufacturing batteries for electric vehicles), this tends to involve direct assistance and lasts for a limited period of time.

Prevention of dumping

Dumping is the practice of exporting goods to a country at a price lower than their selling price in their country of origin.

Dumping occurs when foreign firms attempt to sell their goods in another country's market at unrealistically low prices (that is, below the price charged in the home country's market). The practice of dumping may be used to dispose of large production surpluses or to establish a market position in another country. These low prices are usually only of a temporary nature but can harm domestic producers. Local firms that could normally compete with such foreign producers may be forced out of business, causing a loss in a country's productive capacity and higher unemployment.

The only gain from dumping is that it results in lower prices for consumers in the short term, but this does not last as foreign producers will put up their prices once the local competition is eliminated. Under such circumstances it is generally in the economy's best interest to impose restrictions on such imports. Using protectionist methods to prevent dumping is the only reason for protection that is widely accepted by economists. However, in recent years the World Trade Organization has questioned whether countries might be unfairly accusing efficient low-cost foreign producers of dumping and abusing "anti-dumping" processes in order to protect their domestic industries.

More than 6500 anti-dumping complaints have been lodged by WTO members since the WTO was formed in 1995, with India and the United States responsible for the highest number. By 2023, there were around 4500 anti-dumping measures (such as duties) legally in force. The sectors where anti-dumping measures are most common are base metals, chemicals, plastics, resin and rubber. Australia has lodged a relatively high number of complaints – sixth in the world (with over 375 complaints initiated). Figure 2.1 identifies the countries that have initiated the largest number of anti-dumping actions and the countries which have had the most dumping claims made against them.

Top five economies initiating anti-dumping measures	
India	1130
United States	860
European Union	547
Brazil	438
Argentina	418
Top five exporting economies affected	
China	1565
South Korea	487
Taiwan	335
United States	318
India	270

Source: WTO Dec. 2022

Figure 2.1 – Anti-dumping actions in force under WTO system

Protection of domestic employment

One of the most popular arguments in favour of protection is that it saves local jobs. If local producers are protected from competition with cheaper foreign imports, the demand for local goods will be greater and this will create more domestic employment. This argument tends to gain strongest public support during times of recession when unemployment is rising, even though technology and automation often play a more significant role in job losses than trade.

However, there is little support among economists for this argument. Protection will tend to distort the allocation of resources in an economy away from areas of more efficient production towards areas of less efficient production. In the long run this is likely to lead to higher levels of unemployment and lower growth rates. On the other hand, by phasing out protection it is hoped that better and more lasting jobs will be created in other sectors within the economy that are internationally competitive. Furthermore, if a country protects its industries it is possible that other countries will retaliate and adopt similar protectionist policies. The net result could be that the economy might have higher employment in less efficient protected industries but lower employment in more efficient export industries.

Defence and national security

Countries sometimes have non-economic reasons for wanting to retain certain industries. For example, major powers generally want to retain their own defence industries so that they can be confident that in a time of conflict they would still be able to produce the equipment needed for their national security.

In recent years concerns about threats to national security from China have prompted Australia and other countries to restrict Chinese telecommunications giant Huawei's involvement in building 5G mobile telecommunications networks. This is despite Huawei's technology being regarded as cheaper and more advanced than that of its competitors.

The argument for self-sufficiency of medical supplies as well as energy, food and essential manufactured goods has become much stronger in recent years in the wake of recent global crises such as the war in Ukraine and the COVID-19 pandemic. Concerns about food security following Russia's invasion of Ukraine led to restrictions on agricultural exports in several countries, with 101 export restrictions still in force in 2023, representing over 11 per cent of food trade.

In the wake of the COVID-19 pandemic, governments changed policies to build greater domestic capacity to produce vaccines and supply essential medical needs (including Australia, which announced plans to establish a local mRNA vaccine production facility). The disruptions to "just in time" global supply chains caused by the pandemic led to a re-think of how both governments and suppliers need to be better prepared for future disruptions. This is challenging for the Australian economy because of its integration with global supply chains, reliance on imports and limited domestic manufacturing capacity.

RISING BARRIERS TO TRADE

The past decade has brought an end to a long period of expanding free trade stretching all the way back to the post-Second World War era. Many countries have been experiencing a backlash against globalisation for decades, but the new era of "deglobalisation" and rising protectionism has come about in response to the vulnerabilities in supply chains that were exposed during the COVID-19 pandemic and the war in Ukraine. An IMF report in 2023 suggested that this trend towards deglobalisation and increasing fragmentation in world trade could ultimately cost the global economy 7 per cent of its output.

While the basic principles of free trade are still widely embraced and global tariff levels remain low, governments have become more concerned about the way in which open trade makes them more dependent on other economies, and more vulnerable to overseas developments. Governments are focusing on improving the resilience of their supply chains by increasing inventories, expanding local production capacity through increased subsidies, and giving greater priority to security interests over comparative advantage. Beyond protectionist policies, the trend towards "deglobalisation" may also be reflected in greater restrictions on migration and foreign direct investment, and a weaker commitment to international cooperation.

At the heart of the trend towards deglobalisation is the "decoupling" between the economies of the United States and China. In 2023, President Biden introduced export restrictions to limit China's access to semiconductor chips and technology, while also announcing US$11 billion in grants and subsidies to support the transition to green technologies and industries across rural areas. These measures were introduced to strengthen national security and reduce risks arising from the interdependent relationship between the US and Chinese economies. The Boston Consulting Group has estimated that with these measures in place, trade between the US and China will decrease by US$63 billion in the years to 2031.

Other arguments in favour of protection

Several other arguments are also used in favour of protecting local industries. For example:

- Because of the **differentials in wage levels** between higher- and lower-income economies, some economists argue that producers should be protected from competition with countries that produce goods with low-cost labour. They argue that labour costs are artificially low in many developing economies because of weak labour standards (such as restrictions on the rights of workers to form unions and low safety standards).
- A growing awareness of the existence of **modern slavery** in global supply chains in recent years has led governments to prohibit the trade of goods produced using forced labour such as prison workers and child labour. These restrictions are generally accepted as a legitimate regulation on trade that can prevent human rights abuses, even though it can have protectionist consequences. For example, in 2021 Australia restricted certain imports from China because of concerns about the use of forced labour in Xinjiang.
- Countries sometimes block trade in goods because of **environmental factors**, such as the environmental harm involved in the production of certain goods. Overseas producers may be able to produce some items cheaply because the producers are environmentally irresponsible and do not have to comply with the tougher environmental standards that apply in advanced economies. In recent years some countries have proposed introducing "carbon tariffs" on goods produced in countries that are making slower progress on reducing carbon emissions.

reviewquestions

1 Outline the major reasons why nations may argue in favour of introducing protectionist policies.

2 Identify which argument in favour of protection is most accepted by economists and explain why.

2.3 Methods of protection

Although we live in an era of relatively free trade globally, most countries use at least some measures to shield their domestic producers from foreign competition with protectionist policies. There has been a shift from traditional protectionist measures, such as tariffs and subsidies, towards less visible measures, such as administrative barriers and industry assistance plans.

Tariffs

A **tariff** is a government-imposed tax on imports. It has the effect of raising the price of the imported goods, making the domestic producer more competitive. The effects of a tariff are shown in figure 2.2.

Tariffs are taxes on imported goods imposed for the purpose of protecting Australian industries.

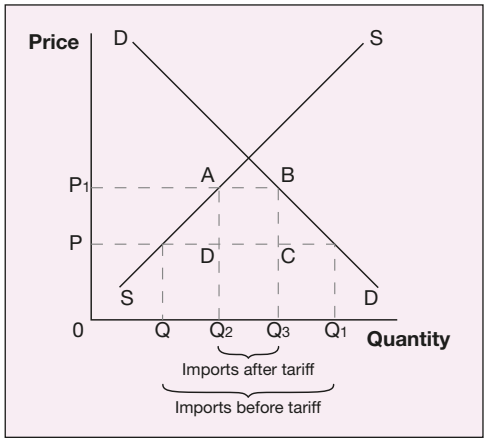


Figure 2.2 – The effect of a tariff

Figure 2.2 reveals the following:

- The curves SS and DD represent domestic supply and demand.
- 0P is the price of imported goods if there was **no tariff** applied (that is, in a situation of free trade). At this price consumers demand $0Q_1$, domestic producers supply 0Q and the quantity imported would be QQ_1.
- If a tariff of PP_1 is imposed, all of which is passed on to the consumer, demand will contract to $0Q_3$, domestic supply will expand to $0Q_2$ and imports will fall to Q_2Q_3.
- Following the imposition of the tariff, the government will raise revenue of ABCD.

ECONOMIC EFFECTS OF A TARIFF

- Domestic producers supply a greater quantity of the good. Therefore, the tariff **stimulates domestic production and employment**.
- More domestic resources are attracted to the protected industry. This leads to a **reallocation of resources towards less efficient producers** (that is, those who are unable to compete on an equal footing with foreign producers), causing world GDP to decline. A 2019 IMF study estimated that if tariff rates of 15 per cent were imposed on $300 billion of Chinese goods and China imposed similar measures on imports, it would cause world GDP to decrease 0.8 per cent, equivalent to $700 billion.
- Consumers pay a **higher price** and receive **fewer goods**. This redistributes income away from consumers to domestic producers. Economic modelling published by the Productivity Commission suggested that for every $1.00 increase in Australian tariff revenue, economic activity in Australia would fall by $0.64. GDP would be lower by over 1 per cent each year, equating to a loss of around 100,000 jobs, and the average household would face a drop in income by around $1500 per year.
- The tariff raises **revenue for the government** but that is not the primary objective. In fact, the more successful the tariff as a protectionist policy (that is, the more imports it restricts), the less revenue it will raise. In 2023–24, the Australian Government expected to collect $1.5 billion in tariff revenue, which is roughly 0.3 per cent of its total revenue.
- A tariff can provoke a **retaliation effect**, where a trading partner imposes some kind of trade barrier against a country imposing a tariff on its exports. For example, after Australia imposed a 144 per cent tariff on Chinese steel imports in 2014 (as an anti-dumping measure), China imposed tariffs on several Australian exports, including barley in 2018 (at a rate of 74 per cent) and wine in 2020 (at a rate of more than 200 per cent).

Quotas

Quotas refer to restrictions on the amounts or values of various kinds of goods that may be imported.

An import **quota** controls the volume of a good that is allowed to be imported over a given period of time, normally for the purpose of protecting domestic production. It may also be used to reduce the quantity of undesired goods entering a country. For example, in 2018 Australia implemented a quota system for the importation of hydrofluorocarbons (HFCs), commonly used in refrigeration, in response to environmental concerns. Quotas guarantee domestic producers a share of the market. The effects of a quota are shown in figure 2.3.

Figure 2.3 reveals the following:

- The curves SS and DD represent domestic supply and demand.
- 0P is the price at which the imported goods would sell if there was **no quota** imposed. At this price, consumers demand $0Q_1$, domestic producers supply 0Q and the quantity imported would be QQ_1.
- If the government imposed a quota restricting imports to Q_2Q_3, this would have the effect of raising the price of imported goods to $0P_1$. This price would allow domestic supply to expand to $0Q_2$.

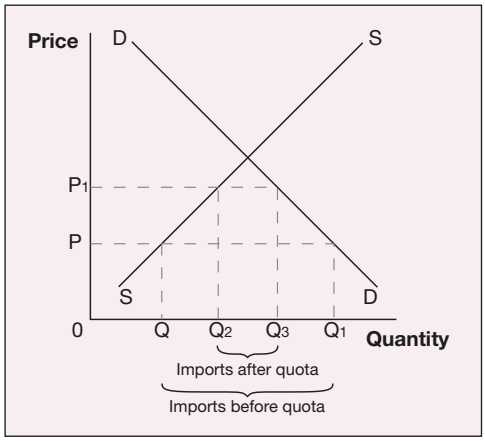


Figure 2.3 – The effect of an import quota

Countries sometimes use a system of **tariff quotas**. Under this system, goods imported up to the quota pay the standard tariff rate, whereas goods imported above the quota pay a higher rate. In the past many of Australia's most highly protected industries (for example, textiles, clothing, footwear and motor vehicles) were shielded from foreign competition in this way.

ECONOMIC EFFECTS OF A QUOTA

- Domestic producers supply a greater quantity of the good. Therefore, the quota stimulates **domestic production and employment** in the protected industry.
- More resources in that economy are attracted to the protected industry, leading to **reallocation of resources** from other sectors of the economy (where production and employment will fall). For example, the European Union (EU) imposes an import quota allowing no more than 7150 tonnes of high-quality beef imports. This provides certainty for producers in European countries because they can supply any demand in excess of the 7150 tonnes of imports, even if their costs are higher than those of overseas producers.
- Consumers pay a **higher price** and receive **fewer goods**. This redistributes income away from consumers to domestic producers in the protected industry and results in lower overall levels of economic growth.
- Unlike tariffs, quotas **do not directly generate revenue** for the government. However, governments can sometimes raise a small amount of revenue from quotas by administering the quota through selling import licences allowing firms to import a limited number of goods.
- As with tariffs, the imposition of a quota on imports can **invite retaliation** from the country whose exports may be reduced because of the quota. This can result in lower exports for the country that initiated the import quota.

Subsidies

Subsidies involve financial assistance to domestic producers, which enables them to reduce their selling price and compete more easily with overseas producers. In figure 2.4 this is shown by a rightward shift of the domestic industry's supply curve from SS to S_1S_1, which results in a lower market price. Businesses will be able to sell a higher quantity of their product on both domestic and global markets. The quantity produced increases from Q to Q_1. The size of the subsidy in per unit terms is the vertical distance between S and S_1.

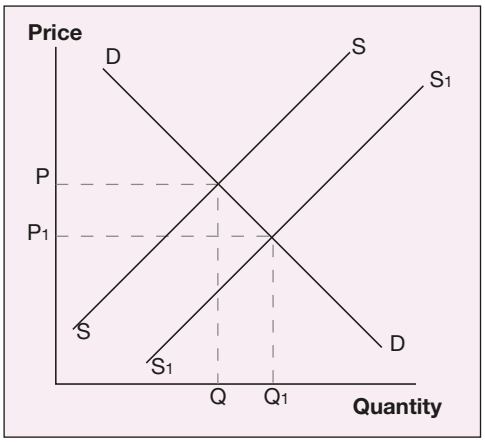


Figure 2.4 – The effect of a subsidy

Subsidies are cash payments from the government to businesses to encourage production of a good or service and influence the allocation of resources in an economy. Subsidies are often granted to businesses to help them compete with goods and services produced overseas.

ECONOMIC EFFECTS OF A SUBSIDY

- Domestic producers supply a greater quantity of the good. Therefore, the subsidy stimulates **domestic production and employment** in the protected industry.
- More resources in that economy are attracted to the protected industry, leading to **reallocation of resources** from other sectors of the economy (where production and employment will fall).
- Consumers pay a **lower price** and receive **more goods** because the subsidy shifts the supply curve for the sector to the right. However, consumers still pay indirectly for subsidies through higher taxes.
- Subsidies impose **direct costs on government budgets** because they involve payments from the government to the producers of goods and services. This means that governments have fewer resources to allocate to other priorities such as education and health care. For example, in the 2023–24 Budget, the Government increased the Fuel Tax Credits Scheme (Australia's biggest fossil fuel subsidy) by $2.1 billion to $9.6 billion, which is expected to cost $41.1 billion over the next four years.
- While economists are opposed to protectionist policies, they often prefer a subsidy to a tariff because subsidies tend to be abolished more quickly – since they impose costs on the budget rather than generating revenue.

Local content rules

Local content rules specify that goods must contain a minimum percentage of locally made parts. In return for guaranteeing that a certain percentage of a good will be locally made, the imported components may not attract a tariff. Australia has a longstanding requirement that a majority of free-to-air television content broadcast from 6:00 am to midnight is locally produced (a minimum of 55 per cent of content under current rules). In 2023, the Australian Government announced plans to introduce local content requirements for streaming services such as Netflix, Stan and Binge as part of its Revive National Cultural Policy.

Export incentives

Export incentive programs give domestic producers assistance such as grants, loans or technical advice (such as marketing or legal information) and encourage businesses to penetrate global markets or expand their market share. The popularity of such programs has grown considerably in recent years as nations have moved to a greater focus on capturing foreign markets rather than protecting import-competing businesses as a strategy to achieve higher rates of economic growth and employment. For instance, Australia has

a program known as the Export Market Development Grant (EMDG) that has assisted over 51,000 businesses in promoting and marketing their exports. Technically, export incentives do not protect businesses from foreign competition in the domestic market, but they are nevertheless regarded as a barrier to free trade. World Trade Organization rules restrict the use of export incentives but countries can still provide some forms of export assistance to local producers.

OVERALL ECONOMIC EFFECTS OF PROTECTIONISM

In addition to the effects that protectionist policies have on domestic economies outlined previously, they can also have overall impacts on the global economy.

Protectionist policies **reduce the overall level of trade between nations**. For an individual economy, protectionism means that exports and imports will be a smaller share of the national economy. A Boston Consulting Group report for the B20 group of business leaders, which provides input to the G20, estimated that the cost of major economies imposing protectionist policies following the COVID-19 pandemic could reduce global economic output by as much as $10 trillion by 2025 on the level it would otherwise reach.

Overall, protectionist policies **reduce living standards** and **reduce global economic growth** by shielding inefficient producers. A major study released in 2019 by the International Monetary Fund, *The Macroeconomic Consequences of Tariffs*, concluded that over the medium term, countries that raise tariffs experience lower output, weaker productivity, increased unemployment and increased inequality. The study examined the tariff policies of 151 countries over 50 years and noted that tariff increases tend to lead to an exchange rate appreciation, which can worsen the balance of trade. It also concluded that an average tariff increase (of 3.6 per cent) contributed to an average 0.4 per cent reduction in GDP over five years, with a larger fall of 1 per cent in GDP in advanced economies.

Protectionist policies make it **more difficult for individual economies to specialise** in production in which they are most efficient. Businesses are less able to achieve economies of scale and therefore have lower profits and lower dividends. With fewer competitive pressures, prices for goods and services in individual economies are higher. This leads to slower economic growth in individual countries.

The negative economic impact of the protectionist policies of trading blocs tends to be larger (relative to the size of those economies) for **developing economies** that are often excluded from access to the markets of advanced economies. In making its case against protectionism, the World Bank has highlighted that increased trade helps reduce global poverty. Between 1990 and 2017, developing economies increased their share of global exports from 16 per cent to 30 per cent, while the number of people in extreme poverty globally fell from 36 per cent to 9 per cent.

reviewquestions

1. Describe how subsidies affect the price and quantity of goods sold in a market.
2. Discuss the impact of tariffs, quotas and subsidies on firms, individuals and the government in the domestic economy.
3. Discuss the impact of increased protectionism on the global economy.

2.4 Trade agreements

As trade has grown and economies have become more integrated, countries have in recent years forged agreements and trading alliances to expand their trade opportunities and avoid being excluded from emerging trading blocs.

Free trade agreements (or **trade agreements**) are formal agreements between countries designed to break down barriers to trade between those nations. When the agreement is between two countries it is said to be **bilateral**, and when the agreement is between three or more economies, it is said to be **multilateral** or regional. While these agreements are generally described as "free" trade agreements, it is often more accurate to call them

preferential trade agreements because, in effect, they give more favourable access to goods and services from one nation or a group of nations compared to another. Sometimes they can even make it harder for nations outside the preferential trade agreement, especially developing economies, to trade. In this respect they may not create better conditions for free trade at all, particularly for developing economies that struggle to access global markets. Australia's bilateral and multilateral trade agreements are discussed further in chapter 6. In contrast, global free trade agreements conducted through the **World Trade Organization** (WTO) are designed to remove barriers to trade uniformly across all economies.

A **trade bloc** occurs when a number of countries join together in a formal preferential trading arrangement, to the exclusion of other countries, such as the European Union (EU) and the United States-Mexico-Canada Agreement (USMCA).

A trade bloc occurs when a number of countries join together in a formal preferential trading agreement, to the exclusion of other countries.

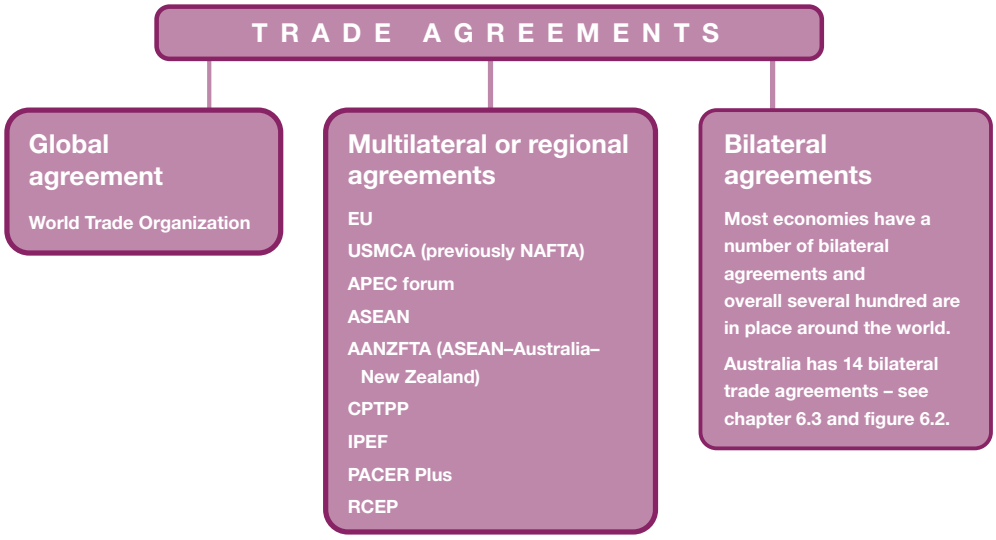


Figure 2.5 – Types of trade agreements

Regional trade agreements have multiplied in recent decades, with the number of agreements registered with the WTO jumping from 27 in 1990 to 585 in 2023. More than half of international trade is now covered by regional trade agreements. The proliferation of these agreements has led to some economists arguing that regionalisation is as important as globalisation in understanding current developments in global trade relations. While trade usually increases faster between countries that have trade agreements, there are concerns that this can result in **trade diversion**, where a country's imports of a good or service switch from the most efficient producer to a less efficient producer with whom a regional trade agreement exists.

Trade diversion is where a country's imports of a good or service switch from coming from the most efficient producer to another country because of the impacts of a trade agreement's provisions, such as tariff levels, import quotas or other rules.

The extent to which countries trade with other economies within their regional trade blocs varies between regions. Around 60 per cent of the exports of European Union economies go to other members of the EU. On the other hand, for ASEAN economies around three-quarters of trade occurs with countries outside their region, reflecting that they are smaller emerging economies and their economic growth strategies have focused on exports to industrialised economies. The economies of the United States-Mexico-Canada Agreement and ASEAN Free Trade Area in recent years have substantially increased the level of trade among themselves compared to trade with countries outside their trade area (although both continued to grow). While there are economic efficiencies in trading with neighbouring countries (due to lower transport costs), there are also risks that regional trade blocs could result in global trade fragmenting into self-contained regions, hindering the spread of global free trade.

STRAINS IN THE CHINA–US RELATIONSHIP

"The US–China economic and trade relationship is one of profound consequence. As the two largest economies in the world, the bilateral relationship affects not just the two participants, but the entire globe. The Biden Administration acknowledges that this relationship is complex and competitive."

– United States 2023 Trade Policy Agenda, March 2023

As China's economic power has grown in recent decades, it has come into increasing conflict with the US, which argues that China engages in unfair and illegal trading practices. China and the US are the world's two largest trading nations, but a large trade imbalance exists between the two economies, with the US buying US$537 billion of Chinese exports in 2022, while China bought just US$154 billion of American exports.

Under President Trump, the US and China imposed hefty sanctions on each other's trade, at one stage threatening an all-out trade war. By the time the Trump Administration left office at the end of 2020, America's average tariffs on Chinese products had risen from around 3 per cent to 20 per cent, according to calculations by the Peterson Institute of International Economics. China has meanwhile imposed tariffs on more than half of imports from the US.

While the US has adopted a more open approach to trade under President Biden, tariffs on billions of dollars of Chinese imports have been retained. The Biden Administration is seeking to reduce its reliance on Chinese imports in key areas of technology and manufacturing, including advanced computer chips and clean energy.

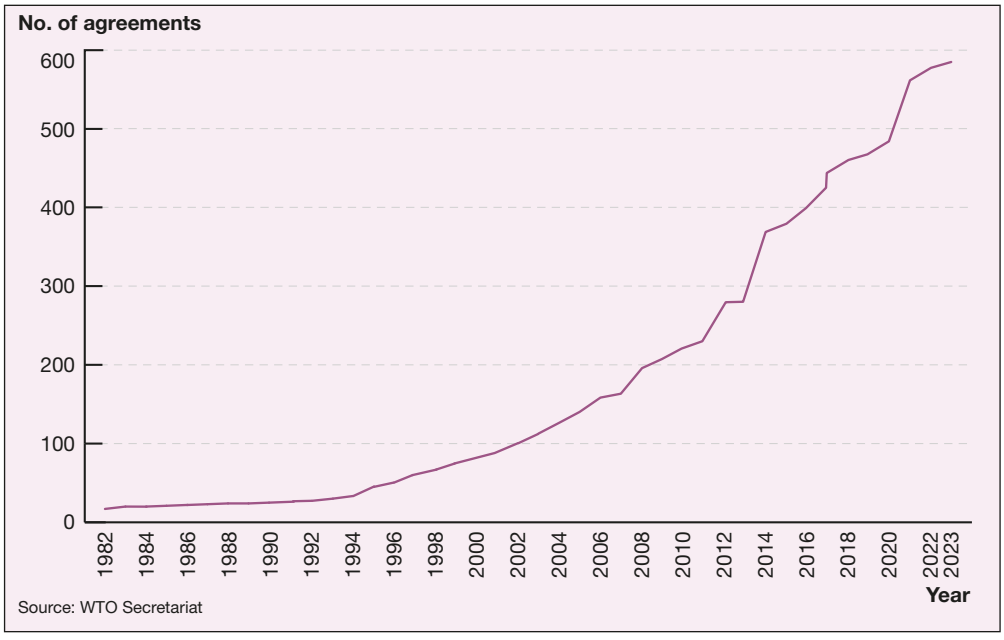


Figure 2.6 – The growth of bilateral and multilateral trade agreements

Trans-Pacific Partnership (CP-TPP or TPP-11)

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (commonly known as both the CP-TPP and the TPP-11) is a multilateral trade agreement among 11 Pacific Rim countries that was formally signed and ratified in March 2018. Its 11 members (Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam) represent 14 per cent of global economic output and around 15 per cent of global trade, with a market of over 500 million people. Even though the 11 TPP-11 economies only make up around 6 per cent of the global population, their contribution to global trade is significant, especially for Australia's economy, representing 22 per cent of all Australian trade.

REGIONAL AND BILATERAL TRADE AGREEMENTS: STEPPING STONES OR STUMBLING BLOCKS?

Economists disagree on the extent to which regional and bilateral trade agreements assist or obstruct progress towards global free trade. Some say that regional and bilateral trade agreements slice the world into separate trading areas, hindering progress towards global free trade. Others argue that the regional trade agreements act as a stepping stone towards free trade, initially convincing economies to reduce their protection barriers against a small group of economies but eventually encouraging them to remove those barriers for the whole world. Meanwhile, in the post-COVID era the momentum for trade liberalisation has weakened, with governments focusing on ways to make their supply chains more secure, including by increasing local production.

The practical benefits of FTAs

"The Australia–United Kingdom Free Trade Agreement (A–UKFTA) ... [is a] gold-standard trade agreement [that] will deliver unprecedented benefits to Australian businesses and create new well-paying jobs … there will be no tariffs on over 99 per cent of Australian goods exports to the UK, opening up new export opportunities … Savings of approximately $200 million a year will be made as tariffs on imports from the UK are eliminated. After five years, all UK imports will enter Australia duty free, helping ease cost-of-living pressures for households and input costs for Australian business."

Don Farrell, Minister for Trade and Tourism
Media release: "Historic trade deal with the United Kingdom", 4 May 2023

The greater benefits of multilateral agreements

"RTAs can complement multilateral efforts, and their success in tackling new and traditional issues provides lessons that WTO members can apply in the multilateral context. But despite their benefits, RTAs cannot be a perfect substitute for the multilateral trading system. In a multipolar world economy, with multiple problems of the global commons, such as we've seen with the pandemic, we need effective multilateral governance. Attempting to solely rely on trade agreements with selected partners is a recipe for sub-optimal outcomes."

– Ngozi Okonjo-Iweala,
Director-General, World Trade Organization
100th session of the Committee on Regional Trade Agreements, 22 June 2021

Second thoughts on trade liberalisation

"We've been doing FTAs for almost 40 years now. And while some sectors of the economy have benefited, many know that the traditional approach to trade — marked by aggressive liberalisation and tariff elimination — also had significant costs: concentration of wealth; fragile supply chains; de-industrialisation; offshoring; and the decimation of manufacturing communities.

Heightened economic insecurity, the pandemic, and Russia's invasion of Ukraine have pushed us to re-examine our approach to trade. To get this right, trade has got to be about more than just unfettered liberalisation, cheap goods, and maximizing efficiencies."

– Katherine Tai, United States Trade Representative
speech to the Roosevelt Institute's Progressive Industrial Policy Conference, October 2022

The CP-TPP was designed as one of the world's most ambitious trade agreements, but its significance was reduced after the withdrawal of the United States in 2017, shortly before it came into effect. The TPP-11 nevertheless went ahead with the agreement, with the ambition of lowering 18,000 tariffs, representing over 98 per cent of all tariffs within the free trade area. However, the TPP-11 lacks a clear implementation timeline and some members have up to 10 years to implement their commitments. The TPP-11 agreement also includes controversial provisions that give corporations the right to sue governments for policy decisions that might harm their investments.

To add to the complex web of regional agreements, in 2022 President Biden announced the formation of a new economic pact, the Indo-Pacific Economic Framework (IPEF), comprising mostly the same members as the TPP. The IPEF is intended to focus less on tariffs and market access (which would require approval from Congress), and more on strengthening supply chains, promoting infrastructure investment, cooperating on tax rules and fighting corruption.

Regional Comprehensive Economic Partnership

The Regional Comprehensive Economic Partnership is the world's largest multilateral trade agreement, with its economies representing a larger share of the global economy than the TPP-11, the EU or USMCA. The RCEP commenced in 2022, and was in effect for all of its 15 members by June 2023, after almost a decade of negotiations. Estimates by the World Economic Forum suggest that the RCEP will remove 91 per cent of tariffs on goods traded in the region, while UNCTAD has estimated that it will boost intra-regional trade by 2 per cent as a result of both creating new trade worth US$17 billion, and diverting existing trade worth US$25 billion.

The membership of the RCEP comprises 15 economies, including China (which led its formation), all ASEAN nations, Japan, South Korea, Australia and New Zealand. India was also engaged in many of the negotiations but withdrew in 2019. RCEP economies account for one-quarter of global trade and 30 per cent of both the world's population and GWP. Ten out of Australia's top 15 trading partners are members of the trade agreement, and together with the other six participating countries, they account for 59 per cent of Australia's two-way trade, 17 per cent of two-way investment and 73 per cent of Australia's goods and services exports.

Asia-Pacific Economic Cooperation (APEC) forum

In the early 1990s countries in Australia's region established the Asia-Pacific Economic Cooperation (APEC) forum in response to the formation of trading blocs in other areas of the world such as the EU and NAFTA. The 21 member economies of the forum are: Australia, Brunei, Canada, Chile, China, Hong Kong, Indonesia, Japan, Malaysia, Mexico, New Zealand, Papua New Guinea, Peru, the Philippines, Russia, Singapore, South Korea, Taiwan, Thailand, the United States and Vietnam. Although the APEC forum has only 21 member economies, it accounts for almost 40 per cent of the world's population (2.9 billion people), over 60 per cent of world GDP and makes up around three-quarters of Australia's total trade in goods and services.

The APEC forum's original vision of establishing free trade among member countries by 2020 was not achieved. Its relatively minor role in advancing free trade during the past three decades is exemplified by a 2019 report by PricewaterhouseCoopers that noted almost $800 billion of non-tariff trade barriers remain in place across APEC nations. Nevertheless, APEC has contributed to progress on trade liberalisation. UNCTAD (the United Nations Conference on Trade and Development) has estimated that average tariff rates of APEC member states had been reduced from 10.2 per cent in 1999 to 5.2 per cent in 2020. Total merchandise trade for APEC nations increased sevenfold during this period, with two-thirds taking place between member countries. Although APEC meetings have never resulted in a regional trade agreement, they have created a forum for annual meetings of the leaders of member countries to discuss geopolitical priorities and have helped develop other trade agreements such as the CP-TPP. During the COVID-19 pandemic, APEC focused on improving the distribution of vaccines and essential medicines. The APEC forum has operated differently to other trade groupings in adopting the principle of non-discriminatory arrangements, which means that nations will trade with countries outside of the grouping on the same basis as members of the forum if they are prepared to give equal access to their markets. This contrasts with trade blocs such as the EU, which increase trade barriers for external countries.

Association of South-East Asian Nations (ASEAN)

Established in 1967, the ASEAN group covers emerging and developing economies in South-East Asia. ASEAN has acted as a counterweight to the APEC forum, which tends to be dominated by the large economies such as the United States, China, Japan and South Korea. ASEAN has become the most effective force for trade negotiations within the Asia Pacific region.

The ASEAN Free Trade Area (AFTA) comprises Indonesia, Thailand, Malaysia, Singapore, Philippines, Vietnam, Brunei, Burma, Cambodia and Laos. The **ASEAN-Australia-New Zealand Free Trade Area** (AANZFTA) agreement came into effect in 2010 with ASEAN nations committing to lowering and eliminating tariffs on 96 per cent of Australian exports to the region (compared to 67 per cent prior to the agreement). Until the signing of the RCEP in 2020, this group of nations was collectively Australia's second-largest trading partner. Collectively the ASEAN region has a population of 690 million across 12 countries and a combined GDP of $4.5 trillion, equivalent to almost 5 per cent of the global economy. In 2021, ASEAN nations represented 11 per cent of Australia's two-way trade volumes.

Pacific Agreement on Closer Economic Relations Plus (PACER Plus)

The Pacific Agreement on Closer Economic Relations Plus is a multilateral trade agreement comprised of 11 Pacific Island Forum members: Australia, Cook Islands, Kiribati, Nauru, New Zealand, Niue, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu. Unlike most other trade agreements, PACER Plus places a specific emphasis on economic development, integrating foreign aid programs from Australia and New Zealand to assist with agricultural development, financial stability, trade infrastructure and implementation of the agreement itself. Although the member economies only account for 32 million people, at the time of ratification it represented $2.1 trillion in GDP and $30 billion of Australia's two-way trade.

The European Union

The European Union (EU) is the most important trade bloc in the world economy. Its 27 member countries span across the European continent, with a population of 450 million that account for around 15 per cent of world trade in goods, a market similar in size to the United States. At present there are eight additional candidate countries that have begun negotiating potential membership of the EU: Albania, Bosnia and Herzegovina, Moldova, Montenegro, North Macedonia, Serbia, Türkiye and Ukraine. Although the EU represents

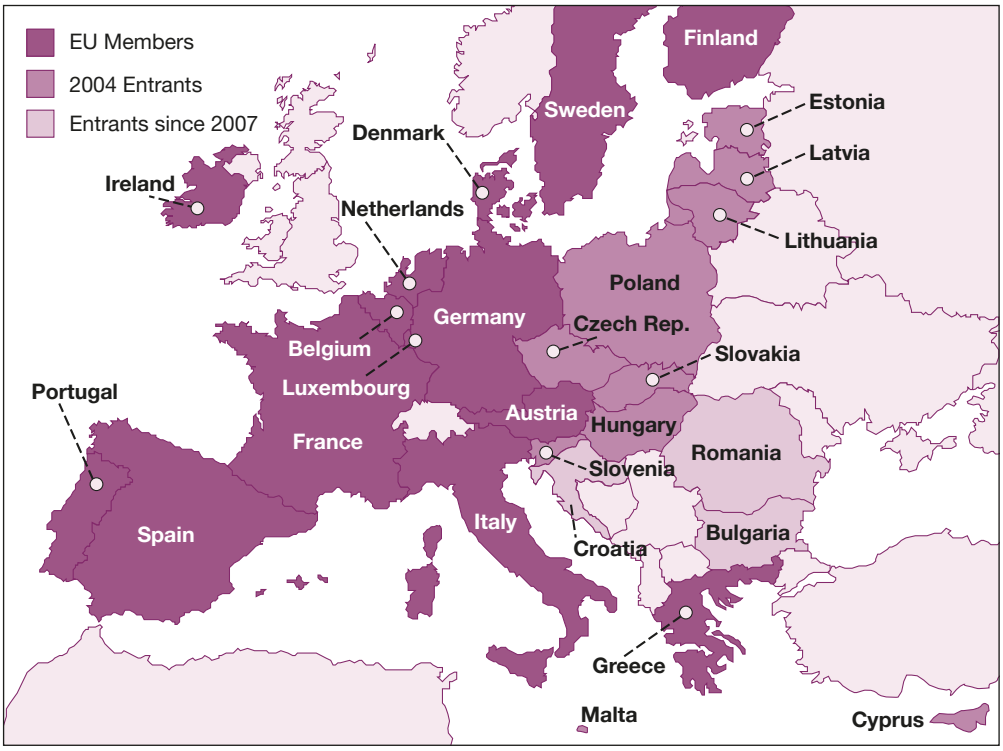


Figure 2.7 – European Union member states 2023

17 per cent of global GDP, in recent years it has been weakened by the departure of one of its largest members, the United Kingdom.

The formation of the EU (formerly the European Economic Community (EEC)) in the late 1950s helped to dismantle trade barriers within Europe. A single market for European goods and services was established in 1992, and this has helped drive strong trade growth within the EU. However, the EU has frequently used tariff barriers against non-member countries, resulting in accusations that the EU is a closed trading bloc. In particular, the EU has applied high rates of protection to agricultural products, with direct subsidies and rural support under the EU's Common Agricultural Policy absorbing around one-third of the EU's total budget at a total cost of US$436 billion between 2021 and 2027. The United States has justified its continuation of farm subsidies on the EU's Common Agricultural Policy, which has for decades been criticised by smaller agricultural trading countries around the world, including Australia.

Within the EU, 20 member countries also participate in a voluntary monetary union that is commonly known as the eurozone. The monetary union involves the adoption of a common currency (the euro) and common interest rates, and it has played a major role in economic integration among the eurozone economies. While successful in promoting trade and economic integration among member countries, slower growth rates in EU economies (averaging just 1.1 per cent per year in the decade to 2022) have meant that its share of world output, while large, has almost halved since 1980.

Other regional agreements

In addition to the EU, two other regional agreements play key roles on other continents:

- The US-Mexico-Canada Agreement (USMCA) is a three-country trade deal previously known as the North American Free Trade Agreement or NAFTA. NAFTA contributed to the value of trade more than tripling between the three economies in the 25 years after its introduction. The NAFTA agreement was renegotiated and re-branded as the USMCA, coming into effect from 2020 with minor revisions addressing issues such as digital trade, corruption and intellectual property.
- The African Continental Free-Trade Area (AfCFTA) has the largest number of member economies of any regional trading agreement, bringing together 55 countries and 1.3 billion people with a combined GDP of US$3.4 trillion. AfCFTA came into force in 2021, with the goal of eliminating 90 per cent of tariffs between member economies. The World Bank estimates that the agreement will boost the regional economy by 7 per cent by 2035, lifting GDP by $450 billion and bringing 30 million people out of extreme poverty. However, its impact depends on successful implementation in each country.

Bilateral trade agreements

In addition to global and regional agreements, economies also enter into bilateral agreements. Australia's most far-reaching bilateral agreement is the **Closer Economic Relations Trade Agreement (CERTA)** with New Zealand, which began in 1983 and is one of the most comprehensive free trade agreements in the world. CERTA prohibits all tariffs and export restrictions, and has gradually been extended in recent years to include the harmonisation of business regulations and tax laws between New Zealand and Australia. Since 1983 it has contributed to an average annual increase in trade between Australia and New Zealand of around 7 per cent and is widely regarded as being successful in both countries.

Bilateral trade agreements have experienced a resurgence in recent years. This reflects a number of factors, including the loss of momentum around multilateral agreements and the United States' increased use of its economic power to negotiate more favourable trade relationships on a country-by-country basis. These agreements are often as much concerned with shoring up open trading arrangements against a backdrop of rising protectionism as they are a means of unlocking new trading opportunities. In the past decade, Australia has concluded nine new bilateral agreements with Malaysia (2013), South Korea (2014), Japan and China (2015), Peru, Hong Kong and Indonesia (2020), India (2022) and the United Kingdom (2023).

Like regional trade agreements, economists are divided over the extent to which bilateral trade agreements assist or obstruct progress towards global free trade. A Productivity Commission study in 2017, *Rising protectionism: challenges, threats and opportunities for Australia,* noted that although governments often claim that bilateral trade agreements will deliver large increases in trade, in fact their impact is often much smaller because benefits are often exaggerated and the costs of establishing and implementing the agreements are underestimated. The report also noted that bilateral agreements can contribute to greater "trade diversion" – not adding to overall world trade, but simply diverting it to nations that are party to an agreement.

Nevertheless, pursuing further bilateral trade agreements remains a key component of Australia's trade policy. Against the backdrop of a weakened WTO in recent years, Australia has given priority to negotiations on bilateral agreements, most recently with the Australia-UK Free Trade Agreement that came into effect in 2023, with 99 per cent of tariffs on Australian exports to the UK eliminated. The economic impact of the UK agreement is likely to be relatively small, with the UK estimating it would add just 0.08 per cent a year to GDP by 2035. One of the advantages of negotiating bilateral agreements is that they are generally much faster to conclude than multilateral agreements (although the 10 years of negotiations preceding the China-Australia FTA shows this is not always the case). Australia's experience with China has also highlighted that bilateral agreements do not guarantee a harmonious relationship. Nothing in its bilateral agreement was able to prevent a series of punitive tariffs and trade barriers imposed by China in recent years on Australian exports of barley, wine, coal, timber and lobster.

reviewquestions

1. Assess the impact of regional and bilateral trade agreements on the global economy.
2. Account for the growth of bilateral trade agreements in recent years.
3. Describe the recent developments in trade negotiations in Australia's region.

2.5 International organisations

The major institutions of the global economy are the **World Trade Organization,** the **International Monetary Fund** and the **World Bank**. Both the IMF and the World Bank were established at the Bretton Woods conference in 1944, which designed the postwar global economic system. However, the enormous changes in the global economy since World War II have forced these institutions to adapt to new circumstances without necessarily being equipped to deal with the more complex flow of capital and goods across borders that has characterised the globalisation era.

In addition, there are several other organisations with substantial influence in the global economy, such as the **Organisation for Economic Cooperation and Development** and the **United Nations**.



For further information on international organisations visit the websites of the **WTO**, **World Bank**, **IMF**, **UN**, **OECD** and **The Global Goals**.

World Trade Organization

The role of the WTO is to implement and advance global trade agreements and to resolve trade disputes between economies. The WTO was formed in 1995 and is the first international organisation with powers to enforce trade agreements across the world.

Prior to the formation of the World Trade Organization, the responsibility for developing trade agreements was borne by the **General Agreement on Tariffs and Trade (GATT)** process that began in 1947. The GATT process involved regular rounds of trade negotiations but lacked an enforcement mechanism. This meant that many countries only implemented parts of the GATT agreements. In 1993, GATT was replaced with a new global trade organisation with enforcement powers.

The formation of the **World Trade Organization** was significant not only because it had power to resolve trade disputes but also because its reach extended beyond trade in goods to include trade in services (such as insurance and banking) and intellectual property (such as patents, copyright, electronic circuits and trademarks).

One of the most important features of the WTO is its role in settling disputes between countries. A country that believes that it is suffering harm as a result of another country's failure to comply with its WTO obligations can lodge a complaint with the WTO. A process of **dispute resolution** is then commenced and if no agreement can be reached directly a WTO panel will hear the complaint and then issue a decision. If the country involved does not comply with the WTO's directive, the other country or countries may then impose trade sanctions that may include high tariffs on goods imported from the offending nation. Since 1995, 617 disputes have been brought to the WTO and over 350 rulings have been issued.

The WTO has proved effective in resolving disputes between smaller countries, although it has been less effective in resolving disputes between the two largest forces in the global economy – the United States and the European Union. Although the US and the EU have not formally refused to comply with WTO determinations, they have delayed and continued to lodge appeals rather than accept WTO decisions.

The WTO's membership includes 164 member countries and 25 further "observer" countries negotiating to join the WTO. Since its formation in 1995, the WTO has overseen a halving in average tariff rates among member economies and has had some success in negotiating further agreements to free up world trade. For example, in 2014 the WTO formally agreed on a binding Trade Facilitation Agreement, which aimed at reducing the cost of trade by 10 to 15 per cent by making customs procedures simpler and more efficient. In a 25-year anniversary media publication in 2020, the Director-General of the WTO identified this as one of the WTO's most important achievements. Some WTO members have also signed voluntary agreements to reduce trade barriers in financial services, information technology, telecommunications and shipping.

While the WTO has been effective in resolving disputes and making progress on a series of voluntary agreements, its efforts to conclude a comprehensive global trade agreement since 2001 have been unsuccessful. The **Doha Round** of trade liberalisation talks – named after the city in the Middle Eastern nation of Qatar in which they were launched – began with ambitious goals to reduce agricultural protection, lower tariffs on manufactured goods and reduce restrictions on trade in services. It was claimed that trade liberalisation could create annual welfare gains of US$90 to US$200 billion per year and lift over 140 million people out of poverty in the developing world.

The Doha Round failed due to disagreements on access to agricultural markets, restrictions on the production of pharmaceutical medicines, disputes between developed and developing nations, and arguments relating to manufacturing protection. More generally, the past two decades have seen declining public support for free trade in many countries.

Nevertheless, the Doha negotiations produced some results, such as the Nairobi Package, a voluntary agreement in 2015 to reduce export subsidies for farm exports.

A quarter of a century after its establishment, the WTO's role has been weakened by a rise in protectionist sentiment globally. Historically, the United States was the leading advocate for freer trade and the WTO, but this has changed in recent years. Successive US governments have been critical of the WTO's use of its enforcement powers, in particular accusing the WTO of failing to stand up to China's breaches of trade rules. Since 2019, the US (under both the Trump and Biden Administrations) has refused to approve any replacement judges on the WTO's appeals body, with the US wanting the WTO's enforcement powers weakened. As a result, the appeals body cannot enforce WTO rules, and instead nations can only resolve their disputes through informal arbitration. Nevertheless, the WTO has still made progress on specific issues, such as with agreements at its ministerial council meeting in 2022 to override patent rights for COVID-19 vaccines and to reduce fishing subsidies.

International Monetary Fund

The International Monetary Fund (IMF) is one of the most important institutions in the global economy. It has 190 members, covering almost all nations. Its role is to **maintain international financial stability**, particularly in relation to foreign exchange markets. In earlier times the role of the IMF was to oversee a system of fixed exchange rates that would stabilise economic relationships between economies. When the system of fixed exchange rates collapsed in the 1970s, the IMF's role widened to ensuring global financial stability. In situations where a financial crisis occurs in an economy, region or even across the world, the IMF plays a critical role in minimising the crisis.

The IMF's role in ensuring stability in global financial markets was highlighted by its interventions following the COVID-19 pandemic in 2020. In response to the initial onset, the IMF established a new Short-term Liquidity Line aimed at providing one-off payments and interest-free loans to assist developing and emerging economies in designing policy responses to COVID-19, following requests from over 100 countries by May 2020. In July 2021, the IMF approved its largest-ever relief package, a $650 billion emergency aid fund, to assist developing economies in buying and rolling out vaccines and paying down debt accrued during the pandemic. After Russia's invasion of Ukraine in February 2022, the IMF approved a four-year Extended Fund Facility of US$15.6 billion as part of a US$115 billion total support package to help Ukraine manage the economic impacts of the war.

In the longer term, the IMF aims to support the free trade of goods and services and the free movement of finance and capital throughout world markets. The IMF often requires countries to change their economic policies and open up their markets before they receive financial assistance. These **structural adjustment** policies include reducing the size of government, privatising government businesses, deregulating markets and balancing government budgets. The impact of the IMF's policy approach is increased by the fact that many international banks and other private lenders require that countries adopt IMF-supported policies before they are willing to lend to those countries. Additionally, the IMF often tailors these policies to wider economic priorities, with a growing focus on climate risk given the harsher impact of climate change on many of the world's most financially vulnerable countries.

The IMF plays a central role in addressing financial crises in individual countries. However, the IMF has often attracted criticism during financial crises where its policies appeared to make conditions worse for the economies affected. After widespread criticism about the negative impact of some of the reforms demanded by the IMF after a financial crisis in Asia in the late 1990s, the IMF adopted a different approach during the global financial crisis of the late 2000s, supporting expansionary macroeconomic policies and giving borrowing countries more freedom to increase their spending to avoid recession. In 2010 the IMF

also altered its governance structure to give developing and emerging economies (many of whom receive IMF assistance) a greater say over IMF policies.

Another criticism of IMF interventions – highlighted in the 2010s sovereign debt crisis in Europe – is that the IMF's demands harm the most vulnerable groups in society, while protecting financial institutions. An IMF audit report in 2016 acknowledged that the measures demanded by the IMF upon Greece during the crisis disproportionately affected the most vulnerable groups and intensified a recession. However, a broader IMF evaluation of its 133 lending programs in operation between 2011 and 2017 was more positive in concluding that three-quarters of IMF programs were successful or partially successful in achieving their objectives. The IMF has also been criticised for moving too slowly and cautiously, such as in the COVID-19 pandemic, resulting in proposals for reforms to the IMF's lending practices so it can move faster to provide low-interest loans to economies in crisis situations.

World Bank

The World Bank's primary role in the global economy is to help poorer countries with their **economic development**. The official title of its main organisation, the International Bank for Reconstruction and Development, gives an indication of its focus: to fund investment in infrastructure, to reduce poverty and to help countries adjust their economies to the demands of globalisation. The World Bank also has a number of organisations that provide specific assistance to lower-income countries including:

- the International Development Association, which provides "soft loans" (that is, loans at little or no interest to developing countries)
- the International Finance Corporation, whose role is to attract private sector investment to the Bank's projects
- the Multilateral Insurance Guarantee Agency, which provides risk insurance to private investors
- the International Centre for Settlement of Investment Disputes, which provides conciliation and arbitration of investment disputes between states, and between states and corporations.

The World Bank's two major goals are:

- reducing the rate of extreme poverty to less than 3 per cent of the world's population by 2030 (in contrast to current forecasts of 6 to 9 per cent of the world's population living on less than $1.90 per day by 2030). At the 3 per cent level those in poverty will mostly be experiencing "frictional poverty", that is, poverty related to short-term disasters such as extreme weather events rather than being in long-term poverty. This goal supports the United Nations Global Goals, although it is more narrowly focused.
- reducing inequality by fostering income growth for the world's bottom 40 per cent.

The World Bank is funded by contributions from member countries and from its own borrowings in global financial markets. It makes loans to developing nations, at rates that are below standard commercial rates, to fund infrastructure projects such as power plants, roads and dams. For example, in response to the COVID-19 recession, the World Bank committed $157 billion for over 100 lower-income countries that accounted for 70 per cent of the world's population. This funding helped countries to obtain vaccines, and strengthen health systems and reduce economic damage from the pandemic. The value of the World Bank's active portfolio of investments exceeds US$300 billion, with record lending commitments of US$105 billion in 2022.

In overall terms, the World Bank's global importance as a lender to developing countries has declined as private lending markets have expanded in recent decades. However, it played an important role in partnering with the International Finance Corporation to provide US$47 billion for credit support after the onset of the COVID-19 pandemic in 2020, when private credit markets seized up.

One of the most important actions of the World Bank in the past two decades has been its support of the Heavily Indebted Poor Countries Initiative, in which it aims to reduce debt by two-thirds in the world's poorest countries in Africa, South Asia and Latin America, whose debt levels are considered unsustainable. By 2023, 37 countries had received debt relief estimated to have saved them over US$100 billion. The World Bank also plays a role in the global transition away from fossil fuels, with 35 per cent of its investments designed to help reduce carbon emissions.

CHINA: FROM NET RECIPIENT OF INTERNATIONAL DEVELOPMENT FINANCE TO THE WORLD'S LARGEST OVERSEAS DEVELOPMENT LENDER

Surprisingly, the world's largest lender of international development finance is not one of the international organisations established to support countries with their economic development or financial stability.

> "In the past decade, China has become the world's biggest overseas development lender, way bigger than the International Monetary Fund … It's bigger than the World Bank, the IMF and all 22 members of the Paris Club put together."
>
> *– Marc Filippino and James Kynge, Financial Times, August 2022*

Since launching its Belt and Road Initiative (BRI) in 2013, China has provided US$1 trillion in support to 147 countries through construction contracts and non-financial investments. In an average year, China lends around US$85 billion for overseas development projects – more than double the lending of the US (US$37 billion). BRI support focuses on building infrastructure in the developing world, leveraging China's $3 trillion in foreign exchange reserves.

Developing countries have reaped significant benefits from China's BRI lending. Statistical analysis published in 2022 indicates that an average BRI project increases economic growth in a host country by 0.95 percentage points after two years. The analysis also found that BRI infrastructure projects can reduce economic inequality, with a 10 percentage point reduction in the concentration of economic activity within a district in a low- or middle-income country.

Despite these benefits, BRI projects also involve risks for developing countries. With expedited approvals processes and high-speed construction, BRI projects have been linked to environmental degradation, inflated costs, social issues and corruption. The BRI has also created a large-scale debt burden, with China now the world's largest bilateral lender. A growing number of countries are also facing debt distress, as rising interest rates and slower growth make it difficult to service their debts.

The World Bank has warned that the debt burden from BRI projects could trigger a series of international debt defaults on a scale not seen since the 1980s.

United Nations

The United Nations (UN) is a global organisation whose membership includes more nations than any other political or economic organisation. The UN was established in 1945 and has grown to cover 193 member states. Its agenda is broader than any other organisation, covering the global economy, international security, the environment, poverty and development, international law and global health issues. However, its decision-making powers are limited (because it relies on the support of its member states) and the budgets for the different arms of the United Nations are small compared to national governments in many advanced economies.

The UN has historically played an important role in supporting greater linkages between economies and promoting globalisation. A range of different UN agencies have developed international standards that make it easier for trade and investment flows to occur between nations, such as standards for food safety and rules on copyright and intellectual property. Key UN agencies include the World Health Organization, the UN Development Programme, the UN Children's Fund (UNICEF), the UN Refugee Agency (also known

as the UN High Commissioner for Refugees or UNHCR), the World Food Programme, the UN Conference on Trade and Development (UNCTAD) and the UN Environment Programme (UNEP).

The UN also has overseen the development of a large number of international agreements to enforce human rights and political freedoms. Research by the World Bank has consistently shown individual freedoms strengthen a country's prospects for economic growth and development. Several of these conventions were also developed with the intention of addressing the underlying causes of poverty in developing nations.

One of the most important roles played by the United Nations in recent years is establishing a set of Global Goals (or Sustainable Development Goals), which aim to reduce global poverty and inequality between 2015 and 2030. These goals build on the Millennium Development Goals, which oversaw a reduction in the proportion of people living on less than $1 a day between 1990 and 2015 – from 29 per cent to 14.5 per cent of all people in low- and middle-income economies (chiefly as a result of rapid economic growth in China lifting 600 million people out of poverty). The Sustainable Development Goals comprise 17 goals covering global poverty, hunger, wellbeing, education, gender equality, clean water and sanitation, clean energy, economic growth, sustainable cities, climate action and sustainable use of land and oceans. They incorporate 169 targets that UN member states have pledged to take action towards during the period 2015 to 2030. At the halfway point in 2023, a progress update on the Sustainable Development Goals found that only about 12 per cent of measurable targets were on track, close to half were moderately to severely off track, and 30 per cent had seen no improvement or some regression below the 2015 baseline.

Organisation for Economic Cooperation and Development

The Organisation for Economic Cooperation and Development (OECD) is an international economic organisation of 38 mostly advanced economies committed to democracy and open markets. The primary goal of the OECD is to promote policies "to achieve the highest sustainable economic growth and employment and a rising standard of living in member countries while maintaining fiscal stability and thus contribute to the development of the world economy". In practice, the main role played by the OECD is to conduct and publish research on a wide range of economic policy issues and to coordinate economic cooperation among member nations, such as towards the development of common policy agendas. For example, the OECD provided a forum for member countries to share research and coordinate policy responses to the COVID-19 pandemic.

Alongside research conducted by the IMF and the World Bank, OECD economic research is regarded as the most reliable source of comparative economic data. The OECD publishes in-depth research and analysis of a wider range of domestic policy issues relating to advanced economies, including competition, education, employment, health, industry, innovation, migration, regulation and tax. The OECD has also influenced the global economic policy agenda in recent years. Its advocacy for "inclusive growth" strategies in the past decade has challenged traditional assumptions that policymakers must always trade off equity and efficiency (that is, inequality versus economic growth), reflecting concerns that the level of inequality in many economies has become a constraint on economic growth. The OECD also played a key role in an international agreement in 2021 to reform corporate taxation rules. This agreement involves a global minimum corporate tax rate of 15 per cent and measures to ensure companies pay tax in the places where economic activity occurs, rather than using tax havens to avoid paying tax.

reviewquestions

1 Outline recent developments in global trade negotiations.
2 Identify and discuss the role of the international organisation responsible for maintaining international financial stability.
3 Explain why the IMF has been described as the world's financial firefighter.
4 Explain why in recent years the WTO has found it difficult to negotiate further cuts in protection.

2.6 Government economic forums

Organisations that exist as forums for world leaders play an important role in coordinating policies between major economies especially during times of economic or financial crisis. The aim of these forums is to enable heads of state along with their treasurers and central bank governors to discuss global economic issues with particular attention to economic stability and growth. In the early 2020s they have played a role in fostering greater cooperation among advanced economies on major economic issues, including recovery from the COVID-19 pandemic, addressing the fallout from the war in Ukraine and cooperating on measures to address climate change.

Group of Seven Nations (G7)

In recent decades, the most important government economic forum has been the group of the seven largest industrialised nations, including the United States, UK, France, Germany, Canada, Japan and Italy. The G7 has effectively operated as the economic council of the world's wealthiest nations, meeting annually to discuss conditions in the global economy since its formation in 1976. The G7 has been the unofficial forum coordinating global macroeconomic policy because of its influence over the fiscal and monetary policies of the world's largest advanced economies. Because of the G7's status as the forum for the world's most powerful economies, its agenda has often included general political issues and current priorities such as climate change, global poverty and security.

Critics in recent years have argued that the membership of the G7 is no longer representative of the most important forces in the global economy (China and India are more important to the global economy than Canada and Italy, but they are not included in the G7). The G7's share of global GDP shrunk from 68 per cent in 1992 to 43 per cent in 2023, and the G7 nations cover only 10 per cent of the world's population. When the global economy faced the sudden onset of the COVID-19 pandemic, and the dislocation of trade, travel and economic activity, the G7 did not provide a major leadership role. In response to the war in Ukraine, the 2023 G7 summit in Hiroshima, Japan, provided a forum for coordinating responses, including issues relating to defence, energy prices and global food security, as well as securing fresh diplomatic aid for Ukraine through military assistance packages.

Proposals in recent years have addressed the possible expansion of the G7 to include observer nations (including Australia). In 2023, leaders from eight economies joined by special invitation: Australia, Brazil, Comoros, the Cook Islands, India, Indonesia, South Korea and Vietnam. Ukraine was also invited as a guest. The hosts of the upcoming G7 summits are Italy in 2024 and Canada in 2025.

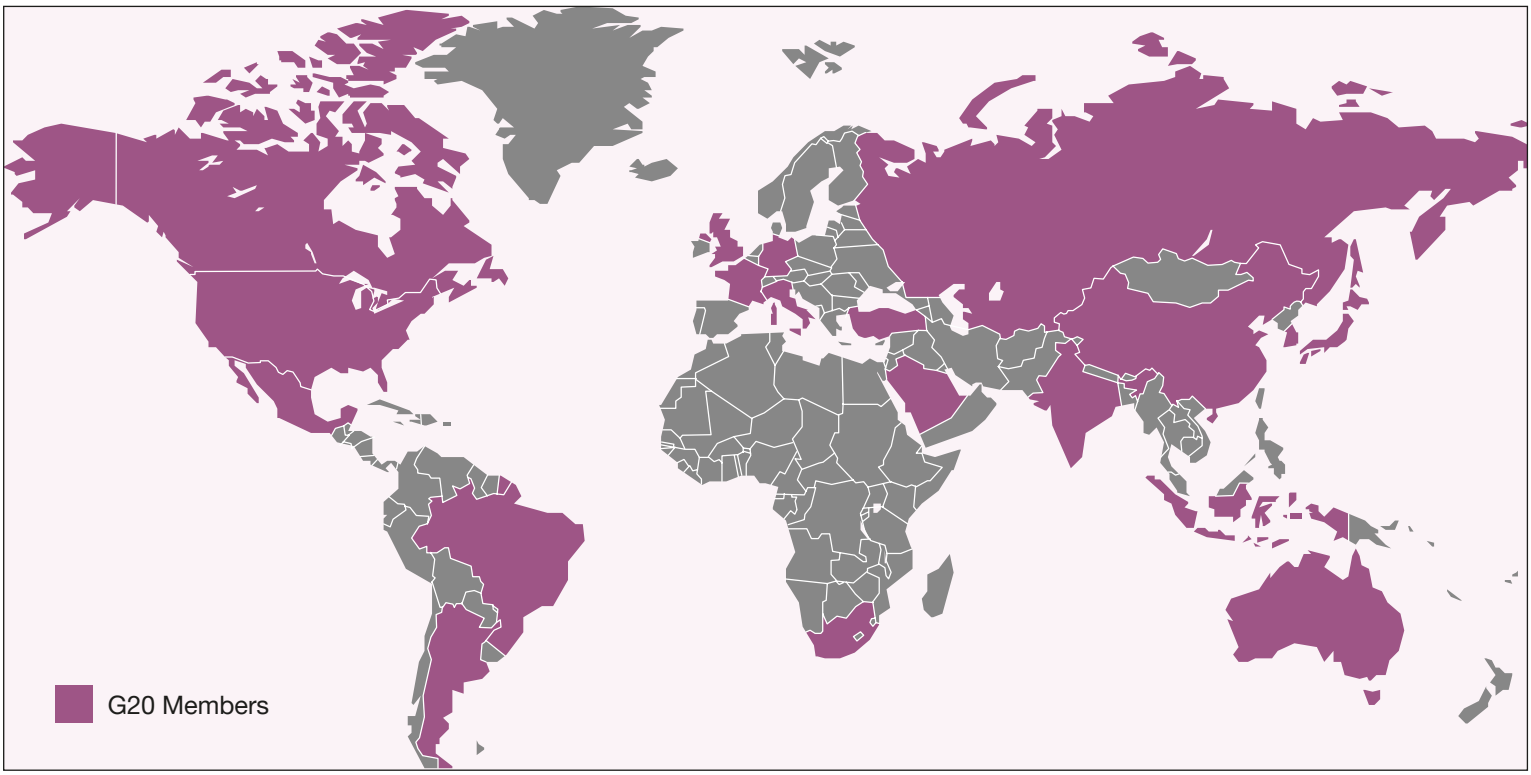


Figure 2.8 – Members of the G20

Group of Twenty Nations (G20)

The G20 includes 19 of the world's largest national economies plus the EU, covering around 85 per cent of world GDP and 65 per cent of the world's population. The G20 membership includes several emerging economies that have been a driving force behind world economic growth since 2008.

The G20 played a key role in the global response to the financial crisis in 2009 and had an important but less central role following the COVID-19 pandemic. During the global financial crisis, the G20 helped coordinate fiscal stimulus and improve supervision of the global financial system and international financial institutions. However, international economic cooperation has weakened in more recent years, with countries mostly determining their economic policy responses to the COVID-19 pandemic at a national level. In 2021 the G20 agreed on a global tax reform plan in partnership with the OECD, resulting in a minimum global corporate tax rate and measures to reduce tax avoidance. The G20 also agreed on measures to coordinate large-scale debt relief for developing countries in conjunction with the World Bank and IMF.

The extent to which the G20 group becomes the forum for international economic cooperation in future years is unclear, but at the moment the G20's main activity is its annual summit, and it does not have any permanent leadership or headquarters. The annual summit generally deals with a wide range of current issues, and does not advance specific economic goals. It therefore relies on individual heads of state to provide momentum and leadership to work together on specific global challenges. Following Brazil's hosting of the G20 in Rio de Janeiro in November 2024, South Africa will host the 2025 G20 summit.

reviewquestions

1 Explain the role of government economic forums in the global economy.
2 Discuss the role of the G7 in the global economy in recent years.

chapter summary

1 **Free trade** is a situation where there are no artificial barriers to trade imposed by governments that restrict the free exchange of goods and services between economies.

2 **Protection** can be defined as any type of government action that has the effect of giving domestic producers an artificial advantage over foreign competitors.

3 The **arguments in favour of protection** include helping "infant industries" to establish themselves, protecting local jobs being lost because of cheaper imports, strengthening defence and national security and preventing foreign companies dumping goods on domestic markets at unrealistically low prices.

4 The **arguments against protection** are that it results in a distortion in resource allocation towards less efficient sectors of the economy and in the longer term can lead to a less internationally competitive economy, higher unemployment and a lower standard of living.

5 The main **methods of protection** are: tariffs (a tax on imports), subsidies (a payment to local producers), local content rules (a requirement that a proportion of goods are made locally), quotas (a limit on the quantity of goods imported) and export incentives (other means to encourage local production).

6 **Trade agreements** are a way of reducing barriers to trade between nations. Recent years have seen a proliferation of multilateral and bilateral trade agreements, and while they have removed some trade barriers they have also made the global trading system increasingly complicated.

7 The **World Trade Organization** is a global organisation that enforces the existing WTO agreement, resolves trade disputes and is the major forum for global trade negotiations pursuing the goal of global free trade.

8 The **International Monetary Fund** is a global organisation whose main role is to maintain international financial stability. The IMF plays a key role in monitoring the international financial system and assisting economies who face major economic crises.

9 The **World Bank** is a global organisation whose main role is to assist poorer nations with economic development through loans, development assistance and technical advice with the goal of reducing extreme poverty to 3 per cent of the global population by 2030 and raising income levels for the lowest 40 per cent of income earners.

10 The **G7** and the **G20** are the two most important forums for global economic policy coordination through annual meetings of national leaders. The G7 includes the major advanced economies, while the G20 includes the large emerging economies that have recently been driving global economic growth.

chapterreview

1 Define *free trade*.

2 Explain what is meant by *comparative advantage*.

3 Use the following terms to briefly outline the main methods of protection that can restrict free trade:

- tariffs • local content rules • export incentives • subsidies

4 Outline the arguments supporting the following statements on protecting local industries:

- "We should protect our infant industries so that they have a chance to establish themselves and become competitive in world markets."
- "We should have the capacity to produce mRNA vaccines, so that in a future global pandemic Australia is not forced to go begging to other countries for critical supplies."

5 Discuss the economic arguments in response to the following justifications for protection:

- "It's time we made Australia great again, and stopped sending jobs offshore to China."
- "We need to protect our essential domestic industries just in case there's a war or another global pandemic."

6 Examine the role that bilateral and regional trade agreements play in contributing to free trade between economies.

7 Analyse the impact of the increase in preferential trade agreements and trading blocs on the global economy.

8 Explain how regional trade agreements in the Asia Pacific might affect Australia's economic future.

9 Compare and contrast the role of the following institutions in the global economy:

- World Trade Organization
- International Monetary Fund
- World Bank

10 Explain which international organisation would be most likely to play the major role in the following situations:

- a dispute between Australia and China about anti-dumping measures on bottled wine imports from Australia
- construction of a major dam and irrigation project in India
- a crisis in Latin American financial markets that poses a risk to the global economy.

Globalisation and Economic Development

3

3.1 Introduction
3.2 Differences in income and economic growth
3.3 Differences in economic development
3.4 Categories of development in the global economy
3.5 Causes of inequality in the global economy
3.6 The impact of globalisation

3.1 Introduction

The most disturbing feature of the global economy is the very large difference in the living standards of people around the world. People born into families with high living standards in wealthy countries have very different prospects in life than those born in families with lower living standards and in low-income countries. Their opportunities in life vary significantly in terms of health, education, income and life expectancy. Despite the extraordinary technological change and progress of the past, stark inequalities persist between wealthy and poor countries, and between wealthy and poor people within countries.

While there is a large gap between rich and poor countries, it is also true that in overall terms living standards are improving in most countries, rich and poor. Evidence of progress towards overcoming global inequalities is highlighted by the following facts:

- The percentage of people now living in extreme poverty has declined significantly, with around 9 per cent of the population living below US$2.15 per day in 2019 (2017 PPP), compared to 43.6 per cent in 1981.
- The under-five mortality rate has been reduced by close to 55 per cent between 1990 and 2020.
- The global primary school net enrolment rate increased from 81 to 89 per cent between 1996 and 2018.
- Life expectancy for those born in countries with low human development increased from 50 to 61 years between 1990 and 2021.

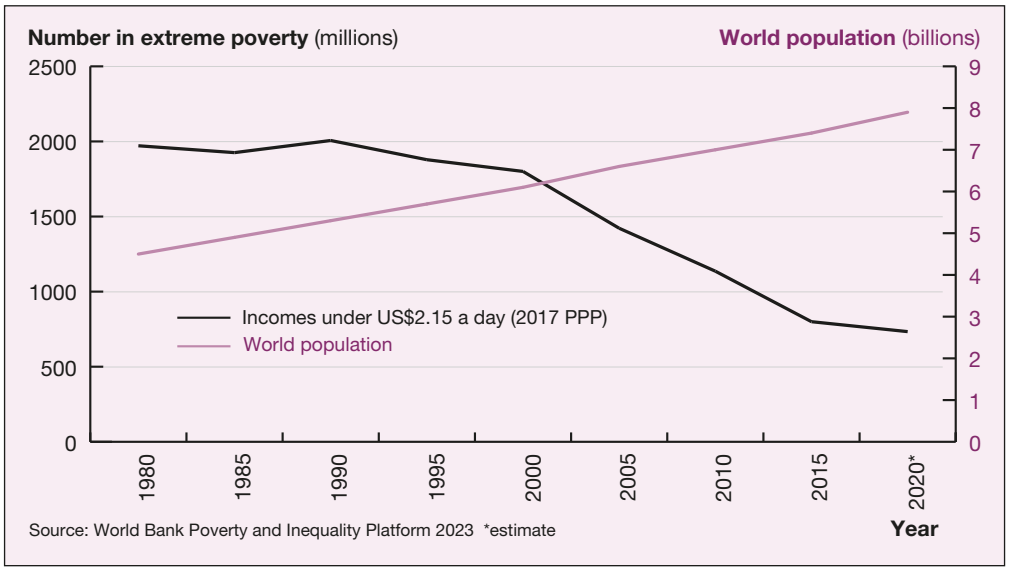
Sources: World Bank 2023, Human Development Report 2021–22

On the other hand, evidence also demonstrates the major gaps between the 6.6 billion people in the developing world and the 1.4 billion people in developed countries who enjoy a high level of human development.

- An estimated 685 million people live in "extreme poverty", subsisting on less than US$2.15 per day in 2022, with around 80 million people in poverty because of the impact of the COVID-19 crisis. Around two-thirds of this population lives in Sub-Saharan Africa (which has seen an increase in the number of people living in extreme poverty compared to 1990).
- Over 1.7 billion people live without access to basic sanitation and around 750 million have no access to electricity.
- It is estimated that 5 million children under the age of five died in 2021. More than 80 per cent of these deaths occurred in Sub-Saharan Africa or South Asia. An Oxfam report in 2022, *Inequality Kills: The unparalleled action to combat unprecedented inequality in the wake of COVID-19*, estimated that inequality contributes to the death of at least one person every four seconds.
- Across the world are an estimated 89 million refugees and forcibly displaced people, who fled their homes because of violence or persecution.
- In April 2023, over 13 billion COVID-19 vaccine doses had been administered globally. Low-income countries account for 9 per cent of the world population, but secured just 3 per cent of the total vaccination doses.

Sources: World Health Organization 2021, UNHCR, World Bank 2022, World Data Lab 2023, Oxfam 2022

In this chapter we look at how to measure and understand differences in economic development in the context of globalisation.



3.2 Differences in income and economic growth

The most popular method for comparing living standards between different economies is income. It measures the ability of a nation's citizens to satisfy their material wants. **Gross National Income (GNI)** is the sum of value added by all resident producers in an economy, plus receipts of primary income from foreign sources. Real GNI figures are obtained by discounting GNI growth for the effects of inflation.

Figure 3.1 shows that the United States economy is by far the largest in the world. It is around one-third larger than the next largest economy, China, and almost five times the size of the third largest, Japan.

One of the limitations in comparing the size of economies is the exchange rate used. By using the United States dollar, we can make inaccurate comparisons about the living standards of developing countries. For example, if the prices of goods and services in developing countries are low relative to prices in the United States, then measuring GNI in terms of the United States dollar will underestimate the true income of people in these developing countries. For this reason, economists usually make an adjustment using **purchasing power parity (PPP)** before comparing GNI levels between countries. Measuring purchasing power parity adjusts measurements of the size of an economy to reflect the purchasing power of currencies within a national economy. PPP-adjusted figures provide a standard comparison of real income levels between countries.

Figure 3.2 groups the global economy into low-, middle- and high-income economies, a distinction made by the World Bank. It shows raw GNI and then the figures adjusted for purchasing power parity between these countries. Making these adjustments results in substantially higher comparative figures for developing countries, whose exchange rates tend to be undervalued.

Country	GNI 2021 (US$ bn)	Ranking
United States	23,617	1
China	17,572	2
Japan	5129	3
Germany	4411	4
United Kingdom	3127	5
France	3118	6
India	3045	7
Italy	2145	8
Korea, Rep.	1974	9
Canada	1831	10
World total	**96,433**	

Source: World Bank 2023

Figure 3.1 – The world's 10 largest economies by GNI (current US$), 2021

Grouping	Population (million)	GNI (US$ billion)	GNI measured at PPP ($ Int'l billion)
Low income	718	541	1468
Lower middle income	3398	8607	26,605
Upper middle income	2503	26,671	49,005
High income	1240	60,295	68,492
Global economy	**7888**	**96,432**	**146,002**

Source: World Bank 2023

Figure 3.2 – Adjusted GNI for major country groups, 2021

Purchasing power parity (PPP) is a theory that states that exchange rates should adjust to equalise the price of identical goods and services in different economies throughout the world.

Figure 3.2 shows that high-income economies (also known as advanced economies or industrialised economies) receive around two-thirds of the world's income as measured in raw GNI and nearly half of the world's income using PPP-adjusted GNI figures. A high level of inequality clearly exists in the global economy, given that high-income economies make up just 1.2 billion of the world population of around 8 billion. The population of low-income economies makes up 9 per cent of the global population but less than 1 per cent of the size of the global economy.

Population size and growth rates differ among economies, and play an important role in comparing one economy to another. To compare living standards between economies, we divide the real GNI of each country by its population, generating a **GNI per capita** figure.

As figure 3.3 shows, people in high-income regions (around one in six people in the world) enjoy income levels that are nearly five times those in low- and middle-income countries, even after adjusting for purchasing power parity. The table also details information about the regions where income is the lowest. Living standards in Sub-Saharan Africa and South Asia, where almost 40 per cent of the world's population lives, are exceptionally low.

Region	Population (million) 2021	GNI per capita, Atlas Method (US$) 2021	GNI measured at PPP per capita ($ current Int'l) 2021
High income	**1240**	**9291**	**55,208**
Low and middle income	**6620**	**5262**	**11,642**
Latin America & Caribbean	593	7579	15,879
Europe & Central Asia	402	8384	24,328
East Asia & Pacific	2124	9291	16,676
Middle East & North Africa	418	3409	11,298
Sub-Saharan Africa	1118	1561	3927
South Asia	1902	2076	6855

Source: World Bank 2023

Figure 3.3 – Global comparison of living standards measured by GNI per capita

Almost all nations have experienced some **economic growth** in recent decades, enjoying higher incomes as a result of an increase in their **Gross Domestic Product (GDP)**. While the gap in income between the richer and poorer countries appears to be lessening, the reduction of income inequality in the global economy is occurring very slowly.

Another dimension to global inequality is the unequal **distribution of global wealth**. Wealth is an important safety net for people when they do not have income and can be used to improve a person's education or find other ways to generate income. According to a 2022 report by Credit Suisse, the top 1 per cent alone owned 46 per cent of global wealth, while in contrast, the bottom 50 per cent owned less than 1 per cent. Most of this wealth is concentrated in households across Europe, North America and in Asia-Pacific countries such as Japan, China and Australia. People in Latin America, India and Africa, by contrast, hold only a small percentage of global wealth. Wealth is distributed even more unevenly than income throughout the global economy. While aggregate household wealth grew during the COVID-19 pandemic, a 2023 Oxfam report, *Survival of the Richest*, found the richest 1 per cent gained double that of the other 99 per cent combined. In the past decade, the number of billionaires worldwide has doubled and half of them reside in countries without inheritance taxes, allowing the concentration of wealth to persist across generations.

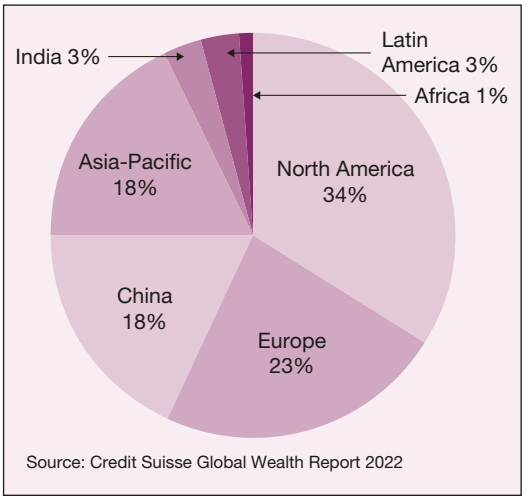


Figure 3.4 – Global distribution of wealth

reviewquestions

1. Explain why real GNI per capita (PPP) is used to measure income levels in the global economy.
2. Identify THREE economic regions that have low-income or middle-income levels, and state their level of GNI per capita (PPP).
3. Discuss what statistics on income levels in economies reveal about the level of inequality in the global economy.

Economic development is a broad measure of welfare in a nation that includes indicators of health, education and environmental quality, as well as material living standards.

Human Development Index (HDI) is a measure of economic development devised by the United Nations Development Programme. It takes into account life expectancy at birth, levels of educational attainment and material living standards (as measured by Gross National Income per capita).

3.3 Differences in economic development

It is important to look beyond simple measures of income and economic growth to assess the differences in living standards in the global economy. **Economic development** is a broader concept than economic growth. It attempts to measure improvements in wellbeing or welfare, rather than simply how much extra money people have. Higher incomes play a crucial role in improving wellbeing, especially for those living in poverty. However, development also takes into account other **quality-of-life indicators,** such as health standards, education levels, domestic work that is not given a financial value, the level of damage to the environment and inequalities in income distribution.

Human Development Index

A number of indicators have been developed to compensate for the limitations of economic growth measurements. The main alternative measure to GNI is the **Human Development Index (HDI)**, devised by the United Nations Development Programme (UNDP) to measure economic development. It takes into account:

- **Life expectancy at birth**. This is indicative of the health and nutrition standards in a country. High levels of longevity are critical for a country's economic and social wellbeing.
- **Levels of educational attainment**. Education is important for the development of the skills of the workforce and the future development potential of an economy. The HDI measures the average number of years for which adults aged 25 attended school and the expected years of total school attendance for school-age children.
- **Gross National Income per capita**. This measures the sum of gross value added by all resident producers in the economy, plus income from foreign sources on a purchasing power parity basis. This is used as a measure of a decent standard of living and is an essential determinant of the access that people have to goods and services.

The HDI is a score between 0 for nations with no human development and 1 for maximum human development. The 2021–22 Human Development Report gave Switzerland the highest HDI at 0.962 and South Sudan the lowest at 0.385. Australia ranked fifth after Switzerland, Norway, Iceland and Hong Kong with an HDI of 0.951. In both 2020 and 2021, the global HDI declined - the only recorded declines since records began, reflecting a reduction in life expectancy due to COVID-19. Two consecutive years of HDI decline in 2020 and 2021 erased the gains of the preceding five years.

Comparing HDI and GDP statistics reveals the differences between growth and development across the globe. The comparisons highlight the importance of a broader measure of welfare than just GDP figures.

In making these comparisons, it is important to emphasise that economic growth is still crucial for high levels of development – as illustrated by countries such as Norway, which have very high rates of both per capita income and human development.

Country	GNI per capita (2017 PPP, US$)	Human Development Index value	HDI ranking	Country	GNI per capita (2017 PPP, US$)	Human Development Index value	HDI ranking
Very high human development				**Medium human development**			
Switzerland	66,933	0.962	1	Morocco	7303	0.683	123
Norway	64,660	0.961	2	India	6590	0.633	132
Australia	49,238	0.951	5	Kenya	4474	0.575	152
United Arab Emirates	62,574	0.911	26	Solomon Islands	2482	0.564	155
Malaysia	26,658	0.803	62	Papua New Guinea	4009	0.558	156
High human development				**Low human development**			
China	17,504	0.768	79	Nigeria	4790	0.535	163
Cuba	7879	0.764	83	Ethiopia	2361	0.498	175
Mexico	17,896	0.758	86	Afghanistan	1824	0.478	180
Brazil	14,370	0.754	87	Yemen	1314	0.455	183
Indonesia	11,466	0.705	114	Chad	1364	0.394	190

Source: UNDP Human Development Report 2021–22, World Bank Data 2023

Figure 3.5 – Comparison of GNI per capita and the Human Development Index

In some cases, countries had similar HDI levels but very different income levels. This suggests that in some countries the benefits of income are not well distributed as a result of their high levels of inequality. For example, the United Arab Emirates has a much higher income level than Australia but ranks lower in its HDI value. Australia has a GNI per capita of US$49,238, while the United Arab Emirates has a GNI per capita of US$62,574. Similarly, Cuba and Morocco have income levels around US$8,000, yet Cuba has a HDI rank of 83, while Morocco is 40 places lower at 123.

THE GLOBAL GOALS

In September 2015 in New York, world leaders agreed to 17 new Global Goals, or Sustainable Development Goals (SDGs). The SDGs promote 15-year targets aimed at tackling poverty with a renewed focus on sustainability issues such as climate change, ecology and biodiversity, consumption and production, food security, energy provision and infrastructure. The goals listed below are supported by nearly 170 individual targets, to be achieved by 2030.

17 Sustainable Development Goals	
Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote wellbeing for all at all ages
Goal 4	Ensure inclusive and equitable-quality education, and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources
Goal 15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthen the means of implementation and revitalise the global partnership for sustainable development

Source: United Nations Sustainable Development Goals Report 2017

The SDGs were developed based on the previous Millennium Development Goals (MDGs) that were in place between 1990 and 2015. At the end of that period, some goals were achieved such as reducing extreme poverty, but progress was stronger in some Asian regions, particularly China, and weaker in others, such as Sub-Saharan Africa. Progress was also made in other areas, such as child mortality and improving access to safe water. However, many other targets were not met, including achieving universal primary education, eliminating gender disparity in education, and reducing maternal mortality by three-quarters.

At the halfway point to 2030, the UN Independent Group of Scientists reported that the world was not on track to meet the SDGs. While UNCTAD dedicated funds to achieve the SDGs, other factors worked against achieving the goals. COVID-19 saw a further 80 million people live in extreme poverty and 100 million children fall below minimum reading proficiency levels. Violent conflicts – the greatest number since 1945 – caused food and refugee crises. Rising interest rates further reduced the capacity of many highly indebted developing nations to spend on programs that might address the SDGs.

reviewquestions

1. Explain the difference between economic growth and economic development and discuss their relationship in the global economy.
2. Outline how the Human Development Index is calculated and assess its adequacy as a measure of economic development.

3.4 Categories of development in the global economy

In examining economic data on living standards and development, we have referred to descriptions of high-income, middle-income and lower-income economies. In this section, we examine these distinctions in greater detail, and consider the use of other categorisations such as advanced, developing and emerging economies.

Countries are generally categorised into groups because they tend to confront similar issues according to their stage of economic development. The main categories that economists use are:

- **Advanced economies:** These countries have high levels of economic development, close economic ties with each other and liberal-democratic political/economic institutions. The 41 advanced economies identified by the International Monetary Fund (IMF) make up most of the high-income economies in the world (the others are very small nations) and comprise most of the members of the Organisation for Economic Co-operation and Development (OECD). High-income countries have Gross National Income per capita levels (PPP) above US$13,205 and are mostly found in North America and Western Europe, with a smaller number in the Asia-Pacific (such as Australia and New Zealand) and in the Latin American and Caribbean regions.
- **Developing economies**: These countries generally have low income levels, human resources with poorer education and health outcomes, and have only experienced industrialisation to a limited extent. The major consequence is that developing nations have large numbers of people living in absolute poverty (defined as less than $2.15 per day in 2017 US dollars PPP), as shown in figure 3.6. Developing countries are often divided into the two groups of low-income and middle-income countries.

Developing economies experience low living standards, low education levels and generally have agriculture-based economies with poor infrastructure and economic and political institutions.

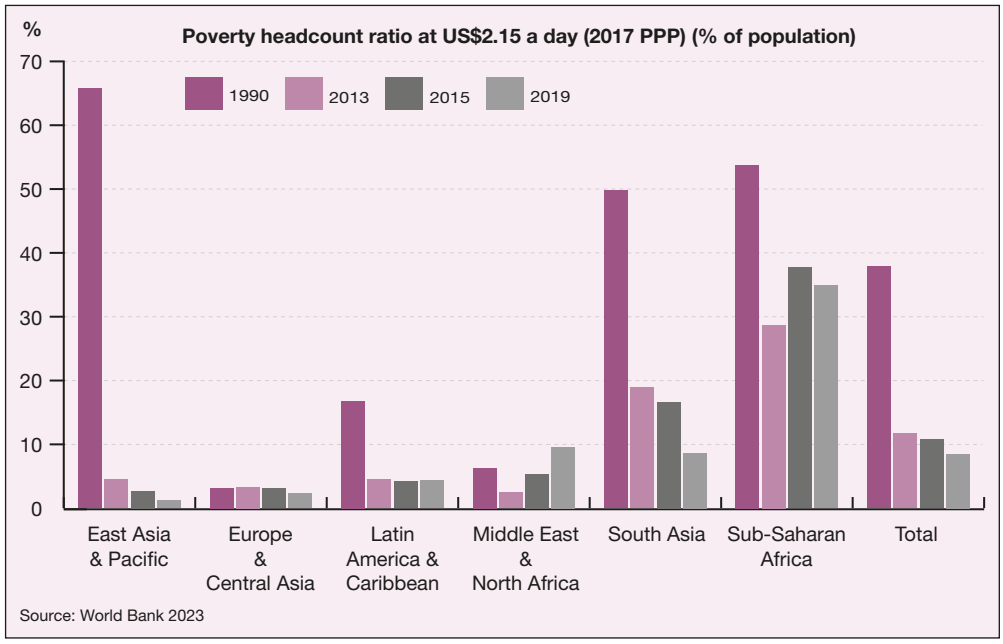


Figure 3.6 – Proportion of people in absolute poverty throughout the global economy

While there are significant differences between developing countries, some common characteristics may include:

- high levels of income inequality within their economies
- dependence on agricultural production for income, employment and trade opportunities

- reliance on foreign aid and development assistance as a major source of income
- low levels of labour productivity, industrialisation, technological innovation and infrastructure development
- weak political and economic institutions and a high prevalence of corruption.

The United Nations Conference on Trade and Development (UNCTAD) has also identified a subgroup of the 46 **least developed countries (LDCs),** with the lowest GNI per capita levels in the world (less than US$1081 per year); weak human assets (based on health and education indicators); and high economic vulnerability (based on economic structure, size and exposure to shocks). Thirty-three of the 46 LDCs are located in Sub-Saharan Africa, highlighting what is sometimes called the "Africanisation" of poverty. As figure 3.6 shows, rapid and significant reductions in poverty have occurred in all regions (particularly in East and South Asia) except Africa.

Emerging economies are in the process of industrialisation and experiencing sustained high levels of economic growth.

Another classification for economies is **emerging economies**. These economies are in the process of industrialisation or modernisation and are experiencing sustained high levels of economic growth. This classification includes a range of economies that are neither high income, nor share the traditional characteristics of developing economies. They include the economies previously known as newly industrialised economies (such as Malaysia and the Philippines), economies previously known as transition economies, which were making the transition from socialist economies (such as China and Hungary), and developing economies with improved prospects (such as India and Indonesia).

Type of economy	Income levels	Economic growth	Structure of economy	Examples
Advanced	High income levels with GNI per capita above US$13,205	Slower growth in recent decades	Large service industries and advanced manufacturing	Singapore Portugal Czech Republic
Developing	Low income levels with around half of population in absolute poverty	Moderate growth rates but population growth also high	Heavily reliant on agriculture and (in more extreme cases) foreign aid	Madagascar Yemen Myanmar
Emerging	Income levels vary, but what these economies have in common is fast growth in income levels	Strongest growth rates in the world (5–10 per cent) and favourable prospects	Industrialising usually with substantial manufacturing sectors	China Brazil Indonesia

It is important to acknowledge the limitations of classifications systems. Classifications are very broad and can group dissimilar economies together. For example, Brazil and Indonesia might both be considered emerging economies, but they have very different living standards. Likewise, some economies do not fit neatly into one of these three categories. Bulgaria is much better off than a developing economy, yet it is not quite an advanced economy or an emerging economy. Despite these limitations, classifying economies is still an important step towards understanding the reasons for economic inequalities between nations.

reviewquestions

1 Summarise the main categories of development and the typical features for each classification.

2 List FOUR economies that have the characteristics of each of the main categories of development.

3.5 Causes of inequality in the global economy

Understanding the reasons for differences in levels of development between nations has been a central issue of economic debate for over half a century. During the globalisation era, differences in living standards between rich and poor countries have come into sharper focus because of the increased interaction between the more prosperous and less prosperous regions of the world.

The severe and widening extent of inequalities between economies raises fundamental questions. Why have some economies succeeded in achieving rapid industrialisation and economic development while others have achieved little or no progress in reducing poverty? What factors explain this growing divergence of income, health and education outcomes between and across economies?

Such issues are the domain of **development economics**, which attempts to identify and enable the conditions required for sustainable economic growth and development. By comparing the characteristics of high-income and developing economies, development economics highlights the specific problems faced by poor countries, such as high rates of population growth, low levels of skills development, weak legal and financial institutions, and endemic corruption.

In an era of increased integration between economies, it is important to also understand how the relationships between nations, the overall structure of the global economy and the roles of international organisations influence global inequalities. These global factors are set out below, alongside the domestic factors that contribute to low levels of development.

Global factors

Many features of the global economy and the process of globalisation contribute to the inequalities between countries. Although globalisation also creates opportunities for economic growth and development, some aspects of the global economy appear to entrench rather than reduce global inequalities.

Global trade system

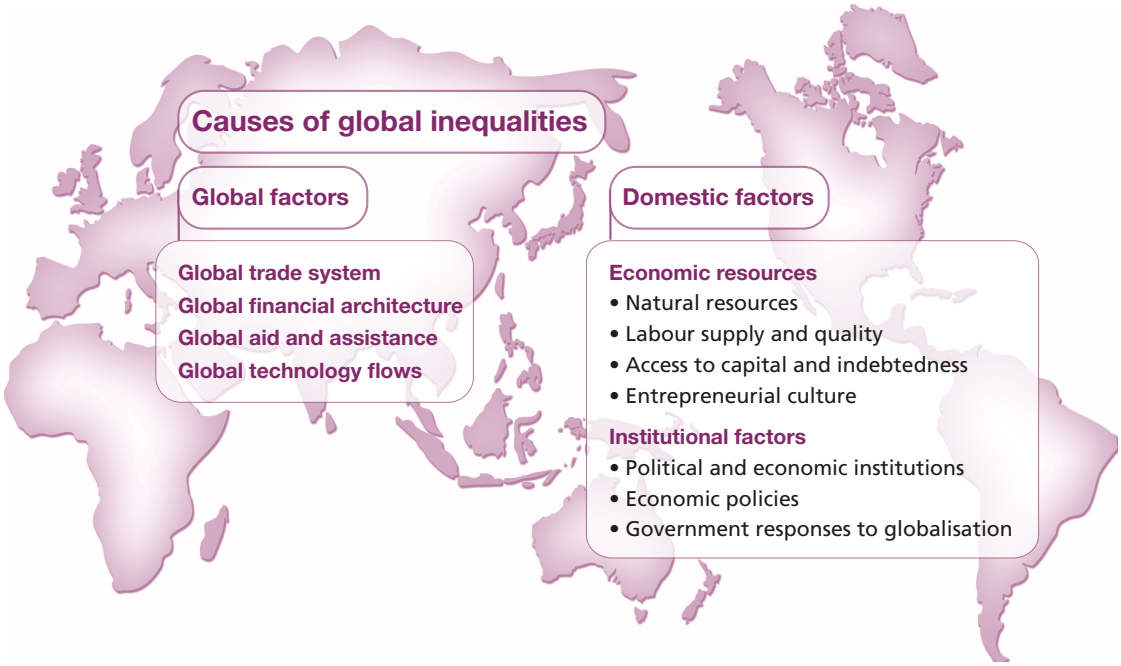
Several features of the global trade system work to reinforce rather than reduce global inequalities:

- Wealthy countries protect their domestic agricultural sector because it is not competitive with agricultural producers in many developing nations. Developing countries that export commodities are severely affected by high levels of global **protectionism in the agricultural sector**. While total agricultural support to producers in OECD has fallen by almost half since the mid-1980s, it remained high at US$245 billion in 2021, providing 18 per cent of income for farmers in rich economies in the European Union and double that in economies such as Japan and Korea.
- **Regional trading blocs** such as the European Union and United States–Mexico–Canada Agreement (USMCA) can exclude poorer nations from gaining access to lucrative global consumer markets. Exclusion from trade opportunities has an enormous impact on poor countries because bilateral agreements are rarely as comprehensive as regional trading blocs.
- The World Trade Organization's **Doha Round** of trade negotiations in the early 2000s was promoted as the "development round" because of its focus on trade reforms to benefit poorer nations. A major reason for its failure was that high-income nations resisted making concessions on the issues that would provide the greatest benefit to developing countries. Recent WTO negotiations have focused on much more



For further information on global aid issues, visit the website of non-government aid and advocacy organisation Oxfam International **www.oxfam.org**

Using this website, outline some of the recent policy proposals of Oxfam to address global poverty.



limited reforms to expand tariff-free access for exports from the least-developed countries, leaving more ambitious reforms to future negotiations.

- The benefits of free trade agreements are often not accessible to developing nations because of the substantial cost in implementing international agreements and lodging appeals against other countries' protectionist measures. Economists at the World Bank have concluded that a 1 per cent increase in administrative costs associated with trade would decrease gross world product by US$75 billion. The complexity of many trade agreements further tilts the benefits of the global trade system towards richer countries and can entrench rather than reduce global inequalities.

Global financial architecture

Although deregulated global financial markets and the global financial system are intended to create development opportunities by enabling the free flow of funds around the world, the global financial system can also entrench global inequalities:

- Historically, long-term international flows of investment heavily favoured developed countries. This has changed since the 2000s, with developing economies receiving around half of global foreign direct investment (FDI) flows. However, faster-growing emerging economies and developing economies – such as China, Brazil, India and Russia – have benefited the most. In contrast, the world's 46 least developed countries held just 1.2 per cent of the global stock of inward FDI in 2021.
- Short-term financial inflows heavily favour the more prosperous emerging economies, which offer better financial returns for currency and stock market speculators. However, as a result, these regions are exposed to **economic volatility** as witnessed by the dramatic financial crises of East Asia in the late 1990s and of Latin America in the early 2000s. When those kind of crises occur, they can set back economic development for years while global financial market speculators simply move on to invest in other countries. On the other hand, financial liberalisation can be an important corollary of trade liberalisation. A 2019 IMF research report found that low-income countries that had stronger banking sectors were better able to manage when sudden changes in their terms of trade caused volatility in their export earnings.
- International financial rules have not kept pace with the globalisation of the economy and in some areas have tolerated loopholes that contribute to large flows

of income or wealth to those who already hold substantial wealth. According to the OECD, corporate tax avoidance cost countries up to US$240 billion in corporate tax revenue each year, with developing countries suffering disproportionately. In 2023, over 135 countries and jurisdictions were implementing a global plan to reduce tax avoidance by transnational corporations.

- The role of the IMF, the international organisation that oversees the global financial system, has been under greater scrutiny in recent years, in particular because of its impact on developing countries. The major criticism of the IMF is that the "structural adjustment" policies it advocates serve the interests of rich countries and may not be appropriate to the conditions of many developing countries. Acknowledging this concern, the IMF includes sustainable development prominently in its mandate. Since 2001, an Independent Evaluation Office (IEO) has undertaken reviews of the IMF's activities, at arm's length from management and the board. A 2023 review of the IMF's response to the COVID-19 pandemic found that it "deserves great credit for its effective and agile response to provide early financial support to a broad range of members at a time of urgent need and high uncertainty." Nevertheless, the same review found the IMF's guidance to countries on fiscal policy may have encouraged too much spending. Some countries such as Belarus, Iran, Zambia and Nicaragua did not receive funding or it was delayed because of concerns about health or economic policies, giving rise to a perception that the IMF did not treat all countries equally.
- Many developing countries have **large foreign debt burdens**. Total external debt for low- and middle-income economies was estimated at US$9.3 trillion in 2021, an increase of 8 per cent since 2020, according to the World Bank's International Debt Statistics. Interest repayments on these past loans reduce the income available for governments to promote growth and development through spending on education, health care and infrastructure. As a result, many developing countries spend more on debt servicing than public health. Prior to the onset of the COVID-19 pandemic, rising public debt levels and heightened debt vulnerabilities were already a cause for concern. This prompted the launch of debt relief initiatives for developing countries, most notably the Debt Service Suspension Initiative (DSSI).

Global aid and assistance

The relatively small-scale efforts made by developed countries to address the problem of global inequalities are insufficient to overcome the large differences in living standards:

- The total level of development aid provided by high-income economies reached an all-time high of US$204 billion, or 0.36 per cent of Gross National Income, in 2022. However, this was still only half the level promised by high-income economies since the 1970s (0.7 per cent of GNI). The OECD Development Assistance Committee found that only five of its member countries met or exceeded the 0.7 per cent UN target in 2021. The recent boost to aid gave priority to settling refugees in new countries (14 per cent) and supporting Ukraine during the war (8 per cent).
- Critics of the aid policies of developed countries argue that a significant proportion of official development assistance is "phantom aid" – that is, aid funds that do not improve the lives of the poor. According to the OECD, almost one in every six dollars of foreign aid is "technical cooperation", which is often paid to consultants in donor countries. Another 11 per cent of aid is debt-related, such as for relieving or refinancing past loans, which does not contribute to new development. A further 5 per cent of the foreign aid budget is spent on administration. These disbursements reduce the amount available for development projects and humanitarian relief. Additionally, these figures do not reveal the proportion of aid that is "tied aid" – that is, aid that must be spent on overpriced or unnecessary goods and services that are produced by the donor country. For example, when the United States provides food support to very poor countries, it sometimes buys American crops and ships

them all the way to countries in Africa, at a far greater expense than buying those crops in the local region. A 2021 study by the European Network on Debt and Development found that the OECD Development Assistance Committee reported one in every five dollars of bilateral and EU aid was tied aid.

- Another limitation of foreign aid is that if it is granted without appropriate governance mechanisms, or not targeted to developing domestic industries, it may be wasted or have perverse impacts. For example, a former World Bank consultant, Dambia Moyo, argued that a significant amount of aid to African countries historically was misused and contributed to violent conflicts, while poverty levels increased.
- The distribution of aid by high-income countries often reflects strategic and military considerations rather than the needs of the world's poorest countries. The *Quality of Official Development Assistance* report, published by the Center for Global Development in Washington D.C., assesses the quality of aid on 10 criteria. It has consistently found that multilateral aid agencies are more effective than individual countries who provide bilateral aid. Australia ranked 21st out of 49 in the 2021 QuODA table.
- While multilateral development aid (distributed by the World Bank, IMF and United Nations) is better targeted at the world's poorest countries, it is less than one-third of the value of total development assistance from the Development Assistance Committee members. One recent initiative is the Aid for Trade program, established by the WTO to assist developing countries in overcoming the structural difficulties that limit their ability to successfully trade out of low economic development.

Global technology flows

Technology has the capacity to contribute to closing the gaps in living standards, but it can also entrench inequalities. New technologies can be adopted much more quickly in economies that have better infrastructure, higher levels of education and that already have high penetration rates of related technologies such as broadband infrastructure. In 2022, the International Telecommunications Union estimated that around one-third of the world's population did not use the internet, and 95 per cent of those without it lived in developing economies. This means that these businesses and consumers have limited access to online opportunities to sell and purchase goods and services, which is a rapidly expanding market, and reinforcing economic isolation from the digitally connected and developed world. As the world became increasingly reliant on digital technology during the COVID-19 pandemic, the gaps in developing countries' access to these technologies (termed the "digital divide") became even more important.

New technologies are also largely geared to the needs of high-income countries because they choose the priority areas of scientific research. Much of this technology – like labour-saving devices and pharmaceuticals that deal with the health problems of ageing people in advanced economies – is of little benefit to poorer nations that have abundant labour supplies, a young population whose main health risks are common infectious diseases, and limited capital resources. For example, around 10 per cent of the global population (approximately 750 million people) did not have access to electricity in 2020, according to the World Bank.

Developing nations also find it difficult to gain access to new technologies. Intellectual property rights restrict the benefits of technological transfer to poorer countries because they cannot pay developed country prices for those technologies. The Agreement on Traded Related Aspects of Intellectual Property Rights (TRIPS), for example, has been criticised for requiring all countries to implement complex intellectual property regimes that are difficult to implement for developing economies. This issue came to light during the COVID-19 pandemic when, in early 2021, developing economies brought a case to the

World Trade Organization (WTO) arguing that the intellectual property underpinning COVID-19 vaccines be released for free. This case was opposed by the governments of several high-income nations with large pharmaceutical industries.

Domestic factors

Economic resources

The simplest explanations for contrasts in levels of development focus on the difficulties most economies face in acquiring and maintaining sufficient resources for the production process – namely natural resources, labour, capital and entrepreneurship.

Natural resources include all the resources provided by nature that are used in the production process. These are often simply referred to as "land". The reward (return) to the owners of natural resources is called "rent".

- **Natural resources**: Natural resources are important inputs for production, such as non-renewable or renewable energy supplies, fertile agricultural land, water supplies and minerals. Economies that have an abundant and reliable supply of cheap natural resources clearly have better opportunities for economic development than those that do not, even if some have been spectacularly unsuccessful in using these opportunities. Oil-rich countries in the Middle East, Africa and Latin America have achieved higher growth rates than their neighbours largely as a result of their exploitation of natural resources. But an abundance of natural resources can also hamper a country's economic development if it leads to an overvalued exchange rate, a narrow export base and an over-reliance on a small number of industries to drive economic growth. Countries that rely on natural resource exports are also exposed to downturns in commodity prices, which can result in sudden falls in national income.
- **Labour supply and quality**: Labour is an input to the production process for many sectors of the economy and therefore influences development levels. Whereas high-income countries tend to have highly educated and skilled labour resources, low-income nations are characterised by high population growth, lower levels of educational attainment and low health standards that result in lower productivity levels. In Singapore, for example, a strong commitment to creating a highly educated workforce has played a central role in the development of a sophisticated service-based economy. In South Africa, by contrast, the quality of the labour supply is diminished by inadequate education facilities and high rates of HIV/AIDS, which affects nearly one in five South Africans aged 15 to 49 years and reduces workforce participation and productivity. Barriers to girls' access to education in many developing countries also contribute to lower productivity and workforce participation.
- **Access to capital and technology**: Difficulty in gaining access to capital for investment and development contributes to lower rates of economic growth and lower living standards. Low income levels provide little opportunity for savings that can be used for investment. Poorly developed financial systems make it difficult for businesses to gain easy access to loans for investment purposes. To improve access to finance, microfinance organisations in many developing economies provide small loans to help the poorest people in the world manage their farms or start a business. Additionally, with small research organisations and limited funds for business innovation, developing countries have fewer opportunities to develop new technologies or to pay for the patents to use technologies developed in other countries.
- **Entrepreneurial culture**: While it is difficult to quantify differences in culture between economies and how this can impact upon economic performance, evidence suggests that a country's history and social institutions can impact on its economic success. In particular, strong civil society institutions, cultural disapproval of corruption, respect for the rule of law and aspirations towards work, enterprise and personal responsibility can support economic growth and development.

- **High levels of inequality:** Large gaps in the distribution of income and wealth are a common characteristic of developing countries, and especially of countries with high concentrations of poverty. Oxford University's Poverty and Human Development Initiative has found that two-thirds of the world's poorest billion people live not in the poorest countries, but in middle-income countries. High levels of wealth concentration tend to lead to lower rates of economic growth and development. We need to examine both differences in living standards within countries and between countries if we are to understand the overall differences in living standards across the global economy.

Institutional factors

Institutional factors – ranging from political stability, legal structures, central bank independence, extent of corruption, strength of social institutions and the government's domestic and external economic policies – can affect the ability of a nation to achieve economic development.

VIEWPOINT GLOBALISATION

View on globalisation

Globalisation – Where to from here?

"Globalization was meant to bring the world closer together, enmeshing advanced and developing economies in a web of mutually beneficial economic and financial linkages. From about the mid-1980s, trade and financial flows between countries expanded rapidly as governments dismantled barriers to these flows.

Not everything went according to plan. Tensions rose as the benefits were not equally shared within or among countries. Widening economic inequality, often attributed to free trade, roiled many advanced economies and has had far-reaching political consequences. While they benefited from access to foreign markets for their exports, many emerging market countries were ravaged by volatile capital flows and the fickleness of international investors. Still, there was a broad consensus that shared economic interests would ultimately triumph and even help smooth over geopolitical frictions.

…

Foreign direct investment (FDI) flows have tended to follow trade, with corporations setting up operations abroad and investing in manufacturers as well as suppliers of various kinds of inputs, including raw materials and intermediate goods.

…

Emerging market countries benefited from globalization in multiple ways. They were able to expand markets for their products beyond their national borders, allowing them to build strong manufacturing sectors and robust middle classes

…

Globalization is not dead, but it has clearly taken a turn toward fragmentation along geopolitical lines, which could have important economic consequences for all countries.

…

For emerging market economies not politically aligned with advanced economies, lower trade and financial flows will mean fewer technology and knowledge transfers, hindering their path to development."

– Eswar Prasad
Professor of Trade Policy, Cornell University
"The World Will Regret Its Retreat From Globalization"
The Economist*, 24 March 2023*

- **Political and economic institutions**: Institutional factors in individual countries can have a dramatic influence on the economic environment for businesses, investors and consumers, and thus have implications for a nation's level of economic development. Countries with high levels of institutional fragility or violent conflict will usually have lower levels of economic development. For example, it has been forecast that by 2030, 85 per cent of those in extreme poverty will live in countries with "fragile and conflict-affected situations". Today, there are 2 billion people, or roughly a quarter of humanity, living in conflict-affected areas. Political instability, corruption and a lack of law enforcement by government agencies can also undermine the confidence of investors, who will be reluctant to take risks if their business interests are threatened by an inadequate structure for resolving legal disputes, corruption or other institutional problems. The impacts of weak political institutions on economic development are difficult to quantify. One attempt to do so is the Corruption Perception Index, compiled each year by Transparency International. The Corruption Perception Index is a score between 0 for countries with a relatively high level of corruption and 100 for countries with a relatively low level of corruption. Figure 3.7 shows that developed economies have, in general, lower levels of corruption than developing and emerging economies.

Country rank	Country	Corruption Perception Index (0–100)
1	Denmark	90
2	Finland, New Zealand	87
4	Norway	84
7	Switzerland	82
13	Australia	75
24	United States of America	69
65	China	44
85	India	40
94	Brazil	38
137	Russia	28
171	Korea (North)	17
180	Somalia	12

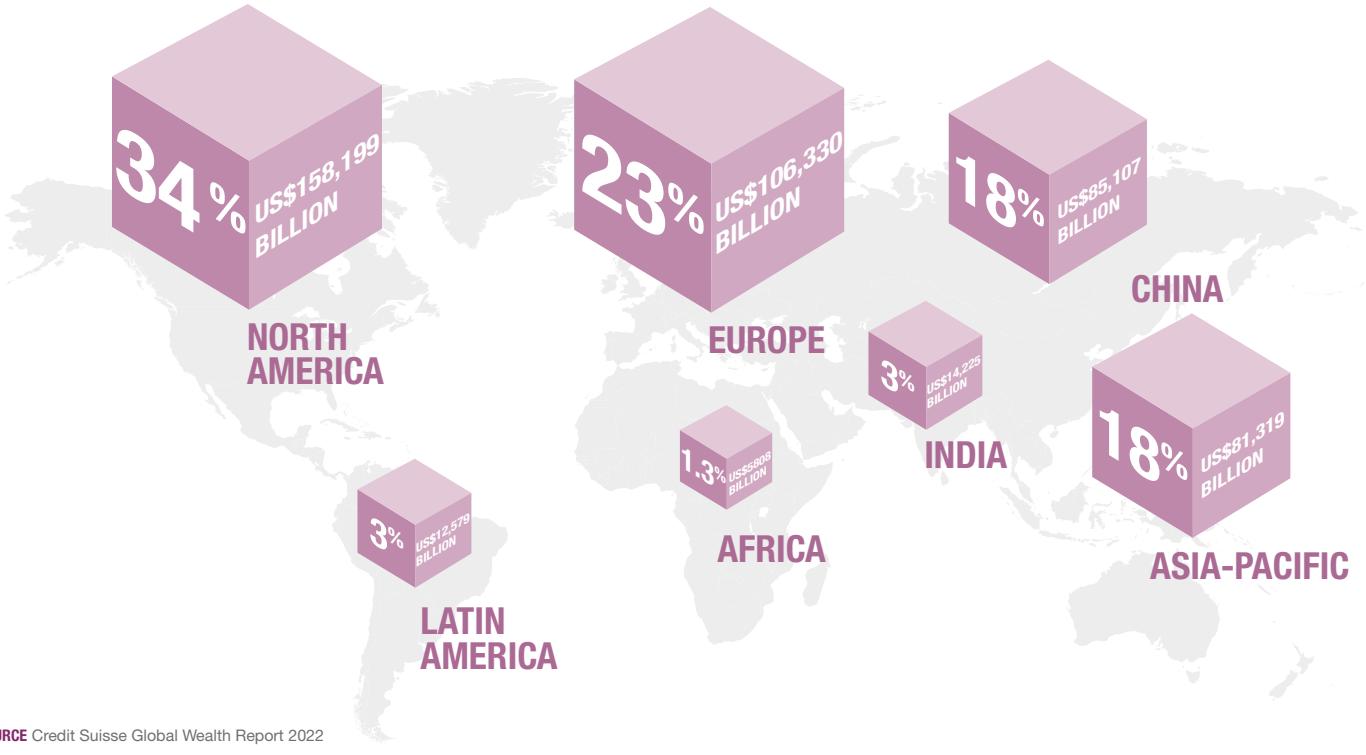
Source: Corruption Perception Index 2022

Figure 3.7 – Corruption Perception Index, selected countries 2022

- **Cultural factors:** are often reflected in legal structures and institutions, and can influence a country's economic development. For example, gender inequality can

DISTRIBUTION OF THE WORLD'S WEALTH

Over 90 per cent of the world's US$463 trillion in wealth is held by individuals in Europe, North America and in Asia-Pacific countries like China, Japan and Australia. By contrast, people in Latin America, India and Africa hold only small shares of global wealth. Wealth is distributed more unevenly than income throughout the global economy.



SOURCE Credit Suisse Global Wealth Report 2022

contribute to lower employment levels, lower productivity and weaker social development. Cultural factors can also lead to 'horizontal inequalities' that hinder development within a nation. Gender inequality is one of the most widespread horizontal inequalities, with discriminatory laws leading to lower employment, economic productivity and social development. World Bank research published in 2022 found that the mortality ratio of women to men is 2.3 per cent lower in countries with legislation outlawing domestic violence. This has significant economic impacts. In Tanzania, those who are subjected to abuse experience 60 per cent lower lifetime earnings. The *Women, Business and the Law 2023* report concluded that, globally, women still have only three-quarters of the economic rights that men have. Further, only 34 reforms relating to women's rights were passed in 2022, the lowest in 20 years. This makes women more vulnerable to impacts of crises such as the COVID-19 pandemic, which increased the number of women in extreme poverty by 47 million.

- **Economic policies**: Government economic policies can have a substantial impact on development, in particular how governments balance the roles of market forces and government intervention in the economy. If all major decisions are left to market forces, a country may achieve a high level of economic growth, but it may not improve education, health care and quality of life. On the other hand, excessive government control over economic decision making can constrain entrepreneurship and innovation, reducing economic growth. Countries with the highest levels of human development, such as Switzerland and Australia, typically have both a strong market economy and significant government investment in human development. By contrast, when they were under communist rule between the Second World War and 1989, with a command economy rather than a market economy, Latvia and Poland experienced slower growth in development. A widely cited IMF paper, *Income Inequality and Fiscal Policy,* found that a major reason for higher inequality in Latin America compared with European economies was that developing economy governments are less able to reduce inequality because they have less comprehensive tax systems and public services. A 2022 paper from the Bank for International Settlements found that inequality increases faster and more persistently following recessions. A boom/bust cycle can impede long-term economic growth and increase inequality. On average, inequality is still higher five years after a recession when compared to pre-recession levels.
- **Government responses to globalisation**: Government responses to globalisation can have a substantial influence on a nation's ability to achieve economic development. Policies relating to trade, financial flows, investment flows, transnational corporations and the country's participation in regional and global economic organisations will influence an economy's ability to take advantage of the benefits of integration, such as economic restructuring, efficiency, access to foreign capital and technology and access to overseas goods markets. For example, East Asian economies that have been most open to trade and foreign investment have experienced the strongest rates of economic growth in recent decades. The role of government policy via responses to globalisation in influencing economic performance is discussed in both case studies after this chapter.

reviewquestions

1 Assess the extent to which global and domestic factors cause inequality in the global economy.

2 Discuss the extent to which globalisation may increase or reduce the extent of inequality in the global economy.

3.6 The impact of globalisation

In this section, we address one of the most important questions of modern economics: what is the impact of globalisation on individual economies and the world as a whole? We look at how the forces of globalisation have affected economic growth and development, changed production processes, influenced the gap between rich and poor, and impacted on the natural environment. While the overall impact of globalisation is to foster improved economic outcomes, we also note some of the downsides to greater economic integration.

Economic growth and development

Globalisation has affected countries in different ways. Developing economies have greater opportunities to grow by producing goods for global consumer markets and can also benefit from greater access to new technologies and foreign investment. High-income economies, especially through transnational corporations, have found growth opportunities in global supply chains and new global service markets. Nevertheless many economies have not gained as much as might be expected from globalisation, and greater economic integration has caused disruptive structural changes in some regions. Moreover, the relatively free movement of people, goods and data across national borders also increases risks – from cybercrime and the hacking of computer networks to disinformation on social media and the spread of pandemics such as COVID-19.

Overall, there is evidence that globalisation has produced an acceleration of economic growth, though the effect has been distributed unevenly across geographical regions. As the world economy has become more integrated over recent decades, global real GDP growth has increased from 3.1 per cent per year during the 1980s and 1990s to 3.8 per cent from 2000 until the onset of the COVID-19 pandemic in 2020.

In recent decades, the fastest-growing economies have been emerging economies such as China and India, while the slowest-growing economies have been the advanced economies. Since 1990, a group of emerging and developing economies have been "catching up" to advanced economies, although this is not the case for many, especially when we assess per capita incomes.

- The **East Asia and Pacific** region (excluding high-income countries) has been the fastest-growing region in the world (8.7 per cent per year on average across the 1990s and 2000s, though it fell to 7.3 per cent during the 2010s). In particular, strong growth in China during this period (10.4 per cent in the 2000s, falling to 7.7 per cent in the 2010s) demonstrates the role of industrialisation and globalisation in economic growth. The region grew by 7.2 per cent overall in 2021, but this reflected much stronger growth of 8.1 per cent in China, while the rest of the region averaged growth of only 2.6 per cent. Growth was forecast to be around 4.6 per cent in 2022.
- Economies in **South Asia** also experienced successful growth, averaging 5.7 per cent since 2000, particularly with India sustaining growth after its steps towards greater integration with the global economy (6 per cent) and Bangladesh (6 per cent). South Asia contracted by 5 per cent in 2020 and rebounded by 8 per cent in 2021.
- The former socialist economies of eastern **Europe and Central Asia**, which grew by 5.1 per cent in the 2000s, and 3.1 per cent in the 2010s, made a generally successful transition to becoming market economies after experiencing a severe contraction in their economies during the 1990s (–0.9 per cent) because of the difficult process of transition. Output in the region grew by less than 1 per cent in 2022 because of the impact of the war in Ukraine.
- The **Middle East and North Africa** experienced strong economic growth (4.4 per cent) throughout the 1990s and 2000s, including in Egypt (4.7 per cent) and

Saudi Arabia (3.6 per cent). Higher growth in the Middle East and North Africa compared with the 1980s (0.1 per cent) was underpinned by higher prices for energy resources during the globalisation era, although it did not resolve the very high levels of inequality in many economies in the region. However, political instability and a decline in oil prices has seen growth averaging only 2 per cent since 2011.

- **Sub-Saharan Africa** recorded an average growth rate of 4 per cent from 2000 to 2021, with strong growth in Ethiopia (8.7 per cent), Mozambique (6 per cent) and Nigeria (5.2 per cent). However, other African countries have been less successful, including Sudan and the Central African Republic, having growth rates so low that they are experiencing very little improvement in living standards.
- **Latin American** economies experienced strong annual growth in the first decade of the 2000s (3.1 per cent), improving from the 2.4 per cent average of the 1980s and 1990s. However, growth fell back to 1 per cent annually in the 2010s, reflecting weaker commodity prices and political instability in some countries in the region. Latin American economies experienced the greatest COVID-19 shock of any region in 2020, contracting by 6.5 per cent.
- **High-income economies** (or advanced economies) grew by just 2.1 per cent on average in the 1991–2021 period, slower than the 3.3 per cent recorded during the 1980s. Over this period, average annual growth rates were 2.4 per cent in the United States, 1.6 per cent in the European Union and only 0.8 per cent in Japan.

The implications of these trends are mixed. On the one hand, the remarkable growth experienced by emerging and developing economies that have embraced international trade, foreign investment and the participation of transnational corporations may indicate that globalisation facilitates higher rates of economic growth. For example, sustained economic growth in China and India is linked to policies in both countries that have encouraged increased trade and foreign investment.

On the other hand, the most globally integrated economies are the advanced economies, and they have experienced comparatively weak growth over the past two decades, especially since the global recession of the late 2000s. The 2010s saw a long period of lacklustre growth, despite record low interest rates and very low inflation. High levels of indebtedness constrained governments from using fiscal policy to stimulate growth. Growth rates also weakened in African and Latin American economies. The global

WAR IN UKRAINE – A TRILLION-DOLLAR INFLATIONARY SHOCK

Russia's invasion of Ukraine in February 2022 fundamentally changed the global security environment. According to United Nations figures, in 2023 more than 8 million Ukrainians became refugees due to the conflict. But the consequences of the war in Ukraine go well beyond the security and humanitarian impacts. The war brought about an inflation shock to the global economy, causing a decline in real incomes for 60 per cent of workers across the world.

World output grew 3.4 per cent in 2022, a full percentage point lower than the IMF's pre-war growth forecast. Even before the war, the global economy was struggling with post-COVID-19 supply chain disruptions and inflationary pressures. The war in Ukraine substantially worsened both, creating widespread impacts through soaring commodity prices. The cost of energy rose more sharply than at any time in half a century, with crude oil prices soaring 10 times higher than 2020 levels.

Many western European nations rely on gas from Russia. Russia reduced its supply of gas in the lead up to the war and along with economic sanctions against Russia, the global economy experienced a shock of soaring energy prices and inflation, reaching levels unseen in more than a generation. Food prices also rose sharply, due to the direct effect of disruptions to grain exports from Ukraine and Russia, and the indirect effect of increased cost-push inflation from higher costs of energy, fertilisers and shipping. By the second half of 2022, 323 million people were experiencing severe food insecurity.

The inflation surge also caused central banks across the world to quickly unwind the low interest rate policies implemented during the pandemic. Higher interest rates, in turn, added to the cost of borrowing, with 60 per cent of the poorest countries facing debt distress.

economic contraction resulting from the COVID-19 pandemic and further impacts from the Ukraine war highlighted how more integrated economies are more exposed to the transmission of economic shocks.

While globalisation also has impacts on **economic development** or the wellbeing of individuals and societies, this influence occurs mainly because of the link between globalisation and economic growth. If globalisation lifts economic growth rates in individual economies, it also raises income levels, and provides more resources for education and health care, and for programs to clean up the natural environment. Globalisation can also have negative consequences for development if, while contributing to growth in individual countries, it also caused income inequality to increase and accelerated climate change and environmental damage. The slow global response to climate change is likely to widen the gap between growth and development indicators in coming decades, as countries will need to allocate more resources to addressing accelerating climate change impacts, such as extreme weather events.

Any statistical analysis of the impacts of globalisation during recent decades is inevitably dominated by the rising economic power of China. The rise of China is a major structural change in the global economy that is occurring in parallel to the process of globalisation. Globalisation has also contributed to the extraordinary speed of China's economic development. Trade has been central to China's rapid industrialisation since China's growth has been led by export-oriented manufacturing industries. China's growth is also accelerating the process of globalisation, by deepening trade and financial links among economies. The speed and scale of China's economic expansion dwarfs any other emerging economy.

Trends in the **Human Development Index** (which measures a combination of material living standards, education and health outcomes) show that, since the 1980s, almost all countries have experienced major improvements in economic development. There is little evidence that globalisation, on balance, contributed negatively to economic development. Declines in economic development are restricted to a handful of countries that have experienced upheaval in transition from planned systems (Russia, Moldova and Tajikistan) or serious political turmoil (Zimbabwe, Democratic Republic of Congo and Afghanistan). Figure 3.8 shows the changes in HDI levels for selected countries over the past three decades.

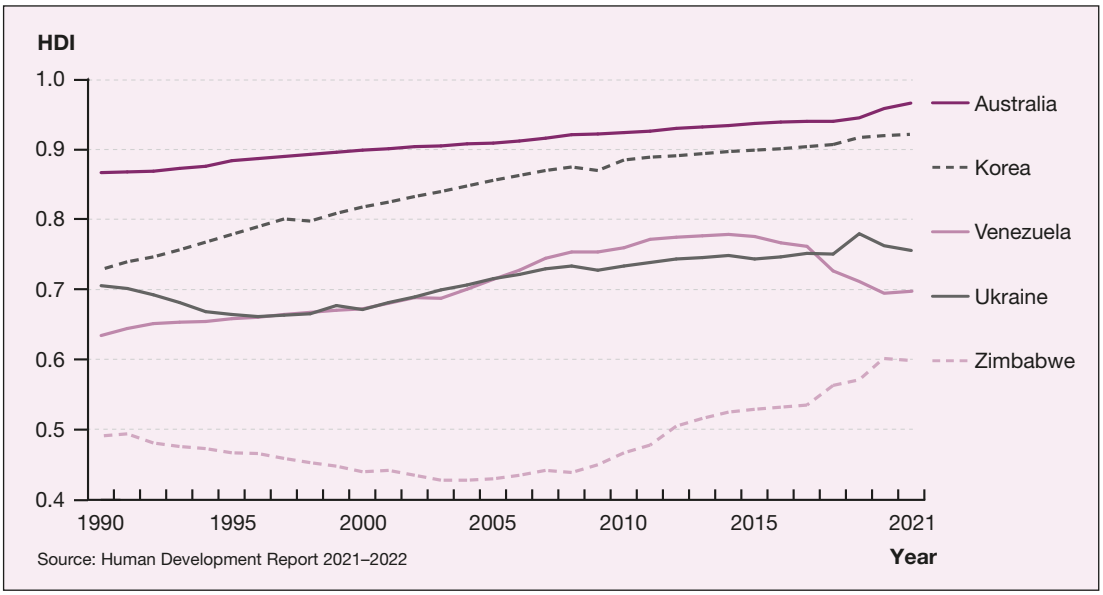


Figure 3.8 – HDI performance of various countries

Income inequality

Globalisation also has impacts on income inequalities within countries because, as trade and financial flows grow, it changes the structure of economies:

- Increased openness to trade provides more export opportunities, which can raise the incomes of "trade-exposed" or agricultural workers in developing countries. Lower tariffs on imports improve standards of living for the poor by reducing the prices of goods. In advanced economies, higher levels of trade may shift employment towards higher-paid services industries, but it may also depress the incomes of workers in import-competing sectors (for example, employees in the American motor vehicle industry have seen their incomes decline as US car producers have sought to compete against cheaper imports from Asia).
- Increased financial flows provide greater employment opportunities and fuel economic growth, but FDI flows also tend to be concentrated in higher skill and higher technology sectors, favouring those who are already better off. IMF research has found that financial globalisation increases income inequality within countries.
- Income inequality has increased in many emerging economies because the global mobility of skilled labour means that highly skilled workers may emigrate to more advanced economies with higher-paying jobs unless they receive higher pay. This contributes to large increases in pay for highly skilled workers, while incomes for other workers grow at a much slower rate.

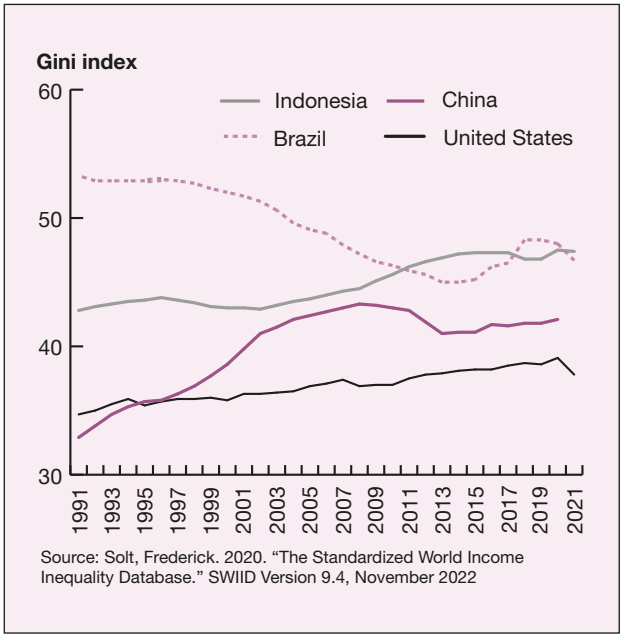


Figure 3.9 – Income inequality in selected countries

According to the IMF, income inequality rose by almost 0.45 per cent per year during the three decades up until the mid-2000s, as measured by the Gini index (a common measure of inequality where a higher number indicates a higher level of inequality). IMF studies have also found that increased inequality reduces economic development. Increases in the share of income for the top 20 per cent of households are associated with a corresponding 8 per cent fall in average growth rates over the following five years. In contrast, an increase in incomes for the lowest 20 per cent of household income leads to a 38 per cent increase in average growth rates over the same medium-term period.

The general trend of rising inequality is evident in figure 3.9. According to the IMF, about one-fifth of the increase in income inequality globally is as a result of globalisation. A major part of this increasing inequality is the impact of technological change which shifts production processes away from low-skilled labour towards higher-skilled jobs. This benefits people with higher levels of education but increases unemployment for less skilled workers.

While COVID-19 impacted advanced economies first, the greatest effects were in emerging economies, whose GDP per capita declined by more than double, 6.7 per cent, in 2020. A 2023 IMF report found that emerging economies suffered the worst impacts due to high employment in face-to-face jobs and low social security transfers.

Trade investment and transnational corporations

Globalisation has resulted in substantial increases in the size of trade flows and foreign investment, reaching a record US$32 trillion in 2022. Because of the key role played by transnational corporations (TNCs) in both trade and investment flows, TNCs are increasingly dominating business activity around the world.

We saw in chapter 1 that international trade in goods and services continues to grow at least at the same rate as the global economy's growth in most years, and is now equal to over half of global output. All regions in the world have experienced this trend, as changes in technology and government policy have fostered trade growth. An important feature of trade growth during the globalisation era is that goods are produced through multiple stages in different economies through global value chains (or **supply chains**) where countries engage in "vertical specialisation", focusing on just one or two parts of the production process.

The different stages of production for consumer goods such as iPhones might see the manufacturing of computer chips, logic boards, camera parts, screen casings and the final assembly occurring in different countries. Figure 3.10 demonstrates how the globalisation of production processes means there could be many international trade transactions rather than just the export of a finished iPhone from one country to another. Apple's organisation and operation of the value chain allows it to capture the largest proportion of the added value (59 per cent for the iPhone X). For the first time in history, intellectual property and commercial know-how are constantly being traded across economies, while investment is expanding beyond physical capital into productivity training for labour and long-term business relationships. Since the early 1990s, trade through global value chains (as opposed to traditional trade of finished goods from one country to another) has increased from less than half to about 80 per cent of total trade.

The COVID-19 pandemic caused the most significant disruption to international supply chains of the globalisation era. Prior to March 2020, there was an assumption that supply chains would continue to become ever more interconnected. But the COVID-19 pandemic highlighted the vulnerability of countries to global chains – when every country needed respirators and personal protective equipment, they could not obtain enough supplies from China, and many economies did not have the capacity to manufacture those goods themselves. A 2022 survey by Infosys revealed 85 per cent of supply chains were impacted by the pandemic. In addition, the pandemic resulted in huge disruptions to air travel and major delays in a range of agricultural, mining and pharmaceutical supply chains. Finding alternative options for sourcing materials (or at least improving the reliability of supply chains) became a priority for both TNCs and governments since the COVID-19 pandemic.

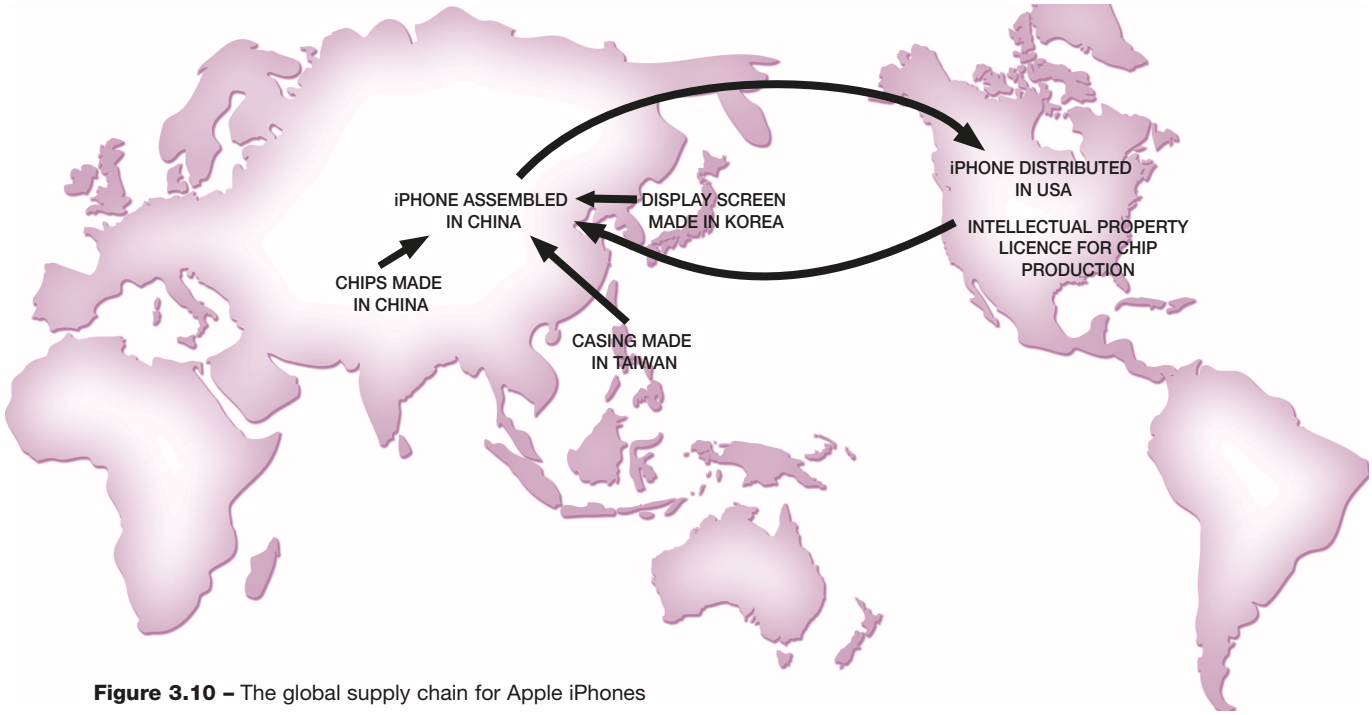


Figure 3.10 – The global supply chain for Apple iPhones

The globalisation of financial markets has seen an increased reliance on foreign sources of finance for investment. From another perspective, more countries now have greater access to overseas funds for investment than ever before. Either way, FDI is now playing a greater role in generating economic activity in every region around the world. In 2021, FDI was over nine times higher than it was in 1990 (but only 69 per cent its peak level recorded in 2007). Very large increases were recorded for high-growth emerging economies that have relaxed barriers to foreign investment. However, as discussed in Section 3.5, the benefits of increased FDI flows have mostly been enjoyed by economies with already favourable economic prospects, and there has only been a trickle of FDI flowing to the LDCs. In addition, the growth of short-term financial flows has had a destabilising impact on many economies.



For a critical view of the practices of transnational corporations (TNCs) in developing countries visit the website of CorpWatch **www.corpwatch.org**

Explain concerns regarding the conduct of transnational corporations held by this organisation. Outline one proposal to improve TNC practices.

The removal of restrictions on foreign ownership and the development of global capital markets have spurred the growth of transnational corporations (TNCs), of which there are now more than 104,000. Foreign affiliates of TNCs employ over 83 million people globally. They dominate the world's major industries such as motor vehicles, telecommunications and pharmaceuticals, and merger activity continues to concentrate the number of these companies.

TNCs generally perform better than domestic firms on a range of indicators including productivity, quantity sold, production size and export market share. However, World Bank research has found that, on average, benefits to the local community were lower as foreign firms tend to use less domestic capital and labour. The full advantages of FDI inflow can only be realised if TNCs are connected to local suppliers. Another concern relating to TNCs is that they do not operate under the laws of any one country and so can move their production facilities to countries with the weakest laws, and artificially structure their financial flows to avoid paying taxes. According to the OECD, developing economies are disproportionately affected by tactics TNCs use to avoid US$240 billion in corporate taxes each year. Lower labour standards and environmental protection laws in developing nations can also lead to the exploitation of workers and environmental degradation.

FOUR WAYS GLOBALISATION HAS IMPACTED COMMODITY MARKETS IN THE LAST 100 YEARS

"Commodity demand (and production) has increased enormously over the past century. The largest increases have been for energy and metals as population and per capita income have grown and technological change has encouraged the use of industrial commodities … There has also been significant substitution across groups of commodities. For example: in ocean shipping, oil replaced coal; in the package and container industry, aluminum and plastics replaced tin; more recently, biofuels (an agricultural product) have been used as a substitute for fossil fuel in gasoline …

Secondly, technological advances have encouraged consumption by creating new products and new uses for commodities. They have also reduced the use of raw materials by improving efficiency in consumption and production. In addition, they have facilitated the discovery and development of new reserves and new commodities …

Third, innovation in commodity markets has often occurred in response to periods of high prices. For example, in the case of metals, technological improvements in aluminum and policy interventions in the tin market made aluminum the dominant commodity in packaging …

Fourth, a variety of interventions have been used to mitigate commodity market volatility. Interventions have taken different forms, including subsidies, production quotas, trade measures, and internationally coordinated supply management schemes."

– "Commodity Markets: Evolution, Challenges and Policies." World Bank, 2022
Edited by John Baffes and Peter Nagle

Environmental sustainability

The relationship between globalisation and environmental factors is complex. Globalisation can have negative environmental consequences for several reasons. Low-income countries that are desperate to attract foreign investment and earn higher export revenue may engage

in economic behaviour that harms the environment. Examples of how this may occur include deforestation for paper or woodchip industries; depletion of marine life through unsustainable fishing practices or poisoning of water supplies by mining operations; pollution caused by manufacturing industries; and carbon dioxide emissions from power plants, contributing to climate change. Additionally, the growth in global trade itself is increasing consumption of non-renewable fuels for transport by air, road, rail and sea.

The most significant environmental threat in the early twenty-first century is **climate change** because the warming of the atmosphere has potentially irreversible and catastrophic impacts on all aspects of the natural environment including oceans, marine life, the weather, wildlife, air quality and water supplies. While the carbon emissions that contribute to climate change come from individual countries, the impacts of climate change affect the whole world. The impacts are also disproportionate, with a World Bank report finding that the 74 lowest-income countries are the most affected by climate change despite accounting for less than one-tenth of global emissions. This means that nations need to work together to address climate change. A 2022 study by Standard Chartered estimated that globally, in addition to what is already planned, an investment of US$95 trillion will be needed to achieve net-zero targets. Developing economies with large debt obligations have limited capacity to make the investments required. The 2022 Climate Conference in Sharm, Egypt, called for developed economy parties to replenish the Green Climate Fund to assist developing economies. Although the original goal of mobilising US$100 billion per year by 2020 had not been met, some progress was made in establishing a loss and damage fund for low- and middle-income economies facing climate disasters.

Global efforts to reach agreements between economies on reducing carbon emissions are coordinated by the United Nations Framework Convention on Climate Change (UNFCCC). In 1997, the UNFCCC summit of world leaders produced the Kyoto Protocol on Climate Change, which set carbon emission reduction targets for industrialised countries. The Kyoto Protocol entered into force in 2005 and expired in 2020. The Kyoto Protocol was followed by the Paris Agreement, to keep "the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels" – the benchmark scientists believe is necessary to prevent the most dangerous impacts of climate change.

The Paris Agreement was significant because, for the first time, it included developing nations such as China and India alongside the United States, which had refused to ratify the Kyoto Protocol. In contrast to the Kyoto Protocol, the Paris Agreement included several inbuilt mechanisms for transparency and review process, with the intention of increased global scrutiny to further encourage countries to meet their respective contribution to global emissions reduction. Nevertheless, countries set their own targets to reduce emissions, which has meant that the world is still not on target to achieve the extent of reductions in carbon emissions required to achieve the agreed target. The 2021 Climate Conference in Glasgow (COP26) produced the Glasgow Climate Pact, ratified by 197 countries, which made progress in several areas and was the first climate deal to commit to reducing the use of coal. In 2023, members of the United Nations signed the historic "High Seas Treaty" which agreed to protect the ocean outside national borders (99 per cent of which was unprotected by any protocol beforehand).

Globalisation also offers opportunities to protect the world's environment from harm by forcing individual nations to address their global responsibility for environmental preservation. It makes it possible for the costs of preservation to be shared and to increase scrutiny of the environmental practices of transnational corporations. Globalisation has also facilitated the transfer of new technologies to improve energy efficiency and reduce environmental pollution. Over time, globalisation may create international mechanisms to enforce agreements on preventing environmental damage. In recent years, however, problems that have involved global environmental resources, such as fish stocks or climate, have proved difficult to tackle and progress in making agreements to combat global environmental problems has been slow.

The role of financial markets

The influence of global financial markets on economies has increased substantially during the globalisation era. Driven by global information and communications networks, global financial markets dominate financial flows around the world. Governments have encouraged the development of global financial markets by removing "capital controls" on the flow of finance, floating their exchange rates and deregulating their domestic banking sectors.

Global financial markets can have positive impacts on economies. Countries would be unable to conduct international transactions without foreign exchange markets. Businesses would find it more difficult to access loans or attract investors if they were confined to domestic financial markets. Efficient international financial markets should encourage greater transparency of the actions of businesses and governments and should foster economic development.

However, global financial markets have also produced negative results during the globalisation era. Financial markets shift massive volumes of money around the world every day. If investor sentiment turns against a particular economy, it can result in a collapse in exchange rates, a shock to the economy and a recession accompanied by rising unemployment.

In the late 2000s global financial markets played a part in producing the worst economic crisis since the Great Depression of the 1930s. With its origins in the United States housing market, the global financial crisis of 2008 saw a collapse in worldwide investor confidence and the seizure of the global financial system. Central banks subsequently flooded financial markets with liquidity, governments guaranteed banking deposits to improve confidence and many governments provided "bail-outs" to prevent troubled banks and financial institutions from collapsing. Although these emergency measures helped avoid global economic depression, the world economy still contracted by 2 per cent.

The onset of the COVID-19 pandemic in 2020 and the invasion of Ukraine in 2022 showed how global financial markets can exacerbate volatility in economies. During the height of the pandemic, a loss of investor confidence saw US$100 billion in investment outflows from emerging economies, twice as big as outflows during the global financial crisis. As many economies cut interest rates to record lows, some economists raised concerns that government and corporate borrowers might take on more risk and create over-indebtedness problems in the future. The subsequent rise in interest rates since 2022 has placed pressure on nations that accumulated large debt stocks over the pandemic, as well as financial and non-financial institutions that failed to anticipate the rapid financial

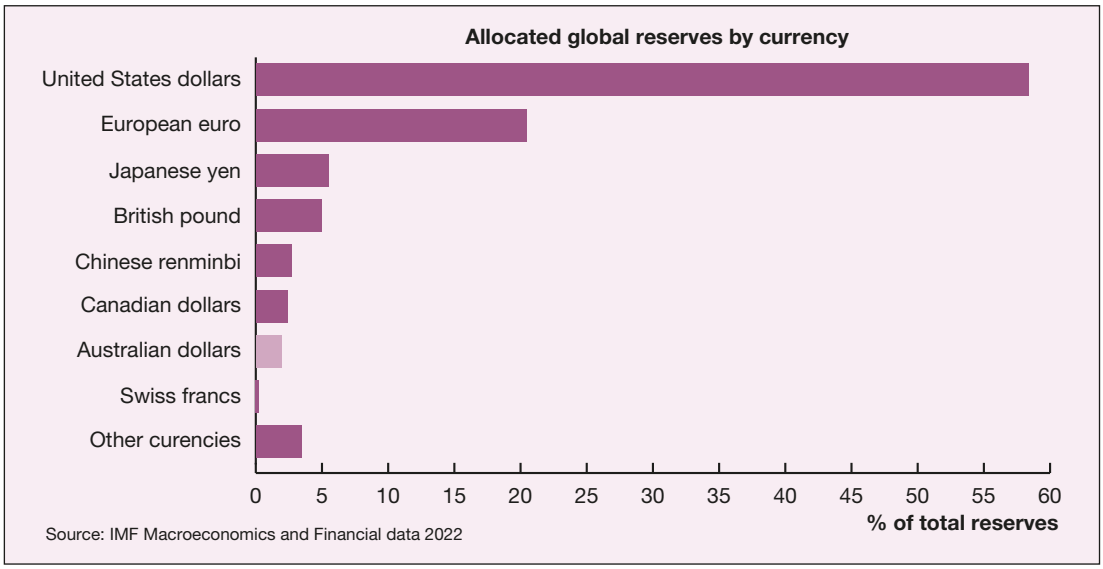


Figure 3.11 – Allocated global reserves by currency

tightening. The IMF warned in 2023 that uncertainty surrounding these events could lead to large capital outflows from emerging and developing economies, potentially reducing per capita incomes by around 15 per cent.

Despite several decades of globalisation, the US dollar remains the dominant reserve currency in global financial markets. Figure 3.10 shows that nearly 60 per cent of global reserves are in US dollars, and 20 per cent are held in euro. Reserves are held for various reasons, including exchange rate management, debt servicing and to address economic shocks. Holding reserves in US dollars has been standard practice for many nations since World War II due to its widespread use and stability. US financial markets are still the largest and most liquid, giving confidence to central banks that they will be able to access their US dollar reserves when they need it. Further, it is the most widely used currency in trade, which gives governments with US dollar reserves confidence that they will be able to use them to import necessary goods.

The international business cycle

The linkages between economies hold benefits and risks for countries in the global economy. The benefit of integration is that it allows countries to achieve faster rates of economic growth by specialising in certain types of production and by engaging in trade. Countries that have a higher level of trade also experience faster economic growth. In particular, during times when world economic growth is higher, individual economies are likely to benefit from the upturn in growth.

However, closer economic integration also makes economies more exposed to downturns in the international business cycle and to developments in their regions. One of the reasons for the strength of global economic growth in the mid-2000s was the simultaneous upswings in the United States and China that propelled the global economy to its fastest growth rates in 30 years. Equally, the closer links between economies resulted in the downturn in the US economy in the late 2000s and the economic fallout from COVID-19, spreading more quickly to other developed and developing economies. As the extent of trade and financial integration continues to increase, there is likely to be greater synchronisation of the international business cycle, intensifying both the downturns and the upswings in the global economy.

Greater synchronisation of business cycles between different countries has also increased the need for macroeconomic policies to be coordinated. Following the late 2000s recession, for example, the IMF recommended that countries use their combined budgets to stimulate the world economy by 2 per cent of global GDP in response to the global economic recession. However, economies generally do not coordinate their macroeconomic policies unless they are in a global crisis, as seen during the COVID-19 pandemic. A series of macroeconomic policies were announced by governments around the world to combat stalling economic activity as a result of the measures to curb the spread of COVID-19, with many governments copying each other's policy approaches. The COVID-19 pandemic struck at a time when global growth was already weak, making it certain that the first half of the 2020s will be a period of slower growth. Russia's invasion of Ukraine in 2022, which destabilised commodity markets and contributed to a global inflation shock, added further to the uncertainty around the economic outlook for the 2020s.

reviewquestions

1. Analyse the impact of globalisation on economic growth and development in the global economy.
2. Explain the impact of globalisation on environmental sustainability in the global economy.
3. Describe the role of financial markets and the international business cycle in globalisation.

chapter summary

1 The global economy is characterised by stark **inequalities**. Out of a world population of almost 8 billion, just over 1.2 billion live in high-income countries with high standards of living, while around 685 million people live on less than US$2.15 per day. While inequality between economies globally has fallen, inequality within economies has increased.

2 **Standards of living** are most commonly measured by Gross National Income (GNI) per capita adjusted for exchange rate impacts or purchasing power parity (PPP). However, economists recognise that this measure has limitations.

3 **Economic growth** is an increase in the real Gross Domestic Product over a specific time period. Per capita GDP growth is the most common traditional measure used to compare the performance of economies.

4 **Economic development** is concerned with economic growth alongside other quality-of-life factors such as income distribution in a population, education levels, health standards and quality of environment. The most common measure of economic development is the United Nations **Human Development Index** (HDI), which is based on a combination of GNI per capita, life expectancy at birth and levels of educational attainment.

5 The main two categories of economies are **developing economies** and **advanced economies**. Advanced economies are also sometimes known as high-income, industrialised, western and first-world economies.

6 **Emerging economies** are in the process of industrialisation or modernisation and experiencing sustained high levels of economic growth. This classification includes a range of economies that are neither high income nor share the traditional characteristics of developing economies.

7 While many features of individual economies can contribute to a lack of economic development, such as a lack of quality inputs to production and the nature of economic and political institutions, the globalisation era has highlighted how certain **features of the global economy** – trade, finance, foreign aid and technology – may work to entrench rather than alleviate inequalities between nations.

8 Opinion about the impacts of globalisation is divided. While globalisation does not appear to have accelerated economic growth overall, many emerging economies have experienced rapid economic growth and development through global trade and investment.

9 Globalisation has contributed to a greater synchronisation of economic growth rates through the **international business cycle**, reflecting the increased integration of economies through trade and financial flows.

10 Globalisation has increased the need for national governments to coordinate their economic policy with other nations, but recent years have seen significant failures in policy coordination, both on shorter-term issues such as tariff disputes and the longer-term threats from climate change.

chapter review

1. Explain the difference between the concepts of economic growth and economic development.
2. List examples of indicators that measure economic growth and economic development and outline what factors they include.
3. Discuss the distribution of income and wealth in the global economy. Assess whether inequality is increasing or decreasing.
4. Identify what categories are used to group economies. Discuss the key features of these groupings.
5. Analyse the reasons for differences in levels of development between economies.
6. Explain how globalisation has changed the role of trade investment and transnational corporations in economies.
7. Discuss how globalisation has impacted on the distribution of income and wealth within countries.
8. Analyse the positive and negative impacts that globalisation might have on the natural environment.
9. Explain how globalisation has increased the need for national governments to coordinate economic policy with other nations.
10. Critically analyse the argument that the negative impacts of globalisation have been greater than its positive impacts.



Case Study:

Economic collapse in Sri Lanka

For a brief few days in July 2022, the island nation of Sri Lanka near the southern tip of India was in the global headlines. Its economy had collapsed, the government had defaulted on debt for the first time in history, the country was declared bankrupt, and its currency had lost half of its value. With shortages of fuel and food, prices soaring and constant power disruptions, protestors hit the streets, burning cars and prompting the president to flee the country. Across the world, platforms like Tik Tok and Instagram swelled with videos of Sri Lankans breaking into the presidential palace and lapping it up in the president's pool.

Sri Lanka's economic crisis – the worst in the nation's 74-year history – offers insights into the way that global economic forces, combined with policy mistakes, can be combustive forces. In recent decades, Sri Lanka has been one of South Asia's more successful economies. But several misfortunes hit Sri Lanka, including the collapse in tourism following terrorist attacks in 2019, the COVID-19 pandemic and then the surge in commodity prices that began in 2021. Policy decisions then turned these challenges into a full-blown crisis, after the election of President Rajapaksa in 2019.

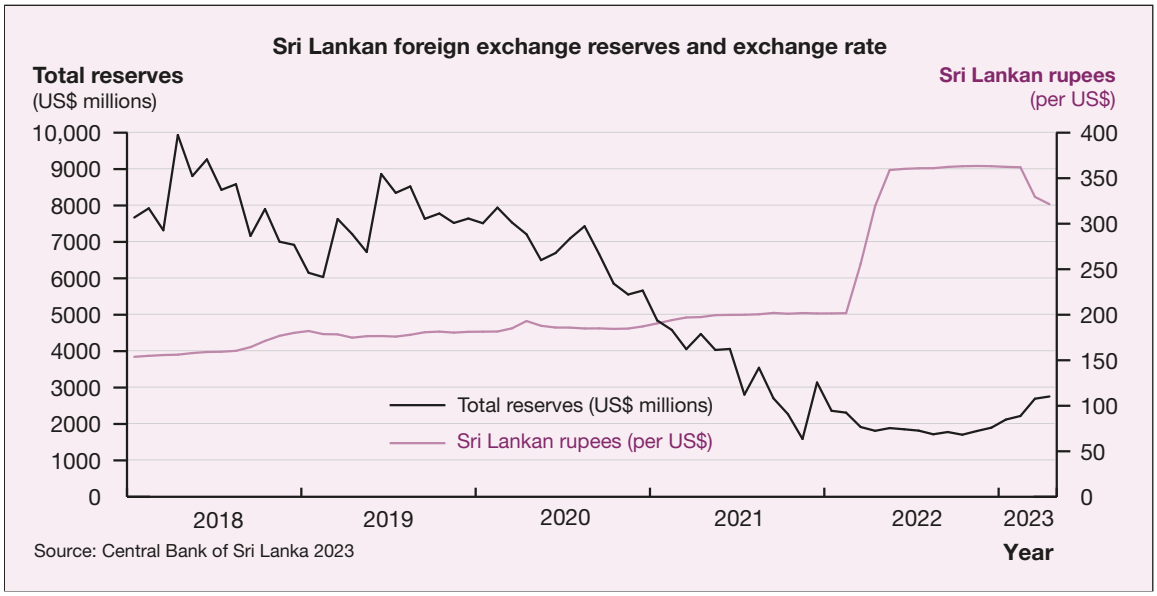
President Rajapaksa rejected conventional strategies for integrating with the global economy, instead adopting protectionist policies. To save foreign currency, Sri Lanka banned imports of fertilisers overnight (describing this as a national shift to organic farming), resulting in sharp declines in agricultural output, an urgent need for more food imports, and a worsening currency crisis. In a failed effort to boost growth, he announced huge tax cuts that emptied the treasury of revenues just as the COVID-19 pandemic struck.

Soaring global inflation along with a falling currency led to shortages in food, fuel and medicine, and record price increases. Use of a 'soft peg' approach to manage foreign exchange enabled currency outflows to exceed inflows, contributing to foreign exchange shortages. Sri Lanka's store of foreign currency reserves, worth almost $8 billion in 2019, were exhausted as the government struggled to defend its currency and service rising foreign debt. By the end of 2022, Sri Lanka's economy had contracted by 7.8 per cent, the currency had depreciated by 81 per cent and inflation was running at 57 per cent. Input shortages were most severe in the manufacturing and construction sectors, leading to half a million job losses and a doubling in the national poverty rate.

Sri Lanka's economic collapse prompted support and rescue packages from neighbours and international institutions. The World Bank lent Sri Lanka US$600 million, India offered more than US$4 billion of support through loans, and the IMF approved a US$2.9 billion debt relief program that was later extended to 2027, providing more time for the government to restructure its external debt (which by 2023 had risen to 75 per cent of GDP). The G7 group of economies also committed to helping Sri Lanka in securing debt relief, and the Export-Import Bank of China announced a two-year moratorium on its debt. The Sri Lankan Government lifted interest rates by 10 percentage points to combat inflation, increasing value-added tax to 15 per cent to lift government revenues, and cutting back on spending to lower the budget deficit. Reform of state-owned enterprises began, partly to satisfy conditions for IMF support. Meanwhile, around 300,000 Sri Lankans emigrated in 2022 in search of jobs in other countries.

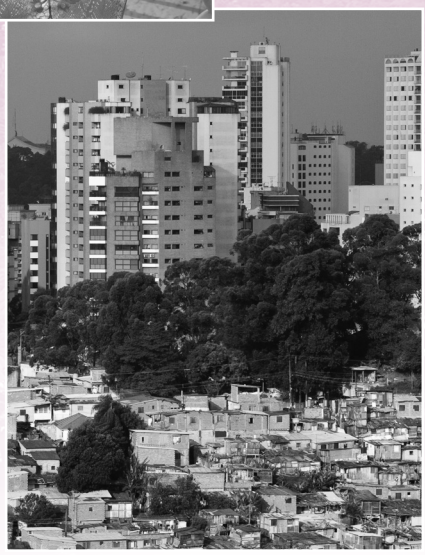
Recovery has been slow, with the IMF forecasting that a further contraction of 3 per cent in 2023 would be followed by snail-pace growth of just 1.5 per cent in 2024. The rupee remained around 40 per cent below its pre-crisis level in 2023, while inflation remained high at almost 30 per cent. The IMF urged further reforms (to increase revenue, reduce corruption and improve governance) on President Ranil Wickremesinghe ahead of elections in September 2024.

The crisis in Sri Lanka shows that in the age of globalisation, simplistic policies that ignore basic principles of economics are likely to fail. The cost can be high, and for Sri Lanka, it will be a long road ahead to restore stability, confidence and living standards.



Case Study:
Brazil





Brazil is a valuable case study in the variations between different countries' economic policies and performance. In the 2000s, Brazil was one of the fastest-growing economies, and widely seen as a success story of global economic integration. But since 2015 it has been one of the worst-performing economies in the G20.

Like other Latin American economies, Brazil has embraced globalisation more slowly than emerging economies in East Asia and elsewhere. A global commodity boom, combined with the discovery of large new resource deposits, contributed to years of strong growth and rising incomes. But this collapsed suddenly in 2014, with a deep recession as commodity prices slumped and a corruption crisis engulfed the government. Years of weak growth were followed by catastrophic mismanagement of the COVID-19 pandemic, which left Brazil among the worst-affected countries in the world.

Brazil is the world's ninth-largest economy and is the third-largest of the "BRIC" emerging economies (behind China and India but ahead of Russia). It is the world's sixth-largest country by population – and it is the world's fifth-largest country in land area. Brazil has a highly diverse population with many waves of immigration since Portuguese colonisation in the 1500s adding to over 2000 Indigenous groups.

FIGURE 1 – DEVELOPMENT INDICATORS: SELECTED COUNTRIES

	Brazil	Indonesia	China	USA	Poland	Egypt	Australia
Population (millions, 2023)	216	277	1410	335	37	104	26
Gross Domestic Product (current US$ billion, 2023)	2080	1390	19370	26850	748	404	1071
Share of Gross World Product (percent, PPP 2023)	2.3	2.5	18.9	15.4	0.9	1.1	1.0
GNI per Capita (%) (current international dollar, PPP, 2022)	17260	14250	21250	77530	41310	14590	60350
Gini index (2022, 2021*, 2020**, 2019^)	52.9*	37.9	38.2^	39.7**	28.8^	31.9^	34.3^
Mean years of schooling (2021)	8.1	8.6	7.6	13.7	13.2	9.6	12.7
Life expectancy at birth (1990, 2021)	65.3 | 72.8	63.3 | 67.6	69.3 | 78.2	75.2 | 77.2	70.9 | 76.5	64.6 | 70.2	76.9 | 84.5
Human Development Index (rank) (2021–22)	0.754 (87)	0.705 (114)	0.768 (79)	0.921 (21)	0.876 (34)	0.731 (97)	0.951 (5)

Sources: IMF 2023, World Bank 2021; Human Development Report 2021–22, accessed July 2023

1. Economic performance

In the 2000s decade, Brazil emerged as a rising power in the global economy. It made significant progress in economic development, with reductions in poverty and improvements in health. Its reputation as one of the world's most unequal societies changed as innovative policies saw 40 million Brazilians climb out of poverty. It also became more open to the global economy, although trade remained a relatively small part of its economy.

However, Brazil experienced a major reversal in fortunes during the 2010s. It experienced its worst recession on record, a series of corruption crises, political instability and the mismanagement of the COVID-19 pandemic that resulted in over 700,000 deaths. This case study examines these developments as well as the reasons for Brazil's past successes, which have been partially undone in recent years. One of the challenges in understanding Brazil as a case study of globalisation is that it comprises both major successes and major failures – and it is not yet clear whether its future will see leadership of the Latin American region and an increasing role in the global economy, or a return to economic stagnation as in the 1980s and 1990s.

1.1 Social and economic progress

Brazil is a large economy with many billionaires and a substantial middle class. Its gross national income per capita of US$17,260 in 2022 puts Brazil in the category of upper-middle-income economies. However, as one of the world's most unequal societies, it has always ranked poorly for its levels of economic development. Brazil has made major progress in recent decades, but from a low starting point. The 2021–22 Human Development Report ranked Brazil well down the global league table at 87th in the world for its Human Development Index of 0.754 (up from 0.68 in 2000). This put it slightly ahead of the average levels of development for the Latin American region, reflecting improvements in health, education and income during recent years:

- Brazil's life expectancy increased from 63 years in 1980 to 76 years in 2019, before falling to 72 and a rank of 94th in the world in 2021–22 following the severe COVID-19 pandemic.
- In 2021, 94 per cent of Brazil's adult population had basic literacy skills, up from 82 per cent in 1990 (even though the average period of formal education is relatively low).
- Brazil's infant mortality rate has fallen significantly, from 53 per thousand live births in 1990 to 13 in 2021 – marginally higher than Mexico, El Salvador and Colombia due to recent slow progress compared to other emerging economies.

One of Brazil's most significant achievements is progress in **poverty reduction**. Historically, Brazilian society has been characterised by very high levels of **inequality**. Wealth inequality remains particularly high – according to 2023 Oxfam statistics, Brazil's six richest men have as much wealth as the 100 million Brazilians who make up the poorest 50 per cent of the population. Nevertheless, Brazil has made some progress: the Gini index (a measure of income inequality) fell from around 60 in 2000 to 49 in 2020, before sharply rising to 53 during the COVID-19 recession. OECD research has estimated that of the reduction in inequality in recent decades, around half was the result of economic growth, and the other half came from government policies to redistribute income in the 2000s during the first term in office of President Luiz Inácio Lula da Silva (often known simply as "Lula") from 2003 to 2010. As president, Lula prioritised policies to reduce inequality.

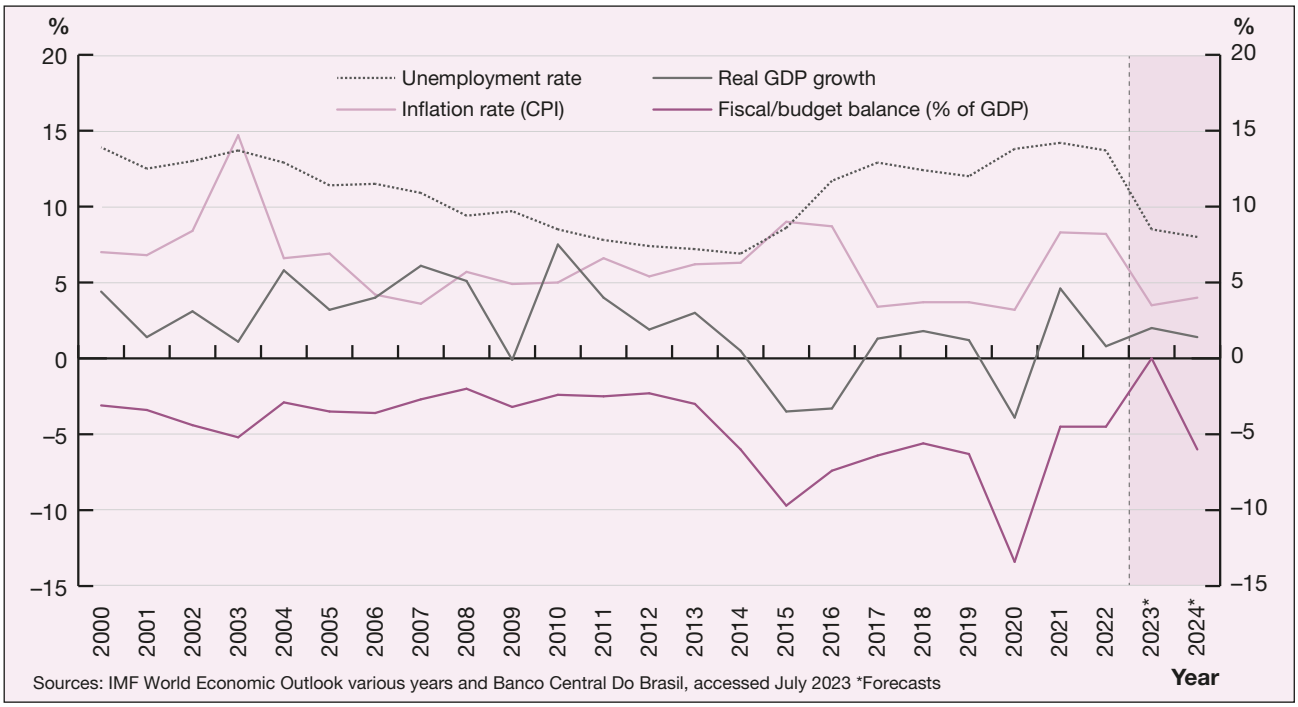
The flagship policy introduced in 2004 by the Lula administration was the Bolsa Família (Family Fund) program. Low-income households received small cash transfers in return for them keeping their children in school and attending preventive health care visits. These programs, known as conditional cash transfer policies, are regarded as one of the most effective economic strategies to combat poverty. Between 2002 and 2019, the percentage of Brazilians living on less than US$2.15 per day fell from 23.2 per cent to 5 per cent – the best improvement in Latin America. An IMF paper in 2020 also found that the program helped more people gain stable employment. While progress was reversed during the COVID-19 recession, which saw unemployment rise to over 14 per cent, in 2023, the new Lula administration began laying the groundwork for an expanded Bolsa Família along with tax exemptions for low-income workers. However, some economists raised questions about whether Brazil can afford the cost of this expanded program, forecast to exceed US$28 billion per year.

1.2 Economic recessions

In the 2000s decade, Brazil's economy grew by an average of 3.7 per cent annually and living standards rose. But the 2010s were dismal, averaging growth only fractionally above zero. The recession of 2015 and 2016 was so severe that it came close to a depression (a deep and sustained recession). Per capita incomes in 2020 had still not recovered to 2014 pre-recession levels, leading to a rise in the number of Brazilians living in poverty to 55 million by 2020, or around one in four people.

The 2010s witnessed the unusual crisis of inflation and unemployment surging at the same time (the textbook definition of "stagflation" – rarely seen in the world economy since the 1970s). Unemployment reached 13.7 per cent in 2017, leaving close to 14 million Brazilians out of work, while inflation rose to 9 per cent. Similar conditions recurred during the COVID-19 recession when unemployment surged to 14.7 per cent in 2021, while inflation jumped over 10 per cent (before falling sharply).

FIGURE 2 – ECONOMIC INDICATORS



Sources: IMF World Economic Outlook various years and Banco Central Do Brasil, accessed July 2023 *Forecasts

In response to rising inflation in 2016, Brazil's main interest rate was raised to 14.25 per cent, giving Brazil the highest interest rates of any comparable economy in the mid-2010s. Sharp falls in tax revenues also created a vicious cycle of further cuts in spending by state and local governments – even to the point that many of Brazil's famous annual Carnival parade celebrations were cancelled in 2016.

Between 2017 and the onset of the COVID-19 recession in 2020, Brazil's economic recovery was weak. Economic growth averaged only 1 per cent with foreign investors concerned by sluggish reforms to the pension and business tax systems. While economies across the globe fell into recession in 2020 due to the COVID-19 pandemic, Brazil's recession was worsened by mismanagement of the national response, which saw the health system overwhelmed by multiple waves of infections. The economy contracted 4.1 per cent in 2020, raising unemployment to a record high and pushing 18 million into poverty.

Brazil recovered slowly from the COVID-19 recession, as the 14 per cent official interest rate raised the cost of household borrowings and the war in Ukraine disrupted Brazil's trade relationships. However, inflation rapidly fell to just 3 per cent in 2023, and forecasts for economic growth rebounded to 4 per cent on the back of strong commodity exports.

Although Brazil has now experienced two severe recessions in less than a decade, one positive feature of its performance has been the stable operation of financial markets. This was surprising to some observers, given Brazil's history of financial crises. The floating exchange rate (which fell by 50 per cent in the four years to 2016 and another third during COVID-19) helped improve the competitiveness of exports, while stronger banking regulations helped maintain confidence in the financial sector. In

THE REASONS FOR RECESSION

How did a country that had been held up as a Latin American tiger economy, and which was the first South American country to host the Olympic Games, suddenly become the G20's worst-performing economy?

Seven key factors explain the deep recession that Brazil experienced between 2014 and 2016:

1. Brazil is a major commodity exporter, so the sharp fall in the prices for oil, iron ore and agricultural output resulted in **lower export revenues and a fall in national income**. Eight of Brazil's top ten exports in 2015 were commodities. Brazil's downturn was significantly worse than other commodity exporting economies.
2. **Brazil was unprepared for a fall in commodity prices**: other sectors in the economy could not fill the gap left by the collapse in export revenue.
3. From 2014 **a major corruption scandal engulfed Brazil's business and political elites**, halting economic reforms. The investigation revealed massive bribery and corruption involving Petrobras, Brazil's large state-controlled oil company, and leading political figures. The scandal engulfed so many major businesses and politicians that Congress could not advance the government's proposals for economic reform.
4. Investors were **losing confidence in Brazil's ability to address its budget problems**. Public spending had grown at an annual average of 6 per cent per year for two decades, well above the rate of economic growth. With interest payments of almost 8 per cent of GDP, Brazil was running a massive budget deficit of 11 per cent of GDP by 2016.
5. That loss of confidence led to the **downgrading of Brazil's sovereign debt by ratings agencies** to below "investment class", making it more difficult (and more expensive) for the government to obtain loans. Public debt rose from 52 to 68 per cent of GDP between 2013 and 2016.
6. Many of the **policies implemented by the Brazilian government had failed to overcome economic problems**, including price controls that failed to rein in inflation, aggressive lending by state banks that failed to stimulate new investment and infrastructure project plans that failed to attract private investors.
7. Brazil had **made little progress on a series of deep-seated structural problems** affecting its labour productivity, transport infrastructure, education levels and reputation as a difficult place to do business. This left Brazil exposed when the favourable environment of high commodity prices disappeared.

addition, despite the recession of the 2010s, longer-term foreign investment inflows continued. Brazil's share market also rebounded strongly after the first recession, with over a 100 per cent increase in its index between 2016 and 2019. Likewise, after a sharp slump at the onset of COVID-19 in March 2020, the stockmarket index recovered and by June 2021 had reached a record high, following a 61 per cent increase in Brazil's international commodity price index.

1.3 Brazil's environmental challenges

Between 2019 and 2022, President Bolsonaro's environmental and climate change policies received major international criticism, as Western governments urged Brazil to act on deforestation in the Amazon rainforest. Brazil has faced significant challenges in managing its natural environment, which remains central to the Brazilian economy. Like many developing economies, Brazil also suffers from a high level of water and environmental pollution. Only 37 per cent of waste water is treated, and almost half of the country's garbage and other solid waste is not collected. Around one-third of housing is not connected to sewerage, and poor sanitation also leads to worse public health outcomes.

Brazil's economic development has come at the cost of large-scale forestry clearing. Eighty per cent of Amazon deforestation has been for cattle farming, with other uses including soybean farming and mining – some of Brazil's biggest industries. Management of the Amazon has also been a polarising political issue in recent years. Former President Bolsonaro made land clearing a priority, and even promised to build a motorway through the Amazon to make logging operations easier. The fires used for land-clearing purposes under the Bolsonaro Administration contributed to the fastest rate

of deforestation since 2006, and for the first time on record, in 2021 the Amazon emitted a greater volume of carbon dioxide than it absorbed. As president, Bolsonaro also threatened to withdraw from the 2015 Paris Climate Agreement and even sacked the head of the government agency that published deforestation data.

While environmental mismanagement worsened during President Bolsonaro's term from 2019 to 2022, it has been a long-term issue in Brazil, with forest coverage declining from 72 per cent to 60 per cent between 1990 and 2020. Brazil's management of the Amazon is a major concern internationally because it is the world's largest tropical rainforest, sometimes described as the "lungs of the planet" because it produces an estimated 20 per cent of the world's oxygen supply and soaks up vast amounts of carbon dioxide (while destruction of the forest releases large quantities of carbon dioxide). On his return to power in 2023, President Lula took action to reduce land clearing, achieving a reduction of 34 per cent during his first six months in office.

In contrast to its record on deforestation, Brazil has been a world leader in the development of sustainable biofuels (ethanol and biodiesel), which assist in transitioning from fossil fuels and emit less carbon. Brazil is the world's second-largest ethanol producer (after the United States) and ethanol, which is mostly made from sugar cane, accounts for around 45 per cent of fuel usage in Brazil.

2. Influence of globalisation

2.1 Influence of trade

Despite maintaining some protectionist trade policies, Brazil has benefited from the rapid growth in international trade brought about by globalisation. Brazil supplies large quantities of commodities, which have sustained historically high prices over the last two decades. However, commodity prices are more volatile than most goods and services, and more than one-third of Brazil's export revenues come from just three commodities: iron ore, soybeans and oil. Oil exports have grown rapidly in the past two decades, following the discovery of large reserves in the "pre-salt" fields three kilometres below the ocean's surface in the 2000s. Brazil is also the world's largest exporter of beef and chicken, with five billion chickens sold annually by its largest agribusiness company, JBS (which is now also the largest meat producer in Australia).

Brazil's export revenues reflect the cycles of global commodity prices. The total value exports soared from US$55 billion in 2000 to over US$250 billion at the height of the global resources boom in 2011. After a decade of weaker growth throughout the 2010s, the surge in commodity prices in the early 2020s saw export revenues rise by more than 50 per cent over their pre-pandemic levels to a record US$335 billion in 2022.

Globalisation has increased Brazil's exposure to both the ups and downs of commodity prices and the international business cycle. Lower global commodity prices led to weaker exports and in 2014, a record trade deficit and a high current account deficit. While the trade deficit improved in subsequent years, this was achieved only through a sharp depreciation in the real and a severe recession that reduced demand for imports. Brazil also experienced a series of major disruptions to international confidence in its economy. In addition to political scandals, the "Weak Flesh" scandal in 2017 damaged confidence in meat exports, after revelations that producers were using red dye to mask putrefying meat. The collapse of the Brumadinho dam in 2017 revealed poor safety practices and caused major disruptions to Brazil's largest mining company, Vale.

2.2 Influence of external accounts

One of the few benefits of its past decade of weak economic growth is an improvement in Brazil's external accounts. While historically Brazil has struggled with external imbalances, the IMF has said that a current account deficit averaging between 1.2 and 2.0 per cent of GDP is compatible with long-term economic stability for Brazil, and in the five years to 2023, it has averaged 2.5 per cent of GDP – slightly above that range but a better outcome than many other economic indicators over the same period.

Historically, the most significant problem underlying Brazil's external vulnerability has been its high level of **foreign debt**, which was once among the highest in the developing world. Brazil's debt fell

during the 2000s due to trade surpluses and greater fiscal discipline, before stabilising from the early 2010s. While a large debt problem may not necessarily cause economic instability, specific characteristics of the debt have made Brazil's debt a matter for concern:

- As shown in figure 3, prior to the global resources boom, the cost of servicing Brazil's foreign debt reached 89 per cent of the value of exports by 2000. After falling to 29 per cent in 2010, and rising to 66 per cent during the 2016 recession, the debt servicing ratio returned to 29 per cent in 2023.
- The IMF calculates Brazil's total public sector debt at up to 91 per cent of GDP, with persistent concerns for the sustainability of public spending.
- Servicing the foreign debt cost approximately 9 per cent of GDP in 2023, a level reflecting vulnerabilty to increases in international interest rates, particularly in the US, which is the source of a majority of Brazil's foreign borrowings.

FIGURE 3 – BRAZIL'S EXTERNAL INDICATORS

Year	Current account (% of GDP)	External debt to GDP ratio (%)	Debt servicing ratio (% of exports)
1980	–5.4	27.0	70.9
1990	–1.0	26.3	65.1
2000	–3.8	36.6	88.6
2005	1.6	19.2	55.8
2010	–3.6	12.0	29.4
2015	–3.5	18.6	55.7
2016	–1.4	18.2	65.6
2018	–2.7	16.0	50.3
2020	–1.7	18.6	42.5
2022	2.9	19.3	27.1
2023*	–2.7	16.3	29.6

Sources: Banco Central do Brasil (Time Series 11404, 11407) and IMF World Economic Outlook various years, accessed July 2023 *Forecast

Nevertheless, Brazil has made significant progress in managing its external debt. Better current account outcomes and contractionary fiscal policy have helped stabilise foreign debt levels, and Brazil entered the 2020s with its lowest external debt levels since the mid-2000s. An important factor in this improvement was a dramatic shift from borrowings in foreign currency to borrowings in Brazilian real (down from 70 per cent in the early 2010s to 3 per cent in 2020, according to the Bank of International Settlements). Brazil also substantially increased its foreign currency reserves (to US$325 billion in 2023), which in the event of a sudden depreciation in the exchange rate can be used to buy up Brazilian currency and stabilise its value. This stock of foreign currency proved useful during a sharp depreciation in the first half of 2020 when Brazil intervened in the foreign exchange market to the tune of US$40 billion.

2.3 Influence of financial markets

Many Brazilians view the influence of globalisation through the lens of the financial shocks that have been a regular feature of recent Brazilian economic history. Some of these crises had dramatic effects, such as the early 1990s collapse of the exchange rate that saw inflation reach over 4000 per cent. The last time that a major financial crisis in the region spilled over to Brazil was in 2002, when Brazil's GDP shrunk by 40 per cent in US dollar terms, interest rates soared to 23 per cent and both unemployment and inflation rose sharply. The IMF provided an emergency loan of US$30 billion to Brazil, in return for which the Brazilian government agreed to adopt a range of economic reforms. Those reforms helped make Brazil more resilient during subsequent crises in 2008, 2014 and 2020. The IMF's intervention was successful in restoring investor confidence, and by 2005 Brazil had repaid its entire borrowings from the IMF, eight months ahead of schedule.

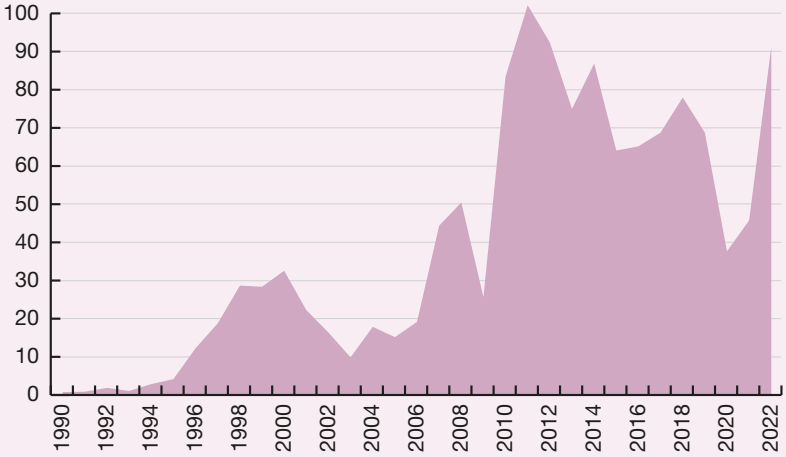
3. Brazil's response to globalisation

3.1 Brazil's approach is different from the Asian tiger economies

Like most Latin American nations, Brazil has been more cautious in embracing globalisation than many East Asian economies. Successive governments throughout the 20th century sought to create a large industrial base and minimise Brazil's dependency on imported manufactured goods in the hope of developing greater self-sufficiency. Nevertheless, Brazil relied largely on foreign borrowing to fund its industrialisation, which focused less on developing exports markets and more on substituting imports with production for the domestic market.

The higher growth rates of more open East Asian economies in the 1980s and 1990s led many observers to question the more protectionist Latin American approach. Brazil, like many of its neighbours, gradually opened its economy in the 1990s, attracting foreign investment and pursuing export opportunities. Brazil benefited from several developments in the global economy, including China's rapid growth and hunger for resources as well as growth in Latin American economies.

FIGURE 4 – BRAZIL'S NET FDI FLOWS



Note: Net FDI flows are FDI inflows minus FDI outflows
Sources: World Investment Report 2022 and World Bank data

Brazil's model of globalisation is less reliant on export demand. Brazil values control over its natural resources, such as oil and gas, where until recently, there was a requirement that Brazil's state-owned business Petrobras must own at least 30 per cent of new projects. Brazil remains cautious about the adverse impacts of globalisation, such as unrestrained financial flows, and previously restricted short-term financial speculation by foreign investors. Brazil's political environment has also resulted in slower progress on changes recommended by international investors.

3.2 Brazil's increased openness to foreign investment

Since the 1990s, Brazil has attracted foreign investment, rather than merely borrowing funds from overseas to provide the capital for economic development. To increase its attractiveness to foreign investors, Brazil has undertaken extensive reforms, including deregulation and the privatisation of state-owned monopolies like Vale (mining) and Embraer (aircraft manufacturing). It also gave priority to low inflation as a major goal of macroeconomic policy.

These measures dramatically increased foreign investment in Brazil. Transnational corporations (TNCs) play an important role in industries such as telecommunications, pharmaceutical, and manufacturing. Brazil receives the largest share of foreign direct investment (FDI) in Latin America, with a focus on the resources, finance and construction sectors. While international confidence and FDI in Brazil fell under the Bolsonaro Administration, they recovered strongly in 2022.

Another important aspect of Brazil's response to globalisation is an **increasing level of investment** by Brazilian companies in other countries. Brazil's stock of foreign direct investment assets more than doubled in the decade between 2010 and 2020 from $173 billion to $392 billion. Brazil's TNCs are making large offshore acquisitions in the steel production, cattle, banking and construction sectors. Brazilian FDI outflows have a substantial focus on developing and emerging countries, reflecting a historic shift because FDI typically flowed from developed to developing economies.

3.3 Brazil's economic model has been less export-focused, but it is changing

Despite Brazil's embrace of financial and investment flows, it has been relatively slow in liberalising trade flows. Up until the 1990s, Brazil implemented tariffs and subsidies to develop domestic industries that could substitute locally made goods for imports. While this approach helped to keep import levels down, it also made Brazilian industry less internationally competitive and less successful in developing export markets.

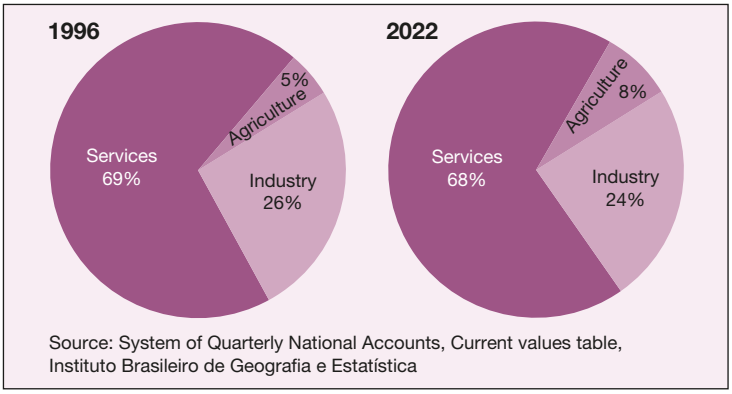
> "With exports and imports below 30 per cent of GDP, the economy is significantly less integrated into international trade than other emerging market economies of similar size … External competition is hampered by trade barriers of various forms. Average tariff levels weighted by imports are almost twice as high as in neighbouring Colombia and more than 8 times higher than in Mexico or Chile. Brazil's most frequently applied tariff rate is 14 per cent, while around 450 tariff lines are at the maximum of 35 per cent, including textiles, apparel and leather and motor vehicles. Brazil is the country with the highest number of tariff lines above 10 per cent. The high trade barriers preclude Brazil from many of the benefits of an increasingly integrated global economy."
>
> *– OECD 2020 Economic Survey of Brazil, Chapter 2, "Raising Productivity through Structural Reforms"*

Although Brazil remains more closed than many comparable economies, it has become more outward-oriented since the 1990s, substantially reducing industry protection. Between 1990 and 2020, the average level of tariffs fell from 32.2 to 8 per cent and most import quotas were abolished. Following these reforms, Brazil's economic integration increased significantly, with foreign trade increasing from just 15 per cent of GDP in 1990 to 39 per cent by 2022. This is nevertheless low by international standards, making Brazil one of the least open economies of the G20 group and the OECD.

While Brazil is under pressure to further reduce protection, and President Lula has expressed support for trade liberalisation, there are a number of issues to overcome. President Bolsonaro suspended the planned removal of trade barriers unless other countries (many of which already had fewer protection policies) did likewise. In December 2020, Brazil even imposed a 20 per cent tariff on all imports of US ethanol into Brazil. However, to combat high inflation in 2022–23, Brazil made 10 per cent tariff cuts to 87 per cent of Brazil's goods subject to tariffs, including 6000 Australian products.

Brazil's gradual integration into the global economy has contributed to modest changes in industry structure, as shown in figure 5. The manufacturing sector has become smaller as a share of the economy and there are concerns about deindustrialisation in some sectors, such as with the closure of manufacturing operations in Brazil by Ford, Mercedes-Benz, Sony and Canon. Manufactures still make up the largest share of merchandise exports, although in the two decades to 2020, their share of exports fell from 58 to 33 per cent. Other parts included in the industry category, such as mining and construction, have grown, offsetting the decline of manufacturing. Brazil's services sector makes up the largest share of its economy, but its services are domestic-oriented, generating very little export income.

FIGURE 5 – STRUCTURE OF THE BRAZILIAN ECONOMY



Source: System of Quarterly National Accounts, Current values table, Instituto Brasileiro de Geografia e Estatística

3.4 Brazil's role in the global economy

President Lula is currently seeking to renew Brazil's role of leadership in the global economy, which diminished during the decade before he came back to office. Its poor economic performance since 2014, combined with corruption crises and political instability, have reduced its capacity for global, and even Latin American, leadership. This stands in sharp contrast to the 2000s, when Brazil and India led a bloc of developing economies pushing for a new World Trade Organization agreement (the Doha Round – which ultimately failed, but Brazil helped to advance reforms of intellectual property rules to make medicines cheaper in poorer countries).

One aspect of Brazil's role in the global economy that has been more consistent in recent decades is its support for greater **regional economic integration**, especially through preferential trade agreements. Within the South American continent, Brazil was a driving force for the formation of the Mercado Común del Sur (Mercosur), a customs union between Brazil and four other Latin American nations (Argentina, Paraguay, Uruguay and Venezuela), which came into effect in 1995. Trade within the Mercosur bloc is mostly tariff free. The Mercosur bloc concluded a trade agreement with the European Union in 2019 after nine years of negotiations that is gradually removing tariffs on 92 per cent of goods traded between the two blocs, many of which previously attracted tariffs of up to 35 per cent. Brazil also wants to negotiate a trade agreement with the US, but this would not be possible without changing the rules of Mercosur, which prevents member countries from signing bilateral trade agreements.

3.5 Brazil's currency reserves have helped stabilise financial markets

Financial instability is one of the most undesirable impacts of globalisation for developing economies. Brazil has experienced numerous exchange rate crises caused by sudden shifts of sentiment on financial markets. Those crises pointed to Brazil's high foreign debt and its exposure to changing foreign investor sentiment.

Brazil responded to its history of financial instability by floating its exchange rate in 1988 and building up its currency reserves. Floating exchange rates are generally less vulnerable to excessive speculation on foreign exchange markets than fixed exchange rates. While Brazil has continued to experience volatility in its currency during economic and political crises, these currency movements have assisted the economy in adjusting to changed economic conditions.

Since the global financial crisis of 2008, Brazil has also used foreign reserves to cushion itself from financial speculation and from the risk of further financial volatility. Brazil has built the tenth-largest

FIGURE 6 – BRAZIL'S CURRENCY RESERVES



Source: Banco Central do Brasil 2023, Table IE-13

reserves of foreign currency in the world – from just US$54 billion in 2005, these reserves in 2023 were US$343 billion. The OECD has criticised the size of the international reserves held by Brazil, noting the high cost in interest payments by the central bank, but for Brazil the reserves have provided a safeguard against instability in global financial markets.

BRAZIL'S POLITICAL CRISES: FROM IMPEACHMENT TO COVID-19

In modern economies, governments play an important role in responding to changing economic conditions and establishing policy priorities. But it is rare for political crises to have such economic impact as Brazil has seen in the past decade.

Brazil's recent political crises have seen corruption charges made against the last three presidents, with Lula da Silva serving time in prison, Dilma Rousseff losing office before her presidential term ended and Jair Bolsonaro facing several trials for his conduct as president.

Brazil's political crises began in 2014 with one of the biggest corruption scandals in modern history, involving billions of dollars in contracts from the state-owned energy company Petrobras. The scandal saw 352 of the 594 members of Congress facing criminal accusations, alongside 27 of Brazil's largest construction companies. Inevitably, the blame rested with President Rousseff, even though there was no evidence she was directly involved.

The Petrobras scandal and the extensive criminal investigation that followed brought the economy to a halt at the same time as falling commodity prices were undermining Brazil's export revenues. President Rousseff lost popular support amidst public anger over corruption, the weak economy, poor government services and rising prices. In 2016, Brazil's congress voted President Rousseff out of office. The official reason for her impeachment was that she had used accounting tricks to make the fiscal deficit look smaller than it really was, so that she could increase public spending before the 2014 election.

Instead of restoring stability, President Rousseff's removal worsened Brazil's political crisis. Within months of taking office, the new president, Michel Temer, was caught up in corruption allegations as part of the "Weak Flesh" scandal, in which meat packers had bribed politicians and officials to turn a blind eye to breaches of food safety laws. The scandal resulted in a ban on Brazilian meat exports to the US and European Union.

The popular former president Lula da Silva had been expected to win the 2018 presidential election, but was prevented from standing because of a corruption charge that was later nullified by the Supreme Court. With Lula out of the race, the 2018 presidential election was won by a populist anti-establishment candidate, Jair Bolsonaro. He was nicknamed "Trump of the Tropics".

Brazilian society has become increasingly polarised in recent years. Its political crises continued under President Bolsonaro, with a series of new scandals involving members of his family and successive resignations by senior officials and cabinet ministers. He downplayed the COVID-19 pandemic, which he described as "just a little flu" while Brazil suffered the world's fifth-highest number of deaths per capita, with over 700,000 lives lost. International confidence in Brazil was weakened when President Bolsonaro threatened to disregard the results of the October 2022 election, which former president Lula won in a run-off. Confidence was also weakened when the finance minister, Paulo Guedes, shut the IMF's representative office, saying that the IMF was not needed in Brazil and "stayed only because they like feijoada [a popular Brazilian black bean and meat stew], football, good conversation and, from time to time, to criticise and make wrong predictions".

4. Brazil's recent policy developments

4.1 Macroeconomic policy

The key themes concerning economic management emerging from Brazil's recent economic history are:

- investor concerns about corruption and political incompetence
- poor management of **fiscal policy** due to structural problems in public finances
- better management of **monetary policy** to reduce inflation
- despite political instability, Brazil has made progress on the management of financial instability and trade liberalisation.

After rebounding from the COVID-19 recession, the primary macroeconomic challenge for Brazil is moving beyond the sluggish growth of the 2010s through implementing overdue structural reforms. The key issue with Brazil's budget is that less than 15 per cent of expenditure can be changed or removed from one year to the next (that is, is discretionary funding), while the remaining 85 per cent is fixed expenditure.

Fiscal policy is caught between the economy's need for support and the need to address a blowout in public debt levels in recent years, which has been driven by the rising cost of pensions. There are two key structural measures that address Brazil's fiscal problems. The first is the Fiscal Responsibility Law, which requires reductions in public debt and a medium-term target for the "primary fiscal surplus" (the fiscal surplus before payments on government debt). The second is a constitutional amendment passed in 2016, which imposes a spending cap that effectively freezes the national budget in real terms for 20 years. This was introduced after Brazil's credit rating was downgraded to BBB– in 2014 and slid further to BB– in 2023.

To stabilise public debt at current levels, an overall public-sector surplus of 1.1 per cent is required. Prior to the COVID-19 recession, budget forecasts pointed to a gradual decline in the deficit with continued increases in public debt. However, like other countries, COVID-19 led to emergency fiscal measures that, while accepted as appropriate by the IMF, resulted in a sharp increase in public debt of 15 per cent of GDP. The government invoked the "escape clause" of the constitutional expenditure ceiling to accommodate this exceptional spending, effectively suspending the Fiscal Responsibility Law. The fiscal measures included temporary income support to vulnerable households (bringing forward pension payments, expanding the Família program to another million households and providing cash transfers to unemployed workers), employment support (compensation to workers and incentives for firms to keep employees) and lower import levies on essential medical supplies. However, President Bolsonaro continued spending above the cap after the pandemic, which made Brazil's high inflation in 2022 even worse. The government then provided cost of living relief that also exceeded the cap.

The new fiscal framework announced by President Lula in 2023 aims to balance fiscal objectives and social responsibility. The framework limits government spending, with the goal of achieving a primary budget surplus of 1 per cent by 2026. Given President Lula's commitment to tackling inequality through increased social spending, the fiscal framework relies on revenue increases to achieve its target.

One significant reform where progress has been achieved in recent years is the structural reform of the pension system, which was approved by Brazil's parliament just before the COVID-19 pandemic. Age pension payments are an example of fixed spending because they are paid at similar rates each year. Brazil's pension system was one of the world's most generous, accounting for 56 per cent of the national budget. It became available from 54 years of age, compared to the average OECD retirement age of 66. The pension reforms increased the retirement age to 65 for males and 62 for females and require individuals to work for 40 years. It also reduces entitlements for those under 70 to encourage longer workforce participation. The reform was forecast to save US$230 billion over 10 years, although this will only stabilise spending at current levels.

During periods of high inflation, monetary policy plays a central role in Brazil's economic policy mix. This has again become necessary in the 2020s as Brazil has faced another bout of high inflation, chiefly due to global price increases. After inflation exceeded 12 per cent in 2022, interest rates rose to 13.75 per cent by August 2022, a sharp increase from the low of 2 per cent in early 2021. This proved successful with inflation forecast to be 5.6 per cent in 2023, down from 9.3 per cent the previous year. These outcomes represent significant progress given Brazil's history of high inflation, which reached a record 4500 per cent in 1994. Brazil's reliance on high interest rates risks causing a downturn in economic activity, but the sharp interest rate increases only mildly affected economic growth in 2023.

"Economic activity is slowing due to weaker private consumption and exports. Real GDP is projected to grow by 1.7 per cent in 2023 and 1.2 per cent in 2024. Lower employment growth, still high inflation and tighter credit conditions will limit household spending capacity despite higher social transfers … Monetary policy is expected to stay restrictive … Fiscal policy remains expansionary for now, but gradual consolidation should start in 2024. Implementing a credible medium-term fiscal framework will help to restore confidence and achieve a more consistent macro-economic policy mix … Reducing the complex system of taxing goods and services would drastically reduce the current high administrative burdens on firms and has strong long-term potential to boost productivity and growth … Further progress on addressing large infrastructure gaps in transport, water and sanitation would reinforce those effects. These reforms would also boost the competitiveness of Brazilians firms, allowing them to reap greater benefits from international trade."

– OECD, Brazil Economic Forecast Update, June 2023

4.2 Microeconomic policy

Comprehensive reviews of the Brazilian economy undertaken by the IMF and OECD in recent years have set out a detailed agenda for microeconomic reform in Brazil. They highlight a set of policy challenges that Brazil needs to address to ensure the economy is on a path towards long-term, sustainable growth:

- The pension reforms mentioned above are regarded as a key microeconomic reform because of their potential to improve workforce participation and increase Brazil's low savings rate.
- Brazil remains, in the words of the IMF, "one of the most closed major economies in the world". Although Brazil is the world's ninth-largest economy, it represented just 1 per cent of the value of global trade in 2022 and, as a proportion of GDP, trade is lower in only seven other countries in the world at 39 per cent, according to the World Bank. Brazil has also been the world's third-most active user of anti-dumping actions in the WTO.
- Brazil needs to increase labour productivity, which is low by international standards and around one-third the level of its main regional competitor Argentina. Productivity growth will be the main engine of growth in the longer term. Strengthening it will require more competition in many sectors to allow labour and capital to move to activities with strong potential.
- Brazil has a young population but has had poor education outcomes in the past. The quality of education (measured by the international standard of PISA tests) is below the OECD average and is expected to deteriorate due to high drop-out rates curing COVID-19. Vocational education is especially weak, with fewer students enrolled in vocational programs than in all but three OECD economies. The share of young adults who have completed tertiary education is 23 percentage points below the OECD average (2021 data).
- More rapid progress is needed on infrastructure development. Transport infrastructure is important in a country as large and heavily populated as Brazil. Its road, rail and port quality ranks poorly according to international studies. A major 2019 IMF report noted that over the past two decades, Brazil invested an average of just 2 per cent of GDP in public infrastructure – around one-third the average level of other emerging economies.
- Reforms are needed in government itself. Political crises have revealed corruption throughout government, which has stifled economic growth. In 2022, Brazil was ranked 94th among 180 countries on Transparency International's annual corruption index.
- An overhaul of the tax system is needed to reduce the notorious cost of compliance with Brazil's tax system. The IMF has recommended that Brazil replace its complex indirect taxes with a single broad-based value-added tax and remove complexities in the tax system that make tax compliance expensive. The World Bank's 2020 "Ease of Doing Business" report ranked Brazil 124th out of 190 countries, noting for example that on average it takes almost 2000 hours for a business to prepare its tax returns in Brazil, more than any other country (and compared to an average of around 200 hours for most economies).
- Regulation more generally needs to be simplified and enforced. The OECD's Product Market Regulation Indicators report measures a nation's regulatory barriers to entrepreneurship and has found Brazil highly restrictive. Excessive regulations have encouraged a culture of "jeitinho", or

finding a way around a law or a rule, sometimes illegally. For example, Brazil's complex system of environmental licences for developments is often criticised by foreign investors, and often evaded by local developers. In other areas, Brazil's problem has been a failure to enforce regulations. In 2018, the European Union announced a ban on imports from seven of Brazil's meat processing factories because of food safety concerns.

Brazil has nevertheless created some successful and innovative social policies, such as the Bolsa Família (Family Fund) policy, introduced in 2004 to assist poor households. The success of the Bolsa Família policy (now known as the Auxilio Brasil policy) has led to an expanded education, elderly care, health and micro-lending package called Brasil Sem Miséria (Brazil Without Misery). This program incorporated one of the previous government's cornerstone projects – the Fome Zero (Zero Hunger) program – providing monthly support to around 14 million of Brazil's poorest families. By merging a range of income distribution payments, the government aimed to target inequality more effectively, and its cost – just 0.6 per cent of GDP – is very small compared to the 14 per cent of GDP spent on pension benefits that mostly go to Brazil's less needy middle class.

5. Conclusion

> "We're an increasingly unequal world, and wealth is increasingly concentrated in the hands of fewer people, and poverty concentrated in the hands of more people … we have to address the issue of world inequality. It's unacceptable that – in a meeting between presidents of important countries – the word inequality does not appear. Wage inequality, race inequality, gender inequality, education inequality, health inequality …
>
> And we need to be clear about the following: what was created after the Second World War, the Bretton Woods institutions no longer work, and no longer serve society's aspirations or interests. Let's be clear that the World Bank leaves much to be desired in terms of what the world wants from the World Bank. Let's be clear that the IMF leaves a lot to be desired in what people expect from the IMF …
>
> And then we need to deal with international agreements, trade agreements. Trade agreements must be fairer … we need to take a leap in quality, and invest in structural things that change the lives of countries."
>
> *– President Luiz Inácio Lula da Silva, speech at the Summit for a New Global Financial Pact, Paris, June 23 2023*

Brazil is still in the process of rebuilding from a once-in-100-years pandemic that eroded the health system and left an already weak economy with political instabilty in a deep recession that was followed by high inflation and high interest rates. Nevertheless, President Lula has ambitions for Brazil to be the leading advocate for developing countries in the global economy, with an agenda to reform trade, finance, climate and globalisation itself.

First, however, President Lula must reckon with significant challenges at home, after a decade characterised by a long recession, corruption scandals and the catastrophic mismanagement of the COVID-19 pandemic. Brazil is also far more politically divided than it was when he was first in office in the 2000s. Nevertheless, for a country that only became a democracy in 1988, Brazil's institutions have endured a difficult period and proved to be strong, stable and mostly independent (with some exceptions) – all important elements of a positive environment for long-term investment and growth.

Brazil has the potential to play an important role in the future of the global economy both because of the size of its population and economy, and because of its proven potential in a diverse range of export markets including minerals, fuels, food and manufactures. If strong commodity prices are sustained, Brazil's prospects for recovery will be strengthened. But it will take time for Brazil to rebuild confidence in its economic future. To maintain investor confidence and strengthen Brazil's place in the global economy, Brazil will need to improve its educational, regulatory and fiscal performance. The events of recent years also underscore the importance of political stability, anti-corruption measures and the rule of law in providing foundations for confidence and growth.



Case Study:
Indonesia

The East Asian economic region has been strongly influenced by globalisation over recent decades, through increased international trade, foreign investment and rapid industrialisation. East Asian economies have become more closely integrated both at a regional level, and with economies around the world. With strong economic growth and development over recent decades, East Asia is fast becoming an economic centre of gravity to rival North America or Europe. Although North Asia has the largest regional economies – China and Japan – economies in the South-East Asian region are sustaining high rates of growth. They demonstrate the growth opportunities that come from more open markets, but also highlight the challenges of managing rapid economic change.

Indonesia is the **largest economy of the South-East Asian economic region**, with the world's fourth-largest population and sixteenth-largest economy. As it has opened its economy to global forces since the mid-1980s, Indonesia has experienced the growth of trade and investment and the increased participation of transnational corporations (TNCs) in the economy. Across a range of quality-of-life indicators, economic development has improved. However, Indonesia has also been exposed to major international economic disturbances, including a regional financial crisis in the late 1990s and ongoing volatility in global commodity markets. The severe impacts of the COVID-19 pandemic highlighted the fragility of the country's economic and social progress. Indonesia faces major policy challenges to build more competitive industries, improve its regulatory environment, and make government revenue and services more sustainable.

Indonesia is an excellent case study of globalisation because of the mixed influences of globalisation on its economy and the challenges it faces in sustaining economic development. Indonesia also has enormous long-term importance to Australia's economy and security – reflected in the fact that new Australian prime ministers usually visit Indonesia soon after assuming the role (such as Anthony Albanese did in 2022). With trade and financial linkages between the two countries growing stronger, understanding the Indonesian economy is especially valuable for Australia's economic future.

FIGURE 1 – DEVELOPMENT INDICATORS: SELECTED COUNTRIES

	Indonesia	Brazil	China	USA	Poland	Egypt	Australia
Population (millions, 2023)	277	216	1410	335	37	104	26
Gross Domestic Product (current US$ billion, 2023)	1390	2080	19370	26850	748	404	1071
Share of Gross World Product (percent, PPP 2023)	2.5	2.3	18.9	15.4	0.9	1.1	1.0
GNI per Capita (%) (current international dollar, PPP, 2022)	14250	17260	21250	77530	41310	14590	60350
Gini index (2022, 2021*, 2020**, 2019^)	37.9	52.9*	38.2^	39.7**	28.8^	31.9^	34.3^
Mean years of schooling (2021)	8.6	8.1	7.6	13.7	13.2	9.6	12.7
Life expectancy at birth (1990, 2021)	63.3 | 67.6	65.3 | 72.8	69.3 | 78.2	75.2 | 77.2	70.9 | 76.5	64.6 | 70.2	76.9 | 84.5
Human Development Index (rank) (2021–22)	0.705 (114)	0.754 (87)	0.768 (79)	0.921 (21)	0.876 (34)	0.731 (97)	0.951 (5)

Sources: IMF 2023, World Bank 2021; Human Development Report 2021–22, accessed July 2023

1. Economic performance

1.1 Indonesia's economy and development

With a Gross Domestic Product (GDP) of almost $US1.4 trillion, Indonesia is the world's sixteenth-largest economy. Indonesia is much smaller than the world's largest economies, such as China, which is close to 15 times as big, or the United States, which is nearly 20 times bigger. However, Indonesia is larger than other economies in its region, such as Thailand and Malaysia, whose economies are around half its size.

As well as a large economy, Indonesia has a very large population of over 270 million. Living standards in Indonesia remain low despite significant improvements. In 2022 output per capita was US$4788 (without adjusting for purchasing power, as done in figure 1. This is more than five times larger than the level recorded in 2000 (US$780)). Living standards are similar to those of some nearby economies such as the Philippines and Vietnam, but around half those of other South-East Asian neighbours such as Thailand and Malaysia. The World Bank downgraded Indonesia from an upper-middle-income country to a **lower-middle-income country** in mid-2021 following the impact of the pandemic.

Indonesia's low income levels mean that it suffers from a relatively high incidence of poverty. Absolute poverty rates are relatively low compared to the world's poorest countries, such as in Sub-Saharan Africa and South Asia, but with 2 per cent of the population living on less than US$2.15 per day, poverty rates in Indonesia are around double the average for the East Asia and Pacific regions.

Indonesia also suffers from a relatively low level of **economic development**. According to the United Nations, Indonesia's Human Development Index of 0.705 is below 113 other economies. Mostly this reflects Indonesia's low standard of living, as measured by its per capita income. Indonesia also has a relatively poor performance for other key indicators like adult literacy and life expectancy at birth. Health outcomes in Indonesia are especially low. Fourteen per cent of the population does not have access to basic sanitation facilities, and around one in ten Indonesians do not have access to basic drinking-water services. Expenditure on health, at around US$120 per person each year, is significantly lower than comparable countries in the region.

Indonesia's development indicators have nevertheless improved substantially in recent decades. Life expectancy has improved by six years since 1990. Over the same period, the under-five child mortality rate has decreased by nearly 75 per cent, from 84 deaths per 1000 births to 22 deaths.

Income inequality in Indonesia, as measured by its Gini index of 38, is similar to other economies in the region such as Malaysia and Vietnam. The distribution of income is more equal than in many countries beyond the region such as the United States and Brazil.

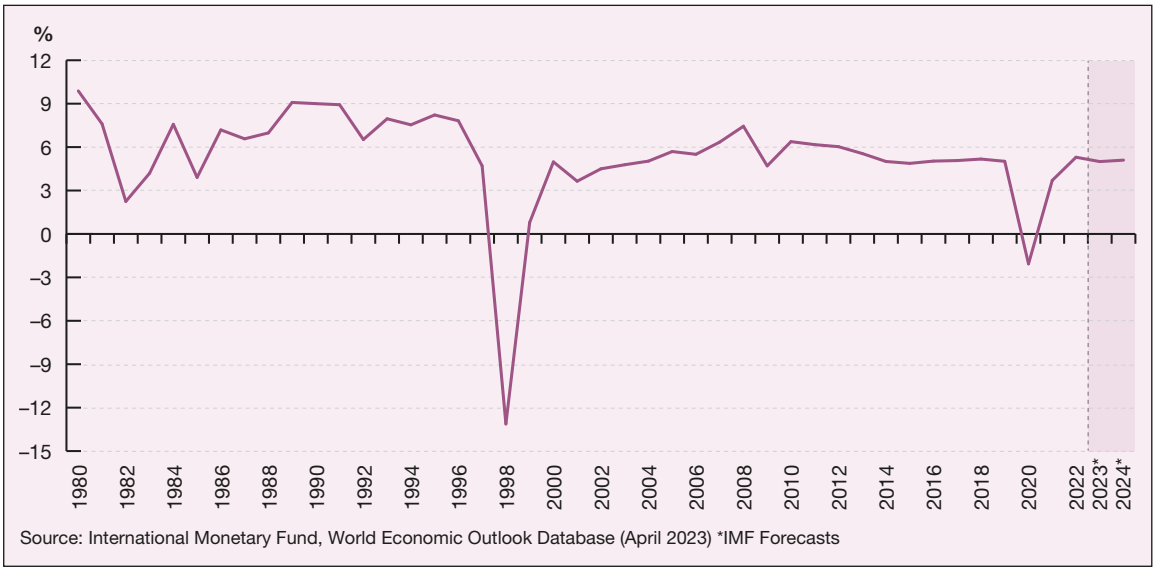
1.2 Indonesia is an emerging economy

In previous decades, Indonesia was considered a developing economy, and later, a newly industrialised economy. Indonesia is now considered an **emerging economy** because of its strong growth performance and prospects. This classification recognises Indonesia's success in transforming its industry structure to lift economic performance and development. In the four decades to 2023, Indonesia grew at an average annual rate of over 5 per cent. Although not as fast as some neighbouring economies in East Asia, this growth rate puts Indonesia well ahead of most economies around the world, including advanced economies in Europe and North America, and emerging and developing economies in Latin America, Central and Eastern Europe, and Africa. With a large population and continued economic growth, Indonesia is expected to join the world's largest emerging economies, the so-called BRIC economies (Brazil, Russia, India and China), in coming decades. According to projections by consulting firm PwC, Indonesia will surpass Germany and Japan to become the world's fourth-largest economy by the middle of this century.

The **international business cycle** and **regional business cycle** have also had significant impacts on the economic performance of the Indonesian economy in the past half century. While most economies experienced a downturn in growth during the 1970s because of rapid increases in global oil prices, Indonesia, as a major oil exporter, experienced an acceleration of economic growth. During the 1980s, the opposite occurred, as the glut of oil supply pushed prices down, and with them the growth rates of the Indonesian economy. During the 1990s, Indonesia was part of an economic growth boom that

spread across East Asia after the end of the Cold War. However, this growth came to an abrupt end in 1997 with the Asian financial crisis, which saw the Indonesian economy contract by 13 per cent in the following year, with devastating consequences.

FIGURE 2 – ECONOMIC GROWTH IN INDONESIA

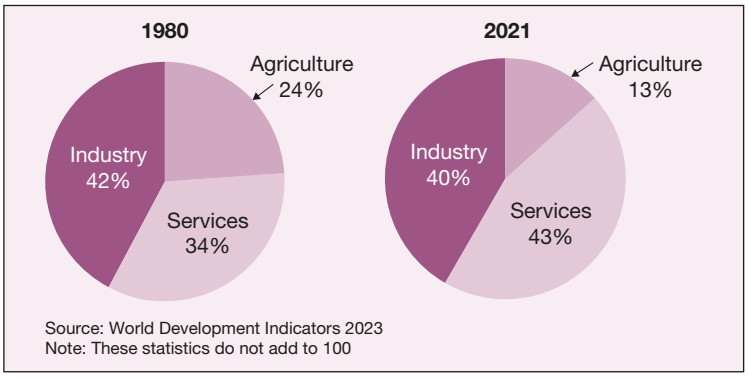


Source: International Monetary Fund, World Economic Outlook Database (April 2023) *IMF Forecasts

In 2020, the Indonesian economy contracted by 2.1 per cent – the first fall in annual GDP since the Asian financial crisis. The unemployment rate rose by 1.8 percentage points to be 7.1 per cent in 2020. The COVID-19 pandemic resulted in reduced consumer spending, business investment and exports. However, by the end of 2021, output had returned to pre-COVID-19 levels. Economic growth was forecast to be 5 per cent in 2023 and 2024, supported by export growth and investment. The labour market recovered rapidly, with unemployment falling to 5.9 per cent in 2022. In 2024, unemployment is expected to return to the pre-COVID-19 rate of 5.2 per cent.

One characteristic of Indonesia that is typical of an emerging economy is the transformation of its industry structure in recent decades. Like many other economies in East Asia, Indonesia has seen the economic importance of the agricultural sector fall, while manufacturing industries and services have become more important. As shown in figure 3, the past four decades have witnessed substantial structural change in the Indonesian economy.

FIGURE 3 – STRUCTURE OF ECONOMY



Source: World Development Indicators 2023
Note: These statistics do not add to 100

Indonesia's **primary industries** nevertheless remain important. Outside the formal economy, the majority of Indonesia's rural population still survives on subsistence agriculture, with wages in the form of crop shares. The main agricultural product is rice, and other crops include rubber, coffee, cocoa and spices. Unlike other economies in the region, Indonesia also has a large oil and gas industry. Until 2016, Indonesia was Asia's only member of the Organisation of the Petroleum Exporting Countries (OPEC), the international oil cartel. Palm oil, coal, petroleum oil and gas made up a quarter of total exports from 2000–2020. Indonesia's dependence on resource-intensive exports exposes it to currency volatility.

ASIAN FINANCIAL CRISIS

The Asian financial crisis of 1997 and 1998 was an early example of some of the possible negative impacts of globalisation. As the economy most severely affected by the crisis, Indonesia's experience highlights how volatile global financial markets, combined with economic mismanagement, can have devastating consequences for economic growth and development.

The rapid growth of South-East Asian economies for much of the 1990s (as shown in figure 4) had led to a flood of short-term financial inflows that were increasingly flooding into stock markets, consumer finance and real estate. Inadequate banking regulations saw finance flow to customers that did not meet normal creditworthiness standards.

In July 1997, sentiment changed as foreign investors reassessed the value of their assets and loans and suddenly withdrew their funds – known as "capital flight". Beginning with the Thai baht, the currencies of South-East Asian economies depreciated rapidly as financial outflows mounted. The financial "contagion" of the crisis also spread to other economies, including Indonesia, South Korea and Malaysia.

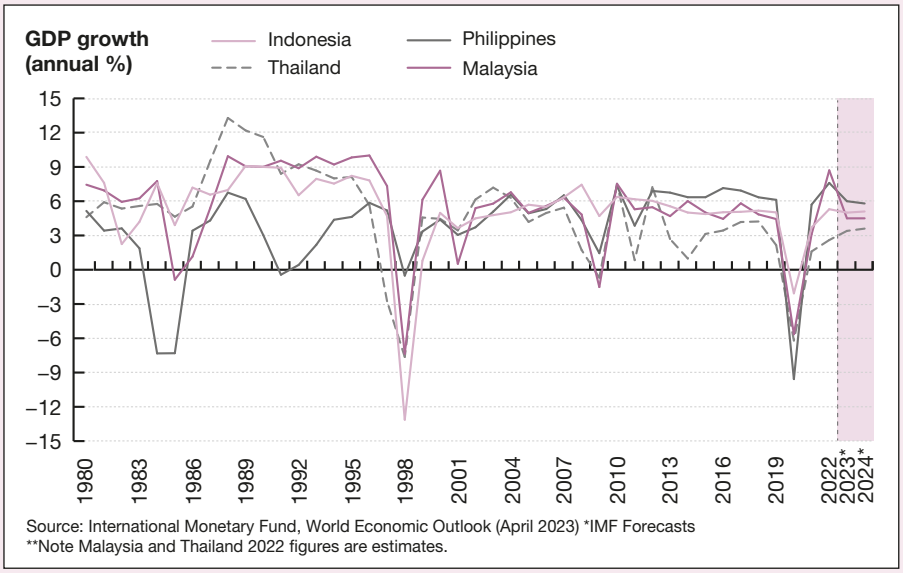
To obtain an emergency US$18 billion financial assistance loan from the IMF, the Indonesian Government was required to undertake policy measures including spending cuts, budget surpluses, dramatically raising interest rates (to 80 per cent), closing some banks, cutting fuel subsidies, and undertaking long-term structural reforms. Although designed to strengthen the Indonesian economy in the long term, these policies had the immediate effect of further undermining confidence and choking off economic activity. By mid-1998, as panic spread to Indonesia's businesses, households and other deposit holders, the rupiah had lost 85 per cent of its value against the US dollar (to be worth as little as Rp 16,000 to the US dollar) and the managed float was abandoned.

The Asian financial crisis had devastating economic consequences for Indonesia. The economy shrank by over 13 per cent. Unemployment increased and the Indonesian Government's official estimate of the number of people in poverty almost doubled from 11 per cent to 19 per cent as a result. As the exchange rate depreciated and the price of imported goods soared, inflation was recorded at over 75 per cent. Foreign debt increased to US$148 billion. In May 1998, Indonesian President Suharto was forced to step down after over 30 years in office. It took six years before living standards returned to pre-crisis levels.

Aside from the mishandling of the crisis by the IMF and the Indonesian Government, economists often cite two causes of Indonesia's problems during the crisis. The first was the combination of open financial markets with a fixed exchange rate. The rupiah became overvalued, and because it was fixed, there was no mechanism for it to adjust to its market value. A second cause of the crisis was excessive financial speculation and the poor regulation of the financial sector during a period of rapid globalisation. The Asian financial crisis in Indonesia highlights how, without an appropriate policy framework, global economic forces can destabilise an economy and cause extensive economic and social harm.

The Asian financial crisis led to major economic reforms, including the establishment of an independent central bank (Bank Indonesia), a new bankruptcy law, and measures to promote competition and improve the social safety net. The Indonesian Bank Restructuring Agency (IBRA) oversaw the reforms to the financial sector.

FIGURE 4 – EAST ASIAN GROWTH RATES



Source: International Monetary Fund, World Economic Outlook (April 2023) *IMF Forecasts
**Note Malaysia and Thailand 2022 figures are estimates.

The Asian financial crisis also forced a change in the way that the IMF responds to financial crises. In contrast to its policy prescriptions for Indonesia in the late 1990s, during the global financial crisis and the COVID-19 recession in the following two decades, the IMF recommended that economies actively stimulate growth through increased spending, lower interest rates, and boosting the liquidity of credit markets. As one of the first major crises of the modern era of globalisation, the Asian financial crisis helped shape future economic policy.

Indonesia's **manufacturing sector** includes a large textile and garment industry and some other labour-intensive manufacturing. The sector has fallen from 31 per cent of GDP in 2002 to 19 per cent in 2021. Usually this happens when countries achieve higher income levels, according to the World Bank, but in Indonesia's case it reflects a lower level of competitiveness than in similar economies. Manufacturers confront poor infrastructure, limited access to finance, complex regulations and increased barriers to imports (which raise the cost of capital goods). Nevertheless, Indonesia has two key advantages that create the potential for growth in manufacturing: a large, low-cost labour force and a huge domestic market.

Indonesia's fastest-growing sector is its **services sector**. In 2021, the services sector made up 43 per cent of GDP, employing 49 per cent of the workforce. Indonesia's main services are tourism and retail. In the future, information and communications technology is expected to be a primary driver of growth in the services sector. Indonesia's services sector is enjoying increasing foreign direct investment (FDI) flows, with services accounting for over a third of Indonesia's investment inflow. The growth in information and communications services is evidence of the positive role of investment by foreign technology companies in helping to lift the skills of the Indonesian workforce. Nevertheless, the services sector is still held back by poor infrastructure and technology and by inadequate workforce skills, and it has trade barriers for services that are some of the highest in the world.

Indonesia did not meet all of the Millennium Development Goals (MDGs) by the target year of 2015, but made significant progress in many areas. The Indonesian Government is committed to delivering progress in the Sustainable Development Goals (or SDGs, also known as Global Goals), building on the progress achieved with the MDGs, such as reducing poverty (goal 1), promoting gender equality (goal 3), and dealing with the long-term impacts of climate change (goal 7).

FIGURE 5 – INDONESIA'S PERFORMANCE ON THE MILLENNIUM DEVELOPMENT GOALS

Goal	Performance
1	Poverty headcount (proportion of people living below US$2.15 a day at 2017 PPP) has fallen from 69 per cent (1998) to 2.5 per cent (2022). The proportion of underweight children under five decreased from 31 per cent (1989) to 18 per cent (2018).
2	The net enrolment rate for primary children is 93 per cent, and primary school completion improved from 62 per cent (1990) to 100 per cent by 2010. The literacy rate of the population is 96 per cent (2020).
3	The proportion of males aged above 25 who have completed at least primary school is 85 per cent (2020). For females, it is 74 per cent (2015).
4	The mortality rate of children under five years has decreased from 97 (1991) to 22 (2021) per 1000 live births.
5	The maternal mortality rate has fallen from 390 (1991) to 173 (2020) per 100,000 live births. Issues with access to contraception remain.
6	The prevalence of tuberculosis decreased from 449 (2000) to 354 (2021) cases per 100,000 people, and the proportion of people with HIV/AIDS has decreased.
7	Carbon emissions are high. Eight per cent of Indonesians do not have access to safely managed drinking water, and 14 per cent do not have access to basic sanitation. The proportion of the urban population living in a slum has decreased from 51 per cent (1990) to 19 per cent (2020).
8	Foreign debt (as a per cent of gross national income) has been reduced from 69 per cent (1990) to 36 per cent (2021). The total debt servicing ratio (per cent of exports, goods, services and primary income) has been reduced from 40 per cent (1988) to 29 per cent (2021).

Source: World Bank World Development Indicators 2023

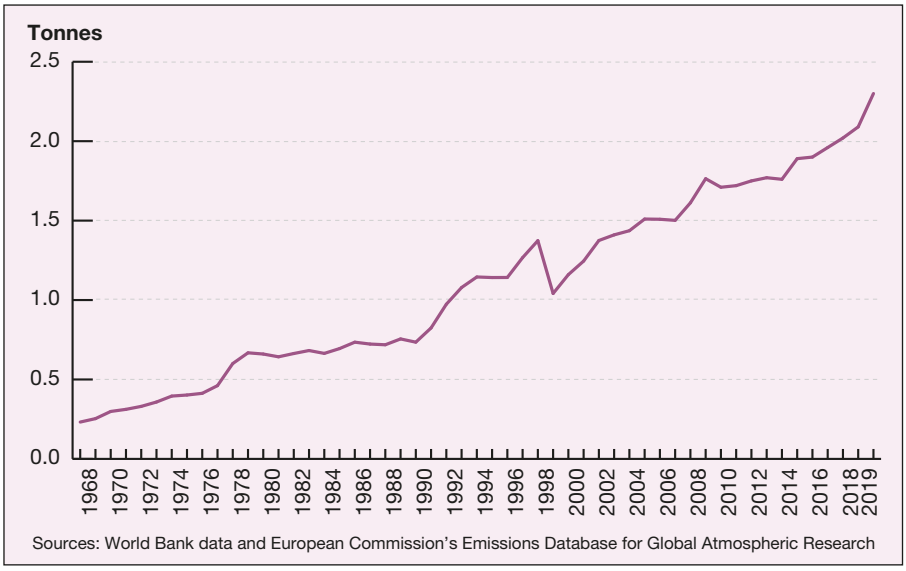
1.3 Indonesia's growth has had negative environmental impacts

Degradation of the natural environment has been a significant cost of the industrialisation and globalisation of the Indonesian economy. Indonesia has the third-largest rainforest in the world, yet is also home to one of the world's highest rates of deforestation. A 2019 study by Greenpeace showed that more than 74 million hectares of rainforest – an area twice the size of Japan – was cleared in the last half century. This is the result of commercial logging, land clearing for agriculture, mining developments

and population expansion. The Indonesian Government has a moratorium on new clearing for around 66 million hectares of primary forest and peatland. Retention of Indonesia's rainforests is important for a number of reasons, including the role they play in absorbing carbon. The forest clearing saved under the moratorium contributed 86.9 million tons of emissions reductions between 2011–2018. This is despite retaining only an average of 0.65 per cent more forest coverage than non-moratorium areas. Other key environmental concerns include loss of species and water pollution:

- Economic activity has affected natural habitats and regeneration, with 265 critically endangered animal and plant species as of 2019.
- Protection of the marine environment is a major challenge because of Indonesia's vast coastline, pollution from industry and over-exploitation of fishing stocks.

FIGURE 6 – INDONESIA'S CO_2 EMISSIONS PER CAPITA



Sources: World Bank data and European Commission's Emissions Database for Global Atmospheric Research

Indonesia's rapid economic and population growth is placing pressure on its ability to reduce emissions. Although emissions of carbon dioxide are low in per capita terms (2.3 tonnes per year), Indonesia is the world's eighth-largest contributor to global carbon dioxide emissions (including emissions caused by deforestation). This is concerning because Indonesia is especially vulnerable to the future impact of climate change due to its high coastal population density. The World Risk Index ranks Indonesia's exposure to natural hazard-related risk as fifth-highest in the world, and climate risks have accelerated plans to move the capital from Jakarta on the island of Java to the new forest city of Nusantra on Borneo, some 1000 km away. Indonesia has already seen a sharp increase in the number of climate-related adverse weather events. The number of adverse events has risen from 82 in 2000 to 3058 in 2022, with recent examples including the 2019 land and forest fires in which 600,000 hectares were burned and 900,000 contracted respiratory illnesses, and the 2022 West Java earthquake that killed at least 335 people.

Reducing carbon dioxide emissions while maintaining economic growth will be a key environmental management challenge in the future. Indonesia has a Nationally Determined Contribution (NDC) to reduce emissions by 32 per cent by 2030 and reach net zero emissions by 2060 or sooner. These commitments will require significant policy and investment.

Indonesia is focusing on reducing its electricity sector emissions by 49 million tonnes by 2028, with a shift towards renewable sources. In 2021, Indonesia's government utility company Perusahaan Listrik Negara (PLN) committed to building no new coal-fired plants after 2022 and a phase out of all coal plants by 2056. The Indonesian Government has also committed to a 23 per cent renewable energy target by 2030. However, despite large sources and investment in geothermal and hydropower, it is unlikely to meet this target. Government efforts in renewable energy have been focused on small-scale projects, such as installing solar panels in villages. Large public investment is needed, particularly in distribution infrastructure, to ensure renewable energy can be added to the system.

Indonesia is also confronting a number of other environmental issues, particularly in relation to resource management. For example, Indonesia has the second-highest plastic waste among the world's 146 coastal countries. The Government has a policy to slash marine litter by 70 per cent by 2025 (and by 2020 had achieved a 15 per cent reduction). In 2016, the Government introduced a charge on plastic bags. Within three months, this step had reduced plastic bag use across Indonesia by 25 per cent.

2. Indonesia's path to globalisation

Since it opened up to global forces in the 1980s, globalisation has reshaped the Indonesian economy. Reforming the economy has been necessary so that Indonesia can keep pace with other economies in the South-East Asian region and avoid relying too heavily on commodity exports, whose value on global markets tends to be volatile. As the oil boom of the 1970s subsided, Indonesia needed to find more sustainable foundations for long-term economic growth, and exporting manufacturing goods was central to this strategy.

Since the mid-1980s, Indonesia has lowered protectionist barriers to trade, resulting in greater competitive pressures and making businesses more export-focused. Indonesia has taken opportunities to participate in multilateral efforts to reduce protectionism. Greater foreign investment has provided a source of capital, while also creating financial market and economic volatility. Transnational corporations have played a greater role in the economy for both traditional commodity sectors and other exports.

2.1 Indonesia has reduced protectionist barriers since the 1980s

Trade liberalisation has been a crucial component of Indonesia's integration with South-East Asia and the global economy. In the mid-1980s, Indonesia **shifted away from a policy of import substitution towards export-led development**. In 2020, the simple mean tariff rate applied to imported goods was 6 per cent, down from 17 per cent in the early 2000s, and similar to the 5 per cent average for the East Asia and Pacific region.

Prior to the mid-1980s, Indonesia was a highly protected economy. Indonesia's oil boom in the 1970s saw the imposition of strict trade barriers to protect government-sponsored and government-owned business enterprises. The methods of protection included tariffs, licensing requirements, local content rules and import monopolies. One area that historically has faced high non-tariff barriers has been agriculture. In the mid-1980s, under the control of Indonesia's sole approved rice importer, Bulog, the country was able to achieve self-sufficiency in rice production and phase out all rice imports. The effective rate of protection for agriculture between 2011–2020 averaged 27 per cent of total consumption, which is much higher than regional peers and contributes to higher domestic prices. Many farmers are also disadvantaged by protectionism, as two-thirds buy more food than they sell (making them "net food buyers").

Indonesia's shift towards trade liberalisation began in the mid-1980s. The average level of tariffs was reduced by almost one-third. Between 1987 and 1995 the effective rate of tariff protection for the manufacturing sector fell from 86 per cent to 24 per cent. For agriculture over the same period it halved, from 24 per cent to 12 per cent. The Government has also relaxed the complicated network of import licensing restrictions. Annual deregulation and liberalisation packages aimed to reduce barriers to foreign trade and investment.

After the Asian financial crisis in 1998, Indonesia continued to pursue trade liberalisation under the auspices of an IMF program. Tariff and non-tariff barriers were reduced, together with an easing of the restrictions on foreign investment. However, in the decade to 2020, the average tariff level increased marginally.

2.2 Indonesia has joined regional trade agreements

At the same time as it has been (mostly) reducing protectionist barriers, Indonesia has become increasingly integrated with the global economy through participation in global, regional and bilateral trade agreements. Indonesia has also become more prominent on the global stage, in particular through its membership in the Group of 20 (G20) major economies.

Indonesia has been an active member of the **World Trade Organization** (WTO) since 1995. With almost a third of the population employed in the agricultural sector, Indonesia supported the failed Doha

Round of trade negotiations, hoping for reductions in agricultural protection by advanced economies. However, Indonesia also argued that "special and differential treatment" provisions must be at the heart of a negotiated agreement. This refers to provisions in WTO agreements that give developing countries special rights, such as a slower tariff reduction schedule.

The process of regional integration has seen the **Association of South-East Asian Nations (ASEAN) emerge as the most important regional organisation**. Formed in 1967 by Indonesia, Malaysia, the Philippines, Singapore and Thailand, ASEAN has since expanded membership to include Brunei, Burma, Cambodia, Laos and Vietnam. The ASEAN Free Trade Area (AFTA) agreement, signed in 1992, aims to reduce tariff and non-tariff barriers within the region. It uses a Common Effective Preferential Tariff scheme, where tariffs are less than 5 per cent for goods originating among member economies. In 2007, ASEAN leaders adopted a blueprint for the creation of the ASEAN Economic Community (AEC), intended to create a single market of around 600 million people, allowing the free flow of goods, services, capital and labour. The vision for the AEC is to enhance the attractiveness of South-East Asia as a foreign investment destination and improve the level of regional integration. While the initial plan was to establish the AEC by 2015, this was revised under the AEC Blueprint 2025, which gave members another decade to pursue the reforms and initiatives needed to achieve the vision of a highly integrated, cohesive and competitive economic region.

Indonesia is also a party to a number of other trade agreements through the ASEAN Plus Three framework. ASEAN has concluded free trade agreements with China, South Korea, Japan, India, Australia and New Zealand. Indonesia is also a member of the Asia-Pacific Economic Cooperation (APEC) forum, which has aimed to advance regional and global trade and investment liberalisation. Indonesia is also a member of the Regional Comprehensive Economic Partnership (RCEP), the world's largest trade bloc, which came into force in 2022.

The Indonesia-Australia Comprehensive Economic Partnership Agreement was signed in March 2019, reflecting the growing significance of economic relations between the two countries. Under this agreement, almost all import tariffs in both countries were reduced or eliminated, effective from 2020. Australian primary industry exports such as frozen beef and sheep meat are now being processed more quickly at the border, reducing barriers to trade. Total trade between Australia and Indonesia was A$18 billion in 2021–22, making Indonesia Australia's 14th most significant trading partner.

Indonesia also has a comprehensive bilateral trade agreement with Japan that took effect in 2008. Japan accounts for 8 per cent of Indonesia's exports and is its third-largest export destination after China (23 per cent) and the United States (11 per cent). Indonesia has agreements with South Korea, Chile, Mozambique, Pakistan and the European Free Trade Association (which itself is comprised of Norway, Switzerland, Iceland and Liechtenstein). Indonesia has also signed, or is negotiating, agreements with the EU, India, Tunisia and Türkiye, but these are not yet in force. Figure 7 outlines Indonesia's trade agreements.

FIGURE 7 – INDONESIA'S TRADE AGREEMENTS

Global	Regional	Bilateral
Founding member of the World Trade Organization (1995)	ASEAN Free Trade Agreement (1992) Asia-Pacific Economic Cooperation forum Regional Comprehensive Economic Partnership (2020)	Japan (2008) Pakistan (2012) Australia (2019) Chile (2019) European Free Trade Association (2021) Mozambique (2022) South Korea (2023)

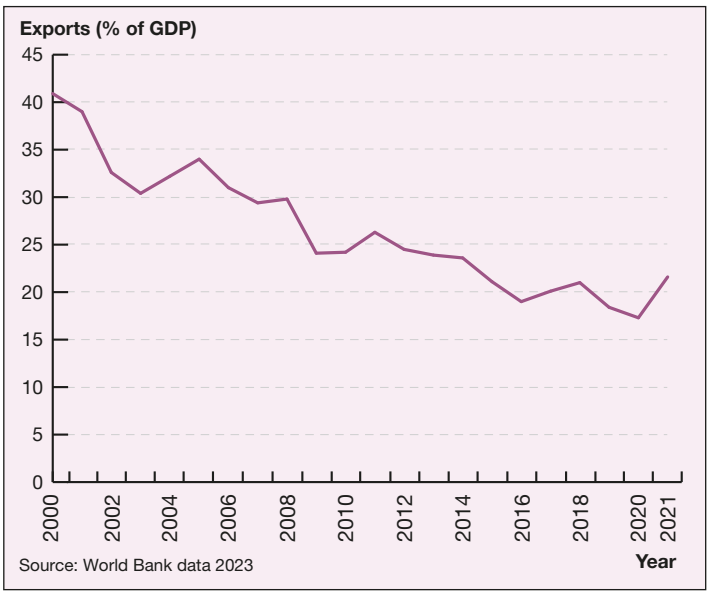
2.3 Changes in trade in goods and services

Trade liberalisation has improved Indonesia's access to overseas export markets and led to stronger economic growth. Exports of goods and services have grown at an average annual real rate of 4.9 per cent globally in the period between 1980–2020. Meanwhile, Indonesia's trade expanded by 5.2 per cent. While giving the country access to wider markets and improving export industry revenues and employment, this trade growth was low when compared with Malaysia, Thailand and the Phillipines, which grew 12-fold. The

contribution of trade to Indonesia's economy (as measured by percentage of GDP) has fallen over the past two decades. Trade in goods and services was equal to around 33 per cent of Indonesia's GDP in 2020, down from 72 per cent in 2000. A major reason for the declining contribution of trade is that Indonesia still relies on a **relatively narrow base of commodity exports**.

The contribution of trade to the Indonesian economy is lower than the regional average for East Asian and Pacific economies (56 per cent), highlighting the potential for Indonesia to expand further into international markets. Indeed, while being the 16th-largest economy with the 4th-largest population, Indonesia is only the 25th largest in exports. It also means that, through trade linkages at least, Indonesia is less exposed to the international business cycle than some other economies. Also, with nearly three-quarters of its trade being with other Asian economies, Indonesia is most closely integrated at a regional level with economies such as Japan, China, Singapore, Malaysia and South Korea.

FIGURE 8 – INDONESIAN EXPORTS



Since the mid-1990s, Indonesia's export base has shifted back towards food and fuels, with manufactured exports falling as a share of trade. High-technology exports contribute less than 3 per cent of Indonesia's total export revenues. Unlike many other economies in the region, Indonesia has not emerged as a major low-cost manufacturer for global markets, relying instead on its commodity exports. In part, this reflects the fact that some commodity prices have remained strong. However, it also highlights Indonesia's need to do more in coming years to develop sustainable exporting industries. Service exports, particularly tourism, represent an area of potential growth for Indonesia. The Indonesian Government has also promoted the idea of "resource down-streaming" or value-adding to existing commodity exports, pointing to the success of a government ban on the export of unrefined nickel ore in 2020 that substantially increased nickel-based steel exports by 2022. Nickel is also an important component in electric vehicle batteries, and Indonesia is hoping to become by 2027 one of the world's three largest manufacturing hubs for EV batteries. Despite the economic reforms of recent decades, Indonesia's main exports are oil and gas, coal, palm oil, steel and electrical machinery/equipment.

2.4 Barriers to finance and investment have also been liberalised

Indonesia has reduced barriers to financial and investment flows during the globalisation era to encourage economic growth and development. From the mid-1980s, Indonesia pursued tax reforms, deregulation of industry sectors, and the removal of restrictions on foreign ownership. While previous decades saw FDI flow mainly to the oil and mining sectors, in the 1990s Indonesia saw an increased flow of investment into manufacturing.

While FDI reached a record level in 2022, overall FDI inflows to Indonesia remain lower than in comparable countries, owing to uncertainty about government policy settings and lower levels of international competitiveness. However, there have been occasional successes. Following the government

decision to ban raw nickel ore exports (noted above), Chinese and US companies invested in local processing facilities to shore-up supplies of nickel, a critical input to the electric vehicle production.

Encouraging FDI, along with continuing to reduce trade barriers, is important to securing export-led development. Figure 9 sets out some key features of foreign investment and integration of Indonesia with the global economy. The largest sources of foreign investment in 2022 were Singapore, China, Hong Kong, Japan and Malaysia.

FIGURE 9 – FOREIGN DIRECT INVESTMENT IN INDONESIA

Trends	FDI inflows reached a record level of US$45.6 billion in 2022 (excluding banking, oil and gas sectors), reflecting recent policies for the base metals sector.
Investment source country (2022)	Singapore (29%); China (18%); Hong Kong (12%); Japan (8%); Malaysia (7%); others (26%)
Destination region within Indonesia (2022)	Java (42%); Sulawesi (20%); Sumatra (15%); Maluku (10%); Kalimantan (7%); Bali and Nusa Tenggara (3%); Papua (3%)
Destination sector (2021)	Agriculture and mining (15%); metal goods (24%); other manufacturing (30%); services (31%)
TNCs in Indonesia	• About 220 pharmaceutical companies operate in Indonesia • Commodity sector attracts TNCs like ExxonMobil • L'Oréal and Toyota have manufacturing facilities in Indonesia
Benefits of FDI	• More investment when domestic savings are low • Employment in production and management • New technologies and business processes • Links to export markets and international supply chains
Risks of FDI	• Exchange rate and financial market volatility • Structure of FDI may limit technology and training benefits for local economy • Environmental sustainability of FDI in natural resource sector
Drivers of FDI	• Large endowment of natural resources • Large consumer market • Relatively low labour costs
Constraints on FDI	• Inadequate transport and energy infrastructure • Inadequately trained staff • Complicated regulations • Exchange rate volatility undermines investor confidence • Economically disconnected regions

Source: BKPM – Indonesia Investment Coordinating Board
Note: Numbers do not add to 100 due to rounding.

Financial markets have also been liberalised in recent decades to encourage economic growth, beginning with the shift in Indonesia from a fixed exchange rate to a managed float in 1978. The currency, the Indonesian rupiah, was devalued during the 1980s as a deliberate strategy to improve the competitiveness of exports. The managed float was abandoned during the Asian financial crisis in August 1997, and the rupiah was allowed to float freely after the central bank's attempts to stabilise the currency were unsuccessful. The rupiah suffered a massive depreciation, causing major turmoil in financial markets and the economy.

Currency volatility is a continuing problem in Indonesia, with major shifts in the rupiah caused more by global factors than domestic factors. To reduce instability (and encourage longer-term foreign investment), the Indonesian Central Bank has strengthened capital controls in financial markets – with investors in government bonds required to hold them for a minimum of six months, slowing the pace of any "capital flight". IMF research has found currency volatility reduces private sector investment – for every 1 per cent increase in volatility, there is reduction in investment of almost 0.2 per cent.

2.5 Foreign aid and assistance have supported economic development

Economic development in Indonesia has been supported by foreign aid and assistance. In addition, the World Bank funds many active projects in Indonesia with a cumulative lending value of US$19.6 billion. These programs have targeted community empowerment, government administration, energy and infrastructure development. Australia was expected to provide Indonesia with $286 million in official development assistance in 2023–24, and also donated 8 million doses of COVID-19 vaccines during the pandemic.

3. Recent developments in economic policy

Indonesian economic policy has evolved gradually in recent years, with governments aiming to achieve macroeconomic stability, promote economic development, attract foreign capital and increase social expenditure. At one point, Indonesia set a goal of being a top 10 and middle-income economy by 2025, but a combination of disappointing economic growth rates and the recession caused by the COVID-19 pandemic made that goal impossible.

The central element of Indonesia's current economic policy framework is the 20-year development plan known as RPJMN (*Rencana Pembangunan Jangka Menengah Nasional*). The plan, which began in 2005, is in its final phase. This last phase aims to focus on improving human capital and Indonesia's international competitiveness.

The conduct of **monetary policy** is led by Indonesia's Central Bank, **Bank Indonesia**, which has been independent from the Government since 1999, and has had a medium-term inflation target of 4 to 6 per cent since 2005. During the 2010s, the main central bank interest rate moved within a band between 4 and 8 per cent. Monetary policy was loosened throughout 2016 and 2017, and after increasing rates in 2018, Bank Indonesia reduced interest rates to 3.5 per cent in 2020. Rates rose sharply in late 2022, stabilising at 5.75 per cent for the first half of 2023.

FUEL SUBSIDIES



A continuing drain on Indonesia's public resources for many years has been the large government expenditure on fuel subsidies, which have been larger than all central government social and capital spending combined. At their peak, fuel subsidies accounted for 20 per cent of government spending. Petrol prices have previously caused political turmoil, forcing a reversal of subsidy cuts in 2008, 2011 and 2018. The Government announced an intention to further lower subsidies to reduce spending on fuel subsidies to US$14 billion in 2023. Fuel subsidies mainly benefit the middle class, with the poorest 10 per cent of households receiving just 2 per cent of fuel spending.

Fiscal policy has focused on maintaining the confidence of international investors and in providing macroeconomic stability. During the 1990s, the Government achieved budget surpluses, using those surpluses to retire government debt. Spending was restrained while tax revenues increased (by around 15 per cent). In the two decades to 2019, government debt fell from 87 per cent to 30 per cent. As a result of COVID-19 stimulus spending, government debt rose to 40 per cent of GDP in 2020.

The Indonesian Government implemented a major fiscal policy response to COVID-19. The Government relaxed its self-imposed budget deficit ceiling of 3 per cent. The Indonesian Government budgeted around US$50 billion – more than 4.5 per cent of GDP – on its national economic recovery program (PEN). The PEN was split into the following areas:

- Healthcare spending (US$7 billion), including purchase of medical equipment, funds for mass vaccination and incentives for medical workers.
- Social protection (US$16 billion), including food support programs for up to 20 million families, extending the pre-employment card program for around 5.6 million impacted workers, free electricity for around 30 million customers, supporting low-cost housing and providing other support needs.
- Tax incentives and credit for business (US$8 billion), including income tax exemptions, deferring import tax and debt payments, and reducing the corporate tax rate from 25 per cent to 22 per cent.
- Economic recovery program (US$12 billion), focused on providing credit restructuring and financing for small and medium businesses.

As Indonesia emerged from the COVID-19 pandemic, its government began the task of fiscal repair, with fiscal policy becoming contractionary. Indonesia's budget deficit fell to expected 2.8 per cent of GDP in 2023, below the legally mandated ceiling of 3 per cent. The fiscal repair task has been aided by windfall revenues from record commodity prices. However, overall spending still increased in 2022 due to subsidies for high fuel prices and the increasing interest burden from government debt.

A key constraint on the sustainability of Indonesia's fiscal policy is the narrowness of its tax base. Indonesia's ratio of tax revenues to GDP has been the lowest in the ASEAN-5 (Singapore, Malaysia, Phillipines, Indonesia and Thailand) and had been declining since 2013 up until the pandemic. This reflects factors relating to both the economy and the fact that Indonesia's tax revenues are heavily linked to the cyclical commodities sector. There are many gaps in the tax collection system, and a large number of exemptions in the tax system. Some improvements have been achieved under President Widodo reflecting tax reforms (particularly relating to tobacco) and increased compliance, as well as higher commodity prices. In 2022, the value-added tax rate (a tax on the delivery of goods and services) was increased, contributing to a 14 per cent increase in tax revenues. Measures to improve tax compliance include a tax amnesty (which allows the declaration of previously untaxed assets), the simplification of compliance processes for taxpayers, and more effective use of banking data. However, over-reliance on commodity prices to drive revenue remains a critical problem. Indonesia collected more tax in 2022 than it had for some years, partly repairing the tax-to-GDP ratio.

One of the weaknesses of current policy settings is that the tax and transfer payment system makes no overall difference to the **level of inequality**. Fiscal policy's failure to promote inclusive growth reflects low-quality spending in infrastructure, education and health, particularly evident in East Indonesia. For example, 60 to 70 per cent of people in East Indonesia lack adequate internet access. The Indonesian Government has identified the need to substantially increase spending across these areas.

The Indonesian Government has also recognised the need to increase its investment in **infrastructure**. Between 2014 and 2018, infrastructure spending grew 22 per cent a year on average. The Government has an ambitious plan to spend around US$430 billion on infrastructure in the five years to 2024. In 2019, the government announced a US$32 billion project to move its capital city from Jakarta to Borneo, officially changing over in 2024. The government hopes 60,000 people will move between the two cities by 2025, and that this will encourage foreign investment into a less-developed region of the country. However, Indonesia still has a large infrastructure deficit. Private investment will need to play a role too, but it has been hampered by regulatory issues, inadequate planning and issues in securing finance. The Government has established a Public Private Partnership Unit within the Ministry of Finance to facilitate faster project approval and delivery, and has made steps to reduce regulatory burdens. International assistance can also help address infrastructure needs, such as through a recent US$210 million project funded by the World Bank to improve protection of Indonesia's marine areas and coral fisheries.

Indonesia's expenditure on **education and health care** is inadequate for population needs. Education spending is 3.5 per cent of GDP, despite a commitment that 20 per cent of government expenditure should be spent on education. Inadequate investment in education contributes to Indonesia's high rate of youth unemployment, which is usually around four times higher than for other age groups. Educational outcomes are also relatively low, with around 55 per cent of Indonesians completing education functionally illiterate. The Government has expanded its Program Indonesia Pintar (PIP) policy, which provides a cash subsidy for school-age children in poor households, with a budget for 17.9 million students in 2023. Further, the "Merdeka Belajar" consists of 22 programs in place since 2019 to improve Indonesia's human capital, including a revision of the national exam to better align with international standards.

Public spending on healthcare is below 1.5 per cent of GDP, lower than in most South-East Asian economies, such as the Philippines or Cambodia. Improved health outcomes have been achieved since the introduction of a universal health insurance program in 2014, the *Jaminan Kesehatan Nasional* (JKN). The universal healthcare program has nearly reached 90 per cent coverage, assisted by a program in 2022 that provided 97 million low-income households extra assistance in accessing the program. The cost of JKN for individuals depends on their ability to contribute, with the poorest households having

no requirement to contribute. Around 240 million Indonesians participate in the scheme, although in 2021 only 60 per cent were in the lowest income categories. The government has made steps to improve the scheme, including the introduction of the "Standard Inpatient Class" system in 2022. This reformed the existing tiered framework, which offered hospital wards of varying quality based on the premiums individuals paid. However, while this addresses inequalities for in-patients, attention has been drawn to JKN's inability to address high out-of-pocket expenses, which make up a third of total health expenditures (above the WHO recommendation of 20 per cent).

The most audacious attempt at structural reform in Indonesia in recent years has been the *Job Creation Act* of 2020, also known as the "Omnibus Law" because of its wide-reaching impacts on so many aspects of the economy. The legislation amended 77 other laws relating to environmental protection, spatial planning, special economic zones, small and medium enterprises, land rights, transport, energy, agriculture, fisheries and taxation, with the aim of encouraging business investment and economic growth. Labour market changes mostly reduced protections for employees. Foreign investment restrictions were reduced for hundreds of industries, including information and communications technology (ICT), energy and tourism. However, the Omnibus Law was highly contentious, prompting criticism from environmental and labour groups and even street protests. In 2021, the Constitutional Court declared the law unconstitutional. In 2023, an amended law removed three key restrictions on foreign investment and established the Indonesian Investment Authority with US$5 billion to create long-term investment opportunities in the country.

A consistent hurdle for reforming the Indonesian economy is resistance from established interest groups whose economic interests have been threatened by the removal of regulations that advantaged them. Historically, Indonesia has been associated with "crony capitalism", where economic policies were set up for the benefit of corrupt officials and relatives of senior officals and political leaders. Indonesia was ranked 110th in the world in 2022 on the Corruption Perception Index. In 2023, a US$20 billion tax scandal forced President Widodo to pledge further efforts to fight corruption. One part of his strategy over the past decade has been to shift towards a more decentralised state, with large areas of public expenditure and services being transferred from the central government to the nation's 440 local governments. However, significant reforms are still required for the legal system to improve corporate practices, with the World Bank ranking Indonesia 73 out of 190 countries for ease of doing business in 2019.

The potential dividend from economic reform and policy intervention is significant. According to the Ministry of National Development Planning (Bappenas), by 2030, policy interventions could lift fourth grade reading proficiency to 68 per cent, reduce women in child marriages from 10 per cent to 7 per cent, increase annual real GDP per capita growth to 5.4 per cent and lower the Gini index from 37 to 36. However, achieving these economic and social gains will require major investment, almost US$700 billion in annual spending on Sustainable Development Goals by 2030.

4. Conclusion: Is Indonesia a globalisation success story?

Indonesia provides a complex picture of globalisation. Since the 1980s, Indonesia has liberalised trade, investment and financial flows. Global and regional integration have delivered Indonesia substantial benefits and have allowed for progress towards reducing poverty. The severity of the Asian financial crisis in the late 1990s resulted in lasting reforms and improved governance. While growth has been strong, Indonesia has fallen short of its ambitious growth target, and reforms have been hindered by difficulties in managing the economy, with its huge population, diverse range of cultures and a population scattered across 6000 inhabited islands. Indonesia's experience highlights that globalisation is not an economic "silver bullet". To sustain growth over the long term, countries need to establish strong governance systems, build competitive industries, reform their economies and undertake major investment in education, health and infrastructure to achieve economic development.

Despite sustaining growth rates above 5 per cent in recent decades, Indonesia is faced with numerous challenges. In the short term, it must sustain economic growth that has been fuelled by higher

commodity prices and a recovery in tourism, and which could be jeopardised by inflationary pressures, higher interest rates or weaker international conditions. Securing foreign investment will be critical to strengthening the economy and sustaining strong growth through the 2020s. While the government cannot ensure the stability of the currency, it can contribute to investor confidence. In the long term, key economic challenges will include strengthening the financial sector, reorienting government spending towards more efficient spending on education and infrastructure, improving coordination between the national and local governments and attracting more foreign investment that can diversify the Indonesian economic base.

Stronger economic growth is needed to reduce the incidence of poverty and improve quality of life. Indonesia hopes to mark its 100-year anniversary of independence in 2045 by achieving high-income status and reducing poverty to zero. This is an ambitious goal, and will require the Government to continue to provide a strong policy framework and support the development of human capital. With Joko Widodo completing his maximum two terms in office in 2024, the new president will play a central role in determining Indonesia's progress towards its economic ambitions.

TOPIC 2

AUSTRALIA'S PLACE IN THE GLOBAL ECONOMY

Focus

The focus of this topic is an examination of Australia's place in the global economy and the effect of changes in the global economy on Australia.

Issues

By the end of Topic 2, you will be able to examine the following economic issues:

- Assess the impact of recent changes in the global economy on Australia's trade and financial flows
- Examine the effects of changes in trade and financial flows on Australia's economic performance
- Analyse the effects of changes in the value of the Australian dollar on the Australian economy
- Discuss the impact of free trade and protection policies on the quality of life in Australia
- Propose likely changes to the structure of industry within Australia as a result of current trends in the global economy

Skills

Topic 2 skills questions can ask you to:

- Calculate the main components of Australia's balance of payments
- Analyse the relationship between the balance of the capital and financial account and the net income balance
- Explain the relationship between the current account balance and the balance of the capital and financial account
- Use supply and demand diagrams to explain how the value of a currency is determined under different exchange rate systems
- Analyse the impact of changes in the components of the balance of payments on the value of the Australian dollar

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Topic 2

Introduction

Australia is a big country in terms of its physical size, yet its economy is relatively small compared to the rest of the world. As economies throughout the world become more integrated, Australia's economy is increasingly affected by developments in the global economy. Global economic forces have changed the Australian economy and the lives of Australians dramatically in recent years, and these changes will accelerate as globalisation continues.

Chapters 1 to 3 covered Year 12 Topic 1 – *The Global Economy* and reviewed some of the main features of the global economy. It was noted that economies have become far more integrated in recent years because of flows of trade, finance, investment, technology and labour. International institutions have become more important as economies have become more closely linked to each other. There has been significant progress in recent years to remove trade barriers between nations. Yet with the increasing integration of the global economy, there remains an extraordinary gap in wealth between rich and poor nations.

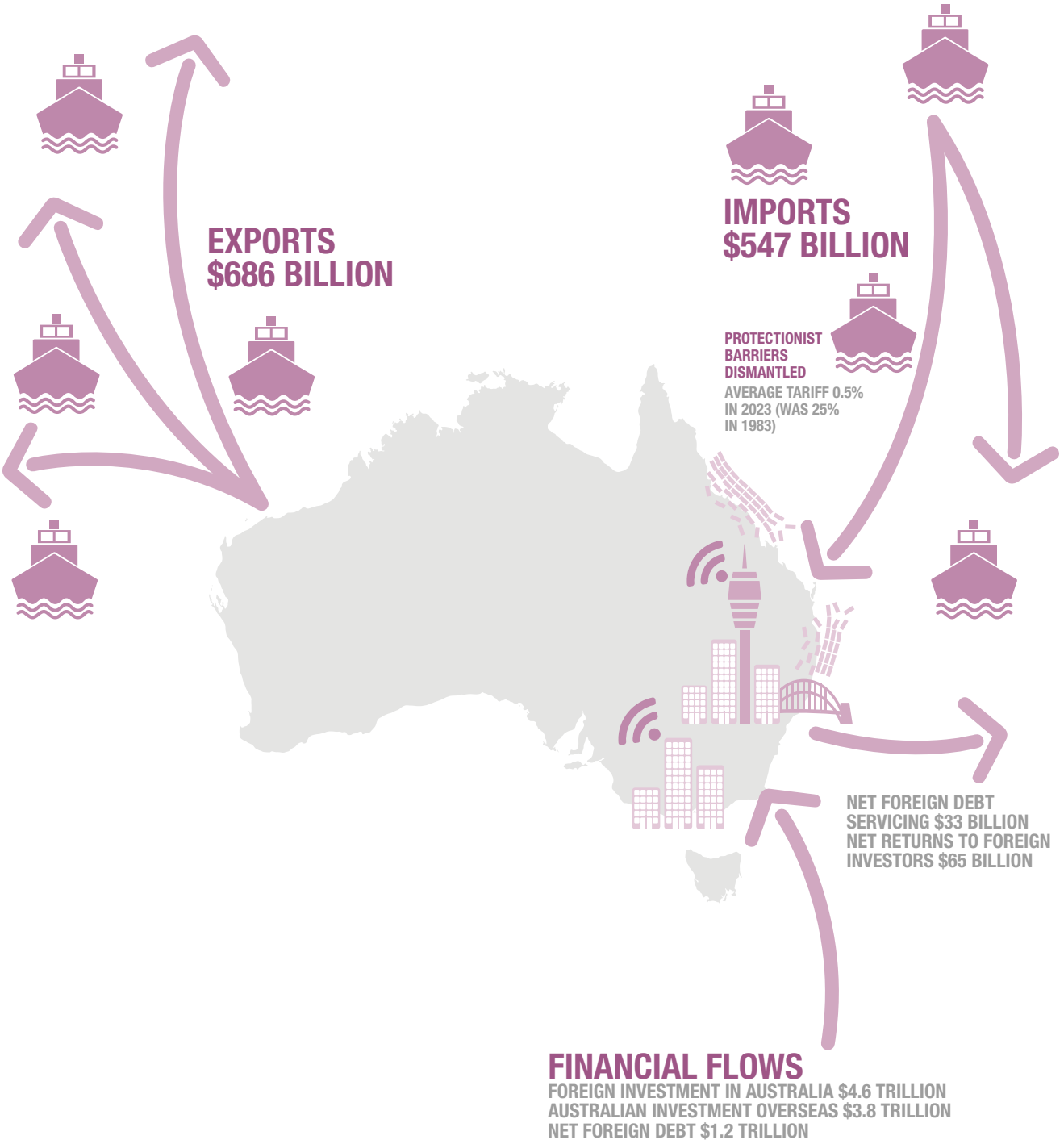
This topic – *Australia's Place in the Global Economy* – will focus on examining where Australia fits into the global economy and the impact of changes in the global economy on Australia's internal and external stability.

Chapter 4 outlines Australia's trade and financial flows. It looks at how Australia's trade patterns have changed over time, and how Australia's trading partners have also changed. Chapter 4 also examines the key topic of the balance of payments. The balance of payments tracks Australia's trade and financial relationships with the global economy. Chapter 4 sets out the structure of the current account and the capital and financial account, along with links between key balance of payments categories. This chapter also analyses recent trends in the size and composition of Australia's balance of payments.

Chapter 5 explains the role that Australia's exchange rate system plays in Australia's relationship with the global economy. It gives an overview of how exchange rates are determined, and looks at the influences on the demand for and supply of Australian dollars. This chapter also examines the role of government policy in influencing the exchange rate, and the effects that exchange rates can have on other economic outcomes.

Chapter 6 examines free trade and protection with a particular focus on Australia's trade and protection policies, which have changed significantly in the past three decades. These changes have had impacts for many participants in the economy. The chapter concludes with a look at the implications for Australia of the free trade and protectionist policies of other countries and international organisations and the future of Australian industry in the global economy.

AUSTRALIA'S PLACE IN THE GLOBAL ECONOMY



SOURCE ABS *Balance of Payments and International Investment Position, Australia* (Cat. no. 5302.0, Table 10, 11, 16, 29, 30)

4 Australia's Trade and Financial Flows

4.1 Understanding Australia's place in the global economy

4.2 Trends in Australia's trade patterns

4.3 Trends in Australia's financial flows

4.4 The balance of payments

4.5 Trends in Australia's balance of payments

4.6 The consequences of a high CAD

4.1 Understanding Australia's place in the global economy

In the first section of this book we examined the key features of the global economy, including the trends towards greater integration among countries, trade and financial linkages, trade policies, important global institutions, and the income gap between advanced and developing economies. In this section, the focus is on where the Australian economy fits into the global economy and in particular the nature of Australia's trade and financial links with the rest of the world.

By global standards, Australia is large in some respects and small in others. On size alone, the Australian economy ranks 12th in the world – placing it in the middle rank of advanced economies, between Brazil and South Korea. This means that the Australian economy is larger than almost 200 other countries, but if it is compared to the giants of the world economy, such as the United States, China, the EU or Japan, then it is relatively small. Another way to compare Australia with other countries is to look at standards of living. Australia was ranked fifth in the world in terms of quality of life, according to the United Nations' 2021–22 **Human Development Index**. This demonstrates that Australia has a very high level of economic development.

Measures of the size of the economy and living standards only provide a snapshot comparison between economies. To really understand the **impacts of changes in the global economy on the Australian economy**, we must understand the linkages between Australia and the global economy. This requires an analysis of Australia's trade patterns and trade policies, Australia's financial relationships with overseas countries, and the influence of the exchange rate on the **structure and performance of the Australian economy**.

4.2 Trends in Australia's trade patterns

Despite Australia's geographic isolation from the rest of the world, trade has always represented a high proportion of Australia's economic activity. In part, this is because there have always been overseas markets for Australia's primary commodities, such as minerals

and agricultural products, and because Australia's level of development has made it an exporter of services such as tourism and education. It is also partly because Australia has needed to trade in order to obtain new technology and goods that are not produced in Australia because of its relatively small population.

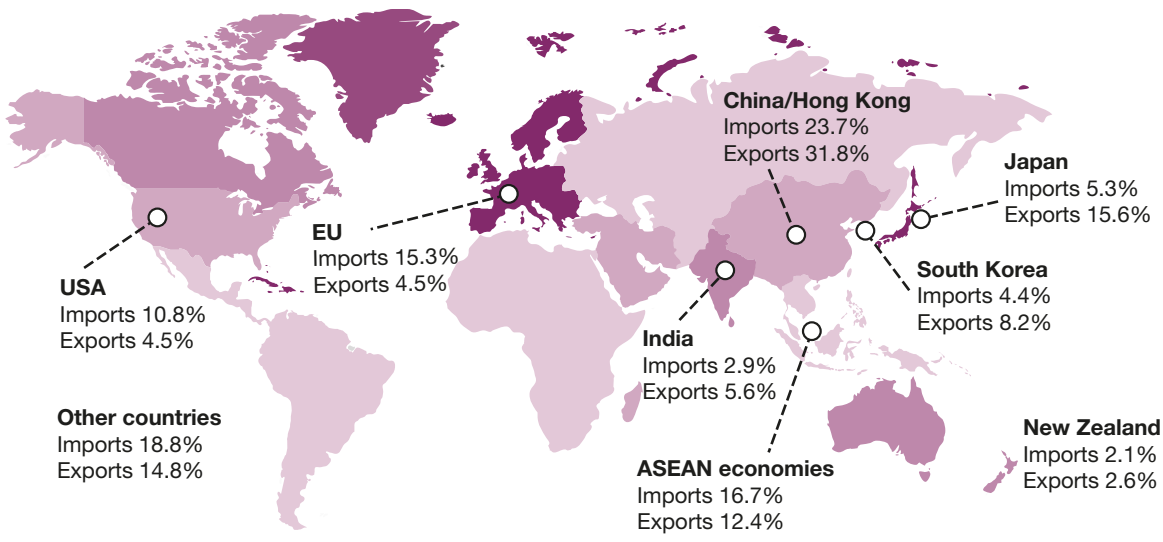
In the context of the global economy, Australia is sometimes referred to as a small, open economy. The Australian economy makes up only a small proportion of the global economy, producing less than 2 per cent of the Gross World Product. However, trade is central to the Australian economy. Australia exports more than one-quarter of what is produced and imports the equivalent of almost one-quarter of Gross Domestic Product (GDP). As a result, although the Australian economy does not have much influence on developments in the global economy, world economic developments can have a very significant impact on Australia.

The changing direction of trade

The direction of Australia's trade has changed considerably over recent decades. China has become Australia's dominant trading partner in the past decade, while India and ASEAN countries have also become more important. Meanwhile, the key export markets for Australia in previous decades – Japan, the United Kingdom and Europe – have declined in importance. Figure 4.1 illustrates the importance of each of these regions to Australia's merchandise trade (which includes trade in physical goods but not trade in services).

There was a historic shift in the direction of Australian trade after the United Kingdom joined the European Economic Community (EEC) trading bloc, now known as the European Union (EU), in 1973. The United Kingdom had been Australia's major trading partner prior to this period, reflecting the historic ties going back to when Australia was a colony of Britain. Once the United Kingdom joined the European trading bloc, it was required to impose the same barriers to trade with Australia as with other countries, in effect giving a preference to trade from European countries. Australia soon lost many of its traditional export markets for agricultural products in the United Kingdom. Although since 2023 Australia and the UK have had tariff-free trade (following the signing of a trade agreement after the UK's departure from the European Union), the UK remains a much less significant market than the faster-growing economies in closer proximity to Australia.

When Australian exporters found it more difficult to gain access to European markets, their focus shifted to other areas, particularly the North-East Asian and ASEAN countries,



Source: Department of Foreign Affairs and Trade, Australia's direction of goods and services trade, 2021–22

Figure 4.1 – Australia's major trading partners

for trade opportunities. In the 1960s, the Japanese economy was growing strongly and its demand for minerals and energy increasing rapidly. Australia responded to this opportunity and Japan became our largest export market. Japan's share of Australia's trade began declining around 1990 and has continued to shrink since then, reflecting both Japan's weak growth and Australia's increased focus on other markets in the region.

In the early 2000s exports to China began a sustained period of rapid growth, which since 2007, has made China **Australia's largest trading partner** (calculated by adding imports and exports together). This reflects both China's increasing significance in the global economy and Australia's role as a major commodity supplier. China is Australia's dominant export market, overshadowing all other countries and has a share of exports more than twice as large as Australia's second-largest export market, Japan. In 2022–23, China accounted for more than one-third of Australia's export earnings from merchandise trade, and as figure 4.2 shows, the growth in exports to China since 2000 has been extraordinary, with annual exports to China expected to soon exceed $200 billion. The 2020s are seeing ongoing shifts in the direction of Australian trade towards other rapidly growing economies, including India and those of South-East Asia.

Figure 4.2 shows that the trends in the direction of Australia's exports and imports differ. Although Australia does not sell a high proportion of its output to other advanced economies, it still buys a substantial amount from these economies, in particular Europe and the United States. This reflects the importance of imports from these countries, both for capital equipment and for many consumer items. China and ASEAN economies are also large sources of imports, reflecting Australia's demand for manufactured imports that these economies specialise in producing. China's share of Australian imports has grown dramatically in the past three decades and, since 2016, China has been our largest source of imports.

Country/region	Annual exports (%)						Annual imports (%)					
	1990	2000	2010	2020	2021	2022	1990	2000	2010	2020	2021	2022
China/Hong Kong	2.4	4.4	20.4	35.3	38.8	31.8	2.0	5.7	14.0	21.0	24.0	23.7
Japan	23.9	17.3	15.1	11.8	10.0	15.6	16.2	11.3	7.4	5.7	5.7	5.3
ASEAN	10.6	13.6	11.1	11.1	11.6	12.4	6.9	14.0	19.0	15.3	15.0	16.7
European Union	10.9	8.4	5.4	3.9	3.8	4.5	17.0	15.1	16.0	15.2	16.3	15.3
South Korea	4.6	6.5	7.2	5.8	6.2	8.2	2.0	3.2	2.8	2.8	3.0	4.4
United States	11.6	10.9	5.8	5.8	5.3	4.5	23.7	20.8	12.8	13.4	11.7	10.8
New Zealand	6.2	7.0	4.4	3.3	3.1	2.6	4.4	4.2	3.8	3.2	2.5	2.1
India	-	-	-	-	-	5.6	-	-	-	-	-	2.9
Other countries	29.7	32.0	30.5	23.0	21.2	14.8	28.0	25.7	24.2	23.4	21.7	18.8

Source: Department of Foreign Affairs and Trade, Australia's direction of goods and services trade 2021–22

Figure 4.2 – Australia's direction of merchandise trade by country and region

The changing composition of Australia's trade

Primary industries have always been the main focus of Australian exports, as Australia has a comparative advantage in commodities due to its vast natural resources. Australia has exported high volumes of agricultural products such as wheat, wool and beef, and minerals such as coal, iron ore, gold and lithium. Together, agricultural and mineral exports account for more than two-thirds of Australia's export earnings. Australia has been less competitive in manufacturing. While other advanced economies generally developed substantial manufacturing industries in the second half of the 20th century, Australia has continued to rely on its primary exports, while importing large quantities of capital goods and manufactured consumer goods.

Australia has experienced significant changes in the composition of its export base. In 2022–23, Australia's total exports were worth $686 billion, up from $595 billion in 2021–22. This increase reflected strong metal ores and minerals exports (from $180 billion in 2021–22 to $189 billion in 2022–23), and an increase in services exports (which rose from $61 billion in 2021–22 to $94 billion in 2022–23).

Several factors have contributed to the decline of agricultural exports as a proportion of Australia's trade over recent decades. Large fluctuations in world prices as well as the trade protection policies of other countries have influenced the export revenue from agricultural commodities. In addition, most agricultural trade involves commodity items to which little extra value is added in processing, unlike other areas of world trade, such as elaborately transformed manufactures, which are high in added value. In recent years, natural disasters such as floods and bushfires caused by extreme weather patterns have also become more frequent and more severe, reducing the output and productivity of the agricultural sector.

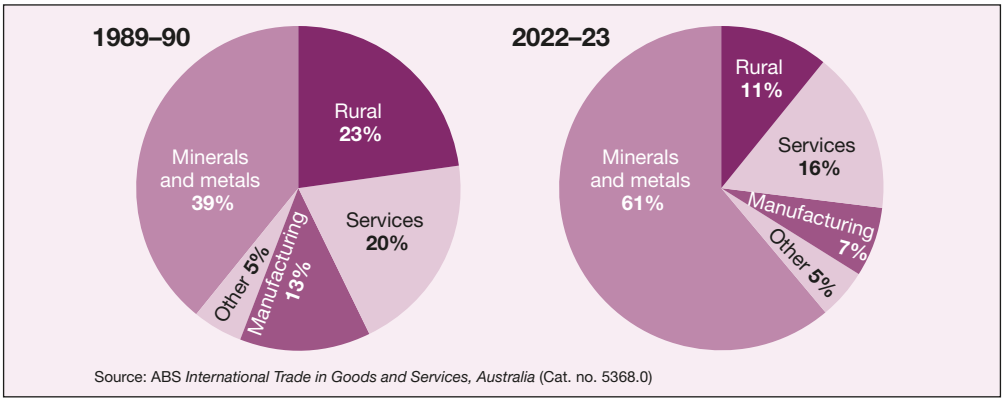


Figure 4.3 – Australia's composition of exports

Manufactured goods make up only a small share of exports. While Australia does not compete well in the manufacture of high-volume, low-cost products, its sales of sophisticated, niche-market-manufactured goods picked up in the 1990s. But since the mining boom increased the value of the Australian dollar in the mid-2000s, Australian manufacturing exporters have encountered more difficult conditions, alongside increased competition from goods manufactured in China and other low-cost economies in Asia.

> "Sure, our economy makes a motza selling fossil fuels to the world today, and ... it will continue to be a lucrative trade for a while yet. But it looks inevitable that overseas demand for fossil fuels will decline in the decades ahead as the world attempts to limit the effects of climate change ...
>
> Clearly we should find other exports to fill the gap, whether that's from minerals to power electrification boom such as lithium; or hydrogen; or even green electricity through undersea cables ... we need to ... stimulate heavy investments in sectors such as critical minerals and renewable energy to make sure we are competitive in the future."
>
> – Clancy Yeates, Deputy Business Editor, *Sydney Morning Herald*, 30 August 2023

The global resources boom stirred debate about whether Australia can continue to rely so heavily on exports of commodity items. Some economists argue that the prospects for high commodity prices are positive in the medium to longer term because of the rapid growth of China, India and other developing economies. However, others point to the risks of Australia being too reliant on commodity exports and one major export market (China), especially given China's recent history of imposing trade barriers against Australian exports. Australia's resource exporters have experienced considerable volatility in the past two decades, although commodity prices have since the early 2000s remained well above historic averages. There are specific risks in Australia's reliance on global demand for coal and gas exports. Although there has been strong demand for these exports

recently, particularly following Russia's invasion of Ukraine, in the medium term demand is expected to fall as economies transition to energy sources with lower carbon emissions. Over-reliance on fossil fuel exports could also mean that Australia is harder hit if carbon tariffs are adopted around the world as part of the global response to climate change.

Australia's best long-term alternative to its dependence on traditional mineral and energy exports is to diversify exports towards new mineral and energy exports, and services demanded by the growing population of middle-class consumers across Asia. Australia has large reserves of "critical minerals" used in clean energy technologies such as lithium, cobalt and "rare earths". Australia also has the potential to export clean energy sources such as hydrogen. In addition, Australia has sophisticated service industries and a highly skilled workforce, nearly three-quarters of which is employed in service industries. In recent decades, Australia has grown substantial export markets for education services, financial services, insurance and tourism, as well as smaller markets for transport, health and communications services. However, the COVID-19 pandemic had a devastating impact on service exports (in particular, tourism and education). As these sectors recovered after the pandemic, Australia continued to rely heavily on its resource exports (notably iron ore) whose prices proved resilient during the pandemic.

Year	Capital goods (%)	Consumer goods (%)	Intermediate goods (%)	Services (%)
1989–90	19.0	17.7	37.2	25.7
1999–00	18.1	20.6	36.0	24.1
2009–10	18.2	24.6	32.7	22.0
2014–15	18.3	24.8	32.7	23.1
2019–20	18.4	26.0	31.6	21.8
2020–21	21.5	30.9	32.1	13.2
2021–22	19.5	26.0	37.2	15.8
2022–23	20.1	25.8	33.7	19.4

Source: ABS *International Trade in Goods and Services, Australia* (Cat. no. 5368.0, Table 1)

Figure 4.4 – Australia's composition of imports

Figure 4.4 illustrates trends in the composition of Australia's **imports** as a percentage of total import expenditure. During this time, the composition of Australia's imports has changed moderately. The share of capital goods has remained largely unchanged at around one-fifth of imports. Part-finished intermediate goods and services imports have both fallen slightly. Consumer goods as a proportion of imports have increased. These changes can be explained by the shift away from large-scale manufacturing in Australia, especially with the gradual reduction of tariffs and local content rules. In 2022–23, Australia's total imports were valued at $547 billion. Intermediate goods accounted for $190 billion, followed by consumption goods ($138 billion) and capital goods ($105 billion).

reviewquestions

1. Identify the key changes in the direction and composition of Australia's trade over recent decades.
2. Discuss whether Australia's reliance on commodity exports is beneficial or harmful for the Australian economy.

4.3 Trends in Australia's financial flows

While Australia's trade flows have increased substantially over recent years, the rate of growth in financial flows has been much greater, as international businesses have bought Australian assets and invested in Australian businesses, and as Australian companies have increased their overseas investments.

International financial flows were less important in the postwar economic boom of the 1950s to the early 1970s, while exchange rates remained fixed and international capital markets remained largely closed. However, during the early 1970s the international system of fixed exchange rates (known as the Bretton Woods system) came to an end. Exchange rates around the world were floated and restrictions on the movement of capital across national borders were removed. Financial flows began growing rapidly as international capital markets opened up, exchange rates were floated, and technological changes made it easier to shift finance between countries. The level of foreign investment in Australia and investment overseas by Australians has more than doubled in the past decade, and has been rising rapidly since the 1980s.

Year	Foreign investment in Australia ($m)			Australian investment abroad ($m)		
	Direct	Portfolio	Total	Direct	Portfolio	Total
1990–91	106,636	145,942	**309,330**	44,715	22,702	**115,583**
1995–96	156,172	256,288	**482,952**	84,786	49,964	**204,281**
2000–01	253,467	475,407	**888,811**	218,371	150,145	**516,419**
2005–06	386,425	831,380	**1,456,020**	352,019	314,393	**918,882**
2010–11	557,154	1,192,146	**2,116,789**	458,567	496,556	**1,338,477**
2015–16	877,179	1,642,290	**3,304,726**	624,395	865,905	**2,255,207**
2020–21	1,085,456	2,077,915	**4,080,127**	897,603	1,439,679	**3,167,305**
2021–22	1,184,941	2,086,691	**4,496,592**	984,583	1,443,017	**3,592,164**
2022–23	1,213,605	2,181,931	**4,639,643**	1,042,016	1,594,931	**3,817,403**

Source: ABS *Balance of Payments and International Investment Position, Australia* (Cat. no. 5302.0)
Note that direct and portfolio investment differ from calculations of foreign debt and equity

Figure 4.5 – The changing pattern of Australia's financial flows

Figure 4.5 shows a change in the composition of financial flows between **direct investment** and **portfolio investment**. Direct investment includes the establishment of a new company, or the purchase of a substantial proportion of shares in an existing company (10 per cent or more). When a business undertakes direct investment, it is generally considered to be a longer-term investment and the investor normally intends to play a role in the management of the business. This is different from portfolio investment, which includes loans, other forms of securities and smaller shareholdings in companies. Businesses and individuals that undertake portfolio investment generally do not intend to play a role in the running of the business.

Prior to the deregulation of the financial sector, most financial flows came into Australia in the form of direct investment. Governments preferred direct investment, because it brought the benefits of job creation and technology transfer. Portfolio investment was not as important, as overseas purchase of shares was relatively small and, in an environment where financial markets were regulated, overseas loans were not common. The removal of restrictions on financial flows changed this situation, as Australia saw the benefit of attracting the growing flows of finance into the economy, injecting money into Australian companies through loans and share purchases.

Following the deregulation of the financial sector and the floating of the Australian dollar in the 1980s, foreign investment inflows began to grow rapidly, a trend that has been sustained for the past four decades. The rate of growth of portfolio investment into Australia – the shorter-term and more speculative inflow – has been significantly faster than the growth in longer-term foreign direct investment. Similarly, Australian investment overseas is seven times what it was in 2000, and the level of portfolio investment is significantly higher than the level of direct investment. Financial flows have grown at a faster rate than the growth in trade.

Another significant feature of the financial flows between Australia and the global economy is the imbalance between investment in Australia and Australian investment overseas. Australia has always been a **net capital importer**, with the level of foreign investment in Australia consistently remaining well above the level of Australian investment abroad. In part, this reflects the historically **low level of domestic savings** within Australia. For many years, Australia has relied on financial flows from overseas to make up for the shortfall between savings and investment in Australia, and this remains a feature of financial flows between Australia and the global economy today. However, it is important to note that these flows are not all one-way – even though there is a much higher level of foreign investment in Australia, with around $4.6 trillion invested in the Australian economy in 2022–23, Australia had also invested more than three-quarters as much overseas ($3.8 trillion). Australian businesses have substantial overseas assets, and Australia also has significant shorter-term overseas investments such as overseas loans and shares on overseas stock markets. One reason for this is that as overseas capital markets have become more open to international investors, Australia's large superannuation funds have increasingly pursued investment opportunities overseas.

reviewquestions

1. Explain the difference between direct and portfolio investment flows.
2. Identify TWO factors that have influenced financial flows into and out of Australia in recent years.
3. Discuss the extent to which Australia's financial flows have been influenced by globalisation.

4.4 The balance of payments

Balance of payments is the record of the transactions between Australia and the rest of the world during a given period, consisting of the current account and the capital and financial account.

The **balance of payments** is the single most important economic indicator of the relationship between Australia and the global economy. The balance of payments summarises all transactions that Australia has with the rest of the world over a given period of time. It shows the trade and financial flows in and out of the Australian economy. All money that flows in is referred to as a **credit**, and all money that flows out is referred to as a **debit**. For example, if Australia exports goods to New Zealand, the money we receive for these exports is an inflow, and thus a credit on the balance of payments. On the other hand, if Australia imports goods from New Zealand, the money paid out for these imports is a debit. In these accounts, credit entries are considered positive transactions, while debit entries are negative (denoted with a minus sign).

The balance of payments figures are presented in two accounts – the **current account** and the **capital and financial account**. These accounts are compiled according to a set of international accounting standards, which make it easier to compare Australia's balance of payments with other countries.

The current account

The **current account** shows the money flow from all exports and imports of goods and services, income flows and non-market transfers for a period of one year. In effect, the current account covers external transactions that are not reversible in the sense that once commenced, these transactions cannot be undone. Figure 4.6 shows a simplified current account for the Australian economy.

Current account is the part of the balance of payments that shows the receipts and payments for trade in goods and services, transfer payments and income flows between Australia and the rest of the world in a given time period. These are non-reversible transactions.

In order to analyse the information in this table, one must understand the meaning of the items that appear on the current account:

Net goods

This refers to the difference between what Australia receives for its exports and what it pays out for its imports of goods. There are three possible outcomes: Australia could be in balance (where export receipts equal import payments), Australia could have a surplus (where receipts exceed payments), or Australia could have a deficit (where payments exceed receipts). Figure 4.6 shows that net goods recorded a surplus of $152.4 billion in 2022–23.

Net services

This refers to services that are bought and sold without people receiving a "good" – for example, transport, travel, insurance charges, telephone calls or tourist accommodation. Services that Australia sells are an inflow of money and are shown as credits. Services that Australia buys are an outflow of money and are shown as debits. The net services deficit of $13.6 billion in figure 4.6 shows that the value of Australia's services imports is greater than the value of its services exports.

Balance on goods and services

The balance on goods and services (BOGS) is the amount that is derived by adding net goods and net services together. Figure 4.6 shows a surplus of $138.8 billion in 2022–23.

Net primary income

This refers to earnings on investments, that is, income that is earned as a return from a factor of production. It covers interest payments on borrowings and returns on other foreign investments, such as foreign-owned companies in Australia or foreign land ownership. When foreigners invest in Australia, income in the form of rent, profits, interest and dividends flows overseas. When Australians invest overseas, there is a flow of income back to Australia. Figure 4.6 shows a deficit in the net primary income account of $108.7 billion in 2022–23.

Component	2021–21 ($bn)	2022–23 ($bn)
Goods		
Exports	534.0	592.4
Imports	–388.1	–440.0
Net goods	145.9	152.4
Services		
Service credits	61.1	93.5
Service debits	–71.9	–107.1
Net services	–10.8	–13.6
Balance on goods and services	135.1	138.8
Primary income		
Credits	79.2	92.0
Debits	–167.8	–200.7
Net primary income	–88.6	–108.7
Secondary income		
Credits	10.6	12.5
Debits	–13.3	–13.7
Net secondary income	–2.7	–1.2
Balance on current account	43.8	28.9

Source: ABS *Balance of Payments and International Investment Position, Australia* (Cat. no. 5302.0)

Figure 4.6 – Structure of the current account

Net secondary income

This refers to non-market transfers, that is, income that is not earned through a factor of production. These occur when products or financial resources are provided without a specific good or service being provided in return. This is a small and relatively technical account, which has little importance in the scope of the overall balance of payments. Net secondary income includes payouts on insurance claims, workers' remittances (for example, foreigners working in Australia and sending money overseas) and funds taken out of Australia in the form of unconditional aid to developing nations (such as funds given as a gift to a foreign government without a specified purpose). Pensions received by residents from foreign governments (which would be a credit on net secondary income) are also included. Figure 4.6 shows a deficit in the net secondary income account of $1.2 billion in 2022–23.

Balance on current account

This refers to the addition of the BOGS, net primary income and net secondary income. Figure 4.6 shows that in 2022–23 the balance on the current account was a surplus of $28.9 billion.

The capital and financial account

Capital and financial account records the borrowing, lending, sales and purchases of assets between Australia and the rest of the world.

The other side of the balance of payments is the capital and financial account. This is concerned with financial assets and liabilities – the money flows that result from international borrowing, lending and purchases of assets such as shares and real estate for a period of one year. The major feature of the capital and financial account is that these transactions are reversible, in the sense that after the transactions occur, they can be undone in the future. For example, borrowings can be paid back, and assets that are bought can be sold again.

Figure 4.7 shows a simplified capital and financial account for the Australian economy. The main features of the capital and financial account are as follows:

Component	2020–21 ($bn)	2021–22 ($bn)
Capital account		
Capital transfers	–0.8	–0.8
Net acquisition/disposal of non-produced, non-financial assets	0.2	–0.1
Total capital account	**–0.6**	**–0.9**
Financial account		
Direct investment	–50.2	–14.3
Abroad	–152.4	–54.8
in Australia	102.1	40.5
Portfolio investment	54.5	6.9
Abroad	–128.6	–39.9
in Australia	183.1	46.8
Financial derivatives	–9.2	–14.0
Other investment	–18.6	–2.7
Reserve assets	–20.2	–5.4
Total financial account	**–43.7**	**–29.5**
Balance on capital and financial account	–44.3	–30.4
Net errors and omissions	0.5	1.5

Source: ABS *Balance of Payments and International Investment Position, Australia* (Cat. no. 5302.0)

Figure 4.7 – Structure of the capital and financial account

Capital account

The **capital account** consists of two main components. The first item is capital transfers, mainly in the form of "conditional" foreign aid grants (which are linked to specific capital projects) and debt forgiveness. This may be in the form of assistance to other countries to build up their infrastructure or capital stock (such as an Australian donation to build a bridge in the Solomon Islands). The second item is entries for the purchase and sale of non-produced, non-financial assets – mainly intellectual property rights such as patents, copyrights, trademarks and franchises (such as an Australian company buying the rights from an American company to operate a Subway outlet in Australia). Figure 4.7 shows a capital account deficit of $0.9 billion.

Financial account

The **financial account** shows Australia's transactions in foreign financial assets and liabilities. It is categorised by the type of investment, with five main categories: direct investment, portfolio investment, financial derivatives, reserve assets and other investment. The size of the financial account can change substantially from one time period to the next. This is a result of the large money flows that underlie the balance on the financial account.

Credit entries in the financial account represent net inflows. These come about because of either an increase in foreign investment in Australia or a reduction in Australian investment overseas. Debit entries represent net outflows. Until recent years, Australia has consistently recorded a positive financial account balance, showing that the rise in Australia's liabilities to the rest of the world is higher than the increase in the liabilities of the rest of the world to Australia. When that happens, Australia has effectively drawn on the savings of the rest of the world to finance a deficit on its current account.

The five main financial account components are:

- **Direct investment**: Direct investment covers foreign financial transactions to fund new investment in Australia or overseas or to buy more than 10 per cent of shares in an existing company. This might include a South Korean company bringing in

funds to build a motorway in Sydney or BHP Billiton sending funds to Indonesia to fund the construction of a copper mine. Figure 4.7 shows a direct investment deficit of $14.3 billion.

- **Portfolio investment**: Portfolio investment refers to the buying of land, shares and other marketable securities (that is, securities that can be easily sold) in existing companies. This is also where most foreign debt is recorded. Portfolio investment usually involves the largest volume of transactions on the capital and financial account. Figure 4.7 shows a $6.9 billion surplus in portfolio investment in 2022–23, down from $54.5 billion in 2021–22 (in other words, the value of Australian portfolio investment overseas exceeded the value of overseas portfolio investment in Australia).
- **Financial derivatives**: Financial derivatives are a category of complex financial assets that have become increasingly significant in recent years. The value of these investments is normally derived from the performance of specific assets, interest rates, exchange rates or indices. Financial derivatives are an important part of global financial markets. Figure 4.7 shows a $14 billion deficit in financial derivatives.
- **Reserve assets**: Reserve assets refer to those foreign financial assets that are available to and controlled by the central authorities for financing or regulating payment imbalances. Reserve assets include monetary gold (gold held by the Reserve Bank), Special Drawing Rights, reserve positions in the International Monetary Fund and foreign exchange held by the Reserve Bank of Australia. Figure 4.7 shows a deficit of $5.4 billion in reserve assets.
- **Other investment**: Other investment is a residual category that captures transactions not classified as direct investment, portfolio investment, financial derivatives or reserve assets. Other investment covers trade credits, loans including financial leases, currency and deposits, and other accounts payable and receivable that do not meet the classification requirements of the above categories. Figure 4.7 shows a $2.7 billion deficit for this category.

Balance on capital and financial account

The overall balance of the capital and financial account is determined by adding the categories together. The outcome should be approximately equal to the deficit on the current account. Figure 4.7 shows a $30.4 billion deficit in 2022–23.

Australia's balance of payments figures are derived in the following way:

The current account is calculated as:

net goods + net services
(the balance on goods and services)
+
net primary income + net secondary income

The capital and financial account is calculated as:

capital account + direct investment + portfolio investment
+
other investment + reserve assets + financial derivatives

The balance of payments is calculated as:

current account + capital and financial account
+
net errors and omissions = 0

The final part of the balance of payments is the category of **net errors and omissions**. This refers to statistical discrepancies. It is included because under a floating exchange

rate system, the balance of payments would always balance to zero (that is, a deficit of $12 billion on the current account would be offset by a surplus of $12 billion on the capital and financial account). For convenience, the balancing item is often added on to the capital and financial account figure to ensure the balance of payments sums to zero. It is therefore often reported with the capital and financial account. In 2022–23 the net errors and omissions item was $1.5 billion.

Links between key balance of payments categories

An important relationship exists between the current account and the capital and financial account on the balance of payments. Firstly, the two accounts add up to zero – together, they represent a "balance of payments". The deficit on the current account is equal to the surplus on the capital and financial account (allowing for the small category of net errors and omissions). An increase in a current account surplus will result in a rise in the capital and financial account deficit.

In theory, the floating Australian dollar plays the key role of ensuring that there is a balance in the balance of payments. Under a freely floating exchange rate, equilibrium occurs where:

Supply of A$

The supply of A$ is represented by:
- Payments for imports of goods and services (M)
- Primary & secondary income/transfers overseas (Y debits)
- Capital and financial outflow (K outflow)

=

Demand for A$

The demand for A$ is represented by:
- Receipts for exports of goods and services (X)
- Primary & secondary income/transfers from overseas (Y credits)
- Capital and financial inflow (K inflow)

Therefore, for equilibrium in the foreign exchange market:

Supply of A$ = Demand for A$

Which in turn implies:

M + Y debits + K outflow = X + Y credits + K inflow

Rearranging the equation:

M – X + Y debits – Y credits = K inflow – K outflow

OR

Deficit (or surplus) on the current account = Surplus (or deficit) on the capital and financial account

The strongest link between the current account and the capital and financial account can be seen on the net primary income part of the current account. In the longer term, a capital and financial account surplus will result in a larger deficit on the net primary income account. This is because any foreign financial flow that comes to Australia must earn some kind of return for its owner, and these earnings are a debit (or an outflow) recorded on the primary income account. Financial inflows can create debits on the primary income category of the current account in two ways:

- **International borrowing** (that is, foreign debt) will require regular interest repayments. These interest payments, or servicing costs, are not recorded on the capital and financial account; they are recorded as debits on the net primary income part of the current account. Only the repayment of the principal (the original amount borrowed) is recorded on the financial account. Australia's high level of borrowing from overseas has contributed significantly to the net primary income deficit due to the servicing costs of foreign debt.
- **Foreign investment** (that is, foreign equity) will require returns on the equity investment. Equity financial inflows are related to the foreign purchase of Australian assets such as land, shares or companies. Foreign owners of Australian land will receive rent, owners of shares will receive dividends, and owners of companies will receive profits. These returns on investment are also recorded as debits on the net primary income part of the current account.

Over a period of time, a high level of capital and financial account surpluses will result in a widening current account deficit because of the servicing costs associated with increased foreign liabilities (that is, higher foreign debt and foreign equity). In extreme cases this may lead to a "debt trap" scenario, in which an economy borrows from overseas merely to pay the interest-servicing costs on its existing foreign debt.

Another perspective on the links between the two sides of the balance of payments can be seen by examining savings and investment. Australia's historically low savings level (relative to investment demand) makes it necessary to attract a large inflow on the financial account. This perspective suggests that Australia's history of running current account deficits is not simply the result of a trade imbalance. Between the mid-1980s and mid-1990s, economists generally associated Australia's balance of payments' problems on Australia's lack of international competitiveness (that is, on the BOGS on the current account). This encouraged successive governments to introduce a series of microeconomic reforms in trade, financial and labour markets with the aim of achieving greater competition and growth in productivity. More recently, there has been a focus on the gap between savings and investment as the cause of Australia's long-running external imbalances, because low savings result in a need for foreign capital inflow to fund investment within Australia (that is, making the current account deficit a capital and financial account problem).

reviewquestions

1 Identify the main components of the balance of payments.
2 Explain the main components of the capital and financial account.
3 Explain the relationship between the TWO sides of the balance of payments.

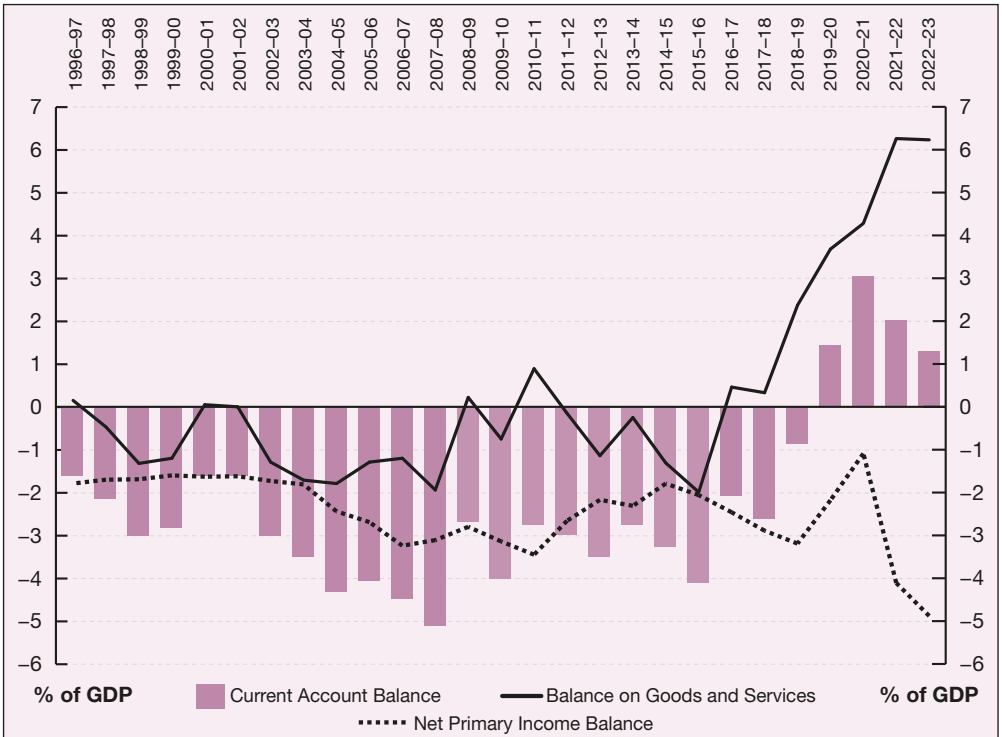
4.5 Trends in Australia's balance of payments

The balance of payments is an important indicator of the health of the economy and the ability for Australia to make good on its obligations to the rest of the world. It reflects key features of the structure of the economy, and it highlights any imbalances in the relationship between Australia and the global economy.

The main focus of analysis of trends in the balance of payments is the current account deficit, and in particular its main components, the BOGS and net primary income. Figures 4.8 and 4.9 highlight the trends in Australia's balance of payments. In the decades prior to the 2010s, calculated as a percentage of GDP (which provides the most accurate comparison across time and between countries), the current account was consistently in deficit, at a level averaging around 4 per cent of GDP. After reaching a record level of 6.6 per cent of GDP in 2007–08, the current account has shown a sustained improvement. In 2022–23, the current account recorded its fourth consecutive financial year surplus – after recording no surpluses between 1973 and 2019–20. The improvement in Australia's current account during the COVID-19 recession was driven by strong commodity prices, low global interest rates and a larger contraction in imports than exports. It was sustained by a further surge in commodity prices that ended in 2023. The short-term nature of some of these factors is reflected in the Treasury forecast for a return to a current account deficit of 2.5 per cent of GDP in 2023–24, with weaker commodity prices and higher debt servicing costs due to rising interest rates.

Australia's current account balance moves in cycles, reflecting a mix of short- and longer-term domestic and external influences. The size and movements on the BOGS and primary income account are influenced, to varying degrees, by both cyclical and structural

factors. Cyclical factors are those that vary with the level of economic activity – such as changes in global demand for commodities, Australia's terms of trade and the value of the exchange rate. On the other hand, structural factors are those that are underlying or persistent influences on the balance of payments – such as the structure of Australia's export base, the international competitiveness of Australia's exports, and the level of national savings.



Source: ABS *Balance of Payments and International Investment Position, Australia* (Cat. no. 5302.0)

Figure 4.8 – The current account balance

Year	Balance on goods & services ($bn)	Net primary income ($bn)	Net secondary income ($bn)	Balance on current account ($bn)	CAD as % of GDP	Capital and financial account ($bn)
1990–91	–0.6	–16.8	0.6	–16.7	–4.0	16.0
1995–96	–2.4	–18.7	0.4	–20.7	–3.9	19.1
2000–01	0.6	–19.8	–0.4	–19.6	–2.8	16.9
2005–06	–18.5	–38.8	–1.0	–58.4	–5.8	55.7
2010–11	14.6	–56.9	–3.0	–45.2	–3.2	45.8
2011–12	–2.5	–45.6	–3.0	–51.1	–3.4	55.6
2012–13	–20.0	–38.2	–3.3	–61.5	–4.0	61.0
2013–14	–4.5	–41.7	–3.2	–49.4	–3.1	54.7
2014–15	–24.1	–33.0	–2.8	–60.0	–3.7	66.7
2015–16	–37.8	–39.0	–0.6	–77.4	–4.7	85.8
2016–17	9.0	–47.7	–1.4	–40.1	–2.3	40.0
2017–18	6.6	–57.7	–0.8	–51.9	–2.8	60.1
2018–19	48.2	–65.0	–0.7	–17.6	–0.9	15.6
2019–20	74.9	–44.3	–1.2	29.4	1.6	–29.4
2020–21	89.0	–22.6	–3.0	63.4	3.1	–63.4
2021–22	135.1	–88.6	–2.7	43.8	2.3	–44.3
2022–23	138.8	–108.7	–1.2	28.9	1.3	–30.4

Sources: ABS *Balance of Payments and International Investment Position, Australia* (Cat. no. 5302.0), *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0)

Figure 4.9 – Australia's balance of payments performance

The balance on goods and services

The balance on goods and services (BOGS), also sometimes referred to as the trade balance, has recorded an improving trend in recent years. It has been consistently in surplus since 2016–17, averaging at 3.4 per cent of GDP. This reflects the strong growth in income from Australia's resources and energy exports. The BOGS surplus of $138.8 billion recorded in 2022–23 was the highest on record, reflecting elevated commodity prices, strong activity in the travel and tourism sectors, and the return of international students to Australian cities.

Cyclical factors

The BOGS is affected by a range of cyclical factors, including the exchange rate, the terms of trade, and the rate of economic growth in the Australian economy and the global economy.

- **Exchange rate**: Movements in the exchange rate affect the international competitiveness of Australia's exports and the relative price of the goods and services that Australia imports. A depreciation decreases the foreign currency price of Australia's exports, increasing the international competitiveness of Australian exports on world markets. At the same time, a depreciation increases the Australian dollar price of imports and discourages consumers from purchasing imports, also improving the BOGS account.
- **Terms of trade**: The greatest influence on Australia's balance of payments in recent years has been changes in Australia's terms of trade. The terms of trade shows the relationship between the prices Australia receives for its exports and the prices it pays for its imports. An improvement in the terms of trade means that the same volume of exports can buy more imports. Unless there is a significant decrease in export volumes compared to import volumes, then this would lead to an improvement on the BOGS (either a larger surplus or a smaller deficit), and a decrease in the current account deficit. A more detailed explanation of the terms of trade index is shown in the following box.

Terms of trade measures the relative movements in the prices of an economy's imports and exports over a period of time. The terms of trade index is calculated as export price index divided by import price index multiplied by 100.

CALCULATING THE TERMS OF TRADE

The **terms of trade** is expressed as a number known as the terms of trade index. It shows the ratio of the export price index to the import price index. The export price index shows the proportional change in the level of export prices, while the import price index shows the proportional change in the level of import prices. If export prices are increasing relative to import prices, Australia's terms of trade will improve. On the other hand, if import prices are increasing relative to export prices, then the terms of trade will deteriorate. It should be noted that, as with all index numbers, the proportional change is relative to a base year, or starting point, which is given an index number of 100. (**Note:** You are not required to make calculations of the terms of trade index for the NSW Year 12 syllabus but understanding the terms of trade is important for analysis of recent trends in Australia's balance of payments.)

$$\text{Terms of trade index} = \frac{\text{Export price index}}{\text{Import price index}} \times \frac{100}{1}$$

The following example, based on the information in figure 4.11, demonstrates how to calculate the terms of trade.

Year	Export price index	Import price index	Terms of trade index
1	100	100	100
2	115	105	109.5
3	120	130	92.3

Figure 4.11 – Hypothetical terms of trade index figures

In this example, the terms of trade have improved in Year 2 and deteriorated in Year 3 (shown by the falling index number), with import prices rising faster than export prices.

$$\text{Year 3 terms of trade index} = \frac{120}{130} \times \frac{100}{1} = 92.3$$

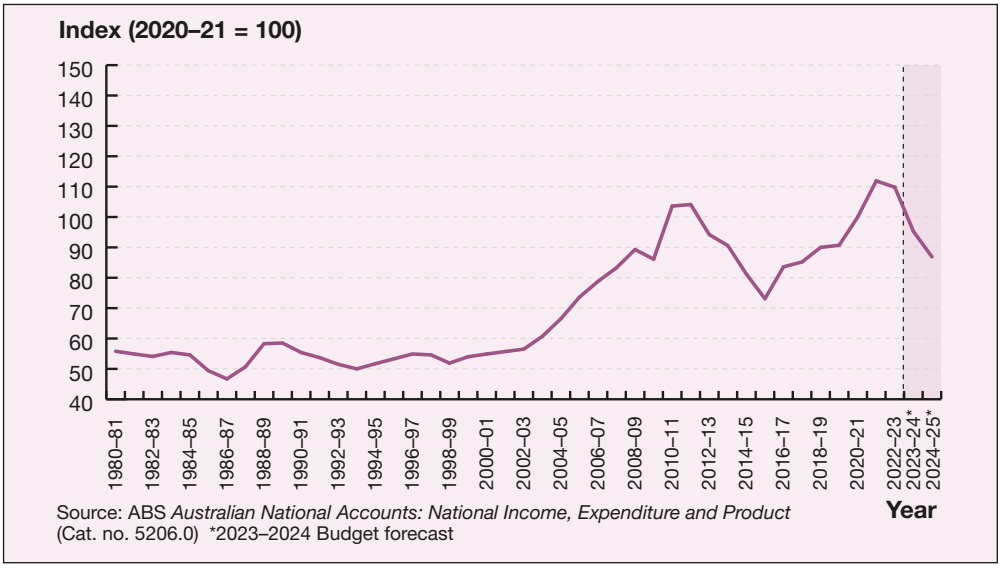
THE LUCKY COUNTRY: AUSTRALIA'S RECORD TERMS OF TRADE

For the two decades since 2003, Australia has experienced the largest sustained terms of trade boom in its history. This reflects the impact of a long boom in the prices for global commodities. As most of Australia's exports are commodities, Australian exporters received higher prices for their exports, increasing the value of Australian export revenues. At the same time, the rise of China and other low-cost emerging economies also flooded world markets with low-cost manufactured goods, reducing import prices. Both of these factors helped to improve the BOGS.

After the beginning of the boom in global commodity prices in 2003, Australia experienced a doubling of its terms of trade. Even when there have been temporary declines during the global recession in 2009 and in the early 2010s, Australia's terms of trade has remained well above historic averages. By 2023, the terms of trade was almost double its level in 2003 but had begun to fall sharply.

The strength of the global recovery from the COVID-19 pandemic increased demand for Australia's commodity exports, and the volatility caused by Russia's invasion of Ukraine and its threat to cut off gas supplies to Europe, resulted in soaring prices for resource and energy exports. Slower growth China in 2023 prompted a fall in commodity prices.

The terms of trade affects both the BOGS and the exchange rate. Ordinarily, a higher terms of trade means that exports receive higher prices for the same level of output, which increases export revenue and improves the BOGS. However, because a higher terms of trade reflects an increase in demand for Australian exports, the demand for Australian dollars rises, causing an appreciation of the exchange rate. The higher Australian dollar weakens the international competitiveness of Australia's non-commodity exports. As a result, a lower level of non-commodity exports partially offsets the benefits of the rising terms of trade.



Source: ABS *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0) *2023–2024 Budget forecast

Figure 4.10 – Terms of trade

- **Economic growth rates**: The level of domestic economic growth influences the BOGS balance by affecting demand for imports. An upturn in the domestic business cycle results in increased business investment and higher disposable income, which leads to higher consumption. Higher levels of business investment and household consumption spill over into higher imports (especially since imports constitute a large proportion of both capital and consumer spending), worsening the BOGS. If economic growth is driven by investment in productive capacity that will expand exports, this worsening of the BOGS will be reversed in the medium term and exports grow. This helps explain why, after the onset of the mining boom in 2003, the BOGS worsened for several years before its turnaround in the 2010s.

  Changes in the international business cycle impact the BOGS by affecting the demand for Australia's exports. A slowdown in global economic growth and weaker growth in Australia's key regional trading partners both reduce growth in demand for Australia's exports, worsening the BOGS. A key feature of Australia's economic successes in recent decades is that our economy has been more closely integrated with faster-growing economies than many other developed countries.

Structural factors

Over the long term, Australia's BOGS has tended to remain in deficit. This reflects two key structural factors on the BOGS: Australia's narrow export base and a lack of international competitiveness.

- **Narrow export base**: Australia's export base is narrow, in the sense that Australia's exports are heavily weighted towards a small number of commodities. Australia's comparative advantage lies in products that do not involve a large value-added component, such as minerals and agriculture, which together account for around two-thirds of Australia's export earnings. Australia is highly exposed to movements in prices and demand in these markets. This volatility contributes to large fluctuations in the BOGS from year to year.

  Until the early 2000s, many economists thought that the long-term downward trend in commodity prices over the second half of the 20th century would continue to worsen Australia's external position. However, the increased global demand for commodities made commodity exports far more valuable in the first decades of the 21st century. Although there was volatility in the terms of trade, it remained well above longer-term averages. This led to a sustained improvement in Australia's trade performance.

  In recent decades there has also been an upturn in the prices for many agricultural exports, although the increase has been smaller than for the mining sector. The Reserve Bank's index of rural commodity prices rose by almost one-third in US dollar terms between the 2000s and 2010s, from 46.7 to 70.6, and in the 2020s has risen further to an average of 84.8 up to mid-2023. The increase in agricultural prices reflects growing global food demand, rising incomes in the developing world, rising prices for agricultural inputs such as oil and fertilisers, the effect of the war in Ukraine and the impact of climate change in reducing agricultural productivity, such as through natural disasters.

  While the boom in commodity prices has benefited Australia during the first quarter of the 21st century, economists agree on Australia's need to reduce its dependence on fossil fuel exports. As economies across the world accelerate their shift away from carbon-intensive fossil fuels, Australia will not be able to rely on carbon-intensive exports such as coal and gas. In addition, agricultural practices will need to change as output is affected by changing weather patterns and natural disasters.

- **Lack of international competitiveness**: Australia lacks international competitiveness in manufacturing and relies heavily on imports of value-added products such as consumer goods and capital goods, while relying on the export of bulk commodities that are usually exported without value-adding. As a result, BOGS has historically tended to be in deficit rather than surplus because import payments very often outstrip export revenues.

  Many economists argue that in the long run Australia must diversify its exports towards high-growth, high value-added sectors of global trade, including technology and elaborately transformed manufactures (ETMs) – that is, technologically advanced goods and services, as opposed to simply transformed manufactured goods or commodity exports. Services exports provide many of the strongest growth opportunities, given Australia's close proximity to emerging economies in Asia. Continued growth in services exports is essential to diversifying Australia's export base since Australia is chiefly a service-based economy. Prior to the impact of COVID-19, Australia's services exports reached a peak of $96.6 billion in 2018–19, after a sustained period of double-digit annual growth for most of the 2010s. Australia's services exports fell to $61.1 billion in 2021–22 before rebounding to $93.5 billion in 2022–23.

Australia's international competitiveness is also affected by infrastructure for transport and information, such as the capacity at the nation's ports, road and rail networks, and broadband networks. Substantial increases in public and private sector investment in infrastructure during recent years have helped alleviate infrastructure capacity constraints and facilitated export growth.

The primary income account

The primary income account plays a central role in the trends in Australia's current account balance. It is composed mainly of payments of interest and dividends on Australia's net foreign debt and equity. Between 2004–05 and 2019–20, the net primary income account typically recorded a deficit between 2 and 3 per cent of GDP. In 2022–23, the net primary income deficit rose sharply to 4.9 per cent of GDP.

Cyclical factors

The net primary income deficit reflects Australia's net servicing costs for its foreign liabilities. These can take the form of interest repayments on foreign debt or dividend payments and profits on foreign equity. The three main factors that drive these servicing costs are domestic economic growth, the exchange rate and interest rates.

- **Domestic economic growth**: When the domestic economy experiences strong growth, company profits rise, and these profits are redistributed to shareholders as dividends. In Australia, approximately 40 per cent of the Australian public share market is foreign-owned. As a result, a large proportion of dividends flow out of Australia as payments to overseas shareholders. This means that higher domestic profits tend to increase equity servicing costs in the form of dividend outflows, which then increase the net primary income deficit. Since Australia's mining sector is mostly owned by foreign companies, a high level of profits in the mining sector results in a significant dividend outflow from Australia. This has a major influence on the size of the net primary income deficit.
- **Exchange rate**: Movements in the exchange rate alter the Australian dollar value of debt denominated in foreign currencies. This is known as the "valuation effect". An appreciation decreases the Australian dollar value of debt denominated in foreign currencies, decreasing Australia's debt servicing costs (in Australian dollar terms), reducing the value of net primary income outflows and reducing the net primary income deficit. On the other hand, a depreciation of the Australian dollar results in the opposite impact.

  However, the valuation effect on the net primary income account is limited, particularly in the short term. A large amount of Australia's foreign debt is "hedged" in some way (meaning that the lender and borrower will agree to fix the exchange rate over the course of the loan to reduce the risk of large exchange rate fluctuations). In addition, a significant part of Australia's foreign debt is denominated in Australian dollars, which means it is not affected by exchange rate movements.
- **Changes in interest rates**: Australia's overseas loans can be taken out with overseas interest rates (when borrowed in foreign currencies) or an Australian interest rate (when borrowed in Australian dollars). When interest rates change, the cost of servicing foreign debt also changes. Australia's sensitivity to global interest rates was reflected in the cost of debt servicing, almost doubling in 2022–23 from $18 billion to $33 billion in net terms, as interest rates on debt in both Australian dollars and foreign currency rose sharply.

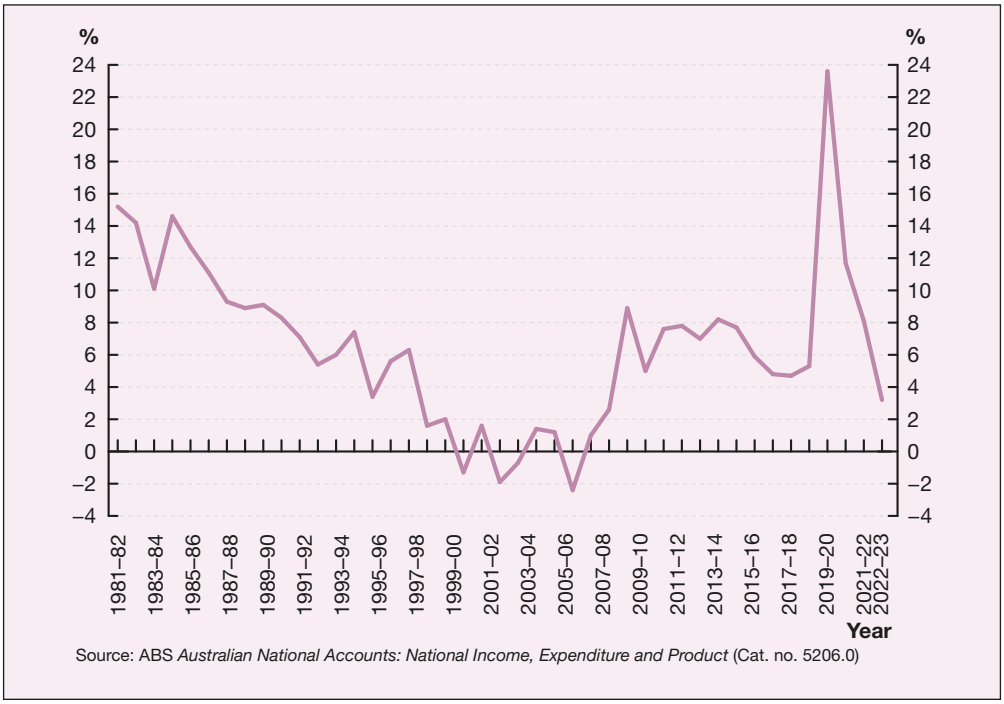
Structural factors

The main reason for Australia's long-term net primary income deficit is an underlying structural feature of the Australian economy: a gap between savings and investment. Australia is a relatively small economy with a historically low level of national savings. At the same time, the Australian economy requires high levels of capital investment for its economic growth. In particular, Australia's major export industry, minerals and resources, requires substantial investment in exploration, capital equipment for extraction and transport infrastructure from remote locations.

Since Australia is an open economy, firms are able to look to foreign sources of finance to fund their investment. This means that Australia tends to fund a large part of its investment through overseas borrowing (which increases foreign debt) or selling ownership stakes in Australian businesses (which increases foreign equity). This increases Australia's foreign liabilities and creates future servicing obligations in the form of interest repayments (on debt) and dividends (on equity). These servicing costs are recorded as outflows on the net primary income account and are the major reason why the current account remained in deficit until recent years even as Australia sustained trade surpluses.

On the other hand, the growth in Australia's overseas investments (which has been led by Australia's large volume of superannuation funds) results in inflows of earnings on those investments, which improve the net primary income balance. Two factors that contributed to the trend towards a lower primary income deficit in the 2010s are increased returns on overseas equity held by Australian investors and a lower exchange rate.

Historically, Australians have had low levels of household and public savings. Australian households are highly leveraged compared to other countries, with twice as much debt (as a proportion of their household income) as two decades ago. Household savings increased dramatically during the COVID-19 recession in 2019–20, as households had fewer opportunities to spend and many also benefited from COVID-19 economic government support payments. However, the increase in savings was not sustained. Households began spending these savings when the economy rebounded. Likewise, when interest rates rose to combat higher inflation, many people had to save less to cover the increased cost of living. At the same time, Australian governments have substantially increased their borrowings during the past decade, detracting from the overall level of national savings.



Source: ABS *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0)

Figure 4.12 – Household savings ratio

Governments can increase Australia's national savings through policies to increase the level of personal savings (such as increasing the rate of compulsory superannuation, removing incentives in the tax system that encourage increased debt and encouraging increased savings through tax incentives). Governments can also increase public savings by reducing budget deficits and moving the public sector into surplus through fiscal consolidation. A budget deficit is a form of negative public savings, whereas a budget surplus makes a positive contribution to the level of national savings. While the COVID-19 pandemic required historically unprecedented levels of government spending to prevent a major economic downturn, a key issue for economic debate in the 2020s will be the speed of deficit reduction, which will have a long-term influence on the savings/investment gap and therefore on the balance of payments.

reviewquestions

1 Discuss THREE trends in Australia's balance of payments performance in recent years.
2 Explain how changes in commodity prices have influenced Australia's terms of trade and the current account in recent years.
3 Analyse the relationship between the level of national savings and imbalances on the current account.
4 Evaluate recent influences on the current account.

4.6 The consequences of a high CAD

Economists differ over their level of concern about Australia's historic pattern of high deficits on the current account and foreign liabilities, with some arguing that if the government is not borrowing money, any external imbalances are simply the result of normal market transactions in a global economy. Some also argue that a current account deficit and foreign debt can be beneficial because borrowing from overseas can increase investment and help the economy to grow faster. The International Monetary Fund generally considers a current account deficit to be too high if it averages over 4 per cent in the medium to long term or if it is above 6 per cent in the short term.

There are several risks associated with a sustained high current account deficit. These include:

- The growth of **foreign liabilities** – over a period of time, a high CAD will contribute to an increased level of foreign liabilities. A deficit on the current account presupposes financial inflow on the capital and financial account, either in the form of borrowings from overseas (foreign debt) or through selling equity in items such as property and companies (foreign equity). This will mean that lenders may become more reluctant to lend to Australia or to invest in Australia.
- Increased **servicing costs** associated with high levels of foreign liabilities lead to larger outflows on the net primary income account, worsening the CAD. Foreign debt must be serviced through interest payments that vary according to the level of interest rates in Australia and overseas, and profits must be returned on foreign equity investment. Higher levels of foreign debt can result in foreign lenders demanding a "risk premium" on loans, forcing up interest rates.
- Increased volatility for **exchange rates** – high CADs may undermine the confidence of overseas investors in the Australian economy and, by reducing demand for Australia's currency, may result in a depreciation of the Australian dollar.

- Constraint on future **economic growth** – in the longer term, a high CAD may become a speed limit on economic growth. Higher levels of economic growth generally involve an increase in imports and a deterioration in the CAD. Economies with a CAD problem are therefore forced to limit growth to the level at which the CAD is sustainable. This is known as the **balance of payments constraint**.
- More **contractionary economic policy** – if they find it necessary to reduce a high CAD in the short term, governments may use tighter macroeconomic policies and accelerate the implementation of microeconomic reform. In the short run, tighter fiscal and monetary policies will reduce economic growth and contribute to a lower CAD.
- A sudden **loss of international investor confidence** – economic crises can sometimes be triggered by a sudden shift in the attitude of global markets towards a country whose external imbalance appears unsustainable. In recent years such crises have been seen in Sri Lanka and Argentina, reflecting a loss of investor confidence in response to its unsustainable debt levels. Investor confidence can change suddenly, and countries with high CADs and foreign debt are more vulnerable to shifts in investor sentiment.

Although Australia sustained high current account deficits for several decades, concerns about Australia's external balance have decreased in recent years. This was especially the case as the scale and persistence of the mining boom became clearer during the past two decades. During the era of globalisation, financial markets have become more willing to accept external imbalances, and have been confident that Australia's natural resource wealth will underpin continued strong export growth in the future, allowing Australia to service its foreign liabilities. A report on Australia's current account performance by the International Monetary Fund in 2018 concluded that for the foreseeable future, Australia's current account is likely to remain below its pre-2008 levels. It calculated that if Australia can keep the current account in an average range of 2.5 to 3 per cent of GDP, net foreign liabilities can be sustained at around 55 per cent of GDP, giving an external position that the IMF judged to be "broadly consistent with medium-term fundamentals and desirable policies". Since then, a series of current account surpluses during recent years have helped to reduce Australia's net foreign liabilities.

Some economists warn, nevertheless, that the current account may still re-emerge as a long-term risk for Australia. Changes in economic conditions, such as a loss of Chinese export markets or a rise in global interest rates, could see a return of high current account deficits (as the Treasury forecasts indicate). Sustained current account deficits make Australia dependent on continuing financial inflows in order to fund the servicing costs of its high foreign liabilities. They argue that while Australia's current account has not been a problem in recent years, this is due to favourable external conditions that could change in the future – after all, until the sudden onset of the global financial crisis in 2008, investors were willing to lend freely to many economies that then experienced very deep economic crises. A more diversified export base, and lower net foreign liabilities, could make the Australian economy more resilient.

reviewquestions

1 Describe THREE consequences of a persistently high current account deficit.

2 Explain how a high current account deficit might affect the exchange rate.

3 Discuss why Australia's current account has not caused significant problems for Australia in recent years. Explain whether you think this might change in the future.

chapter summary

1 The **direction** of Australia's exports has shifted considerably in recent years from the United States, Japan and Europe towards China, Hong Kong, South Korea, India and the ASEAN countries.

2 Historically, agricultural products such as wheat, wool and beef comprised a large share of the **composition** of Australia's exports. These have declined in relative importance, while mineral and energy exports, and to a much lesser degree services, have increased in relative importance.

3 The **balance of payments** summarises all transactions between Australia and the rest of the world over a given period of time. The balance of payments consists of the current account and the capital and financial account.

4 The **current account** shows the money flowing from all of Australia's exports and imports of goods and services, income and transfer payments for a period of one year. The main feature of current account transactions is that they are not reversible.

5 The **capital account** consists of Australia's capital transfers, such as those from conditional foreign aid and the purchase and sale of intellectual property rights. The **financial account** shows Australia's transactions in financial assets and liabilities. The main feature of capital and financial account transactions is that they are reversible.

6 The current account and the capital and financial account are closely linked. A deficit on the current account corresponds to a surplus on the capital and financial account. These surpluses, which cause rising foreign debt or the sale of Australian assets, result in longer term outflows on the primary income component of the current account.

7 The long-term effect of running a current account deficit (CAD) is the growth of **foreign liabilities**. This may occur in the form of foreign debt or foreign equity (the sale of Australians' assets such as land, companies and shares).

8 The **terms of trade** is an index showing changes in the prices of Australian exports relative to changes in the price of imports. Australia has experienced the strongest terms of trade surge in its history since 2003, with far-reaching consequences for the balance of payments and the economy.

9 The current account is influenced by a combination of **cyclical and structural factors**. The BOGS is the major cyclical component and is influenced by the exchange rate, terms of trade and the international and domestic business cycles. The net primary income deficit is the main structural cause of Australia's pattern of current account deficits and is the result of a savings-investment gap.

10 A persistently high current account deficit may increase foreign liabilities, debt servicing costs, exchange rate volatility and interest rates, resulting in slower economic growth. However, financial markets have tolerated deficits for several decades and, more recently, Australia has seen a series of current account surpluses.

chapter review

1. Outline recent changes in the direction and composition of Australia's trade flows.
2. Explain why foreign direct investment might be preferable to portfolio investment.
3. Briefly explain what is meant by the *balance of payments*. Outline the structure of the two main accounts of the balance of payments.
4. Explain the relationship between the current account and the capital and financial account.
5. Examine Australia's recent balance of payments performance, distinguishing between short-term and long-term factors influencing the current account.
6. Discuss the impact of movements in the exchange rate on the current account.
7. Discuss the role of cyclical and structural factors in influencing the net primary income account.
8. Explain how movements in the terms of trade impact on the current account, with reference to recent Australian experience.
9. Examine the role of savings in Australia's balance of payments problems.
10. Discuss the possible problems associated with a high current account deficit.

5 Exchange Rates

5.1 Introduction

5.2 Australia's floating exchange rate system

5.3 Reserve Bank intervention in the foreign exchange market

5.4 Fixed exchange rate systems

5.5 Exchange rates and the balance of payments

5.1 Introduction

Exchange rates play a central role in the relationships between individual economies and the global economy. All trade and financial relationships between countries are mediated through the exchange of currencies. For this reason, exchange rate movements have a significant impact on international competitiveness, trade flows, investment decisions, inflation and many other factors in the economy. Chapter 2 examined how global foreign exchange markets operate. This chapter will examine more closely where Australia fits into global foreign exchange markets, and the influences on the value of the Australian dollar.

The exchange rate is the price of Australia's currency in terms of another country's currency. It is the price at which traders and investors can swap Australia's currency for another currency. Exchange rates are necessary because exporting firms want to be paid in their own currency, which means importers need a mechanism to convert their domestic currency into a foreign currency so they can make payments. For example, a South Korean firm exporting to Australia wants to be paid in South Korean won (the local currency). The Australian importer must convert Australian dollars into won in order to make the payment. To do so, they must know how many won they can buy with their dollars.

This currency conversion occurs in the **foreign exchange market** (also referred to as the forex market) where the forces of supply and demand or, in the case of a fixed exchange rate, the government or its representatives, determine the price of one country's currency in terms of another (that is, the exchange rate).

THE AUSTRALIAN DOLLAR IN THE GLOBAL ECONOMY

- The Australian dollar is the world's sixth-most traded currency after the US dollar, European euro, Japanese yen, British pound and Chinese renminbi.
- The Australian dollar is used in 6.4 per cent of all daily currency trades in foreign exchange markets.
- 92 per cent of all Australian dollars sold in the Australian foreign exchange market are used to buy US dollars.
- Activity in Australia's forex market has fallen since 2010 but the value of the currency can still go through large upswings and downswings in any given year.
- Turnover from foreign exchange transactions averaged US$150 billion per day in Australia in April 2022.

Sources: Triennial Survey of Foreign Exchange and Derivative Markets, Bank for International Settlements 2022 and the Reserve Bank of Australia 2023

Countries can use different systems for determining the exchange rate of their currency. These include a floating system (clean or dirty float), a fixed-rate system and a flexible peg. Another option for countries with similar regional interests is a currency union with major trading partners, such as the euro, which is the currency of 20 European Union members, known as the eurozone, as well as four non-EU countries.

5.2 Australia's floating exchange rate system

In December 1983 Australia switched from a managed flexible peg to a **floating exchange rate** system. This is regarded as one of the most important structural changes in Australia's economic history because it opened up the economy to global financial flows. Under a floating system, the exchange rate is determined by free market forces and not government intervention. Supply and demand establish an equilibrium price for the Australian dollar (A$) in terms of another country's currency. This is demonstrated in figure 5.1, which shows how the exchange rate for A$ in terms of US dollars (US$) is determined.

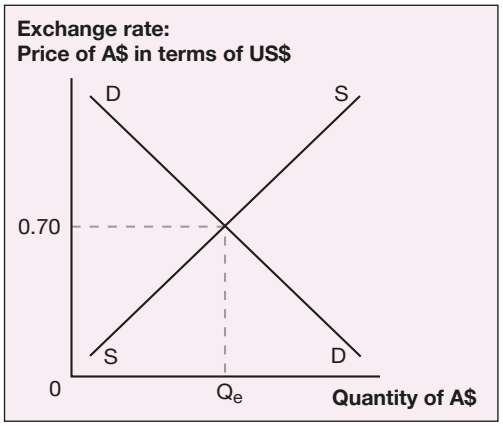


Figure 5.1 – Exchange rate determination under a floating exchange rate system

Just as market forces establish the equilibrium price for a good, they can also determine the equilibrium price of the A$ in terms of another country's currency. Figure 5.1 reveals that market forces have determined the value of the A$ in terms of US$ at US$0.70 (that is, A$1 will buy US70 cents or alternatively US$1 buys A$1.43). This equilibrium will change regularly (hour by hour, or even minute by minute) as supply and demand in the foreign exchange market change.

Floating exchange rate is when the value of an economy's currency is determined by the forces of demand and supply in foreign exchange markets.

Demand for Australian dollars is represented by all those people who wish to **buy** that currency. Demand for Australian dollars is affected by:

- The size of **financial flows** into Australia from foreign investors who wish to invest in Australia and need to convert their currency into A$.
  - **The level of Australian interest rates relative to overseas interest rates.** Relatively higher Australian interest rates make Australia a more attractive location for foreign savings and thus increase the demand for A$.
  - The availability of **investment opportunities** in Australia. If there are more opportunities for investors overseas to start new businesses or buy into existing businesses via the share market, the demand for A$ will increase.
- **Expectations** of future movements of the A$. For instance, expectations of a future appreciation of the A$ will increase current demand for A$ by speculators, thus contributing to the expected appreciation.
- The demand for Australian **exports**, since the foreigners who buy Australia's exports need to convert their currency into A$ to pay Australian exporters.
  - Changes in **commodity prices** and in the **terms of trade** have tended to have an immediate effect on the dollar. A rise in commodity prices and an improvement in the terms of trade are generally associated with an increase in the value of Australian exports. Financial markets will often respond to these changes by increasing the value of the dollar with an expectation that the value of exports will increase over the short to medium term.
  - The demand for Australian exports will be influenced by the degree of **international competitiveness** of domestic exporters and Australia's inflation rate relative to overseas countries. If domestic firms are competitive in world

International competitiveness is a measure of the ability of Australian producers to compete with overseas producers in both local and world markets.

markets and Australia's inflation rate is relatively low, Australia's exports will generally be relatively cheaper and more attractive to foreign buyers.

- Changes in **global economic conditions** will also influence the overseas demand for exports. The demand for Australia's commodity exports is highly dependent on the growth rates of Australia's trading partners – when the world economy is in recession, demand and prices for Australia's exports fall, and vice versa.
- **Tastes and preferences** of overseas consumers will also affect the demand for Australia's exports.

Supply of Australian dollars is represented by all those people who wish to **sell** the currency. The supply of Australian dollars is determined by a number of factors:

- The level of **financial flows** out of Australia by Australian investors who wish to invest overseas and who will need to sell A$ and purchase foreign currency.
  - The **level of Australian interest rates relative to overseas interest rates** influences financial flows out of Australia and the supply of A$. Relatively lower Australian interest rates will make investing savings overseas more attractive and hence increase the supply of A$.
  - The availability of **investment opportunities** overseas influences financial flows out of Australia. Greater opportunities to start businesses overseas or to purchase shares in overseas companies will increase financial flows out of Australia and increase the supply of A$.
- **Speculators** in the foreign exchange market who expect the value of the A$ to go down will sell A$, increasing the supply of A$ and thus contributing to the anticipated depreciation.
- The exchange rate will be affected by the **domestic demand for imports** since Australian importers who buy from overseas need to sell A$ in order to obtain foreign currencies to make import payments.
  - Demand for imports will be determined by a range of factors within Australia. One of the most important is the **level of domestic income**. Strong economic growth and rising incomes and employment will result in the demand for imports also rising, increasing the supply of A$.
  - The domestic **inflation rate** and the **competitiveness** of domestic firms that compete with imports will also influence import levels. If Australia's domestic inflation rate is higher and its import-competing firms are relatively uncompetitive, imports will be relatively cheaper than domestic products and demand for imports will be higher.
  - **Tastes and preferences** of domestic consumers change over time and an increasing preference for goods and services from overseas will raise the supply of A$ on the foreign exchange market.

In section 5.3, we discuss how governments may intervene in foreign exchange markets to affect demand and supply and the value of the dollar. In addition, **government policy measures** may also indirectly affect the value of the currency. For example, in 2020 when the Reserve Bank of Australia (RBA) purchased bonds in the bond market (to increase liquidity and put downward pressure on interest rates), it also had the effect of increasing the supply of Australian dollars, which the RBA estimated resulted in a 1 to 2 per cent depreciation of the exchange rate in November 2020. In February 2022, the Reserve Bank ended its bond purchase program, with the intention of reducing its bond holdings over time.

Figures 5.2 and 5.3 show how the exchange rate of the A$ against the US$ can **appreciate** (increase) or **depreciate** (decrease) due to changes in supply and demand.

Figure 5.2 reveals that any increase in the demand for A$ (shift in the demand curve to the right, from D_1 to D_2) will increase the price of A$ in terms of US$ (that is, cause an appreciation of the A$).

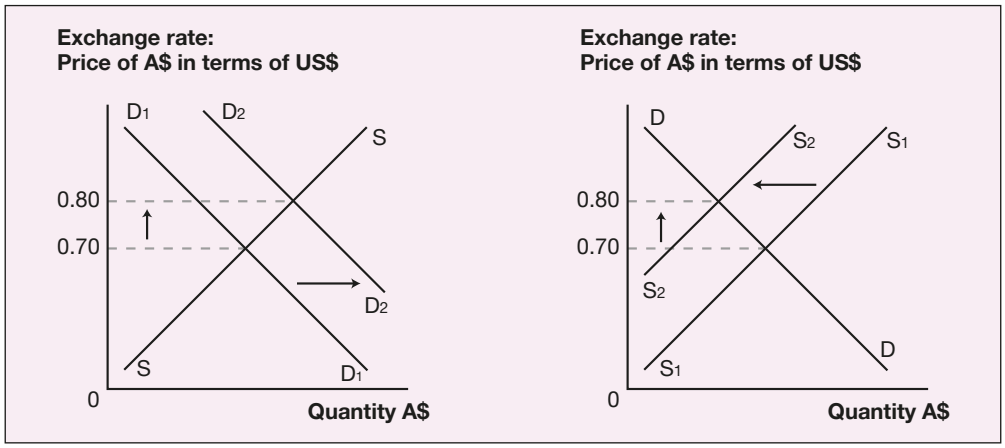


Figure 5.2 – An appreciation of the Australian dollar

Likewise, any decrease in supply of A$ (a shift in the supply curve to the left, from S_1 to S_2) would also cause an appreciation. The appreciation shown in both cases is an increase in the value of the A$ from US70 cents to US80 cents.

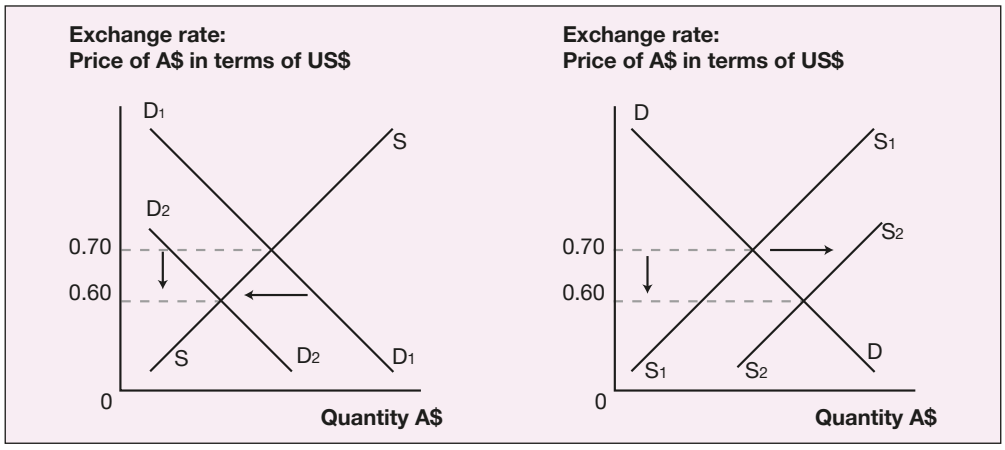


Figure 5.3 – A depreciation of the Australian dollar

Figure 5.3 reveals that any decrease in the demand for A$ (shift in the demand curve to the left, from D_1 to D_2) will decrease the price of A$ in terms of US$ (that is, cause a depreciation of the A$).

Likewise, any increase in supply of A$ (shift in the supply curve to the right, from S_1 to S_2) would also cause a depreciation. The depreciation shown in both cases is a decrease in the value of the A$ from US70 cents to US60 cents.

A floating exchange rate does not just allow market forces determine the value of a currency. It also acts as an "automatic stabiliser" to help protect the economy from external booms or busts. A prime example of this took place during the mining boom in Australia from the mid-2000s to the early 2010s. The increase in demand for Australian resources pushed commodity prices up, which subsequently caused the dollar to appreciate. As a result, industries that did not directly benefit from the mining boom saw their costs increase and demand for output fall. The appreciation of the dollar helped the economy to re-allocate labour and capital to the booming mining sector, therefore reducing inflationary pressures and maintaining a stable employment level within the economy.

APPRECIATION ▲	DEPRECIATION ▼
• an increase in Australian interest rates or decrease in overseas interest rates • improved investment opportunities in Australia or deterioration in foreign investment opportunities • a rise in commodity prices and an improvement in Australia's terms of trade • an improvement in Australia's international competitiveness • lower inflation in Australia • increased demand for Australia's exported goods and services • expectations of a currency appreciation based on forecasts of one of the above factors	• a decrease in Australian interest rates or increase in overseas interest rates • deterioration in investment opportunities in Australia or improvement in foreign investment opportunities • a fall in commodity prices and a deterioration in Australia's terms of trade • a deterioration in Australia's international competitiveness • higher inflation in Australia • increased demand for imported goods and services • expectations of a currency depreciation based on forecasts of one of the above factors

Figure 5.4 – Main factors causing an appreciation or depreciation of the Australian dollar

Australia has many exchange rates – one for each of the currencies of the countries for which foreign exchange transactions are required. Thus, it is possible that at any given time Australia's exchange rate may be appreciating against some currencies and depreciating against others. For example, in April 2023, the Australian dollar appreciated against the Japanese yen but depreciated against the British pound.

A comparison of the value of the dollar against a single currency, such as the US dollar, can create a misleading impression of trends in the Australian dollar's value. This is because just as there are unique factors influencing the Australian dollar, there are also unique factors influencing the value of the US dollar. For example, the US dollar depreciated significantly against most currencies during the 2000s. If we only examined the exchange rate between the Australian and US dollars, and did not make other comparisons, we would think that the Australian dollar had appreciated on its own by over 100 per cent of its value during the decade to 2011. In fact, the Australian dollar was rising while the US dollar was falling, creating an exaggerated impression of the rise in the A$. The Australian dollar rose by a smaller amount against other currencies.

Trade Weighted Index (TWI) is a measure of the value of the Australian dollar against a basket of foreign currencies of major trading partners. These currencies are weighted according to their significance to Australia's trade flows.

The **Trade Weighted Index** (TWI) gives an indication of how the value of the A$ is moving against all currencies in general. The TWI is calculated by measuring the value of the A$ against the currencies of Australia's major trading partners compared with a base year. The currencies of the countries that are more prominent in Australia's trade are given a higher weighting so that they have a greater influence on the TWI.

Currency	Trade weights (%) 2022–23	Currency	Trade weights (%) 2022–23
Chinese renminbi	30.7	United Kingdom pound sterling	5.1
United States dollar	12.5	Singapore dollar	5.1
Japanese yen	9.2	New Zealand dollar	3.7
European euro	8.2	Indian rupee	2.9
South Korean won	7.3	Thai baht	2.7
Source: Reserve Bank of Australia 2023			

Figure 5.5 – Trade Weighted Index: the currency weightings of Australia's top 10 trading partners

Figure 5.5 indicates how the TWI is calculated. Each year, the Reserve Bank amends the measurement of the TWI based on the volumes of trade for the previous financial year. The total number of countries included in the TWI must cover at least 90 per cent of Australian trade (in 2023, 17 countries were included in the TWI calculations). During the last two decades, the relative significance of the exchange rates with the Japanese yen and the US dollars have declined, while the exchange rate with the Chinese renminbi has become more important.

An important limitation of the TWI exchange rate measurement is that the weighting is only based on volumes of trade regardless of the currency in which exports and imports are invoiced. In fact, Australia often sells its commodities in US dollars even when trading with another country such as Japan or South Korea. In fact, almost 90 per cent of Australia's merchandise exports and more than half of imports are priced in US dollars. As a result, the A$/US$ exchange rate is far more important than the weight it receives in the TWI calculation. This is important when analysing the impact of movements in the A$ against the US$ and TWI on Australia's trade and financial flows.

For the latest statistics and analysis of exchange rate movements, visit the website of the Reserve Bank of Australia: **www.rba.gov.au**

AUSTRALIAN DOLLAR: RECENT MOVEMENTS AND OUTLOOK

The Australian dollar experienced a sustained appreciation during the first decade of the twenty-first century and then a trend depreciation in the second decade. After hitting a low in 2001 (of US47 cents), from 2003 it began appreciating strongly as commodity prices increased. The dollar fell sharply in 2009 as the global financial crisis destabilised international currency markets, losing one-third of its value against the US dollar. But it swiftly recovered, peaking at US$1.10 in 2011. The dollar then began to depreciate, falling during the mid-2010s into a range between US70–80 cents. The COVID-19 pandemic saw the dollar briefly depreciate even further to just US55 cents in March 2020. It recovered by early 2021 to almost US80 cents, before depreciating again to around US65 cents by mid-2023.

Commodity prices have played a critical role in the volatility of the exchange rate. As a significant commodity exporter, with mineral and metal resources comprising half of all exports, Australia's terms of trade and long-term export performance are strongly influenced by the prices of those commodities. During the resources boom, commodity prices soared to over three times their pre-2003 value, fuelling demand from trade as well as speculative investment in the Australian dollar. More recently, in response to the war in Ukraine (beginning in 2022), many countries imposed sanctions on Russia, a large commodity exporter. This caused an increase in demand for Australia's commodity exports, such as coal, gas and iron ore, which contributed to a 7.5 per cent appreciation of the Australian dollar from January to March 2022. The significance of commodity prices is further highlighted by the fact that the Australian dollar's depreciation over the first half of 2023 coincided with lower iron ore and coal prices.

The Reserve Bank has identified other causes for the dollar's recent volatility. When Australia's cash rate is greater than that of other advanced economies, foreign investors (particularly from high-savings nations such as Japan) become more likely to invest their savings in Australia. This is known as "carry trade" and has provided strong support for the Australian dollar for the last two decades. Despite a sharp increase in interest rates, Australian interest rates were below the levels of most other advanced economies and so put downward pressure on the Australian dollar.

Long-term economic factors such as economic growth, commodity prices and returns on investment have significant impacts on the value of the exchange rate. But the past decade has shown that the main way those long-term factors have an effect is through their impact on global financial markets, in which speculators are generally more influenced by short-term factors rather than long-term economic trends.

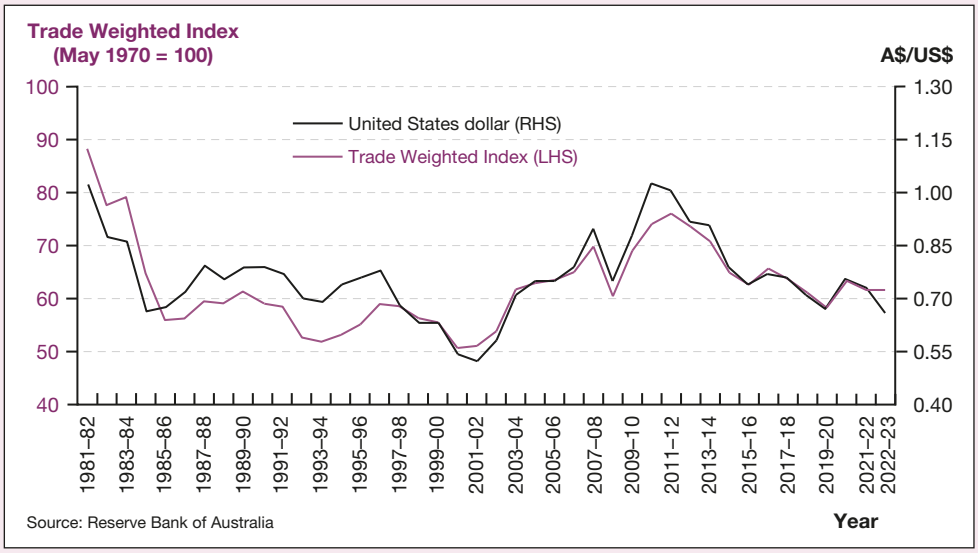


Figure 5.6 – Recent movements in the Australian dollar

Figure 5.7 shows exchange rate movements since 2000–01 for the currencies of some of Australia's major trading partners as well as the TWI. It shows that while there are often sustained trends, such as the overall depreciation of the Australian dollar over the period 2022–23, there are also years that break the trend, such as the appreciations experienced in 2016–17 and again in 2020–21.

The Chinese yuan is the basic unit of the Chinese currency, the renminbi. The yuan and renminbi are referred to in a similar way that economists refer to the British currency as sterling and its unit as the British pound.

Year	US dollar	Euro	Japanese yen	Pound sterling	Chinese yuan	TWI
2000–01	0.54	0.60	61.5	0.37	4.40	50.3
2010–11	1.03	0.72	82.1	0.62	6.60	74.0
2011–12	1.01	0.80	81.9	0.65	6.58	76.0
2012–13	0.92	0.68	95.0	0.55	6.39	73.5
2013–14	0.91	0.69	94.2	0.56	5.62	70.7
2014–15	0.79	0.68	93.7	0.51	5.13	64.7
2015–16	0.74	0.67	82.2	0.54	4.70	62.4
2016–17	0.77	0.68	84.8	0.59	5.14	65.5
2017–18	0.76	0.64	84.0	0.57	5.03	63.5
2018–19	0.71	0.62	78.5	0.55	4.80	60.9
2019–20	0.67	0.61	73.5	0.53	4.73	58.0
2020–21	0.77	0.63	84.7	0.54	4.92	63.5
2021–22	0.73	0.64	84.6	0.54	4.69	61.7
2022–23	0.67	0.64	92.3	0.56	4.68	61.6

Sources: ABS *Australian Economic Indicators* (Cat. no. 1350), *Balance of Payments and International Investment Position* (Cat. no. 5302) and Reserve Bank of Australia.

Figure 5.7 – Exchange rate movements 2000–23

reviewquestions

1. Define the term *exchange rate*.
2. Describe how the Trade Weighted Index (TWI) is calculated and explain why it is a better measure of the value of the Australian dollar than the US$/A$ exchange rate.
3. Account for recent movements in the A$.
4. Outline the possible impact of the following scenarios on the Australian dollar:
   a) an increase in commodity prices and Australia's terms of trade
   b) overseas consumers switching to Australian exports
   c) speculators believing that the Australian dollar will soon appreciate
   d) an increase in Australia's economic growth rate
   e) an increase in interest rates overseas.

5.3 Reserve Bank intervention in the foreign exchange market

Although Australia relies primarily on market forces to determine the exchange rate, the Reserve Bank of Australia (RBA) sometimes plays a role in influencing the value of the currency. While the RBA cannot change the value of the Australian dollar in the long term, it is able to smooth out swings in the dollar relating to short-term factors. It can do so by **dirtying the float** and through monetary policy intervention.

Dirtying the float

When the Reserve Bank feels that a large short-term change in the exchange rate (possibly due to excessive speculation) will be harmful to the domestic economy, it may decide to step into the foreign exchange market, either as a buyer or a seller, in order to stabilise the A$.

In order to curb a rapid depreciation of the currency, the RBA will buy A$, putting upward pressure on the exchange rate. On the other hand, by selling A$ the RBA may prevent a rapid appreciation. The RBA last intervened in the foreign exchange market in 2007–08 during the global financial crisis. When the A$ lost one-third of its value against the US$, the RBA bought $3.3 billion of A$ to stabilise its depreciation. The RBA was able to sell $3.4 billion of A$ in 2009 as the currency recovered in value. In addition to stabilising the currency, the forex interventions also generated profits that contributed to the RBA's dividend payment to the government.

Nevertheless, the RBA's ability to intervene through buying A$ is limited by the size of its foreign currency holdings (that is, its reserves of foreign currency and gold that can be used to fund such purchases). In reality, the sum total of the RBA's foreign currency reserves is relatively small – it is not even equal to one day's total transactions in the currency.

Monetary policy decisions

Monetary policy initiatives are an indirect way of influencing the exchange rate and are rarely used for this purpose. If the RBA wants to curb a rapid depreciation, it may increase the demand for A$ by raising interest rates. Higher interest rates relative to overseas countries will attract more foreign savings, which must be converted into A$. This will increase the demand for A$ and put upward pressure on the exchange rate. However, this policy will generally only be effective for a limited time.

It is unusual for the RBA to change interest rates in response to currency movements as the primary focus of monetary policy is to influence the domestic economy – particularly the inflation rate. However, exchange rate movements can at times be so large that they may affect the stability of the economy or the level of inflation. Reserve Bank research in 2014 estimated that a 10 per cent depreciation leads to a 0.25 to 0.5 per cent increase in inflation for two years. In 2023, a factor behind the RBA's decision to continuing raising interest rates was that interest rates overseas were generally higher, causing the Australian dollar to depreciate. When the exchange rate is lower, this makes imported goods more expensive and contributes to inflationary pressures.

reviewquestions

1. Explain how the Reserve Bank of Australia could directly intervene in the foreign exchange market to prevent a rapid depreciation of the Australian dollar. Discuss the limitations of this method of intervention.
2. Explain the impact of a decrease in Australian interest rates on the Australian dollar.
3. Explain what is meant by a *dirty float* of a currency.

5.4 Fixed exchange rate systems

Since December 1983, Australia has had a floating exchange rate system. In previous decades, however, it operated on a range of fixed exchange rate systems. Prior to November 1976, Australia had a fixed exchange rate system in which the A$ was pegged, at different times, to the UK pound sterling, US dollar and the Trade Weighted Index. From November 1976 to December 1983, Australia had a variation of the fixed exchange rate known as the **managed flexible peg**.

GOVERNMENT PARTICIPANTS IN GLOBAL FOREIGN EXCHANGE MARKETS

In recent decades, governments and their central banks have played a much smaller role in global foreign exchange markets. The power of governments to influence the exchange rates of currencies has been reduced as private sector participants in forex markets, especially currency speculators with very large funds under management, have become more dominant. Governments, through countries' central banks, rarely play more than a residual role as a buyer or seller of a country's currency, mainly to stabilise its value.

Instead, exchange rate values are mostly determined by market forces – that is, the bargaining process between private sector buyers and sellers of different currencies. The values of currencies such as the Australian dollar, Japanese yen and British pound are all determined this way. Some countries, however, attempt to influence the value of their currency against another currency and therefore play a much larger role in that foreign exchange market.

The value of the Chinese yuan, also known as the renminbi, is largely set by the People's Bank of China (PBC). Between 1994 and 2005, the PBC fixed the exchange rate at 8.27 RMB to the US dollar. After 2005, it adopted a crawling peg exchange rate system, intervening to prevent the value of the yuan from deviating more than 0.5 per cent (in either direction) against the US dollars on any given day. This daily trading band was gradually widened, reaching its current rate of 2 per cent in 2014. By mid-2023, the yuan was valued at around 7.0 to the US dollar. To maintain the exchange rate around this level, Chinese authorities must be willing to purchase a US dollar for 7.0 RMB and be willing to purchase 7.0 RMB for a US dollar. If there is too much demand for renminbi at this "price" in US dollar terms, the Chinese central bank will accumulate increasingly more US dollar "reserves" as it sells more renminbi. In fact, the past decade has seen China's foreign exchange reserves soar from US$150 billion to over US$3.2 trillion – a twenty-fold increase. It was estimated that the Chinese renminbi was 10 per cent lower in late-2022 than it would have been without government intervention.

While this makes China's central bank the world's most active public sector forex market participant, the Chinese Government is gradually moving towards the internationalisation of the renminbi. This gradual relaxation of government influence over the day to day currency value can be seen in the moderate fall of China's foreign reserves since 2014 (see figure 5.8). This move towards a more flexible exchange rate will contribute to the diminishing role of central banks in global foreign exchange markets.

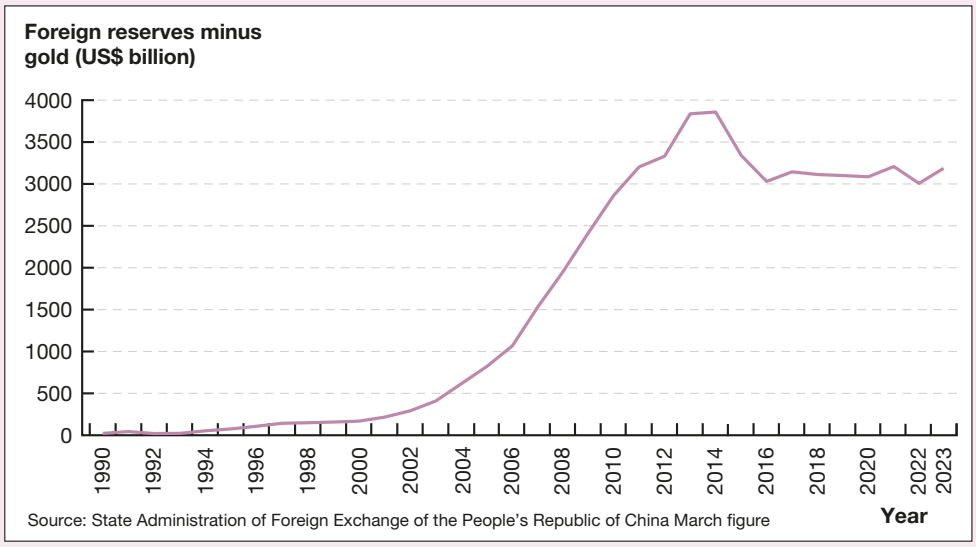


Figure 5.8 – China's foreign exchange reserves since 1990

Fixed exchange rates

Under a fixed exchange rate system, the government, or the RBA, officially sets the exchange rate (that is, it would not be left up to the forces of supply and demand). A fixed exchange rate regime is depicted in figure 5.9. In this case, the official rate has been set at A$1=US80 cents (above the US70 cents rate that would apply if it was left up to market forces).

The government can attempt to maintain a fixed exchange rate by either buying or selling foreign currency in exchange for A$. In this case it would be buying the excess supply of A$ (that is, Q_1Q_2) at a price of US80 cents.

Thus, in order to intervene in the foreign exchange market under a fixed exchange rate system, the government would need **foreign reserves** of foreign currency and/or gold.

When Australia operated under a fixed exchange rate system, the RBA obtained the necessary foreign reserves by insisting that all foreign exchange holdings be lodged with them. Even so, the risk with this system is that in order to prop up the value of the A$, the RBA could exhaust its foreign reserves by continually exchanging them for the excess supply of A$, which could lead to a complete collapse of trade in the currency.

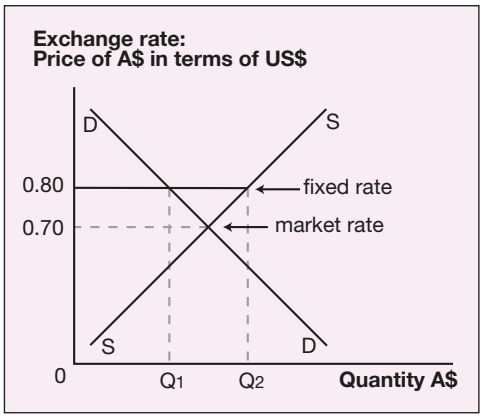


Figure 5.9 – A fixed exchange rate system

The other avenue open to the government would be to change the exchange rate "officially", so that it was closer to the real market value. It would **devalue** the A$ when it officially lowered the exchange rate and **revalue** the A$ when it increased the exchange rate. Another problem of fixed exchange rates is it limits the ability of the central bank to influence interest rates, which are used for monetary policy, and discussed further in chapter 15.

The managed flexible peg

A variation of the fixed exchange rate is the managed flexible peg. This system operated in Australia from November 1976 to December 1983. Under this system, the Reserve Bank would "peg" the value of the A$ at 9:00 am each day and that price would operate throughout that day. A flexible peg system provides more flexibility than the fully fixed rate, but it can still allow the official rate to drift away from that which would exist under pure market forces. For example, many economists have argued that Australia had an overvalued exchange rate under the managed flexible peg system in the early 1980s.

reviewquestions

1. Explain, using graphs, how the Reserve Bank of Australia can influence the exchange rate by buying and selling Australian dollars.
2. Outline the risks of operating a fixed exchange rate system.
3. Distinguish between a fixed exchange rate and a managed flexible peg.

5.5 Exchange rates and the balance of payments

In an open economy such as Australia's, the value of the exchange rate can change substantially in response to economic developments. One of the most important influences on the exchange rate is the performance of the balance of payments. But just as the balance of payments influences the value of the dollar, the value of the dollar can also influence the balance of payments – as well as several other areas of the economy.

How the balance of payments influences the exchange rate

Under a floating exchange rate, the quantity of Australian dollars supplied must always equal the quantity of dollars demanded. In other words, the net outflow of funds on the current account (supply of A$) equals the net inflow of funds on the capital and financial account (demand for A$). (Note, however, that in reality, allowance has to be made for statistical mistakes through the net errors and omissions item on the balance of payments). If there is any disequilibrium on the balance of payments, it is only temporary and is automatically corrected by a movement in the exchange rate.

The following example demonstrates how a change in the current account can influence the exchange rate and the capital and financial account. If the value of imports increased, while exports remained unchanged, this would result in a deterioration in the current account. It would also cause an increase in the supply of A$ (importers will be selling more A$ in order to buy foreign currency), resulting in a depreciation of the currency. Also, because of the depreciation, a given level of financial inflows would be able to buy more A$. Therefore, the positive balance on the capital and financial account would increase in A$ terms to match the bigger deficit on the current account.

Likewise, any other increased outflow of funds on the current account (for example, payment of services, income payments or current transfers) would most likely lead to a depreciation of the A$ and an increase in the surplus on the capital and financial account. On the other hand, an improvement in the current account would result in an appreciation of the A$ and a decrease in the surplus on the capital and financial account.

The effect of the balance of payments on the exchange rate also depends on the perceptions of financial markets. If financial markets are concerned that a current account deficit is not sustainable, they may be less willing to buy Australian assets and so the value of the dollar is likely to fall further as capital inflow is reduced. On the other hand, the dollar may appreciate despite increases in a current account deficit if financial markets believe the external position is sustainable and they have confidence in Australia's future economic prospects. For example, the Australian dollar appreciated to over US95 cents in mid-2008, a time when the current account deficit was large, but investors believed that Australia's current account problems did not pose a short-term economic risk, and they expected that the current account would improve as a result of high commodity prices. The COVID-19 recession likewise showed that an improvement in the balance of payments may not be the largest influence on the exchange rate in any one year. After 2019, despite the current account moving into surplus (after almost half a century in deficit), the exchange rate depreciated (because of other factors).

Valuation effect is where an appreciation (or depreciation) of the currency causes an immediate change in the Australian-dollar value of foreign debt that is borrowed in foreign currencies or foreign assets held by Australians.

Recent years indicate the most significant influence on exchange rate movements is how financial markets choose to react to developments in economic indicators (such as the balance of payments) and sometimes those reactions are difficult to predict. This results in greater instability in foreign exchange markets because market sentiment can change quickly.

CENTRAL BANK DIGITAL CURRENCY

The Reserve Bank of Australia issues the Australian dollar in two forms: physical money in the form of banknotes and digital money in the form of balances held by commercial banks and other financial institutions. Only 4.5 per cent of Australia's money takes the form of banknotes or coins.

The Reserve Bank has been exploring a third option of issuing the dollar as a central bank digital currency (CBDC), and in March 2023 it announced a small-scale pilot to test use-cases of CBDCs, in partnership with a group of Australian financial institutions. A CBDC is digital money, denominated in the national unit of account and issued by a central bank. The difference between a CBDC and existing forms of digital money is that a CBDC represents a claim on a central bank, rather than a claim on a private financial institution. There are two types of CBDC: a retail CBDC for use by both the public and financial institutions, and a wholesale CBDC limited to financial institutions.

The Reserve Bank is one of many central banks worldwide considering CBDCs. The IMF reported that by mid-2022 there were two fully-launched CBDCs (the eNaira in Nigeria and the Bahamian sand dollar) and almost 100 other CBDCs being researched or developed.

There are several reasons why central banks are interested in CBDCs. First, a CBDC could make payment systems more efficient, particularly for sending money overseas. For example, it still costs around 5 per cent of the payment and takes over one day to send money internationally from an Australian bank. Second, CBDCs can improve access to digital payment services, particularly in emerging market economies, which tend to be more reliant on physical money.

Sources: Reserve Bank of Australia; BIS Innovation Hub and Central Banks of Australia, Malaysia, Singapore and South Africa; IMF 2023.

The effects of a change in the exchange rate

Changes in the exchange rate can also bring about changes in the balance of payments. The effects of appreciations and depreciations can be both good and bad for the economy.

An appreciation

NEGATIVE EFFECTS

- By increasing the value of the A$ in terms of other currencies, Australia's exports become more expensive on world markets and therefore more difficult to sell, leading to a decrease in export income and a deterioration in Australia's CAD in the medium term.
- Imports will be less expensive, encouraging import spending and worsening Australia's CAD. Domestic production of import substitutes is likely to fall.
- Higher import spending and reduced export revenue will reduce Australia's economic growth rate.
- Foreign investors will find it more expensive to invest in Australia, generally leading to lower financial inflows. However, financial inflows may continue if foreign investors expect the currency to continue rising.
- An appreciation reduces the A$ value of foreign income earned on Australia's investments abroad and would cause a deterioration in the net primary income component of the CAD.
- An appreciation will also reduce the value of foreign assets in Australian dollar terms – a phenomenon known as the **valuation effect**.

POSITIVE EFFECTS

- Australian consumers enjoy increased purchasing power – they can buy more overseas produced goods with the same quantity of A$.
- An appreciation decreases the interest servicing cost on foreign debt because Australians can buy more foreign currency with Australian dollars. This would reduce outflow on the net primary income component of the current account in future years and help reduce Australia's CAD.
- An appreciation will also reduce the A$ value of foreign debt that has been borrowed in foreign currency – a phenomenon known as the valuation effect.
- For Australian investors looking to purchase overseas assets, an appreciation will reduce the price of those assets.
- Inflationary pressures in Australia will be reduced as imports become cheaper. This is likely to reduce pressure on the RBA to raise interest rates to defend its inflation target.

A depreciation

NEGATIVE EFFECTS

- Australian consumers suffer reduced purchasing power – they can buy fewer overseas produced goods with the same quantity of A$.
- A depreciation increases the interest servicing cost on Australia's foreign debt because Australia can buy less foreign currency with its domestic currency with which to pay interest. This increases income outflow on the net income component on the current account and thus increases Australia's CAD.
- A depreciation will also raise the A$ level of foreign debt that has been borrowed in foreign currency as expressed in Australian dollar terms – a phenomenon known as the valuation effect.
- A depreciation will raise the price of overseas assets that are being purchased by Australian investors.
- Inflationary pressures in Australia will increase as imports would now be more expensive. This may increase pressure on the RBA to raise interest rates to defend its inflation target.

POSITIVE EFFECTS

- By decreasing the value of the A$ in terms of other currencies, Australia's exports become cheaper on world markets and therefore easier to sell, leading to an increase in export income and an improvement in Australia's CAD in the medium term. A weaker A$ following the end of the commodities boom is largely credited with helping the Australian economy adjust to reduced income from mining by increasing the international competitiveness of other sectors.
- Imports will be more expensive, discouraging import spending and potentially improving Australia's CAD. Domestic production of import substitutes should also rise.
- Lower import spending and greater export revenue will increase Australia's growth rate, but this may not happen if Australia is unable to replace its imports with domestically produced goods.
- A depreciation increases the A$ value of foreign income earned on Australia's investments abroad and would cause an improvement in the net primary income component of the CAD.
- A depreciation will also increase the value of foreign assets in Australian dollar terms – a phenomenon known as the valuation effect.
- Foreign investors will find it less expensive to invest in Australia, generally leading to greater financial inflows. However, financial inflows may dry up if foreign investors expect the currency to continue falling.

The impact of exchange rate movements on the value of Australia's foreign assets and liabilities (and consequently, the balance of payments) ultimately depends on the currencies in which they are denominated. An analysis of Australia's liabilities reported in the RBA Bulletin in 2023 made the surprising conclusion that a depreciation of the Australian dollar may reduce rather than increase Australia's net foreign liabilities because of the composition of those liabilities. Australia's liabilities are largely denominated in Australian dollars while our assets are largely denominated in foreign currencies. The article concluded therefore that "the Australian economy overall is well protected from vulnerabilities associated with a depreciation of the exchange rate, despite its net foreign liability position."

Given the positive and negative effects of both depreciations and appreciations, we might ask the question: do economists and policy makers favour a higher or lower exchange rate? The answer is that economists mostly favour an exchange rate values that reflects the true forces of supply and demand. These "true" supply and demand forces would result from the exchanges of goods, services and finance between Australia and the rest of the world, but would not include exchange rate changes due to speculation. Speculators who buy or sell A$ in anticipation of a change in the currency distort exchange rate movements and they increase exchange rate volatility by exaggerating upwards and downwards cycles.

One of Australia's problems is that it is a small economy that relies on substantial financial inflows to deal with its large external imbalances. This has traditionally made the A$ a "hot money" currency, which makes it more vulnerable to speculators than many other advanced economies. Excessive speculation and volatile currencies have become major global economic issues during the globalisation era, with many countries experiencing large swings in their currencies.

reviewquestions

1 Critically evaluate whether the value of the A$ is likely to be higher or lower against the US$ by the end of this year. Justify your forecast. (Hint: check the currency forecasts on the websites of any of the major Australian banks.)

chapter summary

1. The **exchange rate** is the price of Australia's currency in terms of another country's currency.
2. Under Australia's floating exchange rate system, the value of the currency is determined by the interaction of the forces of demand and supply in the marketplace, which determine an equilibrium value for the currency. This equilibrium changes regularly (the levels of minute by minute) as supply and demand change.
3. **Demand** for the Australian dollar is determined by the perceptions of speculators about future movements in the dollar, changes in interest rates and the demand for Australian exports, which are in turn influenced by the level of economic growth in Australia's trading partners and commodity prices.
4. **Supply** of the Australian dollar is determined by the perceptions of speculators about future movements in the dollar, changes in interest rates and the demand for imports, which are in turn influenced by the level of economic growth and consumer spending within Australia.
5. The two main exchange rates are the Australian dollar against the **United States dollar**, the world's leading currency, and the **Trade Weighted Index**, which is a basket of currencies weighted according to their significance to Australia's trade patterns.
6. The Reserve Bank of Australia (RBA) can influence the value of the dollar by intervening directly in foreign exchange markets through buying or selling the dollar with the aim of influencing its value, which is known as **dirtying the float**.
7. The RBA can also influence the currency's value through **monetary policy** decisions. For example, an increase in the level of interest rates will tend to attract financial flows into Australia and raise the value of the currency.
8. Under a **fixed exchange rate system** the value of the currency is normally determined by the central bank, either for the longer term or on a day-to-day basis through a flexible peg system.
9. Changes in the **balance of payments** can influence the currency's value, although the extent to which the balance of payments impacts on the currency depends on the response of foreign investors. In general, a deterioration in the current account is likely to result in a depreciation, and an improvement in the current account is likely to result in an appreciation.
10. Movements in the value of the exchange rate can have an impact on the level of inflation, international competitiveness, the level of exports and imports, foreign debt servicing costs, the current account and the rate of economic growth.

chapterreview

1 Describe what is meant by the *exchange rate*.

2 Outline the factors that affect the demand for Australian dollars.

3 Outline the factors that affect the supply of Australian dollars.

4 With the aid of a diagram, explain what is meant by a *fixed exchange rate system*. Outline the problems that the RBA could experience when maintaining a fixed exchange rate.

5 Explain what is meant by a *depreciation* of the dollar. With the aid of a diagram, describe how a depreciation may occur.

6 Outline what is meant by the *Trade Weighted Index*. Identify why it is useful for analysing movements in the value of the Australian dollar.

7 Explain how, under our present floating exchange rate system, the Reserve Bank can influence the exchange rate:

   a) by dirtying the float
   b) through changes in monetary policy.

8 Examine how the exchange rate will be influenced by a deterioration in the current account.

9 Discuss the positive and negative impacts of an appreciation of the Australian dollar.

10 Discuss how speculation can influence the value of the Australian dollar.

Protection in Australia

6

6.1 Introduction

6.2 Government initiatives to reduce protection

6.3 Australia's free trade agreements

6.4 Implications of a reduction in protection levels for the Australian economy

6.5 The impact of international protection levels on Australia

6.6 The future of Australian industry in the global economy

6.1 Introduction

Trading relationships have long been important to the Australian economy. Australia's distance from the rest of the world, and the relatively high proportion of output that is traded, mean that barriers to trade have a significant effect on the economy, whether these barriers are within Australia or in overseas markets. Over the past 50 years, the Australian economy has benefited from the gradual removal of trade barriers. Although the momentum towards freer trade has faltered in recent years, Australia remains a vocal advocate for further trade liberalisation. Protectionist sentiments around the world have gathered strength over the past decade, and the COVID-19 crisis alongside rising geopolitical tensions have added to this trend. In addition to its immediate impacts on trade in goods and services, the pandemic and the war in Ukraine have sparked a broader debate about whether globalisation has left economies too dependent on vulnerable global supply chains that might fail in a time of crisis.

Historically, Australia was one of the most highly protectionist countries in the world. Governments felt it was necessary to protect Australian manufacturers, who for many years found it difficult to compete because of the relatively small population and low production levels in Australia. However, beginning in 1973, Australia began to shift away from protectionism, and throughout the 1990s and 2000s, Australia phased out almost all tariffs. Australian leaders often describe our economy as one of the most open economies in the world.

For further information on Australian trade rules and agreements, visit the Department of Foreign Affairs and Trade (DFAT) website **dfat.gov.au**, the Productivity Commission **pc.gov.au** and the Bureau of Agricultural and Resource Economics and Sciences: **agriculture.gov.au/abares**

Using the DFAT website, identify current negotiations being undertaken by the Australian Government for future bilateral and regional trade agreements.

THE GOVERNMENT'S MAIN AIMS IN REDUCING PROTECTION

- Make domestic industries more internationally competitive by exposing them to competition from imported goods.
- Encourage resources to move away from industries and firms that cannot improve their competitiveness to those that can become more competitive – in other words, to concentrate the economy on areas where Australia has a comparative advantage.
- Allow Australia to benefit from greater integration with the global economy by giving consumers and businesses access to goods and services available on global markets at the lowest possible prices.
- Promote structural change in the economy, with the long-term aim of encouraging efficient firms to produce what the global economy demands.

6.2 Government initiatives to reduce protection

Australia's transition from a highly protected economy to an economy with relatively low trade barriers has occurred over a number of decades. As shown in figure 6.1, **the average tariff level** in Australia has gradually declined since the late 1960s. Over the same time period, Australia has also seen the gradual phasing out of other "non-tariff barriers" to trade, such as quotas and subsidies.

1968–9	1977–8	1982–3	1986–7	1994–5	2002	2013	2023
36%	23%	25%	19%	9%	3.7%	1.8%	0.5%

Sources: Productivity Commission, World Development Indicators, Budget 2023–24

Figure 6.1 – Average tariff rates in Australia

Protectionist policies came under sustained attack from the early 1970s. Organisations such as the Productivity Commission (then called the Industries Assistance Commission), the Commonwealth Treasury and the National Farmers' Federation argued that protection fostered inefficiency, increased prices, misallocated resources, made Australia less internationally competitive, damaged our trading performance and reduced living standards in the long run.

The first significant push to reduce protection was made by the Whitlam Government, which in 1973 announced a 25 per cent across-the-board tariff cut. However, it was not until 1988 that Australia commenced a comprehensive program of trade liberalisation. Over the subsequent decade, Australia reduced its tariffs faster than any other advanced economy (other than New Zealand).

Today, almost 90 per cent of all imported goods are tariff free, with the remainder, mostly manufactured goods, subject to a general tariff rate of 5 per cent or less. Historically, some manufacturing industries, such as motor vehicles and the clothing and textiles industry, were protected by higher tariff levels. However, these arrangements have been significantly reduced over time, with the most recent cuts occurring in 2015. Most remaining tariffs do not apply to imports from countries with which Australia has a free trade agreement (FTA), such as South Korea, Japan and India.

Australia's **average tariff level** (weighted according to what goods and services are traded the most) was most recently calculated as just 0.5 per cent. The Productivity Commission estimates that the dollar value of tariff assistance to domestic production was $2.1 billion in 2020–21. Australia's average tariff level is lower than many other advanced economies such as the United States (1.5 per cent). Moreover, less than 0.5 per cent of the few tariffs Australia does apply are considered to be large by the World Trade Organization (tariffs rates are considered to be large when they exceed 15 per cent). For comparison, around 10 per cent of all tariffs applied in the world are large based on the WTO's definition.

THE BIRTH OF mRNA MANUFACTURING IN AUSTRALIA

In 2022, the Australian Government and Moderna, a pharmaceutical and biotech company, finalised a deal to establish an mRNA research and vaccine manufacturing facility in Australia – one of the first ever to be built in the Southern Hemisphere. The 10-year arrangement is worth billions of dollars, expected to create hundreds of jobs and see Australia produce up to 100 million mRNA vaccine doses a year from 2024. The exact terms of the deal remained confidential, but a substantial government investment was needed to persuade Moderna to make the investment.

Such government intervention could be characterised as a form of trade protection. Australia has sourced mRNA vaccines from other countries since 2021 to protect its citizens from COVID-19. There is no independent evidence that Australia has a comparative advantage in making them locally.

Despite that, the deal was not controversial and not considered to be a harmful example of protectionism. This reflects a shift in policymakers' thinking about the limits of free trade in the era of globalisation. During the pandemic, other countries prioritised their own needs which meant that countries who were relying on vaccine imports were forced to wait in line for vaccines to arrive. Establishing an mRNA manufacturing facility in Australia improves health security and should mean that, in the event of future pandemics, Australia will be better placed to access new vaccines and treatments.

When other protectionist methods, such as subsidies to domestic producers, are taken into account, **Australia is one of the least protectionist economies in the world**. Australia provides far fewer subsidies for domestic producers compared with North America, Western Europe and East Asia, where they play a significant role in boosting the competitiveness of these countries' agricultural sectors. In 2021, Australia had among the lowest levels of agricultural protection in the OECD, with subsidies accounting for less than 3 per cent of farm income. By comparison, subsidies accounted for 11 per cent of farm income in the US, 18 per cent in the EU and 49 per cent in South Korea.

While protection and direct assistance for producers has been substantially reduced during recent years, some export assistance programs still exist. These programs are administered through **Austrade** (the Australian Trade and Investment Commission). Austrade's assistance for exporters includes financial assistance, information on potential export markets and marketing advice. The main program that Austrade administers is the **Export Market Development Grants (EMDG)** scheme, which since 1974, has supported more than 51,000 small- and medium-sized exporters in promoting their exports in over 180 countries. A 2023 operational review found that the EMDG program had achieved its goals of simplifying and streamlining assistance for promotional activities, developing marketing skills, and delivering improvements to program design and access to information for exporters.

Australia's reductions in protection levels have typically gone well beyond those required by **international trade agreements** such as the World Trade Organization (WTO) agreement. While some other countries have only reduced protection levels to the extent required by their trade agreements, Australia has pursued a general strategy of phasing out protection. A Trade Policy Review of Australia by the WTO in 2020 commended Australia's trade policies and highlighted only a few examples where policy changes could further liberalise trade. These included Australia's tax on luxury cars (which hurts exports from particular countries), certain foreign investment restrictions, and Australia's prolific use of anti-dumping measures. (The WTO report implied that Australia may have been overzealous with these measures, implementing some when they may not have been justified.) Australia's use of anti-dumping measures has also been criticised within Australia, with the Productivity Commission arguing in a 2016 report that often there is insufficient economic justification for these measures, and they generally have negative overall impacts. Nevertheless, changes to Australian laws in 2017 made it even easier for governments to keep enforcing anti-dumping measures after the related dumping activity has stopped. In addition, despite the closure of Australia's car manufacturing industry, the Australian Government still imposes tariffs on new cars and heavily restricts the importation of second-hand cars.

WHY DID CHINA SLAP TARIFFS ON AUSTRALIA IN 2020?

In 2020, the Chinese Government imposed tariffs of 80 to 200 per cent on Australian exports of wine, and on exports of barley, a type of grain used to make beer and to feed livestock. Officially, the Chinese government described the tariffs as "anti-dumping" and "anti-subsidy" penalties. However, no evidence of dumping was provided. China also restricted other Australian exports – such as cotton, coal, lobsters and timber – through unofficial channels, by instructing importers not to buy from Australia, or by imposing overly strict customs and regulatory barriers targeted at Australian products.

Most economists saw the tariffs as retaliation against Australia for policy decisions perceived to be anti-Chinese. These included restricting some major Chinese investments in Australia (such as the construction of Australia's 5G mobile network) and advocating an international inquiry into the origins of COVID-19, which was seen by Chinese officials as an effort to blame China for the pandemic. The measures could also have been partly motivated by Australia's own anti-dumping measures on Chinese steel and aluminium products. As a result of the trade bans, exporters sought to grow sales in other markets, including India, Japan and South Korea. Improving Australia's relationship with China has been a priority of the Albanese Government, and during 2023, China removed restrictions on Australian coal, timber and barley, with the prospect that it may also reduce other barriers to Australian exports.

reviewquestions

1 Outline trends in Australia's protection levels over recent decades.
2 Explain the government's main objectives in reducing protection levels.

6.3 Australia's free trade agreements

In addition to reducing their own levels of protection, governments pursue free trade by accessing overseas markets through trade agreements. Over the past decade, Australia has actively secured free trade agreements with China, Japan and South Korea, adding to existing agreements with the US, Chile and other regional economies (see figure 6.2). Australia's involvement in trade negotiations includes both multilateral agreements and bilateral agreements.

Bilateral trade agreements

Bilateral agreements involve just two nations. They are the easiest trade agreements to negotiate because they only need to factor in the interests of the two participants. The most comprehensive bilateral agreement for Australia is the 1983 Australia–New Zealand Closer Economic Relations Trade Agreement (ANZCERTA). This agreement has led to free trade between the two countries, and increased standardisation of laws, business practices and commercial structures.

Bilateral trade deals are an important focus of trade policy in Australia. Since 2020, Australia has entered into bilateral agreements with Hong Kong, Peru, Indonesia, India, and most recently, with the United Kingdom in 2023. In addition, the Australian Government is negotiating for separate agreements with the European Union and the Gulf Cooperation Council (covering the economies of Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates). Negotiations are also still underway to conclude a more complete agreement with India.

While bilateral trade agreements reduce protection for Australian industries, they only do so on a country-by-country basis. As a result, they generate fewer economy-wide benefits than broad trade liberalisation involving multiple countries. Increasingly, bilateral deals operate less as a means of unlocking new trading opportunities and more as a means of shoring up existing rules around free trade

Trade agreements

Bilateral agreements

- **ANZCERTA (New Zealand–Australia)**
- **SAFTA (Singapore–Australia)**
- **TAFTA (Thailand–Australia)**
- **AUSFTA (Australia–United States)**
- **ACI–FTA (Australia–Chile)**
- **IA–CEPA (Indonesia–Australia)**
- **A–HKFTA (Australia–Hong Kong)**
- **MAFTA (Malaysia–Australia)**
- **KAFTA (Korea–Australia)**
- **JAEPA (Japan–Australia)**
- **ChAFTA (China–Australia)**
- **PAFTA (Peru–Australia)**
- **ECTA (India–Australia)**
- **A–UKFTA (United Kingdom–Australia)**

Multilateral agreements

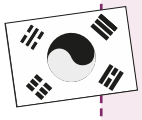
- **APEC forum (Asia-Pacific Economic Cooperation forum)**
- **AANZFTA (ASEAN–Australia–New Zealand)**
- **CPTPP (Australia and 10 other regional countries)**
- **PACER Plus (Australia and 9 other Pacific countries)**
- **RCEP (Australia and 14 other Indo-Pacific countries)**

Figure 6.2 – Trade agreements that affect the Australian economy



The **Australia–United States Free Trade Agreement (AUSFTA)**, in operation since 2005, provides significant tariff reductions on a number of goods, especially in agriculture and manufacturing. In particular, automotive tariffs were eliminated immediately, and tariffs on all goods were eliminated from 2015. Between 2005 and 2020, two-way trade between Australia and the US nearly doubled, while two-way investment flows have nearly tripled since the agreement has been active. The US is currently Australia's second-largest trading partner.





The **Korea–Australia Free Trade Agreement (KAFTA)**, in operation since late 2014, improves access for Australian exporters to the US$1.5 trillion South Korean economy, with tariff-free exports rising from 84 per cent to 99 per cent of exports over the next 20 years. The agreement also facilitates more services trade in legal, accounting, financial, engineering, telecommunications and education services. The agreement seeks to improve opportunities for Australian investors and investments in South Korea, and will help attract direct investment from South Korea into Australia. Two-way trade between the countries increased by over 40 per cent between 2015 and 2019.





The **Australia–United Kingdom Free Trade Agreement (A–UKFTA)** came into force in May 2023, resulting in no tariffs on over 99 per cent of Australian exports. Over the first 10 years of the agreement, tariff quota volumes on agricultural products including beef, sheep meat, dairy and sugar will be eliminated completely. The agreement is expected to avoid $200 million per year in tariffs and result in cheaper imports for consumers and lower input costs for Australian businesses. The deal also supports Australians applying for working holidays in the United Kingdom by raising the age cut-off for applications (from 30 to 35) and extending the maximum stay.



in a time of rising protection. Nevertheless, they are widely used, with a 2018 study of Free Trade Agreement Utilisation by PwC finding that 62 per cent of Australian businesses used at least one FTA in exporting products, and 78 per cent use them in importing.

One of the challenges of having so many bilateral trade agreements around the world is that they create a complex web of overlapping and inconsistent trade rules for exporters and importers. For instance, an exporter may have to comply with very different rules in order to sell the same product in different foreign markets. These complex rules can create inefficiency. In 2022, the Productivity Commission estimated that the cost of collecting tariffs under the current tariff system was between 59 cents and $1.57 per dollar of tariff revenue raised.

Multilateral trade agreements

Multilateral trade agreements are those that provide for free or preferential trade between many countries, usually on a regional basis. This category of agreements sometimes refers to those administered by the WTO, which are global in nature. At other times, this category can refer to regional trade agreements that involve a select group of countries, such as the European Union and the United States–Mexico–Canada Agreement (USMCA).

Australia has several key multilateral trade agreements. The first one enacted was the **ASEAN–Australia–New Zealand Free Trade Agreement (AANZFTA)** with New Zealand and the Association of South-East Asian Nations (ASEAN), which came into effect in 2010. This agreement covers around 15 per cent of Australia's trade in goods and services, and effectively creates a free trade area of over 692 million people with a combined gross domestic product (GDP) of around US$4.6 trillion. ASEAN economies are also growing rapidly; by 2050 the entire group is projected to be the fourth-largest economy in the world. Australia and the ASEAN economies are complementary economies. This means that the type of goods that Australia can export – namely commodities, particularly in resource-based industries – are in heavy demand in the industrialising nations of South-East Asia. Conversely, South-East Asia can export to Australia those goods that we cannot produce competitively, such as simply transformed manufactures produced in labour-intensive industries. In November 2022, negotiations to deepen the AANZFTA were concluded, with new provisions covering areas including e-commerce, trade facilitation, and co-operation on the environment and climate change.

Australia and New Zealand are just two of the six countries that have multilateral trade agreements with ASEAN (the others being China, India, South Korea and Japan). In late 2020, after eight years of negotiations, ASEAN and all of these countries (except India) signed the Regional Comprehensive Economic Partnership (RCEP), a China-led trade grouping that brings all of these countries together with a single multilateral trade agreement (but excludes the United States). RCEP covers around 30 per cent of global GDP and population, making it the world's largest free trade agreement. By mid-2023, the agreement had successfully entered into force in all RCEP countries. Under the agreement, exporters and importers only need to use a single set of rules and regulations to access preferential trade treatment in any of the 15 RCEP countries. The agreement also provides greater investment certainty and a common set of rules on intellectual property.

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is a separate multilateral agreement currently in force for Australia, Canada, Japan, Mexico, New Zealand, Singapore, Vietnam, Peru, Malaysia and Chile, with Brunei Darussalam also planning to join. The agreement increases market access across borders for businesses by lowering tariff barriers, simplifying compliance requirements in order for businesses to access preferential trade treatment, reducing foreign investment restrictions and imposing rules around the conduct of state-owned enterprises. While a significant free trade area, the CPTPP is less ambitious than the original plan for a Trans-Pacific Partnership Agreement (TPPA), which had also included the United States (before its withdrawal under the Trump

Administration in 2017). In 2021, the UK formally requested to join the agreement, with negotiations for its inclusion substantially completed in early 2023.

During the 1990s, Australia's multilateral trade negotiations focused on the **Asia-Pacific Economic Cooperation (APEC) forum**. In 1994, the APEC forum set a target of free trade by 2020. This goal was never formalised in a trade agreement, and for most of its history the annual meeting of APEC forum leaders each November has focused on other priorities such as terrorism and climate change. APEC has therefore receded over the years from the centre of Australia's trade policy. A 2020 analysis by the APEC Policy Support Unit nevertheless argued that, even without binding commitments, the forum has indirectly supported trade liberalisation among its members. Since 1994, average tariff levels have fallen from 17 per cent to around 5 per cent, the proportion of tariff-free goods has increased to over 60 per cent, and over 150 free trade agreements have been implemented involving APEC members.

reviewquestions

1 Distinguish between a bilateral trade agreement and a multilateral trade agreement.
2 Explain the key features of TWO of Australia's bilateral trade agreements.
3 Compare and contrast TWO of Australia's multilateral trade agreements.

6.4 Implications of a reduction in protection levels for the Australian economy

Australia's decision to phase out protectionism has been one of the most significant structural changes in the country's economic history. It has significantly increased Australia's integration with the global economy. It has also had far-reaching effects in its impact on the structure of the economy and the nature of Australia's trading relationships.

Effects on firms

While the long-run effect of reduced protection on businesses may be beneficial, as shown in figure 6.3, there is no doubt that reducing protection creates winners and losers, particularly in the short run. Individual firms that operate in marginal, import-competing industries will shrink unless they are able to improve their competitiveness. In some cases, production in some sectors of the economy ceases altogether – for example, the manufacturing of

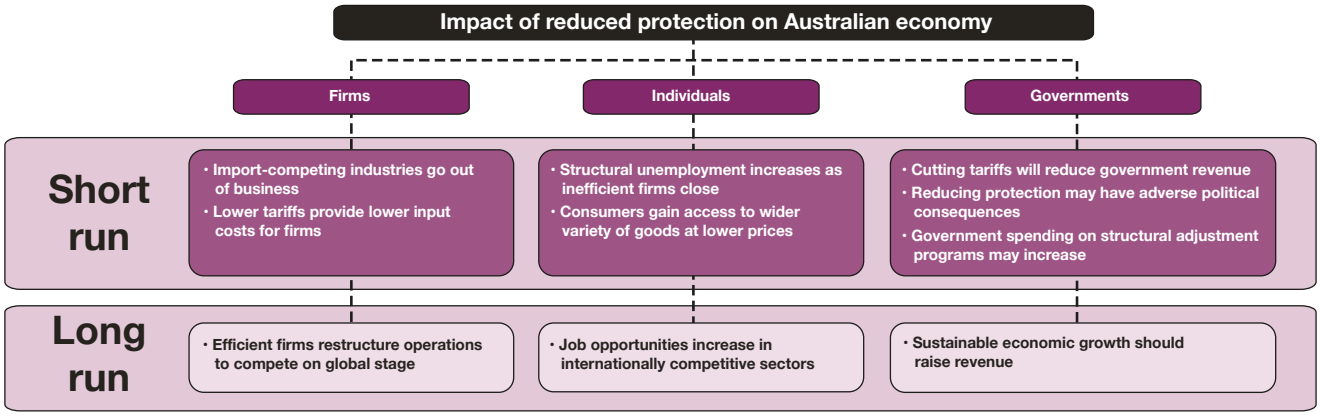


Figure 6.3 – The impact of reduced protection on the Australian economy

consumer electronics products such as televisions, sound systems and microwave ovens in advanced economies such as Australia has almost entirely ceased (with car manufacturing in Australia ceasing in 2017). This is because manufacturing of these products generally requires high production volumes and a large workforce, and advanced economies cannot compete with the lower-wage costs of emerging economies such as China and Vietnam.

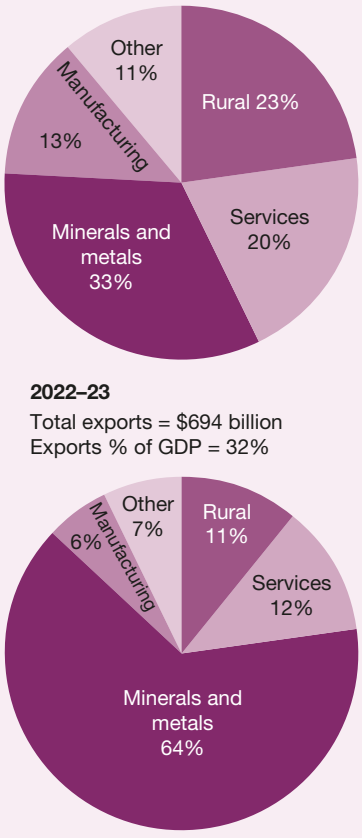
Some businesses will respond to a phasing out of protection by restructuring their operations with the aim of staying in business or perhaps putting their focus on specialising in one aspect of production. This restructuring may involve measures such as consolidating their manufacturing processes down to a single plant, eliminating less profitable product lines, finding opportunities for exporting in response to the decline in their share of the domestic market, adopting new production technologies in order to reduce production costs, or reducing staffing levels.

The aim of removing protection for local industries is to force them to develop the innovation and efficiency that is necessary to compete on the world stage. By operating in a competitive domestic market, Australian firms should be better able to compete in global markets. This should also result in higher levels of investment for those firms that survive, as Australian businesses invest in improving their technology or expanding their business. Productivity Commission research shows that reducing tariffs spurs innovation and productivity growth through increased competitive pressure.

Lower tariffs can also generate benefits for firms by reducing the price of imports that they use as inputs in their production processes. For example, mining companies in Australia rely on machinery produced overseas to extract commodities such as coal and gas. Eliminating tariffs that reduce businesses' inputs costs lowers their production costs and makes them more internationally competitive when selling final goods to consumers. For example, the removal of tariffs on inputs such as farm machinery has improved the competitiveness of Australia's agricultural industries. Indeed, this is why the agricultural industry's lobby group, the National Farmer's Federation, has supported reducing levels of industry protection for many years. The Productivity Commission estimated that the cost imposed by tariffs in Australia through higher input prices amounted to $1.7 billion in 2020–21.

By creating winner firms and loser firms, changes to trade protection have affected the overall composition of Australia's exports. During the 1990s, the reduction in protection, along with other microeconomic policies, contributed to changes in Australia's export base, including a significant growth in manufacturing exports. However, the global resources boom of the 2000s saw Australia shift back to a heavily commodity-focused export base, as shown in figure 6.4. This pattern is expected to remain in place for at least the medium term, with natural gas and lithium expected to be strong drivers of export growth in the coming years.

In addition to the changing composition of exports during this period, there has also been substantial overall **growth in export volumes**, suggesting that Australia is becoming more integrated with the world economy. A higher proportion of Australia's production is being exported, and equally, a higher proportion of the goods and services that Australians consume are imported.



Source: ABS *International Trade in Goods and Services, Australia* (Cat. no. 5368.0)
Numbers may not add to 100 per cent due to rounding

Figure 6.4 – Changes in Australia's export profile in the past decades

Effects on individuals

Individuals can experience substantial dislocation as a result of reduced protection levels, in particular through the **increase in unemployment** associated with the restructuring of industries, and cuts in local production. The impact of these job losses can be particularly harsh on individuals who have worked in these industries for a long time and have limited alternative job opportunities.

LESSONS FROM COVID-19: DOES AUSTRALIA NEED INDUSTRY PROTECTION TO MAKE ITS SUPPLY CHAINS MORE RESILIENT?

Australia grappled with supply shortages for essential medical and other items during the COVID-19 pandemic, including vaccines, face masks, cars and smart televisions. The shortages of goods occurred when transport networks and overseas producers were disrupted or could not expand production to meet demand during the pandemic. These shortages stoked debate about whether the phasing out of protection left Australia vulnerable to global supply chains that fail in times of greatest need.

The Productivity Commission (PC) evaluated these issues in its 2021 report *Vulnerable Supply Chains* and concluded that free trade policies actually make supply chains more resilient. The report argued that with fewer barriers to trade, there are more suppliers. In other words, diversification of suppliers, rather than "onshoring" production, is the best way to make supply chains more resilient. Overall, the PC estimated that only around 5 per cent of goods imported by Australia come from vulnerable supply chains. Roughly two-thirds of these imports come from China. The PC rejected the case for increased industry protection.

In 2023, with the United States and other economies increasing production subsidies and local content rules, the Productivity Commission's *Advancing Prosperity* report recommended that government intervention should be a last resort, and should only support high-risk and critical supply chains. It also recommended that any supply chain assistance should be subject to an assessment by the Office of Supply Chain Resilience, with public reporting on the justification, benefits and costs of any intervention.

- The import-competing industries that were most affected by reductions in protection have been concentrated in particular regions, such as the manufacturing areas of Victoria and South Australia, where there are fewer alternative sources of employment. With reductions in protection, unemployment rates in these areas climbed dramatically and it was difficult for people who lost jobs in these areas to find alternative employment.
- Many of the jobs lost in the manufacturing sector because of lower protection are relatively low-skilled, production-line jobs. The limited skills that workers develop in these jobs are not easily transferred to other workplaces, especially at a time when the overall number of people employed in many of the manufacturing industries has been declining.

People who lose jobs as a result of tariff cuts often join the ranks of the **structurally unemployed**, because they often find that their skills do not match the job vacancies in the economy. It may then become necessary for these workers to retrain to develop work skills that are relevant to the current needs of the economy. Australian governments have funded many adjustment programs, such as the $155 million Growth Fund to support the transition away from the automotive industry after it was announced that domestic car production would end in 2017.

CLOTHING TARIFF CUTS

The reductions in tariffs on clothing goods from 17.5 per cent to 10 per cent in 2010 were strongly opposed by manufacturing industry employees. In the lead up to the cuts, some workers took their campaign to the Parliament House, arguing that the decision would create unemployment. A report by the Productivity Commission estimated that the lower clothing tariffs would reduce industry employment by over 5 per cent – the equivalent of over 1500 jobs. However, the government decided to proceed with the cuts because there would be overall economic benefits, including lower prices for consumers, a view strongly supported by the Productivity Commission. A further reduction to 5 per cent was implemented in 2015.

However, the effects of reduced protection on employment patterns are not entirely negative. While unemployment is likely to increase in the short term due to cuts in protection, in the longer term employment levels may increase. Provided the process of structural change promotes internationally competitive firms in the future, the lost employment opportunities should be more than recouped by the growth experienced by those sectors in the economy that are efficient and internationally competitive. For example, while manufacturing industries declined in recent decades, new export industries such as liquefied natural gas (LNG) have grown. Before 1989, Australia did not export any LNG at all. Australia is now one of the world's largest LNG exporters. The problem with reducing protection in overall terms may not be that it raises the total level of unemployment, but that the gains and losses from protection cuts are distributed unevenly throughout the population, with some communities and individuals winning while others lose out.

One way in which all individuals can benefit from lower levels of protection is in their capacity as **consumers**. Lower trade barriers have resulted in consumers being able to buy a wider variety of goods at lower prices. For example, research by the Centre for International Economics found that the national price level in Australia was 3.4 per cent lower in 2016 because of reductions in trade protection that have been implemented since 1986 (see the box below for more details of the research). The increased level of competition has also contributed to improved customer service from firms in some sectors. Figure 6.5 shows how the removal of tariff protection lowers the *domestic price* of products (from P_T to P_W), and increases the amount of foreign products available (from Q_2Q_3 to QQ_1).

The phasing out of trade barriers and the opening up of the Australian economy to global markets is intended to **improve living standards** for individuals. The quality of goods and services is higher because globally competitive businesses enter Australian domestic markets, forcing domestic firms to lift their game. Highly competitive markets also tend to encourage greater innovation as firms seek to differentiate themselves from competitors. The domestic presence of many firms that operate in global markets also ensures that innovations in other markets are brought into Australia more quickly.

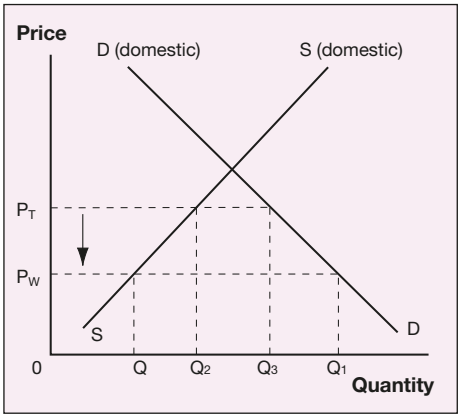


Figure 6.5 – The effect of tariff reductions

Effects on governments

Cutting tariffs will lead to a reduction in **government revenue**, since tariffs provide indirect tax revenue to the government. In the early years of Australia's nationhood at the beginning of the 20th century, tariffs provided the largest source of revenue to the Commonwealth Government. Indeed, the two largest political parties were the Protectionist and Free Trade parties. In contrast, there is general agreement about free trade among Australia's major political parties, and tariff revenue is now only a minor source of revenue. The approximately $1.9 billion in tariff revenue collected by the government in 2023–24 accounted for about 0.3 per cent of its total revenue.

A program of reducing protection levels may also have effects on the levels of **government spending**. Governments may be required to assist the structural adjustment process through increased expenditure on unemployment benefits and retraining programs to aid individuals who lose their job. For example, for workers who lose their jobs because of restructuring, motor vehicle industry policy includes specialised assistance such as job search assistance, relocation assistance and industry-specific training.

Governments can also be affected by the **political consequences** of tariff reductions. Despite the general consensus among economists that cutting protection will benefit the economy, this policy is generally unpopular with the wider community. The costs of lower protection are highly visible: structural unemployment, the closure of factories and well-known businesses, and the damage to the economy of regional Australia. The benefits are less visible, because they are spread out across the economy, and they may take a long time to arrive. In the meantime, governments can lose votes by pursuing policies to reduce protection. This explains why governments in many countries are reluctant to reduce protection levels, and why some, including the United States, have moved recently to increase them. The Productivity Commission has called for the Australian Government to better engage with the community and make the case for why free trade benefits ordinary Australians, and why increasing protectionism would be bad for Australia.

ECONOMIC BENEFITS OF TRADE

Australia's trade liberalisation policy between 1986 and 2016 increased GDP by 5.4 per cent and increased average family income by up to $2670, according to modelling by the Centre for International Economics. Overall benefits included:

Gross Domestic Product	+ 5.4 %
National income	+ 5.1 %
Exports	+ 28.5 %
Imports	+ 28.6 %
Prices	– 3.4 %
Real wages	+ 7.4 %

Source: Centre for International Economics (2017), "Australian Trade Liberalisation", prepared for the Department of Foreign Affairs

Other economic effects

Phasing out protection also has an impact on Australia's economic growth and **standards of living**. In the short term, lower levels of protection may lead to increased levels of imports. Because imports are produced overseas and do not create jobs or income in Australia, reducing protection can be negative for living standards in the short term. In the long term, however, as resources such as labour and capital move to more productive areas of the economy – with higher rates of return – economic growth and living standards should improve. While many other factors have also been important, lower protection levels in recent decades have generally been seen by economists as being one of the critical factors causing Australia's stronger economic performance.

In the short term, the phasing out of protection can have significant effects on Australia's trade performance and **current account**. The current account balance is likely to worsen as imports rise, because some imports will be cheaper due to lower tariffs and less restrictive quotas, or if the imports are of a higher quality than locally made products. However, lower protection should improve international competitiveness and improve the current

account over the longer term as exports grow. In fact, government reports have argued that Australia's failure to reduce tariffs until the late 1980s contributed to a less competitive export sector and higher current account deficits.

The benefits of reduced protection grow over time, and this influenced Australia's decision to adopt a process of phasing tariffs out over a 30-year period rather than with a small number of large cuts. Many trade liberalising measures implemented through free trade agreements are also phased in gradually over a period of time instead of being activated immediately. Implementing these changes gradually can help industries adjust better to changing business conditions. Most economists would agree that the short-to-medium-term problems of reducing protection are far outweighed by the long-term benefits, but a gradual phasing out makes it easier to manage the structural changes that occur as a result.

reviewquestions

1. Outline the impacts of reduced protection on economic growth, unemployment, and external stability in the Australian economy.
2. Explain the effects of a reduction in protection on domestic firms and individuals. Outline how reducing protection creates winners and losers in the Australian economy.
3. Examine the short-term effect of reducing tariffs on government revenue and expenditure.

6.5 The impact of international protection levels on Australia

Just as domestic policies to protect Australian industries have an impact on the Australian economy, so do the policies of other nations to protect their industries. When other countries put tariffs on Australian goods and services, Australian exports become less competitive in those overseas markets. When other countries subsidise their exports, they raise the supply and reduce the price of those goods on global markets. The result is that countries like Australia that compete to sell similar products on global markets experience a reduction in their income. Overall, international protectionism reduces the output of the Australian economy. Equally, a reduction in global protection levels should increase Australia's national income. A 2018 report by the Centre for International Economics estimated that a global reduction in tariffs that reduces import prices by 10 per cent would increase Australia's real GDP by 0.6 per cent a year.

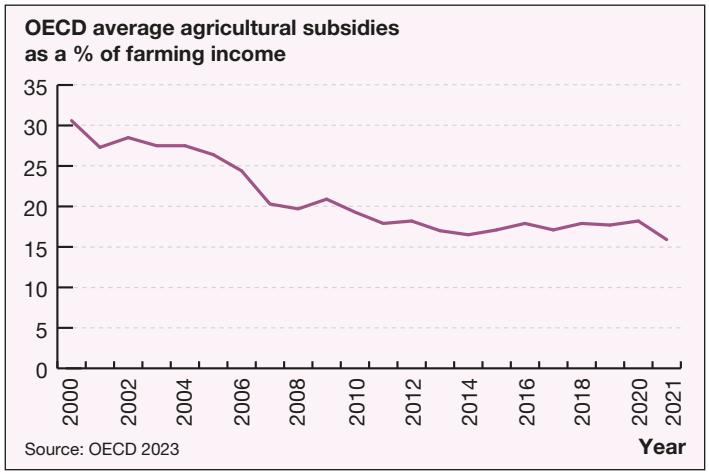


Figure 6.6 – Subsidies as a percentage of farm incomes for OECD countries

As a small economy with a high level of agricultural trade, Australia suffers particular disadvantages as a result of the protectionist policies of other nations and trading blocs. The EU has, for several decades, heavily subsidised agricultural production through the Common Agricultural Policy, which absorbs over one-third of the European Union's budget, and supplies around a fifth of European farmers' incomes. Farmers also receive significant subsidies in the United States, Japan, South Korea and Switzerland. Australian farmers are therefore competing in global markets at a significant disadvantage to their counterparts in the rest of the industrialised world. Figure 6.6 shows that agricultural protection still makes a significant contribution to farm income in the countries of the OECD.

While Australia's agricultural sector is mostly affected by protection levels in developed countries, the policies of other major export markets such as China also have a significant domestic impact in Australia. For example, China's punitive tariffs in late 2020 resulted in Australian wine exports to China falling from $1.3 billion prior to the COVID-19 pandemic to just $12.4 million in 2023, forcing domestic producers to divert exports to other markets.

Global progress towards reducing **agricultural protection** has been slow in recent years. Partly this reflects a trend towards increased tariffs and other protectionist measures around the world. However, agricultural trade has remained more protected than other industries throughout several decades of trade liberalisation. Many of the most protectionist agricultural trading nations have taken advantage of complex loopholes in the WTO regulations to avoid genuinely freeing up agricultural trade. According to the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) in 2020, global agricultural subsidies and trade barriers are currently reducing Australian agricultural exports by between $8 billion and $10 billion per year.

Australian firms exporting **non-agricultural goods** generally face fewer barriers to trade compared with the agricultural sector. The **mining and resources sector**, whose exports contribute the largest share of Australia's exports, faces very few barriers to trade. The products from this sector, such as coal, natural gas, oil and iron ore, are in high demand worldwide. As a result, mining companies and gas producers may be more likely to face export restrictions from an Australian Government trying to secure energy supplies for the domestic economy than from a foreign government trying to protect its minerals and resources industries. From another perspective, the countries importing Australian energy and mineral resources often simply do not have their own resources to produce domestic alternatives. If a foreign government was to impose tariffs on Australian resource exports, it would simply raise costs for its own consumers and businesses, but would not encourage the discovery or exploration of energy resources that the foreign country does not have. In other words, many countries simply do not have a domestic resource sector to protect from trade.

Likewise, Australia's **manufacturing industries** generally face few barriers to trade because of the substantial reduction in industrial tariffs in recent decades that have been negotiated through multilateral and bilateral trade agreements. Like Australia, most industrialised economies in the world have low manufacturing tariffs. Within the Asia-Pacific region, which includes many industrialising and developing countries, average manufacturing tariffs are also low, although there are exceptions, such as for motor vehicles, which incur tariffs of around 15 per cent in China. Additionally, some Australian exporters argue that **non-tariff barriers** to trade, such as technical restrictions and licensing rules, play a greater role in creating barriers to trade. For example, inconsistent or varying health regulations for processed food products in different areas of a country can make it difficult for Australian exporters to penetrate foreign markets (at times, other countries have made the same claims about Australia's strict quarantine rules). For this reason, technical barriers to trade are now formally part of trade negotiations at the WTO and in bilateral trade agreements.

Australia's **service industries**, which account for around 70 per cent of the Australian economy but less than one-fifth of our exports, arguably face the most prohibitive barriers to international trade. In many situations, trade in services is simply not feasible. This is because of **natural barriers** caused by geography and transport costs, language and cultural differences, and local tastes and preferences, rather than the result of protectionist trade policies in other countries. For example, Australian restaurants might be producing

AGRICULTURAL PROTECTION AND CARBON EMISSIONS

As governments step up their efforts to reduce carbon emissions, a key challenge is to prevent "carbon leakage", where domestic producers who are paying higher costs to reduce emissions are undercut by overseas producers who are not taking action. The European Union (EU) from 2026 is introducing an import tax on emission-intensive goods that come to the EU from countries that do not adequately charge their producers for carbon emissions (via a domestic carbon tax or emissions trading scheme, for instance). These taxes are called carbon border adjustments (CBAs, sometimes also called carbon border taxes) and they work in a similar way to regular tariffs. Because the EU imposes a carbon price on domestic production, its businesses may be at a competitive disadvantage compared with firms in other countries that do not have to pay as much for their emissions. CBAs can help create incentives for firms in countries without carbon prices (such as Australia) to reduce their emissions. In contrast, the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) has highlighted the importance of global agricultural support reform in reducing emissions. In 2023, ABARES said that removing global agricultural subsidies would reduce distortions, resulting in a fall in inefficient production, improved productivity, and reduced waste and emissions, while maintaining global food security.

THE AUSTRALIAN DOMESTIC GAS SECURITY MECHANISM

Most trade restrictions are imposed on imports, but sometimes governments impose restrictions on exports when they conclude that markets are not operating in the national interest. Natural gas is one such market. Most gas exporting countries apply some form of gas reservation policy, or other policy mechanism, to protect their national interest in supplying their domestic energy market. Although Australia is the world's largest supplier of liquefied natural gas (LNG), until recently it had no national policy to guarantee its own domestic supplies – there was only a state-based law in Western Australia requiring that 15 per cent of the state's natural gas production be made available for domestic use.

In 2017, the Federal Government answered the concerns of energy retailers and manufacturers, who claimed that Australia's LNG industry had tied itself up with long-term deals to sell all of its output to overseas buyers, and had failed to sell to the domestic energy market at a fair price. The Government introduced the Australian Domestic Gas Security Mechanism (ADGSM) to restrict exports of LNG in situations of gas supply shortages on the east coast of Australia. In 2023, reforms were introduced to increase flexibility in responding to domestic gas supply shortfalls. These reforms included the ability to activate the AGDSM quarterly, ahead of peak seasonal demand, the introduction of new protections for long-term gas contracts, and shared responsibility for LNG exporters in preventing shortfalls. The ADGSM was also extended to 2030.

some of the best food in the world, but the market for restaurant customers is limited to people either living in or visiting Australia. This makes it difficult for Australian restaurateurs to export their services (other than to tourists, who make up a very small proportion of the global consumer market for food).

However, protectionism also plays a role in reducing services trade in the global economy. Unlike goods, the main barriers to services trade are not tariffs, but a range of government regulations and practices that have the effect of restricting services trade. Many countries' banking sectors are protected from foreign competition by restrictions on granting licences for overseas-owned banks. This restricts the growth of Australia's financial services industry in overseas markets. Similarly, competitive Australian firms in the electricity, recycling and communications industries face many overseas markets that are dominated by monopoly government providers or procurement arrangements that favour local providers. Figure 6.7 lists some common barriers that Australian service businesses face in overseas markets. The impact of restrictions to trade in services is significant for service-based economies such as Australia. A Productivity Commission report in 2015 noted that international barriers to Australian services trade remain costly – particularly restrictions on establishing commercial operations in key Asian markets (especially for Australian financial services). One of the main goals of Australia's trade agreements with Japan and South Korea, for instance, is to reduce some of these trade barriers.

Government procurement refers to the policies and procedures for purchasing goods and services for the use of the government and public trading enterprises.

Service industry	Potential trade barriers
Financial services	Restrictions on foreign ownership of banks and other financial institutions
Transport services	Restrictions on the number of flight routes in another country
Professional services	Licensing laws that only recognise own country's educational qualifications
Construction services	Government procurement rules that mandate use of local suppliers
Utility services	Government monopoly provision of electricity, gas and water
Environmental services	Government preferences for local suppliers of waste or recycling services
Media and entertainment	Minimum local content requirements to preserve country's culture

Figure 6.7 – Trade barriers that often affect Australian services exporters

reviewquestions

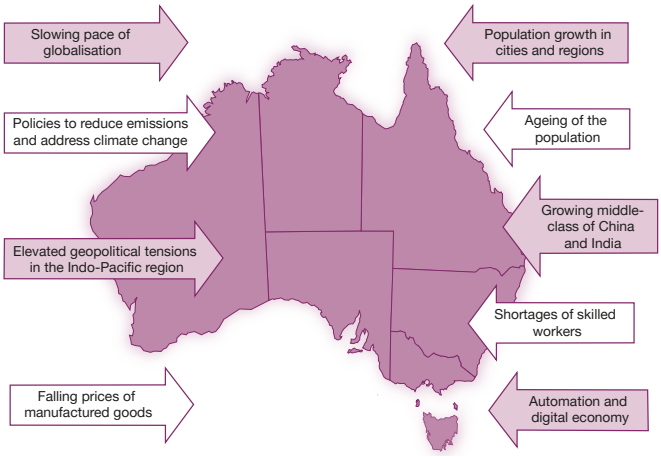
1 Discuss the impact of subsidies in overseas economies on Australia's trade performance.

2 Compare and contrast recent trends in global protection levels across different industries in the global economy.

6.6 The future of Australian industry in the global economy

The outlook for the global trading environment in the 2020s is more uncertain than it has been for several decades. Increasing tensions between the United States and China over trade has destabilised the global trading system, with knock-on effects for small, open economies like Australia. The WTO's role in the global trading system has been weakened. The COVID-19 pandemic and the war in Ukraine have strengthened protectionist sentiments around the world. The pandemic has also likely triggered structural changes in the economy, which are still playing out. Finally, the increased focus on climate mitigation overseas and in Australia is also important given the current structure of Australia's economy and trade. All of these factors are likely to significantly affect Australia's trade patterns in the coming years.

Trends affecting the Australian economy



Predicting future trade patterns and their effects on the structure of industry is always difficult. During the 1980s and 1990s, there was an assumption that globalisation would result in a shift towards value-added manufacturing and services industries, and away from primary industries and basic manufacturing. With the rapid industrialisation of China and other emerging economies generating substantially higher prices for commodities, something very different happened. Globalisation made resources even more central to the Australian economy. Likewise, the unprecedented imposition of international border restrictions following the COVID-19 pandemic in 2020 had a smaller than expected effect on many of Australia's goods exports (mainly agriculture and mining) and imports (mainly manufactured goods), despite some delays in processing by customs at the border.

Mining will likely remain Australia's most important export industry for the foreseeable future. The share of Australia's total export revenue earned by minerals and metals industries has almost doubled in the past three decades. Resources and energy exports are expected to earn more than $2 trillion for Australia over the six years from 2022–23. These industries which, at the dawn of the 21st century, were being ridiculed as "old economy" industries amidst the "dotcom" boom in electronic commerce, experienced a dramatic resurgence during the resources boom of the 2000s, underpinned by the rapid industrialisation of East Asian economies. Australia's mining output and exports will continue to be our major export industry for the foreseeable future. Nevertheless, elevated trade tensions with China pose some risk to mining exports, although China has a limited number of alternative reliable sources elsewhere in the world. Production capacity has continued to increase as large-scale mining construction projects have been completed in recent years. A completed pipeline of LNG projects has very quickly made LNG one of Australia's major export industries. LNG exports earned over $90 billion in 2022–23, compared to less than $10 billion a decade before. The global shift away from coal is likely to reduce Australia's coal exports rapidly in the coming years, but other commodities such as iron ore will remain strong because

there are no substitute products available. In addition, natural gas is playing a role as a "transition" source of energy that countries can use to gradually reduce emissions (since gas has fewer emissions than coal). This should support the demand for Australian LNG exports over the short-to-medium term. The soaring global demand for electric vehicles is also increasing demand for lithium for battery production, with Australia well positioned as the world's largest lithium exporter.

Australian **agricultural industries** face a more mixed outlook. Global food prices have increased significantly in recent years. This has lifted farm incomes. The return of the Australian dollar closer to historic averages has also made farming exports more competitive. However, Australian agriculture faces major long-term challenges: more extreme weather patterns resulting from climate change, including increased drought, bushfires, floods and threats to livestock. Access to overseas markets may also be affected by trade barriers and increasing levels of agricultural efficiency among competitors. Processed food industries that add value to traditional agriculture (such as wine and dairy industries) are playing a larger role in exports, particularly as they have been afforded greater market access under Australia's more recent trade agreements than traditional areas of agriculture. The global market for high-quality processed foods is expected to continue growing strongly in coming years, fuelled by the growth of the middle class in China and India, and Australia's high-quality food industries are well positioned for export growth.

Although Australia has seen a gradual reduction in its older, import-competing manufacturing sector, at the same time, smaller, export-oriented manufacturing has continued to grow. Overall, manufactured exports grew from less than $10 billion to around $40 billion in the three decades to 2023. This growth is expected to continue at a slower pace, as specialised manufacturers expand their markets by producing high-quality goods aimed at specific market niches. For example, an Australian lithium-ion battery manufacturing industry is developing (in addition to lithium mining) to meet global demand which is expected to grow forty-fold by 2050. A new "gigafactory" opened in the Hunter Valley in 2023, and work is underway on another gigafactory in Geelong. Future shifts in the exchange rate will also be important for the competitiveness of Australian manufacturers.

Services exports fell sharply following the onset of the COVID-19 pandemic, but by 2023 (other than for travel) had recovered to pre-COVID levels. Prior to the COVID-19 pandemic, tourism had been Australia's largest service export, driven by increased travel across the world and the attractiveness of Australia as a safe location with excellent weather and exceptional flora and fauna. As tourism export earnings fell in 2020, the industry repositioned itself to serve Australian domestic tourists, who were largely prevented from travelling overseas. Australia's other major services export (worth $30 billion a year before the pandemic) is international education, with Australian schools and universities benefiting from a large intake of overseas students, especially from China and India. Other growing areas of services exports include:

- **Digital services**: information and communications technology (or digital goods and services) have become Australia's fourth-largest export, expected to be worth $19 billion by 2030, according to a report by the Export Council of Australia.
- **Environmental services**: these have longer-term growth potential, such as in the renewable energy sector, where historically Australia has been an innovator. According to the International Renewable Energy Agency, annual global investment in energy transition reached a record high of almost $2 trillion in 2022.

Other services sector exports for Australia that may grow in the future include professional services, financial services and services related to infrastructure.

reviewquestions

1 List THREE industries that you think will play a greater role in Australia's export mix in the future. Justify your answer.

2 Outline the likely future trends in the direction of Australia's exports.

chapter summary

1 The aim of **reductions in protection** over recent decades has been to make Australian industry more internationally competitive and to reallocate resources to the most efficient sectors of the economy.

2 In the past, the Australian economy had relatively high levels of protection. However, tariff reductions began in 1973, and during the 1990s and 2000s Australia phased out most of its tariffs barriers. **Tariff levels** in Australia are low with an average tariff rate of 0.5 per cent. Almost 90 per cent of imported goods and services are tariff free, and the general tariff rate is 5 per cent or less. Non-tariff barriers in Australia are low compared with other industrialised countries.

3 Australia's free trade agreements include **bilateral agreements** with Chile, China, India, Japan, Malaysia, New Zealand, Singapore, Indonesia, Peru, South Korea, Thailand, the United Kingdom and the United States; and **multilateral agreements** with ASEAN and New Zealand, the Asia-Pacific Economic Cooperation forum, Pacific nations and the CP–TPP.

4 The effects of reducing protection levels on **firms** vary across different industries, with traditional import-competing manufacturers losing out due to cheaper imports, while export-oriented industries benefit from lower input costs.

5 The impact of lower protection levels on **individuals** varies. Most individuals benefit as consumers from goods and services becoming cheaper, and from a wider product choice and a higher quality of service. However, with the decline of older import-competing industries, employees with less flexible skills may experience long-term unemployment.

6 While lower levels of protection may benefit the economy generally, in the short to medium term, **governments** may lose out from reduced revenue, increased expenditure (such as for higher unemployment benefits and structural adjustment packages) and a loss of public support. The economy may also experience a higher current account deficit (CAD) in the short to medium term.

7 The use of **protectionist policies in other countries** has resulted in significant economic costs, in particular the loss of potential export revenue as a result of lower export prices and reduced access to overseas markets.

8 Risks to Australia's trade outlook include trade tensions with China, rising trade barriers, and the impacts of climate change on exports, both through extreme weather events and potential carbon border taxes.

9 Australia's approach of phasing out protection is likely to lead to an economy that is **more integrated with the global economy**, with a higher proportion of production and consumption going to exports and imports.

10 The resources boom of the 2000s resulted in a large expansion in Australia's mining and energy exports, underpinned also by higher commodity prices. Although resources are expected to remain Australia's largest source of exports, future export growth is also expected to come from services and a more diversified export base.

chapterreview

1 Describe the factors that have influenced government policies to reduce protection in Australia during recent decades.

2 Explain how the short-term problems associated with a reduction in protection might be outweighed by the long-term benefits.

3 Discuss recent changes in Australia's protection levels and the outlook for protection levels in the future.

4 Describe the main features of TWO of Australia's bilateral and TWO of Australia's multilateral free trade agreements.

5 Account for the varying impacts of lower levels of protection on different industry sectors.

6 Examine how changes to protection levels in Australia have impacted Australia's trade performance and economic growth.

7 Discuss the impact of reduced protection levels on individuals.

8 Outline the impacts of lower tariffs on the Australian Government.

9 Discuss the impacts of global protectionist policies on the Australian economy.

10 Outline possible future changes in the structure of industry within Australia as a result of current trends in the global economy.

TOPIC 3

ECONOMIC ISSUES

Issues

By the end of Topic 3, you will be able to examine the following economic issues:

- Examine the arguments for and against increasing economic growth rates
- Investigate the economic and social problems created by unemployment
- Analyse the effects of inflation on an economy
- Discuss the effect of a continued current account deficit on an economy
- Investigate recent trends in the distribution of income in Australia and identify the impact of specific economic policies on this distribution
- Analyse the economic and social costs of inequality in the distribution of income
- Examine the economic issues associated with the goal of ecologically sustainable development

Focus

This topic focuses on the nature, causes and consequences of the economic issues and problems that can confront contemporary economies.

Skills

Topic 3 skills questions can ask you to:

- Identify and analyse problems facing contemporary and hypothetical economies
- Calculate an equilibrium position for an economy using leakages and injections
- Determine the impact of the (simple) multiplier effect on national income
- Explain the implications of the multiplier for fluctuations in the level of economic activity in an economy
- Calculate the unemployment rate and the participation rate using labour force statistics
- Interpret a Lorenz curve and a Gini coefficient for the distribution of income in an economy
- Use economic concepts to analyse a contemporary environmental issue
- Assess the key problems and issues facing the Australian economy

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Topic 3

Introduction

This section (chapters 7–12) covers Year 12 Topic 3, *Economic Issues*, and focuses on the nature, causes and consequences of the economic issues and problems that confront contemporary economies such as Australia.

Chapter 7 examines the issue of economic growth in the Australian economy. It provides a foundation of economic theory with which to examine Australia's recent growth performance. Concepts examined include aggregate demand and supply, injections and withdrawals, the simple multiplier and the measurement of growth through changes in real Gross Domestic Product (GDP). The chapter looks at the sources and effects of economic growth in Australia, recent trends in the business cycle and the impacts of economic growth.

Chapter 8 examines the issue of unemployment in the Australian economy. The chapter covers measurement of unemployment, trends in unemployment, types and causes of unemployment, the concept of a non-accelerating inflation rate of unemployment and examines which groups in the community are most affected by high unemployment levels. The chapter finishes with a review of the economic and social consequences of unemployment.

Chapter 9 examines the issue of inflation in the Australian economy. Australia has been successful in achieving low inflation outcomes since the early 1990s, but has faced a global surge in inflation in the early 2020s. The chapter looks at the measurement of inflation and its trends in recent years. It then examines the main causes of inflation and the effects of inflation on the Australian economy.

Chapter 10 examines the issue of external stability in the Australian economy. Many dimensions of Australia's relationship with the global economy are reflected in our external accounts. The chapter addresses how we measure external stability in terms of the relative size of the current account deficit, net foreign debt and net foreign liabilities. The trends in Australia's external accounts are briefly reviewed, with reference to Topic 2. Chapter 10 also examines the causes and effects of external imbalance in Australia.

Chapter 11 examines the issue of distribution of income and wealth in the Australian economy. The chapter looks at how we measure inequality, and we examine some of the factors that influence inequality by looking at the sources of income and wealth. It examines the relationship between inequality and a range of social dimensions, such as gender, age, occupation, ethnic background and family structure. It also examines the economic and social costs and benefits of inequality in the context of the Australian economy.

Chapter 12 examines the issue of environmental sustainability in the Australian economy. This is a priority because of the long-term economic impacts of climate change and water shortages. The chapter covers the issues of ecologically sustainable development, private and social costs and benefits of growth, and public and private goods. A number of issues, such as preservation of natural environments, pollution control, climate change and depletion of renewable and non-renewable resources, are also examined in the context of the Australian economy.

Economic Growth 7

7.1 Introduction
7.2 Economic growth and aggregate demand and supply
7.3 The components of aggregate demand
7.4 Changing levels of growth: the multiplier process
7.5 The role of aggregate supply
7.6 The effects of economic growth
7.7 Recent trends in economic growth
7.8 Policies to sustain economic growth

7.1 Introduction

Economic growth creates jobs, allows individuals to increase their consumption, and raises living standards. Accordingly, economic growth is generally considered the most important measure of an economy's performance, and is therefore a key government policy objective.

Economic growth can be defined as an increase in the volume of goods and services that an economy produces over a period of time. It is measured by the **annual rate of change in real Gross Domestic Product (GDP)**, that is, the percentage increase in the value of goods and services produced in an economy over a period of time, usually one year, adjusted for the rate of inflation. This is more accurate than **nominal GDP**, which is not adjusted for price changes.

$$\textbf{Economic growth (\%)} = \frac{\text{real GDP (current year)} - \text{real GDP (previous year)}}{\text{real GDP (previous year)}} \times \frac{100}{1}$$

The Australian Bureau of Statistics (ABS) estimates the level of GDP in Australia every three months (that is, for every quarter of the year) in the publication called *Australian National Accounts: National Income, Expenditure and Product*. To measure GDP, the ABS uses information about household and business incomes, expenditure on goods and services, and production by firms. You might recall from the Circular Flow model in the Preliminary Economics Course the three separate sources of economic growth – income, expenditure and production – which can be used to calculate GDP. There are also three different time periods used to measure Australia's rate of economic growth:

- **Quarterly economic growth:** calculated every three months by the ABS. For example, quarterly growth in the March quarter of 2024 is the percentage increase in GDP since the previous December quarter (that is, the final three months of 2023). So if quarterly GDP was $564 billion in the December quarter of 2023 and $570 billion in the subsequent March quarter of 2024, the quarterly rate of economic growth would be around 1 per cent.

- **Year-on-year growth**: a less volatile measure of economic growth, which measures the percentage change in GDP between one quarter and the corresponding quarter of the previous year. For example, if quarterly GDP was $557 billion in the March quarter of 2023 and was $570 billion in the March quarter of 2024, the year-on-year rate of growth would be 2.3 per cent.
- **Annual economic growth**: calculated using GDP statistics for the whole financial year, which runs from 1 July to 30 June. When the June quarter national accounts are released, usually in early September, annual growth is calculated as the percentage increase in GDP since the last financial year. For example, if GDP grew from $2222 billion in 2022–23 to $2289 billion in 2023–24, the annual rate of economic growth would be 3 per cent.

There are a variety of measures of economic growth because each measure is useful for different purposes. The Reserve Bank, for example, analyses current quarterly levels of economic growth to forecast growth and inflation trends over the upcoming 12–18 months to inform interest rate decisions. The Productivity Commission, by contrast, is more interested in long-term growth trends across the business cycle, and would therefore focus on annual rather than quarterly numbers.

7.2 Economic growth and aggregate demand and supply



To access articles and statistics about Australia's GDP growth rate, search for *Australian National Accounts: National Income, Expenditure and Product* on the Australian Bureau of Statistics website.

To understand more about economic growth we must first look at the factors that influence the level of economic activity. An understanding of how growth occurs can guide governments in deciding how to achieve higher rates of economic growth. This has been an issue of long-running debate among economists.

Traditionally, most economists believed that the most important factor determining economic growth was the ability of firms to produce goods and services – that is, the level of total output or **supply**. Classical and neoclassical economists in the 18th and 19th centuries believed that market economies would naturally achieve optimum economic growth without any government intervention. However, opinions changed after the Great Depression of the 1930s, a period of very low economic growth that left many people out of work. The experience of the Great Depression caused policymakers to question the assumptions underpinning economic policy.

As economists looked for new ways to achieve economic growth, **John Maynard Keynes** developed a theory stating that the most important influence on economic growth was the total level of expenditure in an economy – that is, the level of **aggregate demand**. Keynesian economics became the most important economic theory of the 20th century, shaping economic policymaking across the world between World War II and the 1970s.

Keynesian economic theory suggested that people would not necessarily spend their income just because goods were produced and businesses paid their workers for production. If households and businesses were generally pessimistic about the future economic outlook, households would tend to spend less on consumer goods and save more, while firms would be reluctant to invest in capital goods. This would result in an overall decline in aggregate demand, with falling production and rising unemployment.

Aggregate demand – represented by the symbol AD – is the total level of expenditure in an economy over a given period of time. It includes consumption, investment, government spending and net export spending (export spending minus import spending).

Aggregate supply – represented by the symbol Y – is the total level of income in an economy over a given period of time. Part of national income is collected by the government through taxation, and the rest is either spent on consumption or is saved.

Aggregate demand refers to the total demand for goods and services within the economy. Components of aggregate demand are: consumption (C), investment (I), government spending (G) and net exports (X – M).

Aggregate supply refers to the total productive capacity of an economy, that is, the potential output when all factors of production are fully utilised.

$AD = C + I + G + (X - M)$	$Y = C + S + T$
WHERE: **AD** = aggregate demand **C** = consumer spending by households **I** = investment spending by businesses **G** = government spending **X** = export revenue **M** = spending on imports	**WHERE:** **Y** = aggregate supply or national income **C** = consumer spending by households **S** = saving by households **T** = taxation by the government

Equilibrium occurs when:

Aggregate supply = Aggregate demand

$Y = AD$

Substituting for aggregate demand gives:

$Y = C + I + G + (X - M)$

Substituting for aggregate supply gives:

$C + S + T = C + I + G + (X - M)$

By rearranging the equation:

$S + T + M = I + G + X$

Leakages = Injections

The economy is in **equilibrium**, that is, it will tend to be stable, when the level of aggregate demand is equal to aggregate supply (national income). By substituting the components of aggregate demand and supply into the equilibrium equation, we find an alternative condition for equilibrium in the economy – that the leakages of savings, taxation and imports will be equal to the injections of investment, government spending and exports. (This is the way we looked at economic growth in the Preliminary Course, with the Circular Flow of Income model). Changes in leakages and injections influence the level of economic activity. If injections are greater than leakages, economic growth will increase – but if leakages are greater than injections, economic growth will decrease.

reviewquestions

1 Define the term *economic equilibrium*.

2 Assume an economy is in equilibrium and investment increases by $10 billion. Describe the economic effect in terms of leakages, injections and economic growth.

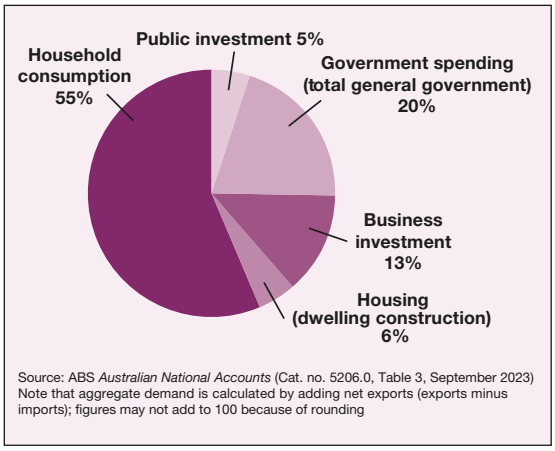
7.3 The components of aggregate demand

Changes in the level of economic growth in the short to medium term are driven largely by changes in the level of aggregate demand. To better understand what drives economic growth, we need to examine the individual components of aggregate demand. By analysing the factors that influence these individual components, we can see what factors will cause the economy to expand and contract over time – and therefore better understand what policies may be used to increase the level of economic growth.

Influences on consumption

Examining the influences on leakages and injections allows us to see what factors influence the level of economic growth.

Influences on consumption and saving



Source: ABS *Australian National Accounts* (Cat. no. 5206.0, Table 3, September 2023)
Note that aggregate demand is calculated by adding net exports (exports minus imports); figures may not add to 100 because of rounding

Figure 7.1 – The components of domestic demand

Consumption is an important determinant of the level of economic growth because consumption by households typically forms at least half of expenditure (or aggregate demand) in the economy (see figure 7.1). Anything that boosts consumption is also likely to boost expenditure (demand) and hence economic activity (that is, income or supply).

Obviously, the most important factor influencing the level of consumption is income itself. People with higher incomes tend to consume more. If a person's income rises over time, their consumption tends to rise too. Economies with higher income levels tend to consume more. However, because we want to know how consumption can influence economic activity (including income), we must look at the factors that influence consumption *for a given level of income* – that is, all the factors other than income. Put another way, our concern is with the proportion of total income that is spent on consumption, called the **average propensity to consume (APC)**, and the proportion of total income that is saved, called the **average propensity to save (APS)**. The three greatest influences on the APC are consumer expectations, the level of interest rates and the distribution of income.

Average propensity to consume (APC) is the proportion of total income that is spent on consumption.

Average propensity to save (APS) is the proportion of total income that is not spent, but is saved for future consumption.

Consumer expectations

Expectations about future price rises and the general availability of goods will influence consumers' decisions to spend or save their income. If consumers expect a rise in their incomes or in inflation, or if they anticipate future shortages of goods, then they tend to spend more and save less in the short term. On the other hand, if consumers expect that their incomes might fall, that prices might fall or that goods and services might become more available in the future, then they are inclined to spend less and save more.

The level of interest rates

An increase in the general level of interest rates would discourage individuals from spending their money (as the cost of borrowing money is now higher) and therefore encourage them to save, while a decrease in interest rates would encourage spending and discourage saving. For example, global inflationary pressures in 2022–23 led to higher interest rates, prompting households to be more conservative in their discretionary spending as they budgeted for increased mortgage repayments.

The distribution of income

Generally speaking, the more equitable (even) the distribution of income, the higher the rate of overall spending, and vice versa for a more inequitable (uneven) distribution of income. This is because people on lower incomes tend to spend proportionately more of their income than those on higher incomes. This reflects a key insight of the Keynesian consumption function: the more income that an individual receives, the higher proportion they save and the lower proportion they spend. For example, a person with a net income of $400 per week might have to spend it all on basic costs of living, whereas someone receiving a net income of $4000 per week might comfortably save half of that level of income. As a result, policy changes that redistribute income from higher- to lower-income earners (such as increasing the rate of JobSeeker payments) are more likely to increase consumer spending than policies that increase the income of high-income earners (such as a reduction in the top marginal income tax rate).

Influences on investment

Business investment is one of the most volatile components of demand or aggregate expenditure, historically contributing between 10 and 15 per cent. The main factors influencing business investment are the cost of capital equipment and business expectations.

The cost of capital equipment

The cost, or relative cost, of capital equipment is influenced by the following factors:

- **Changes in interest rates**. A fall in interest rates would make it cheaper to borrow funds for the purchase of capital equipment, and a rise in interest rates would raise borrowing costs, as well as making it more attractive to save. Interest rates also represent an opportunity cost for firms who own their capital. Firms with available cash reserves will compare the returns from either saving money (for example, lending it to others, such as by buying bonds) or using it to fund the acquisition of capital or other businesses (alternatively, they may return cash to investors through increased dividends).
- A change in **government policies** relating to investment allowances and tax concessions on capital goods. For example, if the government allowed businesses to claim the full cost of capital equipment immediately, instead of claiming depreciation over several years, this would reduce their tax liability and make capital cheaper than it otherwise would have been. During the COVID-19 recession, the Australian Government allowed firms with turnover of up to $5 billion to immediately deduct the full cost of all asset purchases until July 2023. This incentive led to a jump in the contribution of business investment to aggregate demand between 2021 and 2023.
- Any change in the **price or productivity of labour** (labour being a substitute for capital in the production process) or technological innovations will affect the relative cost of capital compared with labour. For example, if either the cost of labour increased or more advanced labour-saving technologies became available at the same cost, then the relative cost of capital compared with labour would have decreased, making its use more attractive.

Business expectations

Business expectations about future prospects, a factor sometimes described as entrepreneurial or as "animal spirits", influence the level of investment. The factors that affect expectations are:

- Any change in **expected demand for their products**. If entrepreneurs expected a future increase in demand, they would be more inclined to purchase new capital equipment to boost production and satisfy that demand.

- Any change in the **general economic outlook**. If economic growth is expected to increase, entrepreneurs will be more inclined to invest in capital equipment because a higher level of economic activity should improve the returns on investment.
- **Inflation** leads to uncertainty about future prices and future costs of production, and this is likely to lead to reduced investment in productive capital equipment.

Influences on government spending and taxation

Levels of government spending and taxation can also have a significant influence on the level of economic activity. Federal government spending usually makes up around 20–25 per cent of aggregate demand or expenditure, while taxation is around 20–25 per cent of aggregate supply or income.

As we will discuss in chapter 14, when we look at fiscal policy, one of the main goals of government spending and taxation policies is to **maintain a sustainable rate of economic growth**, and help achieve the goals of low unemployment and inflation. This means that governments may increase their level of spending and/or reduce the level of taxation to increase aggregate demand and growth. Alternatively, governments may reduce their level of spending and/or increase the level of taxation to reduce aggregate demand and growth.

Influences on exports and imports

Changes in export sales and demand for imports can have an impact on the level of aggregate demand and economic activity. Exports and imports are each equal to between one-fifth and one-quarter of aggregate demand. If export revenue is equal to import spending, net exports (export revenue minus import spending, that is, the trade balance) neither adds nor subtracts from aggregate demand. Australia's recent sustained trade surpluses have made a positive contribution to aggregate demand.

Australia's volumes of exports and imports are influenced by the levels of overseas and domestic income. When overseas income levels rise, Australia's exports tend to rise. When Australian income levels rise, Australia's imports tend to rise. Australia's net exports are also influenced by exchange rates, inflation, levels of international competitiveness, protectionist trade policies, and consumer tastes and preferences:

- When Australia has a weaker exchange rate, domestic industries are more competitive as the relative cost to foreign purchasers decreases, often resulting in increased sales. This means that net exports will be higher, adding to aggregate demand and boosting economic activity.
- When Australia has a stronger exchange rate, domestic industries are less competitive and their products become more expensive for foreign consumers. As a result, net exports will be lower, detracting from aggregate demand and reducing economic growth.

As detailed in chapter 6, improving Australia's trade performance is a key policy objective due to its impact on aggregate demand and economic growth.

reviewquestions

1 Explain how expectations can affect both consumption and investment.
2 Describe the impact of lower taxation on demand.
3 Discuss the influence of net exports on the level of aggregate demand.

7.4 Changing levels of growth: the multiplier process

We now turn to how changes in the level of aggregate demand influence the level of economic activity. This section simplifies the economy to the three-sector Circular Flow model of individuals, firms and financial institutions, but excludes the government and international sectors.

As we saw in the previous section, income (Y) that is not spent on consumption (C) must be saved (S). Likewise, expenditure in the economy (AD) is made up of consumption (C) and investment (I).

The consumption that comes from income is obviously equal to the consumption part of expenditure. However, there is no reason why savings (S) and investment (I) have to be equal all the time (see the factors influencing savings versus the factors that influence investment in the previous section as evidence of this).

Whenever S is not equal to I, the economy will be disrupted from its state of equilibrium. The Circular Flow model suggests the economy will move towards a state of equilibrium – at a higher level of economic activity when the injection of I is greater than the leakage of S, and at a lower level of economic activity when the injection of I is less than the leakage of S.

How does this adjustment take place? Through the **multiplier process**, an economic concept developed by John Maynard Keynes.

When there is a shock to the economy, such as a change in consumer or business expectations, a change in interest rates, or a change in government policies, there will be a change in injections or leakages. For example, improved business expectations for economic recovery will increase business investment and expenditure (demand). This expenditure will provide increased income for individuals, who then consume more, which will further increase expenditure and income and so on. Therefore, the initial increase in investment will have a **multiplied impact on national income**.

However, the increase in investment will not continue to increase income forever. Each time the injection moves around the economy, its impact on expenditure gets smaller because some of the income is not consumed but saved. This savings component is a leakage that reduces the effect of the higher investment on national income. The number of times the final increase in national income exceeds the initial increase in expenditure that caused it is **the multiplier**. The mechanism by which changes in aggregate demand result in changes in GDP is known as the **multiplier effect**.

The **multiplier** is the greater-than-proportional increase in national income resulting from an increase in aggregate demand.

To calculate how a change in injections or leakages has a multiplied impact on income we need to consider two more concepts:

- the **marginal propensity to consume** (MPC), that is, the proportion of each extra dollar of income that is spent on consumer products
- the **marginal propensity to save** (MPS), that is, the proportion of each extra dollar of income that is saved.

$$\text{MPC} = \frac{\Delta \text{ in consumption}}{\Delta \text{ in income}}$$

$$\text{MPS} = \frac{\Delta \text{ in savings}}{\Delta \text{ in income}}$$

In any economy, the sum MPC + MPS = 1 always holds, since each extra dollar of income must be either consumed (spent) or saved.

This can be explained using the following example: Assume that for each extra dollar of income, consumers spend 80 per cent (80 cents) and save 20 per cent (20 cents).

In this case MPC = 0.8 and MPS = 0.2

Assume also that investment in the economy has increased by $10,000. This represents an injection into the circular flow of $10,000, or put another way, an initial increase in aggregate demand of $10,000. If the economy was previously at equilibrium, this means

that aggregate demand will now exceed output in the economy. This excess in aggregate demand will manifest itself in an unplanned rundown of stocks. Producers will respond by increasing output and national income will initially increase by $10,000 (since the initial increase in aggregate demand was $10,000).

However, the multiplier process ensures that national income will ultimately rise by much more than $10,000. It works like this:

- National income will increase by the initial $10,000.
- Of that $10,000, $8000 will be spent (since the MPC = 0.8) while $2000 will be saved (MPS = 0.2).
- The $8000 that is spent will be income to those who receive it as payment for goods and services.
- Of that $8000, $6400 will be spent (0.8 × $8000), while $1600 will be saved.
- The $6400 that is spent will be income to those who receive it. They in turn spend 80 per cent of it and save 20 per cent – and so on.

This process will continue, but the amount of additional consumption spending each time will decline until it eventually becomes insignificant.

The following points should be noted before the total increase in income generated by this multiplier process is calculated. First, it is the MPS that causes the amount of income generated by each successive wave of spending to decrease. Second, the sum of each successive wave of income generated will add up to the total amount by which national income increases. The final increase in national income is equal to the initial increase in aggregate demand multiplied by "**the multiplier**".

The size of the multiplier is determined by the MPS and can be expressed as:	$k = \frac{1}{MPS}$ (k being the symbol for the multiplier) or $k = \frac{1}{1 - MPC}$ (since MPC + MPS = 1)
Under the assumptions in our example (that is, MPS = 0.2):	$k = \frac{1}{MPS} = \frac{1}{0.2} = 5$
The total increase in income generated by the $10,000 increase in aggregate demand is:	$\triangle Y = k \times \triangle AD = 5 \times \$10{,}000 = \$50{,}000$

In other words, five times the initial increase in aggregate demand.

Clearly, the larger the MPS, the smaller the value of the multiplier. If individuals save proportionately more of their extra income, they will spend less and therefore generate less additional income. It follows that the factor by which we must multiply our initial increase in aggregate demand must also be less. The reverse will also be true – the smaller the MPS, the larger the value of the multiplier.

The multiplier process also works for decreases in aggregate demand. For example, if we had a decrease in investment spending of $10,000, the multiplier effect would work in reverse, leading to a decrease in national income of $50,000.

Thus, any change in the level of planned expenditure (whether due to changes in investment, government spending, consumer spending or net export spending) will have a multiplied effect on the level of national income. Governments use the multiplier process because an initial increase in government spending can result in a much larger increase in economic activity as money circulates through the circular flow of income.

For example, if the government builds new roads, construction firms receive funding to purchase inventory for the new roads and road construction workers receive wages which they consume and save.

Note that in the analysis above we have only used what is called the "**simple multiplier**", as required by the Year 12 Economics Syllabus. The simple multiplier is calculated by only considering savings as a leakage from the circular flow. If we were to also include the government and international sectors of the circular flow, we would also need to know what proportion of income is "leaked" into taxation and import spending. For example, if in addition to 20 per cent of income being saved, a further 10 per cent of income was paid in tax and a further 10 per cent was spent on imports, total leakages would be 40 per cent of income, and the value of the multiplier would fall to 1 divided by 0.4, that is, 2.5. However, the Year 12 Economics Syllabus only requires you to calculate the multiplied impacts of changes in leakages and injections on national income using the simple multiplier.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the income-expenditure diagram – an extension of the economic growth theory covered in this chapter.

reviewquestions

1 The following numbers apply to a hypothetical economy:
($m) G = 30, C = 40, I = 15, X = 10, M = 10, MPC = 0.6
(a) Calculate the level of aggregate demand in the above economy.
(b) Calculate the value of the MPS.
(c) If the government wanted to increase national income by $100m, by how much would it have to increase its own spending levels?

2 In a hypothetical economy, a $30m increase in consumption leads to a $150m increase in national income. Calculate the value of this economy's marginal propensity to save.

7.5 The role of aggregate supply

While shifts in aggregate demand play the main role in determining the level of economic growth in the shorter term, aggregate supply also plays an important long-term role. An economy's aggregate supply is determined by the quantity and quality of the factors of production – natural resources, labour, capital and the ability of entrepreneurs to combine them efficiently to produce goods and services. Economies with more or better-quality factors of production produce more goods and services.

Economists sometimes refer to aggregate supply as an economy's "potential". This means that when aggregate supply increases, an economy can grow faster. As figure 7.2 shows, an increase in aggregate supply can lead to an increase in total output (economic growth) and a reduction in the general price level (inflation). An economy can grow faster and more sustainably when aggregate supply is increased – leading to higher GDP growth alongside price stability through lower inflation.

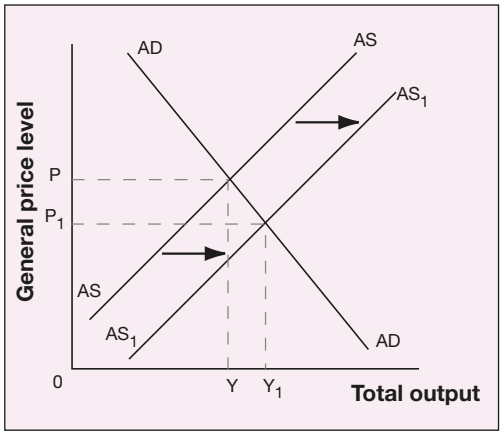


Figure 7.2 – The impact of increased aggregate supply on economic growth

Aggregate supply can be increased when a higher level of output can be produced for the same cost, that is, when there is an increase in quantity or improvement in the quality of the factors of production. This can be achieved through the changes set out in the table below.

Economic change	Example
Population growth	Labour is the main input into the production process, so an increase in the population (through higher migration or birth rates) means more workers are available and the economy will be able to produce more goods and services. For several decades, Australia's relatively high migration intake has been a major contributor to growth rates above most advanced economies.
Discovery of new resources	New mineral and metal deposits discovered in Australia can be exploited to increase exports and increase economic growth.
Workers acquiring new skills	More highly trained doctors and health professionals may be able to diagnose illnesses more quickly and treat them more effectively.
Increased capital	Investment in capital equipment, such as machinery, that efficiently replaces labour will, in the long term, increase the capacity of the business to produce goods.
Adoption of new technology	Businesses investing in artificial intelligence chatbots to respond to frequently answered questions from consumers reduces the cost of providing customer service.
Measures to improve efficiency	By establishing automated package processing centres in metropolitan Sydney, Amazon has enabled same-day delivery across the city for items purchased online.
Government policies	Changes to increase competition or reform regulation in an industry, such as the creation of Australia's national electricity grid.

If policymakers focus only on increasing aggregate demand, at some point they are likely to run into constraints with the economy's aggregate supply. When aggregate demand outstrips supply, economies experience **capacity constraints**, causing inflation to rise (discussed further in chapter 9). **Skills shortages** – when employers are unable to fill specific roles – emerged as a major constraint to Australia's recovery from COVID-19 due to the rapid fall in immigration during the pandemic. In the year to February 2023, ABS data showed an average of 457,000 job vacancies – a historic level almost double pre-pandemic levels. Labour shortages discourage businesses from investing (other than in labour-saving technology) and expanding production. Similarly, failing to plan adequately for future expansion can result in **infrastructure bottlenecks**, such as congested roads and ports. For this reason, microeconomic policies to increase aggregate supply are an important part of the economic policy mix.

reviewquestions

1 Outline the impact of an increase in aggregate supply on economic growth. Use a diagram to support your answer.

2 Explain TWO policies or changes that might increase aggregate supply in an economy.

7.6 The effects of economic growth

Traditionally, economic growth has been regarded as the most important economic policy objective. This is because economic growth makes it possible to achieve other economic and social objectives. However, too much growth can sometimes create problems.

Living standards

Faster economic growth results in an increase in real GDP per capita. Real wages can rise and households can enjoy a higher disposable income and therefore higher material living standards. This is the main reason why countries pursue higher levels of economic growth. In recent years, the Australian economy has experienced a slower rate of growth in real GDP per capita, meaning Australians' living standards have improved more slowly (annual real GDP averaged 1.1 per cent in the five years prior to the pandemic, compared to 2.1 per cent in the 1990s).

Employment

Economic growth creates jobs. In an economy that sustains strong economic growth, everyone who is willing and able to work should be able to find employment. As economies develop, economic growth also changes the nature of the jobs that are available, creating jobs that are more highly skilled and contribute to increased productivity, and in turn, higher incomes. Following the COVID-19 recession, a strong rebound in Australia's economic growth helped drive unemployment below 4 per cent for the first time since the 1970s.

Inflation

Higher levels of economic growth can result in price increases and larger wage claims, contributing to higher inflation. This is particularly the case when the economy is close to its full capacity and the growth in aggregate supply cannot keep pace with the growth in aggregate demand. Inflation is therefore often a side effect of economic growth. A major aim of macroeconomic policy is to sustain growth without increasing inflation – this is known as the "sustainable rate of economic growth".

External stability

Economic growth is often accompanied by higher disposable incomes, which leads to increased consumption of imported goods. Unless exports keep pace with growth in imports, the balance of goods and services can worsen and the current account deficit can increase. Because excessive current account deficits can undermine confidence in an economy, the balance of payments can sometimes become a "speed limit" on growth. This can lead to the "balance of payments constraint" where policymakers may deliberately slow economic growth to improve external stability.

Income distribution

Economists generally assume that economic growth leads to higher living standards and therefore better outcomes for everyone. However, the benefits of economic growth often flow disproportionately to higher-income earners, highly skilled workers, or owners of capital, rather than spreading more universally through wage increases for low-skilled workers or lower prices for low-income earners. If the benefits of economic growth are not widely shared, inequality will rise. Absolute poverty should fall as the economy grows, but relative poverty may increase if income distribution becomes more unequal.

Environmental impacts

If economic growth is pursued with little regard for the environment, it can contribute to pollution, depletion of non-renewable resources and the catastrophic effects of climate change. In recent decades there has been a stronger focus on "ecologically sustainable development" – that is, protecting the environment while also maintaining economic growth. In many instances, environmental protection can add to long-term economic

growth. For example, the transition to net zero carbon emissions could boost Australia's GDP by $75 billion each year through to 2035 according to a 2023 report from the McKinsey consulting group.

reviewquestions

1 Contrast TWO positive and TWO negative impacts of economic growth.

2 Explain how higher rates of economic growth can affect living standards and income distribution in an economy.

7.7 Recent trends in economic growth

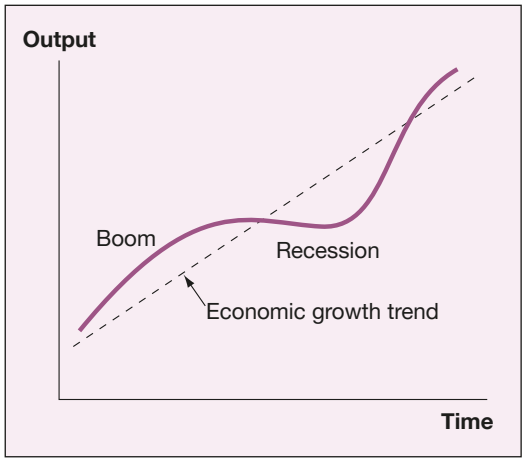


Figure 7.3 – The business cycle

The level of economic activity is never entirely stable. A market economy such as Australia's is subject to the ups and downs of the **business cycle** (that is, the general level of economic activity) caused by changes in the level of aggregate supply and demand. Figure 7.3 depicts a typical pattern of growth in real GDP for a market economy. Although showing an upward trend in real GDP, the pattern of growth is uneven, and periods of stronger economic growth are often followed by **recession**.

Recession is the stage of the business cycle in which there is a decline in economic activity, defined as two consecutive quarters (six months) of negative economic growth, that is, a fall in GDP.

Australia's economic growth in recent decades has been relatively stable compared to previous business cycles and other economies. Australia enjoyed a record-breaking 28 years of economic growth from 1991–92 to 2019–20, averaging 2.9 per cent annual GDP growth throughout the period. Although this was one of the highest average GDP rates among OECD countries over this time, real GDP per capita averaged only 1.6 per cent for the same period, which was close to the OECD average. (This is explained by the fact that Australia's high population growth makes it possible to have both a high rate of real GDP growth as an economy and an average rate of real GDP growth per capita). In 2020, Australia experienced its first recession since 1991 with contractions in the March and June quarters of 0.2 per cent and 6.7 per cent respectively as a result of the COVID-19 pandemic. The economy then staged an equally sharp recovery, with the growth then levelling out to levels similar to before the pandemic.

Below are eight factors that influenced Australia's business cycle in recent years. Australia has mostly benefited from global economic trends, but also from successful policy management:

- **Global economic conditions** have been mostly favourable for Australia in recent decades. Strong demand for Australia's resource exports underpinned a boom in mining investment and a subsequent surge in export revenues. This has increased Australia's national income and helped the economy to rebound quickly from external shocks such as COVID-19 in 2020 and the global financial crisis in 2008. Rising inflation due to supply chain disruptions and a global surge in inflation have impacted Australia's growth since recovery from COVID-19 and Russia's invasion of Ukraine in 2022.
- Australia experienced **terms of trade** booms from 2005–2011 and from 2017 to 2022, driven by very large increases in the prices of Australia's commodity exports (specifically iron ore, coal and natural gas). As a result, export revenues have grown substantially, improving Australia's balance on goods and services, leading to consecutive current account surpluses that have set aside longstanding concerns about the balance of payments constraint (see chapter 4).

- Over the last three decades, Australia's macroeconomic policy has largely maintained a **sustainable rate of economic growth** – a level that generates employment growth and maintains external balance without pushing inflation above its target range of 2–3 per cent. The Australian Treasury estimates that Australia's long-term sustainable rate of economic growth is around 2.5 per cent of GDP. In the three decades to 2020, growth was 2–4 per cent for 22 out of 30 years.
- During economic downturns, the Reserve Bank of Australia (RBA) has acted quickly to reduce interest rates to support aggregate demand. For example, in response to weakening economic growth in 2019 (before the COVID-19 pandemic), the RBA reduced the cash rate three times, to 0.75 per cent. In response to the pandemic, the RBA then reduced the cash rate to a record low 0.10 per cent. When interest rates are adjusted in anticipation of a change in growth and inflation, it is known as **pre-emptive monetary policy**.

  The Reserve Bank aims to use pre-emptive monetary policy to maintain low inflation and a sustainable rate of growth. This is not an easy balancing act, and its conduct of monetary policy is sometimes criticised. In 2022 and 2023 it faced criticism both for being too slow to raise interest rates as inflationary pressures grew, and going too far in raising interest rates to counter inflation, contributing to a sharper slowdown in growth.
- During periods of economic downturn, the Government has successfully used **fiscal policy** to stabilise economic growth. In response to COVID-19 in 2020, the Government initiated the largest fiscal policy intervention in Australian economic history, helping to ensure a smaller downturn than other countries and a quick recovery.
- Australia has one of the highest sustained population growth rates among advanced economies, resulting from high immigration levels since the mid-20th century. However, due to COVID-19 the international border was closed for the first time since World War II, and net overseas migration was negative in 2020–21. This contributed to labour shortages that constrained growth throughout 2022 and 2023, prompting a temporary lift in the annual migration cap to 200,000 and a comprehensive review into Australia's migration program.

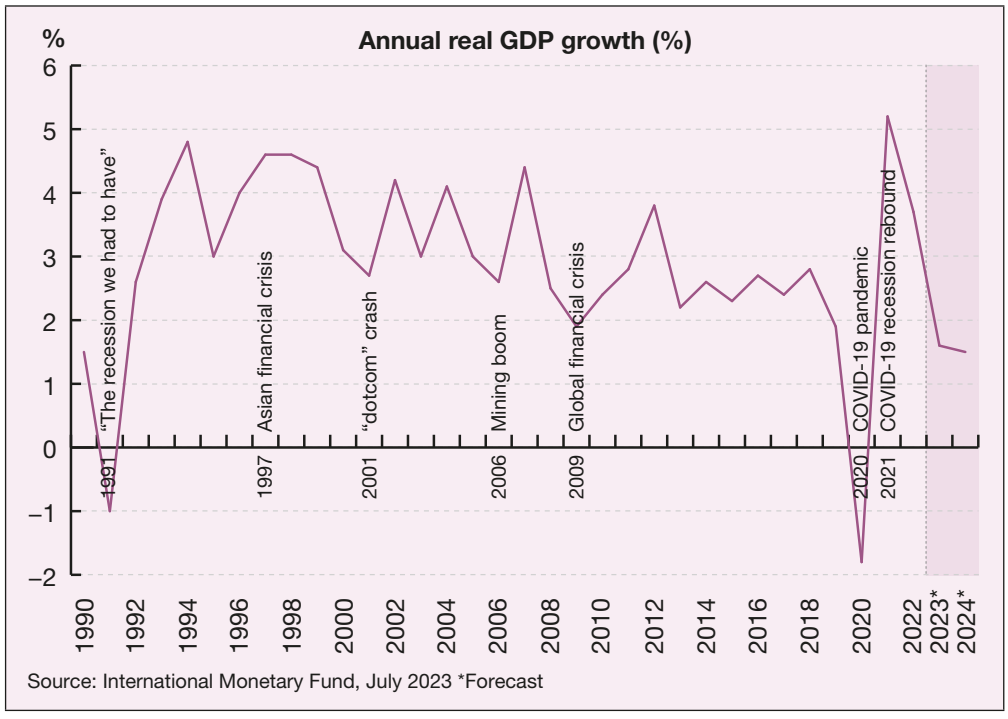


Figure 7.4 – Australia's economic growth performance (annual real GDP growth)

THE UNENDING RESOURCES BOOM

The most significant economic development during Australia's recent long growth cycle was the mining boom. At the time, the Reserve Bank Governor, Glenn Stevens, described it as the greatest expansionary shock to the Australian economy in more than 50 years. Strong growth in China and other emerging economies resulted in soaring demand for natural resources, such as coal, gas and iron ore, leading to a sharp increase in prices and the largest increase in Australia's terms of trade for 150 years. The spike in global resource prices in the 2000s was especially large because of a long period of low investment in mining operations around the world, meaning that global supply was price inelastic: mining companies were unable to increase output quickly in response to the increased demand, and so prices soared. This meant that average prices for Australia's commodity exports tripled between 2003 and the peak of the cycle – as shown in figure 7.5.

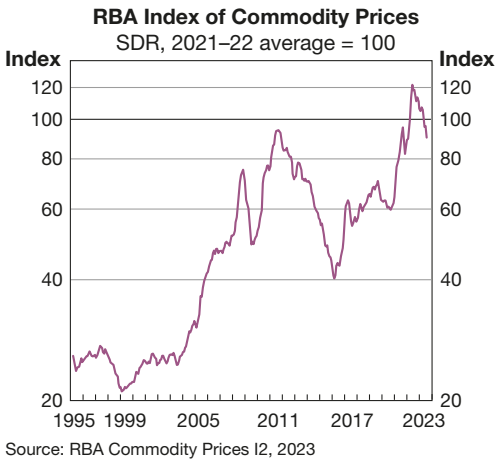


Figure 7.5 – Reserve Bank of Australia Index of Commodity Prices

The increase in commodity prices sparked the largest sustained improvement in Australia's terms of trade on record. Although the terms of trade slipped during the global financial crisis in 2009, it quickly rebounded to reach a 140-year high in 2011. This provided a very large stimulus to the economy. The Reserve Bank noted in 2011 that the terms of trade boom had added 15 per cent to Australia's nominal GDP, equivalent to over $190 billion per year. This meant that the resources boom had a larger impact on national income in Australia than the revolution in information and communication technologies. Although foreign-owned mining companies sent a share of their increased profits overseas, Australian taxpayers also benefited as higher company tax receipts allowed the Government to reduce personal income taxes.

A decade and a half after the beginning of the terms of trade boom, income per person in Australia was around 20 per cent higher than it was in the mid-2000s, and average real wealth per person had risen by 40 per cent. The prices for Australia's commodity exports have remained resilient even though many economists counted 2012 as the end of the resources boom, as shown in figure 7.5.

Global recessions, such as that triggered by COVID-19, usually result in a downturn in commodity prices, but prices for iron ore, copper, nickel, lithium and coal began to surge shortly after the height of the pandemic in 2020 partially due to disruptions in supply chains. In 2021–22, both iron ore and coal prices went beyond the record set during the mining boom in 2011, once again driving Australia's economic growth. In many respects, the mining boom that began in 2003 is still continuing in the 2020s.

While demand for fossil fuels will decline in coming decades as economies transition to net zero emissions, resources including lithium and cobalt – important inputs to clean energy technologies – are likely to continue contributing to Australia's economic growth.

- Large increases in asset prices such as real estate and shares since the early 2000s have increased the wealth of households, encouraging greater borrowing and consumption. This is known as the "wealth effect". Of course, higher housing prices also constrain the spending power of homebuyers, but overall, the wealth effect tends to increase economic growth.
- A slowdown in **productivity growth** has contributed to lower rates of growth in recent years, following a period of record growth in the 1990s. The Productivity Commission's 5-year Productivity Inquiry reported in 2022 that labour productivity growth averaged 1.1 per cent per year in the 2010s, compared with 1.3 per cent in the 2000s and over 2 per cent in the 1990s. Other advanced economies have also experienced slower productivity growth in recent years.

Australia has been relatively successful in navigating changing economic conditions and external developments – including the Asian financial crisis of 1997–98, the collapse of the "dotcom" boom of 2001, the deep global recession triggered by the global financial crisis in 2008, the global COVID-19 recession in 2020 and the surge in inflation following the war in Ukraine. In part, this has reflected good luck – the specific impacts of each of those events on Australia was milder than for most advanced economies, and Australia has had the benefit of a sustained boom in resources exports, offsetting downward pressures on growth. Yet with less skilful macroeconomic policy, and without the economic flexibility created by past microeconomic reforms, Australia would have had much less success in responding to those events.

According to the Australian Treasury, "the three Ps" – productivity, participation and population – are the key to Australia's long-term economic growth. Sustaining long-term productivity growth, high levels of workforce participation and continued population growth from natural growth and immigration will help Australia to achieve the highest possible rate of sustainable economic growth.

However, Australia's 2023 Intergenerational Report highlighted ongoing concerns for each of these indicators. It projected a fall in average annual growth from 3.1 per cent per year in the past four decades to 2.2 per cent in real GDP for the next four decades. Low growth in labour productivity is a long-term concern due to slowing growth in educational attainment. Workforce participation is expected to decline as Australia's population continues to age. Population growth rates have also been reduced by the slowdown in migration during the COVID-19 pandemic as well as lower fertility rates in the population overall.

Year	Growth (%)	GDP ($bn)
2010–11	2.5	1606
2011–12	3.9	1669
2012–13	2.6	1712
2013–14	2.6	1756
2014–15	2.2	1794
2015–16	2.7	1843
2016–17	2.3	1886
2017–18	2.9	1940
2018–19	2.1	1981
2019–20	0.0	1981
2020–21	1.6	2012
2021–22	3.9	2090
2022–23	2.1	–
2023–24*	1.7	–

Source: ABS Australian National Accounts (Cat. no. 5206.0), Table 34, GDP chain value (real)
*Forecast

Figure 7.6 – Australia's GDP

reviewquestions

1 Outline the recent economic growth performance of the Australian economy.
2 Discuss the effect of productivity, participation and population on Australia's economic growth.
3 Compare the recent economic growth performance of the Australian economy to ONE other high-income economy.

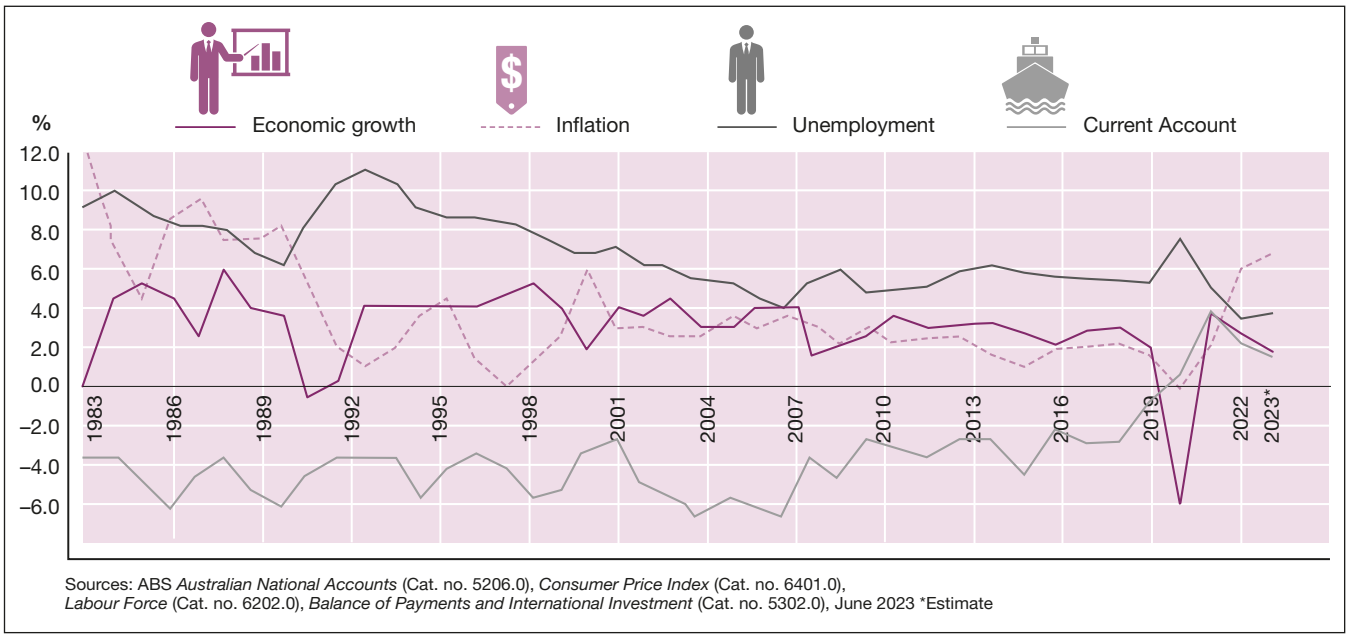
For further information on the recent economic growth performance of the Australian economy, visit the recent speeches and publications sections on the websites of the Australian Treasury, Reserve Bank of Australia or Australian Bureau of Statistics, or the economics section of the websites of major Australian banks.

7.8 Policies to sustain economic growth

A major aim of economic management is to sustain a high rate of economic growth to allow national wealth to grow and individuals to experience a higher standard of living. The government uses **macroeconomic policies** (fiscal and monetary policy) to influence economic growth in the short term with the goal of smoothing fluctuations in the business cycle. These policies will have only a limited impact on the level of long-run growth rate. (Macroeconomic policies are discussed in chapters 14 and 15).

Fiscal policy involves the use of the Commonwealth Government's Budget to influence the level of aggregate demand and therefore the level of economic growth. Government expenditure in the Budget represents an injection into the economy, whereas government revenue (taxation) is a leakage. If the Government wants to increase the level of economic growth, it can reduce taxation, increase expenditure or do both. This would increase the level of injections relative to leakages and cause an upturn in the level of economic growth. Alternatively, economic growth would be constrained if taxation receipts were increased or government expenditure was reduced. Generally, fiscal policy is more effective in stimulating growth during a downturn than slowing down an economy that is growing fast. The JobKeeper wage subsidy and increased JobSeeker welfare payments were central to the Australian Government's response to the COVID-19 recession in 2020–21 and are good examples of fiscal policy in action.

The Government is also able to use **monetary policy** to influence economic growth. Monetary policy involves the Reserve Bank of Australia influencing the level of interest rates in the economy, which in turn influences the level of aggregate demand and the rate of economic growth. If the RBA wants to stimulate growth, interest rates can be reduced to encourage consumer and business spending. Conversely, to decrease growth, interest rates can be raised. Monetary policy has been the main macroeconomic policy tool for influencing the level of economic growth in recent years, although its effectiveness has been questioned. Prior to the pandemic, economic growth remained weak for several years despite a period of very low interest rates. The effectiveness of monetary policy was also questioned as the RBA sharply increased interest rates in 2022 and 2023, with 12 rises in 14 months.



Sources: ABS *Australian National Accounts* (Cat. no. 5206.0), *Consumer Price Index* (Cat. no. 6401.0), *Labour Force* (Cat. no. 6202.0), *Balance of Payments and International Investment* (Cat. no. 5302.0), June 2023 *Estimate

Figure 7.7 – Australia's growth and economic outcomes since 1983

Microeconomic policies aim to increase the economy's sustainable growth rate by increasing aggregate supply. Microeconomic policy also reduces the extent to which higher growth becomes constrained by inflationary and current account problems. The Productivity Commission has argued that Australia's strong rates of growth in the 1990s and 2000s came about because of the far-reaching microeconomic policies undertaken during the 1980s and 1990s. However, Australia's record of microeconomic reform has deterioriated in more recent years. The Productivity Commission's 5-year Productivity Inquiry concluded in 2022 that none of its microeconomic policy recommendations from five years earlier had been implemented in full. Nevertheless, state governments have made substantial investments in physical infrastructure. helping to relieve transport and supply chain bottlenecks for roads and ports. (Microeconomic policy is discussed in chapter 16).

Similar to microeconomic policy, **labour market policie**s encourage economic growth through increasing aggregate supply, but specifically through improving labour productivity. Labour market policies aim to help workers produce more through higher education attainment and upskilling. The Albanese Government's 2022 Jobs Summit identified the risk to economic growth from Australia's skills shortages in information technology and the care economy (nurses and aged care workers), making a commitment to release a major Employment White Paper by the end of 2023. (Labour market policies are discussed further in chapter 17).

reviewquestions

1. Discuss the use of macroeconomic and microeconomic policies to support economic growth.
2. Discuss the policies a government might use to slow economic growth.
3. Analyse the role of government policies in increasing aggregate supply.

chapter summary

1 **Economic growth** is measured as the percentage increase in the value of goods and services produced in an economy over a period of time, usually one year.

2 The economy is in **equilibrium** when the level of aggregate demand (total demand for goods and services within the economy) is equal to the level of aggregate supply (total productive capacity of the economy).

3 The **Circular Flow of Income** model shows that certain economic factors can be identified as either injections or leakages in the overall level of economic activity. Investment, government spending and exports are injections because they add to the circular flow of income. Savings, taxation and spending on imports are leakages because they take money out of the circular flow of income.

4 **Consumption** is influenced by consumer expectations of future economic developments, the level of interest rates, income distribution and consumer preferences between consumption and savings.

5 **Investment** is influenced by the level of interest rates, government policies, labour costs, productivity levels and business expectations.

6 **Net exports** are influenced by income levels in Australia and overseas, movements in the exchange rate and the international competitiveness of Australia's industries.

7 The **multiplier process** explains how an increase in aggregate demand will increase the overall level of national income by much more than the initial increase. This amount is known as the multiplier. The size of the multiplier is determined by the marginal propensity to save and can be expressed as:

$$k = \frac{1}{MPS} \quad \text{OR} \quad k = \frac{1}{1 - MPC} \quad \text{where MPS} = \frac{\Delta \text{ in savings}}{\Delta \text{ in income}}$$

8 **Aggregate supply** resulting from improvements in efficiency and technology can lift productivity and can accelerate economic growth.

9 **Economic growth** results in higher living standards and increased employment, but can also contribute to increased inflation, external instability, greater income inequality and damage to the natural environment.

10 Australia's most recent **economic growth cycle** was the longest on record, lasting from 1991 to onset of the COVID-19 pandemic in 2020. The growth cycle was sustained by an enduring major terms-of-trade boom, demand for Australian resource exports from China, the success of macroeconomic policies in sustaining low inflation, and the legacy of substantial microeconomic reform in past decades.

chapter review

1 Explain why economic growth is important to an economy.

2 Consider an economy where: S = 40, T = 20, M = 10, G = 35, X = 5, C = 25, MPC = 0.6.

   a) Determine the level of investment; and

   b) Calculate the level of aggregate demand.

3 Outline the main factors that influence the levels of consumption and investment in an economy.

4 State the leakages and injections equation for an economy to be in equilibrium and explain the effect on the level of economic activity when:

   a) total leakages exceed total injections; and

   b) total injections exceed total leakages.

5 Define the *multiplier*. Explain how the concept of the multiplier is related to an understanding of economic growth.

6 Consider why economist John Maynard Keynes advocated an active role for the government in influencing the level of economic activity. Discuss how the government might influence the level of aggregate demand.

7 Contrast the positive and negative impacts of a higher level of economic growth for an economy.

8 Explain the importance of *aggregate supply* and how a government may be able to achieve sustainable economic growth in the long term.

9 Examine the factors that have contributed to the recent growth performance of the Australian economy.

10 Evaluate the policies available to governments to achieve economic recovery after a recession.

COVID-19 The impacts on the Australian economy

COVID-19 represented the most powerful external shock to the Australian economy since the Great Depression in the 1930s. It ended Australia's record-breaking 28-year economic growth cycle in ways that nobody could have imagined: a shutdown of state and national borders, enforced lockdowns across Australia that confined people to their houses, and a temporary prohibition on whole sectors of economic activity. The economic impact was far-reaching. Consumer spending shifted dramatically: travel, leisure and entertainment spending were curtailed, while households stockpiled emergency supplies from supermarkets and spent more on home entertainment. Within a month the share market had fallen 37 per cent, and the dollar had depreciated to US55 cents, its lowest level in almost two decades – although both recovered quickly.

COVID-19 prompted the largest-scale macroeconomic policy intervention in Australian economic history, costing the Budget $291 billion in economic support by mid-2021, and leading to the largest-ever Budget deficit of $132 billion in 2020–21. Its centrepiece was JobKeeper, an $89 billion program that initially subsidised wages to the tune of $1500 per fortnight per employee for businesses whose turnover had fallen by 30 per cent or more due to COVID-19, with the subsidy gradually reduced and phased out by March 2021.

Other fiscal policy measures introduced during the pandemic included increased unemployment benefits, with fortnightly payments temporarily doubled, as well as providing free child care, tax-free cash payments of between $20,000 and $100,000 to eligible small and medium businesses, and one-off COVID-19 business grants.

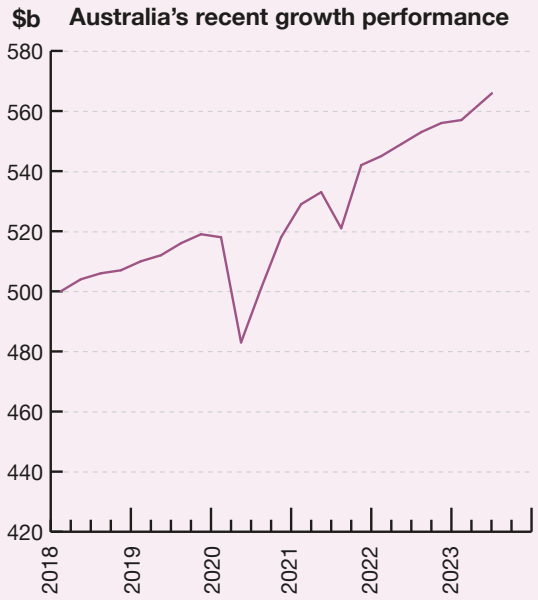
The Government's fiscal policy measures were complemented by decisive monetary policy action from the Reserve Bank. The RBA cut its cash rate three times in 2020, down to a record low of 0.1 per cent in November 2020. The RBA also supported the supply of credit to keep the economy afloat, and undertook asset purchases, involving the outright purchase of assets by the Reserve Bank from the private sector.

The effects of the COVID-19 recession were far-reaching:

- **Economic growth** – GDP fell in two successive quarters of 2020, by 0.2 per cent in March and a record 6.7 per cent fall in June. By the September quarter, the economy had begun to recover, recording an increase in GDP of 3.8 per cent, followed by another 3.3 per cent increase in December 2020. The economy then continued on a recovery path, with 3.9 per cent growth in 2021–22.
- **Labour market** – Unemployment peaked at 7.5 per cent in July 2020, the highest rate in over 20 years, with large job losses for retail and hospitality workers, along with sports and personal services workers. The labour market rebounded remarkably quickly, with unemployment falling below 4 per cent in 2021 for the first time since the early 1970s.
- **Businesses** – COVID-19 had vastly different impacts across different industries, with both winners (such as those in food delivery) and losers (such as restaurants, tourism and accommodation). Business relying on international tourism suffered severe impacts.
- **Inflation** – Some unusually large but temporary price movements (in particular because of the Government's decision to make child care free for several months) resulted in the first decline in year-ended CPI inflation since the early 1960s and the largest quarterly decline since 1931. In 2022, cost pressures soared well beyond the RBA's target band as a result of demand pressures and Russia's invasion of Ukraine, which sharply increased energy prices.
- **Distribution of income and wealth** – While the lasting effects of the pandemic on the distribution of wealth will take many years to emerge, cross-country IMF research into the five major pandemics of this century (SARS, swine flu, MERS, Ebola and Zika virus) found that income inequality worsened after each pandemic.

While there was a huge cost to Australia's policy response to COVID-19, economists agreed that the longer-term economic costs would have been even greater without intervention. The cumulative cost to the economy of $158 billion is much lower than it might have otherwise been. The economic damage would have been larger and more permanent, as bankruptcies and unemployment would have risen more sharply, and household consumption and business investment would have fallen much further. Figure 7.8 shows the sharp downturn and quick recovery in economic growth Australia experienced at the onset of the pandemic as well as the RBA's forecasts for a stabilisation in economic growth. The success of the vaccination rollout in Australia and globally was a key factor in achieving this recovery.

> "COVID-19 caused significant disruption to historic patterns of growth in the Australian economy. With most COVID-19 related restrictions and health measures lifted, economic growth has begun to return to longer term patterns
> …
> While growth is returning closer to pre-pandemic rates, the level of GDP is estimated to have suffered a cumulative loss of $158 billion compared to its pre-pandemic trajectory" …
>
> – *Australian Bureau of Statistics Economics gains and losses over the COVID-19 pandemic 7 September 2022*



Source: ABS, *Australian National Accounts: National Income, Expenditure and Product* (Cat. no. 5206.0)

Figure 7.8 – Real GDP – Australia

8 Unemployment

8.1 Introduction
8.2 Measuring the level of unemployment
8.3 Recent unemployment trends
8.4 The main types of unemployment
8.5 The non-accelerating inflation rate of unemployment
8.6 The causes of unemployment
8.7 The impacts of unemployment
8.8 Policies to reduce unemployment

8.1 Introduction

One of the most important measures of an economy's health is the state of the labour market, and in particular the proportion of people engaged in productive work. High levels of unemployment are a major problem, because the opportunity cost of higher unemployment includes less production, slower economic growth, lower taxation revenue and higher social welfare payments. In addition, unemployment leads to major long-term social costs, including increased inequality, poverty, family problems, crime and social division.

In recent decades, the labour market has changed in many significant ways. Some of the most significant changes have been in the age and gender profile of the workforce; the expansion of highly skilled jobs and decline of unskilled work; and the move away from secure, full-time employment. The level of unemployment is regarded as our key indicator of the state of the labour market, but economists also pay attention to other measures as well, such as underemployment and the underutilisation of labour.

8.2 Measuring the level of unemployment

While economists generally agree on what unemployment is, there are different ways to calculate the level of unemployment. A considerable amount of economic debate about labour market conditions is related to the different ways in which we measure unemployment.

The labour force

Labour force consists of all the employed and unemployed persons in the country at any given time.

The **labour force** (or workforce) can be defined as that section of the population 15 years of age and above who are either working or actively seeking work. Therefore, the labour force consists of:

- persons aged 15 and over who are currently employed for at least **one hour per week** of paid work, and also includes those on paid leave, as well as those on leave or stood down without pay for less than four weeks, on strike, on workers' compensation, or receiving payment whilst undertaking full-time study

- self-employed persons working for at least one hour per week in their own business or a family business
- unemployed persons aged 15 and over, who are currently available for work and are actively seeking work.

Those persons not included in the labour force are:

- children under 15 years of age
- full-time, non-working students above 15 years of age
- people who perform full-time domestic duties
- unemployed persons who are not willing to actively apply for jobs and attend job interviews or who are not available to start work
- people who have retired from the labour force.

The size of the labour force in Australia was approximately 14.5 million in 2023.

The labour force participation rate

Labour force participation rate refers to the percentage of the population, aged 15 and over, in the labour force, that is either employed or unemployed.

In Australia, anyone over the age of 15 can participate in the labour force and is therefore considered to be a member of the **working-age population**. Determining the actual size of the labour force requires taking into account people's willingness and preparedness to participate in the labour force, either by working, or for those without a job, by looking for work. People may decide not to participate in the labour force for many reasons, such as studying, undertaking carer's responsibilities, volunteering full-time, or because they have other income sources or feel they are unlikely to find work.

The **labour force participation rate** can be defined as the percentage of the working-age population – those aged 15 years and over – who are in the labour force, that is, either working or actively seeking work.

$$\text{Labour force participation rate (\%)} = \frac{\text{Labour force}}{\text{Working-age population (15+)}} \times \frac{100}{1}$$

The participation rate in Australia was 67 per cent in mid-2023, a recovery of around 4 percentage points from the depths of the COVID-19 lockdown in mid-2020, when many people stopped actively seeking work.

Unemployment

Unemployment refers to a situation where individuals want to work but are unable to find a job, and as a result labour resources in an economy are not utilised.

Unemployment statistics reflect the number of people who are out of work but are actively seeking work. To be classified as actively seeking work, a person without a job must satisfy any one of a number of criteria, such as:

- regularly checking advertisements from different sources for available jobs
- being willing to respond to job advertisements, apply for jobs with employers and attend interviews
- registering with an employment agency linked to Workforce Australia.

To determine the rate of unemployment, the Australian Bureau of Statistics (ABS) undertakes a monthly survey of the labour force. Through this survey of around 26,000 dwellings, the ABS calculates both the total number of unemployed people and the rate of unemployment.

$$\text{Unemployment rate (\%)} = \frac{\text{Number of persons unemployed}}{\text{Total labour force}} \times \frac{100}{1}$$

Australia's unemployment rate was 3.5 per cent in June 2023, just above its lowest level in almost 50 years.

PROBLEMS WITH THE METHOD USED TO MEASURE UNEMPLOYMENT

There is some debate amongst economists about the accuracy of the calculations that are currently used in the official measure of **unemployment**. As a result of structural changes that have occurred in Australia's labour market in recent years, the classification of all people into three categories of employed, unemployed and not in the labour force does not provide a complete picture of the actual utilisation of labour (or spare capacity), and may disguise the extent of Australia's labour market problems. There are two main problems associated with current labour force statistics:

1. By classifying people as either employed or unemployed, official statistics do not take into account the number of hours people work. Some employed people with a limited amount of work want to work more hours – known as **underemployed** people. If a 40-hour per week job were converted into four 10-hour per week jobs, this would create three new jobs and reduce the official unemployment rate, without increasing real economic activity or the demand for labour. Much of the impact of the COVID-19 lockdowns in 2020 was reflected in increased underemployment rather than unemployment.
2. By classifying people as either in the labour force or not in the labour force, official unemployment statistics do not include people who have not been able to find work and have left the labour force – known as "hidden unemployed". Also known as "discouraged jobseekers", this group may include family members undertaking home duties, students that would rather work, and people with disabilities who would take up suitable employment if it were available.

These shortcomings were highlighted in the labour market statistics at the beginning of the COVID-19 pandemic, when the official number of unemployed people initially increased by just 105,000, even though 1.3 million people had lost their jobs. Around 500,000 left the labour force, because they saw no point in seeking work when so many businesses were closed. Another 750,000 were "employed" but did not work a single hour (although this was temporary, as the number of people working zero hours fell from 767,000 in April 2020 to just 57,000 a year later).

Taking into account the combination of unemployment and underemployment, the ABS publishes additional measures of the underutilisation of labour. The first of these is the **labour force underutilisation rate**, which measures the number of people unemployed plus the number who want to work more hours. In mid-2023, the labour force underutilisation rate was 10 per cent, down from a peak of 20.1 per cent during the COVID-19 recession in May 2020, and below its levels before the pandemic.

The ABS also publishes an extended labour force underutilisation rate, which adds two additional groups of people, who are marginally attached to the labour market, to the utilisation rate: persons actively looking for work and able to start within four weeks but not within one week, and discouraged jobseekers. It shows that official unemployment statistics measure less than half of the number of people who are short of work.

The problem with merely adding the percentage of unemployed and underemployed workers together is that it does not give us an accurate view of the spare capacity in the labour market, because unemployed people typically want to work three times as many additional hours as underemployed people. In order to better measure the amount of spare capacity in the labour market during the COVID-19 pandemic, the Reserve Bank calculated an hours-based labour underutilisation rate. This measure adds to the unemployment rate the extra hours that underemployed part-time workers are seeking, effectively converting those hours to the equivalent of full-time jobs. In June 2020, underutilised hours across Australia totaled 57 million hours per week. This represented an hours-based underutilisation rate of 6.3 per cent, much lower than other measures of underutillisation.

reviewquestions

1. Outline how the unemployment rate is calculated and explain what it measures.
2. Explain why the official unemployment rate may not be the best measure of the number of Australians out of work.
3. Discuss whether an increase in the participation rate is likely to increase or reduce unemployment.
4. Identify THREE reasons why a person may not be counted within estimates of the size of the labour force.

8.3 Recent unemployment trends

Australia's labour market has experienced unusual volatility in recent years due to the COVID-19 pandemic, which led to a surge in unemployment followed by the lowest unemployment rates in almost 50 years. While in some economies the rate of unemployment soared (in the United States, it soared from 4 per cent to 16 per cent), Australia's quick and large-scale policy response meant that the pandemic's impact on unemployment in Australia was much smaller.

As shown in figure 8.1, Australia began experiencing higher unemployment rates in the mid-1970s, after recording very low unemployment rates in the 1960s and early 1970s. The level of unemployment peaked in the early 1990s – the 10.7 per cent unemployment rate recorded in 1992–93 was its highest level since the Great Depression of the 1930s. The main reason for this increase was a severe **recession** in Australia and the global economy. Falling aggregate demand saw cutbacks in production and the closure of many firms, which led to the shedding of labour and an increase in unemployment.



Figure 8.1 – Unemployment in Australia

The unemployment problem during this period was worsened by extensive **structural change and microeconomic reform**. Many people who had lost their jobs in declining industries during the recession were unable to obtain new jobs created in growing industries because the job vacancies often required higher or different skills. As new technologies and production techniques changed the structure of businesses, Australia's unemployment problem became one of the major structural issues facing the Australian economy. There was a gradual downward trend in unemployment for the 15 years from 1993 to 2008. In 2008, the global financial crisis triggered a worldwide recession, but in Australia the increase in unemployment was much milder than in most advanced economies. Unemployment rose by almost 2 per cent during 2008–09, but a recovery in growth the following year meant that unemployment was again close to 5 per cent by 2010.

During the 2010s, Australia's unemployment rate stayed mostly in the range of 5 to 6 per cent, which was just below the average for advanced economies. As a result of the COVID-19 pandemic and associated lockdowns, the unemployment rate peaked at 7.4 per cent in July 2020. This was the highest rate of unemployment seen in over 20 years but was still lower than the peaks seen in the 1990s, and better than most other advanced economies. The employment rate recovered to its pre-pandemic level in the first half of 2021, more than 18 months ahead of the OECD average. In mid-2023 the unemployment rate was 3.5 per cent, around its lowest since 1974. However, a Reserve Bank forecast pointed towards a mild upward trend in unemployment during 2024.

Australia's labour market has also sustained faster growth in part-time than full-time jobs during recent decades. The official unemployment statistics do not fully capture the problem of underemployment, in which individuals are in employment but they want to work more than their current hours. While Australia has lower unemployment than most similar OECD economies, it has a higher rate of underemployment. Underemployment

increased during the COVID-19 pandemic, reaching a record high 13.7 per cent in 2020 (or 1.8 million people), before falling back to lower levels (in mid-2023 it was 6.4 per cent). Some 30 per cent of employed Australians were in part-time jobs, averaging 17 hours per worker each week. In 2023, around one in five part-time workers wanted to work longer hours.

Australia needs economic growth rates above 3 per cent in order to make progress on reducing unemployment (assuming no changes in medium-term trends in immigration, family sizes, productivity and participation). The relationship between economic growth and unemployment is explained by **Okun's Law**, which says that to reduce unemployment, the annual rate of economic growth must exceed the sum of percentage growth in productivity *plus* the increase in the size of the labour force in any one year. Analysis by the Reserve Bank in 2015 ("Okun's Law and Potential Output") concluded that the rate of GDP growth consistent with stable unemployment had fallen from around 5 per cent in the 1970s to 2.9 per cent by 2015.

Okun's Law explains the relationship between unemployment and economic growth, showing that to reduce unemployment, the annual rate of economic growth must exceed the sum of percentage growth in productivity *plus* the increase in the size of the labour force in any one year.

One implication of Okun's Law is that in the short term, higher rates of productivity growth actually make it more difficult to reduce the rate of unemployment (as Australia experienced in the 1990s when it was enjoying higher productivity growth rates). Conversely, one of the short-term impacts of lower productivity growth will often be a lower rate of unemployment (as Australia experienced in the 2000s). However, this trade-off between faster productivity growth and faster employment growth only applies in the short term. In the long run, a higher level of productivity growth should lead to stronger economic growth and more job creation, but in the shorter term more jobs are likely to be created during a period of lower productivity growth because employers will be forced to hire more workers if they want to increase production.

Australia's labour force participation rate is expected to decline gradually over coming decades, falling from a peak of 66.9 per cent in May 2023 to 63.8 per cent by 2062–63 (according to the Treasury's 2023 Intergenerational Report). Structurally, Australia's population is ageing because of longer life expectancy and lower fertility rates. In 2021, 17.2 per cent of Australia's population was aged over 65 years, compared to 12.2 per cent before the turn of the century. The ABS forecasts that by 2030 this will grow to 18.1 per cent of the population (or over 5.4 million Australians). At the same time, the expected fall in the participation rate caused by the growth in the over-65 population will be partially offset by continued increases in the participation rates of women of all ages. Other factors that may influence the participation rate in coming decades include technological change (for example, allowing more remote working), the continued shift towards a service-based economy, and changes to the occupational structure of the Australian workforce.

reviewquestions

1 Outline the recent trends in Australia's unemployment rate.
2 Explain the relationship between productivity and unemployment.

8.4 The main types of unemployment

In order to understand how the government's economic strategies can reduce unemployment, it is helpful to distinguish between the different types of unemployment.

Structural unemployment

Structural unemployment occurs because of structural changes within the economy caused by changes in technology or the pattern of demand for goods and services. Workers find that the skills previously useful in declining industries do not match the job opportunities opening up in newly emerging industries. Most of Australia's long-term unemployment is attributed to structural unemployment.

Cyclical unemployment

Cyclical unemployment occurs because of a downturn in the level of economic activity and falls during times of strong economic growth. Falling demand means fewer employment opportunities. Cyclical unemployment was the major contributor to a rise in unemployment in 2020, as the COVID-19 pandemic led to a short recession.

Frictional unemployment

Frictional unemployment represents the people who are temporarily unemployed as they change jobs – they have finished one job but have not started a new one. It generally takes time to move from one job to another, as workers invest time and effort into finding a suitable job, and as employers invest time and effort in the search for suitable candidates. Frictional unemployment is inevitable, although it is increased by delays in matching unemployed people to available jobs. Improving the efficiency of job matching services through job and skills databases can help to reduce frictional unemployment. In an average year in Australia, around 1 in 10 workers change jobs. This fell to a record low of 1 in 12 workers during the COVID-19 pandemic in 2021. In the wake of the pandemic, the US economy experienced a surge in workers changing jobs, called "the Great Resignation", and there was some evidence of this also occurring in Australia.

Seasonal unemployment

Seasonal unemployment occurs at predictable and regular times throughout the year because of the seasonal nature of some kinds of work (for example, selling gelato on the beach in summer or being a shopping centre Santa Claus). It also accounts for the influx of students finishing school, university and technical and further education (TAFE) courses between December and March each year. The Australian Bureau of Statistics publishes seasonally adjusted unemployment statistics, which take these fluctuations into account.

Hidden unemployment

Hidden unemployment includes those people who can be considered unemployed but do not fit the Australian Bureau of Statistics, definition of unemployment and are thus not reflected in the unemployment statistics. This includes those individuals who have been discouraged from seeking employment and are no longer actively looking for a job. Because they are not actively seeking work, such people are not officially classified as unemployed; they simply are not participating in the labour force. These people are known as the hidden unemployed, or discouraged jobseekers. For example, someone who worked as a tour guide and lost their job in 2020 during the COVID-19 pandemic might have decided not to seek alternate employment until restrictions on visiting Australia were removed and tourist visits got underway again.

Hidden unemployment refers to those people who can be considered unemployed but do not fit the official definition of unemployment and are thus not reflected in the unemployment statistics.

The presence of hidden unemployment shows up in the statistics as a decline in the labour force participation rate when these individuals give up looking for work, but they are not shown in the unemployment statistics. While it is difficult to measure this figure, the Australian Council of Social Service has estimated that there are as many as 1.3 million hidden unemployed people in Australia. The Australian Bureau of Statistics has reported a sustained increase in recent years in the number of people who want to work and are able to work, but are not actively seeking work for reasons such as family responsibilities, short-term illness and study. The ABS calculated in 2023 that 1.3 million Australians were in the category of wanting to work but not actively seeking work (and not officially in the labour market).

Underemployment

Underemployment refers to people who work for less than full-time (35 hours per week) but would like to work longer hours. These people are not classified as unemployed, but they represent a significant growing part of Australia's unemployment problem. Since 2014, the Australian Bureau of Statistics has published estimates of the level of underemployment on a monthly basis.

In June 2023, 935,000 Australians were underemployed, representing 6.4 per cent of the workforce. This means that Australia has a larger number of people who are underemployed than who are unemployed. The long-term trend of rising underemployment reflects the fact that there has been faster growth in part-time and casual work than full-time jobs in recent years. Underemployment is a particular challenge for young workers. In 2022–23, the underemployment rate for people aged between 15 and 24 averaged 14.3 per cent, significantly higher than for any other age group.

Long-term unemployment

Another important measure of unemployment is the number of long-term unemployed – referring to those people who have been out of work for 12 months or longer, usually as a result of structural unemployment.

If a large pool of long-term unemployed people exists, it can be very difficult to reduce it. High economic growth can help because it stops the pool growing, but on its own it is not enough to solve the problem. Long-term unemployment often turns into permanent unemployment. This is because people who are out of work for long periods of time find it much harder to find a job, even when the economy picks up. Some reasons for this include:

- New arrivals into the unemployment pool are re-absorbed into the workforce more quickly, especially if they have skills that are more up to date and attractive for employers, compared to the longer-term unemployed.
- The long-term unemployed usually suffer from structural unemployment and do not possess the skills demanded in the labour market.
- Unemployed people lose their confidence that they will find work when they are persistently unsuccessful in applying for jobs.
- Unemployed people also lose contact with the world of paid work and do not learn about the new skills and developments in the labour market, which further reduces their employment opportunities.
- Potential employers tend to look less favourably towards people who have been out of work for a long period of time.

Year	Average (weeks)	Median (weeks)	Long-term unemployed (%)
1970	7.3	n/a	n/a
1975	12.7	n/a	n/a
1980	32.0	n/a	n/a
1985	49.5	n/a	n/a
1990	39.4	14	21.0
1995–96	50.5	19	28.1
2000–01	47.5	16	22.5
2005–06	39.6	13	18.2
2010–11	36.7	14	19.3
2015–16	45.4	16	22.9
2020–21	55.0	19	33.4
2021–22	51.8	14	26.8
2022–23	47.7	12	21.3

Source: ABS *Labour Force, Australia, Detailed* (Cat. no. 6291.0.55.001, Table 14a)

Figure 8.2 – Duration of unemployment

Figure 8.2 shows that a sharp increase in the proportion of the jobless who are classified as long-term unemployed occurred during the recession of the early 1990s. Although there was a significant decline in long-term unemployment as a proportion of total unemployment until 2008–09, since then there has been an increase in the proportion of long-term unemployed. This is in addition to the discouraged jobseekers (not actively seeking work) who are not counted in the pool of long-term unemployed persons. Australia's large-scale policy response to the COVID-19 recession proved effective in preventing labour market "scarring", that is, long-term unemployment. Long-term unemployment initially doubled as a result of the COVID-19 recession, from a low of 134,000 in April 2020 to a 26-year high of 259,000 in March 2021. However, by mid-2023 long-term unemployment had fallen to 100,000, below its pre-pandemic level – reflecting the success of Australia's policy response.

Hard-core unemployment

Economists sometimes also speak of **hard-core unemployment**, which refers to people who are out of work for so long that employers consider them unemployable because of their personal circumstances. Circumstances that might result in a person not being employable include mental illness, physical disability, drug abuse and anti-social behaviour. When someone is assessed as being unable to undertake work, even on a part-time basis, they are placed on a disability support pension. People on the disability support pension are not counted in the official unemployment statistics.

reviewquestions

1 Define cyclical and structural unemployment.
2 Explain the difference between underemployment and hidden unemployment.
3 Discuss why it may be more difficult for a long-term unemployed person to find work compared to other unemployed persons.

8.5 The non-accelerating inflation rate of unemployment

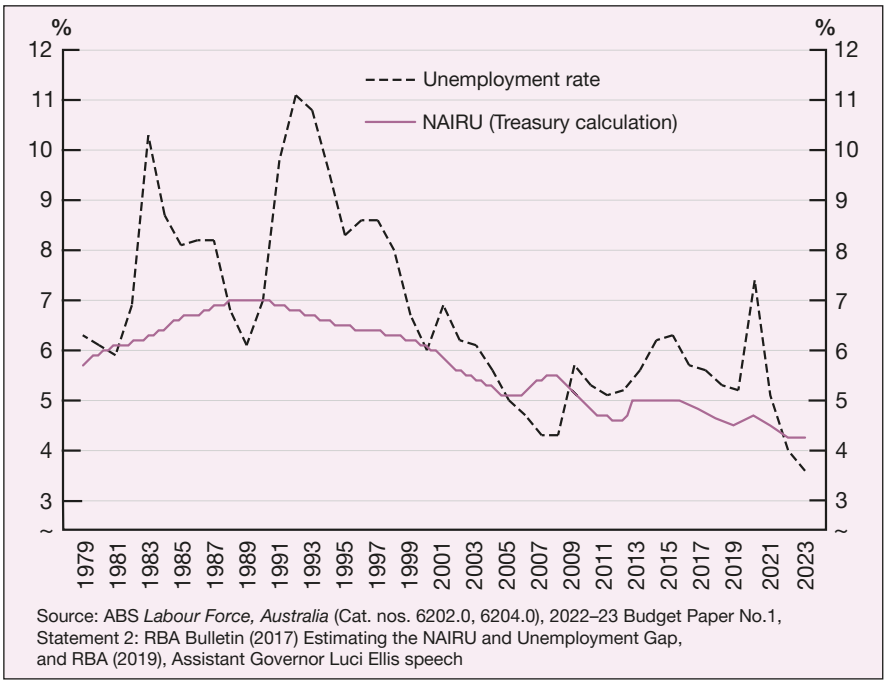
The **non-accelerating inflation rate of unemployment (NAIRU)** is another important concept in understanding unemployment. The theory behind the NAIRU is that some level of unemployment is inevitable in an economy, and efforts to reduce unemployment below this "natural" level will be counterproductive. This natural rate of unemployment, commonly called the NAIRU, is comprised of frictional, seasonal, structural and hard-core unemployment.

The **non-accelerating inflation rate of unemployment (NAIRU)** refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment.

When unemployment is above the NAIRU, there is spare capacity in the labour market, which suggests that policymakers should stimulate economic growth with the aim of reducing unemployment. When unemployment is already at or below the NAIRU, an increase in economic growth will increase wage pressures because there are insufficient numbers of unemployed people to fill those job vacancies (given that they need to have the right skills and be available to work). In other words, efforts to reduce unemployment below the NAIRU will result in higher inflation. The conflict between inflation and unemployment can be shown on the Phillips Curve diagram, which is discussed further in chapter 13.

The concept of the NAIRU has important implications for economic policy. It suggests that policies to encourage economic growth and reduce unemployment will be worthwhile up to a point, but beyond that, these policies will only create inflation. A lower NAIRU increases the economy's capacity to grow without increasing inflation and can be achieved over the long term through policies that reduce structural, seasonal and frictional unemployment. For instance, the NAIRU might be reduced through increasing retraining and re-skilling programs to aid the structurally unemployed, or by making it easier for workers to change jobs or move interstate, or by removing hurdles for people with a disability to access a workplace.

Estimating the NAIRU is very complex because there is no simple way to measure it, and because calculations of the NAIRU aim to remove cyclical influences, even though the levels of unemployment and inflation are highly influenced by cyclical factors. It is also difficult to pinpoint as it can shift up and down with changes in the structure of the labour market. Figure 8.3 shows that estimates of the NAIRU have trended downwards in recent decades.



Source: ABS *Labour Force, Australia* (Cat. nos. 6202.0, 6204.0), 2022–23 Budget Paper No.1, Statement 2: RBA Bulletin (2017) Estimating the NAIRU and Unemployment Gap, and RBA (2019), Assistant Governor Luci Ellis speech

Figure 8.3 – Unemployment and the NAIRU since 1979

Declining inflationary and wage pressures in recent years have suggested that the NAIRU is lower than previously thought. While the NAIRU has previously been estimated at around 5 per cent, in 2021 the Treasury estimated that the NAIRU was within the range of 4.5 to 5 per cent in the five years before COVID-19. In the 2023–24 Budget, the Treasury noted that the volatility in the labour market and inflation had made it harder to calculate the NAIRU, but concluded that its best estimate is 4.25 per cent.

reviewquestions

1. Explain why economists are interested in estimating the non-accelerating inflation rate of unemployment.
2. Outline how an economy might reach its non-accelerating inflation rate of unemployment.
3. Discuss the implications of an economy's unemployment rate falling below its non-accelerating inflation rate of unemployment.

8.6 The causes of unemployment

Economists disagree over the causes of unemployment and what policies governments should use to reduce unemployment. There are many explanations for unemployment offered by economists, including that:

- Economic growth has been too low to generate adequate employment growth.
- Jobseekers do not have the right skills to fill job vacancies.
- Jobseekers do not have adequate opportunities for education and training.
- Structural change is creating a larger pool of workers whose skills are no longer in demand.
- Wage rates are too high, especially for low-skilled workers.
- There are too many regulations surrounding employment, discouraging employers from hiring new employees.
- Some people choose to remain unemployed, because they can receive government welfare benefits instead.
- Workers in high-income economies whose jobs can be performed overseas cannot compete with workers who are paid low wages in developing economies.
- Not enough is done to help people with mental illness or with a disability to find suitable work.

The causes of unemployment are considered in detail on the following pages.

The level of economic growth

The demand for labour is a **derived demand** – it is derived from the demand for the goods and services that labour helps to produce. If there is a downturn in the level of aggregate demand in the economy, this may be reflected in a downturn in the demand for labour and an increase in the level of unemployment. The decline in aggregate demand could be due to:

- an economic downturn with lower domestic consumption and investment spending
- government policies (such as contractionary monetary or fiscal policy) designed to dampen demand
- a decrease in the demand for Australia's exports due to a global recession, slower growth in the economies of our major trading partners, or because of less competitive Australian goods and services in world markets.

Unemployment is correlated with the overall level of economic growth. It is generally felt that unemployment is likely to start rising when growth falls below around 2 per

cent. On the other hand, when growth is above 3 per cent, the level of unemployment is likely to fall. This was seen in the period from 2003 to 2008, when faster growth saw unemployment fall from around 7 to 4 per cent. When economic growth is in the 2 to 3 per cent range, as it was for most of the 2010s, unemployment tends to remain relatively stable. Reserve Bank research in 2023 estimated that the peak impact of a change in economic activity on the unemployment rate occurs after around two years. Changes in the level of economic growth mainly affect cyclical unemployment.

The trends in the measures of unemployment and underutilisation in recent years confirm how strongly economic growth affects unemployment. Just as the sharp contraction in economic activity that began in the March quarter of 2020 resulted in an immediate surge in unemployment, so too economic recovery saw unemployment fall. The 2023–24 Budget estimated that a growth rate of 3.25 per cent over 2022–23 led to employment growth of 2.5 per cent, which helped keep unemployment below 4 per cent.

1992–1994	Australia emerged from recession with expansionary policies that saw unemployment fall from 11 per cent to 8.5 per cent.
1996–1997	A shift towards tighter monetary policy and fiscal consolidation contributed to slower growth and a slight increase in unemployment to 9 per cent.
1997–1999	Interest rate reductions helped accelerate growth, encouraging spending, business investment and job creation.
1999–2001	The cycle of interest rate increases slowed down growth in 2000 and 2001 and resulted in an increase in unemployment levels.
2003–2008	The mildly expansionary stance of monetary and fiscal policy alongside a major resources boom helped sustain reductions in unemployment to around 4 per cent.
2008–2009	Unemployment increased to around 6 per cent as the global financial crisis impacted on the Australian economy, prompting highly expansionary macroeconomic policies that softened the downturn.
2009–2011	Unemployment fell as the global economy recovered and macroeconomic policy settings promoted economic growth.
2011–2020	With economic growth below its long-term average and inflation low, monetary policy became increasingly expansionary, in part to offset contractionary fiscal policy, which was focused on gradually reducing the budget deficit.
2020–2021	The COVID-19 pandemic required a shutdown of many parts of the economy, causing a brief recession. Fiscal policy became strongly expansionary, and interest rates fell to record lows. These settings remained in place in 2021 as the economy recovered, to support a return to full employment and inflation within its target band.
2022–2023	The economy recovered quickly and unemployment fell to a 50-year low. A global surge in inflation, resulting from supply shortages and disruptions to energy markets as a result of Russia's invasion of Ukraine, saw a mild tightening of fiscal policy, and a steep increase in interest rates.

The stance of macroeconomic policies

Macroeconomic policy settings can influence the level of cyclical unemployment in the short to medium term, through their influence on the business cycle.

Fiscal and monetary policy both influence the level of aggregate demand through their influence on the business cycle, and this in turn influences the level of unemployment in the short to medium term. An expansionary stance aims to increase economic growth and job creation. A contractionary stance aims to reduce inflation, even if this is at the

cost of lower growth and higher unemployment in the short term, such as through the tightening of monetary policy that began in May 2022.

Constraints on economic growth

Over the longer term, unemployment is influenced by the level of sustained economic growth achieved in an economy. If there are significant constraints on economic growth, the economy will struggle to create enough jobs to reduce unemployment. In recent years, concerns about the historic constraints on growth – inflation and external balance – have been low. Nevertheless, a surge in inflationary pressures prompted a series of 11 consecutive interest rate rises beginning in May 2022. Economists differed in their views of whether this surge in inflation was likely to be sustained.

Rising participation rates

An increase in the labour force participation rate will tend to cause an increase in the rate of unemployment in the short term. This is because more people who previously were not looking for work (and were not classified as unemployed) start actively seeking employment. This situation usually occurs in times of economic recovery when many discouraged jobseekers, observing that employment opportunities are improving, start looking for work. For this reason, they re-enter the labour market, and unless they obtain a job immediately, they join the ranks of the unemployed. This means that the level of unemployment may only be reduced slowly during an economic recovery, even when economic growth and employment growth are strong, because more people are looking for jobs.

Structural change

The process of structural change in the economy often involves significant short-term costs. One of the most significant costs in the short term is a loss of jobs in less efficient industries and in areas undergoing major structural change. Globalisation has contributed to changes in labour markets around the world, with domestic businesses becoming more integrated into global supply chains leading to the offshoring of some jobs. Nevertheless, an analysis of job losses in OECD countries during recent decades found that trade and globalisation accounted for only half as many job losses as automation. One longer-term shift that emerged in recent years has been the increase in remote working and a reduction in jobs involving face-to-face contact.

Technological change

Rapid technological change can cause unemployment, at least in the short term. The pace of change in the labour market is expected to accelerate in the 2020s as automation driven by artificial intelligence (AI) applications, including large language models such as ChatGPT, transform jobs. In its 2023 *Productivity Inquiry* report, the Productivity Commission noted the potential for artificial intelligence to drive future productivity growth in Australia. Research firm Forrester has estimated that Australia could see as many as 1.5 million overall job losses in Australia by 2030. However, these job losses are likely to be offset by the creation of new jobs that utilise AI. The World Economic Forum's 2023 *Future of Jobs* report predicted a 35 per cent rise in demand for data analysts and information security analysts by 2027, generating a combined 2.6 million jobs to the world economy. It noted that 60 per cent of today's professions did not even exist in 1940, and that artificial intelligence is likely to have an even greater effect in contributing to the creation of whole new jobs.

Productivity

The productivity of labour is a significant factor affecting the decision of employers to increase or reduce employment. Low productivity growth has different short- and long-term impacts. Higher productivity growth will tend to slow employment growth (or increase unemployment) in the short term, because fewer employees are required per unit

of output. However, in the long term, higher productivity growth contributes to higher economic growth and therefore lower rates of unemployment. Conversely, a slowdown in productivity growth will tend to result in lower unemployment in the short term but higher unemployment in the longer term, since an economy with lower productivity growth will be less competitive and slower growing (and employers may substitute greater use of capital for a reduced use of labour).

Inadequate levels of training and investment

Structural unemployment is related to the mismatch between the skills of the unemployed and the skills demanded by employers for job vacancies. During the 2000s, significant skills shortages emerged in many areas of the economy for occupational groups such as tradespeople, health professionals and construction workers. In 2023, 19 occupations were included on Australia's skill shortage list (whereas at the peak of the economic boom before the global financial crisis in 2007–08, 85 per cent of all occupations were experiencing skill shortages). Persistent skill shortages continue to be experienced for a wide range of technicians and trade workers, including arborists, carpenters, stonemasons, bakers, pastry cooks, plumbers and air conditioning mechanics. Where significant skills shortages persist alongside significant numbers of people being out of work, this suggests that there are gaps in Australia's education and training system. Inadequate levels of training make Australia more reliant on skilled migration to fill job vacancies.

Increased labour costs

Unemployment may rise because of a sustained increase in labour costs (wages), although recently economists have been concerned by the low level of wage growth rather than the excessive wage growth that contributed to inflation in the 1970s and early 1980s. The circumstances in which increased labour costs could contribute to higher unemployment include:

- A shortage of skilled labour may result in employers competing with each other for a limited pool of labour, thus forcing up labour costs more generally and possibly creating wage inflation and overheating the economy.
- A wages breakout caused by excessive wage demands. When nominal wages are rising too fast, outstripping inflation and productivity increases, they can reduce business profits. Businesses may choose to substitute capital for labour, or reduce output, to improve profits. In these circumstances labour would be effectively pricing itself out of a job.
- A decision by the **Fair Work Commission** to increase award wages substantially in its National Minimum Wage Order (to improve the living standards of lower paid workers) could make it too expensive for some employers to keep all of their workers employed.
- A substantial rise in labour on-costs. These are the additional costs of employing labour, and include payroll tax, superannuation, sick leave, holiday pay and workers' compensation. These are affected mainly by government policy decisions. If these on-costs are too high, they can cause a decline in the demand for labour.

Fair Work Commission is the government agency that regulates Australian workplaces, with functions that include the setting of minimum wages, the approval of workplace agreements and in some instances, the resolution of industrial disputes.

Inflexibility in the labour market

One of the reasons for higher labour costs may be inflexibility in the labour market. Some economists argue that Australia's relatively high minimum wages rates make it less attractive for employers to hire less-skilled workers, contributing to a higher level of unemployment, and that deregulation of the labour market might lead to lower minimum wages and a lower level of unemployment. For example, a study released in 2019 by the Institute of Public Affairs titled "Expanding Economic Opportunity: An International Comparison of Australia's Labour Market Regulation" attributed Australia's high level of underemployment to regulation of the labour market. The IPA's analysis ranked Australia

SHIFTING INDUSTRIES AND SHIFTING JOBS

Globalisation has accelerated the process of economic change, resulting in changes to the structure of Australian industries and to the labour market. A study of structural change in Australia, published by the Reserve Bank in 2018, highlighted two of the largest changes to the labour market in the past 50 years:

- the growth of more highly skilled, non-routine jobs in the business services sector (such as financial services, consulting, technology, communications, recruitment, design and legal jobs), which has doubled from around 10 per cent to 20 per cent of total employment
- the decline of lower skilled, routine jobs in the goods production sector (manufacturing, mining, construction, utilities and agriculture).

Structural change in the three decades to 2023 has also changed the Australian job market in profound ways:

- Manufacturing accounted for more jobs than any other industry in 1991, with 13.8 per cent of overall employment. Since then, its share of jobs has halved (falling to 6.5 per cent in 2023), with manufacturing now the eighth-largest employer of Australian workers.
- Employment in agriculture, forestry and fishing shrunk from 6 per cent to 2.2 per cent of total employment in the same time period.
- The services sector now employs more than three-quarters of Australian workers. The services sector is generally defined as all industries other than manufacturing; construction; agriculture, forestry and fishing; mining; and electricity, gas, water and waste services (although there are services jobs even within these industries). Much of the growth in the services sector has been driven by health care and social assistance. This industry has had strong employment growth, and the needs of Australia's ageing population will result in continued growth in jobs in this sector, especially as few of these jobs can be automated. Professional, scientific and technical services has also recorded strong employment growth, more than doubling its share of employment in the three decades to 2023.

Job growth in recent years has been driven by five key industries: health care (which now employs around 2.1 million Australians), and professional services, construction, education and hospitality, which employ around 1 million each.

This process of change in the structure of the labour market is expected to continue in the decades ahead. Artificial intelligence and automation will change the skills required from workers in coming years. The World Economic Forum's 2023 *Future of Jobs* report predicts that the fastest-growing jobs are technology related roles, like AI and machine learning specialists, and sustainability related roles, like renewable energy engineers. The majority of the fastest-declining roles are clerical or administrative roles, such as bank tellers and postal service clerks. The COVID-19 pandemic may also have accelerated technological disruption across the economy, through a greater shift to delivering services and engaging customers and clients online.

105th out of 140 nations in the world for inflexibility in wage determination, and 110th for the flexibility of hiring and firing rules. However, OECD studies of the Australian labour market usually point to the relative flexibility of the Australian labour market, and highlight the need for improvement in skills and training to reduce underemployment rather than focusing on labour market rules. (These issues are further discussed in chapter 17.)

reviewquestions

1 Examine how the stance of macroeconomic policies can influence the level of unemployment.
2 Discuss the positive and negative impacts of technological and structural change on the labour market.
3 Describe how a lower rate of productivity growth might impact the rate of unemployment in the short term and long term.

8.7 The impacts of unemployment

A high level of unemployment has serious negative effects on the economy, on individuals and on society. For this reason, lowering unemployment is an important goal of economic management.

Economic costs

Opportunity cost

Unemployment means that the economy's resources are not being used to their full capacity – the economy is thus operating below its production possibility frontier. Therefore, total output is below what it could potentially be, since unemployed people are not contributing to the production process. Lower total output also means lower household incomes and expenditure, which may lower sales and profits. Higher unemployment levels may therefore lead to reduced business investment, production and economic growth.

Lower living standards

Those who are out of work will have lower incomes (relying on welfare payments) and therefore lower living standards. In addition, those who are in employment will need to contribute higher taxes to cover the cost of income support to the unemployed. With high rates of unemployment, the production of both consumer goods and capital goods is lower, resulting in lower living standards.

Decline in labour market skills for the long-term unemployed

Unemployment leads to a loss of skills among existing workers who find themselves without work for extended periods of time. Persistently high unemployment will mean that those who are unemployed will lose their labour market skills, confidence and experience, and will become less employable or even unemployable. In this way, cyclical or short-term unemployment can turn into long-term structural unemployment, a process known as **hysteresis**. In addition, new members of the labour force (such as young school leavers and new university graduates) will find it more difficult to develop skills if they are unable to obtain jobs soon after finishing their education.

Hysteresis is the process whereby unemployment in the current period results in the persistence of unemployment in future periods as unemployed people can lose their skills, job contacts and motivation to work.

Costs to the government

High levels of unemployment can have a significant influence on the government's revenue and expenditure (and therefore on the federal Budget). Higher unemployment leads to lower household incomes and therefore less tax revenue, while at the same time the government is burdened with increased transfer payments (unemployment benefits) to the unemployed, as well as the cost of training and labour market programs. This decrease in revenue and increase in expenditure will cause a deterioration in the budget outcome.

Lower wage growth

High levels of unemployment mean that there is an excess of labour supply in the economy, which should lead to a fall in the equilibrium level of wages. However, there is a "downward stickiness" for wages – that is, wages do not often get reduced (because, for example, they are set through formal enterprise agreements or industrial awards). Instead, higher unemployment is more likely to lead to slower wage growth over time rather than actual reductions in wages. Similarly, the laws of supply and demand suggest that low unemployment should lead to higher wage growth. Australia has been through a long period in which wage growth has been below expectations, despite relatively low unemployment. This lower wage growth is attributed to other factors that are discussed in chapter 17.

Social costs

Increased inequality

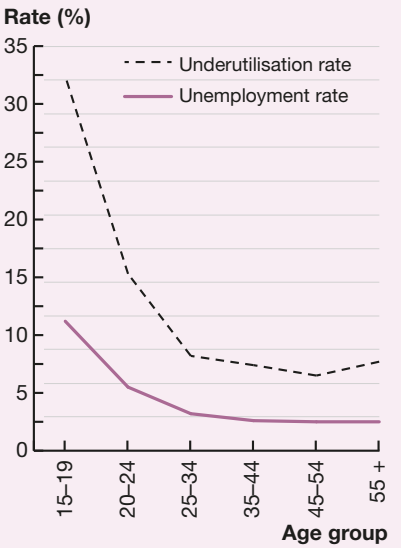
Unemployment tends to occur more frequently among lower-income earners in the economy, such as the young and unskilled. Because unemployment means a loss of income for these people, they become relatively worse off compared to higher-income earners, contributing to poverty and overall inequality in income distribution. In June 2022, just below one in five families in Australia was a "jobless family", where no-one in the family aged over 15 years had a job. Recent research by the Smith Family (see chapter 11) has highlighted the "intergenerational" dimension of inequality and poverty, where disadvantage is passed from one generation to the next, often described as the "poverty trap".

Other social costs

Unemployment is associated with many of the most serious personal and social problems in Australia. Among families and individuals, especially those who suffer from long-term unemployment, there is an increased incidence of social problems, including:

- severe financial hardship and poverty
- increased levels of debt
- homelessness and housing problems
- family tensions and breakdown
- loss of work skills
- increased social isolation
- increased levels of crime
- erosion of confidence and self-esteem
- poor health, mental health conditions and a higher risk of suicide.

These social problems have an economic cost for the community as a whole since more resources must be directed towards dealing with them. For example, more public funds must be spent on health, welfare services, social workers, the police service and correctional centres, rather than being used to satisfy other community wants. In addition, increased unemployment and inequality can create social tensions and a backlash against globalisation more generally, as was seen in many countries after the global financial crisis of 2008.



Source: ABS *Labour Force, Australia* (Table 22, May 2023)

Figure 8.4 – Unemployment and underutilisation among different age groups, 2023

Unemployment for particular groups

The problem of unemployment is far more severe for some groups in society than others. One example is the youngest group – those aged 15–19 – who can have difficulties entering the workforce. Unemployment in this age group is up to three times the rate of the general population, as shown in figure 8.4. Young workers were particularly affected by the COVID-19 recession because of their above-average levels of employment in casual and part-time positions, and a heavier concentration of young workers in sectors such as hospitality and accommodation, which were among the hardest-hit industries. An Australia Institute report in 2022 found that while individuals aged 15–24 make up just 14 per cent of the workforce, they experienced 55 per cent of job losses during the COVID-19 lockdowns. A longer-term cause of higher unemployment rates among groups such as younger people is educational experiences that do not provide them with the skills needed in the workplace. For example, remote learning during the COVID-19 pandemic proved more difficult for disadvantaged students and those whose home environments made online learning harder.

High **youth unemployment** rates come about because employers are often seeking workers who have education, training and experience. This helps to explain why four in five Australian students now complete high school, compared

to just one in three in the 1980s. With most jobs now requiring post-secondary school skills, the challenge for Australia's education and training system is to better manage the transition from school into further education, training or apprenticeships.

Other factors also contribute to higher levels of unemployment among specific groups:

- **Indigenous Australians** have relatively high unemployment rates, especially in regional and remote areas. The Australian Government's "Closing the Gap" report in 2020 noted that employment among Aboriginal and Torres Strait Islanders is approximately two-thirds the level of non-Indigenous Australians, with 49.1 per cent of Indigenous Australians employed compared to around 75 per cent for the rest of the community. However, there is almost no difference in employment rates among Indigenous Australians with higher levels of education, suggesting that education and skills are critical to closing the gap.
- **Age-related unemployment**. Unemployment rates are highest among young Australians. Among those aged 15–19 who are in the labour force, the labour force underutilisation rate was 33.8 per cent in June 2023, compared to a national average of around 10 per cent. Older workers also have greater difficulty in finding work once they have lost a job. Analysis by the Reserve Bank in 2020 found that older workers are most likely to be out of work for an extended period of time, while younger workers are least likely to experience long-term employment. An Australian Human Rights Commission report in 2021 found evidence of significant age discrimination towards older workers, with almost half of the human resources and business leaders surveyed saying that their organisation would be reluctant to hire workers over a particular age.
- **Specific regions** suffer from higher unemployment rates than others, although in recent years the gap between city and regional unemployment has diminished. In 2022–23 the average unemployment rate in Greater Sydney (with a labour force of 3 million) was 3.4 per cent, while it was 3 per cent for the rest of the state (with a labour force of 1.5 million). Within Greater Sydney, unemployment rates varied from 2.1 per cent in Sutherland to 5.2 per cent in Sydney's South-West. In the rest of NSW, unemployment rates varied from 1.8 per cent in the Riverina to 4.3 per cent on the mid North Coast.
- **People born outside of Australia.** Unemployment rates can differ for people born outside of Australia, with a higher rate for newcomers' first years in the country as they integrate and adjust to language and other differences. In 2023, the unemployment rate for people who had migrated to Australia in the past five years was 6 per cent for those from the main English-speaking countries, and 5.9 per cent for those from other countries (compared to 3.4 per cent for those born in Australia). However, once migrants have been in Australia for more than 10 years they have lower unemployment rates than the locally born population, and there is no significant difference between those from English-speaking and non-English-speaking countries. CEDA analysis in 2021 found that nearly a quarter of permanent skilled migrants were over-qualified for their current job but had not found a better job because they did not have enough work experience and lacked access to local networks.

In addition to these factors, higher unemployment rates for some groups in society may indicate the persistence of discrimination and unequal employment opportunities in the labour market. For example, prejudicial attitudes to Indigenous Australians in parts of regional Australia are often cited as a factor in their higher unemployment rates.

reviewquestions

1 Outline TWO economic and TWO social costs of unemployment.

2 Explain why youth unemployment is higher than the level of unemployment for the general population.

3 Identify one part of the Australian labour force that experiences above-average levels of unemployment and account for this higher level of unemployment.

4 Australia is currently experiencing an ageing of its population, with the proportion of Australians aged over 65 expected to grow from 16 per cent of the population in 2019 to 23 per cent by 2055. Discuss the possible effects of this longer-term trend on Australia's labour market.

8.8 Policies to reduce unemployment

Reducing unemployment is one of the most difficult tasks of economic management. Lasting reductions in unemployment take time to achieve and are dependent upon sustaining economic growth over a long time period. In periods of rising unemployment, the challenge for governments is to minimise the short-term increase in joblessness in order to achieve the fastest possible return to low unemployment. The broader challenge for governments is to reduce long-term structural unemployment through a combination of labour market policies, investment in training and other wider economic reforms.

Governments choose policies to reduce unemployment based on what they see as the main causes of unemployment. If, for example, a government believes that the main cause of unemployment is structural unemployment, in which the skills of jobseekers are not suitable for the jobs that are available, it would implement policies that aim to train workers with new skills. On the other hand, if the government believes that cyclical unemployment is a main reason for people being out of work (due to an economic downturn), it might implement policies to encourage stronger economic growth. The changing priorities of government policies to reduce unemployment often reflect changing views on the causes of unemployment.

Macroeconomic policies are the main instruments used to reduce **cyclical unemployment**, sustain economic growth and minimise sharp downturns in the business cycle. Economists describe employment as a derived demand of production, meaning that reductions in unemployment require increases in output. Expansionary fiscal policy, involving either lower taxes or increased government spending, can stimulate economic activity and cause an increase in output through the multiplier effect. For example, as governments increase expenditure on infrastructure, businesses will increase investment and employ more people. Expansionary monetary policy, involving lower interest rates, can stimulate consumer spending and business investment and similarly cause an increase in output. In Topic Four, we examine in detail the role of fiscal, monetary and other policies in influencing the level of output and therefore job growth.

Australia's economic history over the past half century has shown that unemployment rises quickly during a recession, but it can take many years of economic recovery for unemployment to return to its pre-recession levels. Avoiding sharp downturns in the economy can therefore minimise any increase in cyclical unemployment. The goals of achieving an economic growth rate of 3 per cent or more, and keeping inflation within the 2 to 3 per cent target band, have been central to macroeconomic policy since the 1990s. The main reason why Australia succeeded in sustaining lower rates of unemployment since the 1990s is that it sustained growth and avoided recession (a feat which has broken world records) for 28 years up until the COVID-19 pandemic in 2020.

The severity of the COVID-19 recession prompted the largest-scale government economic support program in Australian economic history. The Australian Treasury has estimated that unemployment would have peaked at 5 percentage points higher (over 12 per cent) without the economic support program. Its centrepiece was the JobKeeper wage subsidy program, which aimed to prevent employers laying off staff. The subsidy program provided a $1500 per fortnight payment to an estimated 3.5 million workers. Other measures included support for businesses, free child care and increased unemployment benefits. The policy strategy was similar to that adopted in 2008, when a major fiscal stimulus successfully prevented the global financial crisis tipping Australia into recession. The $90 billion JobKeeper program supported almost one in three Australian workers through the COVID-19 recession and was successful in avoiding a sustained jump in unemployment.

In addition to addressing cyclical unemployment through macroeconomic policies, governments also use a range of measures to address structural unemployment. By lifting the economy's efficiency, competitiveness and productivity, **microeconomic reform** aims to increase economic growth and job creation over the long term. Australia's microeconomic reform policies have included tariff reduction, deregulation, national competition policy, privatisation and tax reform. In particular, policies relating to the labour market – such as industrial relations, education and training, and welfare-to-work initiatives – are intended to foster a higher level of employment growth over time.

Labour market policies play an important role in reducing many types of unemployment. The range of labour market policies available to governments extends from education and training programs for people who are out of work or at risk of unemployment, measures to improve the matching of unemployed people to job vacancies, and policies to increase demand for labour by making it more attractive for employers to hire workers, such as through wage subsidies. One of the first acts of the Albanese Government was to convene a Jobs and Skills Summit in Canberra in September 2022, which included policy commitments involving an additional $1 billion for TAFE funding and accelerating the delivery of 465,000 fee-free TAFE places, and increasing Australia's Migration Program ceiling to 195,000 in 2022–23 to ease labour shortages. Australia's investment in labour market programs is the fourth-largest in the OECD, including expenditure on training, public employment services, direct job creation and unemployment benefits.

Government policies relating to the wage determination system have an influence on how the forces of demand and supply interact in the labour market. Since the 1990s, changes to labour market regulations such as enterprise bargaining have given employers more flexibility in determining employment conditions. These changes have aimed to increase productivity and give employers greater incentives to hire workers. There is an ongoing debate over how Australia can best strike a balance between policies that give flexibility to employers, and policies that provide fair pay and conditions to employees. Changes to the *Fair Work Act* introduced by the Albanese Government aim to reduce gender discrimination, protect casual employees and allow for more flexible working arrangements to increase workforce participation.

Successive governments have implemented labour market policies aimed at moving individuals off welfare and into paid employment. These measures include making it harder to access welfare payments such as through longer waiting periods, tougher eligibility rules, requirements to keep applying for jobs and requirements to undertake training. These changes have been designed to encourage unemployed individuals to actively seek work or additional education and training. In July 2022, a Points Based Activation System was brought in for individuals receiving the Jobseeker payment. It replaced previous rules requiring jobseekers to make at least 20 job applications per month. Instead, jobseekers must attain a minimum of 100 points per month to continue receiving benefits. The more flexible points-based system gives individuals points for a wider range

of activities such as attaining new skills (25); attending a job interview (25); relocating for a job (100); and participating in the Defence Force Reserves, self-help support groups and drug and alcohol rehabilitation.

State governments can also play a role in tackling unemployment, such as the NSW Government's Fee Free Vocational Education and Training program, introduced in 2019–20 and subsequently expanded and extended. Under this policy, vocational education programs were placed within a new "Smart and Skilled" system, reducing fees with the goal of improving access to training. Traineeships were made fee-free from 2020 to 2024.

Governments can influence the labour market through their immigration policies, which are especially important to Australia's economy, given our high immigration intake and skills-based immigration policy. As part of the re-opening of Australia's borders during the recovery from the COVID-19 pandemic, the Government appointed a Global Business and Talent Attraction Taskforce to address skills shortages and find ways to attract more skilled employees from overseas. Australia's permanent migration program for 2023–24 was set at 190,000 places, with 72 per cent of visas allocated for skilled workers who will fill skill shortages.

Another area of policy changes aimed at the supply side of the labour market involves lifting workforce participation by reforming the way that the tax and welfare systems interact. Often, unemployed persons and low-income earners face very high "effective marginal tax rates", meaning that for every extra dollar they earn from work, they have to pay tax as well as lose a portion of their welfare benefit. Reducing effective marginal tax rates can therefore provide incentives to lift workforce participation and increase employment.

Changes to parental leave programs have also aimed to increase supply in the labour market by making it easier for parents to stay in paid employment over the longer term. Paid parental leave, combined with policies to make child care accessible and affordable, makes it easier for both parents in a family to maintain paid employment and take care of their children. The 2023–24 Federal Budget allocated $12.7 billion in childcare subsidies, increasing the amount most families received from July 2023.

Government policies can reduce frictional unemployment by helping to match jobseekers with job vacancies. In July 2022, Workforce Australia Online, an employment services platform with a strong focus on online job searching, was introduced. It focuses funding towards the most disadvantaged jobseekers and the long-term unemployed. One of the criticisms of Australia's past job placement policies has been their underinvestment in helping those most in need, reflected in the fact that Australia spends less than half the OECD average on employment services, which may contribute to people who need more intensive assistance dropping out of the labour market altogether.

reviewquestions

1 Outline the role of macroeconomic policy in reducing unemployment.

2 Identify TWO recent labour market policies and discuss how they assist in reducing unemployment in the economy.

chapter summary

1 The **labour force** is the number of people 15 years of age and above who are either working or actively seeking work.

2 The **labour force participation rate** is the percentage of the working-age population who are either working or actively seeking work.

3 **Unemployment** refers to the proportion of people in the labour force actively seeking work but unable to find it. It is measured by the unemployment rate. The **unemployment rate** is calculated by:

$$\text{Unemployment rate (\%)} = \frac{\text{Number of persons unemployed}}{\text{Total labour force}} \times \frac{100}{1}$$

4 **Underemployment** refers to people who work for less than full-time hours per week but would like to work longer hours. Although not officially unemployed, they represent a significant part of Australia's unemployment problem.

5 Australia experienced a trend increase in unemployment from the mid-1970s. After falling slowly from the early 1990s to 2008, it then stabilised in the range of 5 to 6 per cent during the 2010s. The unemployment rate rose to above 7 per cent during the COVID-19 recession, but recovered quickly to below 4 per cent by 2022, where it remained in 2023.

6 The main types of unemployment include:

- **cyclical unemployment**, which occurs because of a downturn in the level of economic activity
- **structural unemployment**, which occurs because of a mismatch between the skills of the unemployed and the skills required by job vacancies
- **frictional unemployment**, which occurs when people are temporarily unemployed as they change jobs
- **seasonal unemployment**, which occurs at predictable and regular times throughout the year because of the seasonal nature of some kinds of work.

7 The main **causes of unemployment** include low levels of economic growth, contractionary macroeconomic policies, rising participation rates, structural and technological change, changes in productivity, inadequate training and investment, rapid increases in labour costs and inflexibility in the labour market.

8 The **non-accelerating rate of unemployment (NAIRU)** is a concept used by economists to refer to the minimum rate of unemployment that can be sustained without inflationary pressure – thought to be around 4.25 per cent in Australia.

9 Unemployment has many economic and social costs. **Economic costs** include the opportunity cost of lost production, a decline in workforce skills, and the cost of income support for the unemployed. **Social costs** include increased inequality, poverty, family breakdown and crime.

10 In recent years, Australia has seen a greater emphasis on policies to improve vocational training and workforce participation in order to address structural unemployment.

chapterreview

1 Define *unemployment* and explain how it is measured.

2 Discuss recent trends in the level of unemployment in Australia.

3 Explain the difference between unemployment, underemployment and the underutilisation rate.

4 Identify the main types of unemployment that might exist in an economy.

5 Explain the role of technological change in influencing the level of unemployment.

6 Explain what is meant by the non-accelerating inflation rate of unemployment.

7 Explain the effect of an increase in economic growth on the participation rate and the level of unemployment.

8 Outline the economic and social costs for Australia of a sustained high rate of unemployment.

9 Identify which groups in Australian society tend to experience higher levels of unemployment.

10 Outline THREE recent policies to reduce unemployment in Australia.

Inflation

9

9.1 Introduction
9.2 Measuring the rate of inflation
9.3 Recent trends in inflation
9.4 The main causes of inflation
9.5 The effects of inflation
9.6 Policies to sustain low inflation

9.1 Introduction

Inflation is an economic problem that can have negative impacts on many economic outcomes, including economic growth, international competitiveness, exports and income inequality. Maintaining low inflation is a major objective of economic policy because of the benefits that lower inflation provides to the economy in the long run.

For over thirty years from the early 1990s, Australia sustained relatively low levels of inflation, a significant achievement after persistently high inflation in the 1970s and 1980s. However, Australia's low inflation performance came to an abrupt end in 2022, when disruptions to labour markets, global supply chains, energy markets and commodity prices combined to produce a worldwide surge in inflation. In this chapter, we examine these trends in inflation, unpack the different causes, and look at how inflation impacts on different parts of the economy and how policymakers try to address inflation.

9.2 Measuring the rate of inflation

Inflation is a sustained increase in the general level of prices in an economy. The best-known and most widely used measure of inflation in Australia is the percentage change in the **Consumer Price Index (CPI)**. The CPI summarises the movement in the prices of a basket of goods and services, weighted according to their significance for the average Australian household. The annual inflation rate is calculated by the percentage change in the CPI over the year.

Consumer Price Index (CPI) summarises the movement in the prices of a basket of goods and services, weighted according to their significance for the average Australian household. It is used to measure inflation in Australia.

$$\text{Inflation rate (\%)} = \frac{CPI_{CY} - CPI_{PY}}{CPI_{PY}} \times \frac{100}{1}$$

Where CPI_{CY} = the value of the CPI in the current year
Where CPI_{PY} = the value of the CPI in the previous year

The basket of goods and services used to calculate the CPI does not include all goods and services available in the economy, but covers a wide selection that reflects average household spending patterns. As such, the CPI gives a good indication of the overall movement in the prices of consumer goods, and reflects general changes in the cost of living (how much consumers have to pay for the goods and services they buy). The CPI is compiled by the Australian Bureau of Statistics (ABS) and is published every three months.

The weights given to the expenditure groups in the basket are based on the ABS Household Expenditure Survey and are shown in figure 9.1. The ABS regularly updates the

Expenditure group	Weighting factor %
Food and non-alcoholic beverages	17
Alcohol and tobacco	8
Clothing and footwear	3
Housing	22
Furnishings, household equipment and services	9
Health	6
Transport	11
Communication	2
Recreation and culture	11
Education	4
Insurance and financial services	6
All groups 100	100

Source: ABS Annual weight update of the CPI and Living Cost Indexes, 2022

Figure 9.1 – Weighting of main expenditure groups in the CPI basket

weighting for each expenditure group to more accurately reflect average consumer purchasing patterns. The CPI excludes some items of household spending such as changes in mortgage interest rates and consumer credit charges. In addition, the CPI does not include prices of property or land, so the changes in residential property prices in recent years are not reflected directly in the CPI.

The official or "headline" rate of inflation, calculated using the CPI, can be a misleading indicator of ongoing price pressures in the economy because it includes some goods and services whose prices may be highly volatile or affected by one-off factors. Economists, including those at the Reserve Bank of Australia (RBA or Reserve Bank), therefore prefer to look at the level of **underlying inflation** (also known as "core" inflation). Underlying inflation removes the effects of one-off or volatile price movements (see the box below on how underlying inflation is calculated). As a result, measures of underlying inflation tend to be less variable than headline inflation.

MEASURES OF UNDERLYING INFLATION

There is no single measure of underlying inflation in Australia, and both the Treasury and the RBA have their own way of calculating the underlying inflation rate. Most economists focus on two measures of the underlying inflation rate – the trimmed mean and the weighted median – which were originally developed by the RBA but are now published quarterly by the ABS. These measures adjust the official CPI figures to give less weight to goods and services that experienced very large rises or falls in price. Although the calculation of these measures is a highly technical exercise, the logic behind each measure is quite straightforward.

- **Trimmed mean** inflation is determined by calculating the average inflation rate after excluding the 15 per cent of items with the largest price increases and the 15 per cent of items with the smallest price increases (or largest price falls) from the CPI.
- **Weighted median** inflation is calculated by comparing the inflation rate of every item in the CPI and identifying the middle observation. The inflation rate of half of the items in the CPI will be greater than the weighted median inflation rate, and the inflation rate of the other half will be less than it.

When the RBA refers to its estimate of underlying inflation, it is referring to the average of its two measures – that is, the trimmed mean and weighted median added together and then divided by two.

The ABS reports seasonally adjusted and underlying measures of inflation to help make CPI adjustments more comprehensive and reliable.

Prior to the higher levels of inflation seen in 2022 and 2023, both headline and underlying inflation were at relatively low levels for three decades. During certain periods they can move in different directions, such as during COVID-19. Headline inflation fell from 2.2 per cent at the end of March 2020 to –0.3 per cent three months later, only to climb back up to 3.7 per cent by June 2021. At the same time, underlying inflation remained relatively steady, just below 1.5 per cent. Headline inflation alone can give the impression that inflation is volatile, but underlying inflation points to ongoing price pressures.

It is important to note that underlying inflation can be either below or above the headline inflation rate. For example, the headline inflation fell below underlying inflation in 2020 because a temporary government subsidy during the COVID-19 pandemic sharply reduced childcare costs. After the subsidy ended, the headline inflation rate went up steeply. Meanwhile, underlying inflation was unaffected.

reviewquestions

1 Define the term *inflation*.
2 Distinguish between headline and underlying inflation.
3 Analyse the limitations of the CPI as a measure of inflation in the economy.

9.3 Recent trends in inflation

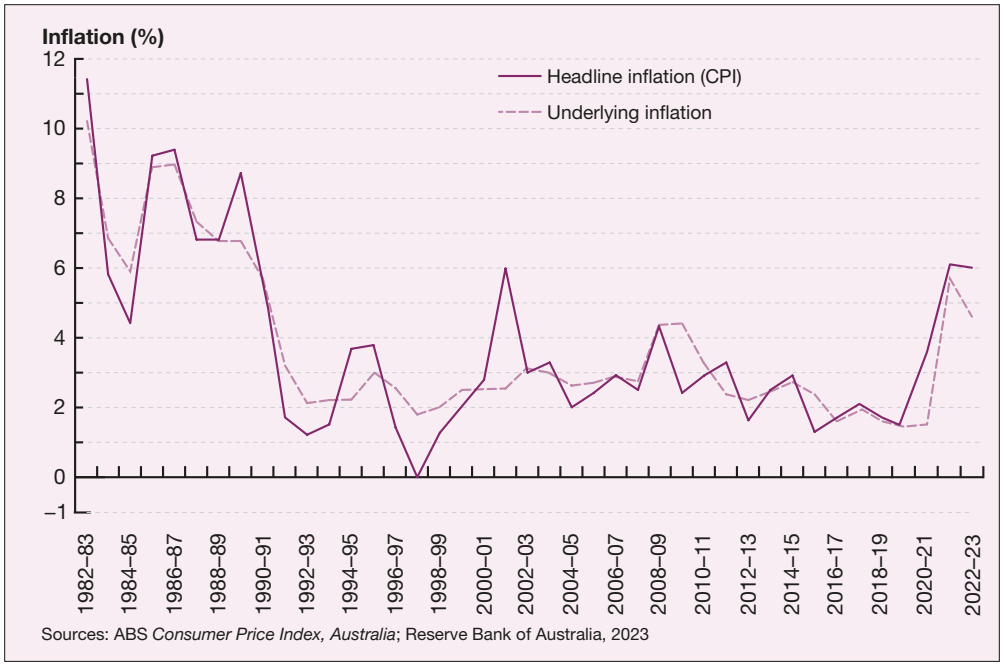


Figure 9.2 – Inflation in Australia 1982–2023

One of the most significant macroeconomic achievements of the past generation is that Australia has generally sustained low levels of inflation after experiencing relatively high inflation in the 1970s and 1980s (see figure 9.2). Between 1996 and 2023, both headline and underlying inflation averaged 2.6 per cent. A key factor behind this success was the introduction of **inflation targeting**. In 1993, the RBA began to target an inflation rate averaging 2–3 per cent over the course of the economic cycle as a guide in determining interest rate decisions. The inflation target was formalised in 1996 by an agreement between the Treasurer and the RBA Governor. Inflation generally remained around this target band until 2022, when inflation began to overshoot the RBA's target.

The key event that brought the high-inflation era of the 1970s and 1980s to an end was the recession of the early 1990s. Australia emerged from this recession with low inflation levels. The RBA's inflation target then locked in this lower inflation rate. This has meant that whenever inflationary pressures have emerged – such as in 1994, 1999, 2007, 2010 and 2022 – the RBA has increased interest rates to slow down the growth in demand and curb inflation rate rises. On the other hand, headline inflation rates persistently below the RBA's inflation target played a role in the RBA decreasing interest rates to a record low prior to the COVID-19 pandemic in 2020.

Structural change refers to the process by which the pattern of production in an economy is altered over time, and certain products, processes of production, and even industries disappear, while others emerge.

During Australia's unbroken run of economic growth between 1991 and 2019, inflation pressures remained constrained. Monetary policy was relatively successful in addressing inflation pressures when they emerged. Many economists attributed these lower inflation rates to the impact of **structural changes** during the 1980s and 1990s. Microeconomic reform increased the intensity of competition within Australia and from overseas, while **productivity growth** also improved in the 1990s, all contributing to sustained low inflation. This made it possible for Australia to achieve low inflation whilst simultaneously enjoying strong economic growth and falling cyclical unemployment.

Productivity refers to the quantity of goods and services the economy can produce with a given amount of inputs such as capital and labour.

There was nevertheless a period of stronger inflationary pressures between 2005 and 2008. Underlying inflation peaked at 5.1 per cent in September 2008 as a result of higher global prices and the strength of economic activity. This period of strong inflationary pressures ended with the global downturn in 2008, which reduced consumer confidence, investment spending, demand for labour, and wage growth. Australia's inflation rate remained at or below the RBA's target band during the 2010s decade.

The COVID-19 recession in 2020 led to the largest quarterly fall in the CPI since 1931, and the first annual decline in inflation since the 1960s. This reflected very weak levels of economic activity across the economy, with prices for fuel and many services falling during the period. In addition, several government emergency pandemic policies put downward pressure on inflation. As the economy recovered from COVID-19, global inflation rates surged. This reflected disruptions to global supply chains, high commodity prices, low unemployment, wage growth and rising rental costs. The war in Ukraine also caused the largest surge in energy prices in half a century. These factors pushed global inflation to its highest levels in several decades. In Australia, headline and underlying inflation peaked at 7.8 per cent and 6.3 per cent in December 2022. Inflation was expected to fall from 3.3 per cent in 2023–24 to 2.7 per cent in 2024–25, according to the Reserve Bank's survey of market economists in June 2023.

reviewquestions

1. Outline TWO factors that have affected Australia's inflation rate in the past year.
2. Explain the factors behind Australia's success in sustaining low inflation levels during recent decades.
3. Discuss the impact of globalisation on Australia's level of inflation.

9.4 The main causes of inflation

Economists generally recognise four main causes of inflation: demand-pull, cost-push, inflationary expectations and imported inflation. We consider these causes below, along with two other possible causes of inflation – government policies and excessive increases in the money supply.

Demand-pull inflation occurs when aggregate demand or spending is growing while the economy is nearing its supply capacity, so that higher demand leads to higher prices rather than more output.

Demand-pull inflation

In a market economy, prices are determined by the interaction of demand and supply in the marketplace. When aggregate demand (or spending) exceeds the productive capacity of the economy, prices rise as output cannot expand any further in the short term. Consumers force prices up by bidding against each other for the limited goods and services available. This is reflected in figure 9.3, as aggregate demand increases from AD_1 to AD_2. Consumers are willing to pay a higher price for any given level of supply. Prices will therefore increase from P_1 to P_2 (causing an expansion in supply). The price increase that results from higher aggregate demand is known as **demand-pull inflation**.

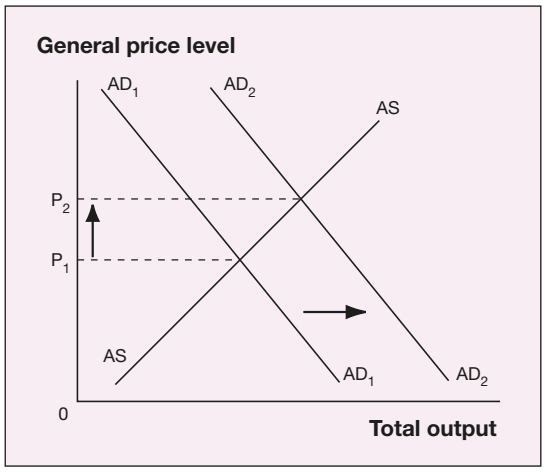


Figure 9.3 – Demand-pull inflation

Cost-push inflation occurs when there is an increase in production costs (such as oil price increases or wage increases) that producers pass on in the form of higher prices, thus raising the rate of inflation.

Cost-push inflation

Cost-push inflation is caused by an increase in the costs of the factors of production. When production costs rise, firms attempt to pass them on to consumers by raising the prices of their products. This is reflected in figure 9.4, as aggregate supply shifts from AS_1 to AS_2. Producers face higher costs so they now supply less quantity for any given price level. Prices therefore increase from P_1 to P_2 (causing a contraction in demand).

Major sources of cost-push inflationary pressures in the Australian economy include wages and the prices of raw materials such as fuel. When wages increase faster than productivity

growth, the cost of labour for each unit of output increases. Since wages typically make up around 60 per cent of a firm's costs, firms will attempt to pass on the wage increase to consumers in order to maintain their profitability. Similarly, an increase in the price of oil or other raw materials will generally lead to an increase in the price of the final product, as firms pass on the increase in prices in order to maintain their profit margins.

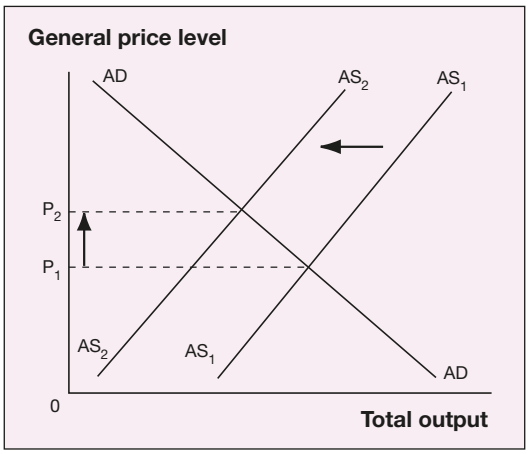


Figure 9.4 – Cost-push inflation

Inflationary expectations

If individuals in the economy expect higher inflation in the future, they may act in a way that causes an increase in inflation. There are two ways in which high **inflationary expectations** can bring about higher inflation:

1. If the prices of goods and services are expected to increase in the economy, consumers will attempt to purchase products before prices increase. As consumers bring forward their planned purchases, this will cause an increase in consumption, resulting in higher demand-pull inflation. Similarly, if a firm expects that demand for their product will increase, the firm may raise prices in order to maximise profits, causing an increase in inflation.
2. If employees expect inflation to increase, they will take this into account when negotiating their wage increases. Workplace contracts are typically negotiated in advance for the next two or three years, so an employee who expects higher inflationary pressures over the next few years will ask for a higher wage rise to preserve the purchasing power of their wage. Higher wage increases may be passed on by firms, leading to cost-push inflation.

Managing inflationary expectations is a major challenge for policymakers. Once individuals in the economy expect higher inflation, they will act in a way which accelerates higher inflation – in effect, they fulfil their own prophecy. To help manage the public's inflationary expectations, the RBA in 2023 announced it would increase the frequency and clarity of its communications with the public.

Imported inflation

Imported inflation is transferred to Australia through international transactions. The most obvious cause of this type of inflation is rising import prices. An increase in the price of imported goods will increase the inflation rate in exactly the same way as an increase in the price of domestically produced goods. A depreciation of the Australian dollar will also increase the domestic price of imports and will lead to inflation. The extent to which an increase in import prices or a fall in the Australian dollar will lead to consumers paying higher prices for imports depends on market conditions. If imports face competition from locally made products, importers may reduce their profit margins and not pass on to consumers the full effect of the overseas price rise or depreciation. An RBA research paper in 2015 noted that imported inflation now accounts for a much larger share of the variability in the headline inflation rate than in the past, reflecting the extent of Australia's integration with the global economy. Imported inflation was a key driver of the surge in inflation in 2022 and 2023, as soaring prices for fuel imports and other goods and services impacted households and raised production costs.

Other causes

The four types of inflation listed above are the most common causes of inflation within the Australian economy. However, there are two other possible causes of inflation:

- **Government policies** may directly influence the level of inflation in several ways. By increasing indirect taxes, the government can influence the general level of prices. For example, in 2020, the Government's decision to make child care

free for parents during the COVID-19 lockdown was a factor in reducing the headline rate of inflation to below zero. Other measures that may influence prices include competition and other regulatory reforms, changing tariff rates, imposing price controls or price monitoring, and Fair Work Commission decisions on the minimum wage.

- **Excessive increases in the money supply** can also lead to an increase in inflation. When the increase in the money supply outstrips the growth rate of the economy, an increased volume of money chases the same amount of goods and services, and prices are likely to rise. Therefore, increasing the money supply without an increase in real production effectively leads to an increase in aggregate demand relative to supply that causes inflation (sometimes called "monetary inflation"). For example, research published by the Bank for International Settlements in 2023 found that countries with high money supply growth during the COVID-19 pandemic had experienced significantly higher inflation. From November 2020 to February 2022, the Reserve Bank of Australia's "quantitative easing" program involved purchasing almost $300 billion of government bonds, which had the effect of dramatically reducing interest rates. While the action supported the economy during the COVID-19 recession, by early 2022 it had contributed to economic recovery and rising inflation. From then, the Reserve Bank started "quantitative tightening". These actions are explained in more detail in chapter 15.

It is possible to have all of the above types or causes of inflation operating at the same time, but usually one or two types of inflation are more prominent than others. For example, during the mid-1970s and early 1980s, inflationary expectations and cost-push inflation tended to be more prominent; whereas the late 1980s saw demand-pull inflation as the predominant contributor to inflationary pressure. The introduction of the GST in 2000 was an example of a federal government policy that raised inflation sharply, to a headline rate of 6.1 per cent in 2001. The commodities boom in the 2000s significantly increased business investment and consumer confidence, increasing aggregate demand, and thus demand-pull inflation. Persistently low wage growth contributed to subdued inflation expectations during the 2010s, and slower economic growth weakened demand-pull pressures.

The COVID-19 recession meant that Australia entered the 2020s with inflation at very low levels, but the global recovery from the pandemic witnessed an acceleration of inflationary pressures as supply chains struggled to keep up with demand. Global inflation increased further as a result of the war in Ukraine, with energy prices rising at their fastest rate in half a century. The RBA noted in 2023 that short-term inflation was high but declining, and long-term expectations remain consistent with the RBA's inflation target. This indicates that the market expects inflationary pressures to ease over time.

> "As in all the rich economies, many industries are now dominated by just a few huge companies. In our case, we're down to just four big banks, three big power companies, three big phone companies, two airlines and two supermarket chains ... markets have increasingly become dominated by just a few huge firms, which has given them the power to keep prices higher than they should be, and wages lower than they should be."
>
> – *Ross Gittins,* Less competition reduces the power of interest rates to cut inflation*, July 2023*

reviewquestions

1. Outline recent trends in TWO types of inflation over the past decade.
2. Distinguish between demand-pull and cost-push inflation.
3. Discuss the effect of the COVID-19 pandemic on inflation.

9.5 The effects of inflation

Inflation has significant effects on the economy in both the short and long term. In general, the higher the level of inflation, the more negative the consequences. As a result, governments around the world give priority to sustaining low inflation in order to avoid the negative consequences that high inflation brings.

> "High inflation hurts all Australians and damages the functioning of the economy. It erodes the value of savings, makes it harder for businesses to plan and invest, and worsens income inequality. And if high inflation were to become entrenched in people's expectations, it would be very costly to reduce later, involving even higher interest rates and a larger rise in unemployment. It is for these reasons that the Board is resolute in its determination to return inflation to target within a reasonable timeframe and will do what is necessary to achieve that."
>
> *– Philip Lowe, Governor of the Reserve Bank of Australia*
> *Economics Society of Australia address, 12 July 2023*

Economic growth and uncertainty

In ordinary economic circumstances, inflation is regarded as one of the major constraints on economic growth. Excessive economic growth tends to raise inflationary pressures through increased wage demands and through strong consumer demand bidding up price levels. On the other hand, a sustained lower inflation rate allows moderate economic growth to be maintained without it becoming necessary to curtail growth through higher interest rates. Sustained low inflation for three decades from the early 1990s allowed for a long period of relatively high economic growth.

In overall terms, higher inflation distorts economic decision making since producers and consumers change their spending and investment decisions in order to minimise the effect of inflation on themselves, such as through buying assets rather than investing in income-producing activities.

Low inflation has a beneficial effect on the level of economic growth because it removes the distortion to **investment** and **savings** decisions that is caused by higher inflation. High inflation discourages business investment because it makes producers uncertain about future prices and costs, and therefore future profit levels. Low inflation has a positive impact on business investment, restoring the incentive to invest in long-term productive assets rather than short-term speculative investments, which a high-inflation environment encourages.

Higher inflation will also distort consumers' decisions to spend or save disposable income. Sustained high inflation reduces the purchasing power of money and can contribute to cost-of-living pressures. Sustained low inflation is likely to encourage consumers to save a higher proportion of their disposable income. However, Australia's recent experiences suggest that other factors, such as house prices, superannuation and the broader economic outlook, can be more important in influencing the overall level of savings in the economy. When the economy is performing strongly and people's assets are rising in value, consumption rises and the savings rate falls, even when inflation rates are low.

Wages

The level of inflation is a major influence on **nominal wage** demands. During periods of higher inflation, employees will seek larger wage increases in order to be compensated for the erosion in the purchasing power of their nominal wages. This can lead to the emergence of a **wage-price inflationary spiral** that becomes difficult to break, where wage increases lead to higher prices, which lead to higher wage demands and so on. The surge in inflation in recent years prompted higher wage demands in Australia and around the world. In June 2023, the Fair Work Commission announced a 5.75 per cent increase to award rates of pay, the largest in 16 years.

Nominal wage is the pay received by employees in dollar terms for their contribution to the production process, not adjusted for inflation.

Income distribution

High inflation rates tend to have a negative impact on the distribution of income because lower-income earners often find that their incomes do not rise as quickly as prices. In addition, lower-income earners may face higher interest rates on their borrowings if inflation rises. In general, high rates of inflation hurt those individuals who are on fixed incomes or whose incomes are not indexed to (or rise as fast as) the rate of inflation. Higher inflation rates can also erode the value of existing savings so that individuals who do not have a means of protecting their savings from the impact of inflation will see their net wealth decline.

Unemployment

The levels of unemployment and inflation are often closely related, especially in the short term. Higher levels of inflation will usually result in more contractionary fiscal and monetary policies, resulting in slower economic growth and higher unemployment in the short to medium term. More generally, periods characterised by high levels of unemployment often also have low inflation rates, while low levels of unemployment are often associated with rising inflation – a relationship demonstrated by the **Phillips curve**. Previously, governments generally chose between the priority of low inflation (and slower growth) or lower unemployment (at the risk of rising inflation). However, over the long term this inverse relationship breaks down. For example, in the mid-1970s Australia experienced simultaneous increases in inflation and unemployment (a problem known as **stagflation**). For most of the 1990s and 2000s, Australia experienced the opposite – a combination of low inflation and falling unemployment. Incoming Reserve Bank Governor Michele Bullock argued in 2023 that to return inflation to the RBA's target range of 2 to 3 per cent, unemployment would need to rise to a more sustainable level of around 4.5 per cent by late 2024 (from around 3.5 per cent in 2023).

Stagflation occurs when the rate of inflation and the rate of unemployment rise simultaneously.

International competitiveness

High inflation results in increased prices for Australia's exports, reducing **international competitiveness**, leading to a lower quantity of exports. As the price of domestic goods increases, consumers will likely switch to import substitutes, worsening the trade deficit. By contrast, low inflation should improve Australia's international competitiveness, making the price of Australian goods and services more attractive to other countries and making local products more competitive with imports. This should lead to an expansion of exports and the replacement of imports by domestic substitutes, thus improving the trade balance.

International competitiveness refers to the ability of an economy's exports to compete on global markets. An economy may be competitive by selling products of a higher quality or a lower price than its competitors.

HOW INFLATION CAUSES AN EXCHANGE RATE DEPRECIATION

The economic theory of **purchasing power parity** says that exchange rates in the long run will change to reflect the real purchasing power of currencies. This means that goods that are traded globally (such as processed food, clothes and electronic goods) should cost roughly similar amounts in different countries once money is converted into the local currency. The theory suggests that there is a strong link between inflation and exchange rate movements. Economies with high inflation should experience a depreciation relative to those economies with lower inflation rates.

The theory relies on an assumption of free trade and floating exchange rates. Suppose that the price of an electric bike is the same in Australia and New Zealand, and the exchange rate is equal. If NZ experiences higher inflation, the price of its bikes will rise. Australian bikes will become more internationally competitive and there will be an increase in exports to NZ. NZ consumers will prefer to switch to the cheaper Australian substitutes. The increased demand for Australian bikes will increase demand for the Australian dollar, causing an appreciation. As a result, the Australian bikes will become less competitive, restoring the purchasing power parity between the two economies.

Of course, this theory does not work perfectly because of a range of local factors like transport costs, taxes and the shorter-term influences of global financial flows on currencies. Purchasing power parity is nevertheless a long-term anchor for the exchange rate between different countries.

Exchange rate impacts

In the short term, higher inflation may result in an appreciation of the exchange rate, as speculators anticipate the RBA raising interest rates in response, attracting greater financial flows. However, high inflation generally causes the currency to depreciate over time. Australian experience offers some evidence of the relationship between inflation and a depreciation (although the stronger relationship is where a depreciation causes higher inflation). Over the long term, sustained low inflation may foster greater international confidence in the Australian economy, strengthening the value of the dollar.

Interest rates

Lower inflation normally brings about reductions in nominal interest rates, since nominal interest rates are based on a real rate of return (or real interest rate) plus inflation. The reduction in inflation in advanced economies following the COVID-19 recession in 2020 contributed to record low interest rates. The surge in global inflation from 2022 prompted central banks to raise interest rates to reduce demand pressures in the economy and avoid the negative consequences of high inflation. By mid-2023, the RBA had responded to increasing inflation with 12 increases to interest rates, taking the cash rate to 4.1 per cent.

Benefits of inflation

The benefits of inflation are generally considered to be limited. A small amount of inflation can be beneficial because it allows for adjustments in relative prices in an economy without requiring reductions in normal prices, which can often be "sticky" (especially for wages). The greater benefit of a low positive level of inflation is that it reduces the likelihood of the economy experiencing falling prices, or **deflation**, which can also have negative consequences. Deflation gives consumers an incentive to delay purchases, which can cause a fall in consumer spending and an economic downturn. Deflation can also make borrowing money less attractive because the amount to be repaid is rising in real terms, not falling. In addition, deflation can make hiring more workers less attractive if nominal wage rates stay the same and real wages rise.

For these reasons, central banks like the RBA tend to target low inflation levels that avoid the negative consequences of inflation. They also do not strive for zero inflation, which can increase the risk of deflation and other economic problems.

reviewquestions

1. Describe THREE consequences of high inflation.
2. Explain the relationship between the level of inflation and economic growth.
3. Discuss the impact of high inflation on international competitiveness and the exchange rate.

9.6 Policies to sustain low inflation

Since the large fall in inflation during the recession of the early 1990s, the Government and the RBA have sought to maintain a low level of inflation in the Australian economy. Monetary policy has been the main tool used to achieve the policy goal of low inflation, but occasionally other parts of the policy mix have also been used to address price pressures.

Monetary policy has played the primary role in Australia's low inflation record since the early 1990s. In the short to medium term, monetary policy is the major tool used to reduce inflation. Monetary policy attempts to sustain economic growth at a level that does not create inflationary pressures, trying to hold inflation between the RBA's 2–3 per cent target. If inflation starts rising, the RBA is able to increase interest rates throughout

the economy by tightening monetary policy. This has the effect of dampening consumer and investment spending, resulting in a lower level of economic activity and therefore lower inflation.

The RBA has generally used **pre-emptive monetary policy** to tackle inflation before it emerges as a problem. However, in early 2022, the RBA delayed increasing interest rates, despite emerging inflationary pressures, because it was unsure whether those pressures were transitory due to COVID-19's effects on global supply chains. Once it was clear the inflation was sustained, the RBA responded with an aggressive tightening of monetary policy – the fastest rise in interest rates since the 2–3 per cent target range was adopted.

The RBA has attempted to make its use of monetary policy predictable by consistently emphasising its intention to use monetary policy primarily to ensure that inflation remains within its target band. This has had the effect of lowering inflationary expectations and thus further reducing inflation as a problem in the economy. Underlying inflation in Australia was consistently below the RBA's target of 2–3 per cent for much of the period between 2014 and 2020. This was a catalyst for the Australian Government commissioning a review into the RBA in 2022, which recommended more frequent communication with the public to help anchor inflationary expectations.

Fiscal policy can also play a support role in maintaining low inflation. In a period of rising inflationary pressures, a government might increase revenue and reduce spending in order to minimise demand pressures in the economy and therefore reduce demand-pull inflation. Fiscal policy settings that support the low-inflation objective may also reduce the need for higher interest rates to combat an inflation challenge. However, with low inflation in recent years, fiscal policy has not been influenced by concerns about inflationary pressures.

Microeconomic policies are policies that are aimed at individual industries, seeking to improve the efficiency and productivity of producers – also referred to as supply-side policies.

Labour market policies are microeconomic policies that are aimed at influencing the operation and outcomes in the labour market, including industrial relations policies that regulate the process of wage determination as well as training, education and job-placement programs to assist the unemployed.

The Australian Government's use of **microeconomic policies** has contributed to the economy's long-term record of low inflation. Reduced protection has lowered the prices of imports and increased the competition faced by domestic producers from both overseas competitors and from new entrants to domestic markets. This makes it more difficult for domestic producers to raise their prices. In addition, reforms to the labour market attempt to ensure that wage increases are linked to productivity improvements. If productivity rises, the economy will be able to afford real wage increases without inflationary pressures. During the mining boom in the 2000s and 2010s, Australia's deregulated labour market allowed for wage increases for workers whose skills were in high demand, without leading to large wage rises in other sectors of the economy. This helped to restrain inflationary pressures. Finally, greater investment in economic infrastructure such as roads, railways and ports can help avoid transport and other bottlenecks that can increase production costs and add to inflationary pressures.

The RBA's commitment to maintaining low inflation and the heightened level of competition in the economy make it less likely that the high levels of inflation experienced in the 1970s and 1980s will return. However, a combination of global and domestic factors has brought inflation back into the centrestage of economic policy debate in recent years, underscoring how strongly Australian economic conditions are tied to global economic developments.

reviewquestions

1 Identify the types of inflation directly influenced by monetary policy.
2 Explain why the RBA implements monetary policy pre-emptively.

chapter summary

1 **Inflation** is a sustained increase in the general level of prices in an economy.

2 The **inflation rate** measures the percentage change in prices of consumer goods (as measured by the Consumer Price Index) and therefore reflects any change in the cost of living. The CPI is compiled from calculations of the change in the prices of a basket of goods and services, weighted according to the purchasing patterns of Australian households.

3 Measures of **underlying inflation** exclude one-off and volatile changes in prices and provide a measure of ongoing price pressures in the economy. The Reserve Bank's calculation of underlying inflation is based on an average of two measures of ongoing inflationary pressures (the trimmed mean and weighted median).

4 Since the early 1990s, the Reserve Bank has targeted an inflation rate of 2–3 per cent on average over the course of the economic cycle. This is known as **inflation targeting**.

5 Australia's inflation rate generally stayed within the 2–3 per cent target range for three decades from the early 1990s. Inflation increased in 2022 and 2023 due to global and domestic factors, including supply chain disruptions due to COVID-19, low unemployment and wage growth, and the effects of the war in Ukraine on food and fuel prices.

6 The two main causes of inflation are **demand-pull inflation** and **cost-push inflation**. Demand-pull inflation occurs when excessive aggregate demand results in upward pressure on the prices of a limited supply of goods and services. Cost-push inflation occurs when rising costs of production are passed on to consumers. Wage rises are the main source of cost-push inflation.

7 The other main causes of inflation are inflationary expectations, imported inflation, specific government policy decisions and excessive increases in the money supply.

8 **Inflationary expectations** can lead to inflation if individuals and businesses within the economy expect an increase in the rate of inflation and attempt to protect themselves from it by raising prices and wages.

9 Inflation is a major constraint on the rate of economic growth, since high levels of inflation tend to discourage investment and may also prompt the RBA to increase nominal interest rates, both of which will lower growth. Lower rates of inflation are often associated with higher levels of unemployment, lower nominal wage growth, a more equitable distribution of income, and increased international competitiveness.

10 The main policies to sustain low inflation are **monetary policy**, which can respond quickly to rising inflation, and **microeconomic policies**, which can increase competitive pressures, making it harder for firms to raise prices.

chapterreview

1 Define the term *inflation*.

2 Explain how the inflation rate is calculated.

3 Distinguish between headline and underlying inflation.

4 Outline recent trends in Australia's inflation performance.

5 Describe the main causes of inflation.

6 Explain how an increase in inflationary expectations can cause an increase in inflation.

7 Discuss the benefits of low inflation.

8 Explain TWO consequences of high inflation.

9 Examine the relationship between the levels of inflation and unemployment in an economy.

10 Explain how changes in economic policy have influenced Australia's inflation performance in recent years.

External Stability 10

10.1 Introduction

10.2 Australia's current account deficit

10.3 Australia's foreign liabilities

10.4 Australia's exchange rate

10.5 Policies to achieve external stability

10.1 Introduction

External stability is an aim of government policy that seeks to promote sustainability on the external accounts so that Australia can service its foreign liabilities in the medium to long run and avoid currency volatility.

Achieving **external stability** is an important objective of economic policy. External stability ensures that imbalances in Australia's relationship with the global economy do not hinder achieving domestic economic policy goals such as higher growth, lower unemployment or lower inflation. Achieving these goals can be affected by external imbalances, such as an unsustainable increase in the current account deficit (CAD) or foreign liabilities, or by large movements of the exchange rate. If overseas investors decide that Australia's external position is not sustainable, this can have serious effects on the Australian economy, including a depreciation of the currency, a withdrawal of investment funds, difficulties for firms in accessing overseas financial markets, higher interest rates and slower economic growth.

The key concern behind the issues of external stability is that, for Australia to sustain economic prosperity, it must manage its relationship to the global economy. Australia needs to "pay its way" in the world and avoid imbalances that could threaten long-term prosperity. The main external stability issues for the Australian economy in recent decades have been:

- **A persistent current account deficit**. Until recent years, Australia has averaged relatively large deficits on its current account since the 1980s, driven by a deficit on the net primary income account. For most of the period since then, the deficit on the current account has moved between 3 and 6 per cent of GDP, until a more lasting improvement took place in the 2010s. Although a series of current account surpluses began in 2019–20, the 2023–24 Budget forecast a return to deficit, with the CAD rising to 3.5 per cent in 2024–25.
- **Volatile terms of trade**. In recent years Australia's terms of trade have fluctuated significantly as a result of the largest commodity price boom in Australian history, which began in 2003. After falling from 2011, beginning to improve again from 2016 and rising sharply during the COVID-19 pandemic, the war in Ukraine prompted further changes in the global economy that took the terms of trade to record levels in 2022. A combination of strong demand from China and supply constraints resulted in a surge in commodity prices, especially for Australia's single largest export, iron ore. Australia's terms of trade rose by around 60 per cent in the six years to 2021–22, before the terms of trade began a sharp fall in 2023.
- **Australia's lack of international competitiveness**. Throughout its economic history, Australia has struggled with its remoteness from the centres of the global

economy and its small population base, which have made it harder to be competitive in many markets for tradeable goods and services, such as manufactured goods and the technology sector. Factors that contribute to our lack of international competitiveness in these markets include the cost of transporting goods to overseas markets, the lack of economies of scale in domestic production, the high cost base for labour, and a lack of financial backing for innovative business start-ups.

- **The growth of foreign debt**. Globalisation has seen a sustained long-term increase in Australia's net foreign debt to around 52 per cent of GDP. Although it has continued to grow, the past two decades of low global interest rates have meant that foreign debt servicing costs are still lower than in the 1990s.
- **Rising foreign ownership in Australia**. High levels of foreign ownership result in a large share of profits going offshore. Those outflows on the net primary income account are offset by inflows of profits from Australian investments overseas. Many sectors of the Australian economy have high levels of foreign ownership, with a total of $4.6 trillion of foreign investment in Australia in 2022–23.
- **The volatility of the Australian dollar**. Because commodities make up a large share of Australia's exports, the value of the Australian dollar often reflects fluctuations in commodity prices. Exchange rate volatility occurred during the onset of the COVID-19 pandemic in 2020, at one stage driving the dollar below US60 cents. A strong economic recovery and demand for commodity exports drove the exchange rate back to US80 cents in early 2021, before global instability and rising interest rates contributed to a depreciation to under US65 cents in 2023.

Although economists have expressed concern about Australia's external imbalances from time to time, these concerns have receded in recent years because of an improvement on the current account and the fact that external imbalances have not had negative effects on Australia's economic performance. In fact, Australia has maintained the confidence of foreign investors even while experiencing larger external imbalances than most advanced economies. Increased commodity export revenues have played an especially important role in strengthening confidence in the sustainability of Australia's external imbalances.

Many of the general issues relating to Australia's balance of payments were previously addressed in chapter 4. This chapter focuses specifically on the sustainability of Australia's external imbalances and the relationship between external outcomes and other economic issues in Australia.

10.2 Australia's current account deficit

A key measure of an economy's external stability is the **current account deficit as a percentage of GDP**. Except for the series of current account surpluses in the years since 2019–20, Australia has a long history of large CADs since the 1980s. Australia has paid out considerably more for goods, services and income than it has received from overseas. The current account balance as a percentage of GDP is the best measure of trends in the current account over time, rather than the current account's dollar value. Using this measure allows an accurate comparison across time and between countries.

In chapter 4 we saw that, until recently, the CAD had generally remained in a range of around 3 to 6 per cent of GDP (see figure 4.8). As a percentage of GDP, the CAD averaged 1.1 per cent in the 1970s, then 4.1 per cent in both the 1980s and 1990s, 4.9 per cent in the 2000s and then fell to 2.5 per cent in the 2010s. The large increase in the CAD in the 1980s caused alarm and prompted major structural reforms to restore the competitiveness of the Australian economy. While the current account is expected to return to deficit in 2024–25, its recent trend improvement is expected to be sustained in the foreseeable future.

Over time there have been different explanations for Australia's persistent current account deficit. Section 4.5 discussed the cyclical and structural causes affecting the components of Australia's balance of payments. The extent to which the current account is perceived as a problem, as well as the policy response required, depends on what factors are seen to be the causes of the deficit. In this section we examine three explanations of Australia's persistent CAD.

The CAD as a trade deficit

When the current account first emerged as a major problem in the 1980s, economists mainly explained it as a product of Australia's trade problems. In other words, the CAD was blamed on persistent deficits on the balance on goods and services, caused by a combination of slow export growth and expanding demand for imports. While the balance on goods and services is not the main reason for the persistence of Australia's CAD, it is still a critical part of Australia's balance of payments performance. There are two key dimensions to the argument that the CAD is the result of a trade gap.

Firstly, Australia lacks **international competitiveness** in many of the higher value-added areas of global trade, such as elaborately transformed manufactures (ETMs). Many of Australia's traditional manufacturing industries have lost their markets at home and overseas, because they have not been able to compete with overseas competitors who specialise in large-scale, low-cost manufacturing, such as China. For example, many areas of manufacturing have largely moved offshore, such as footwear, clothes, textiles, electronics, whitegoods, motor vehicles, tyres, machinery, oil refining and even some areas of food processing. Australia's manufacturing sector has declined as a share of total output, increasing our reliance on imports. Since the 2000s, a sustained period of high commodity prices has led to higher values for the Australian dollar, making Australia's non-commodity resources less competitive. Economists use the term "Dutch disease" to describe how demand for one type of exports may drive up the value of the exchange rate, making other exports less competitive (leading to a contraction in production of those exports).

Australia's lack of international competitiveness can be seen as the result of both cost factors (being able to sell goods and services at attractive prices on global markets, influenced by exchange rates, labour costs and productivity levels) and non-cost factors (such as the quality of production, reliability of supply, marketing efforts and customer services). In the 2023 IMD *World Competitiveness Yearbook*, Australia was ranked as the 19th-most competitive economy in the world. The *Yearbook* noted Australia's need to return productivity growth to long-term averages, manage its clean energy transition more efficiently and grow and deepen its export base.

Secondly, Australia's **terms of trade** (discussed in chapter 4) have a major effect on changes in the CAD. Since 2003, the terms of trade has increased dramatically, so that by their peak in 2022, the terms of trade was around double its level in 2003. Large investments were made in the mining sector to take advantage of higher prices for resource exports, and by the 2010s there was a sustained fall in the CAD, eventually leading to the first current account surpluses in almost half a century.

The relationship between movements in the terms of trade and Australia's trade balance (and therefore current account) has strengthened in recent years. A 64 per cent increase in the terms of trade during the six years to 2022 helped the trade surplus to reach a record 6.0 per cent of GDP. Overall, the trade balance improved from an average deficit of 1.5 per cent of GDP in the 2000s to an average surplus of 0.2 per cent in the 2010s. Between 2019–20 and 2021–22, it averaged 4.7 per cent of GDP. While Australia has profited from a period of high commodity prices, the risk of its heavy reliance on minerals and energy exports is that a sharp fall in prices for those commodities, or a major disruption to Australia's exports to China, could trigger a large increase in the CAD. The narrowness

of Australia's export base is reflected in the fact that two-thirds of export revenue in 2022–23 came from minerals and energy and more than two in five export dollars came from Chinese markets.

The CAD as a savings-investment gap

Another explanation of Australia's history of current account deficits is that it is the result of an excess of domestic investment over domestic savings – the **savings-investment gap**. If domestic spending exceeds domestic output, resulting in a deficit on the current account, we are forced to make up for this by bringing in financial inflows from overseas – in other words, Australia borrows from overseas or sells domestic assets to overseas residents. As such, foreign savings instead of domestic savings are used to finance domestic investment. Similarly, if the Government runs a budget deficit, this will reduce the level of national savings and widen the savings-investment gap. The relationship between business investment, net saving and the current account can be seen in figure 10.1. Recently record-low global interest rates and a fall in investment have helped to narrow the savings-investments gap and improve the current account balance.

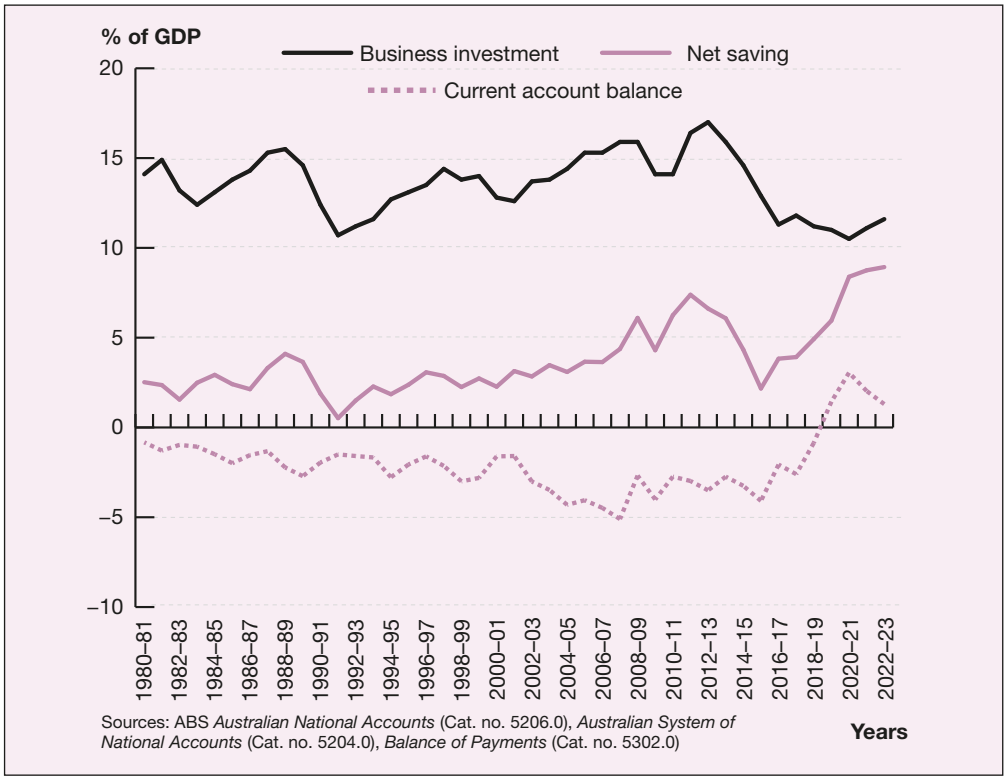


Figure 10.1 – Australia's savings–investment gap

From the perspective of the savings-investment gap, Australia's persistent CAD and need for capital inflow is partly explained as a natural consequence of specific features of the economy. As a country with a small population, a large land mass and extensive natural resources, to develop its economy Australia has historically relied on overseas capital to fill the gap between domestic savings and investment. Foreign investment and borrowings have made it possible for Australia to develop more rapidly than if it had relied only on domestic sources of capital. In this context, so long as foreign investors and foreign loans are increasing Australia's productive capacity (and not just funding the purchase of existing assets such as housing), they will add to Australia's capacity to service its foreign liabilities – and deficits on the current account will therefore be sustainable in the longer term.

The "consenting adults" thesis (the Pitchford thesis)

The argument that the CAD and foreign liabilities are not a major concern was popularised by Australian National University Professor John Pitchford in the 1990s and was known as the **Pitchford thesis**. It is now commonly known as the "**consenting adults**" thesis. Pitchford noted that Australia's CAD and foreign liabilities were almost entirely generated by the private sector (despite the Government running large budget deficits in recent years, the private sector still accounts for around 80 per cent of Australia's net foreign debt). He argued that Australia's current account problem was different from that of other countries with large external imbalances who had experienced financial crises arising from large foreign debt burdens, because their foreign debt was the result of government borrowings. In Australia's case, Pitchford's argument was that foreign liabilities helped to fund private investment projects, or were direct investments in firms and ventures by foreign residents. So long as private-sector decision making is not distorted by other factors (such as government policy), individuals and firms make proper calculations of the risks and costs of borrowing from overseas, and borrowers and lenders are responsible for their own decisions – in other words, they are "consenting adults".

The **Pitchford thesis** states that as long as a current account deficit is the result of savings and investment decisions by the private sector that are not the result of distortions to normal market mechanisms, then there is no cause for concern about an economy's external stability.

Provided that Australia's foreign liabilities are largely accumulated by the private sector, the argument goes that there is no need for the Australian Government to be too concerned about the level of foreign liabilities any more than with the level of domestic liabilities. However, the "consenting adults" view has attracted some criticism since the global financial crisis. The major point of debate has been whether one of the assumptions underpinning the Pitchford thesis – that private-sector decision making involves a proper calculation of risks – always holds true. Critics point to the role of the collapse of the subprime mortgage market in the United States in 2008. In this instance, large financial institutions were not able to accurately calculate the risks of borrowing and lending associated with complex financial products called mortgage-backed securities. The Pitchford thesis also assumes that private-sector debt is entirely separate from public-sector debt. However, the global financial crisis demonstrated that national governments are often forced to assume the liabilities of their country's private-sector banks in order to avert a more serious financial collapse. Nevertheless, while the Pitchford thesis remains a matter of debate, a downward trend in Australia's net foreign liabilities has, in recent years, supported the view that, at least in an environment of strong commodity prices, Australia's external imbalances are sustainable.

reviewquestions

1 Give TWO economic reasons why Australia's current account has been in deficit throughout most of Australia's economic history.

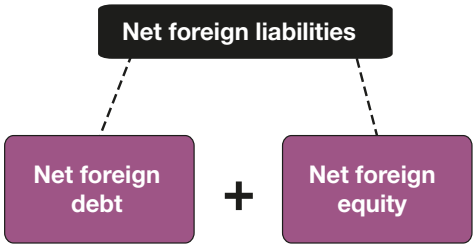
2 Discuss the arguments in favour of and against the view that Australia's current account and foreign liabilities should not concern the Government.

10.3 Australia's foreign liabilities

Net foreign liabilities are equal to Australia's financial obligations (foreign debt plus foreign equity) to the rest of the world minus the rest of the world's financial obligations to Australia.

One of the long-term impacts of current account deficits is the growth of **net foreign liabilities** (or net external liabilities). Net foreign liabilities reflect Australia's total financial obligations to foreigners, minus the total financial obligations of foreigners to Australia. The two components of net foreign liabilities are:

- **net foreign debt** (or net external debt), which is the total stock of loans owed by Australians to foreigners, minus the total stock of loans owed by foreigners to Australians
- **net foreign equity**, which is the total value of assets in Australia, such as land, shares and companies in foreign ownership, minus the total value of assets overseas that are owned by Australians.



Overseas borrowing adds directly to Australia's foreign debt. The initial borrowed sum eventually has to be repaid and the debt must be serviced with regular interest payments. The servicing of Australia's debt constitutes an outflow of funds on the current account, and thus increases our CAD. By contrast, selling assets to foreigners does not add directly to Australia's foreign debt. Australia does not have to repay the price of purchasing equity unless the company or assets are sold back to Australians. However, Australia does have to send overseas returns on equity investment, such as company profits, rent on land and dividends on shares. In recent years, equity servicing costs on the primary income account have exceeded interest repayments on debt. The returns on equity that Australia pays to overseas investors are partly offset by returns received by Australians from investments overseas.

Figures 10.2 and 10.3 show the growth in Australia's **net foreign liabilities as a percentage of GDP**. This reflects the growth in net foreign debt and changes in net foreign equity. The figures reveal a trend of ongoing growth in Australia's **net foreign**

Year	GDP ($b)	Net foreign debt ($bn)	% of GDP	Net foreign equity ($bn)	% of GDP	Net foreign liabilities ($bn)	% of GDP
1980–81	637.9	9.4	1.5	24.0	16.0	33.4	22.3
1985–86	737.8	78.4	10.6	21.1	8.3	99.5	39.0
1990–91	857.6	142.8	16.7	50.9	12.3	193.7	46.7
1995–96	1005.4	191.0	19.0	87.7	16.6	278.7	52.7
2000–01	1216.2	295.5	24.3	76.5	10.8	372.4	52.7
2005–06	1440.4	489.4	34.0	47.8	3.3	537.1	53.8
2010–11	1650.5	0.0	0.0	100.5	6.1	778.3	47.2
2011–12	1714.9	0.0	0.0	64.9	3.8	819.6	47.8
2012–13	1759.1	821.8	46.7	–4.7	–0.3	817.0	46.4
2013–14	1804.4	898.3	49.8	–24.7	–1.4	873.5	48.4
2014–15	1843.3	988.7	53.6	–96.0	–5.2	892.7	48.4
2015–16	1893.6	1082.9	57.2	–33.4	–1.8	1049.5	55.4
2016–17	1936.8	1046.4	54.0	–38.4	–2.0	1008.0	52.0
2017–18	1992.7	1136.6	57.0	–80.5	–4.0	1056.1	53.0
2018–19	2036.0	1227.6	60.3	–143.3	–7.0	1084.3	53.3
2019–20	2034.9	1194.9	58.7	–136.4	–6.7	1058.5	52.0
2020–21	2080.4	1233.5	59.3	–320.6	–15.4	912.8	43.9
2021–22	2157.1	1167.6	54.1	–263.1	–12.2	904.4	41.9
2022–23	2227.6	1169.5	52.5	–347.3	–15.6	822.2	36.9

Sources: ABS *Australian National Accounts* (Cat. no. 5206.0), *Balance of Payments and International Investment* (Cat. no. 5302.0)

Figure 10.2 – Australia's net foreign liabilities

debt to GDP ratio since the beginning of the globalisation era in the 1980s. Fluctuations can occur in the shorter term, in response to movements in the Australian dollar and trends in foreign investment inflows and outflows (for example, exchange rate movements contributed to an increase in net foreign debt in 2018–19, and a fall in 2019–20). Australia's net foreign debt was around $1.2 trillion in 2022–23, or 52.5 per cent of GDP.

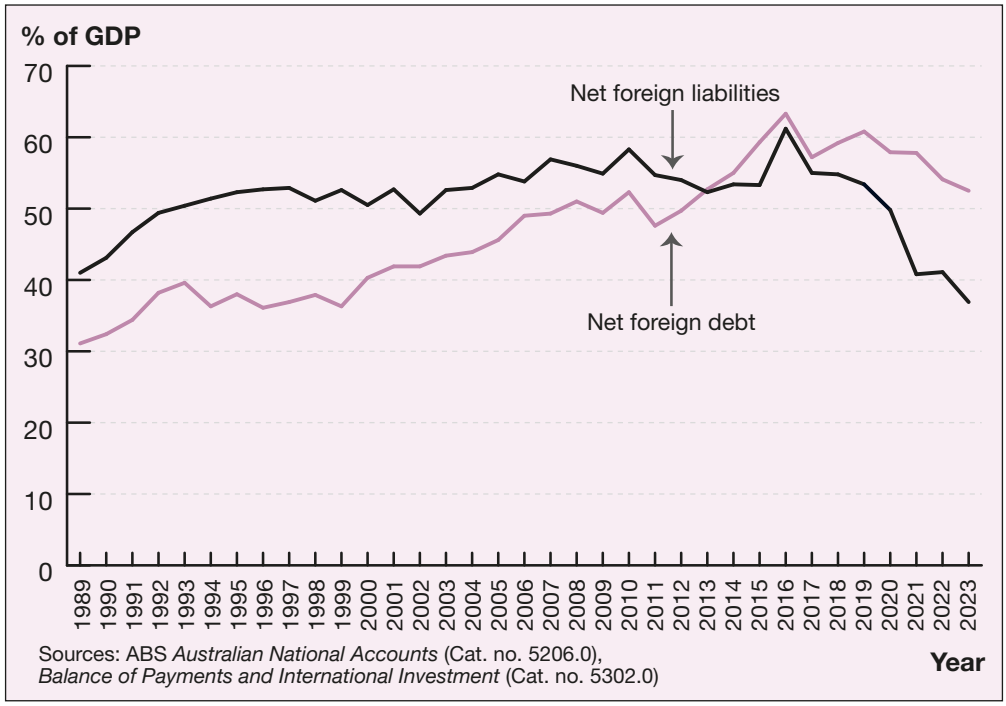


Figure 10.3 – Net foreign liabilities and net foreign debt in Australia (% of GDP)

In the long term, a resumption of growth in Australia's foreign debt could lead to a debt sustainability problem. If the size of the debt is rising faster than the increase in GDP, the interest payments on the debt will progressively take up a greater proportion of our GDP. Over time, higher debt servicing costs will reduce both Australia's overall standard of living and its economic growth potential. High foreign debt can also create a vicious cycle, sometimes known as the **debt trap scenario**. This starts with a high CAD, which requires an inflow of foreign funds that may come in the form of either foreign debt or selling Australian assets to foreigners. With a larger foreign debt, Australia's interest payments on that debt increase, which are recorded as primary income debits that flow out on the current account.

Thus, today's foreign debt adds to future deficits on the current account. If international financial markets suspect that Australia's debt may become unsustainable, they may reduce Australia's international credit rating (which reflects the confidence that financial markets have in Australia). A downgrading in Australia's credit rating would make it more difficult to borrow funds internationally and would increase the interest rate on borrowing. However, Australia has avoided a debt sustainability problem. A sustained period of low global interest rates and rising export revenue have ensured that Australia has been able to service its foreign liabilities.

One of the most reliable economic measures of a country's capacity to service its foreign debt is the **debt servicing ratio**. This figure indicates the proportion of export revenue that must be spent on interest payments on foreign debt. A country is better able to service its foreign debt when it has a high volume of exports and is therefore earning a substantial amount of foreign currency. The debt servicing ratio in Australia peaked at just over 20 per cent in 1990. The debt servicing ratio rose to 4.8 per cent in 2022–23, from a low of 2.9 per cent the previous year, reflecting the rising level of global interest

rates. The effect of rising interest rates on the debt servicing ratio has been offset by very strong growth in exports during recent years, improving Australia's capacity to service its foreign debt.

Historically, most foreign investment flows into Australia (both debt and equity) have been into the private sector. Part of this represented an inflow from the offshore funding of the banking sector. In other words, Australian banks borrowed on overseas financial markets in order to make loans to Australian households and businesses. However, in the years following the global financial crisis, banks reduced their reliance on offshore funding because of increased domestic savings. Meanwhile, a larger share of capital flows into Australia has gone into government securities, as foreign investors purchase Australian Government debt. The Australian Government is one of a small number of national governments that still holds a AAA credit rating, which is attractive to overseas lenders because it represents a very low risk level. Foreign investors held 45 per cent of the stock of Commonwealth Government Securities on issue in 2022.

Net foreign equity is the smaller component of Australia's foreign liabilities. When foreign investors buy assets in Australia, this is recorded as an increase in foreign equity. When Australians buy overseas assets, this is recorded as a decrease in net foreign equity. Since 2013, the value of Australia's foreign assets has been greater than the value of foreign ownership of Australian assets (so that net foreign equity became negative), reflecting a trend increase in Australian ownership of foreign assets. Net foreign equity as a percentage of GDP peaked in the 1990s, as foreign investment in Australia increasingly involved asset sales rather than foreign borrowing. Net foreign equity tends to be more volatile than net foreign debt, reflecting exchange rate movements and shifts in the market valuation of companies and assets, which in turn are affected by changes in investor sentiment.

Foreign equity attracts servicing costs in the form of profits and dividends that are returned to overseas investors. This can create an ongoing strain on Australia's external accounts by worsening the net primary income account (although it is offset by earnings from Australia's overseas investments). Equity servicing costs account for around half of total primary income outflows. While there are some disadvantages with high levels of foreign ownership, the sustainability of the servicing costs for foreign equity is of less concern than for foreign debt because dividends are only sent overseas when an Australian asset or business is generating a profitable return – while interest payments on debt must be paid regardless of whether there is a profit.

While there has been a rise in Australia's net foreign liabilities, this masks the large rise in the value of Australian investments overseas, as well as the overall growth of other countries' liabilities to Australia. This is reflected in figure 10.4. Between 2000–01 and 2022–23, Australian ownership of equity overseas rose from $0.3 trillion to $2.1 trillion, while Australian loans overseas grew from $0.2 trillion to $1.7 trillion. However, Australia's gross foreign liabilities are still much larger: over the same period, foreign-owned equity in Australia increased from $0.4 trillion to $1.8 trillion, while gross foreign debt increased from $0.5 trillion to $2.8 trillion. While Australia's gross foreign debt is significantly greater than the level of Australian lending to overseas, as previously noted, the gap between foreign equity inflows and outflows is much smaller. In overall terms, as Australia has become increasingly integrated into the global economy, foreigners have been lending and investing in Australia more than Australia has been lending or investing overseas.

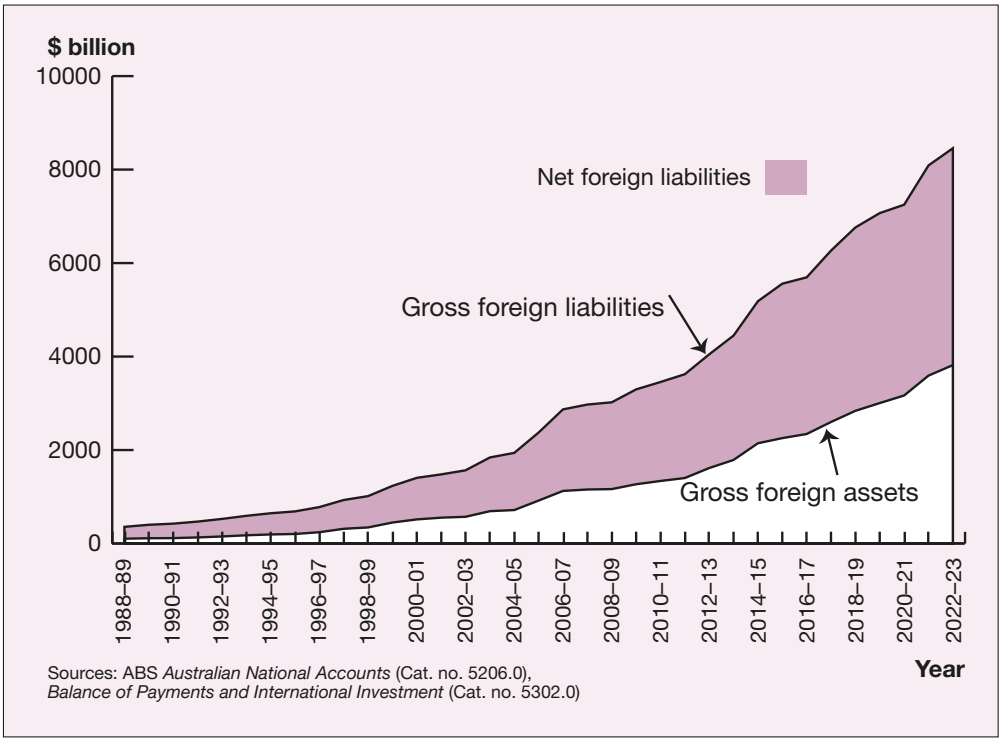


Figure 10.4 – Australia's international investment position

Australia's external imbalance has the potential to cause problems for Australia in the longer term, although it has only occasionally been a concern in recent decades. Among advanced economies, Australia has relatively high foreign liabilities, and external developments will determine whether the improvement in the current account balance in recent years proves sustainable. If global economic conditions became less favourable to Australia than they have been in the past two decades, this could make Australia vulnerable. For example, the reliance of the Australian financial system on an ongoing inflow of foreign capital was a major reason why the Government considered it necessary to provide a temporary guarantee for all overseas loans of banks and financial institutions after the global financial crisis in 2008. The Government argued that without the government guarantee, banks would not have been able to obtain overseas loans and the financial system would have faced a major crisis. This demonstrates the extent to which a country with higher external imbalances is more vulnerable to adverse economic developments overseas.

reviewquestions

1 Explain the link between the current account deficit and foreign debt in Australia.

2 Explain how a high level of foreign debt might affect an economy.

3 Discuss whether Australia's foreign liabilities pose a threat to Australia's economy.

10.4 Australia's exchange rate

The exchange rate provides a direct link between Australia and the rest of the world. All trade and financial relationships between Australia and other countries are mediated through the exchange rate. Therefore, the exchange rate has a significant impact on Australia's international competitiveness and external stability.

As chapter 5 noted, Australia's reliance on commodity exports has resulted in greater volatility in our exchange rate. The larger fluctuations in commodity-based currencies can often attract speculators, and despite making up just 1 per cent of global trade, the Australian dollar is the world's fifth-most traded currency (after the US dollar, the euro, the yen and the pound sterling). Recent years have seen very large movements in the dollar, from its peak of US$1.10 in 2011, falling to a low of US56 cents in March 2020, before appreciating to US80 cents in February 2021, falling again to a low of US62 cents in October 2022, rising to 71 cents in February 2023, and falling to US64 cents in September 2023.

The volatility in the Australian dollar that can be seen in figure 10.5 is more the result of increased global economic instability than domestic economic instability. At the turn of the century, commodity prices were very low and the dawn of the internet era resulted in countries with "low tech" economies, such as Australia, being shunned by global markets. This changed after 2003, when commodity prices started rising sharply on the back of the surging Chinese demand for natural resources. The trend increase in the Australian dollar continued until 2011, as Australia's terms of trade reached record levels, underpinned by rising exports, sustained economic growth and the interest rate differential between Australia and other economies. The Australian dollar depreciated during the 2010s, as the terms of trade fell from its historic peak, and the Australian economy grew at a slower rate than previous decades. Depreciating after the onset of the COVID-19 pandemic, the dollar recovered as demand for commodity exports rose and the Australian economy recovered. The dollar's weakness during 2022 and 2023 was driven by global interest rates rising more quickly than domestic interest rates in Australia.

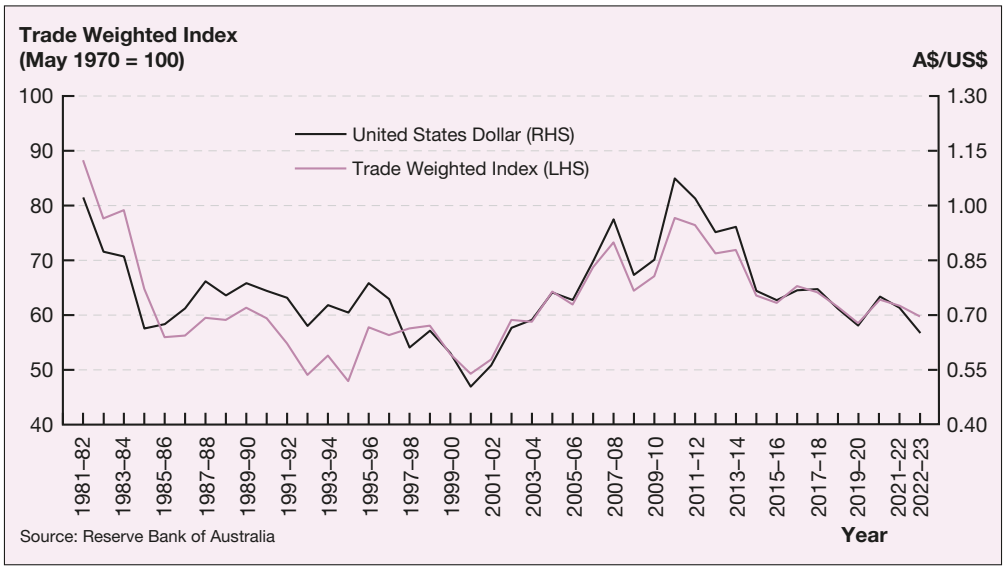


Figure 10.5 – Changes in the value of the Australian dollar

Although the exchange rate itself has experienced periods of volatility, it has operated as a powerful stabilising mechanism that has helped the Australian economy adjust to changing conditions in the global economy. During periods of weaker growth in Australia or in the global economy, exchange rate depreciations have helped make Australia more internationally competitive and helped stimulate export growth. The depreciation of the

Australian dollar that followed the fall in the terms of trade after 2011 made exporters and import-competing sectors more competitive. Many non-mining firms in those sectors were adversely affected by the high value of the dollar during the mining boom. In recent years, the lower dollar has helped support international competitiveness in export industries.

Although the floating exchange rate is one of the most important mechanisms that helps Australia adjust to changing global economic conditions, it can have a significant impact upon Australia's external stability. A change in the exchange rate influences the balance of payments by affecting Australia's international competitiveness and the size and servicing costs of our foreign debt (that is borrowed in foreign currency). Therefore, if the value of the dollar moves sharply, two of the major indicators of Australia's external stability will also be volatile. Large swings in the value of the dollar can create policy challenges and economic instability.

In particular, a sudden or large depreciation in the Australian dollar due to a fall in the confidence of foreign investors can create a vicious cycle. Investors may fear further volatility in the dollar, and investment decisions can be discouraged if the dollar is falling sharply, often because it has become a target of financial speculators (who make money from short-term financial market changes). Once a downward trend sets in, it can continue until enough investors begin to think that the currency is undervalued and start buying it again.

THE IMPACT OF GLOBAL INTEREST RATE MOVEMENTS

During the past two decades, the global economy went through an extended period of historically low interest rates on global financial markets that came about after the global financial crisis of 2008 and went even further after the onset of the COVID-19 pandemic. This period of low interest rates ended as the global economy recovered from the pandemic and experienced a surge in inflationary pressures.

An environment of falling global interest rates has indirect flow-on effects on the Australian economy by pushing down the so-called "equilibrium interest rate" (the interest rate consistent with a neutral stance) for Australia. As other countries loosen monetary policy, their currencies weaken and in relative terms the Australian dollar strengthens. This reduces the competitiveness of exports, and places downward pressure on inflation in the short to medium term.

Through the decade to 2020 with low global interest rates, the Reserve Bank reduced domestic interest rates from 4.75 per cent to just 0.1 per cent in November 2020. One benefit for Australia's external accounts was that this helped to reduce debt servicing costs and slow the growth of net foreign debt. Given that Australia's net foreign debt exceeds $1 trillion, every percentage point decrease in benchmark interest rates significantly reduces the servicing cost of foreign liabilities.

Global interest rates began rising from 2022, reversing the pattern of the previous decade. As economies across the world faced the highest inflation rates in almost half a century, central banks increased interest rates from near-zero levels that were in place during the COVID-19 pandemic. In Australia, the Reserve Bank began raising interest rates in May 2022, and continued increasing them to their highest level in over a decade by mid-2023. However, as overseas interest rates rose more quickly than in Australia, funds moved offshore and the Australian dollar depreciated. The higher global interest rates and lower dollar almost doubled debt servicing costs in 2022–23, from $18 billion the previous year to $33 billion.

reviewquestions

1 Explain how external imbalances may affect the value of the exchange rate.
2 Discuss the impacts of exchange rate volatility on the Australian economy.

10.5 Policies to achieve external stability

Achieving external stability has, at certain points in Australia's history, been a major economic policy concern. However, in more recent years, improving external stability has not been a major objective of **macroeconomic policy**. In part, this change reflects a widespread acceptance of the "consenting adults" view of the current account among economists and policymakers, that CADs and foreign debt reflect the decisions of the private sector and do not require policy change by government. The reduced concern around external stability is also related to Australia's improved medium-term export prospects (and several current account surpluses) and increased household savings.

This change does not mean that external stability is unimportant or of no interest to economic policymakers. What it has meant is that achieving sustainable outcomes on the current account and foreign liabilities and a stable value of the currency are now treated more as long-term objectives of economic policy. External stability issues are now addressed through Australia's longer-term policy settings, which aim to reduce the risk of external shocks that could adversely affect Australia's access to global financial markets:

- **Monetary policy** is not being used to address Australia's external imbalances. In the past, contractionary monetary policy was used to reduce consumer spending on imports in order to create a short-term improvement in the balance on goods and services. However, this approach is now considered ineffective, since its impact is only temporary, and it results in a slowdown across the whole economy. In addition, higher interest rates can also increase capital inflows, generating higher net primary income outflows and worsening the current account. Monetary policy is also unable to target the long-term structural causes of Australia's external imbalances.
- **Fiscal policy** has had some role in addressing Australia's historically low level of **national savings**. By adopting the policy of fiscal consolidation (running balanced or surplus budgets over the course of the economic cycle), governments since the late 1990s have sought to reduce their call on private savings over the medium term. While COVID-19 resulted in a significant increase in government borrowing, Australia's fiscal strategy has more recently returned to fiscal consolidation. While rising public debt levels have had a negative effect on national savings, public debt is projected to fall as a share of GDP from 39.5 per cent in 2020–21 to 32.3 per cent in 2033–34. This should limit any upward pressure on interest rates and the "crowding out" of private borrowers.
- Australia's **superannuation guarantee** (or compulsory superannuation) requires employers to contribute a minimum percentage of employee wages to their superannuation, and since the 1990s this has substantially expanded the pool of national savings. In turn, it has also increased Australia's overseas investments, which help to create financial inflows on the net primary income account. The superannuation guarantee increased to 11 per cent of wages in July 2023, rising further to 11.5 per cent from July 2024 and 12 per cent from July 2025.
- **Microeconomic reform** can be used to address the structural problems causing Australia's external imbalances. The international competitiveness of Australian goods and services should be improved by measures that lift the efficiency and productivity of Australian producers. These policies have included measures to reduce capacity constraints in the economy by improving infrastructure and alleviating skills shortages, removing protectionist barriers that shielded inefficient producers from foreign competition, and labour market reforms to increase productivity and workforce participation.

One of the best measures of external stability is the extent to which Australia maintains the confidence of international investors. Governments aim to sustain international confidence in Australia's economy with consistent, medium-term policy settings such as Australia's inflation targeting regime, the goal of budget surpluses and a continued commitment to microeconomic reform. This approach has been largely successful in maintaining international confidence in Australia's economy in recent decades.

Nevertheless, the global financial crisis also provided an important lesson about the connection between private and public sector borrowings. Even if a high level of foreign debt is the result of private sector borrowings, governments can be forced to take responsibility for those borrowings, in order to prevent a meltdown of their entire financial system and a potential economic depression. Even in Australia, the Government felt it necessary to provide a guarantee for all of the private borrowings of Australian banks in 2008. In effect, the Australian Government guaranteed the nation's private sector foreign debt. This, to some extent, undermines the argument that private sector borrowings from overseas do not matter because it shows that in times of extreme financial instability, an external imbalance – whatever its origins – can make an economy more vulnerable to external shocks. Even so, the effects of economic shocks can be both positive and negative, as Australia's external accounts have shown in recent years.

"Australia's balance of payments and external position provide a useful lens through which to view changes in the domestic and global economy. As savings have exceeded investment over the past few years, the current account shifted from a deficit to a surplus. This followed the end of the investment phase of the mining boom as production came on line. Higher domestic savings throughout the pandemic have also contributed to this shift. Australia is now a net exporter of capital, as excess savings led to portfolio equity outflows and banks reduced their offshore borrowing, and the capital and financial account has shifted from a surplus to a deficit."

– Nicole Adams and Tim Atkin, "The Significant Shift in Australia's Balance of Payments", RBA Bulletin, March 2022

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reviewquestions

1. Account for the declining importance of external stability as a specific objective of economic policy.
2. Discuss how policy approaches can be used to address the current account deficit in Australia, with specific reference to the different accounts on the balance of payments.

chapter summary

1 **External stability** is a broad term that describes a situation in which external indicators such as the current account balance, foreign liabilities and the exchange rate are at a sustainable level, that is, a level in which they can remain in the longer term without negative economic consequences.

2 The main factor that influences a country's external stability is its **current account balance**. A current account deficit (CAD) is generally regarded as being at a sustainable level in the long term if it averages less than 3 per cent of GDP and in the short term if it is less than 6 per cent of GDP.

3 Australia's current account balance improved during the 2010s. A series of current account surpluses beginning in 2019–20 contributed to a fall in net foreign liabilities, and increased confidence in Australia's role in the global economy.

4 Some economists argue that Australia's current account balance and foreign liabilities do not constitute a major economic problem because foreign capital adds to investment and productive capacity in Australia and because Australia's external imbalances are chiefly due to decisions of private investors for which the government is not responsible.

5 A CAD can be viewed as a consequence of an imbalance between **savings and investment** – that is, a consequence of a shortfall in domestic savings. Historically, Australia's relatively low level of household savings has contributed significantly to the CAD. The CAD is also influenced by Australia's **international competitiveness** and the **terms of trade**.

6 Another indicator of sustainability is the level of **net foreign liabilities** as a percentage of GDP. This includes **net foreign debt** and **net foreign equity**. A high level of net foreign liabilities poses risks for external stability because it involves large servicing costs in the long term.

7 Australia has a relatively high level of net foreign liabilities because of the growth in net foreign debt since the 1980s. Rapid growth in foreign liabilities is regarded as an indicator that a country's external position is not sustainable, but the growth in Australia's liabilities has proved sustainable during recent decades.

8 Another indicator of the sustainability of foreign debt is the **debt servicing ratio**, which measures the percentage of export revenues spent in servicing the foreign debt. Despite Australia's rising foreign debt levels, the debt servicing ratio has fallen during recent years because of lower global interest rates.

9 Movements in the value of the **exchange rate** are an indicator of the degree of international confidence in the economy, among other factors. If international investors form the view that the economy's external position is not sustainable, the value of the dollar is likely to fall.

10 Governments have limited policy instruments available to address problems of external imbalance. Governments mainly rely on market mechanisms (such as an exchange rate depreciation) and long-term policy settings to address external imbalances.

chapter review

1. Define what is meant by *external stability*.
2. Describe an example of external instability.
3. Briefly discuss what factors influenced Australia's external balances during recent years.
4. Discuss the recent trends in the current account.
5. Explain the relationship between net foreign liabilities and the current account.
6. Examine the difference in the economic effects of a rising level of foreign debt compared with rising foreign equity.
7. Explain why exchange rate movements are an important indicator of external stability in Australia.
8. Critically evaluate the argument that the current account and foreign liabilities are not significant economic problems in Australia.
9. Discuss the extent to which the historic pattern of current account deficits in Australia reflects a shortfall of savings, and to what extent it reflects weaknesses in Australia's international competitiveness and trade performance.
10. Outline what policies may be used to improve external stability.

11 Distribution of Income and Wealth

11.1 Introduction

11.2 Measuring the distribution of income and wealth

11.3 Sources of income and wealth

11.4 Trends in the distribution of income and wealth

11.5 The costs and benefits of inequality

11.6 Government policies and inequality

11.1 Introduction

One of the most difficult challenges in economic management is ensuring fairness in the spread of wealth and economic opportunity throughout society. While all societies have some higher income and some lower income groups, research has shown that economies with a smaller gap in incomes between high and low income earners tend to have greater happiness, better health outcomes and higher levels of social mobility. In recent years there has been a growing consensus among economists that globalisation has increased inequality in many countries. One of the greatest challenges of adjusting to structural change in an economy is ensuring that one part of society does not shoulder an unfair share of the burden of change, and that benefits do not just flow to those who are already financially well off.

Australia has traditionally considered itself to be a country offering people a "fair go", with less inequality than other nations. Economic evidence suggests, however, that on most measures, Australia is around the OECD average. Even if inequality is worse in countries to which Australia often compares itself, such as the United Kingdom or the United States, there are a number of countries from which Australia could model improvement. Australia's income inequality has increased in recent decades, but economic growth, universal access to public education and health care, and a well-targeted social security safety net have prevented a greater widening of inequality.

Many of the factors that contribute to an increase in inequality are side effects of the policies that encourage market forces and improve competitiveness. While some level of inequality is present in all economies, levels of inequality can increase when nations implement economic policies such as reducing marginal income tax rates, restricting welfare, reducing spending on public services and deregulating labour markets. However, this does not mean that there is always a trade-off between increased growth and reduced inequality. High levels of inequality can in fact reduce economic growth. In the past decade, the OECD and IMF have emphasised the benefits of economic reforms that lessen inequality.

To understand the nature of inequality we first need to understand how wealth and income are distributed. As we look at factors such as occupation, age, gender, ethnic background and geography, we can piece together the influences on the distribution of income and wealth in Australia. This can then help us understand the role that government policies can play in redistributing income and wealth and reducing inequality.

11.2 Measuring the distribution of income and wealth

Income distribution

Personal **income** is the amount of money, or other benefits measured in money terms, that flows to individuals or households from the sale of factors of production over a period of time. Forms of income include wages from labour, rent from land, interest from capital, and profit from enterprise. Income can be regarded as the benefit that flows to the owners of the factors of production for owning, maintaining and managing productive resources. Individuals can also receive income such as pensions and benefits from the government.

Income inequality refers to the degree to which income is unevenly distributed among people in the economy. The degree of unevenness can range from a high level of equality, where people receive a similar share of income, to a high level of inequality, where there is a large gap between high- and low-income earners.

Income inequality can be measured by the share of total income received by different groups. For example, figure 11.1 looks at what proportion of disposable income (after tax) is received by each quintile, with a quintile being a 20 per cent grouping ranked from lowest to highest income earners. The table shows that in 2021–22, the lowest 20 per cent of Australians received just 8.1 per cent of income, while the highest 20 per cent received 40.9 per cent of income. In the past 25 years, the share of income has only risen for the highest income quintile, whose share is now more than 3 percentage points higher than two decades ago.

Quintile	Share of disposable income (%)							
	1995–96	1999–00	2005–06	2009–10	2015–16	2019–20	2020–21	2021–22
Lowest quintile	8.1	7.7	7.5	7.9	7.9	8.2	8.3	8.1
Second quintile	13	12.6	12.5	12.2	12.2	12.6	12.7	12.6
Third quintile	17.7	17.6	17.5	16.7	16.4	16.6	16.6	16.6
Fourth quintile	23.9	23.6	22.8	23.2	21.9	21.7	21.7	21.8
Highest quintile	37.3	38.5	39.7	40.1	41.6	40.9	40.6	40.9
Gini coefficient	0.296	0.311	0.314	0.329	0.323	0.324	0.318	0.318

Sources: ABS *Household Income and Wealth, Australia*, Table 1.1 (Cat. no. 6523.0), *Australian National Accounts: Distribution of Household Income, Consumption and Wealth* (Cat. no. 5204.055.011). Note that statistics are not released for every financial year and statistics since 2005–06 are not directly comparable to earlier statistics.

Figure 11.1 – Share of disposable income by households in Australia

Figure 11.2 illustrates the difference in average incomes (before tax and welfare payments) among different groups in the Australian economy. The average annual pre-tax income for households in the highest quintile is $365,133, 12 times the average for the lowest quintile of $29,936.

	Lowest quintile	Second quintile	Third quintile	Fourth quintile	Highest quintile	Average all households
Mean income per week	$576	$1316	$2306	$3416	$7022	$2895
Annual	$29,936	$68,433	$119,926	$177,650	$365,133	$150,547

Source: *Australian National Accounts: Distribution of Household Income, Consumption and Wealth* (Cat. no. 5204.055.011)

Figure 11.2 – Average gross household incomes in Australia, 2021–22

The following concepts will also be useful when we are interpreting statistics relating to the distribution of income and wealth later in the chapter:

- **Mean income** – the average level of income. It is calculated by dividing the total income of a group by the number of income recipients in that group.
- **Median income** – that level of income that divides the income recipients in a group into two halves, one half having incomes above the median and the other half having incomes below the median (it is the "middle" income).

The share of income data in figure 11.1 can be used to produce two other measures of income inequality used by economists – the Lorenz curve and the Gini coefficient.

Measuring income inequality – the Lorenz curve

Lorenz curve is a graphical representation of income distribution, plotting the cumulative increase in population against the cumulative increase in income.

We construct the **Lorenz curve** by plotting the cumulative percentage of total income received (vertical axis) against the cumulative percentage of income recipients (horizontal axis). Using information showing the distribution of income across different income groups (such as in figure 11.1), a Lorenz curve can be constructed for Australian households.

If income were distributed evenly across the whole population, the Lorenz curve would be the diagonal line through the origin of the graph – **the line of equality**. The further the Lorenz curve is away from this line, the greater the degree of income inequality in a society.

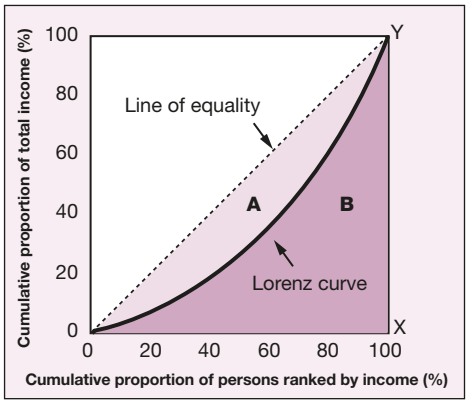


Figure 11.3 – Lorenz curve

Measuring income inequality – the Gini coefficient

Gini coefficient is a number between zero and one that measures the extent of income inequality in an economy. It is calculated by measuring the degree to which the Lorenz curve deviates from the line of equality.

The **Gini coefficient** is a single statistic that summarises the distribution of income across the population. It is calculated as the ratio of the area between the actual Lorenz curve and the line of equality (area A in figure 11.3) and the total area under the line of equality (A+B).

$$\text{Gini coefficient} = \frac{A}{A + B}$$

The Gini coefficient ranges between zero, when all incomes are equal, and one, when a single household receives all the income. Therefore, the smaller the Gini coefficient, the more even the distribution of income. Figure 11.1 shows that the degree of income inequality in Australia has increased since the mid-1990s. The OECD, which releases its own Gini coefficient measurements, found that Australia's Gini coefficient was 0.318 in 2020, a decrease from 0.325 in 2018. This places Australia 21st out of 38 OECD countries, and slightly less equal than the OECD average, which is 0.315. Meanwhile, the Australian Bureau of Statistics measured Australia's most recent Gini coefficient to be 0.318 in 2020–21, which is around the Australian average since 1994 of 0.315, and below its peak of 0.336 in 2007–08. In 2022, Reserve Bank research found that the Gini coefficient was higher in mining areas (because mining industry jobs pay substantially more than regional industries) and in major cities (where there is a very wide range of occupations).

Measuring the distribution of wealth in Australia

The process of measuring household wealth is more complex than measuring income levels. The ABS only began releasing official measures in 2006, and the ABS only releases new data

every few years. Nevertheless, there are clear conclusions from this data, including that the distribution of wealth is far more unequal than the distribution of income, and this level of inequality has existed for a long time.

Figure 11.4 depicts Australia's level of inequality in the distribution of wealth. While we found in figure 11.1 that the top quintile earns 40.9 per cent of total income, figure 11.4 shows that the top quintile owns 62.8 per cent of total wealth. Similarly, while those in the bottom quintile earn 8.1 per cent of total income, they own less than 1 per cent of total wealth. Around 70 per cent of households have less than the average level of household wealth, which was $1,057,000 in 2022, not including liabilities.

Quintile	Share of aggregate wealth (%)								
	1986–87	1998–99	2005–06	2009–10	2011–12	2013–14	2015–16	2017–18	2019–20
Lowest quintile	0	0	1.3	0.9	0.9	0.9	0.8	0.7	0.7
Second quintile	2.0	3.0	6.2	5.4	5.2	5.1	5.1	4.5	4.8
Third quintile	12.0	10.0	12.0	11.9	12.0	11.4	11.4	11.1	11.3
Fourth quintile	23.0	22.0	20.2	20.0	21.0	20.5	20.4	20.4	20.5
Highest quintile	63.0	65.0	60.3	61.8	60.8	62.1	62.5	63.4	62.8
Gini coefficient	0.64	0.64	0.581	0.602	0.593	0.605	0.605	0.621	0.611

Source: ABS *Household Income and Wealth, Australia*, Table 2.1 (Cat. no. 6523.0), April 2022

Figure 11.4 – Distribution of wealth in Australia, selected years

Although wealth inequality has remained relatively stable over time (and is below its level in the 1980s and 1990s), this reflects forces at work in opposite directions. The Gini coefficient has been reduced by the growth of superannuation accounts since the 1990s, which have helped to build a store of wealth for people in lower income quintiles with jobs. On the other hand, the value of many wealth assets has risen strongly in recent decades, benefiting those who own those assets.

The increase in inequality in recent years reflects how wealth accrues to owners of capital during periods of both growth and decline. Australia's house prices have risen dramatically in the past two decades, increasing the wealth of asset owners but making it harder for low- and middle-income households to buy a home. A 2020 RBA Research Discussion Paper on *The Distributional Effects of Monetary Policy* found that real-estate prices in more expensive areas are more responsive to interest rate changes. This means that periods of low interest rates in recent decades have increased wealth inequality, as owners of expensive properties see the value of their assets increase more than those with less valuable real estate. Similarly, the study found that higher interest rates have a larger downward impact on the prices of more expensive properties. This suggests that recent increases in interest rates may decrease wealth inequality.

The 2022 report *The wealth inequality pandemic* by the Australian Council of Social Service and UNSW, found that the COVID-19 pandemic had a mixed impact on wealth distribution in Australia. The strongest influence came from the rapid rise in house prices, which soared by 22 per cent in 2021, the highest in 35 years. Overall wealth levels increased rapidly and wealth inequality was reduced (because housing is distributed more evenly across the population than other kinds of wealth). However, many younger people found it more difficult to buy a home. Australia's 131 billionaires, who hold 3 per cent of all wealth, increased their wealth by an average of $395 million each (or 12 per cent) during the pandemic, with those with interests in the mining and property development sectors enjoying the greatest increase.

reviewquestions

1 Outline the TWO methods used to measure income inequality.
2 Explain the difference between Australia's income inequality and wealth inequality.
3 Analyse how the share of income received by the highest income earners in Australia has changed in recent years.

11.3 Sources of income and wealth

We can gain a better insight into the factors influencing the distribution of income and wealth by looking at their sources and how each factor of production contributes to income or wealth levels. For household income, these are:

- **Wages from the sale of labour**: This is the main source of income for consumers. It comes in the form of wage or salary payments for labour when consumers participate in the labour market. It also includes non-wage income such as bonuses, fringe benefits and employer contributions to superannuation. The Australian Bureau of Statistics categorises this as "Compensation of employees", and it is also sometimes described as "Returns to labour".
- **Rent from land**: Many consumers own land that becomes a source of income when it is rented. For example, consumers may own an investment property that generates rental income.
- **Earnings from capital**: Returns from the ownership of capital are a significant source of household income. These returns might include earnings from financial assets such as investment funds, superannuation accounts and bank deposits, or the ownership of shares (or whole companies). Because ownership of capital is highly concentrated among the most wealthy households in Australia, a large share of this type of earnings goes to the wealthiest households. This is the main way in which inequality in the distribution of wealth contributes to inequality in the distribution of income.
- **Profit from entrepreneurship**: A substantial number of Australians are involved in operating businesses, especially small businesses. If the business makes a profit this income is considered a return for their use of entrepreneurial skill. The calculation for returns to enterprise is especially complicated, but the best estimate comes from the Australian Bureau of Statistics' calculation of mixed income from unincorporated enterprises, which is used in figure 11.5.

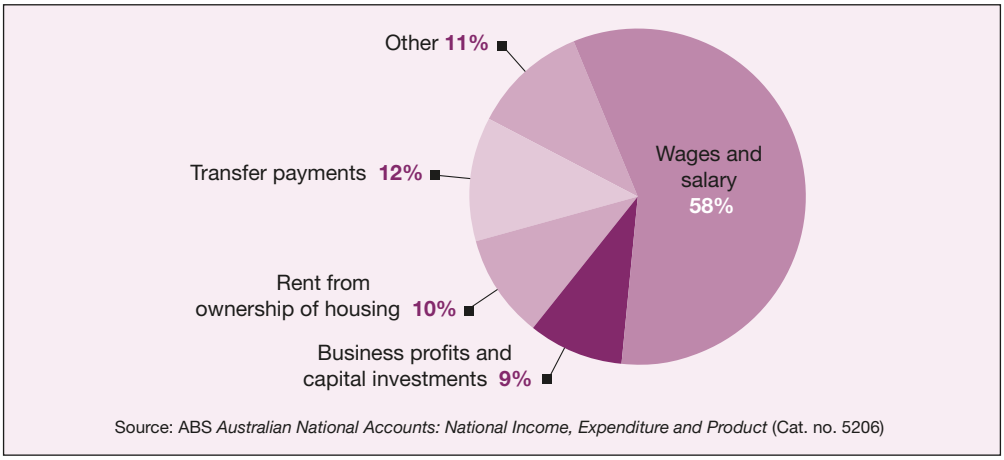


Figure 11.5 – Sources of household income in Australia

- **Transfer payments**: A significant proportion of household income in Australia is received by way of social security or social welfare, also known as transfer payments or government benefits, as figure 11.5 indicates. Australian statistics measure two types of social benefits: social assistance benefits (welfare payments) and social insurance benefits (such as workers compensation). This is income collected through taxation and then transferred from governments to households. Over a third of the total income tax that is collected is used to pay unemployment and sickness benefits, age and disability pensions, family allowances and similar social security payments. The effects of taxation, transfer payments and other assistance on the distribution of income are examined in more detail in Section 11.6.

Transfer payments are payments from the government to assist people with basic costs of living. A number of terms are commonly used for transfer payments including: social welfare payments, government benefits, social security, income support and Centrelink payments.

Sources of wealth in Australia

Household net worth is used by the Australian Bureau of Statistics to measure private sector wealth in Australia. Net worth is the extent to which the value of household assets such as houses and savings (that is, the things they own) exceeds the value of their liabilities such as loans (that is, the things they owe).

In 2021–22, the average value of household assets was $1.7 million, while the average level of household liabilities (debts) was $276,462. This gives an average net worth for Australian households of approximately $1.4 million. Figure 11.6 shows the composition of household assets in 2019–20.

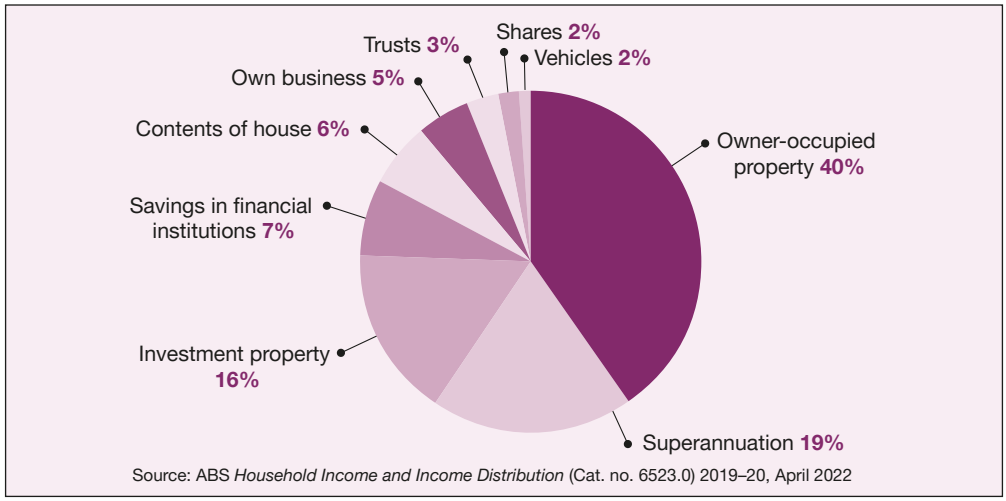


Figure 11.6 – The composition of household wealth

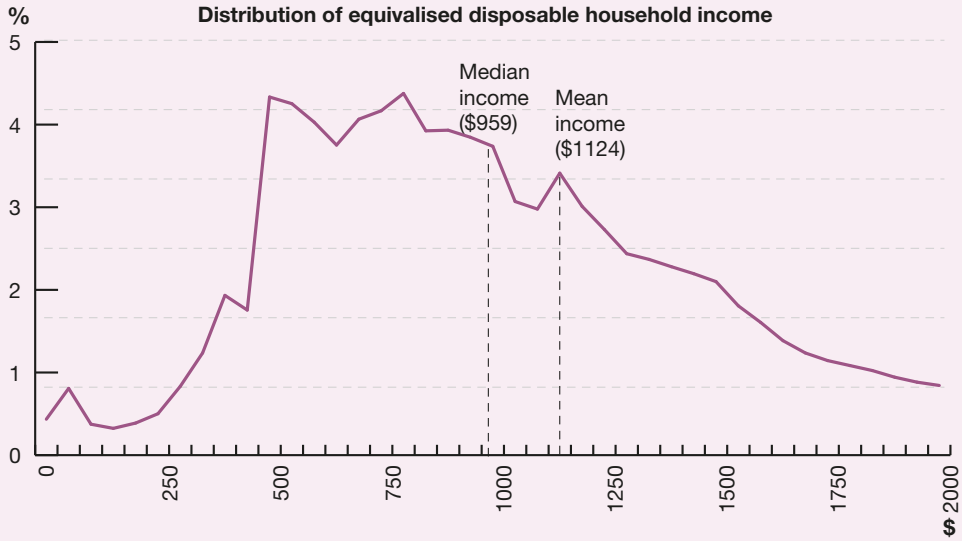
The relative importance of the two largest components of household wealth, housing and superannuation, have increased in recent years, while savings and ownership of business assets have declined. Figure 11.6 highlights how more value is held in owner-occupied properties than any other asset, accounting for 40 per cent of total assets with an average value of $502,500. Combined with investment properties, real estate assets comprise 56 per cent of household wealth in Australia. Around two-thirds of Australian households own their primary place of residence, and 24 per cent own other property. Superannuation funds are the second largest household asset and the largest financial asset, averaging $229,900 per household across all households. Superannuation funds accounted for 19 per cent of household assets.

reviewquestions

1 Explain how households derive income from the ownership of capital.
2 Discuss the importance of transfer payments.
3 Outline the THREE main sources of household income in Australia.

11.4 Trends in the distribution of income and wealth

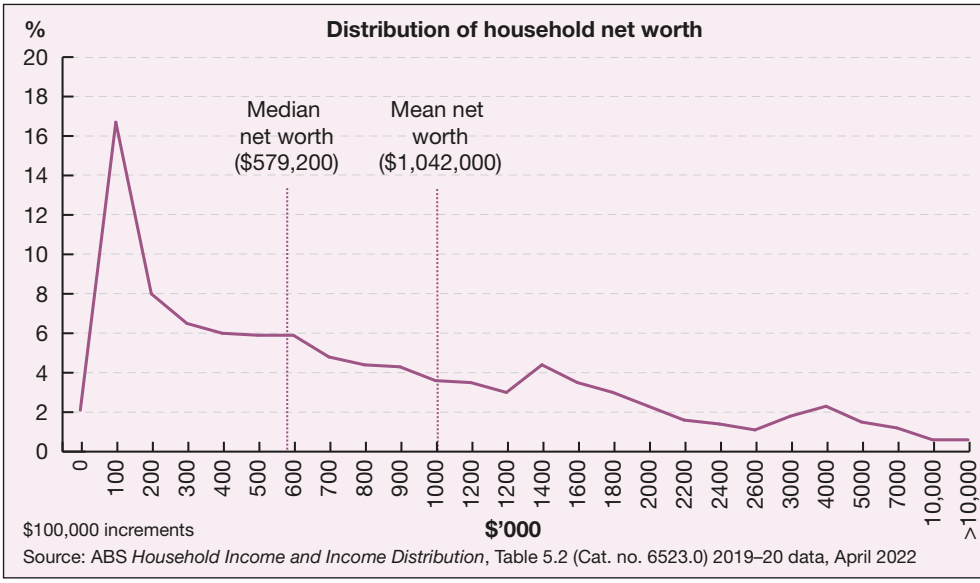
In recent decades, Australia has experienced a modest increase in overall levels of inequality. In this section we find that some groups in society are more affected by inequality than others, depending on their age, qualifications, gender, occupation, ethnic background, family type and where they live in Australia.



Source: ABS *Household Income and Wealth Distribution*, Table 1.3 (Cat. no. 6523.0) 2019–20 data, April 2022
Note: These figures are different to figure 11.2 because these are equivalised disposable numbers (which remove income tax and adjust for household size).

11.7 – Distribution of household income

Figure 11.7 highlights the extent of income inequality in Australia, with weekly disposable incomes below $900 for the majority of households. Over half of the population earn less than the mean income of $1062 per week, indicating that income distribution is asymmetric – a relatively small number of households have relatively high incomes, and a large number of households have relatively low incomes.



Source: ABS *Household Income and Income Distribution*, Table 5.2 (Cat. no. 6523.0) 2019–20 data, April 2022

Figure 11.8 – Distribution of household net worth

Figure 11.8 highlights the extent of wealth inequality in Australia, and that wealth is more unequally distributed than income. More than 80 per cent of households have a net worth

that is below the average because wealth is so highly concentrated. The lowest 20 per cent of households have a mean net worth of $35,100. In comparison, the mean net worth of the wealthiest 20 per cent of households is around 94 times that of the lowest 20 per cent of households, at $3.3 million. This indicates a highly unequal distribution of wealth and an even greater concentration of wealth at the "top end" compared with the distribution of income. To be in the wealthiest 1 per cent, a household must have net assets exceeding $6 million.

Age and education

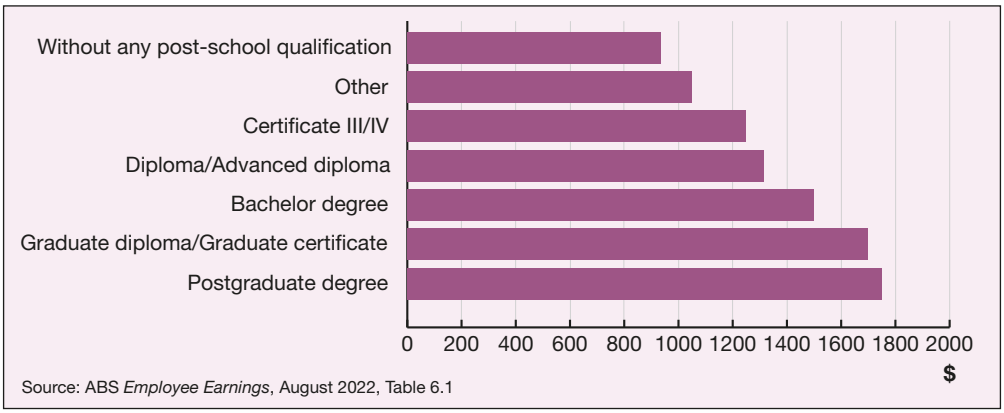
	Age groups								
	15–19	20–24	25–34	35–44	45–54	55–59	60–64	65 and over	Median all ages
All persons ($)	756	1100	1450	1730	1741	1700	1507	1543	1516

Source: ABS *Employee Earnings*, August 2022, Table 2.1 (Cat no. 6337.0)

Figure 11.9 – Median weekly income by age for full-time workers, August 2022

Income varies over the course of a person's life, although it tends to remain highest between the ages of 35 and 54 – the main years of a person's working life. Figure 11.9 indicates that the 45– 54 age bracket earns the highest median weekly earnings ($1741). while those aged 15–19 earn the lowest ($756), followed by those aged 20–24 ($1100). The table shows that income levels are lower in the earlier years of working life (since people have less education and experience and hold lower-paying jobs). While figure 11.9 focuses on full-time work, workers in younger age brackets may also be employed in casual or part-time jobs, which are typically lower-paying, even when number of hours is taken into account.

Figure 11.10 highlights the influence of educational qualifications on a person's income. Not surprisingly, those with higher qualifications such as tertiary degrees and diplomas enjoy income levels much higher than those with vocational training or no qualifications beyond high school. Earnings are highest for those with a postgraduate degree ($1750), and lowest for those without a post-school qualification ($934). On average, employees who had a post-school qualification had median weekly earnings of $1424, $490 higher than employees without a post-school qualification.



Source: ABS *Employee Earnings*, August 2022, Table 6.1

Figure 11.10 – Median weekly earnings in main job, by level of educational qualification

The rapid increase in housing prices in the 2000s has significantly widened inequality in the distribution of wealth by age. A 2019 Grattan Institute paper, *The Generation Gap*, found that older households are now on average four times as wealthy as younger households. Those over 65 had experienced a real increase in median net wealth of almost 70 per cent since 2002, compared to an increase of just 3 per cent among people aged 25–34. Increases in housing prices since 2019 have further widened this generation gap.

Gender and occupation

Year	Males ($)	Females ($)
1985	400	328
1990	567	470
1995	689	576
2000	829	695
2005	1050	892
2010	1334	1105
2015	1592	1307
2019	1750	1508
2020	1804	1562
2021	1847	1591
2022	1907	1654

Source: ABS *Average Weekly Earnings, Australia*, Table 3A, 3D (Cat. no. 6302.0), November 2022

Figure 11.11 – Average weekly ordinary time earnings (full-time)

Gender is another important influence on the distribution of income and wealth. Figure 11.11 shows that full-time female workers earn less than males. Progress has been made in reducing the gender gap since the ABS began tracking wage relativities four decades ago, but it has been slow. In 1985, women in full-time jobs were earning 82 per cent of male earnings, and in 2022 this had risen to 87 per cent. Even after taking into account differences in jobs and working hours, the average weekly earnings of females are still lower than those of males. The current state of the gender pay gap is influenced by a variety of factors, including that occupations with a high proportion of female employees are generally paid lower wages, women still have greater home caring responsibilities than men in many families, and there are fewer senior roles for employees who choose to work part-time (as a higher proportion of women do). In addition to these economic factors, women still experience different forms of direct and indirect discrimination.

This presence of discrimination is confirmed by observing the average earnings of males and females working full-time in the same industries, presented in figure 11.12. Even after we have taken occupations into account, on average, female employees earn less than their male counterparts, even when they have the same qualifications and experience. Women earn on average $256 per week less than men.

Figure 11.12 shows that the gender pay gap is not exclusive to male-dominated industries. Some of the greatest income discrepancies between males and females occur in industries in which females account for a greater proportion of the workforce, including health and social services.

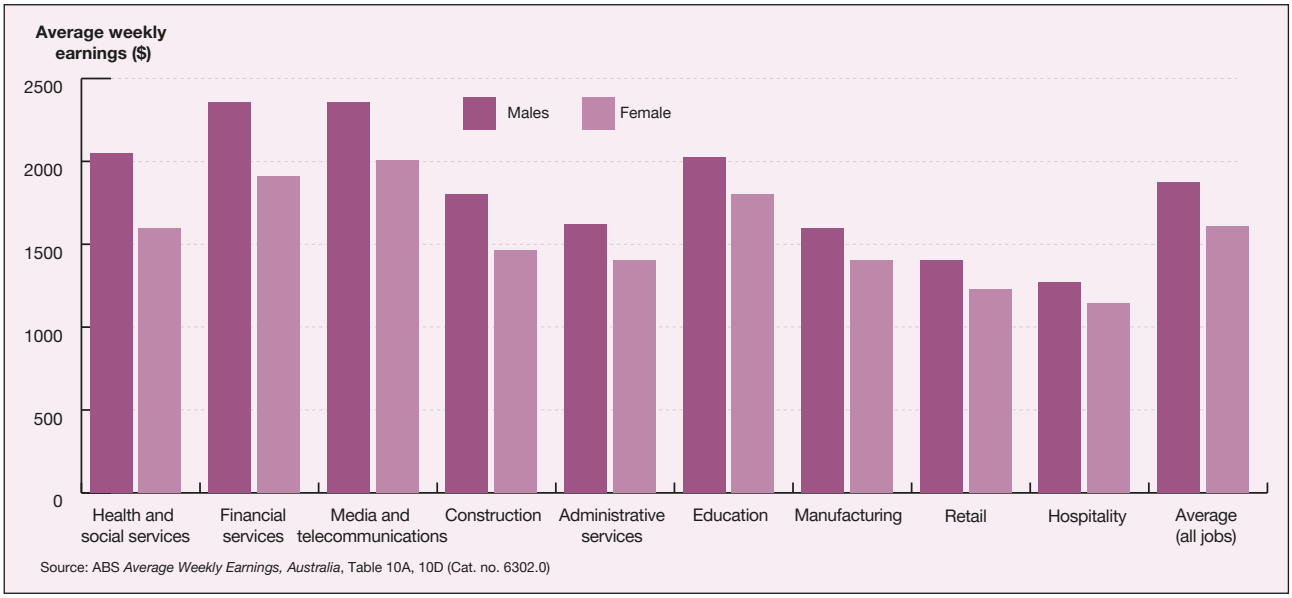


Figure 11.12 – Average weekly earnings by gender for a range of industries

Another factor that contributes to inequality in wealth distribution between men and women is that women generally accumulate lower superannuation balances during their working lives. A Treasury report on retirement savings in 2020 found that superannuation balances for women who have worked full-time through their careers are 17 per cent lower, on average, than those of men. Including casual and part-time employees, the gender gap is 33 per cent (reflecting the higher proportion of women working casual or part-time roles). This reflects several factors, including that women are paid lower wages, they often take longer career breaks for caring responsibilities, and when they take parental leave, employers are not required to make superannuation payments.

COULD DIGITAL PLATFORMS EXACERBATE THE GENDER PAY GAP?

An estimated 250,000 Australians work in the "gig economy", by performing tasks for others on digital platforms, facilitating food delivery, ride-sharing, household chores and even building websites. Gig economy jobs provide flexibility, but a 2023 survey conducted by the McKell Institute found that 45 per cent of gig economy workers are paid at a rate below the hourly minimum wage.

The gig economy also appears to reward women less generously than men. A 2021 Queensland University of Technology report on gig economy jobs, *Gendered Dimensions of Digital Platform Work*, found that women earn approximately 30 per cent less than men on a weekly basis, and $2.67 less than men per hour.

The report provides several reasons for this gap, many of which mirror the reasons that exist in the broader economy. A key factor relates to the higher concentration of women in certain jobs such as care work, which are paid less well than such tasks as software development whose workers are more often male. Another factor is that women's home caring responsibilities reduce the time they have available for platform work, which affects their weekly wages relative to men. The report also concludes that algorithms can directly and indirectly discriminate against female workers. If, for example, an algorithm is set up to preference workers who work more frequently, then female workers are disadvantaged.

> "Digital platform work in Australia and internationally, as demonstrated by empirical research reported in this review, can both reproduce and exacerbate existing gender inequalities in work, just as it can create new modes of gender inequality".
>
> – Queensland University of Technology Centre for Decent Work and Industry, *Gendered Dimensions of Digital Platform Work*, September 2021

Ethnic and cultural background

Another factor that plays a role in the distribution of income in a society is the ethnic and cultural backgrounds of different households. Almost half of the Australian population has a direct connection to immigration: 30 per cent were born overseas and are therefore first-generation Australians, and another 19 per cent have at least one parent born overseas, making them second-generation Australians. Almost 60 per cent of migrant Australians come from countries that are not mainly English-speaking nations.

Figure 11.13 shows that in the short term, migrants – particularly those from non-English-speaking countries – tend to have slightly higher rates of unemployment. However, in the long term, unemployment is around the same level for people born in Australia and those born overseas. Migrants from English-speaking countries are more likely to be highly skilled and professionally qualified, which explains their lower rate of unemployment compared to other recent migrants. Participation rates are higher for skilled migrants. According to the Australian Government's *2023 Labour Market for Migrants* report, the labour force participation rate of migrants that have been in Australia for 10–14 years is approximately 80 per cent – substantially higher than Australia's population average of 67 per cent.

The Australian Bureau of Statistics first released data on the income status of migrants in 2022. The median annual personal income for migrants in 2019–20 was $45,351, slightly below the median income of $52,338 for the population as a whole. The Melbourne Institute's 2015 HILDA survey found that, on average, English-speaking migrants earned between $1193 (for males) and $3979 (for females) more than Australian workers, whereas those from non-English-speaking countries generally earned around $8000 less per year, and also had significantly less wealth. They also have higher underemployment (around 20 per cent, compared to 12 per cent for migrants from English-speaking backgrounds).

This suggests that there are barriers to employment in higher-paid jobs for non-English-speaking migrants, perhaps due to differences in English proficiency. Nevertheless, Australia ranks well compared to other countries for its integration of migrants (for example, ranking 8th in a group of 38 economies in the Migrant Integration Policy Index).

	Unemployment rate (%)							
	1991	2000	2010	2015	2020	2021	2022	2023
Arrived within last 5 years								
Main English-speaking countries	11.6	7.5	6.6	5.5	7.7	3.9	3.3	5.8
Other than main English-speaking countries	24.1	13.3	10.0	12.0	12.3	7.1	5.9	6.3
Arrived 5–9 years ago								
Main English-speaking countries	8.5	5.2	4.9	5.1	6.0	4.0	2.4	3.1
Other than main English-speaking countries	16.4	10.9	7.0	7.1	8.1	6.1	3.6	4.1
Arrived 20 or more years ago								
Main English-speaking countries	7.7	4.9	3.5	3.9	5.2	3.7	3.0	2.5
Other than main English-speaking countries	8.8	5.1	4.2	4.5	5.6	5.1	3.2	2.9
Born in Australia	9.0	6.2	5.1	6.0	6.2	5.1	3.8	3.8

Source: ABS *Labour Force, Australia, Detailed, LM7*. 'Main English-speaking countries' does not include India, Pakistan or other countries where English is an official language but not the main language spoken.

Figure 11.13 – Unemployment rates by migrant status

INDIGENOUS AUSTRALIANS

Indigenous Australians (Aboriginal and Torres Strait Islanders) comprise around 3.2 per cent of the Australian population, or around 812,000 people. Around one-third of Indigenous Australians live in major cities, while two-thirds live in remote or regional communities. A majority of Indigenous Australians live in either NSW (34 per cent) or Queensland (29 per cent). The regions in NSW with the largest Indigenous population are North-Western NSW (18.6 per cent), Dubbo (15.7 per cent) and North-Eastern NSW (11.5 per cent). In contrast, there are several regions in the Northern Territory, Queensland, Western Australia and South Australia where Indigenous Australians comprise the majority of the population. The Indigenous population is significantly younger on average than other Australians, with an average age of 23 compared to 38 for the general population. This reflects population growth and the fact that life expectancy for Indigenous Australians is around eight years below that of non-Indigenous Australians (at 71.6 for Indigenous males and 75.6 for Indigenous females).

- Indigenous Australians have much lower levels of income and wealth than the population average for Australia, alongside many indicators of disadvantage in health, education, housing and criminal justice. For this reason, since 2008, Australian governments have been committed to strategies aimed at closing the gap between Indigenous Australians and the wider population.
- The Australian Census in 2021 found that, compared to $1200 for the population overall, Indigenous households had equivalised median weekly income of $830.
- One in five Australians experiencing homelessness in 2021 were Indigenous (a total of 24,930).
- Nationally, the employment rate for Indigenous Australians increased from 47 per cent to 52 per cent between 2016 and 2021. Over the same period, the non-Indigenous employment rate was stable at 76 per cent.
- The average school attendance rate for Indigenous students between Years 1 and 10 was 79.4 per cent in 2022, compared to 91.6 per cent for non-Indigenous students.

- During the COVID-19 pandemic, Indigenous Australians were almost twice as likely to be on income support (57 per cent compared with 27 per cent for the rest of the population). Further, more than half of Indigenous Australians aged 15 and over reported living in a household considered to be in financial stress.

The policy solutions to address Indigenous disadvantage are complex. Nonetheless, there has been progress, according to the *Overcoming Indigenous Disadvantage* report released by the Productivity Commission in 2020. Life expectancy for boys and girls born between 2015 and 2017 is 71.6 and 75.6 years respectively, an improvement of 4.1 and 2.5 years respectively on 10 years before. Infant mortality for under one-year-olds fell from 13 to 5 deaths per 1000.



For more information on the economic characteristics of Indigenous Australians, see ABS *National Aboriginal and Torres Strait Islander Health Survey* and the Productivity Commission's latest *Overcoming Indigenous Disadvantage* report.

Family structure

Family structure (or household structure) is another important factor influencing trends in income inequality, particularly because of recent demographic changes in Australia, such as the growth of female participation in the workforce, decreasing family sizes as people raise fewer children on average, and the increasing proportion of people living alone.

Figure 11.14 reveals a large disparity in household income and wealth levels. One-person households and single-parent households received weekly income levels significantly below the median of $958 per week. Single-parent households, which have a weekly income around one-third below the average for all family structures, were the worst off. This is partly explained by the fact that only 14 per cent of single parents of children aged less than 4 years are employed full-time. Although single parents work longer hours as their children grow older, they still work fewer hours than couples and therefore have lower incomes. Forty per cent of single-person households are in the bottom income quintile. This is likely to reflect lower rates of full-time employment, driven by caring responsibilities. Couples without dependent children were the highest income family structure and received $1148 per person per week.

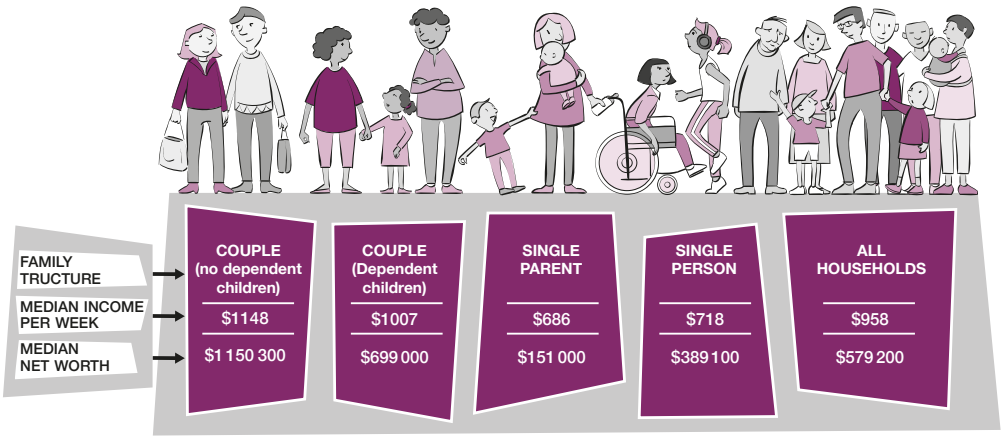


Figure 11.14 – Median income and net worth by family type

It is important to note the influence of age in interpreting these findings because of the relationship between an individual's age and the family structure to which an individual belongs. Couples with dependent children have a much lower proportion of household members in paid work, and we might expect them to have lower average incomes than couples without dependents. A study in 2020 by the Australian Institute of Health and Welfare titled *Australia's Children* found that one in four low-income households in Australia had children under 14 years of age. However, couples with children are also more likely to be older, so the adults in the household are more likely to have higher individual incomes, even if they do have to share it among more household members. Additionally,

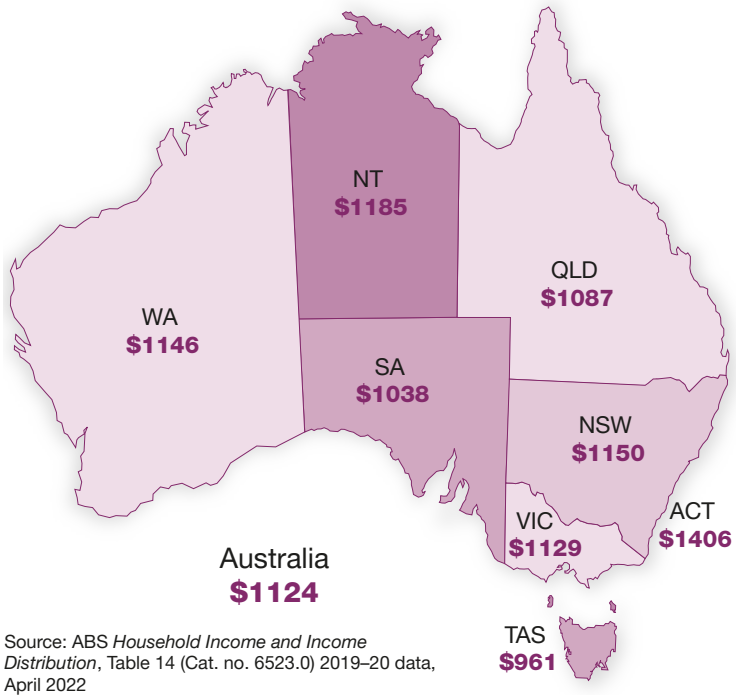
the major reason for the low income levels of single-person households is because of the large number of aged people who are no longer in the workforce and who may rely on government benefits as their primary source of income.

The distribution of wealth by household type shows a similar pattern to income distribution, with couple-households enjoying significantly higher wealth levels compared with single-parent and single-person households. The main difference is that single-person households have much more wealth than single-parent households despite their similar weekly incomes. This primarily reflects the influence of "income-poor and asset-rich" elderly people in the single-person category who have paid off their mortgages and now live off modest government pensions or other retirement incomes.

Geography

Another important dimension of Australia's distribution of income and wealth is the inequality between different regions of the country. Wealth tends to be concentrated in major cities, where property prices are highest and there is a wide range of higher-paid jobs. Governments develop policies to increase economic growth in areas outside of major cities, to help address this gap. While there are differences between states in their average income levels, perhaps more significant is the pattern of inequality that is found within each of the states, between people in major cities and regional areas, and between better-off suburbs in major cities and the suburban fringes.

Figure 11.15 highlights the inequality in household income distribution between Australia's states and territories, with the Australian Capital Territory and Northern Territory enjoying the highest household incomes of $1406 and $1185, while Tasmania has the lowest income of $961 per week. Western Australia and the Northern Territory – the regions with the largest shares of economic activity in mining – have experienced a lasting benefit from the mining boom and now have incomes above most of the eastern states. Age also plays a role in interstate inequality, with areas with younger populations such as the Australian Capital Territory and New South Wales having higher incomes than states with older populations like Tasmania. An important limitation of this data is that it does not take into account differences in the cost of living. For example, Sydneysiders are paying the highest weekly rents in the country, with the average price of renting a property



Source: ABS *Household Income and Income Distribution*, Table 14 (Cat. no. 6523.0) 2019–20 data, April 2022

Figure 11.15 – Mean disposable income per week, Australian states

in Sydney in 2023 at $711 per week. In contrast, the weekly median rent for an Adelaide property is $534. So, although incomes might be similar in both cities, actual living costs might be lower in a smaller city such as Adelaide, resulting in higher living standards.

Inequality also exists within states, in particular between the major cities and the rest of the state. A study released by the Committee for Economic Development of Australia in 2018, called *How Unequal? Insights on Inequality*, found that half of NSW's most disadvantaged regions were concentrated in just 6 per cent of the state (or 37 postcodes), and that this geographical inequality had barely changed since 2007. Figure 11.16 shows that in New South Wales, the population living in the capital city area earned 24 per cent more than those in the rest of the state. Even larger differences can exist for net wealth, reflecting the big differences between property values in cities compared to regional areas. The higher net worth for Sydney households is explained by their property assets, which, at an average of $1.2 million per home, are worth almost double the $695,000 in average home values for households in the rest of NSW. In interpreting these statistics, however, it is important to remember that, as with interstate comparisons, cost-of-living differences mean that raw income levels can exaggerate the true extent of income inequality between geographic areas.

	NSW ($)	Vic ($)	Qld ($)	SA ($)	WA ($)	Tas ($)	Australia ($)
Mean weekly disposable income capital city area	1231	1174	1132	1068	1158	1096	**1179**
Mean weekly income outside capital city	990	979	1036	918	1094	847	**1001**
Average net worth capital city area	1,363,800	1,246,700	833,500	875,500	860,000	982,300	**1,124,900**
Average net worth	1,187,100	1,199,400	790,300	917,800	868,100	779,000	**1,042,000**

Source: ABS *Household Income and Wealth, Australia*, Table 13.3, 13.5, 13.7, 13.9 (Cat. no. 6523.0) 2019–20 data, April 2022

Figure 11.16 – Income and wealth by state and region

AUSTRALIA: THE LAND OF UNEQUAL OPPORTUNITIES?

Australians like to think of our country as a land of opportunity, but economic analysis suggests that there is much less social mobility than we like to think. One of the most important factors determining your future qualifications, job and income is what your parents do. This means that just as richer families pass down wealth from one generation to the next, it is also true that education levels and income levels tend to be handed down the generations as well.

Two studies of inequality in Australia highlight the nature of the debate about inequality and its causes.

A report, *Understanding Inequality in Australia*, published by the Institute of Public Affairs in 2017, argued that problems with rising inequality in Australia were often exaggerated, and that different data sources reach different conclusions. It argued that Australia is around average for its levels of inequality, if not better than average; that, if anything, inequality is in decline; and that there was greater inequality in the pre-1950 period than today.

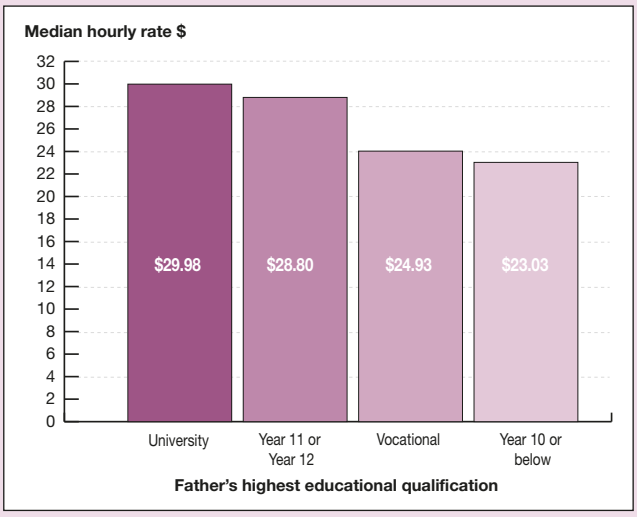
The IPA report also placed emphasis on the role of family and local community in influencing the values of individuals around work and study, which, in turn, have significant impacts upon educational outcomes. As the graph highlights, earnings for individuals whose father

completed a university degree are around one-third higher than for those with a father who only completed Year 10 or below. The report also argued that to understand inequality we need to look beyond measures of income and take account of the fact that some individuals are happier with a lower income but greater leisure time, or the opportunity to do the work that they most enjoy.

The IPA report noted the importance of housing prices to inequality, noting that while 98 per cent of Australians want to own their own home, housing has never been more unaffordable than it is today. The report also noted concerns that, against international benchmarks, student results at Australia's schools have declined in recent years. This decline has taken place across mathematics, science and reading literacy.

In 2023 the Australia Institute published a report on similar issues, *Inequality on Steroids*, and came to different conclusions to the IPA. Its analysis identified a trend towards increasing concentration of wealth, with the top 10 per cent of income earners in Australia securing 93 per cent of the growth in income that occurred in Australia in the decade to 2019. This contrasted with all previous time periods since the Second World War, which saw the majority of income growth going to the bottom 90 per cent of income earners. The report advocated for a more inclusive post-pandemic economic growth to avoid worsening inequality.

Using the international benchmark of the gini coefficient, Australia is ranked 21st out of the OECD's 38 countries, meaning that it has slightly more inequality than the majority of OECD economies.



THE RELATIONSHIP BETWEEN INCOME AND WEALTH

Although the distribution of wealth in Australia is far more unequal than the distribution of income, wealth and income are closely related. Individuals with high incomes tend to also enjoy greater levels of wealth compared to low income earners.

Household income can be used to purchase goods and services, service debts and acquire assets. The more income a household has left after covering living expenses, the greater its capacity to build wealth. Also, the more wealth a household has, the greater its capacity to generate income. A household can generate higher income in the form of rent from a property investment, or dividends from a share portfolio. But these assets may not be affordable until income levels reach a certain threshold. In this way, an increase in income inequality can result in a widening of wealth inequality, and an increase in wealth inequality can result in an increase in income inequality. This helps explain why the gap between the incomes of Australia's youngest and oldest age groups has grown since 2008.

A Productivity Commission research paper in July 2020 found a trend towards above-average income growth among over 65s in the years that followed the global financial crisis, and below-average income growth among under 35s. The largest contributing factor was that over 65s enjoyed their fastest income growth not from work or government transfers, but from their wealth assets (such as rent and dividends).

reviewquestions

1 Describe the recent trends of income inequality within Australia, with reference to specific demographic groups.
2 Outline the effect that geographic location may have on income and wealth inequality in Australia.
3 Analyse possible reasons behind the disparity in average earnings between men and women.
4 Discuss the accuracy of using the average weekly income measurement as a measure of income distribution in Australia.

11.5 The costs and benefits of inequality

Inequality has some limited economic benefits but significant social and economic costs.

Some economists argue that inequality is a natural consequence of the free market functioning effectively, since each individual receives a share of income according to their marginal productivity. In addition, they contend that inequality has the advantage of creating and strengthening individuals' incentives and increasing their share of output. In other words, people will be encouraged to work harder to gain a larger share in the distribution of income.

Other economists emphasise the social costs associated with inequality. They argue that free market capitalism divides society into different classes (for example, working class, middle class and upper class) and that the system tends to entrench high levels of inequality and poverty.

Economic costs of inequality

Inequality reduces overall utility

Inequality in the distribution of income reduces the total utility, or satisfaction, in society. This is because people on higher incomes gain less utility from an increase in income than people on lower incomes. This is explained by the principle of diminishing marginal utility: as more of a good is consumed it will provide progressively less utility to the consumer. This means that an extra $1 of income is worth more to a lower income earner than to a higher income earner. A more equitable distribution of income would therefore increase total utility (in other words, create a greater overall level of satisfaction in society). However, although the concept of utility (similar to the concept of happiness) is important, it is difficult to measure accurately and consistently.

Inequality can reduce economic growth

Low income earners spend a higher proportion of their income than higher income earners, since the cost of essentials such as housing and food take a higher proportion of their income. In economic terms, lower income earners have a higher marginal propensity to consume (MPC) because they spend more of each additional dollar they earn than higher income earners. That means that in an economy with a high level of income inequality, there will be a relatively lower level of consumption and higher level of savings. This in turn would lead to lower economic activity, employment, investment and living standards.

Research into the consequences of rising inequality in recent decades is providing evidence that higher levels of inequality tend to lead to lower levels of economic growth. One study by the OECD estimated that the rise in income inequality in OECD economies between 1985 and 2005 reduced cumulative growth by 4.7 per cent during the two

decades from 1990 to 2010. One of the main reasons for this negative economic impact is that as inequality increases poverty, particularly in the bottom decile, tends to become entrenched. This was also highlighted in Treasury research in Australia published in 2022.

> "The empirical evidence amply supports the negative effect of poverty on economic growth. However, the impact of inequality on growth is less straightforward. A case can be made that inequality can serve as an incentive for effort and investment. However, other theoretical arguments and empirical evidence point to a negative effect of inequality on growth through a variety of channels ...
>
> [I]f the opportunity to save, invest, acquire skills, innovate, and take risks are thwarted by barriers (such as fixed costs) that depend on an individual's initial income, wealth, place of birth, race, ethnicity, sexual orientation or disabilities, inequality can prevent many poor and marginalized people from contributing to growth."
>
> – International Monetary Fund (2021), IMF Working Paper: *Links Between Growth, Inequality and Poverty: A Survey*

Inequality creates conspicuous consumption

Some economists argue that inequality in the distribution of income creates a "leisure class" consisting of the higher income earners in society. The leisure class puts a large proportion of their money towards "conspicuous consumption", which is the consumption of expensive goods and services, such as yachts, private jets and expensive jewellery. This can contribute towards a culture where individuals' sense of their own worth depends on their access to a particular lifestyle.

Inequality creates poverty and social problems

Inequality in income distribution causes relative poverty. Poverty contributes to the development of an underclass of low-income earners, which has limited access to educational opportunities and can suffer health and other disadvantages that may reduce labour force participation and create a self-perpetuating cycle of disadvantage.

Inequality increases the cost of welfare support

Governments provide safety net income support for people out of work, the aged and people with disabilities. Higher levels of inequality require increased levels of government assistance. In addition, economic research suggests that entrenched disadvantage imposes proportionately greater costs on governments as workforce participation declines and households rely more heavily on government services.

For more details on research into the economic and social costs of inequality, visit the website of the Equality Trust, which collects the leading research on these issues: **www.equalitytrust.co.uk**

Social costs of inequality

The two major social costs of inequality are those associated with social-class divisions and poverty.

Social-class divisions

The distribution of income and wealth creates class distinctions in modern economies, such as between groups broadly described as upper class, middle class and working class. Class divisions can result in tensions between people and between different regions, as well as higher levels of crime and social disorder. Wage disputes between workers and employers, in which workers try to improve their income level, are a common cause of dispute. These divisions can sometimes lead to social and economic instability, especially in developing economies where the gains of rising prosperity are often unequally distributed.

Poverty

Australia does not have high levels of absolute poverty, but it does experience significant levels of relative poverty. Approximately one in ten Australians are living in poverty at any one point in time, although for most of them, this experience only lasts for one or two years, according to the 2022 Household Income and Labour Dynamics (HILDA) survey. Around

4.6 per cent of working age males and 6.4 per cent of females are persistently in poverty. The 2023 ACOSS/UNSW report *Poverty in Australia* found that during the COVID-19 pandemic, temporary increases in income support payments helped to reduce the percentage of Australians in poverty from 14.6 per cent of the population in March 2020 to 12 per cent of the population in June 2020. Poverty tends to trap families into a vicious cycle of low incomes and limited economic opportunities. High poverty levels also tend to be associated with increased levels of crime, poor physical and mental health and reduced life expectancy.

Economic benefits of inequality

Income inequality can create economic **incentives** which lead to an increase in the productive capacity of resources and thus an increase in real GDP per capita.

Inequality encourages the labour force to increase education and skill levels

If those with higher qualifications and skills reap higher income rewards, new entrants and existing participants in the labour force will be encouraged to improve their education and skill levels. Some level of income inequality may therefore encourage an increase in the quality of the labour force. However, this assumes that children growing up in poor households still have the opportunity to access a good education, perform well at school and afford higher education. If not, an economy is likely to suffer in the longer term from lower levels of productivity growth.

Inequality encourages the labour force to work longer and harder

The potential to earn higher incomes produces an incentive for workers to work longer hours or to work overtime, which may enhance economic growth. However, workers will only be willing to give up leisure in order to work longer hours when they feel the extra income is more valuable than their leisure time. In addition, if workers are rewarded for being more productive, this should increase their incentives to build on skills and therefore improve labour productivity.

Inequality makes the labour force more mobile

Higher incomes can act as an incentive to encourage labour to move to where it is most needed. A more mobile labour force will lead to a more efficient allocation of resources and a higher rate of economic growth. This has been an important factor in the past decade as high earnings in mining jobs attracted workers to remote parts of Australia, such as the Northern Territory and mining communities on Australia's north-west coast.

Inequality encourages entrepreneurs to accept risks more readily

The prospect of income rewards accruing to entrepreneurs encourages them to take the risks associated with new investment and innovation. If entrepreneurs received no extra reward for risk-taking, there would be fewer entrepreneurs and businesses, a lower rate of economic growth, weaker investment, less innovation, fewer jobs and a reduced productive capacity in the economy.

Inequality creates the potential for higher savings and capital formation

There is a strong relationship between income and saving levels. The higher the income an individual earns, the greater the proportion of income that will be saved; and likewise, the lower the income, the lower the proportion of savings. In theory, greater income inequality should encourage increased savings in the economy because of the greater number of higher income earners. Increased savings should reduce Australia's reliance upon foreign capital by providing domestic funds for investment.

Social benefits of inequality

It is difficult to identify significant social benefits of inequality. The potential economic benefits of inequality – such as higher levels of saving or productivity – could produce

a "larger pie" from which all members of society could benefit. Additionally, one might argue that there are social benefits from an economic system that encourages hard work, risk-taking and social mobility. However, income inequality has few overall social benefits, since the economic system that determines the distribution of income and wealth does not give everyone the same level of opportunity to pursue their income and wealth goals.

Inequality of opportunity exists in Australia due to several factors:

- Existing inequality in the distribution of income and wealth tends to perpetuate inequality of opportunity. For instance, higher income earners have better access to educational opportunities, making it more likely that they will gain admission to university courses, allowing them to take up higher paid occupations.
- Not everyone has the same mental and physical attributes and the same potential with regard to the acquisition of income and wealth. For example, some people are more talented at manual work, which tends to lead to lower paying jobs than jobs that require analytical skills.
- People who acquire wealth through inheritance have a much greater opportunity to build up their wealth through investments, as opposed to those that start with no wealth.
- People may not have access to the same networks of people that may lead to new opportunities. For example, new migrants are likely to find it difficult to access social and business networks. Often this inequality is difficult to overcome because many of the barriers to opportunities are informal barriers (for example, business people may prefer to do business with people who went to their school, or have a similar social background, because they feel more comfortable with such people – this will informally exclude other people).

Given the problem of inequality of opportunity, it is generally felt that the social benefits associated with inequality are very limited.

reviewquestions

1 Explain how reducing inequality might increase economic growth. Use a numerical example to support your answer. (*Hint: the marginal propensity to consume at different levels of income*).

2 Outline the major social and economic costs and benefits of inequality.

11.6 Government policies and inequality

Government policies can influence inequality in society in direct and indirect ways. Fiscal and labour market policies generally have the most direct impact through changing the levels of government benefits, taxation, and wages and salaries. However, the side effects of policies pursued for other purposes, such as microeconomic policy, can also affect inequality. In recent decades governments have adopted a strategy of reducing government intervention in markets generally, but also taking additional targeted policy steps to reduce economic and social disadvantage such as through personalised assistance with training and finding work. During periods of heightened instability, such as the COVID-19 pandemic and the global financial crisis, major policy interventions have been used to prevent a severe economic downturn that could sharply increase inequality.

Macroeconomic management and job growth

Since employment is the main source of income for households, unemployment is the main reason for low incomes and poverty. Periods of **unemployment** (and underemployment)

in Australia in the past have contributed significantly to an increased gap between high and low income earners. Unemployed people must rely on government benefits, which are significantly below the average incomes earned by people in employment. Thus, lower unemployment rates tend to reduce the gap between the rich and the poor. One of the main purposes of the Australian Government's JobKeeper package introduced during the COVID-19 recession in 2020 was to maintain the employer/employee relationship, and minimise job losses during the periods when business activity was most disrupted by COVID-19. By reducing job losses during the worst period of the recession, the Government was able to limit "labour market scarring" in the form of long-term unemployment, and the long-lasting rise in inequality that has historically followed recessions.

Changes in the labour market

Changes in the pattern of employment have meant that many of the jobs that have been created in recent years have been casual or part-time rather than full-time jobs – in fact, data released by the Australian Bureau of Statistics in 2023 showed that 6.8 per cent of all jobs (or 1,061,100) are "secondary" jobs, that is, not the worker's main source of income. The decline of full-time work contributes to **underemployment** – people in part-time or casual jobs wanting to work longer hours but being unable to find more work. Underemployed people often hold casual or temporary jobs in the so-called "gig economy", with work hours changing from week to week. Thus, they tend to have lower incomes and suffer greater fluctuations in their income levels because when an economy goes into a downturn, the first measure businesses often take is to reduce casual and overtime hours.

Underemployment refers to those persons who are working less than full time (and therefore not unemployed) but would like to work more hours.

The **decentralisation of the labour market** has widened inequality between wage earners. Under enterprise agreements, workers with greater skills and bargaining power have achieved higher average wage increases than less skilled workers who rely on industrial awards for wage rises. In addition, as jobs have become more highly skilled and highly specialised, the gap between pay for high skilled and unskilled work has widened. The problem of increased wage dispersion was recognised in the *Fair Work Act 2009,* which includes special provisions to help low paid workers engage in enterprise bargaining.

Australia's national industrial relations regulator, the Fair Work Commission, also has an influence on inequality through its annual decision on adjustments to minimum wages in Australia. This decision establishes minimum wage levels for millions of employees who are covered by awards and agreements based on awards, and also indirectly influences other wage outcomes throughout the economy. Since its first minimum wage decision in 2010, the Fair Work Commission has indicated a willingness to raise minimum wages to assist low-paid workers where it has been confident that such increases would be affordable for businesses.

In June 2023, the Fair Work Commission announced an increase to the national minimum wage of 8.65 per cent, from $21.38 per hour to $23.23 per hour. It also increased award pay rates by 5.75 per cent. These represented the largest increases awarded under the current pay system, and came in response to a surge in inflation following the war in Ukraine and the recovery from the COVID-19 pandemic. A key parameter for decisions of the Fair Work Commission's Minimum Wage Panel is keeping minimum wages at around 55 per cent of median full-time earnings for Australians.

Government policies to reduce inequality

Changes in government **taxation, transfer payments and other assistance** have the most direct impact on inequality in Australia. Overall, government intervention tends to reduce income inequality by taxing the wealthiest groups more heavily and **redistributing income** to lower socio-economic groups. The 2023–24 Budget allocated $250 billion for social security and welfare payments. The largest transfer payments are the age pension ($59 billion), the disability support pension ($21 billion) and the JobSeeker payment for the unemployed ($13 billion).

Figure 11.17 shows that income inequality is significantly reduced through government intervention. The final income of households (bottom row) is more evenly distributed than income from private sources (the top row). Without any taxes or government benefits, income for the highest quintile is over 12 times the average for the lowest quintile (most of whom are age pensioners or people on disability support). As a result of government policies, the average annual disposable income received by the lowest quintile of income earners is almost doubled, so that the highest income earners take home incomes around five times those of the lowest quantile.

	Average annual income ($)					
Disposable income	Lowest quintile ($)	Second quintile ($)	Third quintile ($)	Fourth quintile ($)	Highest quintile ($)	All households ($)
Before tax and social assistance benefits	29,936	68,433	119,926	177,650	365,133	150,547
After tax and before social assistance benefits	28,084	61,036	103,523	147,476	284,761	123,661
After tax and social assistance benefits	54,134	86,689	117,495	154,434	288,311	139,064
Source: ABS *Australian National Accounts: Distribution of Household Income, Consumption and Wealth*, Table 11.11, December 2022						

Figure 11.17 – Distribution of annual household income, taxes and benefits, 2021–22

As income rises, so too does the level of taxation (the difference between gross income and disposable income). This occurs because Australia has a progressive income tax system, with higher marginal tax rates for higher income levels. Nevertheless, the Australian Bureau of Statistics' data on the distribution of government taxes and benefits (ABS cat. no. 6537) showed that in 2018, the lowest 40 per cent of income earners had a proportionately larger tax burden, earning only 12 per cent of total private income but paying 15 per cent of total taxes. This occurs because of the impact of indirect consumption taxes that are not related to household incomes, such as the Goods and Services Tax. This is offset by government benefits that primarily assist those in the lowest three income quintiles. Government transfers and the provision of government services such as health, education and housing, are the primary mechanism for reducing disadvantage in Australia. The combined effect of taxes and transfers, according to a 2018–19 Productivity Commission study, is the reduction of income inequality by about one-third.

Recent budgets have contained several policy measures with significant consequences for inequality. Major changes to Australia's personal income system were introduced in three phases from 2017–18 to 2024–25. The first stage of the cuts was targeted at lower income earners, but the largest tax reductions are the stage-three tax cuts, taking effect from 1 July 2024 and abolishing the 37 per cent tax bracket. By reducing the number of tax brackets from four to three, income earners pay the same rate for all earnings between $45,000 (which is slightly above the minimum wage) and $200,000 (which is two and a half times the average wage). Although a Treasury Working Paper in 2019 found that Australia's personal income tax became more progressive between 1994 and 2016, the changes taking effect from 2024–25 make Australia's tax system less progressive.

Compulsory superannuation has influenced the **distribution of wealth** in Australia since its introduction in 1992. Employers in Australia are required to contribute a minimum of 11 per cent (rising to 11.5 from 1 July 2024) of an employee's wages to a superannuation fund that they cannot access until their retirement. Since the mid-1980s, the proportion of employees covered by superannuation has risen from 42 to 94 per cent. While superannuation assets boost the wealth of all wealth quintiles, they are particularly important for low- to middle-income earners, for whom superannuation may be one of few significant financial assets. The beneficial effects of compulsory superannuation

for reducing inequality are expected to grow further as compulsory superannuation contributions rise to 12 per cent of employee incomes from 2025–26 onwards.

The Albanese Government has announced several measures to improve the affordability of housing, which is a key driver of the wealth inequality gap. Housing ownership skews heavily towards the wealthy, with 80 per cent of investment properties owned by the top 20 per cent of wealth holders, according to an ACOSS/UNSW 2020 report. The Government plans to establish a $10 billion Housing Australia Future Fund to build 30,000 social and affordable homes over five years. It also plans to establish a shared-equity scheme to allow first home buyers to purchase partial ownership of properties, with a Commonwealth authority buying and owning up to 40 per cent of the home's equity. When they sell the property, homeowners will be required to repay the initial investment as well as sharing any capital gains. The shared equity policy is modelled on schemes in the UK and Western Australia.

The indirect impact of government policies

The impact of government policies aimed at creating a more equitable distribution of income can be outweighed by the consequences of other government policies that tend to widen the gap between higher and lower income earners.

The use of **monetary policy** to slow the rate of economic growth can influence the distribution of income and wealth. When interest rates increase, disposable incomes will be lower for households with large mortgages (because repayments will be higher) and higher for those whose main source of income is from interest-bearing assets such as superannuation funds. Sharp increases in interest rates, like those experienced in 2022 and 2023, may also reduce house prices and slightly improve wealth inequality because wealthier households have more housing assets. These outcomes for inequality are side effects of a policy that is used for other purposes such as maintaining a low rate of inflation.

Microeconomic reform initiatives sometimes require economic restructuring that can create unemployment in the short term, or may result in the closure of some industries. Privatisation of formerly government owned businesses, for example, is often followed by price increases and "downsizing" of the workforce to improve profitability for shareholders. In general, microeconomic reform is intended to improve efficiency and increase the returns on investments to owners of assets. This means that its benefits can tend to flow to wealthier asset owners, while its costs tend to be felt most by lower income earners.

One of the challenges for governments is to implement microeconomic policies in such a way that they do not increase inequality. Microeconomic policies are often accompanied by substantial adjustment packages to compensate for the hardship that lower income groups may experience as a result of the reforms. For example, when a proposal to increase Australia's Goods and Services Tax from 10 to 15 per cent was raised in 2015, its advocates highlighted the need to provide compensation to ensure that low income earners would not be disadvantaged. Targeted transitional support to groups directly affected by microeconomic reforms have proved effective in building greater public support for reform and minimising the hardships associated with structural change.

reviewquestions

1. Outline how THREE government policies may indirectly affect the distribution of income and wealth.
2. Examine how labour market policies might be used to address income inequality.
3. Explain how a government might implement policies to reduce the inequality in income and wealth distribution.

chapter summary

1. **Income inequality** refers to the degree to which income is unevenly distributed in an economy.
2. The **Lorenz curve** is a graphical representation of the degree of income inequality in an economy. It plots the cumulative increase in income against the cumulative increase in population when the population is ranked by income level.
3. The **Gini coefficient** measures the degree of income inequality in an economy, by calculating the degree to which the distribution of income deviates from perfect equality. It is represented by a number between 0 and 1, with a number closer to 0 representing greater equality and a number closer to 1 representing a higher level of inequality. Inequality as measured by the Gini coefficient has increased since the mid-1990s.
4. Like income, **wealth** is unevenly distributed in the economy. Individuals in the top quintile own around 60 per cent of the total wealth in the economy while the bottom quintile has almost no wealth at all.
5. Wages and salaries are the largest source of income, constituting over half of total income to individuals, followed by business profits, rental property income and returns from enterprise.
6. Household wealth is mostly held in either owned occupied or investment property. Other sources of wealth include superannuation, business ownership, shares, savings accounts and shares.
7. Inequality for individuals is influenced by a range of factors. An individual's social background is a major influence – those who are born in rich families are likely to stay rich, and those born in poor families are likely to stay poor. Age is a significant factor because lower incomes are seen among young people and old people, but incomes are higher in middle age. Other influences include cultural background, family structures and where someone lives.
8. The **costs of inequality** are that it diminishes total utility in society, reduces social mobility, lowers consumption and economic growth, encourages conspicuous consumption, reduces work efficiency, and contributes to worse wellbeing and health outcomes. It can also create an "underclass" of people who are stuck in poverty.
9. The **benefits of inequality** in a society are that inequality creates an incentive for people to work harder, to acquire new skills, to undertake entrepreneurial risks and innovate, and to save more in order to be able to start a business. If more productive workers receive higher incomes, this might increase inequality but might also increase national wealth.
10. **Government policies** have had a mixed impact on the distribution of income and wealth. Progressive income taxation, social welfare payments, government services and compulsory superannuation have reduced inequality, while microeconomic and labour market reforms have contributed to rising inequality.

chapter review

1. Distinguish between income and wealth.
2. Explain how the following can be used to measure the degree of inequality in the distribution of income:
   a) The Lorenz curve (explain using diagrams)
   b) The Gini coefficient (explain using numerical examples)
3. Explain the relationship between income inequality and wealth inequality.
4. Examine which groups tend to be adversely affected by inequality according to occupation, education and ethnic background in Australia.
5. Discuss the general trends in the distribution of income and wealth in Australia in recent years.
6. Outline the economic costs and benefits associated with income inequality.
7. Outline the social costs and benefits associated with income inequality.
8. Discuss the relationship between increasing level of inequality and the level of economic growth in an economy.
9. Discuss government policy options to improve the distribution of income and wealth in Australia.
10. Analyse the impact of the government's policy mix on income inequality in Australia.

12 Environmental Sustainability

12.1 Introduction

12.2 Ecologically sustainable development

12.3 Market failure: private benefits and social costs

12.4 Public and private goods

12.5 Major environmental issues

12.6 Government policies and environmental sustainability

Australia's key environmental statistics	
Forest area (thousand sq. km)	1341
Freshwater resources (per capita cu. m)	19,177
Critically endangered animals and plants (no. of species)	244
Fossil fuels (% of total energy use)	92
Carbon dioxide emissions (per capita metric tons)	17.8

Sources: World Bank 2023; Department of Climate Change, Energy, the Environment and Water 2023

"Climate change, biodiversity loss, worsening resource bottlenecks, and life-shortening air pollution continue to pose great systemic risks to the wellbeing of current and future generations. Without stronger action to improve the environmental performance of our economies, the impacts of environmental degradation will undermine development prospects and the progress in well-being achieved in the past 50 years."

– OECD (2023) *"What is green growth and why do we need it?"*

12.1 Introduction

Economists have traditionally assumed that there is an almost endless supply of natural resources to meet demands for production. If demand for a good increased, it was assumed that the supply of that good would also expand. However, in recent decades, economists have shifted away from this traditional model that ignored environmental constraints. As environmental factors such as pollution, rising fuel costs and climate change have increasingly affected people's lives, economists have been working to include environmental factors in their economic analysis.

Environmental sustainability is about protecting and enhancing the natural environment: the totality of the physical environment we live in, including the land, water, climate and plant and animal life. This includes protecting the quality of air, water and soil, preserving natural environments and biodiversity, ensuring the sustainable use of renewable and non-renewable resources, and minimising the negative environmental consequences of economic activity. Some of the key environmental sustainability challenges facing Australia include:

- reducing the emission of greenhouse gases, which contribute to climate change
- ensuring adequate supplies of water for use by households, farmers and businesses
- preserving the health of forests, waterways and ecosystems.

Historically, many aspects of economic activity in Australia have caused environmental harm. Economic activities – including farming, mining and industry – have resulted in land degradation, depletion of non-renewable resources, the extinction of many plant and animal species, and the pollution of water systems. Government policies now seek to address the impact of economic activity on the environment to improve quality of life and preserve the natural environment for future generations.

While prioritising environmental concerns may involve economic costs in the short term, sustainable economic growth in the longer term depends on a healthy environment. Action to protect the environment can therefore support economic growth in the medium to long term. For example, a 2020 Deloitte Access Economics report, *A New Choice: Australia's Climate for Growth*, estimated that the cost to the Australian economy of not acting on climate change will by 2070 amount to $3.4 trillion and 880,000 jobs. On the other hand, the benefit from shifting Australia's economy to net zero carbon emissions could increase GDP by 2.6 per cent by 2070, adding $680 billion and creating over 250,000 jobs.

In recent decades, environmental factors have been incorporated into economic theory through the emergence of **environmental economics**. This chapter begins with an explanation of how economic theory deals with environmental issues. Concepts such as market failure, public goods and externalities are useful in understanding the contemporary environmental challenges and policies addressed in sections 12.5 and 12.6.

12.2 Ecologically sustainable development

Environmental economics emphasises the need to pursue a sustainable level of growth, taking into account the effects that economic activity has on the environment. Unless the hidden costs of economic growth are taken into account, fast growth may lead to a rapid depletion of resources, a polluted environment and a reduction in quality of life.

In chapter 7 we looked at the concept of sustainable economic growth. This is the idea that growth should be maintained at a level that is not so low that unemployment increases, and not so high that it causes excessive inflation or external imbalance. Environmental concerns provide an additional longer-term dimension to the concept of sustainable economic growth. Overuse or exploitation of natural resources to achieve short-term growth can deplete these resources and permanently damage the environment, reducing the productivity of affected sectors of the economy. Consumption that depletes an economy's natural resources will reduce the future potential output in the longer term, especially in primary industries that rely on natural resources as inputs in the production process. This is represented by a decrease in the economy's production possibility curve, as shown in figure 12.1.

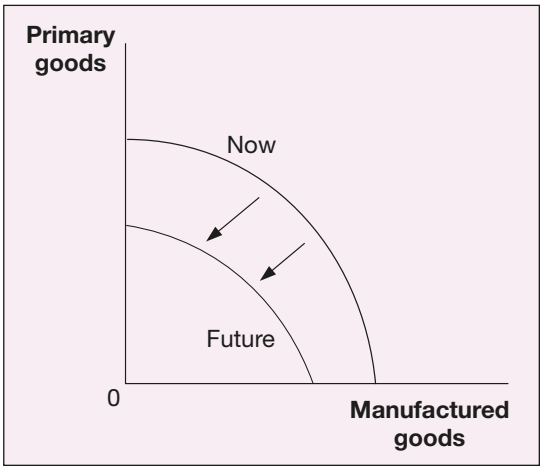


Figure 12.1 – The long-term impact of resource overuse on the production possibilities curve

Some historians argue that the severe depletion of natural resources played a major role in the collapse of past civilisations and empires, when deforestation and soil erosion made it impossible to sustain a food supply for local populations. This explanation for the decline of past empires (including the Roman Empire, the Mayan civilisation and smaller communities such as Easter Island) is the most extreme example of the impact of ecologically unsustainable development.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained. It is a level of economic activity that is compatible with the long-term preservation of the environment, rather than the maximum level of growth possible in the short term.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained.

The long-term purpose of achieving both economic growth and environmental protection is to improve people's quality of life. The benefit of satisfying a greater number of material wants is diminished if it comes at the expense of damage to the natural environment, the depletion of natural resources or harmful effects on human health. Further, harm to the environment reduces the quality of life for future populations by depleting natural resources – and therefore the future growth – of the economy. One of the major principles

of ecologically sustainable development is the principle of fairness between generations, or **intergenerational equity**. This describes the concept that resources should not be used in a way that will limit the quality of life of future generations.

KEY PRINCIPLES OF ECOLOGICALLY SUSTAINABLE DEVELOPMENT

- Integrating economic and environmental goals in policies and activities
- Ensuring that environmental assets are appropriately valued
- Managing environmental risks with caution
- Ensuring fairness in the allocating of costs and assets within and between generations
- Taking into account the global effects of environmental issues

Australia's National Strategy for Ecologically Sustainable Development (NSESD) was first developed in 1992. The core objectives of the strategy are:

- to enhance **individual and community wellbeing and welfare** by following a path of economic development that safeguards the welfare of future generations
- to provide for **equity** within and between generations
- to **protect** biological diversity and **maintain** essential ecological processes and life-support systems.

The pursuit of ecologically sustainable development has been incorporated into the policies and programs of Australian governments as a significant policy objective. For example, government departments are required to report on environmental matters in their annual reports. The principles and objectives under the strategy remain relevant today, and continue to guide government initiatives, such as the Nature Positive Plan to reform national environmental regulation.

The Australian Government has endorsed the United Nations' 2030 Agenda for Sustainable Development, which aims to integrate the social, environmental and economic dimensions of sustainable development. The Department of Climate Change, Energy, the Environment and Water is responsible for leading progress towards the Sustainable Development Goals related to clean water, energy, responsible production and consumption, climate action, life below water and life on land.

reviewquestions

1 Describe what is meant by *ecologically sustainable development*, and explain how it fits within the study of economics.

2 Outline the concept of intergenerational equity and discuss the impact of policies to encourage intergenerational equity on economic growth.

12.3 Market failure: private benefits and social costs

In a modern market economy, the price mechanism is the key determinant in decisions about what goods will be produced, in what quantity, and the price at which they will be sold. The price mechanism involves the interaction of the market forces of supply and demand to reach an equilibrium price and quantity of production. Thus market outcomes reflect a balance between consumer preferences (as represented by consumer demand) and the costs of producing output (as represented by the firms' supply schedule). When

consumers demand goods, producers will make them available, so long as they can receive a price that at least covers their costs. This means that as demand increases, production will increase.

However, the price mechanism does not effectively take into account the long-term effect of economic activity on the environment. Stocks of fish, for example, may continue to be farmed until they run out, forests may be logged until there are none left, and rivers and the atmosphere may be polluted. This is because producers enjoy a private benefit from the activity that depletes resources or pollutes the environment, but they do not directly face the social costs that their economic activity creates. Similarly, the market price that is paid by consumers does not reflect these social costs.

Market failure occurs because the price mechanism only takes account of private benefits and costs of production to consumers and producers – it does not take account of wider social costs and benefits borne by all of society. These other costs and benefits that are passed on to other members of society are known as externalities. Negative externalities are a cost to society and positive externalities are a benefit to society.

The concept of **negative externalities** generally refers to the adverse spillover effects on the environment from economic activity. Goods and services that have negative externalities are known as **demerit goods**.

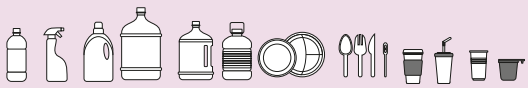
A **negative externality** is a negative outcome of an economic activity whose cost is not reflected in the operation of the price mechanism.

In an economic system based on private property ownership, there are no general property rights associated with environmental resources such as oceans and the atmosphere. This is one of the main economic problems that lie behind the market's failure to account for the environmental impacts of production. The price mechanism does not determine a price or value for these resources, and they are freely depleted. Therefore, the environment and other common resources can be destroyed through **overuse** (such as overfishing the seas or rivers, or polluting the atmosphere and waterways). This market failure is referred to as the **tragedy of the commons**.

Nevertheless, the price mechanism plays a limited role in protecting the environment by limiting the sales of depleted resources that do have a price. When environmental resources become scarce, the cost of natural resources increases, reducing the number of resources consumed. Therefore, if a large number of trees are cut down to be sold on the market, eventually it will become more expensive to supply them. The remaining supply will be in a remote location, and of a lower quantity, so prices will rise and reduce the number of people who can afford them. In addition, the high price will also induce producers and buyers to look for and develop alternative inputs to production.

However, this approach can only protect resources that are sold in markets, such as fish and timber. The price mechanism plays no part in allocating environmental resources that can be used for free, such as the use of the atmosphere to dispose of gases generated during the production process. Further, remaining resources may not be protected if the price increases too late and by too little.

SINGLE-USE PLASTIC: CAUSING A NEGATIVE EXTERNALITY



In OECD countries, each person produces an average of 238 kilograms of plastic waste each year. Single-use plastic packaging has been strongly favoured by businesses and consumers because of its convenience, flexibility and its low cost to produce. But after a consumer is finished with the plastic, it can pollute the environment as litter or end up in landfill, where it can take up to 500 years to decompose. It also ends up in waterways, where it can be ingested by marine life and transferred up the food chain to humans, with adverse health consequences. None of these events impose direct costs to the businesses that supply the packaging or to individual consumers. In this situation, single-use plastic causes a negative externality, because society bears the cost of the environmental damage and pollution.



Not all externalities are negative. **Positive externalities** are the beneficial spillover effects from economic activity. Although production does not usually generate positive environmental outcomes, it can generate other beneficial spillover effects for society. For example, use of public transport can reduce commuting costs for consumers but also generate positive externalities such as reduced road congestion and reduced carbon emissions. Goods and services that have positive externalities are known as **merit goods**.

A **positive externality** is a positive outcome of an economic activity whose value is not reflected in the operation of the price mechanism.

The role of externalities in the marketplace can be demonstrated with the use of a demand and supply diagram. In figure 12.2, the costs of production are borne by the producer, and are represented by the producer's supply curve. Negative externalities that are borne by the whole society, however, are an additional cost on top of the producer's costs. If we add the producer costs and social costs together for each level of output, we can plot the supply curve for the whole society – S (social cost), which lies above the normal supply curve. The vertical distance between the two supply curves is the size of the externality.

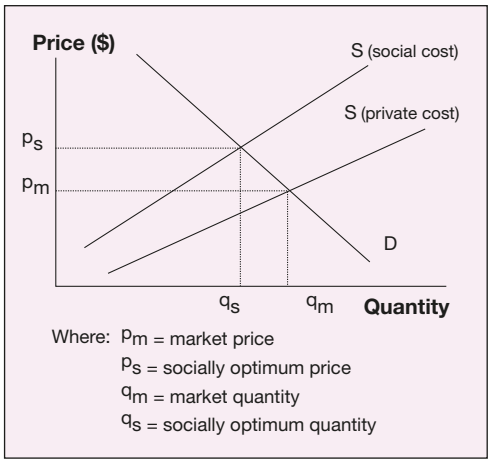


Figure 12.2 – Negative externalities

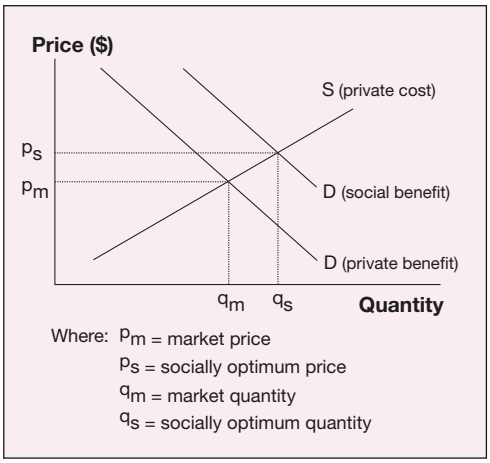


Figure 12.3 – Positive externalities

The market will only take into account private costs and benefits of production, resulting in a price of p_m and an output level of q_m. If the negative externality were borne by either the producer or consumer, however, the price would rise to p_s, reflecting the higher cost of production. Output would fall to q_s, highlighting that goods and services with negative externalities tend to be overproduced.

Positive externalities are the opposite – they are benefits of production that are not enjoyed by the individual consumer. For example, replacing an inefficient old refrigerator with a new energy-efficient refrigerator will not only reduce an individual household's energy bill but also reduce its energy consumption and the emissions of carbon dioxide – a benefit for the whole society. In figure 12.3, the consumers' demand curve is based on the individual benefits of consumption. If we add the social benefits, we can plot the demand curve for the whole of society – D (social benefit), which lies above the normal demand curve. The vertical distance between the two demand curves is the size of the positive externality.

The market will only take into account private costs and benefits of production, resulting in a price of p_m and an output level of q_m. However, if the positive externality were enjoyed by the producer or consumer, the price would rise to p_s, reflecting the higher value of the good's production. Output would rise to q_s, showing that goods and services with positive externalities tend to be under-produced.

reviewquestions

1. Explain why individuals and businesses may not pay for the environmental costs of their economic activities.
2. Identify THREE examples of negative externalities and positive externalities resulting from economic activity.
3. Suppose a particular good has a high social cost that is not accounted for by the price mechanism. With the use of a diagram, contrast the socially optimum equilibrium with the market equilibrium outcomes.

12.4 Public and private goods

Having a clean and unpolluted environment is valued by individuals and society and considered a "good". Yet private markets do not provide environmental "goods" like other goods and services. If all of us value a cleaner environment, why aren't our environmental problems solved by businesses offering environmental goods and services, and the public paying for them?

In order to answer this question, we must appreciate the difference between public and private goods. A clean environment, just like national defence and the maintenance of public law and order, has the characteristics of a public good.

THE TWO CHARACTERISTICS OF PUBLIC GOODS

1. Public goods are **non-excludable** – once public goods are provided, the producer cannot exclude consumers from enjoying the benefit of that good even if they are not prepared to pay.

   Once national defence, street lights or a clean environment is provided, even non-paying consumers cannot be excluded from enjoying the benefits of these goods.

2. Public goods are **non-rival** – consumption of the good by one individual consumer does not reduce the quantity of the good available for other consumers.

   For example, one person's "consumption" of the benefits of public order does not reduce the ability of others to also enjoy this public good.

These characteristics of public goods create the opportunity for "free rider" behaviour. This occurs when consumers or businesses benefit from a good or service without having to pay for its production or maintenance. A fishing company that benefits from clean oceans without paying the cost of cleaning up ocean pollution is an example of free-riding behaviour.

Free rider refers to groups or individuals who benefit from a good or service without contributing to the cost of supplying the good or service.

The potential for **free rider** behaviour means that private markets either do not provide or under-provide public goods, since private-sector firms would not be able to charge consumers for enjoying the benefit of that good. Therefore, the price mechanism cannot produce an equilibrium outcome that properly reflects the forces of supply and demand, and setting a price does not limit the consumption of public goods. The incentive for free riders would therefore tend to undermine any attempt by the private sector to clean up the environment or protect it from overuse and depletion. For this reason, public goods tend to be provided by the government.

It is important to distinguish between public goods and **public-sector goods**, that is, goods and services that are provided by the government or its agencies. Not all public-sector goods are public goods. Train services, for example, are usually provided by the government, but they are not public goods because they are excludable, since train guards can prevent you from riding for free. Likewise, not all public goods are provided by the government.

Public-sector goods are goods and services provided by the government, such as train services and hospitals.

reviewquestions

1. Identify a public good that is provided in your local area. Outline how the problems of public goods apply in this situation. What role does the government play in providing the good?
2. Using examples, describe the characteristics of a public good. Explain how these characteristics lead to the free rider problem.
3. Distinguish between public goods and public-sector goods.

12.5 Major environmental issues

The task of environmental sustainability appears simple while we discuss it in general terms. Surely it is just a matter of measuring the social costs of economic activity, then introducing laws and establishing authorities so that these costs are borne by the producer or consumer? In reality it is not so simple. Experts often disagree sharply on how to calculate the environmental costs of economic activity, and on which policies are most effective in solving environmental problems. Industries resist pressure to change their practices or to pay the full costs of their environmental impact. Governments must then decide whose evidence is most convincing and how environmental and economic goals should be balanced.

Below, we examine four major environmental issues with economic consequences that governments must confront in economic policy-making.

Preserving natural environments

In the long run, the economy cannot keep growing if the environment is degraded. Environmental damage also affects human health through higher levels of air and water pollution, and restricts the availability of resources. Measures to preserve the environment aim to avoid the social and economic problems that arise when the environment is not actively preserved.

THE 2019–20 BUSHFIRES: BURNING THROUGH AUSTRALIA'S BIODIVERSITY

Australia experienced an unprecedented bushfire season in the summer of 2019–20, with devastating effects on the environment, as well as communities' economic and social wellbeing. Multiple uncontrolled fires burnt through over 18 million hectares of land, with the loss of many homes and buildings. The fires also devastated natural habitats and assets.

This resulted in significant damage to many forest areas with high biodiversity and threatened species, with the loss of an estimated billion birds, mammals and reptiles due to lost habitats and food sources. Recovery of these areas will take many years and may result in the permanent extinction of species.

In addition to the effects on biodiversity, the fires also generated significant smoke and ash, which created hazardous air quality, polluted environments and affected water quality. These effects could be seen from outer space, and hazardous air quality occurred in areas as far away as South America. The smoke pollution resulted in negative health consequences, including increased respiratory illnesses and it exacerbated existing health conditions.

The loss of natural habitats also affected Australia's economic activity, given the destruction of much agricultural land area and the effects of the bushfires on Australia's tourism industry. The World Wildlife Fund estimated that the bushfires resulted in economic losses to Australia's food system of $4–5 billion.

Preservation of the environment may include measures such as:

- restricting development in environmentally sensitive areas, such as mining in national parks
- protecting native plant and animal species from extinction
- controlling the emissions of waste products
- requiring new plantation in areas where logging has occurred.

Awareness of the importance of environmental issues has been slow to develop in Australia and throughout the industrialised world. Australia protects 20 per cent of its total land area, compared with 33 per cent in New Zealand and 28 per cent in the United Kingdom. Australia also has a poor record of preserving biodiversity despite being one of the six most biodiverse nations on the planet. Australia has identified and named only 30 per cent of its estimated 600,000 species. In 2023, 244 flora and 107 fauna were considered critically endangered under the 1999 *Environment Protection and Biodiversity Conservation Act*, a number that increased, partly as a result of the Australian bushfire season in 2019–20. Despite government efforts (including a new five-year Threatened Species Action Plan), governments have failed to reverse the growing number of threatened species – primarily due to invasive species and habitat loss from urban development and agriculture. The most recent State of the Environment Report assessed Australia's biodiversity as in a state of decline. While conservation policies have reduced the rate of decline in some species, there has been insufficient investment to reverse the overall trend, and further extinctions are expected in coming decades without further investment.

Governments often face significant problems in trying to preserve the natural environment:

- In the short term, environmental policies may result in a **reduction in economic growth** through interventions in the price mechanism that cause higher prices or reduced supply. For example, water allocations for irrigation may be critically important for environmental reasons, but result in lower agricultural output in the short term.
- Industries will face **higher costs** if they have to comply with rigorous environmental standards. Australia may miss out on opportunities that would lift economic growth and exports if our environmental safeguards result in additional production costs compared with other countries, although exports may sometimes become less competitive if Australia's weaker environmental standards result in tariffs on our exports, such as with carbon border taxes. Groups that represent affected industries, such as farming, mining and construction, may try to lobby governments to prevent strict environmental protection policies.
- The **cost of repairing damage** to the environment is often borne by taxpayers rather than by those who have caused the economic damage, such as with the Commonwealth Government's $200 million Environment Restoration Fund to manage erosion around waterways, clean up waste and protect the habitat of threatened species. In some situations, the government may try to pass costs on to industry. For example, the NSW Government introduced a Container Deposit Scheme in 2017, where beverage containers can be deposited at recycling facilities in exchange for a 10-cent refund. This reform aims to reduce littering and increase recycling in order to protect the natural environment, with the associated scheme costs borne by beverage producers.

Pollution

Pollution occurs where the natural environment is degraded in some way, such as by harmful chemical substances, noise and untreated rubbish. Pollution affects the atmosphere, water resources and land. All sectors of the economy, including manufacturing, agriculture and households, contribute to the pollution of our environment.

Pollution has been an environmental problem ever since large numbers of people began living in close proximity in towns and cities. The Industrial Revolution in the 18th century made pollution into a major health and economic concern through the waste and pollution generated by production, population growth and the high concentrations of people in cities. Mining and manufacturing processes create toxic waste and pollution, and the worst polluted areas in the world are in industrial cities in developing countries, such as Delhi in India or Baoding in China.

The impact of pollution is often felt far away from its original source – and can therefore often be characterised as a negative externality. Pollution can therefore be a problem for the global economy and for international institutions, as well as for national governments. For example, high levels of industrial pollutants such as toxic metals and plastics are now found in aquatic life throughout all the world's oceans, even in places thousands of kilometres from any land mass.

"UNSUSTAINABLE": BIODIVERSITY UNDER THREAT

The Commonwealth Government manages how industry and governments act to protect Australia's environment through the *Environment Protection and Biodiversity Conservation (EPBC) Act*. This Act aims to conserve biodiversity, provide environmental protection particularly on matters of national significance, streamline environmental assessments and approval processes, promote ecologically sustainable development through sustainable use of natural resources, as well as recognise and promote Indigenous peoples' knowledge of biodiversity.

In 2021, an independent review of the EPBC Act called for major reforms of Australia's national environmental protection legislation.

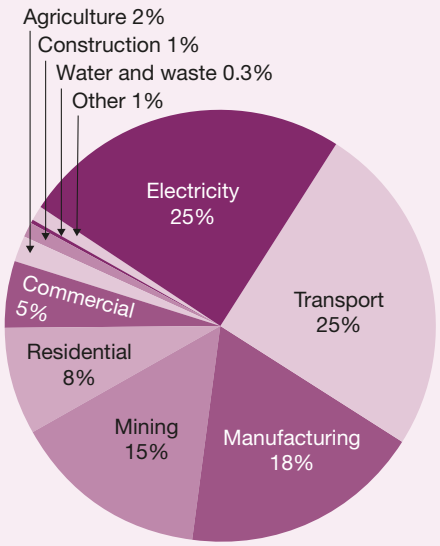
The review found that the Act does not clearly define the intended environmental outcomes and should instead provide a basis to actively plan for environmental outcomes and restore the environment, in line with Australia's future development needs. Despite its intentions to support how the Commonwealth Government works with State and Territory governments on environmental policy, the Act was found to be too complex and a barrier to coordinated management of the environment.

The Government accepted the need for reforms, and affirmed that State governments have primary responsibility in assessing the environmental impacts of major projects, under new National Environmental Standards. Although not explicitly recommended in the Review, the Government also committed to establishing a national Environmental Protection Agency to support the monitoring and enforcement of environmental standards.

Within individual countries, governments can implement policies to reduce pollution. The range of options available to the government includes laws banning environmentally damaging production techniques, quotas to restrict the emission of harmful pollutants, subsidies to encourage environmentally friendly practices and taxes to discourage some forms of economic activity.

Climate change

The most profound threats to the global environment come from climate change. Climate change, also known as global warming, is related to the emission of greenhouse gases, including carbon dioxide (CO_2), nitrous oxide (N_2O) and methane (CH_4). The world's most authoritative source of information on climate science is the Intergovernmental Panel on Climate Change (IPCC), involving hundreds of the world's leading scientists. In its sixth global assessment report released in 2022–23, the IPCC observed that changes in the Earth's climate, across every region, were unprecedented across thousands, if not hundreds of thousands, of years. The report found that average emissions in the last decade were higher than in any previous decade. The updated modelling indicates that the environmental, health and economic impacts of additional degrees of warming are more significant than previous estimates.



Source: Department of Climate Change, Energy, the Environment and Water, 2023
Numbers may not add to 100% due to rounding

Figure 12.4 – Australia's energy consumption by sector

The IPCC estimated that over the next 20 years, global temperatures will reach or exceed 1.5 degrees Celsius of warming. The report found that global temperatures are expected to increase until 2050 under all scenarios, with warming exceeding 1.5 degrees Celsius unless large reductions in greenhouse gas emissions are made. At 1.5 degrees Celsius of global warming, there will be increasing heat waves, longer warm seasons and shorter cold seasons. At 2 degrees Celsius of global warming, heat extremes would more often reach critical tolerance thresholds for agriculture and health. An important implication of the IPCC climate modelling is that achieving net zero CO_2 emissions caused by human activity will be required to stabilise global temperatures at any level.

Because of the worldwide reliance on fossil fuels, there is a close link between increased economic growth and the growth in carbon emissions in most economies around the world. As standards of living improve, greater demands are being placed on limited natural resources to satisfy the world's energy and food supply needs. The average estimated increase in carbon dioxide emissions from 2001 to 2025 is 1.9 per cent per year. As highlighted in the latest IPCC report, uneven economic development across countries has meant that vulnerable communities that have historically contributed the least to climate change are disproportionately affected by it.

Climate change is expected to have major consequences around the world and in Australia, as outlined in figure 12.5. Australia is particularly vulnerable to the effects of climate change because it is already a hot, dry country. Australia is also vulnerable because of the importance of fossil fuels to energy production and exports, and its proximity to other countries that will be affected by increased temperatures and rising sea levels, such as Indonesia and Bangladesh. The Productivity Commission noted in its report *5 Year Productivity Inquiry* in 2023 that the Australian economy is highly exposed to the threat of climate change, more than any other OECD country other than Norway. However, Australia is behind the majority of OECD countries in transitioning to lower carbon emissions, and slow responses are contributing to lower productivity.

While there is a scientific basis for targeting reductions in carbon dioxide emissions, many nations, including Australia, been slow to reduce their emissions. This is partly because individual countries cannot, by themselves, slow the pace of climate change, and some of the measures to address climate change can involve short-term costs. In chapter 16, when we

For more information about climate change and government policies, visit the websites of the United Nations Framework Convention on Climate Change, the Department of Climate Change, Energy, the Environment and Water and the IPCC Sixth Report.

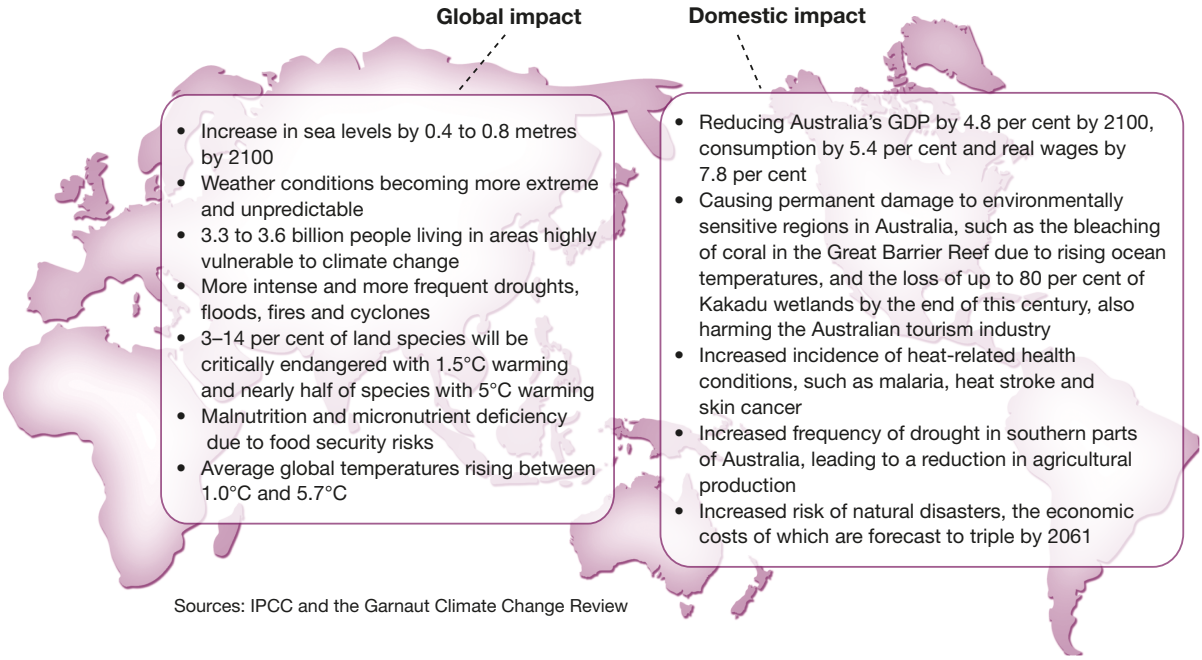


Figure 12.5 – Global and Australian impacts of climate change, 21st century

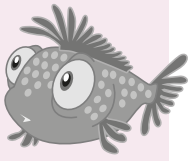
examine policies for improved environmental management, we take a closer look at policies to address climate change.

The depletion of natural resources

The depletion of natural resources is both an environmental and an economic problem. On their own, market mechanisms do not prevent the overuse of resources. The impact of the depletion of natural resources is greatest on future generations. Sustainable resource management aims to ensure that the present generation does not overconsume the stocks of renewable resources and minimises depletion of non-renewable resources. New technology may also make alternative resource uses possible. In order to determine what level of resource use is sustainable, economists can estimate the optimal rate for the use of resources over time. An optimal rate of resource use may be calculated for both renewable and non-renewable resources.

For renewable resources, establishing an optimal rate of use means arriving at a **threshold exploitation** level that allows the resources to regenerate so that there is no long-term decline in these resources. For example, over-fishing, over-grazing, excessive farming of agricultural land and the over-exploitation of timber resources must be prevented if these resources are to be available in sufficient quantities for future generations. The critical water shortages experienced in many parts of Australia, in particular in areas relying on the Murray–Darling River System, reflect the long-term overuse of the renewable resource of fresh water.

- **Renewable resources**: Renewable resources can naturally regenerate or replace themselves in a relatively short period of time. However, these resources may be depleted to the point where they become non-renewable (that is, they cannot regenerate) and they are lost forever. For example, overfishing of a species of fish may cause the numbers to fall to a level at which the species cannot reproduce and may become extinct.



- **Non-renewable resources**: Non-renewable resources are those natural resources that are in limited supply because they can only be replenished over a long period of time, or cannot be replenished at all. Non-renewable resources include fossil fuels such as petroleum and coal, and minerals such as copper and iron ore.



For non-renewable resources, calculating an optimal rate of use involves determining a rate of decline that is acceptable for both the present generation and future generations. This starts with eliminating overuse and waste, but ultimately may result in taking action to recycle or curb consumption of these resources.

Economists face two main challenges in calculating the optimal rate of resource use for a non-renewable resource. First, it can be hard for present generations to predict the needs of future generations. Second, it is often hard to assess the existing stock of a resource. There may be limited or conflicting evidence about the quantity of that resource that remains available. It was often argued in the 1970s, for example, that the world's supply of oil would be exhausted by the end of the twentieth century.

AUSTRALIA'S RESOURCES: PAST, PRESENT AND FUTURE

Throughout Australian history, the economy has relied heavily on the exploitation of natural resources. For many years, abundant natural resources have underpinned our success as a primary commodity producer. In the nineteenth and twentieth centuries, Australia was considered the "bread-basket" of the British Empire because of its wheat exports, and the economy was able to "ride on the sheep's back" because of the strong demand for our wool exports. Since the gold rushes of the mid-nineteenth century, successive waves of commodity booms have played an important role in Australia's economic development, in driving population growth and in forming Australia's national character.

In more recent decades, Australia has relied on its unusually large concentrations of non-renewable mineral and energy resources. This includes major deposits of gold, coal, iron ore, copper, gas and oil, as well as the world's largest reserves of zinc, lead, bauxite, nickel and uranium. The global resources boom of the 2000s made the mining industry more central to Australia's economic prosperity, with mineral and metal exports surging from less than a third to well over half of Australia's total export revenue.

Australia's economic reliance on primary commodity exports, especially non-renewable energy resources, is unlikely to be sustainable in the longer term. In 2022, the value of Australia's mining and energy exports soared to over $300 billion, as the war in Ukraine prompted a spike in the price of fossil fuels. But globally, economies are increasingly focusing on renewable energy sources and technologies. While exporting non-renewable resources plays a central role in Australia's export mix, Australia will need to diversify its production so it can achieve greater economic and environmental sustainability.

Australia is well placed to shift to using renewable energy, given favourable conditions for solar and wind energy. The share of Australia's electricity generated from renewable sources increased from 8 per cent in 2001 to 29 per cent in 2021, including wind (12 per cent), solar (10 per cent) and hydro (6 per cent). Australian Government projections indicate that up to 48 per cent of Australia's electricity could be generated from renewable energy sources by 2030. The closure of Hunter Valley's Liddell coal-fired power station in 2023 – which previously provided up to 10 per cent of NSW's electricity – is one example of the major shift occurring in Australia's electricity sector.

For many years, energy and climate policies have been at the centre of Australian political debate. The public has toggled between concerns about the impact of climate policies on Australia's economy (and its energy and resources sector in particular) and concerns about the impacts of climate change. Policymakers, economists and politicians have wrestled with complex challenges relating to the security and reliability of Australia's energy supply, short-term shortages, rising prices and the carbon emissions intensity of Australian electricity generation.

These debates have played a role in the downfall of the past six Australian Prime Ministers dating back to 2007. Debate over energy and climate policies played a key role in the 2022 election, which saw the Albanese Government elected with a commitment to accelerating Australia's transition to net-zero emissions, and rapidly expanding renewable energy.

reviewquestions

1. Outline TWO difficulties facing governments that seek to implement policies to preserve natural environments.
2. Using the example of climate change, explain the concepts of market failure, externalities, public goods and free riding.
3. Examine the importance of renewable and non-renewable resources for the Australian economy and the environment.

12.6 Government policies and environmental sustainability

In recent decades, environmental sustainability has emerged as an increasingly important issue for policymakers worldwide. The increasing impact of climate change has made policymakers more aware that environmental protection, instead of being in competition with economic growth, is in fact critical for sustaining growth in the longer term. This section outlines some key policies for environmental management, which are examined in more detail in chapter 16.



Details of Commonwealth environmental policies relating to climate change, conservation, water quality and land management are available from the website of the Department of Climate Change, Energy, the Environment and Water. Policies specific to NSW and Sydney are available from the websites of the NSW Department of Planning and Environment and the NSW Environment Protection Authority.

Government policies can influence environmental management by discouraging environmentally harmful activities and providing incentives for firms and individuals to act in an environmentally responsible manner.

A ban on the production or sale of a particular good or service is the most extreme action a government can take to achieve improved environmental management. For example, since 2021 it has been illegal to sell or use agricultural chemicals containing mercury in Australia. Until 2021, sugar cane and other farmers were permitted to use a fungicide called shirtan, despite its ban in many other countries. The ban on shirtan prevents the release of over 5000 kg of mercury (a harmful poison) into the environment annually. Banning a product eliminates the externalities associated with its production and use, to the extent that its use can be stopped. Government bans can also impose severe costs on firms and individuals, particularly those whose employment depends on the production of the product. Consequently, governments generally only consider this option if a particular product is causing severe environmental or social damage, or where a suitable substitute product exists. For example, in 2021, the NSW Government introduced legislation to ban plastic bags, straws, cotton buds and polystyrene cups – which all have substitute products and are particularly harmful where they end up as litter in the ocean, harming sea life. In 2023, progress was made on the UN Treaty on Plastic Pollution. The agreement, expected by 2024, aims to reduce plastic pollution by addressing the production, design and disposal of plastic.

Bans may also be used to prevent consumption or other activities that may harm the environment. For example, the Chinese Government recently banned imports of mixed recycled materials from other countries, to protect China's environment and improve public health. This ban had major flow-on effects for the Australian recycling industry, as around 30 per cent of Australia's recyclable waste was exported to China. The ban has caused an oversupply of recyclable waste that has led to the dumping of recyclable materials in landfill.

Another measure governments can take to cover the economic costs associated with the consumption of a good is to impose a **tax on its production or use**. For example, the Commonwealth Government imposes a tax or excise on fuels such as petrol. These taxes aim to internalise the externalities associated with a particular economic activity. That is, they require the firm or individual that causes the externality to pay for some, or all, of its costs. For example, the tax on petrol forces the owners of motor vehicles to pay some of the costs associated with building and maintaining roads and managing traffic.

Governments can also introduce policies to encourage firms and individuals to use more environmentally-friendly goods and services. All Australian cities have **subsidised** public transport services such as buses, trains and ferries to offer individuals an alternative to motor vehicles. **Government funding** is also used to accelerate the introduction of new technologies that have environmental benefits but high establishment costs. For example, the Australian Government invested $500 million in the Powering Australia Technology Fund to help businesses develop innovative projects and technologies to reduce emissions.

TOWARDS NET ZERO

Market-based mechanisms are one tool being used by the government to help Australia achieve its commitment to net-zero emissions by 2050.

A key strategy for achieving emissions reductions is the Safeguard Mechanism which was reformed in July 2023. While the mechanism has been in place since 2016, the 2023 reforms include stricter limits on emissions and stronger incentives for businesses to reduce emissions.

Each year until 2030, around 215 of Australia's largest industrial emitters will need to cut emissions by an average of 4.9 per cent a year. If a business exceeds its emissions cap, it can purchase carbon credits to reduce its net emissions.

Government-held carbon credits will be made available at a capped price of $75 per tonne of emissions, with the capped price increasing by inflation plus 2 per cent each year. This carbon price is a market-based mechanism which creates an incentive for businesses to innovate and develop lower-cost ways to reduce their emissions.

In the case of public goods, however, even government subsidies may lead to an under-provision of resources. In this case, the government may have to **provide these services itself**. For example, the Australian Government operated a Threatened Species Recovery Hub during the 2010s to support research on threatened species in Australia and help fight the extinction of at-risk plants and animals – which might not be viable as a privately funded venture.

Governments also seek to **monitor and measure** changes in the environment over time. For example, the Commonwealth Government publishes the *State of the Environment* report, which documents changes in key areas of Australia's environment over a five-year period, including the atmosphere, biodiversity, coasts, marine environment, inland water, land, heritage, Antarctic environment and built environment. The 2021 report found that each of these aspects of Australia's environment are under increasing pressure or deteriorating, and that government action has been insufficient to reverse these trends. The Australian Bureau of Statistics has also started recording the Australian Environmental–Economic Accounts, which measures Australia's stock of environmental assets as an addition to the typical measures of assets within the economy. This will be built upon in future, with the 2023–24 Budget including over $50 million to establish Environment Information Australia, an independent office to provide a central authoritative source of environmental information. The availability of better quality data provides governments with better information about the trade-offs involved in decision making to support and manage economic and environmental outcomes, particularly where there may be adverse economic or environmental consequences.

Overall, governments have shifted away from outright bans and directly providing public goods to using market mechanisms such as taxes and subsidies. However, there are exceptions, such as the expansion of Australia's renewable energy Snowy Hydro Scheme, which is jointly owned by the Commonwealth, NSW and Victorian Governments. When it comes into operation, expected in 2028, it will expand its generation capacity by 50 per cent, providing power for an additional 500,000 homes.

Just as most environmental problems take years or even decades to emerge, most solutions to those problems also take many years to have their impact. This is a reason why governments often delay acting on environmental problems: they are often less urgent than other issues, and the results of policy actions are often less immediate.

"Overall, the state and trend of the environment of Australia are poor and deteriorating as a result of increasing pressures from climate change, habitat loss, invasive species, pollution and resource extraction. Changing environmental conditions mean that many species and ecosystems are increasingly threatened. Multiple pressures create cumulative impacts that amplify threats to our environment, and abrupt changes in ecological systems have been recorded in the past 5 years."

– Australia State of the Environment Report 2021

reviewquestions

1 Summarise government policy options to achieve environmental objectives and explain how they influence the behaviour of individuals and businesses.

2 Explain how a tax on the consumption of certain goods and services can be used to address negative externalities.

chapter summary

1 The **natural environment** represents the totality of the physical environment in which human society lives, and includes the land, water, climate and plant and animal life.

2 **Ecologically sustainable development** (ESD) is the concept of maintaining a level and quality of economic growth that does not result in long-term damage to the environment or depletion of limited resources.

3 The private interests of business, consumers and government often conflict with environmental objectives. **Market failure** occurs because the price mechanism only takes into account the private benefits and costs of production to consumers and producers, but does not take into account social costs (such as damage to the environment), also known as **externalities**.

4 The two characteristics of **public goods** are **non-excludability** and **non-rivalry**. A good is non-excludable where it is not possible to exclude individuals from enjoying the benefits of these goods once they are provided, even if they have not paid for them. A good is non-rival where an individual's enjoyment of a good does not reduce the ability of others to enjoy that good.

5 A major goal of environmental protection is to **preserve the natural environment**, by controlling development, limiting pollution, restraining the use of non-renewable resources and minimising any other negative effects of economic activity.

6 **Pollution** occurs where the natural environment is degraded in some way, such as by harmful chemical substances, noise or unattractive development. Pollution affects the atmosphere, water resources and land. Virtually all areas of economic activity, including manufacturing, agriculture and household consumption, contribute to the pollution of our environment.

7 **Climate change** is the increase in global temperatures and impacts on sea levels and weather patterns, believed to be caused by the emission of greenhouse gases such as carbon dioxide. Its long-term consequences are the most serious environmental threat to the global economy.

8 **Non-renewable resources** are those natural resources such as oil, coal and gas that are finite in supply and cannot be re-created in a short time frame. **Renewable resources**, by contrast, naturally regenerate themselves in a time frame that makes their use sustainable.

9 The sustainable use of resources is particularly important in Australia because of the significance of agriculture and mining to Australia's export base.

10 Government policies to address environmental problems include bans or taxes on environmentally-damaging goods and services, and subsidies for, or provision of, environmentally-friendly goods and services.

chapterreview

1 Describe what is meant by the term *natural environment*.

2 Discuss why environmental sustainability is often in conflict with other economic objectives.

3 Explain what is meant by the term *ecologically sustainable development*.

4 Outline how market failure occurs in the management of the natural environment.

5 Explain what is meant by an *externality*. Give an example of an externality.

6 Describe what is meant by a *public good*.

7 Identify what methods a government might use to control the level of pollution.

8 Discuss why climate change is widely regarded as the greatest long-term threat to the natural environment.

9 Distinguish between *renewable* and *non-renewable* resources.

10 Examine what initiatives the government can undertake to preserve the natural environment.

TOPIC 4

ECONOMIC POLICIES AND MANAGEMENT

Focus

This topic focuses on the aims and operation of economic policies in the Australian economy and hypothetical situations.

Issues

By the end of Topic 4, you will be able to examine the following economic issues:

- Analyse the opportunity cost of government decisions in addressing specific economic problems or issues
- Investigate structural changes in the Australian economy resulting from microeconomic reforms
- Apply economic theory to explain how a government could address an economic problem or issue in hypothetical situations
- Analyse alternative ways to finance a budget deficit

Skills

Topic 4 skills questions can ask you to:

- Explain how governments are restricted in their ability to simultaneously achieve economic objectives
- Use (simple) multiplier analysis to explain how governments can solve economic problems
- Identify limitations on the effectiveness of economic policies
- Explain the impact of key economic policies on an economy
- Propose and evaluate alternative policies to address an economic problem in hypothetical and the contemporary Australian contexts
- Explain, using economic theory, the general effects of macroeconomic and microeconomic policies on an economy
- Select an appropriate policy mix to address a specific economic problem

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Topic 4

Introduction

The first three topics of this book examined how Australia fits into the global economy and the kinds of economic issues that confront the Australian economy. This final topic examines *Economic Policies and Management* – looking in particular at the policies that can be used to address Australia's economic problems.

In this section we examine both the theory and practice of economic management. Each chapter examines the theory behind the policy, reviewing how economic policies can operate in hypothetical situations. We then examine the **current policy environment** in Australia, including recent Australian policies and alternative approaches.

Chapter 13 In studying economic policy, it is important to remember that there is always a reason why a government implements or changes a policy. In other words, all economic policies are related to policy objectives. Chapter 13 examines policy objectives in Australia and the potential conflicts in objectives that a government may face in implementing the economic policy mix.

In deciding which policies to implement, governments choose between a range of policy alternatives. In general terms, a distinction can be made between the government's use of macroeconomic policies, which are the broad policies that have overall impacts on the economy, and microeconomic policies, which are the policies designed to improve the operation of individual sectors and industries. The following chapters are divided between a discussion of macroeconomic and microeconomic policy instruments.

Chapters 14 and 15 These two chapters examine macroeconomic policy in Australia – fiscal policy and monetary policy – and how they can be used by the government to achieve its economic objectives.

Chapters 16 and 17 These two chapters look at microeconomic policies, with a focus on labour market policies in chapter 17.

Chapter 18 The book concludes with an evaluation of how well these policies achieve their objectives. Like all kinds of economic decisions, economic management involves making difficult choices between competing aims. Because of the difficulty in achieving all policy objectives, governments must prioritise their goals and respond to changing conditions in the global economic environment. Australia has achieved many of its economic policy objectives during the past 50 years. However, Australia still faces a range of longer term, structural problems and may face difficulty in sustaining its recent successes over time.

The Objectives of Economic Policy 13

13.1 Introduction

13.2 The objectives of economic management

13.3 The goals of government policy in 2024

13.4 Conflicts in government policy objectives

13.5 The economic policy mix

13.1 Introduction

In managing an economy, the first priority for a government is to determine what it will pursue as its economic objectives. Governments can choose to pursue a range of policy goals, and often the priorities of government policy shift over time.

Economists have traditionally described the major objectives of economic management in the following three ways:

- **Economic growth:** An increase in the level of goods and services produced in an economy, which increases the number of material wants satisfied and raises the living standards of individuals in the economy.
- **Internal balance:** Pursuing the goals of price stability (low inflation) and full employment.
- **External balance:** Keeping the current account deficit, foreign liabilities and exchange rate at stable and sustainable levels.

In the following pages we review the main objectives of government policy generally, and then discuss the current objectives of economic management in Australia.

13.2 The objectives of economic management

Economic growth and wellbeing

Economic growth involves an increase in the volume of goods and services that an economy produces. It is measured by the **annual rate of change in real GDP**, that is, the percentage increase in the value of goods and services produced in an economy over a period of one year, adjusted for the rate of inflation.

Economic growth offers substantial benefits to a nation, including:

- an increased standard of living for the population
- improved job prospects for the labour force
- the opportunity for increased public investment in infrastructure and services such as education funded through higher government tax revenues.

Economic growth also contributes to the general **wellbeing** of households, or **quality of life**, because it means there are more resources available for important contributors to quality of life, such as health care, education and programs to support the natural environment.

Quality of life refers to the overall wellbeing of individuals within a country according to their material living standards and a range of other indicators, such as education levels, environmental quality and health standards.

Full employment

The objective of full employment involves the full use of all resources (land, labour, capital and enterprise), but economists generally focus on the full employment of labour. This is because when labour resources are not fully utilised, some people will be unemployed – resulting in significant social and economic problems.

Full employment does not mean that there is no unemployment. Rather, it means that the economy is at its **non-accelerating inflation rate of unemployment (NAIRU)**, otherwise known as the natural rate of unemployment. The concept of the NAIRU reflects the fact that there is always going to be a certain level of frictional, seasonal, structural and hard-core unemployment in the economy. The natural rate of unemployment is therefore the level of unemployment that remains after the elimination of cyclical unemployment – the unemployment caused by the upturns and downturns of the economic cycle. This means that the NAIRU is caused by supply side factors rather than deficiency in demand.

The **non-accelerating inflation rate of unemployment (NAIRU)** refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment.

The government can reduce unemployment to its non-accelerating inflation rate through successful implementation of macroeconomic policies. It may also use microeconomic policies to reduce the NAIRU over the longer term. (*The different types of unemployment were discussed in more detail in chapter 8*).

The benefits of achieving full employment, or minimising unemployment, can be summarised as follows:

- fully utilising the economy's current capacity to produce, and therefore increasing living standards
- minimising the adverse economic and social problems associated with unemployment (for example, personal and family problems, loss of workforce skills and greater inequality).

Price stability

Price stability refers to keeping inflation, or the sustained increase in the general price level, at an acceptable level. This does not mean that the government aims to eliminate inflation altogether; instead, it aims to sustain inflation at a level that will cause minimal distortion to the economy.

High inflation was a significant problem for advanced economies in the 1970s and 1980s. Until 2022, recent decades had seen inflation remain at low levels. In Australia, the Government and the Reserve Bank are committed to sustaining the average rate of inflation at 2–3 per cent over the course of the business cycle. (*This objective, as well as the causes of inflation, were discussed in more detail in chapter 9*).

Inflation is seen as a problem because of its economic consequences. A high level of inflation may:

- reduce the real value of income and wealth
- reduce our international competitiveness, due to rising costs of production
- cause a depreciation in the exchange rate
- create uncertainty about future costs and distort economic decision making
- distort the pattern of resource allocation by encouraging speculation in relatively unproductive activities and discouraging savings and investment in productive activities that contribute to higher output.

External stability

Achieving external stability involves a country meeting its long-term financial obligations to the rest of the world so that its external accounts do not hinder internal economic goals such as higher growth and lower inflation. As discussed in chapter 10, this is also known as achieving "external balance". Commonly used measures of external stability include:

- Achieving a sustainable position on the **current account** of the **balance of payments**. This means, over the long term, balancing our payments for imports of goods and services, as well as other income payments, with our receipts for exports of goods and services, as well as other income receipts.
- **Net foreign debt as a percentage of GDP**. Foreign debt should be kept at a level where an economy can afford to make interest payments on its debt, most often measured via the debt-servicing ratio – the percentage of export revenue that is spent on making interest payments on foreign debt.
- **Terms of trade**. This reflects the relative prices of Australia's exports and imports. An increase in the terms of trade improves external stability because it indicates that Australia is able to buy more imports with a given quantity of exports.
- **Exchange rate**. In the short term, the exchange rate is a measure of international confidence in the Australian economy. High volatility in the exchange rate may indicate a lack of external stability.
- **International competitiveness**. Improving Australia's international competitiveness is the best way to maintain external stability over time.

Current account is the part of the balance of payments that shows the receipts and payments for trade in goods and services, as well as both primary and secondary income flows between Australia and the rest of the world in a given time period. These are non-reversible transactions.

Balance of payments is the record of the transactions between Australia and the rest of the world during a given period, consisting of the current account and the capital and financial account.

Although Australia has had large external imbalances, during recent decades this has not been a major concern for the Australian economy. Nevertheless, improving external imbalances is a policy goal as lower external imbalance will mean reduced vulnerability to adverse developments in the global economy.

An equitable distribution of income and wealth

An overall objective of government policy is to create a fairer **distribution of income and wealth** in the economy. Governments generally accept that when free markets operate without government intervention, they will produce unfair outcomes because some individuals and some groups in society have fewer opportunities than others.

While governments do not aim to remove all of the inequalities between individuals, it is widely agreed that societies should make provision for the needs of people who are not able to provide for themselves – such as aged persons, people with disabilities or illnesses, and people who are unable to find work. Government policies also generally aim to reduce some of the gap between higher and lower income earners through redistribution policies – such as higher tax rates for high income earners, and social security payments for lower income earners, especially those with families to look after. To address the problem of poverty or social disadvantage passing from one generation to the next, government policies also aim to improve opportunities for all Australians to achieve their potential through access to education and other opportunities. Specific policies such as these are often needed to address specific areas of inequality, alongside macroeconomic policies to increase economic growth, keep inflation low and reduce unemployment.

Environmental sustainability

In the process of achieving a society's economic objectives, economic activity may create side effects such as pollution and the depletion of natural resources. In order to address these problems, governments may sometimes establish specific environmental objectives, such as a reduction in greenhouse gas emissions, an improvement in energy efficiency, a reduction in the use of old-growth forests for the timber industry, or a reduction in waste and pollution.

Environmental objectives are part of the government's overall framework of economic management, and a substantial amount of money is spent by Commonwealth and State governments on environmental programs. Traditionally, governments have been willing to trade off some longer-term environmental objectives in favour of the benefits of increased economic activity in the short term. However, with growing recognition of the serious impacts of economic activity on climate change, **ecologically sustainable development** has become an increasingly important economic objective.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained.

reviewquestions

1 Describe the Government's economic objectives of internal stability and economic growth.

2 Discuss how effective you believe the Australian Government has been in achieving external stability in recent years. Has this goal conflicted with other economic objectives?

13.3 The goals of government policy in 2024

Although the broad objectives of economic policy remain largely the same from one year to the next, over time some objectives become higher priorities while other goals become less important. Changing economic conditions influence which goals receive the highest priority at different times. The election of a new government or Prime Minister, as occurred in 2022, can sometimes lead to significant changes in economic priorities. This section examines the current objectives of economic policy in Australia.

Containing inflationary pressures

After three decades of low inflation, price pressures re-emerged as the Australian economy recovered from the COVID-19 recession. This makes containing inflation the highest short-term priority of economic policy. As inflation surged to 6 per cent in 2022–23, the Reserve Bank implemented the most aggressive tightening cycle since the Reserve Bank was granted formal independence. While monetary policy plays the central role in achieving the goal of low inflation, fiscal policy also plays a role. The 2023–24 Budget included measures to contribute to lower inflation by reducing energy costs for households, although some economists argued that this positive effect would be outweighed by some of the cost-of-living measures, including an increase in JobSeeker payments, adding to domestic demand.

Fiscal consolidation

In response to the COVID-19 pandemic, the Government undertook unprecedented spending to ensure minimal disruption to the economy, while protecting the public health. At the time of the 2021 Intergenerational Report, the Budget was forecast to stay in deficit until 2060. However, this outlook has since improved, with a surge in commodity prices leading to a one-off budget surplus for 2022–23, the first surplus in 15 years. With the budget returning to deficit in 2023–24, fiscal consolidation remains a major medium-term priority for the Albanese Government. Measures to increase revenue include increasing tax on multinational companies and funding an Australian Tax Office taskforce to crack down on tax avoidance.

Transition towards "net zero" emissions

One of the major economic challenges confronting all economies is to accelerate their transition away from relying on fossil fuels, which are chiefly responsible for climate change. Australia is a large emitter of greenhouse gases on a per-capita basis, and policy settings relating to emission reductions have been uncertain and constantly changing over the past two decades. Concern about climate change was a significant factor in the election of the Labor Government in 2022. After it came to office, the Government legislated a commitment to reduce carbon emissions by 43 per cent on 2005 levels by 2030 and achieve "net zero" emissions by 2050. The process of transforming Australia's economy in

the years ahead will involve changes in every aspect of the economy, including industry structure, skills training, exports and regional development policy. Although in the past the transition to net zero was seen as involving a trade-off between environmental and economic policy goals, this is much less true now. With an emerging consensus among economists, business, and other interest groups, there is agreement that this transition is necessary and provides many opportunities for new industries to emerge.

Maintaining low unemployment

Australia has sustained low rates of unemployment in recent years. Unemployment fell to a low of 3.4 per cent in October 2022, its lowest level in almost 50 years, reflecting both the strength of Australia's post-COVID recovery and ongoing restrictions to migration which, in the short term, led to shortages of workers becoming a larger challenge than shortages of jobs. Governments implement a wide range of policies to improve skills, increase workforce participation and ensure that the labour market operates efficiently. Government policy in 2024 is focused on preventing high levels of inflation becoming entrenched, which in the longer term would threaten the goal of sustainable economic growth and low unemployment.

Increasing Australia's productivity and sustainable rate of long-term growth

A major focus of the policy mix over the past four decades has been to implement structural changes that will support a higher rate of long-term economic growth (which has fallen since the 1990s). This requires measures to improve productivity growth, increase workforce participation and address capacity constraints in the economy (related to inadequate infrastructure and shortages of skilled workers). Higher productivity growth has become a high priority because Australia's ageing population is likely to reduce Australia's labour force participation rate in coming years, threatening to reduce Australia's sustainable rate of economic growth. The Productivity Commission's 2023 *Advancing Prosperity* report identified that productivity in the services sector, which makes up 80 per cent of the economy and 90 per cent of the workforce, has lagged behind global counterparts. The Productivity Commission identified the need for policy changes to support education, skilled migration and the labour market to boost productivity. Improved productivity is also a key objective for state and federal government investment in physical infrastructure projects including roads, public transport, water and ports. Some of the Government's policies aimed at boosting the country's productive capacity include fee-free TAFE courses, cheaper and more accessible child care, and investing in infrastructure such as the National Broadband Network and the digital economy.

Improving distribution of income and wealth

Improving the distribution of income and wealth has been a long-term objective of policy that influenced several policy changes in the past decade. These include education funding reforms (to assist disadvantaged schools), welfare changes (such as increases in the age pension) and the National Disability Insurance Scheme, which reduces out-of-pocket expenses for people with significant disabilities.

Protecting vulnerable groups was a major consideration in the design of policies responding to the economic downturn caused by COVID-19. Besides the JobKeeper wage subsidy program, the Government also temporarily doubled the unemployment benefit and made it easier to access. More recent policy measures by the Government to reduce inequality included increasing wages for low-income earners (through an increase in the minimum wage), extending Parenting Payment (Single) to parents with children up to 14 years (previously 8 years), increasing investment in social housing and introducing new health, education and employment programs to assist with the goal of Closing the Gap between Indigenous and non-Indigenous Australians.

reviewquestions

1 Outline the long-term objectives of government policy.
2 Briefly outline how successful Australia has been in recent years in achieving each of the economic goals listed above.

13.4 Conflicts in government policy objectives

Governments face significant conflicts in seeking to achieve the goals of economic growth, low inflation, low unemployment, environmental sustainability and external balance simultaneously. In attempting to achieve one goal, the government may limit its ability of achieving another. There are three major conflicts between the government's economic objectives:

1. Achieving a simultaneous reduction in unemployment and inflation

It is often argued that the government faces a trade-off between lower unemployment and inflation in the short to medium term. Stronger aggregate demand creates jobs and reduces unemployment, but is also likely to put upward pressure on prices. Weaker aggregate demand forces businesses to restrain price rises, but also tends to increase unemployment. The **Phillips curve**, shown in figure 13.1, shows this inverse relationship between inflation and unemployment, highlighting the trade-off that governments face when making policy decisions. However, this relationship is not necessarily symmetrical. A 2021 Reserve Bank research paper found strong evidence that the Phillips curve was actually flatter at higher levels of unemployment. That is, when unemployment is high, wages growth (and therefore prices) is largely unresponsive to changes in unemployment. However, wages growth becomes increasingly responsive to unemployment when it is at lower levels.



Figure 13.1 – The Phillips curve

Australia's economic policymakers faced a Phillips curve trade-off between inflation and unemployment objectives in 2023. In a speech in June 2023, Michele Bullock, the (then) Deputy Governor of the RBA, said that the unemployment rate would need to rise from 3.6 per cent to 4.5 per cent to help bring inflation down to the bank's target range of 2 to 3 per cent.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the Long Run Phillips Curve – a more sophisticated analysis of the relationship between unemployment and inflation.

2. Achieving economic growth and environmental sustainability

The pursuit of greater economic growth can come at the cost of environmental damage. Approving new developments or land clearing in environmentally sensitive areas for housing or agriculture can reduce forestation, disrupt habitats and endanger species of floral and fauna. Land and water resources can be degraded by excessive or inappropriate farming practices. Greater economic activity can cause pollution and an increase in waste. The goal of reducing carbon emissions has become more central to policy making all across the world in recent years, because of the importance of reducing carbon emissions to long-term economic growth. While Australia continues to face many conflicts between economic and environmental objectives, in the longer term, achieving economic and environment objectives can (and must) be done simultaneously. For example, recent economic research has found that acting on climate change early has the potential to lift GDP growth and create new jobs in clean energy industries.

3. Achieving economic growth and external balance

The government also faces the challenge of managing conflicts between economic growth and external balance. Strong economic growth often results in a deterioration in the current account on the balance of payments. Higher economic growth is usually associated with increased consumption and investment, which will cause the volume of imports to rise. This is known as the **balance of payments constraint**, which refers to the limitation on the rate of growth because of the impact of high growth on the current account deficit.

The **balance of payments constraint** reflects the extent to which a high current account deficit limits the speed at which the economy can grow.

AUSTRALIA'S FIRST WELLBEING BUDGET

Treasurer Jim Chalmers announced a significant expansion of economic policy goals in July 2023 when he introduced a new framework for measuring economic and social wellbeing. Traditionally, the Australian Treasury's reporting on the economy has focused on measures such as growth, inflation and unemployment. The new framework, set out in the *Measuring What Matters* paper, identifies 50 indicators that provide a broader measure of prosperity.

Of these 50 indicators:

- 20 show trend improvement over time, including life expectancy, experience of discrimination, trust in other people, and waste generated per person.
- 12 show a trend deterioration, including biological diversity, productivity growth, homelessness and trust in national government.
- The remaining 18 show mixed outcomes or are largely unchanged, such as life satisfaction, the proportion of people experiencing high or very high levels of psychological distress, and income and wealth inequality.

The development of a wellbeing framework in Australia follows in the footsteps of Scotland, Wales, Canada, New Zealand and Germany. These frameworks can influence policy outcomes by guiding policymakers to consider the interaction between economic goals and broader measures of prosperity and sustainability.

The Government plans to update the framework's online dashboard of indicators annually, though a decision is yet to be made on how often a reporting statement will be released. While some economists questioned whether the reporting framework would lead to actual policy changes, it reflects the way in which governments increasingly see traditional economic objectives as a means to an end, and not just as ends in themselves.

> "The measures are in addition to, not instead of, the more traditional ways we measure our economy like GDP, employment, inflation and wages.
>
> The Government's primary focus is addressing inflation and laying the foundations for future growth but it is important that we simultaneously work on better aligning our economic and social goals … Measuring What Matters is part of a deliberate effort to put people and progress, fairness and opportunity at the very core of our thinking about our economy and our society, now and into the future."
>
> *– Dr Jim Chalmers, Treasurer, July 21 2023 (media release)*

Other conflicts in objectives

The pursuit of economic growth can sometimes come at the cost of **greater inequality** in income distribution. Economic reforms may have negative social effects, such as relying on road tolls and other user-pays charges for public services, which can have negative distributional consequences for people on lower incomes. Decentralisation and deregulation of the labour market may have positive impacts on labour productivity and economic growth, but also increase wage dispersion and contribute to inequality. While growth and inequality are often viewed as conflicting objectives that governments must choose between, economists have recently developed "inclusive growth" principles, which suggest that sharing economic gains more evenly actually helps the economy grow. Giving children in poverty greater educational opportunities has positive social outcomes and improves the labour market in the future. Increasing female representation in business leadership positions is associated with higher levels of firm productivity. Achieving a more equitable distribution of income and wealth is a long-term challenge for government policy.

The government also experiences a range of other policy conflicts between **shorter-term** and **longer-term** objectives. The conflicts between short- and long-term objectives result from the fact that the policies aimed at long-term goals often involve significant structural change and substantial costs in the shorter term, such as an increased level of unemployment or

additional costs to the government. Governments may often be more focused on short-term objectives because of political considerations such as avoiding unpopular policies, rather than long-term objectives that may not deliver benefits for some time.

reviewquestions

1 Briefly outline which economic objectives can be achieved simultaneously, that is, where the government does not face a conflict.
2 Describe TWO possible conflicts between the economic objectives of the government.
3 Using a diagram, explain the conflict between the government's internal stability objectives.

13.5 The economic policy mix

Economic policy mix refers to the combination of macroeconomic (fiscal and monetary) and microeconomic policies used by the government to achieve its economic objectives.

Governments have a variety of policy instruments that can be used to achieve their objectives. In a general sense, the instruments of economic policy are divided between macroeconomic and microeconomic policies.

- **Macroeconomic policies,** such as government budgets and changes in the level of interest rates, have an impact on the overall level of economic activity. These policies tend to influence the level of aggregate demand in the economy.
- **Microeconomic policies** involve specific measures to improve the operation of firms, industries and markets, by achieving change at the level of individual firms and industries. These policies tend to influence the aggregate supply of the economy – that is, improving productivity and efficiency so that the overall level of supply may be increased.

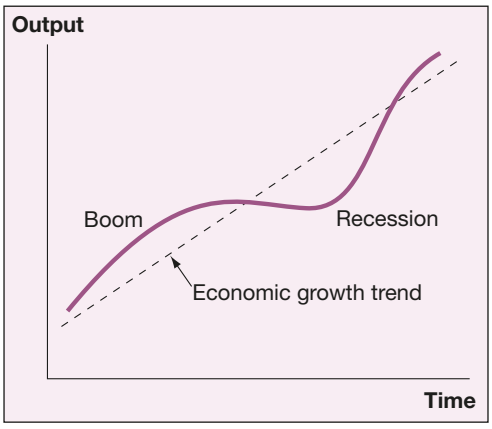


Figure 13.2 – The business cycle

Governments normally use a combination of macro and micro policies in order to best achieve their economic objectives. This combination of policies is called the **economic policy mix**, a term which is intended to capture the overall impact of the range of macro and micro policy measures implemented. The 2023 review of the Reserve Bank of Australia recommended that the RBA and Treasury establish a research program to investigate the optimal policy mix between monetary and fiscal instruments.

Macroeconomic policy

The main role of macroeconomic policy is to manage the business cycle (changes in the level of economic activity). The level of economic activity is never constant. Economies are subject to the ups and downs of the business cycle, caused by changes in the level of aggregate supply and demand. This is shown in figure 13.2.

Macroeconomic management refers to the use of government policies to influence the economy with the aims of reducing large fluctuations in the level of economic activity and achieving certain economic goals.

Government **macroeconomic management** is designed to minimise these fluctuations so that economies experience low rates of inflation and unemployment, and relatively stable economic growth. Macroeconomic management can be defined as the use of government policies to influence the economy with the aims of reducing large fluctuations in the level of economic activity and achieving certain economic goals.

Government policies can help to **stabilise** the level of economic growth by smoothing the peaks and troughs of the economic cycle. This is why macroeconomic policies are also referred to as **counter-cyclical policies**. During periods of fast economic growth, it may be necessary to reduce the level of economic activity to avoid excessive inflation or a blowout in the current account deficit. Governments can increase the level of tax, reduce

spending or the Reserve Bank of Australia can raise interest rates in order to reduce the level of economic activity:

- Higher tax rates will reduce consumers' disposable income and reduce the level of spending and aggregate demand, also reducing pressures on inflation and the current account deficit.
- Reduced government spending will also lower the level of aggregate demand by lowering the level of aggregate expenditure in the economy.
- Higher interest rates make borrowing money less attractive and will discourage borrowing and spending by both consumers and businesses.

On the other hand, when the economy experiences a downturn in economic growth, such as during the COVID-19 recession, a government may use macroeconomic policy to stimulate economic activity and raise the level of aggregate demand. This may be done through increased government spending, tax cuts and reductions in the level of interest rates.

One of the major lessons of Australia's economic performance over recent decades is that macroeconomic policy is not enough to achieve complex policy goals. Macroeconomic policy works effectively in either stimulating or dampening the economy in the short term, but it is much less effective in dealing with longer term problems such as low productivity growth, entrenched underemployment, inequality, weak international competitiveness, a low level of national savings or the need to reduce carbon emissions. However, macroeconomic and microeconomic policies can be effective when used together.

Microeconomic policy

Microeconomic policy is action taken by government to improve resource allocation between firms and industries, in order to maximise output from scarce resources. Microeconomic policies are central to the government's long-term aim of addressing potential constraints on growth such as inflation and external imbalance.

Microeconomic policy refers to policies that are aimed at individual industries, seeking to increase aggregate supply by increasing the efficiency and productivity of producers.

Microeconomic policy over recent decades has reflected a change in the focus of economic management from influencing demand towards measures to influence supply. This economic strategy is known as **supply-side economics**. As governments have wrestled with the limited effectiveness of macroeconomic policies that mainly influenced the level of demand, they have turned to policies that focus on increasing the aggregate supply level by improving the competitiveness, productivity and efficiency of Australian industries, and raising workforce participation.

Microeconomic policy involves a range of specific policies varying from practices in individual government departments to policies for entire industries. The overall aim of microeconomic reforms is to **encourage the efficient operation of markets** and increase aggregate supply – by raising productivity, making the economy more adaptable to change and encouraging Australian producers to take on "world best" practices. The role of these policies is discussed in chapter 16.

reviewquestions

1 Distinguish between the roles of macroeconomic and microeconomic policies in the government's policy mix.

2 Discuss how macroeconomic policy responds to changes in the business cycle.

chapter summary

1 The main **objectives of economic management** are economic growth, low inflation, full employment, external balance, an equitable distribution of income and wealth, and environmental sustainability.

2 **Economic growth** involves an increase in the volume of goods and services produced in an economy over a given time period, measured by the rate of change in real GDP. Growth is generally considered to be the highest priority of economic management because of its relationship to improved living standards.

3 An economy is considered to be at **full employment** (or the non-accelerating inflation rate of unemployment) when cyclical unemployment is eliminated.

4 **Price stability** refers to keeping inflation, or the increase in the general price level, at a reasonable level. This is currently reflected in the Reserve Bank's target of an average of 2–3 per cent inflation over the course of the economic cycle.

5 **External stability** refers to a situation where Australia is meeting its financial obligations to the rest of the world and its external accounts – its current account outcomes and foreign liabilities do not hinder it from achieving other economic objectives.

6 The Government's shorter-term economic priorities in 2024 are to contain inflationary pressures while keeping unemployment low and foster sustainable economic growth.

7 The main long-term aims of economic policy are to increase productivity growth to improve international competitiveness and the long-term sustainable growth rate of the economy, sustain high levels of workforce participation and accelerate Australia's transition to a less carbon intensive economy.

8 **Conflicts** exist among the objectives of economic management, such as between keeping inflation low and achieving full employment, and between achieving faster economic growth and promoting environmental sustainability.

9 **Macroeconomic policies**, such as fiscal and monetary policies, attempt to reduce fluctuations in the business cycle by influencing the level of aggregate demand.

10 **Microeconomic policies** are aimed at promoting structural change by influencing the supply side of the economy. By improving productivity and workforce participation, microeconomic policies aim to raise Australia's sustainable rate of growth over time.

chapter review

1. Explain why economic growth plays a central role in a government's policy objectives.
2. Discuss how the Australian Government's economic growth objectives have changed in recent years.
3. Distinguish between internal balance and external balance.
4. Identify how the Reserve Bank of Australia attempts to achieve price stability.
5. Explain why Australia's economic policy objectives have changed in recent years.
6. Examine how the objectives of reducing inequality in the distribution of income and wealth and improving environmental sustainability objectives are related to the objective of increasing economic growth.
7. Discuss the current priorities of economic management.
8. Explain why the goals of low inflation and low unemployment are considered to be conflicting aims of economic management.
9. Distinguish between macroeconomic and microeconomic policy, with reference to the concepts of aggregate demand and aggregate supply.
10. Explain how the concept of sustainable economic growth represents a balance between the government's conflicting policy goals.

14 Fiscal Policy

14.1 The meaning of fiscal policy

14.2 Budget outcomes

14.3 Changes in budget outcomes

14.4 Methods of financing a deficit

14.5 The current stance of fiscal policy

14.6 The impact of recent fiscal policy

14.1 The meaning of fiscal policy

Fiscal policy is a macroeconomic policy that can influence resource allocation, redistribute income and reduce the fluctuations of the business cycle. Its instruments include government spending and taxation and the budget outcome.

Fiscal policy is at the heart of the management of the economy. Although it generally plays a less important role than monetary policy in influencing economic growth, fiscal policy can influence the overall level of economic activity and have a targeted impact on specific sectors of the economy such as individual industries or parts of society.

Fiscal policy involves the use of the Commonwealth Government's Budget in order to achieve the government's economic objectives. By varying the amount of government spending and revenue, the government can alter the level of economic activity, which in turn will influence economic growth, inflation, unemployment and the external indicators in the economy.

Further, changes in government spending and revenue collection can also lead to a **reallocation of resources**, which changes the pattern of production in the economy, as well as **redistributing income** within the community.

The Budget is the tool of the government for the exercise of fiscal policy. It shows the government's planned expenditure and revenue for the next financial year.

The **Budget** is the annual statement from the Australian Government of its income and expenditure plans for the next financial year. It is normally released in May. The Budget includes all forms of **revenue** received by the Government, including both taxation and other revenue:

- direct tax (personal income tax and company tax)
- indirect tax (such as customs and excise duties and the Goods and Services Tax)
- other revenues (such as dividends from public trading enterprises).

The other side of the Budget is government expenditure. The major items of expenditure in the Budget are social welfare, health, education, general public services and defence.

In some years, governments make major policy changes in response to changing economic or political conditions. Although most policy changes are announced in the Budget, governments also usually make a series of smaller policy changes at other times. Governments attract more public attention (and therefore political advantages) when the spread out "good news" announcements such as new spending programs over a period of weeks or months before the Budget. On the other hand, "bad news" announcements such as tax increases or spending cuts will often be bunched together in the Budget.

When governments make smaller changes to fiscal policy throughout the course of the year, the full costings of these decisions are set out afterwards, either in the next Budget, or in a statement released around December each year, known as the Mid-Year Economic and Fiscal Outlook statement (or MYEFO). This statement also provides updates to the Treasury's forecasts for the Budget and future economic conditions. Changes in economic conditions can significantly affect planned revenues and expenditures.

14.2 Budget outcomes

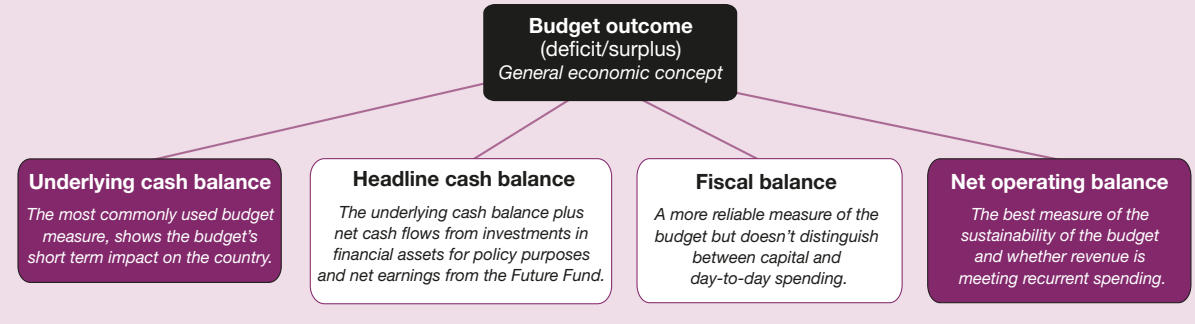
Besides the individual instruments of spending and revenue collection, the overall outcome of the Budget – known as the **budget outcome** – is itself an important feature of fiscal policy. The budget outcome gives an indication of the overall impact of fiscal policy on the economy.

There are three possible budget outcomes: a surplus, a deficit, or a balanced budget.

- **Budget surplus** – A positive balance that occurs when the Commonwealth Government anticipates that total government revenue (T) will exceed total expenditure (G) – that is, T > G.
- **Budget deficit** – A negative balance that occurs when total government expenditure exceeds total revenue – that is, G > T.
- **Balanced budget** – A zero balance that occurs when total government expenditure is equal to total revenue – that is, G = T.

The Government's main fiscal policy aim is to achieve budget surpluses, on average, over the course of the economic cycle. The Government's progress towards that goal is reflected in the four-year projections for budget outcomes that are provided in the Budget and other fiscal documents. In addition, since 2013–14 the Treasury has published a 10-year medium-term budget projection.

MEASURING THE BUDGET OUTCOME



The Commonwealth Government's Budget includes four main measures of the budget outcome, which are the result of different accounting methods:

- The **underlying cash balance** (cash deficit or cash surplus) is the Government's preferred measure of the budget outcome because it gives an indication of the short- to medium-term impact of fiscal policy on the level of economic activity and the budget's call on cash resources from other sectors of the economy. It is calculated using the cash accounting method (which records revenues and expenditures when the money is collected or spent). However, it does not distinguish between the type of spending (for capital or recurrent purposes) and does not reflect international standards of accrual accounting. In figure 14.1, the underlying cash balance may vary from the difference between receipt and payments because net Future Fund earnings are removed until the Australian Government's superannuation liability is expected to be met.

Year	Receipts $bn	Payments $bn	Underlying cash balance		Fiscal balance		Net operating balance	
			$bn	% GDP	$bn	% GDP	$bn	% GDP
1989–90	98.6	92.7	5.9	1.5	n.a.	n.a.	n.a.	n.a.
1994–95	113.5	127.6	–14.2	–2.9	n.a.	n.a.	n.a.	n.a.
1999–00	166.2	153.2	13.0	2.0	11.7	1.8	11.6	1.7
2004–05	236.0	222.4	13.6	1.5	12.2	1.3	13.3	1.4
2009–10	284.7	336.9	–54.5	–4.2	–53.9	–4.1	–47.4	–3.7
2014–15	378.3	412.1	–37.9	–2.3	–40.8	–2.5	–38.1	–2.3
2015–16	386.9	423.3	–39.6	–2.4	–37.5	–2.3	–33.6	–2.0
2016–17	409.9	439.4	–33.2	–1.9	–35.0	–2.0	–32.1	–1.8
2017–18	446.9	452.7	–10.1	–0.6	–6.5	–0.4	–5.2	–0.3
2018–19	485.3	478.1	–0.7	0	1.4	0.1	7.5	0.4
2019–20	469.4	549.6	–85.3	–4.3	–95.8	–4.8	–91.8	–4.6
2020–21	519.9	654.1	–134.2	–6.5	–136.1	–6.6	–128.9	–6.2
2021–22	584.4	616.3	–32.0	–1.4	–35.1	–1.5	–26.6	–1.2
2022–23*	635.6	631.4	4.2	0.2	–1.5	–0.1	9.0	0.4
2023–24*	668.1	682.1	–13.9	–0.5	–14.1	–0.5	–3.7	–0.1
2024–25*	671.2	706.3	–35.1	–1.3	–45.3	–1.7	–38.0	–1.4
2025–26*	700.9	737.5	–36.6	–1.3	–35.0	–1.3	–29.6	–1.1
2026–27*	735.1	763.6	–28.5	–1.0	–32.8	–1.1	–23.5	–0.8

Source: 2023–24 Budget Paper 1, Statement 11, Tables 1 and 6; *Estimate

Figure 14.1 – Recent Commonwealth Budget outcomes

- The **headline cash balance** reflects the underlying cash balance plus the government's purchase or sale of assets. It is often billions of dollars higher or lower than the underlying cash balance, either because government assets have been sold or because new assets have been acquired. For example, the $6 billion privatisaion of Medibank in 2014 had a positive impact on the headline cash balance, but because such transactions are one-off (so could not be counted on to cover expenses in future years) they are not included in the underlying cash balance. Asset sales reduce the government's borrowing requirement to finance the deficit, but they also mean the government forgoes any dividends it might earn from the asset.
- The **fiscal balance** (fiscal deficit or fiscal surplus) calculates revenue minus expenses less net capital investment, based on accrual accounting. Accrual accounting measures expenditures and revenues when they are incurred or earned, rather than when a cash transaction actually occurs. For example, if the government's superannuation obligations to public servants increased by $5 billion in one year, this would increase a fiscal deficit by $5 billion for that year, even if the money is not paid out until years later. This is regarded as more accurate than cash accounting. However, the fiscal balance does not distinguish between spending for capital or recurrent purposes.
- The **net operating balance** (operating deficit or operating surplus) is regarded as the best measure of the sustainability of the budget because it shows whether a government is meeting its recurrent (day-to-day) obligations from existing revenue. The net operating balance distinguishes between spending for capital or recurrent purposes, and it removes spending on capital from the balance (that is, resulting in a smaller deficit or increased surplus), although it includes the cost of depreciation (the run-down in the value of existing assets). The rationale for separating the two types of expenses is that capital spending is different from other spending because it adds to productive capacity and to the government's assets. Like the fiscal balance, the net operating balance is based on accrual rather than cash accounting.

reviewquestions

1 Explain the difference between a budget surplus and a budget deficit.
2 What is the difference between an underlying cash surplus and a net operating surplus?
3 Identify TWO key trends in recent budget outcomes and discuss the relationship between these trends and economic conditions.

14.3 Changes in budget outcomes

Each year, the levels of government spending and revenue collection, and thus the budget outcome, change. This reflects the impact of two key factors: changing economic conditions (known as cyclical or non-discretionary changes) and changes in government policy (known as structural or discretionary factors).

- **Discretionary changes in fiscal policy**. Discretionary changes involve deliberate changes to fiscal policy, such as reduced spending or changing taxation rates. If the government deliberately increased expenditure in order to stimulate demand, this would be an example of discretionary fiscal policy. Discretionary changes influence the **structural** component of the budget outcome.
- **Non-discretionary changes in fiscal policy**. The final budget outcome can be influenced by factors other than planned (discretionary) changes to government revenue and expenditure. These non-discretionary changes are caused by **changes in the level of economic activity.** When an economy is in recession, the budget deficit will increase, whereas during a period of strong economic growth the deficit will contract or the budget will shift into surplus. Non-discretionary changes influence the **cyclical** component of the budget outcome.

Budgetary changes that are influenced by the level of economic growth are also known as **automatic stabilisers**. Automatic stabilisers can be defined as those changes in the level of government revenue and expenditure that occur as a result of changes in the level of economic activity. They are referred to as "automatic" because they are built into the Budget, and they are activated by a change in the level of economic activity, **not by a deliberate change in government policy** relating to either revenue or expenditure.

Automatic stabilisers are policy instruments in the government's budget that counterbalance economic activity. In a boom period, they decrease economic activity, and, in a recession, they increase economic activity. The most common examples are transfer payments and a progressive tax system.

There are two main automatic stabilisers:

- **Unemployment benefits**. When the economy moves into recession, the level of economic activity falls, causing a rise in unemployment. An increase in unemployment leads to greater government expenditure on unemployment benefits. Thus, a decline in the level of economic activity automatically leads to an increase in government expenditure. On the other hand, an increase in the level of economic activity would have the opposite effect – causing a decrease in unemployment and less government expenditure on unemployment benefits.
- The **progressive income tax system.** Progressive income tax means that people on higher incomes pay proportionately more tax than those on lower incomes. During an economic boom, employment opportunities are increasing and incomes are rising. Rising incomes move workers into higher income tax brackets, and previously unemployed persons start paying income tax. Both situations lead to an increase in government taxation revenue. On the other hand, a decrease in the level of economic activity would lead to a decrease in taxation revenue.

Automatic stabilisers are built into the Budget with a **counter-cyclical role**. When economic growth is high, demand is automatically slowed through higher tax revenues and reduced government expenditure. On the other hand, when the economy moves into recession, it is given a boost by increased government expenditure through unemployment benefits.

Counter-cyclical policies are economic policies designed to smooth fluctuations in the business cycle. Macroeconomic policies such as fiscal policy and monetary policy are usually used as counter-cyclical policies.

Nevertheless, it is important to realise that automatic stabilisers, on their own, are rarely strong enough to counter the effects of the economic cycle. Automatic stabilisers are not powerful enough by themselves to bring an economy out of a severe recession, or to curb an economic boom – they merely reduce the severity of the problem. Governments still rely upon discretionary policy measures to smooth the economic cycle as the Morrison Government did with the unprecedented measures to support economic activity in 2020, following the onset of the COVID-19 pandemic.

Impact on economic activity

The most significant short-term impact of fiscal policy is how it affects economic activity. The **budget stance** (not to be confused with the budget outcome) refers to the impact of fiscal policy on economic growth and can be described as expansionary, contractionary or neutral:

- An **expansionary** stance is one in which the government is planning to increase the level of economic activity in an economy. This can occur through either a reduction in taxation revenue and/or an increase in government expenditure, creating either a smaller surplus, or a larger deficit than in the previous year. Expansionary fiscal policy leads to a multiplied increase in consumption and investment and stimulates aggregate demand, which will increase the level of economic activity.
- A **contractionary** stance is one in which the government is planning to decrease the level of economic activity in an economy. This can occur through either an increase in taxation revenue and/or a decrease in government expenditure, creating either a smaller deficit or a bigger surplus than in the previous year. Contractionary fiscal policy leads to a multiplied decrease in consumption and investment, dampening aggregate demand, which will decrease economic activity.
- A **neutral** fiscal policy stance occurs when the government plans to maintain the gap between revenue and spending at around the same level as the previous year. A neutral fiscal policy should have no effect on the overall level of economic activity.

Impact on resource use

Fiscal policy changes can influence the allocation of resources in the economy directly or indirectly. Fiscal policy may directly affect resource use through government spending in a particular area of the economy, such as transport infrastructure (for example, the Western Sydney Airport construction) to help boost tourism growth. The indirect influence of fiscal policy covers tax and spending decisions that make it more or less attractive for resources to be used in a particular way – for example, removing taxes from ethanol production might encourage farmers to use more of their wheat, sugar and other crops to produce ethanol.

Governments are more likely to use direct measures to provide goods or services if they expect that markets will not provide the resources quickly enough without government intervention. For example, in an emergency situation such as a natural disaster or a pandemic, governments will usually step in and direct relief operations so that emergency resources are made available to the people most directly affected. Similarly, the government might pay directly to provide **public goods**, because it is unlikely that the private sector will produce such goods, and it is difficult to prevent anyone else from enjoying the benefit of those goods. Examples of public goods include lighthouses, street lighting, national defence and environmental protection agencies that enforce clean air standards.

A public good is an item that private firms are unwilling to provide as they are not able to restrict usage and benefits to those willing to pay for the good. Because of this, governments generally provide these goods.

Governments use specific taxing and spending policies that lead to changes in resource use that meet the government's objectives. For example, if the government wants to discourage the consumption of products without banning them, it might apply high tax rates, as it does with tobacco products (which generate the negative externality of increased health care costs through tobacco-related diseases). This helps to discourage tobacco consumption, which in the longer term may reduce the costs to the health care system.

Impact on income distribution

From year to year, changes in fiscal policy play the most important role of any government policy in influencing the distribution of income in the economy. Australia has a **progressive income tax system** designed to create a more equal distribution of income. People on higher incomes pay higher rates of income tax, allowing the government to use this money for transfer payments, community services and other types of social expenditure, which in particular assist people on lower incomes.

Changes to taxation arrangements can affect income distribution significantly. For example, a reduction in tax rates at the upper end of the income scale would make the tax system less progressive and may create a less equal distribution of income. Likewise, introducing tax concessions (that is, exemptions from tax for certain types of income such as earnings from superannuation) might affect the distribution of income without actually changing the tax rates. Similarly, if the government were to increase the rate of the Goods and Services Tax (a regressive tax), this would make the tax system less progressive and would result in lower-income earners paying a relatively higher proportion of their incomes in tax, increasing income inequality.

Budgetary changes involving government spending can also influence income distribution significantly. Increases in spending on community services such as health and aged care and labour market programs, or increases in welfare payments such as the age pension, will tend to reduce income inequality because they have a greater proportional benefit for low-income earners. On the other hand, Government spending cuts often increase income inequality because low-income earners tend to be more reliant on income support payments and government services than higher-income earners.

Impact on savings and external balance

A long-term relationship exists between the budget outcome and the size of the current account deficit and foreign debt. There has been debate over the extent of this relationship for many years (see also chapter 10.5). Over the long term, a budget deficit decreases national savings because governments finance budget deficits by borrowing from private sector savings. A budget deficit (or more accurately, an overall public sector deficit) is a form of **negative savings**, or **dissavings**, that will reduce the level of national savings, which is composed of public savings plus private savings.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the relationship between the budget and the current account in more detail.

With a depleted national savings pool, the competition for a limited amount of savings to finance domestic consumption and investment will make it more difficult to access funds and place upward pressure on interest rates, making private sector investment more expensive. This is known as the **crowding out effect**. In a closed economy, this will lead to a decrease in private investment. However, in an open economy such as Australia, the crowding out effect is less pronounced as private sector borrowers may simply turn to overseas sources of funds to finance domestic investment and consumption. This will show up as an inflow on the capital and financial account and will increase the size of Australia's foreign debt. Alternatively, if the Government borrows from overseas, the inflow of funds will directly lead to an increase in Australia's foreign liabilities. This will raise the net primary income deficit as the higher level of foreign liabilities is serviced with higher interest repayments. Thus when the Government consistently runs large fiscal deficits over several years, the current account deficit will tend to be higher. However, there is very little evidence of any short-term relationship between budget deficits and the current account balance.

Australia's history of current account deficits reflects imbalances between private savings and private investment, rather than public sector borrowing. Nevertheless, one of the reasons for the objective of sustaining fiscal balance is to ensure that fiscal policy is not contributing to higher current account deficits in the longer term.

reviewquestions

1 Explain the role of cyclical and structural factors in influencing the budget outcome from year to year.
2 If the government wished to slow the pace of economic activity, explain what changes it would make to revenue and expenditure and the impact on the size of: a) a budget deficit b) a budget surplus.
3 Outline how fiscal policy might affect the distribution of income.

14.4 Methods of financing a deficit

In this section, we look at where and how the government obtains the extra money it needs when it budgets to spend more money than it receives, as well as what the government does with surplus funds when revenue exceeds expenditure.

When the government budgets for a deficit, it is planning to spend more than it receives in revenue over the current financial year. In short, this deficit is financed through **borrowing** from the domestic **private sector**, from **overseas investors** or **from the Reserve Bank** (by printing money, known as monetary financing). Alternatively, the government can also sell government assets. In recent times, when it has run a deficit, the Australian Government has relied almost exclusively on borrowing from the domestic private sector.

Borrowing from the private sector

The main form of deficit financing is through borrowing from the private sector by selling Treasury Bonds domestically under a tender system. Under this system, the government sets the value of bonds to be sold (determined by the size of the deficit to be financed), and the prospective purchasers tender to buy a certain quantity at a particular rate of interest. The government then accepts the tenders, starting with those offering to buy at the lowest rate of interest, through to the highest, until all bonds are sold. The advantages of this system are twofold: the government can always be certain that it will fully finance its deficit, and the market will set the interest rate on these newly issued bonds.

Crowding out effect occurs where government spending is financed through borrowing from the private sector, which puts upward pressure on interest rates and "crowds out" private sector investors who cannot borrow at the higher rates of interest.

However, it is also worth considering the effect of a deficit financed by domestic borrowing from the private sector on private sector spending, and in particular on private investment. The **crowding out effect** describes how a budget deficit will soak up funds in Australia's domestic savings pool, putting upward pressure on interest rates and leading to a reduction in private sector spending and investment (as discussed in the previous section). The private sector is "crowded out" of the domestic market by government borrowing, since lenders will prefer to lend money to the government. Under these circumstances, the private sector would have less access to domestic savings and may be forced to borrow overseas instead.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at the theory of "crowding out" in more detail.

The strength of the crowding out effect depends on economic conditions. If the government increases the fiscal deficit when the economy is in recession, it is less likely to crowd out the private sector, since investment spending would be low at this time. But if the government continued to run a deficit during periods of strong economic growth, when substantial private sector activity is already occurring, it would be more likely to lead to a significant crowding out effect. However, in an era of globalised financial markets, the crowding out effect is now much weaker since many of the financial institutions that buy bonds on domestic financial markets are from overseas. Overseas investors are attracted by Australia's low risk profile (reflected in the Australian Government's AAA credit rating) and the interest rate differential between Australia and other advanced economies. The estimated proportion of Australian government securities held by overseas investors fell

from 76 per cent in 2012 to around 45 per cent in 2022, as Australia's interest rates compared to other countries made Australia's securities less attractive to overseas investors.

Other methods of financing a deficit

While Australian governments have relied on financing deficits mainly through borrowing from the private sector, other methods are also available. These include borrowing from overseas, borrowing from the Reserve Bank and selling assets.

Borrowing from overseas

Governments may borrow from overseas financial markets in order to minimise the crowding out effect, while still stimulating growth. In an era of global financial markets, it is less likely to be necessary to raise funds on overseas markets since old distinctions between domestic and overseas borrowing are now less relevant, as there are now many overseas institutions that participate in Australia's domestic financial markets. However, if the Budget was in deficit, the Government could, at any time, borrow directly on overseas markets and in overseas currencies should this become a less expensive option than domestic borrowing. When the Government borrows from overseas it directly adds to Australia's foreign debt, with interest repayments recorded as debits on the net primary income account of the balance of payments.

Borrowing from the Reserve Bank (monetary financing)

The Government may simply borrow from the Reserve Bank to finance the deficit – this is sometimes referred to as "monetary financing" or "monetising the deficit". In effect, this amounts to the Government printing money in order to finance its expenditures. Since 1982, with the deregulation of the financial sector, the Government has not engaged in this kind of deficit financing. The Government has avoided monetary financing to ensure that it does not increase the money supply and add to inflation. This also means that there is no longer any direct connection between the implementation of monetary policy and fiscal policy (that is, they now operate independently of one another). However, as we will discuss in chapter 18, the policy settings of fiscal and monetary policy are indirectly related.

Selling assets

An alternative to funding a deficit by borrowing is to sell government assets. Selling assets, such as Commonwealth land or the Commonwealth's share in businesses such as Medibank Private or Australia Post, does not reduce the level of such underlying cash deficit or the net operating deficit because these are adjusted to reflect one-off transactions like asset sales. However, in cash terms, from year to year, a government can create a headline budget surplus by selling assets. For example, if the Government raises $10 billion through asset sales, it simply means that it needs to issue $10 billion less in Treasury Bonds to finance its deficit. However, the demand for funds from Australia's pool of domestic savings remains essentially the same. This is because the buyers of the government asset will either reduce their savings by $10 billion, or borrow $10 billion, instead of the Government borrowing that money. The overall effect on the pool of domestic savings is the same, but the financing burden is simply shifted from the public sector to the private sector. Also, while reducing government borrowing reduces interest payments in the future, by selling assets, the government also forgoes any dividends it may have earned on the assets.

Using budget surpluses

The alternative outcome to a deficit is a surplus. When the Government budgets for a surplus, it is planning to receive more revenue than it spends in the current financial year. The Government can use the surplus in three ways:

- depositing it with the Reserve Bank
- using it to pay off public sector debt
- placing the money in a specially established, government-owned investment fund.

For several years during the late 1990s and early 2000s, the Government used surplus funds to pay off public sector debt. This reduces the size of public debt and frees up funds on financial markets for other purposes. For example, the increase in funds available for private sector investment may lead to economic activity that offsets the contractionary effect of the fiscal surplus.

During that period of budget surpluses, the Government established the Future Fund as a dedicated investment fund to store surpluses to meet the future cost of the Government's superannuation liabilities. Its assets were valued at $251 billion in 2023.

Public sector borrowing and debt

Although changes in the budget outcome provide an important measure of the underlying stance of fiscal policy, they do not represent the full impact of the public sector on the economy. To get the full picture relating to the public sector's revenue raising and expenditure activities, we must also consider the activities of the rest of the public sector in Australia – the state and local levels of government, as well as public trading enterprises (also known as government business enterprises) such as Australia Post, Sydney Water and Sydney Trains.

The overall impact of the public sector on the economy is reflected in the **public sector cash outcome**. The deficit or surplus shows the borrowing needs or surplus funds from all levels of government, as well as government authorities and public trading enterprises. It gives the most comprehensive indication of the current impact of the public sector on the Australian economy. Figure 14.2 shows the public sector net operating balance as a percentage of GDP. A negative outcome means that there is an overall public sector deficit.

Year	Commonwealth cash balance (% GDP)	State cash balance	Consolidated cash balance^
2012–13	–1.2	–1.4	–2.9
2013–14	–3.0	–0.6	–4.2
2014–15	–2.3	–0.3	–2.8
2015–16	–2.6	–0.4	–3.1
2016–17	–2.1	–0.4	–2.5
2017–18	–0.8	–0.8	–1.7
2018–19	–0.1	–1.1	–1.3
2019–20	–4.5	–2.5	–7.7
2020–21	–6.7	–2.8	–9.2
2021–22	–1.6	–2.3	–4.4
2022–23*	–0.1	–1.8	–2.4
2023–24*	–0.8	–2.0	–3.3

Source: 2023–24 Budget Paper No. 3 Appendix C, Table C7 *Estimate
^For technical reasons Commonwealth and State do not add up

Figure 14.2 – Non-financial public sector cash balance

The public sector cash outcome was in surplus from the late 1990s until 2008–09. The reversal of the Commonwealth Government's Budget position from surpluses throughout the 2000s decade to a deficit in 2008–09 was the main cause of the public sector cash outcome moving into deficit. The net operating deficit shows that in most years, the public sector's revenue has not met its recurrent spending.

Over a period of time, running a public sector deficit results in an accumulation of **public sector debt**. Public sector debt consists of the accumulated debt of the government sector, which is owed both domestically and overseas. This includes debt accumulated by the Commonwealth Government, state and local governments and government-owned businesses. As figure 14.3 shows, public sector debt in Australia rose during three periods: after the early 1990s recession, after the global financial crisis in 2008 and after the COVID-19 pandemic in 2020.

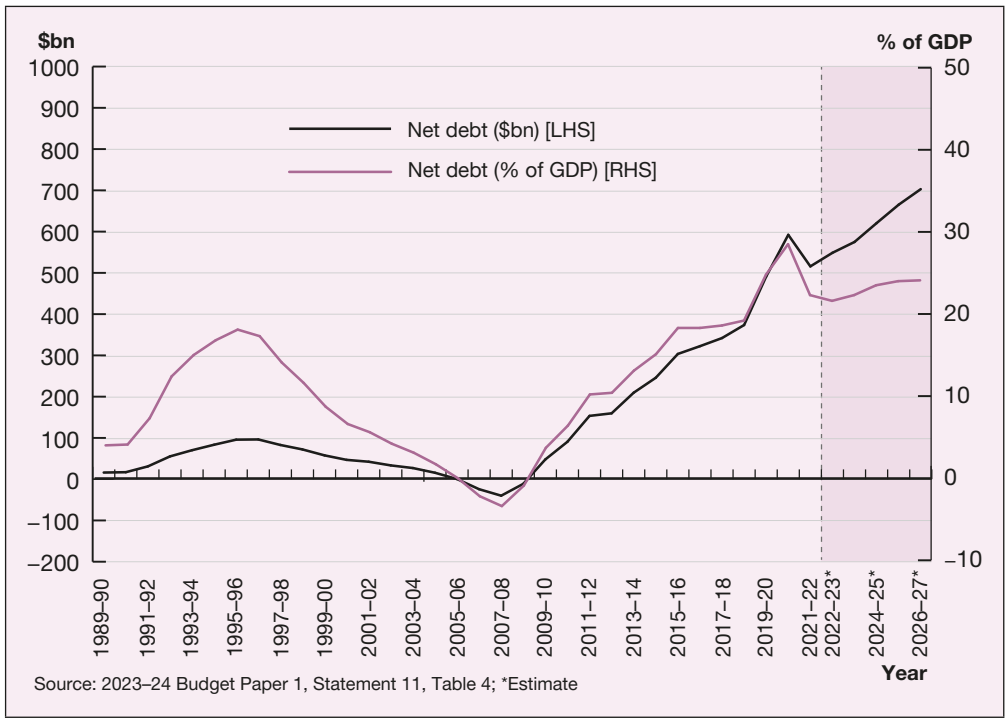


Figure 14.3 – Australia's net public sector debt

It is important to distinguish the public sector debt from the foreign debt, which is the amount owed by both the public and private sectors to overseas lenders. Australia's foreign debt is much higher than our public debt, and it mostly consists of private sector borrowings. When undertaking borrowings, governments generally source their borrowings from within Australia, although some of the participants in Australian financial markets are overseas-based institutions. By borrowing on domestic markets in Australian dollar securities, governments avoid being exposed to exchange rate movements that may increase their debt and interest servicing costs.

reviewquestions

1. Describe THREE ways in which a government might finance a budget deficit.
2. Explain the factors that could influence a government's decision about how to finance a budget deficit.
3. Outline which budget measure best reflects the overall impact of the public sector on the Australian economy.

14.5 The current stance of fiscal policy

For most years in the business cycle, fiscal policy plays a supporting role in the policy mix, with monetary policy used as the primary tool for macroeconomic management. So long as the economy is growing, governments tend to give priority to medium-term fiscal policy goals rather than using fiscal policy to influence the state of economic activity in the shorter term. However, when the economy experiences a major downturn, an event which tends to happen on average once per decade, governments use fiscal policy very actively to return the economy to growth. The most recent example of this active use of fiscal policy is in response to the COVID-19 pandemic and, before that, in response to the global financial crisis in 2008. In this section, we discuss the stance of fiscal policy since the pandemic struck in 2020 and identify key cyclical and structural influences on fiscal policy.

In the years prior to COVID-19, Australia's fiscal strategy was centred on a medium-term objective of returning the Budget to a surplus of one per cent of GDP. Fiscal policy played only a minor role in influencing the level of economic activity during this period. The Coalition Government had been elected in 2013 with a commitment to achieving budget surpluses, but only achieved a balanced budget once (in 2018–19) in its nine years in government. While in office, the Coalition Government also made a commitment not to allow tax receipts to rise above 23.9 per cent of GDP.

As figure 14.4 shows, during the 2010s the budget outcome gradually improved, but at a slower rate than had occurred during previous recoveries such as in the 1980s and the 1990s. The main reason for the slow progress was that despite a commitment to offset any new spending with other spending cuts, government expenditure continued to increase as a percentage of GDP during this period. At the same time, the recovery in tax receipts was slow, which explains why, after the global financial crisis had plunged the Budget into deficit in 2008, it was another 10 years until the Budget was again balanced.

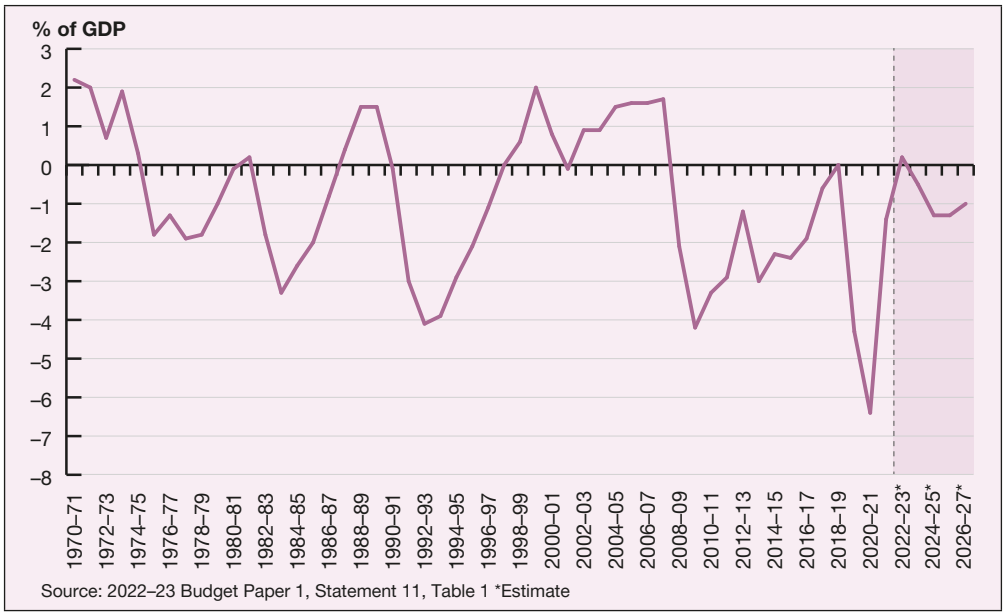


Figure 14.4 – Commonwealth underlying cash budget outcomes since 1970

The COVID-19 pandemic prompted a dramatic change in the fiscal strategy, with long-lasting effects. The Morrison Government used fiscal policy to cushion the economic effects of the pandemic and the lockdown that resulted in many businesses being forced to close temporarily. The Government introduced a comprehensive suite of policies, including JobKeeper – a program that at one stage in 2020 was subsidising the wages of around one-third of the workforce. The Government also implemented policies such as direct cash support payments to households and investment allowances for businesses.

This aggressive expansionary fiscal policy stance resulted in a significant deterioration in the budget outcome. After being in balance in 2018–19, the Budget recorded a deficit of $134 billion (6.5 per cent of GDP) in 2020–21. In just two years from 2018–19 to 2020–21, Australia's net public sector debt increased by nearly 50 per cent, from 19.2 per cent of GDP to 28.6 per cent of GDP. This was the result of a combination of discretionary policy measures (such as the introduction of the JobKeeper wage subsidy program) and the operation of automatic stabilisers, such as lower taxation receipts and increased welfare benefits. The combined impact of discretionary policy and automatic stabilisers was unprecedented.

As economic recovery led to a rapid fall in unemployment, from 2021–22 the fiscal stance became mildly contractionary, with a medium-term fiscal strategy of sustaining economic growth and stabilising and reducing debt, while also advancing longer-term government priorities.

We can better understand the recent stance of fiscal policy by identifying the impact of cyclical and structural factors. The four key **cyclical factors** influencing the stance of fiscal policy in recent years are as follows:

- In the years prior to the COVID-19 pandemic, Australia saw a slower recovery in the budget deficit than usual, which showed that the economy was growing below its medium-term growth rate, and wages were consistently growing at below-forecast rates. This resulted in slower growth in tax receipts.
- The COVID-19 pandemic brought about the fastest cyclical downturn in the economy since the Great Depression of the 1930s. Record falls in business investment, household consumption, the labour market and trade activity triggered the automatic stabilisers in the Budget, through decreased taxation receipts (as incomes fell) and increased payments (as unemployment increased). In mid-2020, the Treasury estimated cyclical factors had resulted in a deterioration of the budget outcome of $105 billion over 2019–20 and 2020–21.
- Australia's terms of trade have been a positive cyclical influence on the budget outcome for several years. The Budget temporarily returned to surplus in 2022–23 due to revenues from the large surge in commodity prices (especially liquefied national gas) that followed Russia's invasion of Ukraine, but the trend towards high prices for major commodity exports (especially iron ore) that increased mining company profits and taxation revenues has been strong since 2016. Treasury estimated in the 2022–23 Budget that while it was assuming global prices for iron ore and coal would fall, a slower fall would result in Australia's nominal GDP being $123.7 billion larger, and the budget deficit being $17.7 billion lower in 2022–23.
- Australia's faster-than-expected economic recovery after COVID-19 has improved the outlook for the Budget. This reflects a combination of persistently high iron ore prices on company tax revenues, increased income tax receipts and lower unemployment benefit payments due to a rebound in the labour market, and lower than expected costs for emergency COVID-19 policies. The 2023–24 Budget saw a $67 billion increase in forecast tax receipts over the two years to 2023–24.

The three key **structural factors** (that is, discretionary government policy decisions) influencing the stance of fiscal policy in recent years are as follows:

- Prior to the onset of the COVID-19 pandemic, a structural reason for the slow progress in reducing the deficit was a trend increase in government spending. Federal government spending rose from 22.5 per cent of GDP in 2013–14 to 24.9 per cent of GDP in 2018–19. This reflected sustained, real increases in spending across several areas of government policy, such as for defence and the National Disability Insurance Scheme. Pressures to increase spending continue in a number of policy areas including unemployment benefits, education, health care and aged care.
- During the peak of the mining boom in the mid-2000s, governments implemented large reductions in personal income taxes that reduced revenue growth in the years after the global financial crisis. Earlier policy decisions to introduce new taxes on mining profits and carbon emissions were reversed or abandoned. The 2018–19 Budget also introduced a program of reductions in personal income tax phased in by 2024–25, which are expected to reduce revenue by more than $30 billion per year once fully implemented.
- Finally, a key longer-term structural influence on fiscal policy is the ageing of the population, which is contributing to slower growth in the revenue base (with more people in retirement), and increased spending pressures (on health and aged care). The Parliamentary Budget Office has estimated that by the end of the 2020s, aged care needs will add $36 billion per year to government spending, more than the current total annual expenditure on Medicare. The 2021–22 Budget set out a

$17.7 billion increase in aged care funding over five years, and the 2023–24 Budget committed a further $11 billion to pay for higher wages for aged care workers, to help overcome staffing shortages.

"From energy bill relief to national defence, manufacturing to Medicare, investments in this Budget aim to make Australia more resilient and more secure in uncertain times. Fundamental to this is our responsible economic management and our efforts to put the Budget on a stronger foundation. This Budget, we've returned 82 per cent of the extra revenue windfall that's largely come from lower unemployment, stronger jobs and wages growth, and higher prices for key exports. We've now returned 87 per cent over this Budget and the last. We've also ... limited annual real spending growth to just 0.6 per cent over 5 years. Because our first 2 budgets made such a firm commitment to responsibility and restraint, we are now forecasting a small surplus in 2022–23 – which would be the first in 15 years ... because we are returning most of the welcome improvement in revenue to the budget, debt will be almost $300 billion lower by the end of the medium term, saving $83 billion in interest costs over the next 12 years."

– Jim Chalmers, Treasurer of Australia, Budget Speech, 9 May 2023

BUDGET POLICY: LOOKING AHEAD TO 2063

One of Australia's instruments for long-term economic policy planning is the Intergenerational Report (IGR), which is updated approximately every five years. The IGR provides economic and fiscal projections for the next 40 years. The most recent report, released in 2023, provides projections for the Australian economy out to 2062–63.

The 2023 IGR projected that real GNI per person will grow at an annual rate of 1.0 per cent over the next 40 years, compared to 2.1 per cent in the preceding 40 years. So while living standards will be 50 per cent higher by 2063, annual growth will be half what it has been. One factor behind slower growth is that the improvements in terms of trade which lifted GNI significantly in the past 40 years but are not expected to be repeated over the next 40. That leaves the Australian economy reliant on the "three ps" of productivity, participation and population for economic growth.

1 **Productivity**. The report assumes that productivity will continue to grow at 1.2 per cent annually, on average, similar to the level over the past 20 years (but notably well below the 1.5 per cent average of the past 30 years and the assumption in the previous IGR). Productivity is a key driver of income and economic growth.

2 **Participation**. Workforce participation is projected to decline from 66.8 per cent in 2023 to 63.8 per cent by 2062–63. This is primarily driven by the ageing of the population, which is partially offset by a continued increase in women's participation in the workforce. The projected decline in participation is far milder than originally anticipated. When the first IGR was released in 2002 it projected workforce participation would sink below 60 per cent by 2023 and keep falling, which would have had significant consequences for the Commonwealth budget.

3 **Population**. Australia's population is projected to reach 40.5 million in 2062–63. The projected 1.1 per cent annual growth rate is below the historical average because of lower fertility rates and a migration level that, while high, falls as a proportion of population over time.

The 2023 IGR projected the Budget to remain in deficit every year until 2062–63. As shown in figure 14.5, budget outcomes were expected to improve during the 2020s but then worsen from the 2030s as pressures on spending rise due to health and aged care, the National Disability Insurance Scheme (NDIS), defence and interest payments on Government debt, while the Government's ceiling on tax revenues prevents revenue from keeping up with expenditure growth.

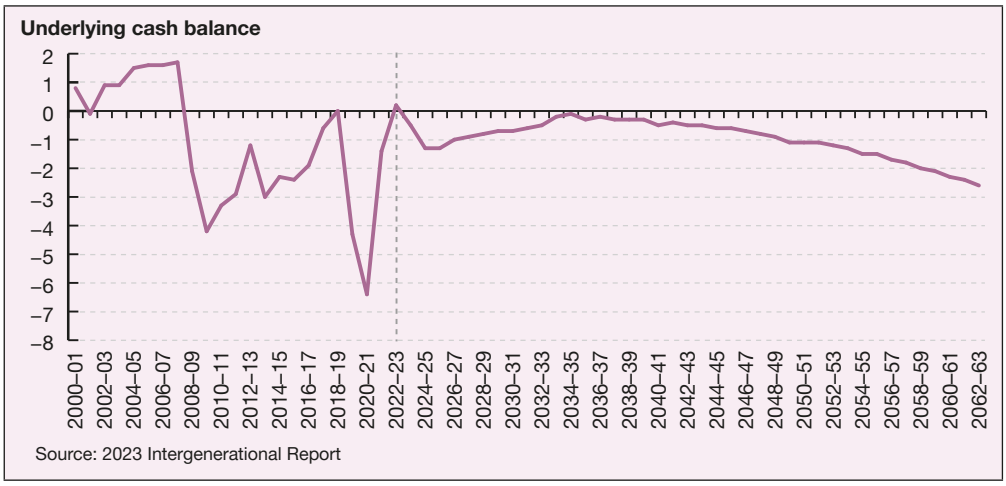


Figure 14.5 – The outlook for Australia's budget deficit through to 2063

reviewquestions

1. Describe trends in Australia's budget outcome in recent years.
2. Evaluate the stance of fiscal policy in the current federal budget.
3. Explain the difficulties in reducing the budget deficit in recent years.

14.6 The impact of recent fiscal policy

Recent years provide a case study of the impact of fiscal policy on the economy, with the COVID-19 pandemic prompting the largest-ever fiscal policy interventions in Australian economic history. In contrast, during the decade before the pandemic, fiscal policy was playing a relatively minor role in Australia's economic policy mix. While monetary policy played the critical shorter-term role of influencing the level of economic activity and keeping inflation within its target range, the goal of fiscal policy was to gradually return to surplus, and from time to time to achieve specific policy goals relating to the allocation of resources in the economy.

Economic growth

Since the 1990s, fiscal policy has only played an active role in managing the economic cycle during major downturns – in the early 1990s, following the global financial crisis in 2008 and the COVID-19 pandemic in 2020. Outside of those periods, fiscal policy played a much smaller role in influencing the level of economic growth. The introduction of inflation targeting, independently implemented by the Reserve Bank of Australia, meant that monetary policy became the main macroeconomic policy instrument for influencing the level of economic growth. The 2023 Review of the RBA concluded that this macroeconomic strategy had been effective, and Australia should continue using monetary policy as the primary demand management tool.

The limited role for fiscal policy in the period before 2020 is reflected in the Budgets of the late 2010s. As the Budget gradually moved towards balance, the Morrison Government legislated long-term plans to reduce taxation rates for businesses and individuals, as part of its policy commitment to keep tax revenues below 23.9 per cent of GDP (in fact, tax revenues peaked at 23.4 per cent of GDP in 2018–19). Its objective in reducing tax rates was to provide more incentives for work, investment, job creation and economic growth by allowing individuals to retain more of their income, and companies to retain more of their profits.

The 2019–20 Budget announced three stages of reductions in personal income tax, with the first stage focused on a tax rebate for low- and middle-income earners between 2018–19 and 2020–21. The second stage, implemented from 2020–21 to 2023–24, raised the tax brackets, so that higher tax rates cut in at higher-income levels. The third stage, from 2024–25, involves abolishing the second-highest tax rate (of 37c in the dollar), benefiting middle- and upper-income earners. Fully implemented, the three stages of tax cuts contained in the 2019–20 Budget were expected to reduce revenue by $158 billion between 2019–20 and 2029–30, in addition to $144 billion in tax cuts announced in the 2018–19 Budget. During this period, the Government also reduced company tax rates for entities with a turnover below $50 million from 30 per cent to 25 per cent.

The role of fiscal policy changed dramatically from March 2020 as governments around the world focused on preventing the spread of the coronavirus. This approach is based on Keynesian economic theory, which dominated policymaking between the 1940s and 1970s, and which argued that an expansionary budget involving increased spending or tax cuts would accelerate economic growth. To offset the economic impact of lockdowns and disruptions to economic activity, the Australian Government announced a series of policies including cash payments to households, wage subsidies for businesses, investment allowances, industry support measures and increased expenditure on health and infrastructure. At the time, the Treasury estimated that the Government's budget policy measures (up to and including announcements in July 2020) would result in economic activity being 4.5 per cent higher in 2021–22 than it would otherwise have been.

A key feature of Australia's policy response to COVID-19 was to sustain business investment. The 2021–22 Budget introduced a policy of "immediate expensing", which allows business to make investments of any size and write off the full cost immediately, in contrast to normal practice, which only allows businesses to claim a tax reduction equal to the depreciation in the value of an asset (usually between five and ten years). The Budget also allowed businesses to claim a "loss carry-back" – allowing them to claim tax losses from the past. Businesses could undertake investment during 2021–22, claim the full deduction immediately, and then incur a tax loss. They would then become eligible to claim a refund against tax that they paid in past years, before the pandemic. The Government argued these measures would support investment and economic growth, and help reduce unemployment.

In the circumstances of 2020, there was a widespread consensus that the fiscal policy measures were necessary even though they resulted in the Budget moving from balance in 2018–19 to a deficit of 6.5 per cent in 2020–21, and net public sector debt rising from $374 billion or 19.2 per cent in 2018–19 to $592 billion or 28.6 per cent in 2020–21.

In the longer term, the effectiveness of fiscal policy in influencing economic growth may diminish if the accumulation of past budget deficits has created a high level of public debt. The Albanese Government's fiscal strategy is focused on reducing debt as a share of the economy. Unlike previous fiscal strategies, it does not explicitly target a return to surplus. Rather, it makes a commitment to improve the budget balance over time.

In evaluating the impact of fiscal policy on economic growth, it can also be important to take into account any impact that fiscal policy changes might have on monetary policy. Economists have differing views about the relationship between fiscal and monetary policies, but under an inflation-targeting regime, changes in fiscal policy can clearly affect monetary policy decisions – and possibly reduce any impact that fiscal policy might have. To the extent that changes in fiscal policy impact on inflationary pressures, fiscal policy can affect the Reserve Bank's monetary policy decisions. The 2023–24 Budget sought to manage the conflicting objectives of reducing inflationary pressures and supporting households struggling with cost-of-living pressures due to high inflation. The cost-of-living measures were designed to support households and reduce inflation, through subsidies on electricity bills and caps on wholesale energy costs. Treasury estimated

headline inflation will be reduced by three-quarters of a percentage point in 2023–24 as a result of these measures, with the goal of reducing the need for further interest rate increases to address inflation.

Unemployment and workforce participation

The short-term impact of fiscal policy on unemployment is closely related to the impact of fiscal policy on economic growth. In stimulating aggregate demand, expansionary fiscal policy can help to reduce unemployment or, during an economic downturn, reduce the rate at which cyclical unemployment increases. The priority of Australia's fiscal policy measures in response to the COVID-19 pandemic was to prevent a much larger surge in unemployment. The JobKeeper Payment played the central role in this strategy. Under this policy, the Australian Government was in effect paying the wages of workers at a time when many employers could not afford to pay them because of the suspension of normal economic activity. The Treasury estimated that this wage subsidy prevented a 5 percentage point rise in the unemployment rate. Without action to prevent those job losses in the short term, the Treasury argued that the recession would be much longer and more severe, given the time required for employers to recruit and for workers to find jobs in the months and years that followed.

With the unemployment rate rapidly falling after the pandemic, the role of fiscal policy in the labour market returned to its pre-pandemic focus. Measures were introduced to target priorities such as addressing skills shortages in specific trades or industry sectors, fostering career transitions and retraining older workers. The 2022–23 Budget included a $2.8 billion Australian Apprenticeships Incentive System, which aimed to streamline apprenticeships and create more places in priority areas, and a $550 million Skills and Training Boost, which provided a 20 per cent bonus tax deduction for small businesses to upskill their employees through external training providers.

Childcare policies have a major influence on how quickly parents are able to return to the workforce after a new birth. In 2022–23, the Albanese Government allocated $4.7 billion to increase the Child Care Subsidy to 90 per cent for eligible families. The plan's economic policy objective was increased workforce participation, by improving work incentives for second-income earners (most often women), by slowing down the rate at which rising family incomes result in lower childcare subsidies. The Government also announced $532 million to expand Paid Parental Leave to up to 26 weeks starting from 2026.

Allocation of resources

Governments use expenditure and revenue measures to influence resource allocation in the economy less actively than in the past. Other than where there are market failures that need to be corrected, governments generally rely on market forces to achieve the most efficient allocation of resources. With the shift away from governments directly influencing resource allocation, the factors that shape market forces – such as changing consumer preferences, changing business practices, new technologies and the forces of globalisation – generally have the greatest influence on resource use.

Governments were once much more involved in the provision of services in Australia – they owned airlines, airports, banks, electricity utilities, insurance companies, phone companies, pharmaceutical businesses, printers, agricultural marketing businesses and gambling businesses. During the 1990s and the years that followed, most of these public trading enterprises were privatised and "user pays" systems have been introduced. Direct subsidies to industries have declined to less than $4 billion per year, and governments have even been willing to allow industries to shut down altogether, as the Abbott Government did with the closure of Australia's car manufacturing sector in 2013. Nevertheless, some areas of government expenditure still have a significant effect on resource allocation. The 2023–24 Budget set out an additional $4 billion of funding for Australia's transition to cleaner energy sources, bringing to $40 billion its total funding commitment to accelerate

the growth of renewable energy industries. In addition, Australia is committed to spending tens of billions of dollars on building submarines in Australia as part of its commitment to the local defence industry and the AUKUS alliance.

Governments can also have a significant influence on resource allocation through their general policy settings, especially through regulations, tax concessions and exemptions. An example of regulation that influences resource use is the Renewable Energy Target that successfully required by 2020 that around 23 per cent of energy generation came from renewable sources (through a system of renewable energy certificates).

National savings and the current account balance

Fiscal policy can influence an economy's level of national savings, either by increasing savings (through surpluses) or detracting from savings (through deficits). Rather than using the Budget directly to address Australia's large current account deficit, in recent decades the Government has pursued a goal of budget surpluses over the medium term so that the Government is not directly adding to Australia's savings imbalance. Over time, this should help contribute to improving Australia's external balance.

The extent to which a budget deficit leads to a current account deficit (a relationship sometimes known as the "twin deficits" hypothesis) has been a matter of economic debate in Australia since the 1980s. In reality, the current account is influenced by many factors, and the level of budget deficits is just one of many. As figure 14.6 shows, there is no direct linkage between Australia's budget outcome and the current account deficit. In some periods, such as the mid-2000s, the current account deficit may increase even when Australia is recording sustained budget surpluses. At other times, such as in recent years, the current account may move into surplus while the budget moves sharply into deficit. This reflects the fact that, although budget outcomes influence national savings, and national savings influences external balance, at any moment in time many other factors are also influencing those economic outcomes. Nevertheless, this does not mean that the level of public savings has no effect on the current account over the longer term. A higher level of public savings (and therefore national savings) is likely to result in a lower current account deficit than if the Government has a budget deficit, and vice versa – but the relationship is long-term not short-term, and influenced by many other factors.

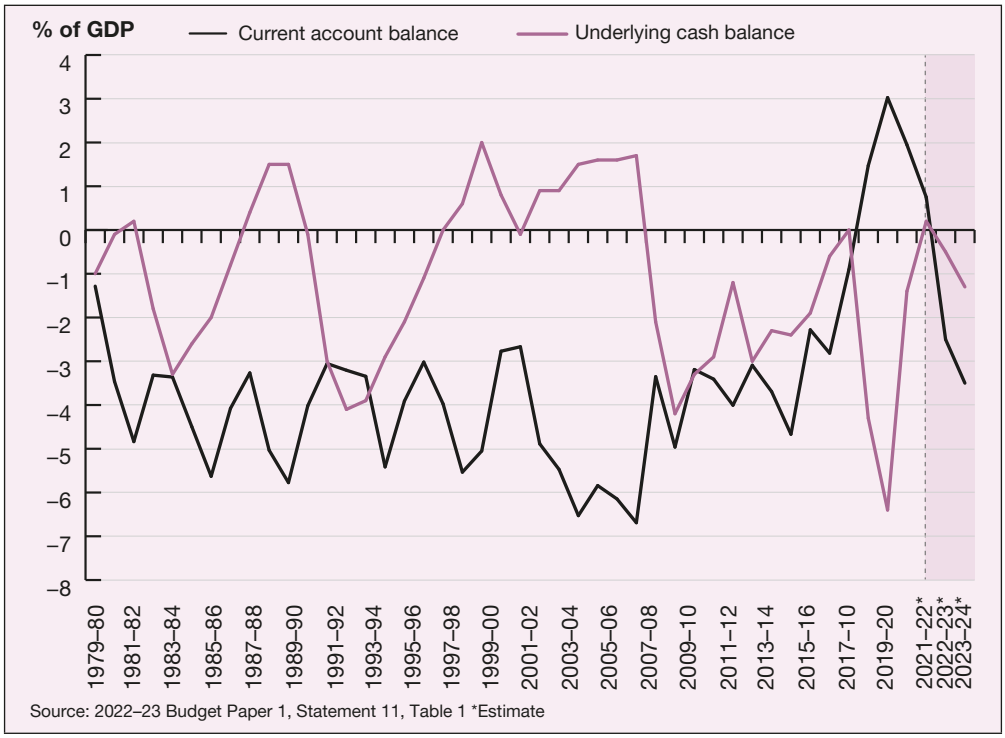


Figure 14.6 – The budget outcome and the current account deficit since 1979

Distribution of income

Fiscal policy decisions have significant impacts on the distribution of income, and the distributional effects of policy changes are often a major feature of debates about budget policies. The Budget can impact income distribution through specific tax and revenue measures, as well as through its broader impact on economic conditions.

A key goal of the Australian Government's response to the COVID-19 pandemic was to prevent the large-scale job losses that could lead to a widening of inequality in the distribution of income. In addition to the JobKeeper Payment that subsidised the wages of around 3.5 million Australians (at a cost of $90 billion), the Government temporarily relaxed access to unemployment benefits, while also increasing payments through the Coronavirus Supplement of $550 per fortnight, at a cost of $16.8 billion. It also provided a direct cash support payment of $1500 to pensioners, income support recipients, carers and student payment recipients, costing $9.4 billion. These measures provided assistance to lower-income earners.

The 2023–24 Budget contained a range of measures to assist groups most affected by inflationary cost-of-living factors. These measures included $3 billion in subsidies for electricity bills for five million Australian households, a $20 per week increase in the JobSeeker payment and a 15 per cent increase in rent assistance payments.

In contrast to the positive effect of measures during the pandemic, the income tax reductions phased in from the late 2010s through to 2024–25 were widely criticised for making the tax system less progressive by reducing the number of tax thresholds from four to three. Other measures included a reduction in tax rates and a lifting of tax brackets. An analysis of the tax package by the Grattan Institute in 2019 concluded that it would make Australia's tax system less progressive than at any time since the 1950s. Its modelling showed that while someone in the middle of the income distribution would have an increase in their tax rate of 3.7 per cent by 2030 under the package, the average tax rate for the top 15 per cent of income earners would fall by 1 per cent. Overall, the share of income tax paid by middle-income earners will rise from 32 per cent in 2017–18 to 35 per cent by 2029–30. On a standard measure of progressivity of tax systems (comparing tax paid on incomes 0.5 versus 2.5 times average earnings), Australia would fall from 12th in the OECD in 2017–18 to 19th by 2024–25.

reviewquestions

1. Outline the main impacts of fiscal policy in recent years.
2. Identify TWO ways in which the recent Budget might impact the level of economic growth.
3. With reference to recent economic examples in Australia, identify TWO ways in which a fiscal policy change might affect the distribution of income.

chapter summary

1 **Fiscal policy** involves the use of the Commonwealth Government's Budget to achieve the Government's objectives by influencing economic activity, resource allocation and income distribution.

2 The main tools of fiscal policy are **government spending**, **revenue collection** and the **budget outcome**. These are usually changed once each year in the Commonwealth Government Budget, which is usually released in May.

3 The budget outcome can be a surplus, deficit or balanced. The budget stance gives an indication of the overall impact of fiscal policy on the state of the economy and can be described as **expansionary**, **contractionary** or **neutral**.

4 The two main measures of the budget outcome are the **underlying cash outcome**, which is calculated through an accounting method known as cash accounting and which includes capital spending, and the **net operating balance**, which is calculated using a different accounting method as revenue minus expenses, with capital expenditure removed.

5 The **net operating balance** is the best indicator of the sustainability of the fiscal strategy because it shows the gap between recurrent expenses and revenue (that is, it distinguishes between capital spending and day-to-day spending). The **underlying cash outcome** is the best indicator of the short-term impact of fiscal policy on the level of economic activity because it shows actual cash revenue and spending in a year.

6 Spending, revenue and budget outcomes are affected by **discretionary** or **structural** factors, involving policy changes by the government, and **non-discretionary** or **cyclical** factors, which relate to the impact of changing economic conditions on the levels of spending and revenue collection.

7 Unemployment benefits and progressive income tax are known as **automatic stabilisers** because they are a built-in counter-cyclical component of the Budget.

8 A **budget deficit** is usually financed through borrowing from the private sector, which reduces national saving and may put upward pressure on interest rates. It can also be financed by borrowing from overseas or from the Reserve Bank (printing money), or by selling government assets.

9 Generally, fiscal policy plays a limited role in macroeconomic policy. Monetary policy is usually the primary tool to control short-term fluctuations in growth and inflation. However, during periods of economic crisis, fiscal policy can play an important role in supporting aggregate demand.

10 In contrast to its generally neutral or mildly contractionary stance during the 2010s, in 2020 the Government shifted fiscal policy to a very expansionary stance, helping to accelerate Australia's recovery from the COVID-19 pandemic. More recently, fiscal policy has been returning to a mildly contractionary stance.

chapter review

1. Explain what is meant by *fiscal policy*.
2. Distinguish between the possible budget outcomes of surplus, deficit and balance.
3. Describe the major instruments of fiscal policy.
4. Distinguish between the underlying cash balance and the net operating balance. Explain what each indicates about the budget stance.
5. Explain how automatic stabilisers play a counter-cyclical role in the budget.
6. Outline how fiscal policy impacts on the following:
   (a) economic growth
   (b) resource use
   (c) income distribution
7. Explain how the government can finance a budget deficit.
8. Distinguish between public debt and foreign debt.
9. Discuss the impact of recent changes in fiscal policy on the Australian economy.
10. Account for the trends in budget deficits during recent years.

15 Monetary Policy

15.1 Introduction

15.2 The objectives of monetary policy

15.3 The implementation of monetary policy

15.4 The impact of changes in interest rates

15.5 The stance of monetary policy in Australia

15.1 Introduction

Monetary policy refers to actions by the Reserve Bank of Australia (RBA), Australia's central bank, to influence the cost and availability of credit in the Australian economy. Monetary policy is a macroeconomic policy that, like fiscal policy, can smooth fluctuations in the business cycle and influence the level of economic activity, employment and prices. Monetary policy is generally the primary macroeconomic policy used for this purpose over the short to medium term in Australia and other advanced economies. This chapter outlines the objectives of monetary policy and how it is implemented to influence economic outcomes.

The formal objectives of monetary policy and the powers of the RBA are set out in federal legislation in the *Reserve Bank Act* (1959), along with the broader powers and responsibilities of the RBA. There is also a complementary agreement between the Commonwealth Government and the RBA Governor called the *Statement on the Conduct of Monetary Policy*. The agreement expresses a shared understanding of how the formal objectives can be met by the RBA and how monetary policy should be conducted in more detail. Within the scope set out by these documents, the RBA is authorised to make monetary policy decisions independent of the Federal Government.

One of the RBA's key roles is to hold and manage deposits owned by commercial banks in Australia that they use to settle transactions between each other. This gives the RBA the ability to influence the supply of money in the economy and therefore interest rates. The RBA sets a desired target for the **cash rate** (which is the interest rate on loans in the overnight money market), and uses **open market operations** (OMOs) to help achieve it. The cash rate influences other interest rates in the economy.

Contractionary monetary policy is when the RBA increases interest rates in the economy, which reduces the amount that households with mortgages have available for consumption and makes business investment more expensive. This lowers economic activity, reduces employment growth and reduces inflationary pressure. **Expansionary** monetary policy is when the RBA lowers interest rates, resulting in higher consumption and investment, economic activity, employment growth and inflation. Since the early 1990s, monetary policy has been guided by an inflation-targeting framework, which seeks to keep inflation between 2 and 3 per cent.

AN INDEPENDENT REVIEW OF THE RBA

In 2022, the Albanese Government initiated the first independent review of the RBA since inflation targeting was introduced in the early 1990s. The purpose of the review was to reassess the RBA's objectives and performance.

The review's 51 recommendations were released in March 2023. The Government agreed in principle with all of the recommendations, including:

- Clearly defining the objectives for monetary policy as a dual mandate to contribute to price stability and full employment, with an overarching purpose to promote economic prosperity
- Increased information sharing between the RBA and Treasury, through performing joint scenario analysis
- Reducing the number of Board meetings each year from 11 to 8 and increasing the time spent on monetary policy and strategy
- Creating two separate boards for the governance of the RBA and for the conduct of monetary policy
- Improving transparency through Board members speaking publicly about the Board's decisions
- Implementing 5-yearly reviews of the monetary policy frameworks and tools.

15.2 The objectives of monetary policy

The objectives of monetary policy are laid out formally in the *Reserve Bank Act of 1959*, which states that in its implementation of monetary policy the RBA should aim for:

- The stability of Australia's currency – which now means maintaining low and stable inflation and preserving the purchasing power of the Australian dollar.
- The maintenance of full employment in Australia – which means sustaining a low level of unemployment.
- The promotion of the economic prosperity and welfare of the people of Australia – which primarily means maintaining a stable and sustainable economic and financial environment.

The 2023 review of the RBA recommended that the objectives should be clarified as a dual mandate for price stability and full employment only, with the promotion of economic prosperity not being a separate third objective but, instead, an overarching purpose for the RBA. This recommendation is intended to reduce the discretion of the RBA in its application of monetary policy and support it in focusing on two objectives. At times, it can be difficult for the RBA to achieve all three objectives simultaneously. Since the early 1990s, the RBA has generally prioritised the first objective: the maintenance of low and stable inflation via its inflation-targeting regime. Executing monetary policy in this manner can come at the expense of the RBA's employment objective. For instance, when inflation is high, the RBA will increase interest rates which can restrict economic activity and lead to a rise in unemployment.

Inflation targeting

Since the 1990s, Australia has followed the example of several other countries, including Canada and New Zealand, where the central bank operates independently of the government to try to keep inflation within a predetermined target range (the target is normally jointly agreed upon by the central bank and the government). In doing so, the RBA prioritises maintaining low and stable inflation over all else. This reflects several important characteristics of monetary policy:

- Monetary policy is effective at fighting high levels of inflation.
- When assigned multiple goals, monetary policy often struggles to achieve them simultaneously. Listing one objective as the main one to achieve makes monetary policy more certain, consistent and predictable.
- When governments control monetary policy directly, their policy decisions can be distorted by political pressures, particularly at times of elections, when politicians

may want to keep interest rates low even if that might be suboptimal for the economy. Giving independence to a central bank in its conduct of monetary policy helps to reduce the risk of political factors distorting interest rate decisions.

- Inflation targeting has generally been successful at keeping inflation low and stable without central banks having to resort to high interest rates, which lower growth and increase unemployment. In other words, keeping inflation low and stable over the medium to long run helps the RBA achieve its other objectives as well. This largely explains why price stability is the primary objective for the RBA and other central banks. To sustain low and stable inflation, inflation targets need to entrench expectations in the economy that inflation will be low and stable over time. This is because expectations are a significant factor influencing the level of inflation.

The RBA's specific inflation target is to keep inflation between two and three per cent. It is important that the target is flexible and presented as a range. This reflects that inflation can be affected by shocks and events outside of the RBA's control, such as the COVID-19 pandemic and the war in Ukraine, and that the RBA must use its judgment to quickly return inflation to near the midpoint of its target. The target was previously expressed as between "two and three per cent, on average, over time", but the review of the RBA recommended removing the qualifying words "on average, over time" because they weakened the RBA's accountability for inflation outcomes.

Price stability is desirable because it allows households and businesses to prosper, and improves overall welfare in the economy. This prosperity is the overarching goal of monetary policy in Australia, so it is pursued by the RBA even if it means short-term inflation numbers are inconsistent with the target.

Successive governments have supported the RBA's flexible inflation target consistently since it was first introduced. Governments since the 1990s have broadly endorsed this approach in written agreements between the Governor of the RBA and the Australian Government (these agreements can be thought of as agreements on how the RBA should go about pursuing the legislative objectives described previously). The most recent agreement is the 2023 Statement on the Conduct of Monetary Policy following the review of the RBA. The 2023 Statement reaffirms the Government's commitment to the independence of the RBA and its support for the inflation-targeting framework.

The inflation-targeting regime clearly places the goal of price stability at the centre of monetary policy. However, reducing unemployment and promoting prosperity are still important goals of monetary policy. The flexibility of the regime supports the RBA in its exercise of monetary policy.

"Just because our inflation objective has been in focus recently, it does not mean that the other part of our mandate – maintaining full employment – has become any less important. Full employment is, and has always been, one of our two main objectives …
We think of full employment as the point at which there is a balance between demand and supply in the labour market (and in the markets for goods and services) with inflation at the inflation target; this is the level of employment that is sustainable with our price stability mandate in the longer term."

– Michele Bullock, (then) RBA Deputy Governor, Achieving Full Employment (speech), 20 June 2023

The RBA's inflation-targeting regime has been in place for about three decades. The review of the RBA recognised that this regime "remains the best operational framework for monetary policy". Since the regime was introduced, inflation has averaged around 2.6 per cent. Expansionary monetary policy also supported economic activity during the Asian financial crisis in the late 1990s, the global financial crisis in 2007–08 and the COVID-19 pandemic.

Despite success in maintaining economic stability and low inflation during the inflation-targeting era, monetary policy in Australia has attracted criticism in recent years. In the years leading up to the pandemic, critics argued that the RBA's monetary policy stance was not expansionary enough, especially when inflation was below the target band. When inflation increased sharply in 2022, critics said the RBA's response to COVID-19 was too expansionary. These views were part of the impetus for an independent review of the RBA which was completed in 2023.

APPOINTING A NEW GOVERNOR OF THE RBA

Michele Bullock's term as Governor of the Reserve Bank began in September 2023, replacing Philip Lowe who had been Governor since 2016.

The Treasurer appoints the Governor of the Reserve Bank for a term of seven years, with the possibility of extending that term. As his predecessors (Glenn Stevens and Ian Macfarlane) had their appointments extended by three years each, there was speculation in 2023 as to whether the same would occur for Lowe.

The end of Philip Lowe's term was unusual because of the lack of support and confidence he faced as Governor steering the economy through the COVID-19 pandemic and its aftermath. Despite interest rates being raised by central banks all over the world following the pandemic, public sentiment turned against Lowe. "He did no worse than any other central bank, and some got it worse," noted Warwick McKibbin, a former member of the Reserve Bank Board. While the British Government defended the Bank of England Governor for raising interest rates, Lowe was exposed to public and political anger during the interest rate tightening cycle.

Much of this criticism stemmed from a statement that Governor Lowe had made in 2021 when the cash rate was at a historic low of 0.1 per cent, saying it was "very likely to remain at [that level] until at least 2024". People who borrowed funds based on that advice faced rising repayments and cost-of-living pressures as interest rates increased.

The purpose of the 2023 review of the RBA was to identify improvements to the RBA's operations, in the context of significant changes in the policymaking environment in recent decades. The review also aimed to assess external criticisms that the RBA's culture was too insular and hierarchical.

Part of the Government's rationale in appointing a new governor was to install someone new to drive institutional reform of the RBA through implementing the review's recommendations. While domestic and international candidates were considered, Bullock's appointment follows a trend since the mid-1990s of Deputy Governors succeeding Governors in the role.

reviewquestions

1 Outline the broad objectives of monetary policy.
2 Define *inflation targeting* and discuss why it is used in Australia.
3 Briefly explain how the following events would impact on the RBA's decision-making process when it influences interest rates:
   a) wage growth of 6 per cent
   b) a sustained fall in consumer spending
   c) a sudden fall in the value of the Australian dollar
   d) predictions of a sharp fall in inflation in 2024–25.

MAIN ECONOMIC INDICATORS TAKEN INTO ACCOUNT BY THE RBA

- Inflation
- Expectations of future inflation
- Wages growth
- The unemployment rate
- Economic growth
- Interest rates
- The exchange rate
- Commodity prices
- Terms of trade
- Global economic conditions

15.3 The implementation of monetary policy

Cash rate is the interest rate paid on overnight loans in the short-term money market.



Whenever the RBA announces the cash rate, the Reserve Bank Governor releases a statement to explain the RBA's decision, and the minutes from the meeting are released two weeks later. These documents, along with a range of other useful information, are available on the RBA's website.

Using the RBA's statistics page, identify the most recent statistics for inflation, growth, unemployment and wages. Explain how these indicators justify the current level of interest rates in the Australian economy.

The **cash rate** is the main tool that the RBA uses to implement monetary policy. The cash rate is the interest rate in a financial market called the overnight money market – the market for very short-term loans between banks, where loans are literally made for overnight use in many cases. The cash rate influences many other interest rates in the economy (such as rates on mortgages and business loans), and the general level of interest rates influences inflation and the overall level of economic activity. The RBA can therefore achieve its economic objectives through its capacity to change the cash rate.

Until the end of 2023, the RBA Board met 11 times a year to set a target for the cash rate. In line with the recommendations of the RBA review, this was changed from 2024 onwards, with the establishment of a separate Monetary Policy Board meeting eight times per year (on the first Monday and Tuesday of relevant months), with its policy decision announced at the end of the meeting. The RBA is responsible for ensuring that the actual cash rate is consistent with the target announced by the board.

To fully understand monetary policy, it is important to understand more about what the cash rate is and the mechanics of how it is determined. The mechanics of the cash rate and the overnight money market can jointly involve three key elements: exchange settlement accounts, the policy interest rate corridor and domestic market operations.

Exchange settlement accounts

Commercial banks need to hold a certain proportion of their funds with the Reserve Bank in exchange settlement accounts (ES accounts) to settle payments with other banks and the Reserve Bank. For example, when a customer of the Commonwealth Bank of Australia (CBA) uses a debit card to buy a good or service from a business that has a bank account at National Australia Bank (NAB), funds need to flow from CBA to NAB to complete the transaction. Many interbank payments like this need to happen every day. These payments are made by transferring funds between banks' ES accounts. At the end of every trading day, some banks may not have enough funds in their ES accounts to satisfy all of their interbank payment obligations for that day, while other banks may have a surplus of ES funds. These other banks can hold excess ES balances in accounts at the RBA as a way of storing value.

The overnight money market (also known as the short-term money market) is the market where banks that have a shortage of ES funds can borrow money from banks that have an excess of ES funds beyond what they need in their accounts. The market therefore enables banks to always settle their interbank payment obligations with each other. As with any other financial market, demand by borrowers and supply from lenders interact to set the market price (interest rate). But unlike other financial markets, the RBA can influence the overnight money market to ensure that the actual cash rate lines up with the target that the RBA board sets for it. The RBA does this using the policy rate corridor and open market operations.

The policy rate corridor

The RBA does not directly set the actual cash rate at the target that it announces. But the RBA ensures that the actual cash rate can never stray far from the target because of how the RBA deals with the funds in commercial banks' ES accounts.

Firstly, the RBA normally pays an interest rate to banks on funds held in ES accounts that is 0.25 percentage points below the cash rate target (for example, if the cash rate target is 1 per cent, the RBA's deposit rate is usually set to 0.75 per cent). This means that banks with excess ES balances are not given an incentive to lend funds to other banks if the actual cash rate is less than 0.25 percentage points below the target; these banks could earn greater returns by simply leaving their extra funds in their ES account and ignoring the overnight money market. The RBA's deposit rate therefore creates a *floor* or minimum value for the cash rate.

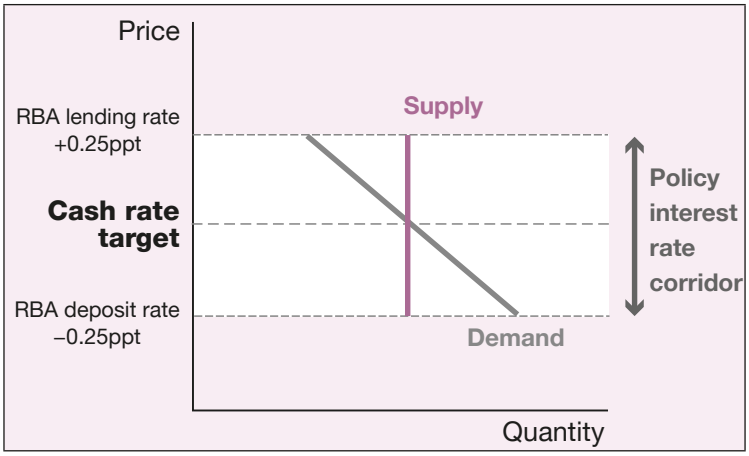


Figure 15.1 – The Australian cash market

Secondly, the RBA is always willing to lend ES balances directly to banks outside of the overnight market. The RBA always sets an interest rate on these loans equal to 0.25 percentage points above the cash rate target (for example, if the cash rate target is 1 per cent, the interest rate on these loans is set to 1.25 per cent). Banks that need to borrow ES balances are not incentivised to pay a rate higher than the RBA's lending rate in the overnight money market. If the cash rate were higher than the RBA's lending rate, banks would simply borrow ES funds directly from the RBA. The RBA's lending rate therefore creates a *ceiling* or maximum value for the cash rate.

The floor created by the RBA's deposit rate and the ceiling created by the RBA's lending rate together form the policy rate corridor for the cash rate. No banks, whether they have a surplus or a shortage of ES funds, have an incentive to complete transactions in the overnight money market outside of this corridor. The RBA's policy target for the cash rate is normally exactly in the middle of the corridor. This helps ensure that the actual cash rate always closely follows the RBA's target cash rate.

The policy rate corridor is responsible for implementing changes to the RBA's cash rate target. If the RBA were to decrease the target, the floor and ceiling of the corridor would shift downwards immediately, and banks would be incentivised to borrow and lend from each other within a new range that is consistent with the new cash rate target (see figure 15.2).

In reality, there is no mechanism that forces the actual cash rate to be exactly the same as the cash rate target (that is, in the middle of the band). However, there is a well-established convention that the actual cash rate should be the same as the target. Borrowers and lenders in the overnight money market generally follow this convention. Because of this, changes to the cash rate happen as soon as the RBA announces a change to its target – the RBA does not have to do anything besides make the announcement.

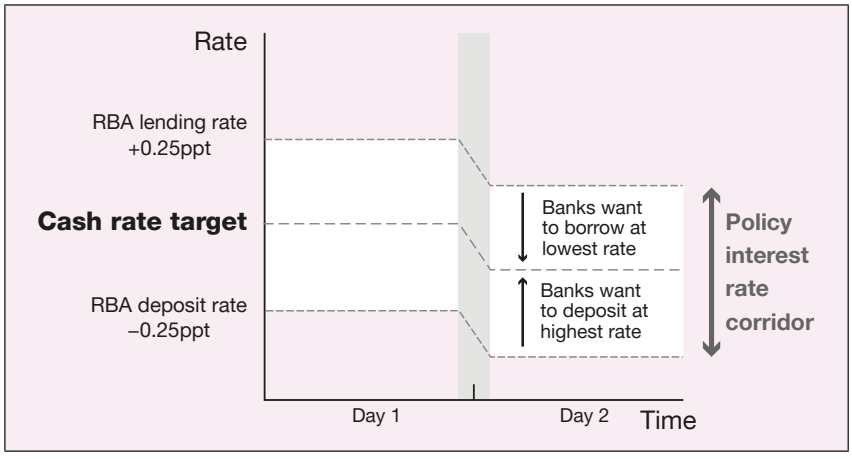


Figure 15.2 – Policy interest rate corridor

Domestic market operations

Demand for ES balances by banks fluctuates on a daily basis. This is especially the case on days where there are large transactions or payments in the economy, such as when the Government pays social security benefits. The actual cash rate is the price at which this demand intersects with the supply of ES funds that are available. The RBA can manage the level of supply of ES funds so that it meets demand at a price closer to the RBA's cash

rate target. This management of supply is what reinforces the convention mentioned above, so it is important for ensuring the actual cash rate stays in line with the target. Without the prospects of these interventions, the cash rate would bounce around inside the policy rate corridor whenever demand fluctuates.

Domestic market operations are actions by the Reserve Bank in the short-term money market to buy and sell second-hand Commonwealth Government Securities to influence the supply of exchange settlement balances in order to keep the actual cash rate at the policy target.

The RBA manages the supply of ES funds by conducting **domestic market operations** (DMO). DMO refers to the purchase and sale of financial securities by the RBA in exchange for ES balances. These purchases and sales affect the supply of ES funds because ES funds are used to complete these transactions. If the demand for ES funds increases, the RBA would need to increase the supply of ES funds to keep the cash rate stable, all else being equal. To do this, the RBA would **buy financial securities** held by banks, and pay for this by depositing funds in their exchange settlement accounts. This increases the supply of ES funds so that it meets the additional demand. If the RBA needed to decrease the supply of ES funds to keep the cash rate at target (because of a decrease in demand), the RBA would **sell financial securities** to banks, and withdraw funds that were sitting in their exchange settlement accounts. This would decrease the supply of ES funds down to the lower level of demand.

DMO usually involves the use of **repurchase agreements** (also called repos), where the "seller" of a bond or other financial security effectively agrees to buy the bond or security back from the "buyer" at a later date. The RBA prefers using repos to conduct DMO because they are highly flexible instruments and can be used to manage ES supply much more precisely than outright purchases or sales of financial securities.

In summary, the RBA uses the cash rate policy corridor to implement changes to the cash rate target, and can use DMOs to ensure that the cash rate stays consistent with the target every day when the demand for ES funds changes. The RBA expects that ES balances will decline over the next few years as funding provided to banks unwinds and the RBA's holdings of government bonds mature.

The transmission of the cash rate to other interest rates

The cash rate is often called the foundation or the anchor of the interest rate structure in the Australian economy. This simply means that the cash rate has a major influence on many other interest rates in Australia. It has this influence because it affects how much it costs financial institutions such as banks to fund themselves. An increase in the cash rate means that it becomes more expensive for financial institutions to obtain funds in the short-term money market (and generally other funding markets too). To maintain their profit margins financial institutions generally respond by increasing the interest rates that they charge to borrowers, such as on household mortgages used to buy houses. Similarly, a reduction in the cash rate lowers the funding costs for banks and other financial institutions (that is, it costs them less to borrow money), and competition between financial institutions causes them to pass this cost saving on to their customers in the form of lower lending interest rates.

However, factors other than the cash rate also influence the main interest rates in the economy (home loans, credit cards, personal loans and commercial loans). These include competition in the banking sector, regulations, conditions in global and domestic financial markets and risk assessments relating to economic conditions. This means that the margin or difference between the cash rate and those other interest rates can change over time in response to these other factors.

The Reserve Bank can either tighten monetary policy by raising the cash rate target, or loosen monetary policy by lowering the target. The impacts of the Reserve Bank's implementation of monetary policy are summarised in figure 15.3.

Monetary policy stance	Cash rate target	Policy rate corridor	Overnight money market	Cash rate	Market interest rates
Tightening	Increases	Shifts upward	Influenced by RBA to ensure cash rate is consistent with target	Rises	Rise
Loosening	Decreases	Shifts downward	Influenced by RBA to ensure cash rate is consistent with target	Falls	Fall

Figure 15.3 – The conduct of monetary policy

While announcements of changes in the cash rate are the most important statements by the RBA, other releases such as board minutes and speeches by key RBA officials are also scrutinised closely by markets. Financial markets often interpret small changes in the RBA's description of economic conditions as a signal of future interest rate movements. Markets can "price in" a future interest rate increase or decrease even before it has happened. This can result in interest rates in financial markets changing before the RBA changes the cash rate target.

Unconventional monetary policy

In recent years, central banks have gone beyond the traditional usage of interest rates to implement monetary policy, and have experimented with additional measures. This became necessary because, with interest rates already close to zero, further stimulus to the economy required other policy instruments. While other central banks had adopted several of these measures in response to the global financial crisis of 2007–2009, it was in response to the COVID-19 recession that the RBA implemented these measures in Australia:

- Asset purchases: purchasing government securities in the secondary market from financial institutions and paying for them by depositing newly created ES balances in their accounts
- Forward guidance: using official communications about the future stance of monetary policy to influence current interest rates on longer-term assets
- More liquidity: the RBA increased the size of its DMO compared to normal, and created the Term Funding Facility which provided cheap additional loans to commercial banks to support them lending more to households and businesses
- Changing the size of the corridor: by setting the corridor floor to 0.1 percentage points below the cash rate target (instead of 0.25 percentage points), the RBA was able to lower the cash rate to 0.1 per cent without the risks of negative interest rates.

These measures were largely unwound in the second half of 2021 as Australia's recovery from the pandemic took hold.

The use of tools other than a central bank's main policy interest rate (the cash rate in Australia) is often called unconventional monetary policy. In this instance, the term "unconventional" refers to the fact that central banks in advanced countries have only begun using these tools in the past two decades, and mostly in response to extreme economic events. This is in contrast to conventional monetary policy, when central banks use interest rates as their main tool.

Negative interest rates are another form of unconventional monetary policy, and they have been implemented in Japan, the European Union and Sweden. However, the RBA has consistently stated that it is very unlikely to introduce negative interest rates.

One way to think about the influence of unconventional monetary policy is through the yield curve. This curve shows how, in general, loans of longer maturity tend to have higher interest rates because lenders expect higher returns to compensate for the greater risks involved with lending out money for a longer period of time. Unconventional monetary policy measures generally work by reducing interest rates specifically on longer term loans.

Appendix B: In 2020, a controversial theory on inflation and monetary policy called modern monetary theory (MMT) gained prominence. For an explanation, see Appendix B (section B.4).

While conventional monetary policy usually lowers the entire yield curve – reducing interest rates across the board – unconventional measures typically flatten the curve, as shown in figure 15.4. This flattening represents the additional stimulus provided by unconventional monetary policies.

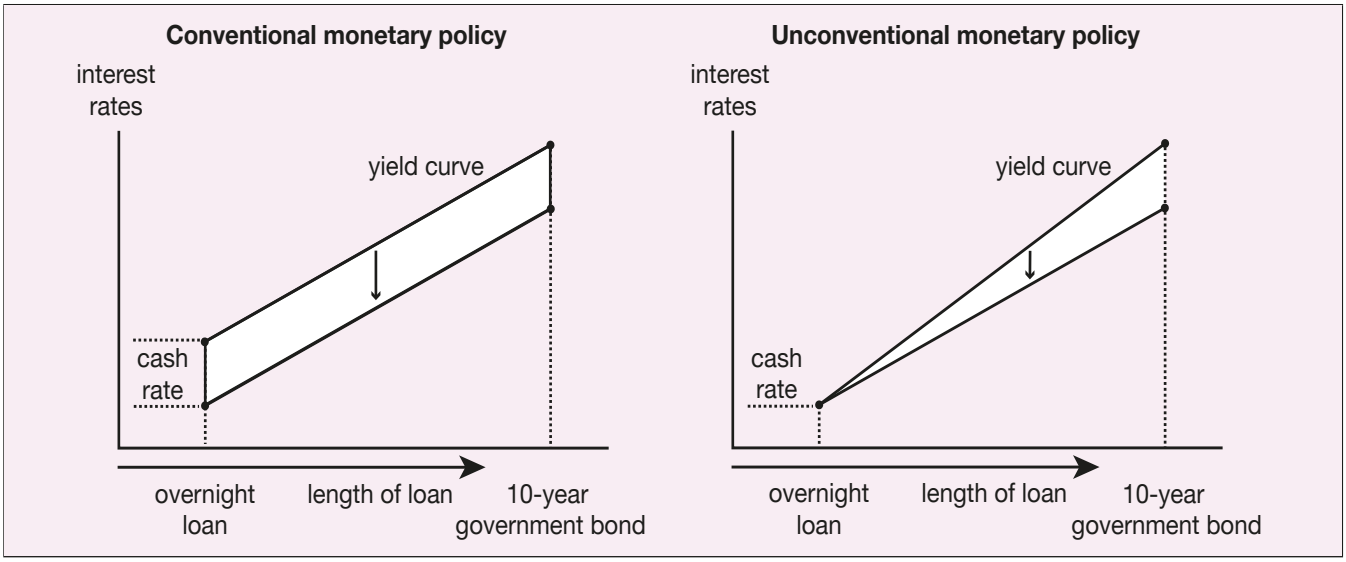


Figure 15.4 – Impact of conventional and unconventional monetary policy on the yield curve

reviewquestions

1. Explain how interest rates are determined in Australia with reference to *domestic market operations*, *exchange settlement accounts* and the *cash rate*.
2. Identify the impact of the following transactions on the supply of funds in the short-term money market and their impact on the cash rate.
   a) The Reserve Bank buys Commonwealth Government Securities from a bank.
   b) The Reserve Bank sells Commonwealth Government Securities to a financial institution.
3. Explain the difference between conventional and unconventional monetary policy.

15.4 The impact of changes in interest rates

Transmission mechanism explains how changes in the stance of monetary policy pass through the economy to influence economic objectives such as inflation and economic growth.

Economists often describe the process through which monetary policy affects the economy as the **transmission mechanism** of monetary policy. The transmission mechanism works through a number of different channels:

- Downward pressure on interest rates through expansionary monetary policy makes borrowing cheaper for consumers and businesses. Consumers often need to borrow to make major purchases such as housing and consumer durables. Similarly, businesses borrow for the purposes of investment in capital, plant upgrades and expansions. In addition, the interest rate they can obtain by investing in financial assets represents an opportunity cost of investing funds in the business for business owners. Thus, a fall in the level of interest rates should **encourage borrowing by both businesses and consumers**, leading to rising consumption and investment demand in the economy. This raises the overall level of economic activity.

- Reduced interest rates also have an effect on businesses and consumers that already have loans since the cost of servicing existing loans becomes cheaper. This means that existing borrowers can use more of their income on **additional spending** rather than servicing their loans. This is often called the cash flow channel of monetary policy.
- A fall in the level of interest rates also discourages financial inflows into Australia, which, as discussed in chapter 5, leads to a **depreciation** of the currency. A depreciation of the Australian dollar makes Australian goods relatively more competitive in both domestic markets (since imports are more expensive) and overseas markets. This consequence of a fall in the level of interest rates also stimulates aggregate demand and could add to inflation.
- Lower interest rates also can cause asset prices to increase for a range of assets including houses and shares in public companies. Higher asset prices provide asset holders (such as home owners) with more wealth, which they often use to consume and invest more than they otherwise would. This is frequently called the wealth channel of the transmission mechanism.

All of the channels described above cause aggregate demand to increase when interest rates are lower. This typically generates higher economic activity and employment (particularly if the economy was previously in recession), but could spill over into higher prices and wages if the economy was already close to full employment. The transmission mechanism would work in the opposite direction if the RBA put upward pressure on interest rates through contractionary monetary policy.

Overall, a **tightening** of monetary policy puts upward pressure on interest rates, which has the effect of dampening consumer and investment spending, resulting in a lower level of economic activity, with lower inflation and the possibility of higher unemployment. On the other hand, a **loosening** of monetary policy puts downward pressure on interest rates, boosting consumer and investment spending, resulting in a higher level of economic activity, with falling unemployment, and often an increase in inflationary pressures.

Debate about the impacts of interest rate movements was sparked recently by a research paper arguing that the most effective channel through which monetary policy affects inflation is actually via the exchange rate. The paper, published in 2022 by economists Isaac Gross and Andrew Leigh (also an Assistant Minister in the Federal Government), concluded that if interest rates increase relative to interest rates overseas, this makes holding cash in AUD-denominated assets more attractive and the exchange rate appreciates. This lowers some prices directly (such as prices for imports), reduces input costs, increases competition and reduces aggregate demand (because exports become more expensive). The challenge for policymakers is that the effectiveness of the exchange rate channel in Australia depends on monetary policy decisions made in other countries – that is, if other countries also increase interest rates, Australia's exchange rate may not appreciate, and the change in monetary policy will have limited impact.

While a change in monetary policy can be implemented almost immediately (that is, it does not require legislation or parliamentary approval), it can take considerably longer for that change to bring about the desired impact on economic growth, inflation and unemployment. Monetary policy can have a **time lag** of around 12 to 24 months before the full impact of interest rate changes are felt in the economy. This time lag can sometimes pose problems for policymakers. Economic circumstances can change substantially during the relatively long lag period and make current monetary policy inappropriate. For example, a series of interest rate increases which lower consumption and investment may still be constraining economic activity at a time when a recession occurs and looser monetary policy is needed to restore price stability. This is why the RBA usually focuses on the likely economic conditions in 12 to 24 months' time when it sets monetary policy. For this reason, the RBA invests considerable resources into forecasting future values of macroeconomic variables, including GDP, inflation and unemployment.

reviewquestions

1 Explain what is meant by the monetary policy *transmission mechanism*.

2 For each of the following scenarios, explain how DMO might be used to influence the economy and what impact these changes would have.

a) A shortage of skilled workers is putting upward pressure on wages growth and creating inflationary pressures.

b) Global economic growth is raising demand and prices for raw materials and commodities that are used as inputs to production.

c) A fall in consumer and business confidence causes reductions in consumption and employment growth.

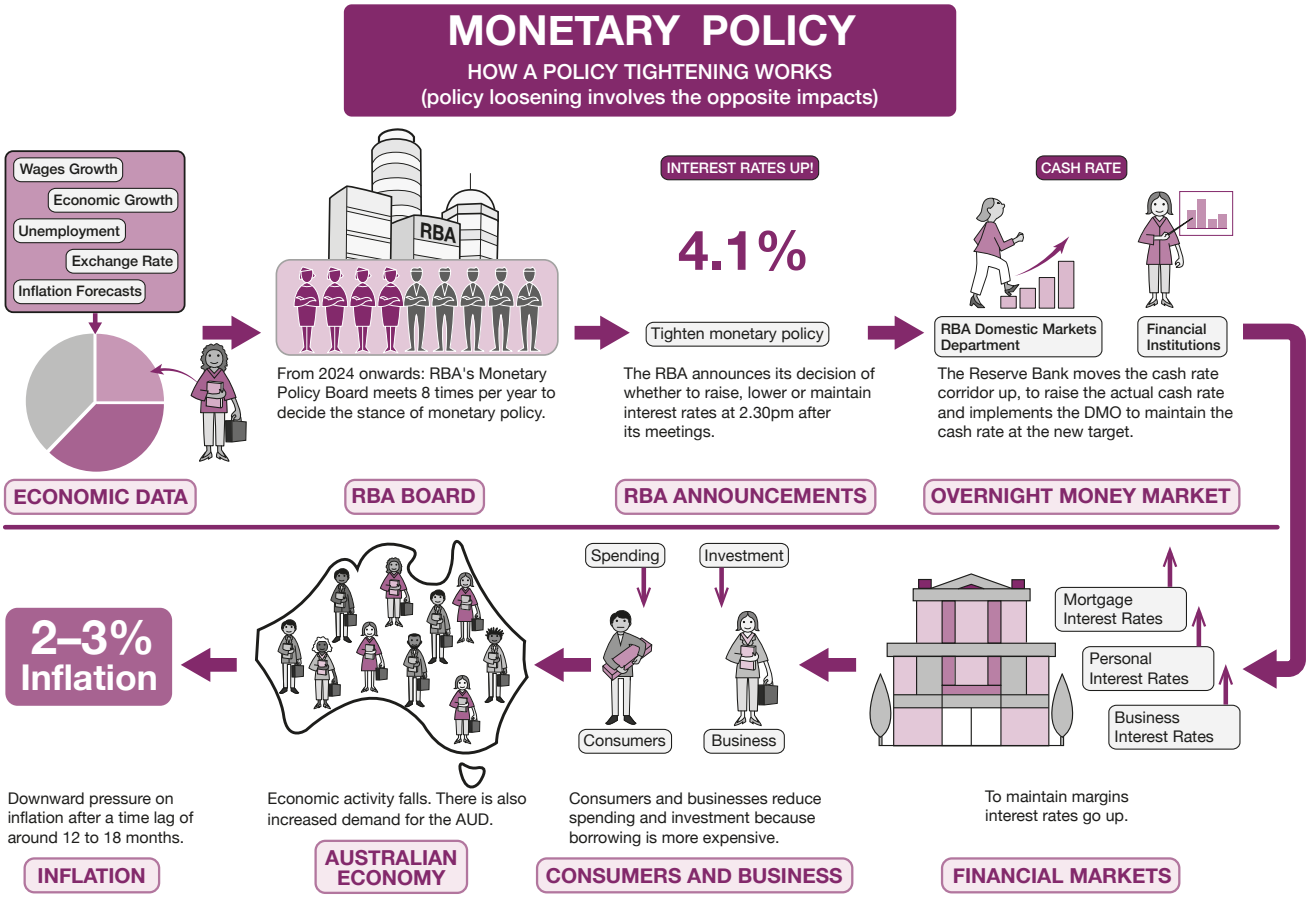
3 Describe the role of time lags in the conduct of monetary policy in Australia.

Appendix B: "Advanced Economic Analysis" at the back of this textbook looks at the implementation and limitations of monetary policy in more detail.

15.5 The stance of monetary policy in Australia

The RBA communicates the stance of monetary policy in its cash rate target announcement following each Board meeting, and publishes official minutes from the meeting two weeks later.

After the recommendations from the review of the RBA are implemented, the RBA will communicate the stance of monetary policy by making a cash rate target announcement after each meeting of the Monetary Policy Board. Immediately after the announcement, the Governor will give a press conference and the Board will release a public statement outlining the discussion and votes at the meeting.



The stance of monetary policy is further reflected by broader interest rate changes in the economy. Interest rates in Australia have varied considerably over time as monetary policy has been altered to respond to varying economic conditions (see figure 15.5). As the graph shows, there have been periods of both rapid interest rate reductions (in the early 1990s and late 2000s) and periods of rapid increases (in the mid-1990s and early 2020s). There have also been periods of slow increases (in the 2000s) and slow decreases (in the 2010s).

HOW FAST IS TOO FAST?

By late July 2023, the Reserve Bank had increased the cash rate 12 times (including 10 consecutive increases) from its pandemic low of 0.1 per cent as it sought to keep rising inflation under control.

The increases in interest rates were a necessary response to the high inflation and low unemployment being experienced in the Australian economy. However, some economists argued that the increases were too fast. In July 2023, AMP chief economist Shane Oliver noted "the more you raise rates the more you could tip [the economy] over the edge".

In response to the interest rate increase in June 2023, Treasurer Jim Chalmers warned "there will be a lot of Australians who will find this decision difficult to understand and difficult to cop", urging the Reserve Bank to defend its decision. For mortgage holders, monthly repayments on an average $600,000 mortgage increased by almost two-thirds (from $2,185 to $3,559 over the 12 increases), sending many households into mortgage stress. Other arguments suggested that the pace of increases did not allow time for the changes to take effect, due to the long and variable monetary policy lags. Economist Ross Garnaut noted in May 2023 that "the responsible thing is to pause until we see those effects [of lifting interest rates]".

Overall, Australia's experience of rising interest rates has been moderate, with interest rates below those in the UK, Europe and North America. Perhaps the most extreme example elsewhere is in Türkiye, where the central bank is not independent from the government. To avoid an increase in interest rates or a downturn during the election campaign, Türkish President Recep Tayyip Erdogan sacked three central bank governors in quick succession. Once re-elected, and with official inflation rising above 40 per cent, Erdogan appointed a central banker who, in one move, raised interest rates from 8.5 per cent to 15 per cent, sending the economy into a sharp downturn.



Figure 15.5 – Australian cash rate

Monetary policy was made very expansionary in response to COVID-19. Even before the onset of the pandemic, the cash rate target had reached historically low levels in response to a period of weak growth and low inflation. Since the pandemic placed substantial downward pressure on economic growth, inflation and employment, the cash rate target was lowered further to 0.10 per cent, its lowest level ever. In addition, the RBA introduced several unconventional monetary policy measures that further eased the stance of monetary policy. All of this monetary support helped the Australian economy successfully recover from the worst of the pandemic in 2020 and 2021. However, significant inflation pressures emerged in Australia in 2022 and 2023 due to global supply chain issues arising from the pandemic, the war in Ukraine, high levels of inflation overseas, labour shortages, and strong aggregate demand – partly reflecting the extent of stimulus provided by governments. The RBA responded to rising inflation with a series of rate increases, lifting the cash rate above 4 per cent.

Overall, the RBA has generally been successful in controlling the level of inflation. However, prior to the COVID-19 pandemic, the RBA was criticised for inflation being too low and for making economic forecasting and policy errors. In the years leading up to the pandemic, inflation remained below the RBA's target, averaging around 1.6 per cent from 2016 to 2019. Some commentators blamed this on the stance of monetary policy not being expansionary enough at the time. Others argued that the RBA's policy stance during COVID-19 was too expansionary and its "forward guidance" that the cash rate was very unlikely to be raised until 2024 reflected bad economic judgment. These concerns helped prompt the independent review of the RBA released in 2023.

Early 2000s	Monetary policy is tightened to deal with the inflationary consequences of the depreciation of the exchange rate and the introduction of the Goods and Services Tax.
Mid-2000s	Expansionary monetary policy to support growth during a mild downturn, followed by gradually increasing interest rates as inflationary pressures emerge during the boom in commodity prices.
2008–2009	Concern about the potential impacts of the global financial crisis on Australia sees the RBA slash the cash rate to 50-year lows of just 3 per cent.
2009–2011	Monetary policy returns to a more neutral position as the crisis eases, with the cash rate rising to 4.75 per cent by late 2010. The domestic recovery and strong mining sector growth sees the RBA refocus on containing inflationary pressures.
2011–2018	Monetary policy remains expansionary for a long time period, against the backdrop of low inflation and below-average economic growth. The cash rate target reached a historic low of 1.5 per cent in 2016, where it remained until 2019.
2019–2021	Subdued economic conditions, modest employment growth and low inflation motivated the RBA to ease monetary policy further. In 2019 the cash rate target was gradually lowered to 0.75 per cent. Following the outbreak of COVID-19, the RBA slashed the cash rate target to 0.1 per cent and introduced a range of unconventional measures to strengthen the financial system and support growth.
2022–	The RBA responded to rising inflation by sharply increasing interest rates, earlier than it had expected, with 12 interest rate increases between mid-2022 and mid-2023, leading to a cash rate of above 4 per cent.

There are five main factors that help to explain the stance of monetary policy:

1. The **low inflation objective**: Both the government and the Reserve Bank are committed to maintaining the RBA's inflation target – an average rate of inflation between 2 to 3 per cent. Monetary policy is the major tool used to achieve this outcome.

2. **Inflationary expectations:** One key element in the government's strategy of achieving low inflation is reinforcing expectations of sustained low inflation. If inflationary expectations remain low, businesses will plan lower price increases and unions will seek lower wage rises. The RBA will raise and maintain high interest rates if necessary to reduce inflationary expectations.
3. **Labour costs:** Future interest rate movements are dependent upon movements in the level of inflation, and one of the most significant determinants of inflation is the cost of labour trends in productivity growth. The best indicator of wages growth is the Wage Price Index released by the Australian Bureau of Statistics (ABS).
4. The RBA remains committed to achieving **low unemployment** and promoting economic prosperity. The level of growth and unemployment are also important indicators of whether the economy is close to its supply constraint. If the economy is operating at a point that is close to capacity (that is, close to full employment of labour and other resources), continued growth in spending and demand will not lead to higher output and employment, and will instead spill over into higher prices.
5. **External factors**: Australia's integration with the global economy means that international conditions consistently influence RBA monetary policy settings. For example, if global conditions deteriorate, Australia is more likely to face slower economic growth and higher unemployment, and the RBA may move to reduce interest rates to prevent a downturn. More broadly, the RBA monitors conditions in global financial markets for any early warning signs of inflationary pressure or economic volatility so that it can move pre-emptively to change monetary policy settings. The RBA also assesses external factors because the exchange rate channel is an important component of the transmission mechanism of monetary policy.

reviewquestions

1 Examine recent changes in the stance of monetary policy in Australia.

2 For each of the following scenarios, propose an appropriate monetary policy response (and justify your decision).

a) A rise in petrol and natural gas prices increases inflation but lowers consumer spending.

b) A recession overseas causes the Australian dollar to depreciate and increases domestic unemployment.

3 Explain how wages growth may impact monetary policy decisions.

chapter summary

1 **Monetary policy** involves actions by the **Reserve Bank of Australia** to influence the cost and supply of money and credit in the economy, in order to achieve the government's policy objectives.

2 Monetary policy is the main **macroeconomic policy** instrument used to influence the level of economic activity in the short to medium term.

3 The **objectives** of monetary policy are low inflation and maintaining full employment – with an overarching purpose of promoting economic prosperity for Australians. Its primary goal is to contain inflation within a target range of 2–3 per cent on average, over the course of the economic cycle.

4 Like many other industrialised nations, Australia adopted an **inflation-targeting** monetary policy regime in the early to mid-1990s that has generally proved successful in sustaining low inflation and relatively stable economic growth.

5 The **objectives** of monetary policy are often in conflict, since faster economic growth and job creation tend to be associated with higher levels of inflation.

6 Monetary policy is implemented through **domestic market operations** – the purchase and sale of second-hand government securities by the Reserve Bank in the short-term money market for the purpose of influencing interest rates.

7 When the RBA sells government securities in the short-term money market, it reduces the supply of funds, and this results in higher interest rates. The RBA implements this policy when it wants to slow down the level of economic growth and reduce inflationary pressures. Alternatively, if it wants to accelerate growth, the RBA buys government securities, increasing the supply of funds and reducing interest rates.

8 In recent years the Reserve Bank has deployed several **unconventional monetary policy measures** to support growth, stabilise financial markets, encourage lending and influence market expectations. These measures have been used when conventional monetary policy measures (interest rates) have reached the limits of their effectiveness.

9 Interest rate changes affect the economy through the monetary policy **transmission mechanism**, in which lower interest rates encourage increased consumer spending and business investment, raising the level of aggregate demand. Higher interest rates dampen aggregate demand by discouraging consumer spending and business investment.

10 In making monetary policy decisions, the **RBA's Monetary Policy Board** considers a number of economic indicators that are likely to affect its policy goals over the coming year, including inflation, inflationary expectations, wages growth, the rate of economic growth, the unemployment rate, interest rates overseas, the exchange rate and the balance of payments.

chapter review

1. Define *monetary policy*.
2. Outline the broad objectives and overarching purpose of monetary policy.
3. Identify what is meant by *inflation targeting* and why it has been implemented in Australia.
4. Explain what is meant when we describe Australia's inflation target as a *flexible target*.
5. Identify the economic indicators monitored by the government and the Reserve Bank to determine whether a change in monetary policy is necessary.
6. Explain how the RBA conducts *domestic market operations*.
7. Outline what action the Reserve Bank would take if it wanted to:
   a) tighten monetary policy
   b) loosen monetary policy
8. Discuss how changes in interest rates influence the level of economic activity.
9. Discuss how Australia's growth and inflation levels have influenced the conduct of monetary policy in recent years.
10. Outline how time lags influence the implementation of monetary policy.

16 Microeconomic and Environmental Policies

16.1 Microeconomic policies and aggregate supply

16.2 Microeconomic policies and individual industries

16.3 Environmental management policies

16.1 Microeconomic policies and aggregate supply

Microeconomic policies are government actions that aim to increase aggregate supply by improving the efficiency and productivity of producers and industries.

Microeconomic policies are actions taken by governments to improve the efficiency of firms and industries in order to maximise the amount of output that can be produced from the scarce resources available in an economy. Microeconomic policies are central to the government's long-term aim of increasing the level of sustainable growth in Australia and reducing the extent to which inflation and external imbalances constrain economic growth.

Microeconomic policies are also important because many of Australia's economic problems are caused by structural factors. Macroeconomic policies can only manage the level of economic activity in the short term. Interest rate changes and automatic stabilisers cannot readily address structural issues in Australia such as labour market skill shortages or decarbonising our energy and transport systems. Lifting Australia's longer term growth requires structural changes to increase productivity in existing industries and help Australia transition successfully to new industries, such as fast-growing knowledge-based services and green energy. Microeconomic reforms include tax reform, improving the education system and supporting investment in technology infrastructure.

Microeconomic policy is different from macroeconomic policy because microeconomic policies influence supply rather than demand. It is therefore sometimes called **supply-side economics**. The ultimate focus of supply-side economics is to increase aggregate supply, which shifts the aggregate supply curve to the right – the result is that more goods and services are provided at lower prices. This is shown in figure 16.1. Policies that focus on increasing the level of aggregate supply do so by improving the competitiveness, productivity and efficiency of Australian industries.

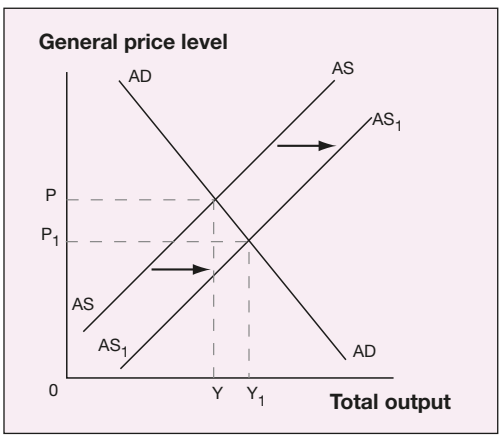
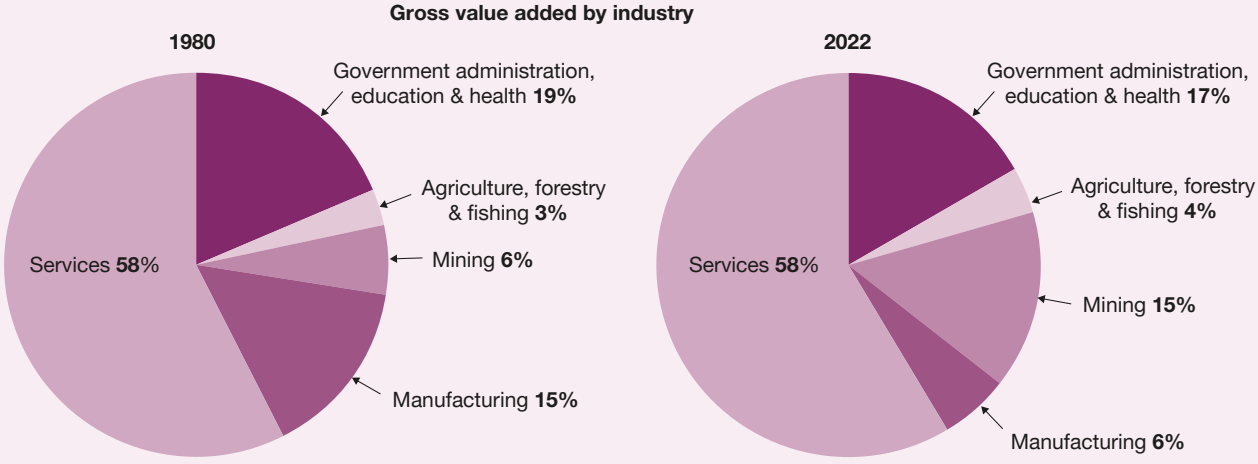


Figure 16.1 – Increasing supply as a result of microeconomic reform

Microeconomic policies are closely associated with structural change. **Structural change** refers to shifts in the pattern of production that reflect changes in technology, consumer preferences, policy, global competitiveness and various other factors. It results in the decline of products, processes, and even industries, while facilitating the emergence of others. Microeconomic policies promote structural changes and help the Australian economy respond more effectively to changing economic conditions by making product and factor markets work more efficiently. **Product markets** include the market for goods, such as motor vehicles, and services, such as transport. **Factor markets** are markets for the inputs to production, such as the labour market and financial markets. Markets work efficiently when goods are produced at the lowest cost, and resources flow to areas where they have the highest value.

Structural change involves shifts in the pattern of production that reflect changes in technology, consumer preferences, global competitiveness and other factors. It results in some products, processes and even entire industries disappearing, while others emerge and become more prominent.

The structure of the Australian economy has changed in recent decades because of improvements in technology, increased trade, changes in patterns of consumer preferences and the implementation of wide-ranging microeconomic policies between the early 1980s and the beginning of the 21st century. For example, figure 16.2 shows a significant shift in the allocation of resources in Australia away from manufacturing and towards the mining sector since the 1980s. As we will see in the next section, long-term trends can be at least partly explained by the impact of microeconomic policies.



Source: ABS *National Account: National Income, Expenditure and Product, Australia* (Cat. no. 5206.0)
Note: Figures do not necessarily add up to 100 per cent because of rounding.

Figure 16.2 – The changing industrial structure of Australia's economy

Microeconomic theory says product and factor markets will generally be more efficient if there is greater competition between private businesses, and the market forces of supply and demand are able to operate with fewer distortions, either from government policies or anti-competitive market conduct. For example, electricity is a major input to production and a necessity for households. The price of electricity is highly regulated. This may lead to lower prices for households in the short term but lower investment in new energy generation facilities in the long term, if investors expect that price regulation will lead to lower profits. Underinvestment in energy generation infrastructure could lead to less reliable energy supply, lower productivity and higher energy prices. Some advocates of microeconomic reform regard price regulation in the electricity sector as a distortion of market forces that should be removed. Others, however, regard such regulation as necessary to prevent large energy firms from exploiting their market power and extracting excessive profits.

Microeconomic policies can operate on different levels, from decisions by an individual government official about a single company to sweeping policies for entire industries. The overriding goal of microeconomic reforms is to **encourage the efficient operation of markets** – to lift productivity, improve flexibility and responsiveness to change, and encourage Australian firms to take on "world best" practices in order to increase aggregate supply.

There are three dimensions to improving the efficiency of markets: **allocative, technical** and **dynamic efficiency**. However, many microeconomic policies will have impacts on all three aspects of efficiency simultaneously, potentially blurring the distinctions between the concepts. For example, past reforms to Australia's telecommunications industry have increased competition, forcing companies to become more technically efficient to maintain and improve market share. The forces of competition have also encouraged innovation and dynamic efficiency, attracting more investment to the telecommunications industry (a sign of allocative efficiency). Nevertheless, it is useful to identify the specific ways in which

ALLOCATIVE EFFICIENCY

Allocative efficiency refers to the economy's ability to shift resources to where they are most valued and can be used most efficiently.

By minimising the distortions to the market economy (such as the impact of government regulations, tax loopholes, subsidies and anti-competitive behaviour), the operation of market forces should bring about a more efficient allocation of resources. In a free market economy, resources should shift to those producers who have the greatest capacity to pay, and that capacity to pay will reflect relative efficiency and value to the economy (more efficient producers stand to make greater profits from production and so are willing to pay more for resources). Achieving allocative efficiency promotes beneficial structural change by allowing resources to flow to those areas where they are used most efficiently. For example, economists argue that the removal of tariff protection has led to a reallocation of resources away from inefficient producers who could only survive behind tariff barriers towards the more efficient producers who are competitive without protection.

TECHNICAL EFFICIENCY

Technical efficiency refers to the economy's ability to produce the maximum level of output from a given quantity of inputs.

Technical efficiency is the ability of an economy to achieve the maximum level of output from a given quantity of inputs. Technical efficiency is measured by the productivity of a business or an economy: that is, how much output can be produced from a given quantity of inputs. Greater productivity means that businesses can produce output more cheaply, which makes them more competitive in domestic and global product markets. Businesses operating in a competitive market therefore have very powerful financial incentives to maximise technical efficiency. They will be more inclined to adopt the latest production technology and use the least-cost combination of resources to produce.



The **finance and insurance industry** achieved higher multifactor productivity growth (measured across both labour and capital inputs) than most other sectors in Australia during the period from 1997 to 2022, recording average annual productivity increases of around 1.5 per cent. In contrast, average annual productivity growth in Australia's manufacturing sector was around 0.4 per cent over the same period. Industry changes that contributed to increased productivity in the finance sector include online banking, the automation of information processing, closures of local bank branches and reduced staffing, offshoring of some processing functions and organisational restructuring. Policy decisions and structural changes in past decades contributed to these changes, including deregulation, privatisation and increased competition for traditional financial institutions.

DYNAMIC EFFICIENCY AND INNOVATION

Dynamic efficiency refers to the economy's ability to shift resources between industries in response to changing patterns of consumer preferences.

Dynamic efficiency means that producers are able to respond quickly to changing patterns of demand in both the domestic and global economy. For example, a dynamically efficient car manufacturer would be able to shift relatively quickly from producing petrol cars to producing electric vehicles as consumers become more concerned about fuel emissions. In addition, producers who are dynamically efficient are able to adopt new technologies and innovative business practices. One of the major ways in which microeconomic reforms can increase dynamic efficiency is by increasing the level of competition in industries, which will tend to force producers to be more responsive to changes in demand and supply.

individual microeconomic reforms have affected the allocative, technical and dynamic efficiency of specific sectors in the Australian economy.

In the following section we look at industries and how they have been affected by a range of microeconomic policies, including deregulation, reforms to public trading enterprises and competition policy. In section 16.3 we look at the national and global context for environmental management. Although the ultimate objectives of environmental policies are different to microeconomic policies, they are included in this chapter because of the similar way in which they affect households, businesses, industries and the economy. Moreover, climate change, and policies introduced in response, will likely cause the most influential structural changes to the economy over the coming decades. It is also important to note that as well as the policies covered in this chapter, examples of other microeconomic policies are provided in several other chapters in topics 3 and 4.

MICROECONOMIC REFORM POLICIES
Deregulation
Reforms to public trading enterprises
Competition policy
Environmental management
Reducing protection – see chapter 6
Tax reforms – see chapter 14
Labour market reforms – see chapter 17

reviewquestions

1 Define *microeconomic policy*.
2 Describe the THREE different types of efficiency that microeconomic policies aim to improve.
3 Explain how microeconomic policies promote or respond to structural change and increase aggregate supply.

16.2 Microeconomic policies and individual industries

Deregulation

Deregulation involves the simplification or removal of rules that constrain the operation of market forces, and it aims to improve the efficiency of industries. The process of deregulation has driven extensive structural change in many industries.

Financial sector

The financial sector plays an important role in ensuring that businesses can access funds for investment and growth, and investors can easily and confidently invest their savings in various ways. Microeconomic policies in the financial sector in the 1980s aimed to make the sector's provision of these services more efficient and competitive. The first step in financial deregulation was the floating of the Australian dollar, and the removal of the Reserve Bank's direct monetary controls over banks, which gave them more autonomy to set interest rates on their deposit accounts and loans consistent with market forces. The second was the removal of barriers to foreign banks entering the Australian market.

Financial deregulation has resulted in a more competitive environment for many financial services. The benefits of a more competitive financial sector are spread across the entire economy, as consumers and businesses pay lower prices to access finance that is better geared to their needs. Better access to finance can facilitate more consumption by individuals and more investment by businesses.

The global financial crisis of the late 2000s resulted in some businesses in the financial sector collapsing or being acquired by other businesses, reducing competition in the financial sector. In many countries, the financial crisis was also blamed on governments

having gone too far in deregulating the financial sector, allowing banks to take too many risks with depositors' money. This highlights the need for a balance between the goals of efficiency and competition (which generally favour deregulation) and the goals of consumer protection and financial system stability (which generally favour regulation).

Finding this balance was the overarching aim of the Financial System Inquiry (also known as the Murray Review), a policy review of Australia's financial sector conducted in 2014. It led to an increase in the minimum capital requirements for banks to make them more resilient to future financial crises. It also resulted in the removal of rules imposing tougher capital requirements on smaller banks compared with larger banks. The increased capital that was built up in Australian banks as a result proved useful during the COVID-19 crisis, as banks were well-positioned to support lending to businesses during the economic downturn. In that sense, the finance sector was part of the solution to the economic crisis in 2020, whereas it was part of the problem during the economic crisis of 2008. Consumers have also benefited from laws banning excessive credit card surcharges since 2016 (another recommendation from the inquiry).

Tensions between consumer protection and efficiency were highlighted in the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry in 2019. The Royal Commission uncovered a range of dishonest practices, including breaches of industry codes of practice, failings on contracts, and widespread mistreatment of customers. It also found widespread governance problems at senior levels in financial institutions, and major flaws in how the industry was regulated by the Australian Securities and Investment Commission (ASIC).

The Royal Commission concluded that the current laws and regulations remain largely appropriate, but that these rules require stricter enforcement and harsher penalties. Regulatory agencies subsequently adopted a tougher approach to litigation-enforcing regulations, reflected in several high-profile court cases against banks and other finance companies, including allegations that Westpac Banking Corporation breached responsible lending laws when extending housing loans to some customers, and that the National Australia Bank had charged superannuation customers fees without providing any financial services. The Commission did not recommend major legislative changes, despite the problems it uncovered, because of concerns that introducing more regulations might make it harder to obtain credit in Australia, especially for small businesses.



Agricultural industries

Deregulation in the agricultural sector has created more competition in markets for farm produce. In the past, single government-owned businesses or industry cooperatives had a monopoly on buying farmers' produce in areas such as dairy, wheat and wool. With deregulation those monopolies ended, and farmers were given new incentives to innovate and diversify their outputs. Combined with tariff reductions, these changes transformed Australia's agricultural sector from a highly regulated industry to one of the least regulated agricultural industries in the world. Australia's agricultural output expanded significantly in the years after deregulation. Nevertheless, over the past two decades, growth in agricultural productivity has slowed considerably. Average annual productivity growth in the broadacre agricultural industry (all agriculture production except for dairy products) has been sluggish since the start of the 21st century. In contrast, annual average growth in agricultural productivity was around 2 per cent over the second half of the 20th century. Evidence from the Australian Bureau of Agricultural and Resource Economics and Sciences suggests that this decline can partly be attributed to deteriorating climate conditions. Recent productivity estimates that attempt to account for climate conditions (both short term and long term) are higher than the unadjusted estimates that do not account for changes in climate, although the difference is relatively small.



Transport industries

Transport industries are crucial to Australia's economy because of the large distances within Australia, and between Australia and other nations. Two key examples of deregulation in Australia's transport industries are:

1. Australia's **domestic aviation** industry is dominated by two airline groups: Qantas/Jetstar and Virgin Australia. In some respects, its structure is similar to when the sector was deregulated in 1990, abolishing the official Two Airline Policy in place since 1952. Several airline businesses have entered the Australian aviation market since 1990, but have struggled to compete against the major carriers. Two smaller airlines, Rex and Bonza (which commenced operations in 2023), mainly compete on regional routes. According to a 2023 report from the Australian Competition and Consumer Commission, a lack of competition helps explain why Australia's aviation industry has underperformed for domestic travellers in recent decades (in terms of prices and service quality). The Government's Aviation White Paper, expected in 2024, aims to strengthen competition and improve outcomes for consumers.
2. **Rail:** The efficiency of the rail freight industry has undergone significant reforms over recent decades. In 1997, the Commonwealth and state governments established the Australian Rail Track Corporation (ARTC) to manage the 10,000- kilometre national interstate rail network. The ARTC sells access to privately owned freight businesses such as Pacific National and oversees maintenance of the network and new capital works. Establishing corporations at arms-length from government, however, does not guarantee efficient operations, however. A 2023 review of Inland Rail by Dr Kerry Schott, found the 1,700 kilometre infrastructure project that runs through the eastern states had been poorly managed and experienced an "astonishing" cost-blowout. Part of the reason was a government failure to appoint people to the board with the necessary freight rail or infrastructure skills.



Telecommunications industry

Telecommunications is an important contributor to productivity, and as a sector contributes around 2 per cent of economic output. The dominant role in the industry is still held by Telstra (formerly a government-owned monopoly called Telecom Australia), but the industry has been transformed by competition since it was deregulated in the 1990s. A combination of new technologies and competition lowered telecommunications costs dramatically. New market entrants successfully competed in different product and service markets, including internet service providers, mobile carriers and providers of business services. Nevertheless, Telstra still retained its role as the largest firm in the industry.

For many years Telstra was accused of making it difficult for competitors to gain access to its local monopoly over residential phone connections. For this reason, the decision was made during the rollout of the National Broadband Network (NBN) in the 2010s to separate the wholesale business of providing access to the infrastructure from the retail businesses that offer telecommunications services to households and businesses. The goal of these changes was to improve access in order to increase competition among retailers while also making high-speed internet access more widely accessible.

Effective regulation

Effective deregulation involves striking a balance between competing policy goals. Excessive regulation can increase costs, reduce investment, discourage new market entrants and ultimately lower economic growth. On the other hand, excessive deregulation (or to put it another way, inadequate regulation) can lead to market failure (such as a lack of competition) and economic instability. This tension is especially apparent in the finance industry because financial crises have flow-on effects across the whole economy.

MAKING DIGITAL GIANTS PAY FOR NEWS CONTENT

One example of new regulation in response to technology change is the News Media and Digital Platforms Mandatory Bargaining Code, introduced in 2021. The code came about in response to the 2019 ACCC Digital Platforms Inquiry, which found that tech giants had substantial market power in the supply of internet search advertising services (Google) and supply of display advertising services in Australia (Facebook). These businesses make significant profits from users consuming content on their platforms, while the cost of creating this content is being borne by media companies. Their substantial market power has created an imbalance in bargaining power between the tech giants and news media businesses in Australia, and has made it difficult for media companies to sustain investment in quality journalism, which is essential for a healthy democracy. Facebook fought against the regulation, initially blocking publishers and people in Australia from sharing local news content on its platforms. After a public backlash and last-minute changes to the regulations, agreements were reached for the digital platforms to pay more for the content that they were using on their sites to generate internet traffic and advertising revenue.

Australia has repealed many regulations that reduced competition, and most comparative studies conclude that Australia has a less regulated economy than most other advanced economies. Even so, many aspects of business activity are regulated. Environmental regulations play a significant role in the agricultural and mining industries. Construction, energy and transport have comprehensive safety regimes. Pricing and investment decisions are overseen by regulators in industries such as electricity, gas, water, postal services and telecommunications – as these industries are dominated by very large players that would otherwise have the ability to charge much higher prices because of the lack of outside competition. Professional services industries, such as law and accounting, exist in part to help businesses comply with and navigate regulation. When new areas of commerce emerge, such as ridesharing services offered by Uber, homesharing through Airbnb, online services through Google, Facebook and Amazon, and buy-now-pay-later credit products provided by Afterpay and others, governments have responded with new transport, safety, planning, privacy, tax, consumer protection and other laws.

Although Australia has undergone extensive deregulation, changes in technology and business models require ongoing changes to industry regulation. The coming years are likely to see new regulations for cryptocurrencies such as Bitcoin, and generative artificial intelligence products such as Open AI's ChatGPT. These products and services could bring harmful economic and social consequences without adequate market regulation. Two large sectors in the Australian economy that are already regulated but likely to undergo further significant reforms are the national market for disability services (facilitated by the National Disability Insurance Scheme or NDIS), and the national market for aged-care services. Demand for disability and aged-care services has grown rapidly, and determining the best model for service provision and regulation has proved difficult for successive governments.

Reforms to public trading enterprises

Microeconomic policies have promoted efficiency in public trading enterprises (PTEs) – also known as government business enterprises – through two main approaches: **corporatisation** of PTEs and **privatisation** of PTEs.

Corporatisation of PTEs

Corporatisation aims to encourage PTEs to operate independently from the government, as if they are private business enterprises. This involves eliminating political and bureaucratic supervision and making public enterprise managers accountable for enterprise performance. Corporatised public enterprises attempt to achieve a rate of return on assets comparable to private sector companies, and they often operate in competitive markets (although in some cases they continue to operate as regulated monopolies). In doing so, they must still comply with competitive neutrality laws that try to ensure that PTEs do not receive artificial competitive advantages over private businesses just because they are publicly owned. Examples of PTEs that have been subject to corporatisation are Australia Post, Energy Australia and the Sydney Water Corporation.

Examples of privatised public trading enterprises are:

Telstra, Qantas, GIO, Commonwealth Bank, NSW Ports, Queensland Rail, Victorian electricity, state banks and airports.

Privatisation of PTEs

Privatisation takes corporatisation a step further by selling off PTEs so that they do in fact become private enterprises, either in whole or in part. Australia has undertaken extensive privatisation in recent decades, and the total value of privatised businesses is among the highest in the world. The most recent major privatisation by the Federal Government

was health insurer Medibank Private, which after 38 years in government ownership was sold for $5.6 billion in 2014. In recent years, state governments have also privatised assets to free up capital for other purposes, such as transport projects. For example, the NSW Government's $20 billion privatisation of its electricity "poles and wires" business in the 2010s helped to fund several transport infrastructure projects, including a second harbour rail crossing, a light rail project and extension of Sydney's North West Rail Link. Governments have implemented privatisation with the aim of raising one-off revenues, increasing competition, encouraging more rational management and pricing behaviour, and forcing businesses to become more efficient.

In a departure from the trend of privatisation, in 2009 the Federal Government established a new public trading enterprise to build and operate an optical fibre telecommunications system, the National Broadband Network (NBN). The final cost of building the network was $51 billion. The NBN company is one of the largest in the Australian economy. It is expected to be privatised at some point in the future. Another example against the trend of privatisation came in 2023 when the new Minns Labor Government in NSW enacted legislation to prevent the future privatisation of two state-owned corporations, Sydney Water and Hunter Water.

National Competition Policy is an agreement between Australia's Commonwealth and State governments signed in 1995 to encourage microeconomic reform throughout the Australian economy.

National Competition Policy

Competition policy aims to promote competition in markets so that firms increase efficiency and lower prices for consumers. Australia's laws regulating market behaviour went through a major shake-up after 1995 when the Commonwealth and state governments agreed to implement the **National Competition Policy**. Under these reforms, governments agreed to implement reforms that would increase competition in the sectors where they operated monopolies, such as electricity, gas, water, and rail and road transport. Governments also agreed to remove special provisions that gave publicly owned enterprises an advantage over private sector competitors (what is known as the "competitive neutrality" principle). The national competition watchdog, the **Australian Competition and Consumer Commission** (ACCC), was also established. The ACCC actively enforces Australia's competition laws, and, in 2022, its investigations of breaches of competition and consumer protection laws led to $230 million in penalties against offending businesses.

An important aspect of the reforms was the establishment of a national regime to regulate the cost of **access to infrastructure**. This meant that where businesses owned a monopoly infrastructure asset (such as owning an airport, rail line or telecommunications network), they were required to give competitors access to that network at a reasonable price.

A key principle of competition policy in Australia is **workable competition**. While governments generally aim to maximise competitive forces, workable competition may sometimes mean that in order to achieve international competitiveness, it may be necessary to reduce the number of firms in an industry. Those remaining firms can then operate on a larger scale and achieve the lowest possible long-run average costs of production.

A review of competition policy led by Professor Ian Harper (the Harper Review) in 2015 recommended that competition principles should be incorporated into a wider range of government regulations, procurement and service delivery systems, and extended to human services such as health and aged care. A Productivity Commission report concluded that with the public sector spending around $200 billion per year on human services, significant improvements in economic outcomes could be achieved by extending competition laws to social housing, public hospitals, services in remote Indigenous communities, and family and community services. The Harper Review concluded that implementing its reform could boost economic growth as much as the first round of competition policy reforms in the 1990s.

BUSINESS PRACTICES OUTLAWED BY THE COMPETITION AND CONSUMER ACT INCLUDE:

- **Monopolisation**: when a firm uses its dominant market position to eliminate competition, such as through temporary price cutting.
- **Price discrimination**: when a firm sells the same type of good or service in different markets at different prices (for reasons not related to different costs, such as for transport).
- **Exclusive dealing**: when a firm sets conditions for supply that exclude retailers from dealing with other competitors.
- **Collusion and market sharing**: when firms get together to fix prices or agree on a market sharing arrangement that reduces effective competition between firms.

While many of the Harper Report recommendations were not implemented, several changes were made to Australia's competition policy regime in 2017, principally by expanding the laws on misuse of market power. Businesses must not misuse their market power to reduce competition in the market by lowering prices, refusing to supply goods or services or other behaviours. Previously, regulators had to prove that a business actually intended to harm competitors in order to convict it of misusing market powers; under the new law, regulators now only have to establish that the business practice in question had the effect of harming competition. "Concerted practices" were also banned; they include actions such as sending price information to competitors, even if there is no formal agreement to collude to raise prices.

Future of microeconomic policy



For more information on microeconomic policies, visit the following websites: **www.pc.gov.au** (Productivity Commission), **www.accc.gov.au** (Australian Competition and Consumer Commission).

Outline some areas the Productivity Commission has investigated for possible future microeconomic policies.

The period from the mid-1980s to the early 2000s witnessed extensive microeconomic reforms that saw industries change dramatically in Australia. Fewer reforms have been achieved in the past two decades, as the policy focus has shifted more towards macroeconomic concerns such as managing the mining boom, the global financial crisis, consolidating government debt and navigating the COVID-19 pandemic. In addition, implementing microeconomic reforms has become a much more difficult proposition for governments.

A key focus of the reform agenda in more recent years has been better coordination between the Commonwealth and state governments in areas where Australia's Constitution gives the states regulatory powers. Achieving agreement across all levels of government in Australia often proves difficult. For example, only limited progress was made with a set of "seamless national economy" reforms to simplify business regulations under the Rudd and Gillard Governments between 2007 and 2013.

Many other major recommendations made by policy reviews over the past decade have not been implemented. In 2020, the Morrison Government announced it would use the recovery phase following the COVID-19 pandemic as an opportunity to revisit long-standing economic reform opportunities, such as for taxation, industrial relations and business regulation. This included replacing the long-standing Council of Australian Governments (COAG) with a National Federation Reform Council (NFRC) that would be based on the success of the "National Cabinet" that brought the federal and state governments together in their response to COVID-19. This was celebrated at the time as a reform that would streamline and improve government decision-making. While some changes were achieved (for example, reforms to Australia's business insolvency laws introduced in 2021), little progress took place in difficult areas of recommended reform including in health care, schools, pharmacies and stamp duty on residential property.

In 2016, the Australian Government commissioned the Productivity Commission to publish a report every five years that assesses Australia's productivity performance and recommends productivity-enhancing microeconomic reforms. The first report, *Shifting the Dial*, was published in 2017. In 2023, the Productivity Commission published the second report in the series, *Advancing Prosperity*. It concluded that efforts to increase productivity should focus on Australia's services industries. Among its 71 specific recommendations are microeconomic reform initiatives in the following areas:

- harnessing data and digital technologies, such as providing better access to digital infrastructure (fast internet) in regional areas, and promoting the diffusion of new knowledge and data by, for example, making it easier to use intellectual property that provides significant value to society.
- education reforms, such as improving schools' capacity to provide foundational skills for Australia's future workforce (including digital skills), increasing access to and quality of tertiary education (university and TAFE) via regulation and price incentives, and supporting lifelong learning by workers to improve the adaptability of the workforce

- economic dynamism reforms, including encouraging entrepreneurship, promoting investment in key areas by making land zoning more flexible, appropriately charging motorists for using roads, improving competitive pressures in highly regulated sectors (especially health services), and restructuring the tax system to make it productivity-enhancing.
- various climate change mitigation and adaptation reforms to improve Australia's future productivity performance
- non-market reforms such as making health services more integrated, patient-centred and data-driven, and increasing the allocative efficiency of public infrastructure funding.

The latest report also emphasised that the recommendations made by the first report, which focused primarily on health policies, how cities operate, and how state and federal governments work together, remain relevant and important.

Overall impacts

Microeconomic policies have generally been championed by Australian governments because of their potential to lift economic growth and living standards. However, microeconomic reform has always been associated with shorter-term costs, such as job losses, business closures and damage to regional economies. As a result, many microeconomic reforms were met with strong opposition, especially from those sectors that stood to lose out from the changes. Microeconomic policies nevertheless have achieved extensive long-term benefits, which have become clearer over time.

Higher productivity growth from microeconomic policies has contributed to an **increase in economic output** and lower unemployment. According to the Productivity Commission, Australia's GDP was around 2.5 per cent, or $25 billion higher in 2005–06 as a result of Australia's extensive national competition policy reforms of the 1990s. This translated into **higher living standards** of around $1200 per person. These improved outcomes were the result of increased productivity growth as sectors of the economy became more competitive, innovative and flexible. The Productivity Commission has cited as evidence the pattern of higher productivity growth in sectors most affected by microeconomic reform in the years following implementation, such as telecommunications and financial services in the 1990s. More recently, the Productivity Commission has argued that Australia's poor productivity performance over the past decade highlights the need for more meaningful economic reforms. The Productivity Commission estimated in 2021 that, if productivity growth in the decade to 2020 had kept pace with the 60-year average (1.7 per cent compared to 1.1 per cent), gross national income per person would have been 6 per cent ($4600) higher in 2020.

> "Although the past five years have been an eventful period for the Australian economy, the themes from *Shifting the Dial*, and the 28 recommendations from that report are, if anything, increasingly relevant following the significant COVID-19 disruptions of the past 2 years. However, overall, the dial has yet to be shifted by government. As noted by a number of submissions to this inquiry, although some progress has been made in terms of implementation, many recommendations, including those with potentially large economic implications, are yet to be implemented, and none have been fully implemented."
>
> – *Productivity Commission* 5-year Productivity Inquiry: The Key to Prosperity – *Interim report no. 1 July 2022*

Australia has achieved weaker productivity growth since the mid-2000s, with especially weak growth in labour productivity (as distinct from the productivity of all combined factors of production). In the years leading up to the COVID-19 pandemic, productivity growth in Australia fell sharply to below the average rate in OECD countries. In a 2021 report, the IMF attributed this to a decline in productivity-enhancing investments (in areas such as R&D and information and communication technologies) and inadequate market competition in key industries. The Productivity Commission, IMF and OECD have all recommended that further reforms are needed if Australia is to return to the higher productivity growth required to generate higher living standards. In a 2021 review, the OECD recommended measures to strengthen competition and improve the operating environment for businesses, reduce Australia's reliance on tax revenue from income taxes towards more use of consumption taxes, and take steps to reduce inequality in educational attainment.

A major benefit of microeconomic reform is **lower inflation**, resulting from greater competitive pressures and increased supply (both of which lower cost-push inflation) in sectors affected by microeconomic reforms. The Productivity Commission has estimated that since the early 1990s, rail freight rates have fallen by as much as 42 per cent, while both port and telecommunications charges have dropped by up to 50 per cent. Other Commission research has concluded that because of lower prices and higher wages, the benefits of microeconomic policies have been relatively evenly shared between individuals and businesses.

BENEFITS
Greater efficiency and productivity growth
New business and job opportunities
Higher economic growth and living standards
Lower inflation
COSTS
Higher unemployment in the short term
Closure of inefficient businesses
Greater work intensity
Less equal distribution of income

Microeconomic policies are not without critics. Some argue that poorly designed reforms have simply replaced one problem with another. For example, the former chairperson of the ACCC, Rod Sims, in 2017 argued that privatisation was "severely damaging" the Australian economy because governments were selling vital assets such as ports and airports to private-sector monopolies, resulting in higher one-off revenues for governments but then large increases in prices to consumers. Another common criticism is that reforms have often benefited wealthy investors while costs have been borne unevenly by lower-income earners. Indeed, this is often cited as a criticism of policies introduced to encourage globalisation, such as reduced trade protection and barriers to foreign investment. Critics also question whether the productivity statistics exaggerate the benefit of microeconomic policies. For example, research has demonstrated that many workers are experiencing an increase in **work intensity** – that is, people working longer hours without extra pay. This means that some of the claimed increase in labour productivity may disguise the fact that people are now working longer hours than in previous decades but these extra work hours are not recorded. While microeconomic reforms are vital for generating increased productivity, growth and living standards, each reform needs to be evaluated on its own merits since not all reforms are effective. Designing and implementing microeconomic reforms is one of the greatest challenges for governments.

reviewquestions

1. Using ONE industry as an example, explain how microeconomic policies deliver better outcomes for consumers. Identify why businesses in this industry might resist microeconomic reform.
2. Summarise the microeconomic policies that have been implemented in individual sectors of the Australian economy.
3. Explain how microeconomic policies can lead to improved economic performance in the long term. Identify any costs of microeconomic policies.
4. Outline THREE areas for future microeconomic policies in Australia and explain how they might boost economic growth and productivity.

16.3 Environmental management policies

Environmental management policies are designed to address issues of environmental sustainability. These include the preservation of natural environments, pollution and climate change, and managing the use of renewable and non-renewable resources.

While environmental management policies often address different objectives than microeconomic policies, they are included in this chapter because, in many ways, they have a similar role in the economic policy mix. Like microeconomic policies, environmental policies aim to influence the long-term behaviour of households, businesses and industries. The two main policy tools for environmental management are regulations and market-

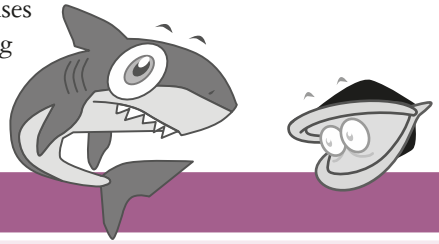
based policies to influence behaviour and reduce environmental impacts. Like other areas of economic policy, environmental management is guided by research bodies and by targets set by governments, and is influenced by international agreements between governments.

Targets

The Australian Government uses many targets to guide its environmental policies. Australia's most important long-term policy target relates to the reduction of Australia's carbon emissions. This has proved to be the most difficult area of policymaking in the past two decades in Australia, with several Prime Ministers losing office after a backlash over their policies relating to energy prices and emission reductions. In 2022, the Albanese Government legislated two emissions targets: a 43 per cent reduction on 2005 levels by 2030, and a reduction to net zero emissions by 2050.

Regulations

Environmental **regulations** are the traditional policy tool for achieving environmental sustainability goals. Regulations are laws or rules that govern economic behaviour. Regulations may prohibit a person from doing something that causes environmental damage, such as illegally dumping waste or producing polluting chemicals. Alternatively, regulations may specify how a good or service is produced or consumed, as with rules relating to agricultural or



THE GREAT BARRIER REEF

The Great Barrier Reef is the largest living structure in the world, covering 344,400 km^2 in area, with 3000 coral reefs, 1625 types of fish, 133 types of sharks and rays, over 200 types of birds and 600 types of coral. As the world's largest coral reef ecosystem, the Great Barrier Reef became a UNESCO World Heritage site in 1981 and is the most biodiverse heritage site, indicating its significant scientific and intrinsic importance. The Great Barrier Reef is also a major tourist destination, with over 2 million visitors each year, which contributes approximately $6.4 billion to the economy each year.

The Great Barrier Reef is suffering from the effects of climate change. Changes in ocean temperatures threaten the reef's delicate ecosystem. The latest five-yearly Great Barrier Reef Outlook Report downgraded the condition of the reef from "poor" to "very poor". In the previous five years, the reef experienced multiple episodes of coral bleaching as a result of marine heat waves, as well as cyclones and crown-of-thorns starfish. A recent aerial survey of the reef indicates that around two-thirds of the reef has now suffered from coral bleaching (around 1500 km of the total 2300 km length), and it would take many years to recover from the death of the coral, even without further water temperature rises.

In response to the recommendations for management and protection made in a monitoring report from the World Heritage Centre, the Queensland and Commonwealth Governments committed to a 2050 Long-Term Sustainability Plan, based on a two-year strategic assessment of the reef, and provided $140 million in funding. Its priorities include ecosystem health, biodiversity, heritage, water quality, community benefits, economic benefits and governance. Key elements include:

- establishing the $40 million Great Barrier Reef Trust
- banning the disposal of material from capital dredging projects within the Great Barrier Reef Marine Park, as well as restricting these activities to limited surrounding areas
- banning the disposal of material from capital dredging projects within the Great Barrier Reef Marine Park, as well as restricting these activities to limited surrounding areas
- providing additional protections for turtles and dugongs through anti-poaching laws, improved sustainability agreements and funding to reduce marine debris
- reversing the decline in water quality associated with agriculture, through $35 million in ongoing funding and an additional $100 million over five years to supportwater quality initiatives and scientific research and to transition current business practices
- reducing the presence of the crown-of-thorns starfish to support coral populations.

In 2022, the Albanese Government increased funding for the Reef 2050 Plan which supports marine ecosystem research and crown-of-thorns starfish culling programs, more sustainable farming and fishing practices, and protection efforts for turtles, dugongs and dolphins. Overall, the federal and Queensland Governments are jointly investing a total of $2 billion to protect the reef.

mining techniques. In Australia, environmental regulations can be made by local, state or federal governments, or by their agencies.

Some regulations impose requirements that the quality of goods meet environmental standards. For example, the Fuel Quality Standards Act 2000 regulates the quality of fuel for Australia. The aim of the legislation is to reduce the levels of pollutants and emissions from fuels that may cause environmental and health problems.

Regulation can require firms and individuals to follow certain environmental procedures. For example, the Environment Protection and Biodiversity Conservation (EPBC) Act provides a framework for the protection and management of matters of national environmental significance. This includes the protection of World and National Heritage sites, Commonwealth marine areas, nationally threatened species and ecological communities and migratory species. States and territories have responsibility for all other matters of state and local significance. In response to the 2021 five-yearly State of the Environment Report, which found a significant deterioration in many aspects of Australia's flora and fauna, the Australian Government is establishing a new national Environmental Protection Agency to strengthen monitoring and compliance with environmental regulations.

Broader regulatory frameworks can also relate to environmental issues. For example, investigations undertaken by the Australian Competition and Consumer Commission in 2023 published a report, *Greenwashing by Businesses in Australia*, that raised serious concerns about claims that businesses make about the environmental impact of their products and services. Of the 247 business examined, 57 per cent made claims that "raised concerns", including vague statements that lacked evidence or using third-party symbols or certifications in a confusing way.

Market-based policies

Policies that create market-based incentives for environmental protection have been increasingly used in Australia and other economies during recent decades. Market-based policies involve financial incentives and disincentives (such as subsidies and taxes) to influence the behaviour of households and businesses.

As we saw in chapter 12, many environmental problems arise because of market failure. Environmental costs (or benefits), known as externalities, are borne by all of society and are not taken into account by producers and consumers in the marketplace. In the case of negative externalities, this results in the equilibrium price being too low and production being too high. Figure 16.3 shows the demand and supply for goods with negative environmental externalities.

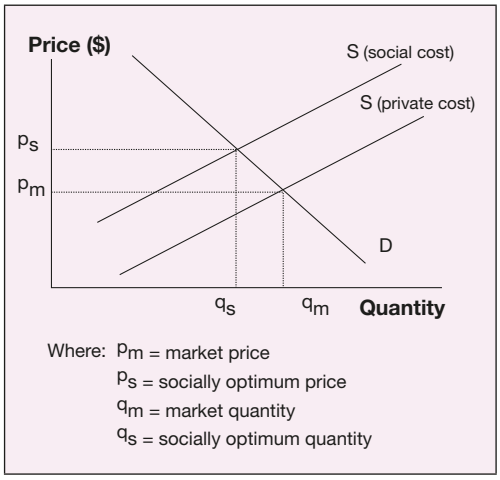


Figure 16.3 – Negative externalities

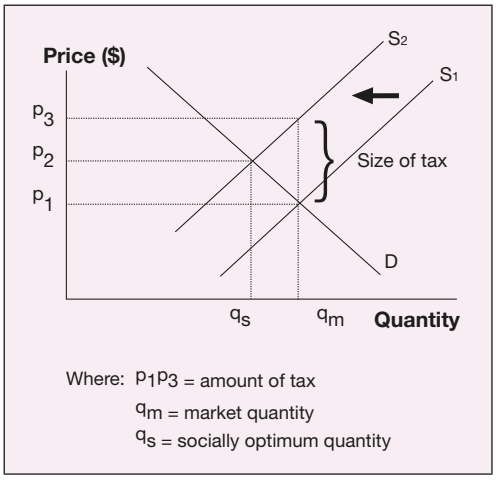


Figure 16.4 – Taxing the externality

A market-based response to this scenario would be to levy a tax or fee on production that is approximately the same as the environmental costs associated with this economic activity. This should move the supply curve to the left, increasing the market price and reducing the amount consumed in the economy.

Figure 16.4 shows how a tax equal to the vertical distance between the curves shifts the supply curve from S_1 to S_2 and influences the market. This is sometimes called "internalising the externality" because it makes consumers and producers pay for environmental costs. Likewise, governments can provide subsidies to consumers or producers to encourage production of environmentally beneficial goods and services.

Governments generally prefer taxes over subsidies when they want to influence economic behaviour. Although it is difficult to calculate the full cost of an externality, and therefore to calculate the optimum tax rate to implement, there are other benefits to taxes over subsidies. Taxes discourage environmentally damaging activities. They also raise government revenue that can be used for other environmental programs. For example, through the Product Stewardship for Oil Program, the Government imposes a 8.5 cent per litre levy on the purchase of oil to help fund the recycling of old oil. Environmental tax revenues constitute a varying proportion of government tax revenues in OECD countries, ranging from less than 3 per cent in the United States to more than 11 per cent in India. Australia's revenues from environmental taxes are around 5 per cent of the total tax base.

Subsidies are grants provided by the government to producers with the aim of reducing costs of production and promoting environmentally beneficial activities. For example, the federal Government's Australian Renewable Energy Agency (ARENA) provides funding for research and development, as well as large-scale renewable energy projects.

Over time, there has been a shift towards policies to facilitate market development and support private sector investment, rather than more direct forms of government intervention. In 2023, the Australian Government introduced the Nature Repair Market Bill to Parliament. The Bill sets out a framework for a voluntary national nature repair market, which would issue tradeable certificates for projects that restore and protect nature. This rewards landowners for supporting biodiversity, and enables businesses to invest in nature repair.

Water management is another contested area of environmental policy that has adopted market-based reforms. A recent Productivity Commission review found that governments' water management efforts – which created clear property rights for water, established water markets and improved water planning – had been successful in lowering household water use, increasing water allocations to the environment, and making industry water use more efficient. However, the review also found that existing efforts were not sufficient to meet future water policy challenges associated with growth in city populations and the impact of climate change. It recommended changes to water management in urban areas, including water recycling and the use of stormwater. Water policy issues are also increasingly linked to an international climate change agenda. In 2023, the UN held its first international water conference in 46 years to grow commitments to improve management of water resources globally.

CLIMATE CHANGE POLICIES

"Decarbonising" economies – that is, reducing the carbon emissions from economic activity that contribute to climate change – is widely regarded by economists as the greatest economic reform challenge of the 2020s. Climate change poses a profound threat to the global economy, the stability of international relations and the environment. As the Reserve Bank noted in 2019, climate change threatens disruption to economic output through extreme weather events as well as higher insurance costs, legal risks and falling asset values. A 2023 IMF analysis of the effects of climate shocks on inflation and growth found that climate-induced natural disasters increase volatility, in particular inflation shocks, that can harm all sectors of the economy. Scientists are recording growing evidence of rising sea levels, more intense droughts and floods, and more extreme and unpredictable weather events. Despite widespread agreement on the seriousness of the threats from climate change, it has been very difficult for governments around the world to agree on how to respond and who should bear the costs of structural changes.

International agreements

The global threat of climate change was recognised in December 1997 when 160 nations reached an agreement in Kyoto, Japan. The agreement limited emissions of carbon dioxide and other greenhouse gases. The Kyoto Protocol is an international agreement that required industrialised countries to set internationally binding emission reduction targets. At the 2015 UNFCCC Conference in Paris, representatives from nearly 200 countries made a commitment to keep "the increase in global average temperature to well below 2 degrees Celsius above pre-industrial levels". This is the benchmark scientists believe is necessary to prevent the most dangerous impacts of climate change. This agreement reflected the difficulty in climate change negotiations of achieving a compromise between the interests of high-income and developing countries. High-income countries have large per capita greenhouse gas emissions, whereas developing countries have lower but rising levels of emissions and rely on using cheap fossil fuels to expand their output and improve living standards. The Paris Agreement, effective since 2020, is significant because, for the first time, it included developing nations such as China and India, alongside the United States (which withdrew under President Trump, and then rejoined under President Biden). The Agreement has mechanisms for transparency and monitoring progress, but its weakness is that individual countries set their own targets for emissions reduction. The Paris Agreement came into force in November 2016, and has 193 signatories. Its implementation received a setback with the COVID-19 pandemic, with countries delaying negotiations for the "rulebook" to guide individual country actions.

Setting targets for emission reductions

A key part of international policymaking to reduce global carbon emissions is that individual countries commit to achieving specific targets. Australia has in the past negotiated lower targets for emission reductions than most other advanced economies, arguing that our reliance on emissions-intensive industry and fossil fuels for energy has made it more expensive to achieve 'emissions abatement'. This is because the cost of reducing each unit of emissions in Australia is higher than in many other countries. Over time, this has resulted in growing global criticism of Australia's efforts to address climate change – particularly due to Australia's opposition to stronger action in international negotiations.

Australia's emission reduction targets have centred on three key dates:

- **2020 target:** In the lead up to 2020, Australia adopted a target of reducing carbon emissions by 5 per cent on 2000 levels. This target was criticised for being too low and while Australia met the target, it was only made possible due to a number of technical and temporary factors. These factors included a slower rate of growth than anticipated, the way that emissions relating to land usage were calculated and the success of the Renewable Energy Target which expired in 2020.
- **2030 target**: Australia's 2030 target was a major issue in the 2022 Federal election, with the Coalition parties (in government) committing to a 26–28 per cent reduction by 2030 on 2005 levels, while the Labor Party (in opposition) promised to increase this target to 43 per cent. Labor won the election, and along with a large number of Independent candidates (the "teal Independents") and Greens, advocated for a higher target. As a result, the 43 per cent target was subsequently passed into law in the Climate Change Act 2022. The Independents also successfully amended the law so that the 43 per cent target is a minimum, that climate policies benefit regional communities, and that advice is sought from the Climate Change Authority before setting future targets. The Climate Change Authority (CCA), an independent government agency, had in 2015 recommended a 40–60 per cent reduction by 2030.
- **2050 target:** Australia has committed to achieving "net zero" emissions by 2050. This requires a reduction of greenhouse gas emissions so that the amount of greenhouse gases that the Australian economy produces is the same as the amount we remove. In 2023, the Government also announced a new national government agency, known as the "Net Zero Authority", to support the energy transition required to achieve Australia's net zero target and manage the ongoing economic transformation.

Domestically, Australia's climate change policies have also faced criticisms from economists and business leaders about the absence of an overall policy framework to sustain long-term emission reductions since the abolition of the carbon tax in 2013. Since then, Australia's efforts have depended on piecemeal measures that have been

criticised for relying too heavily on future technologies and for expensive one-off measures such as through the Emissions Reduction Fund. Other policy measures include the Renewable Energy Target, investments in low emissions technologies through the Australian Renewable Energy Agency (ARENA) and the Clean Energy Finance Corporation and the National Energy Productivity Plan.

Market-based policies

Individual governments have implemented a range of market-based policies to meet emissions reductions targets. The most well-known example in Australia was the Gillard Government's carbon pricing scheme in 2012. It put a price on each tonne of carbon dioxide emitted as part of energy or industrial production processes. Adding a price factored the cost of carbon pollution into the cost of production, giving Australia's 500 largest polluters a financial incentive to switch to comparatively cheaper, lower-emissions processes. The carbon price was initially fixed and was due to be replaced by a "cap and trade" emissions trading scheme (ETS). In 2014, the Abbott Government abolished this scheme, arguing it was adding to business and household costs and damaging economic growth.

Emissions trading is used across the world, including in the EU, China and New Zealand. Under an ETS, businesses are issued permits, or need to buy permits, for the emissions of greenhouse gases. Such a scheme can be "internationally linked", meaning that businesses with excess emissions may buy permits internationally from businesses that produce fewer emissions and hold spare permits. This system of trading permits effectively puts a price on the emission of greenhouse gases and incorporates the real cost of carbon emissions into the price mechanism. It is a market-based mechanism to create incentives for businesses to develop new technologies and processes to reduce emissions. However, critics argue that acting ahead of other economies creates the risk of "carbon leakage" – where emissions-intensive industries simply move to countries with no emissions target, increasing domestic unemployment, but with no overall reduction in emissions.

The centrepiece of Australia's emissions reduction policy under the previous Coalition Government was the Emissions Reduction Fund, which replaced carbon pricing. Firms were paid out of this fund to reduce emissions from their production processes, at the lowest cost of abatement, a process overseen by the government's Clean Energy Regulator. The lowest-price emissions were purchased by the government via an auction where firms bid to sell their projects to reduce emissions at the lowest price. After 15 rounds of auctions, the Emissions Reduction Fund had purchased 217 million tonnes of CO_2 abatement. Uptake of the policy declined over time as low-cost opportunities for abatement were exhausted.

A second element of the scheme was the "safeguard mechanism" – a baseline level of emissions top polluters could not exceed or had to account for. This baseline and credit scheme is a market mechanism but not an emissions trading scheme. In 2023, the Albanese Government reformed the safeguard mechanism, with the goal of improving its effectiveness. From July 2023, top polluters across mining, manufacturing, transport, oil, gas and waste are required to gradually reduce emissions in line with Australia's emissions reduction targets. Firms must reduce their absolute emissions in line with a maximum annual cap that will decline over time.

> "In Australia we have put in place a number of arrangements to reduce emissions, including: regulation, subsidies, emissions trading schemes and baseline and credit schemes. The one thing they all have in common is that they all aim to provide an incentive to reduce emissions by changing relative prices …
>
> Policy making is difficult. Climate change is perhaps Australia's best recent example of how difficult it can be. It is especially difficult when many forces are arranged against the best outcome for the community …
>
> The more recent change of heart among business groups is because the world has moved in such a way that it is now in the financial interests of their members to no longer resist. Markets have begun to price in diminishing use of fossil fuels, banks and investors are baulking at, or charging a premium for, new fossil fuel investments, and most fundamentally renewable energy sources are now plainly cheaper than using coal or gas."
>
> *– Dr Steven Kennedy, Secretary to the Treasury, 20 July 2022, Speech to the University of Sydney – Celebrating 100 years of Economics*

Regulations

Regulations also act to ensure that newly produced goods meet environmental standards that are consistent with Australia's aim to reduce greenhouse gas emissions. For example, in 2007 Australia banned older-style incandescent light bulbs, replacing them with more energy-efficient options such as fluorescent and LED bulbs. In 2010, planning laws in several states were changed to require newly constructed homes to comply with six-star energy ratings involving improved insulation, water recycling and other features. Government policy decisions around agriculture, mining and transport also have major effects on carbon emissions. As part of a broader package of climate change policies, the Albanese Government has committed to applying new standardised reporting requirements for climate risks and opportunities for large businesses.

State Governments are also acting to address climate change through regulatory measures. For example, the NSW Environmental Protection Agency released its first climate change policy and action plan, which signals stronger regulatory action to facilitate the state government's 2050 net zero commitment.

MURRAY-DARLING BASIN

Australia's Murray-Darling Basin is one of the world's largest river systems. It covers 14 per cent of the country, spanning from Queensland through NSW and Victoria to South Australia, and provides water for two million residents, industry and agriculture. But for decades, the government has faced challenges in managing the basin because of competing economic, social and environmental interests, and recurring water shortages.

By the beginning of the 21st century, conflicts between water users were taking a toll on the basin's health, and not enough water was reaching downstream users. The Murray-Darling Basin Authority was formed in 2007 to take responsibility for the basin. In 2010 it released the Murray-Darling Basin Plan, aiming to return up to 4000 gigalitres of water to the basin to improve the health of the river system. The plan was controversial, with claims that the plan could reduce agricultural production, increase unemployment, and threaten the viability of towns. Over the following decade, the implementation of the plan was plagued by controversy, including allegations of poor enforcement and corruption.

In August 2023, the Australian Government announced a new plan to balance the needs of the environment with the interests of different water users. It proposed to resume buying back water licences, a market scheme where water users such as farmers can voluntarily sell their licences to the government. Instead of drawing the water from the basin, the government 'uses' these licences to 'return' water to the environment, effectively reducing the amount of water that can be drawn from the basin to a more sustainable level. Queensland, NSW and South Australia signed on for the new plan but Victoria held off signing, due to concerns about the social and economic impacts of reduced water in agricultural communities.

International agreements

For environmental management policies to be successful they often require international cooperation. Collective action is often necessary because individual nations cannot successfully address global environmental problems on their own. Additionally, when addressing environmental issues, individual nations are often reluctant to impose strict environmental management policies on their own economy if other nations are not willing to do the same.

One example of global pollution problems is the **depletion of the ozone layer** (the atmospheric layer that filters out dangerous ultraviolet radiation). This is related to the emission of chlorofluorocarbons into the atmosphere from industry refrigeration units and aerosols. To reduce this problem, an international agreement known as the Montreal Protocol committed members to phasing out the production of ozone-depleting products by 2000. According to the United Nations Development Programme, over 98 per cent of ozone-depleting substances were eliminated between 1987 and 2014. As a result, scientists predict that the ozone layer should recover to pre-1980 levels between 2050 and 2065.

A number of other international environmental agreements are also in force. In many cases, international agreements are required to prevent the overuse of common international resources. This is an issue known as the **tragedy of the commons**. For example, the United Nations Fish Stocks Agreement, to which Australia is a signatory, was developed to ensure the long-term conservation and sustainable use of highly migratory fish stocks.

In 2023, an international agreement was reached for a new treaty to protect the seas and oceans outside country boundaries, which cover 60 per cent of the earth's surface. This agreement was supported by Australia and will establish Marine Protected Areas (MPAs) and processes for environmental impact assessments.

Australia's participation in international treaties	
Treaty	**Year signed**
The **CITIES Convention** on International Trade in Endangered Species of Wild Fauna and Flora	1976
The **Vienna Convention** for the Protection of the Ozone Layer	1987
The **Montreal Protocol** for Chlorofluorocarbon Control	1989
The **Convention on Biological Diversity**	1993
The **Convention to Combat Desertification**, to address land degradation in the world's drylands	2000
The **Stockholm Convention** for the protection of human health and the environment from organic pollutants	2004
The **Kyoto Protocol** on climate change	2008
The **Paris Agreement** on climate change	2016

reviewquestions

1. Outline the impact of international agreements on Australia's environmental management policies.
2. Explain the tools available to policymakers to achieve environmental sustainability.
3. Analyse the role of market-based environmental management policies in improving the economy's environmental sustainability.

chapter summary

1 **Microeconomic policy** is action taken by government to improve resource allocation between firms and industries, in order to maximise output from scarce resources and promote structural change. Microeconomic policy can help to accelerate the process of structural change by making the economy able to move factors of production from one area to another more quickly.

2 By reducing costs and increasing efficiency, microeconomic policies should have the effect of shifting the aggregate supply curve to the right so that more goods and services are produced at lower prices.

3 Since the 1980s, microeconomic policy has played an important role in the economic strategy of successive governments. Microeconomic policy is more effective than macroeconomic policy in addressing longer-term structural problems in the economy.

4 Microeconomic reform improves the efficiency of the operation of markets on the supply side of the economy. This results in an improvement in **allocative** efficiency, **technical** efficiency and **dynamic** efficiency.

5 **Deregulation** involves the removal of legislation and other rules that constrain the operation of market forces, and it aims to improve the efficiency of industries. In the past three decades, Australia has deregulated its financial services, telecommunications, electricity, gas, aviation and agricultural industries. This has had both positive and negative consequences.

6 Reforms to **public trading enterprises** have included **corporatisation**, putting the organisations at arm's length from government so they run like private sector businesses, and **privatisation**, which involves selling the business to the private sector.

7 **National Competition Policy** reforms introduced since 1995 have increased the level of competition across many sectors of the economy. The rules for business practices and prohibitions on anti-competitive behaviour are set out in the *Competition and Consumer Act 2010*, which is enforced by the Australian Competition and Consumer Commission.

8 Most economists agree that microeconomic policies have contributed to Australia's improved economic performance since the 1980s, with higher levels of productivity and economic growth and lower inflation and unemployment.

9 Environmental sustainability has been increasingly recognised as an important policy objective in the context of managing the economy. **Environmental management policies** such as targets, market-based policies and regulations aim to improve the environmental sustainability of the Australian economy.

10 The highest priority environmental issue is **climate change**, with economies across the world transitioning towards a "net zero" carbon emissions goal.

chapter review

1. Explain how microeconomic policies aim to increase economic growth.
2. Discuss how microeconomic policies contribute to greater efficiency in the economy.
3. With the aid of a diagram, explain how microeconomic policy influences aggregate supply in the economy.
4. Outline the main areas in which the government has implemented microeconomic policies.
5. Outline how and why the government regulates specific sectors of the economy.
6. Explain what is meant by deregulation. Using two specific examples, discuss the benefits of deregulating major industries.
7. Examine the benefits and costs of microeconomic policies.
8. Describe THREE environmental management policies that have been implemented in Australia.
9. Evaluate the effectiveness of regulations compared with market-based policies in achieving environmental sustainability.
10. Outline the influence of targets and international agreements on environmental management in Australia.

17 Labour Market Policies

17.1 Introduction
17.2 The role of national and state workplace systems
17.3 Australia's wage determination system
17.4 Dispute resolution
17.5 Decentralisation of the labour market
17.6 Education, training and employment programs
17.7 Evaluating labour market outcomes in Australia

17.1 Introduction

Labour market policies are microeconomic policies that are aimed at influencing the operation and outcomes in the labour market, including industrial relations policies that regulate the process of wage determination as well as training, education and job-placement programs to assist the unemployed.

Labour market policy involves governments influencing the process or outcomes of wage determination. Governments intervene in labour markets for several reasons, including:

- achieving **macroeconomic objectives such as low inflation** and macroeconomic stability (since wages growth is a major influence on inflation)
- achieving **microeconomic objectives such as productivity growth** and improved competitiveness for Australian businesses, and resolving disputes that arise in the workplace
- achieving objectives relating to the **distribution of income and wealth**, such as ensuring that fair minimum standards apply to all employees (since wages are the main source of income for most households).

In Australia, the Government has historically played an important role in wage determination, either directly or through independent industrial courts and tribunals. The extent of government regulation of the labour market has been a matter of ongoing debate since Federation in 1901.

17.2 The role of national and state workplace systems

Australia has traditionally regulated its labour market through a mix of federal and state laws, with significant overlaps between the different systems. This is because the Australian Constitution does not give the Commonwealth Government the power to directly legislate over the labour market – instead, it only gives the Commonwealth the power to resolve industrial disputes that cross state boundaries. Nevertheless, the Commonwealth has gradually expanded its role in labour market policies over the past century through other constitutional powers. These policies have centred on what have historically been called "industrial relations" or, more recently, "workplace relations".

Over time, Australia developed separate **industrial relations systems** – six different state systems, plus the federal system. These systems established minimum wages and conditions for employees through a system of **industrial awards** for employees, based on their industry or occupation. Awards for some employees were made by the Commonwealth, while others were made at a state level. This meant that employers whose workforces spanned multiple states needed to comply with different state systems as well as the federal system.

The inefficiency of separate state and federal systems created pressure to adopt a national **workplace relations system**, resulting in the *Fair Work Act* (2009), which covers around 70 per cent of Australian workers. Figure 17.1 shows that the Federal Government's constitutional power extends to all employees of incorporated businesses and its own employees. State governments have also "referred" (that is, handed over) some of their powers to the Federal Government, including for employees of sole traders, local government and the state public sector. Western Australia is the only state that has not referred any powers to the Federal Government.

	Corporations	Partnerships and sole traders	Local Government	State Government Public Sector	Federal Government Public Sector
NSW	✔	✔	✘	✘	✔
QLD	✔	✔	✘	✘	✔
SA	✔	✔	✘	✘	✔
VIC	✔	✔	✔	✔	✔
ACT	✔	✔	✔	✔	✔
NT	✔	✔	✔	✔	✔
TAS	✔	✔	✔	✘	✔
WA	✔	✘	✘	✘	✔

Figure 17.1 – Coverage of employees under the national workplace relations system

During this period, the Commonwealth also replaced most state-based awards with simpler federal awards, established a national system of occupational health and safety legislation, and set up the national workplace relations system. State and territory regulation of the labour market is now limited mostly to state government employees and to a smaller range of specific issues such as workers' compensation and public holidays. The national system is overseen by the Fair Work Commission (FWC).

reviewquestions

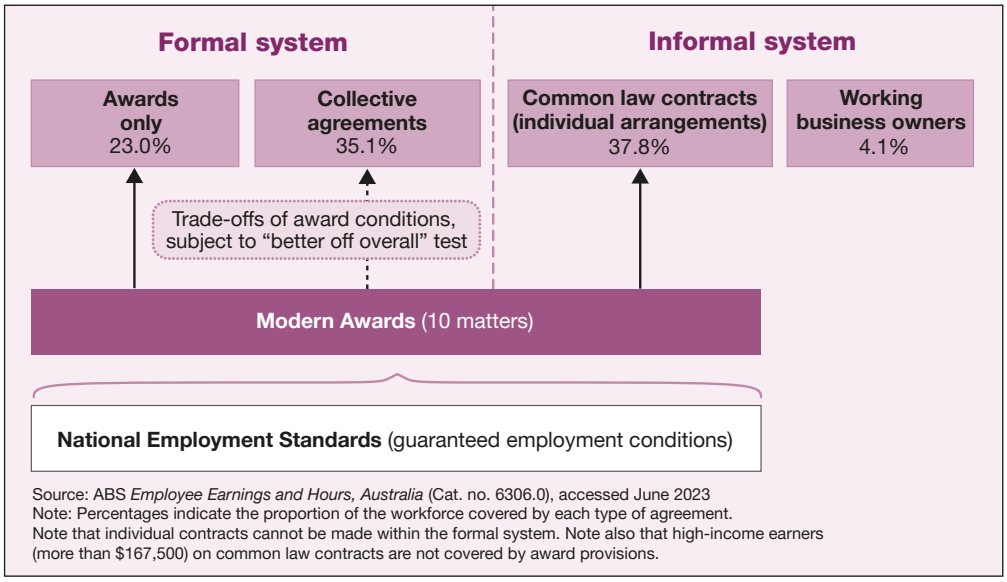
1 Explain the role that national and state systems have traditionally played in the regulation of the Australian labour market.

2 Outline the benefits of shifting towards a national workplace relations system.

17.3 Australia's wage determination system

Australia's national wage determination system is set out in the *Fair Work Act* (2009), and it covers around 70 per cent of working Australians. There are four means for determining pay and conditions for employees within this national system:

- **Awards** and **collective agreements** (or enterprise agreements) make up the formal system.
- **Individual contracts** (sometimes called common law contracts) and **working business owners** form the informal system.



Source: ABS *Employee Earnings and Hours, Australia* (Cat. no. 6306.0), accessed June 2023
Note: Percentages indicate the proportion of the workforce covered by each type of agreement.
Note that individual contracts cannot be made within the formal system. Note also that high-income earners (more than $167,500) on common law contracts are not covered by award provisions.

Figure 17.2 – The workplace relations framework

For a detailed overview of Australia's wage determination system, visit the Productivity Commission's website and download the Workplace Relations Framework report from 2015: **www.pc.gov.au/inquiries/completed/workplace-relations/report**

Around 30 per cent of Australian workers are outside the national wage determination system, in two main groups:

- individuals whose conditions are unregulated (17 per cent of Australian workers), divided evenly between independent contractors and other business operators
- individuals regulated by a state workplace relations system (12 per cent), almost all of whom are state public sector employees.

Below, some key features of the national workplace relations system are examined.

Minimum employment standards

Australian employees are protected by a set of legally guaranteed employment conditions, known as the **National Employment Standards (NES)**. These provisions include:

- *Maximum weekly hours of work.* A full-time employee's hours of work must not exceed 38 ordinary hours per week, plus reasonable additional hours of work.
- *Right to request flexible working arrangements.* Parents or carers and people over 55 years of age or living with a disability may request a change in working arrangements, such as changes to hours, job sharing and working from home. Employers can only refuse on "reasonable business grounds".
- *Leave.* Employees have the right to paid annual, sick and compassionate leave as well as public holidays. They further have the right to unpaid parental, community service and long service leave.

- *Casual conversion.* Casual employees who have worked for their employer (excluding small business) for more than 12 months must be offered the option to convert to full-time or part-time employment.

In 2023, the Albanese Government introduced legislation to expand the NES to include provisions relating to superannuation (the Superannuation Guarantee and protection from underpayments) and up to 10 days' paid leave for victims of domestic violence. These were described as the most significant changes to the NES since the *Fair Work Act* came into operation.

Minimum wages

The **national minimum wage** provides a safety net for any employee not covered by an award. The Fair Work Commission Expert Panel conducts an Annual Wage Review to set minimum wages (and award wages), which take effect from 1 July each year. The *Fair Work Act* requires the panel to consider both economic and social objectives when determining the minimum wage. This includes the performance of the national economy, the macroeconomic impact of its decision, the impacts on businesses (who might be discouraged from hiring additional employees) and the cost of living for households.

> "Inflation is reducing the real value of these employees' incomes and causing households financial stress. We have also taken into account the recent robustness of the labour market, and the fact that increases to modern award minimum wage rates will provide a disproportionate benefit to female workers and may contribute to narrowing the aggregate gender pay gap across the entire employee workforce."
>
> *– Fair Work Commission Annual Wage Review Decision 2023*
> *2 June 2023*

In June 2023, the Fair Work Commission announced a two-tiered increase to wages in Australia. The national minimum wage was increased by 8.6 per cent, from $21.38 per hour to $23.23 per hour, or $882.80 per week. Other award pay rates were increased by a slightly lower amount of 5.75 per cent, with a guaranteed minimum increase of $40 per week.

This decision delivered the highest minimum wage increase since Australia's centralised wage system was established in the early 1980s. This was a response to inflation rising to 7.8 per cent in the March quarter of 2023.

COVID-19 AND THE LABOUR MARKET

Australia's wage determination system was designed to provide flexibility in response to the ups and downs of the economic cycle. However, the labour market impacts of the COVID-19 pandemic in 2020 were so unprecedented that temporary changes to the system were taken to minimise job losses during the national lockdown, which closed many places of work – with the support of governments, businesses and unions.

A lesson from past recessions is the long period of time it takes to reduce sudden increases in unemployment. To prevent employers laying off workers, the Government introduced JobKeeper, a payment to businesses initially set at $1500 per fortnight to subsidise employee wages.

In addition to the JobKeeper program, agreement was reached between governments, employer groups and the Australian Council of Trade Unions (ACTU) to allow temporary changes to the *Fair Work Act*. Rules relating to workers' hours, duties, days and location were suspended for a period of six months, giving employers powers to change existing arrangements quickly and to require employees to use up their annual leave. This was significant as it not only made the workforce vastly more flexible during lockdowns, but also because it remains one of very few instances in which unions and business groups have found consensus on wage determination.

While there was agreement between the Government, employers and unions on these emergency measures, there was no consensus on longer-term reform. The Morrison Government nevertheless tried to make several changes to the *Fair Work Act*, but only secured enough votes in the Senate for some small changes to improve protections for casual employees.

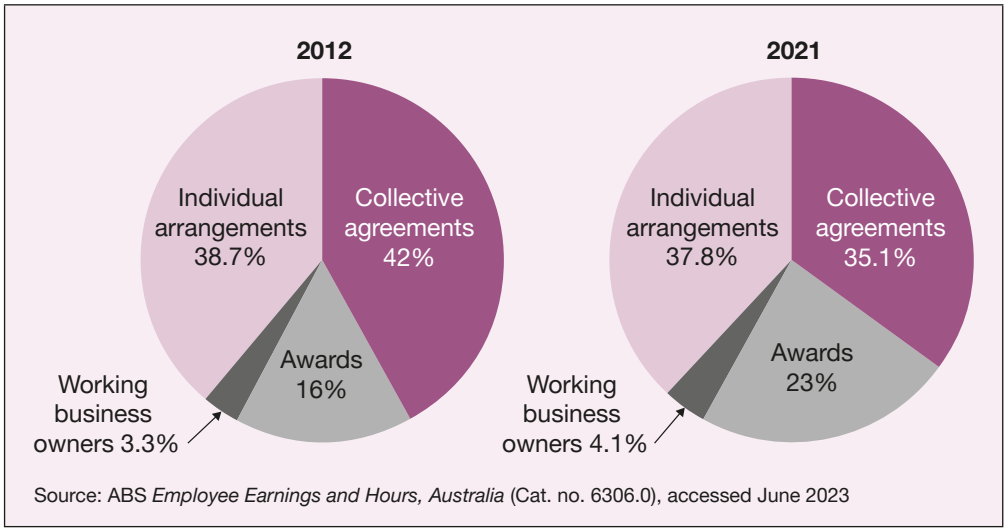
Awards

Awards establish the minimum wage and working conditions for employees based on their industry.

Awards are a set of pay and conditions that are specific to an employee's work or industry sector (such as the Airport Employees Award or the Gas Industry Award). Awards provide a safety net of minimum wages and conditions. Many employers pay above award wage rates, but awards set the minimum rates of pay and entitlements. The Fair Work Commission sets these minimum award wage rates.

In the past, awards were complex and comprehensive, sometimes relating to specific firms. Under the *Fair Work Act*, Australia's award system was restructured and streamlined from around 4300 awards to 123 awards (although some state awards continue to operate). These consolidated awards are sometimes known as **modern awards**. In the retail sector, one of Australia's largest industries, the *Fair Work Act* replaced 41 federal and state awards totalling 2082 pages with just two awards totalling 76 pages.

Figure 17.3 shows that awards are an important part of the workplace relations system. The number of employees covered by awards has grown in the past decade, reflecting the fact that modern awards are often simpler for employers to use than negotiating enterprise or individual agreements. One study estimated that a further one in five non-award employees are employed on "over-award" arrangements – where awards form the basis of individual or collective agreements, but those agreements add to the award conditions. This suggests that in total, around 40 per cent of employees are on "award-based" arrangements.



Source: ABS *Employee Earnings and Hours, Australia* (Cat. no. 6306.0), accessed June 2023

Figure 17.3 – The national wage determination system, by types of employment contract

Modern awards extend the protections of the National Employment Standards, with provisions tailored to the needs of a specific industry, occupation or enterprise. These may include types of employment, arrangements for when work is performed, overtime and penalty rates, annualised wage or salary arrangements, allowances, leave-related matters, superannuation and procedures for consultation, representation and dispute settlement.

Further, modern awards (as well as enterprise agreements) must now include a clause that allows for an **individual flexibility agreement (IFA)**. This clause enables an individual employee and employer to vary the effect of an award to meet their needs without negotiating a separate agreement. The flexibility clause can only vary specific terms, such as when work is performed, overtime rates, penalty rates and leave loading. The IFA must leave the employee better off overall. Flexibility clauses can only be made after the employee has commenced employment and cannot be offered as a condition of employment. Flexibility clauses allow work arrangements to reflect the particular needs of firms and individuals, while preventing employers from using flexibility arrangements to reduce pay and conditions. Research by the Fair Work Commission in 2021 found that IFA usage is very low, but temporarily increased during the pandemic.

Enterprise agreements

The most common method of wage determination in the formal system is a workplace agreement negotiated collectively between an employer (or employers) and employees, usually represented by unions. These are known as **enterprise agreements** (known elsewhere as collective agreements). The *Fair Work Act* introduced a right for employees to engage in **enterprise bargaining** with employers. Employers can be required to engage in bargaining discussions if a majority of employees vote in favour of seeking a collective agreement. As figure 17.3 shows, 35 per cent of employees in the national system are covered by enterprise agreements (down from 42 per cent in 2012), which is above the average of 32 per cent coverage across OECD economies.

Enterprise agreement is a collective workplace agreement that is negotiated between an employer and a group of employees, usually through a union.

As a minimum, all agreements must comply with the National Employment Standards and cannot offer pay rates below the equivalent award. Enterprise agreements must also pass the **"better off overall test" (BOOT)**, requiring employees be made better off overall under the agreement compared to the applicable award. The BOOT also applies to any individual flexibility agreement, a clause that can be negotiated as part of an enterprise agreement. The Fair Work Commission administers the test.

Enterprise agreements usually cover all workers up to management level in a workplace. Unions usually negotiate these agreements on behalf of all employees in a workplace, even though only 12.5 per cent of Australian workers are union members. Collective agreements normally cover issues such as wage increases, loadings for additional work hours, and other changes that are intended to increase productivity. Wage increases under collective agreements declined from an average of around 4 per cent (from 1991 to 2015) to 2.7 per cent between 2015 and 2022. Changes that came into effect from 2023 have made it easier for employees to negotiate multi-employer enterprise agreements, especially in sectors that have had low levels of collective agreements. These changes also gave the Fair Work Commission greater powers to determine outcomes (known as arbitration) where disputes have become "intractable" (that is, there is no prospect of reaching an agreement).

Common law contracts and employment contracts for high-income earners

Individual arrangements cover almost 40 per cent of workers in the federal system. The most common individual arrangement is a **common law contract**, which are especially widespread in small businesses. These often set out terms of employment in just one or two pages. These arrangements are enforced through ordinary law courts rather than through workplace tribunals, as they are not considered to be part of the formal industrial relations system.

Common law contract is an individual agreement between an employer and individual employee that sets out pay and conditions for work. These are commonly used by small businesses and high-income earners not covered by awards.

There are two key differences between common law contracts and enterprise agreements. The first is that they are negotiated individually, not collectively. The second is that they cannot trade off or lower any award entitlements inlcuding pay. The one exception to this rule is **employment contracts for high-income earners**. Under the *Fair Work Act*, modern awards do not apply where an employee is earning in excess of a threshold (salary of $167,500 in 2023–24). High-income earners are only covered by the National Employment Standards rather than entitlements in awards as the award system was designed to provide a safety net for lower-income workers with less protections.

Except for high-income earners, individual contracts cannot bypass the award system and industrial regulations. Previously, a system of individual contracts known as Australian Workplace Agreements (AWAs) were allowed from 1997 to 2009. They were abolished by the *Fair Work Act*, following criticism that they were unfair because employers have much greater bargaining power than individual employees, so AWAs were often imposed on employees with no genuine negotiation process. In some cases, employers used Australian Workplace Agreements to remove entitlements that employees had previously enjoyed under collective (or enterprise) agreements and awards, such as penalty and overtime rates.

EMPLOYEES OR INDEPENDENT CONTRACTORS? THE DILEMMA OF WORK IN THE "GIG ECONOMY"

One of the greatest challenges to Australia's labour market policies today is the transformation of work arising from the "sharing economy" or the "gig economy". Sharing economy businesses provide a platform for customers to interact directly with individual workers who provide services such as fast-food delivery, transport and general household assistance. A report commissioned by the Victorian Government estimated in 2020 that more than one million Australians had gig economy jobs, with over 100 digital platforms.

Gig economy businesses usually classify their workers as individual contractors rather than as employees, excluding them from the *Fair Work Act*'s coverage. However, gig economy businesses often treat workers like employees, providing the materials needed for the job and setting a fixed rate of pay per item contractors produce or service they perform (such as delivery of fast food). This lowers business costs compared to hiring employees, because those businesses are able to avoid normal employee entitlements and award wages.

During the 2010s, the FWC made several major rulings about whether a gig worker is an employee using what is known as the "multi factor test" (see figure 17.4), which considers the key factors of an individual's day-to-day work. However, a landmark High Court decision in 2022 ruled that a written contract ultimately determines whether an individual is an employee or contractor. The Fair Work Commission followed the High Court's ruling and found that a Deliveroo driver was not protected from unfair dismissal, because he was not an employee under the terms of his contract. As a contractor, he had no protections when he lost his job with Deliveroo in 2020 after its algorithm determined he was too slow in his deliveries. In contrast in 2022, a NSW court ruled that a Hungry Panda delivery rider who died in a road accident while making a delivery was in fact an employee. His family was therefore entitled to an $830,000 workers' compensation payout.

To resolve this confusion, the Albanese Government set out plans to give the Fair Work Commission (FWC) formal powers to establish minimum standards for gig workers, while aiming to preserve the flexibility of digital platforms. The Fair Work Legislation Amendment (Closing Loopholes) Bill, introduced to parliament in September 2023, also addresses loopholes relating to "permanent casuals" and labour hire arrangements. The FWC is given powers to create minimum standards for gig workers who are not employees where three conditions are met: individuals are on low pay compared to employees, have low bargaining power, and have limited control over their work. In introducing the Bill, Workplace Relations Minister Tony Burke argued that, "it's got to be possible to have 21st-century technology without having 19th-century working conditions".

	EMPLOYEE	INDIVIDUAL CONTRACTOR
Control over how work is performed	Less control	More control
Hours of work	Standard or set hours	Controls hours of work
Bears financial risk	No risk	Bears the risk of making a financial loss on each task
Superannuation	Employers pay	Pays themself
Entitled to receive paid leave	Yes	No
Expectation of work	Ongoing expectation	Engaged only for specific tasks
Tools and equipment	Provided by employer	Uses their own

Source: Fair Work Ombudsman

Figure 17.4 – How the FWC distinguishes employees from independent contractors

reviewquestions

1. Identify the THREE main ways in which the wages and conditions of Australia's employees are determined.
2. Describe how minimum wages and conditions are determined.
3. Explain the difference between an enterprise agreement and an individual agreement.
4. Explain how an employer can make an individual agreement with an employee.

17.4 Dispute resolution

An **industrial dispute** occurs when employers or employees take action to disrupt the production process in order to highlight a disagreement between employers and employees.

One of the most important roles of an industrial relations system – alongside determining wages and work practices – is to resolve disputes that arise between employers and employees (commonly described as the "parties" to an agreement). Disputes can arise because of disagreements over many issues, including changes to wages, work conditions, business restructuring and specific actions of employers that employees consider wrong or unfair, such as a decision to sack an employee or some employees. Disputes can lead to different forms of industrial action that interrupt work, including:

- strikes, in which employees withdraw their labour and refuse to work
- work bans, in which employees refuse to undertake a certain aspect of their work
- lockouts, in which employers refuse to give employees access to their workplace.

One of the aims of an industrial relations system is to solve these disputes quickly, efficiently and fairly, because industrial action can result in reduced productivity, lower output, lower profits and damage to a business's customer relationships.

The processes for resolving industrial disputes in Australia have undergone major change in recent decades. Since the early 20th century, Australia has mostly relied on a unique system of specialist industrial tribunals to administer dispute resolution processes. The specialist tribunals aim to avoid drawn-out disputes that occur in other countries and allow for an independent umpire to make a judgment based on fairness and business conditions. The two main forms of dispute resolution that have been practiced in Australia are:

- **Conciliation** – a process whereby an industrial tribunal tries to help the parties reach a mutual agreement. The tribunal does not impose a resolution on the parties, but once the parties reach an agreement, they might undertake proceedings with the tribunal to formally implement their respective sides of the agreement.
- **Arbitration** – when an industrial tribunal makes a legally binding ruling that resolves a dispute. This occurs after the tribunal has given both parties the opportunity to put forward their arguments. Where conciliation is unsuccessful, arbitration can resolve the dispute and require employees to return to work.

Conciliation is a dispute resolution process in which firms and employees meet to discuss their differences in the presence of a third party (such as from an industrial tribunal) who attempts to bring the parties to an agreement.

Arbitration is a dispute resolution process in which an industrial tribunal hands down a legally binding ruling to firms and employees.

Australia has shifted from resolving industrial disputes mainly through compulsory arbitration to a system where arbitration is only used in rare circumstances. In most instances, employers and employees take responsibility for resolving their disputes. Under the *Fair Work Act*, the Fair Work Commission has limited powers to intervene:

- **Compulsory dispute settlement terms:** The *Fair Work Act* requires that all awards and enterprise agreements explain the process that the parties will adopt if they have a dispute relating to their agreement. A common feature of such a term is that if parties cannot resolve a dispute between themselves, they must refer it to a third party organisation that can assist. This third party might be the Fair Work Commission or a non-government organisation that offers dispute resolution services.
- **Bargaining in good faith:** To make the bargaining process fair and orderly, both employers and employees must comply with six good faith obligations, including participating in all meetings, disclosing relevant information, giving genuine consideration to all proposals and refraining from conduct that would undermine collective bargaining. Although it rarely uses these powers, the Fair Work Commission can make legally binding orders if either side breaches their obligation to bargain in good faith. The aim of the bargaining rules is to put pressure on both parties in a negotiation to be constructive and reach agreement.
- **Intractable bargaining declarations**: Under changes in effect from 2023, the Fair Work Commission can make a declaration where negotations have become "intractable", and after an optional period of time for parties to finalise negotiations, the Commission can decide the outcome of the negotiations, through a workplace determination.

- **Resolving industrial action:** Industrial action is permitted during the process of enterprise bargaining. The Fair Work Commission is only able to step in to suspend or terminate such industrial action if special circumstances exist, including where there is threat of significant harm to the economy or the population, or the industrial action has been going on for a long period of time and is damaging the bargaining parties.

One measure of the effectiveness of an industrial relations system and its dispute resolution processes is the level of disputes and strikes. As figure 17.5 shows, Australia has experienced a low level of days lost in industrial disputes in recent years (in contrast, more than 4 million days' work were lost due to disputes in 1981). The low level of industrial disputes reflects the way in which employer/employee relations changed in recent decades, with increased competitive pressures, changes in industry structures and lower levels of union membership. There is now less conflict and a stronger focus on employers and employees cooperating to resolve disputes themselves. In addition, since the 1990s the right to strike has been curtailed by laws that only allow industrial action during a formal bargaining process and only in very limited circumstances when an enterprise agreement is in force. Nevertheless, the Productivity Commission has previously noted that industrial disputes play a positive role in reducing workplace power imbalances and can improve efficiency in the long term.

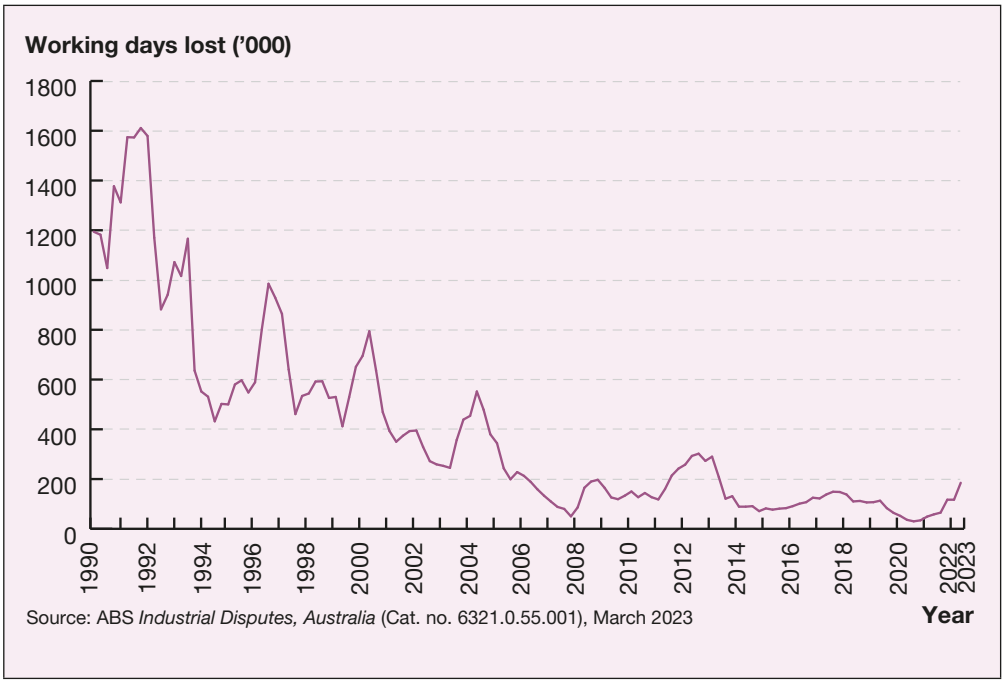


Figure 17.5 – Number of working days lost due to industrial disputes in Australia, 1990–2023

WHERE DOES THE GENDER PAY GAP COME FROM?

One aspect of Australia's industrial relations system that has recently been tested through industrial action is the pay gap between men and women. This is known as the gender pay gap. The pay gap is monitored by the Workplace Gender Equality Agency.

The national gender pay gap fell to a record low of 13.3 per cent in 2023. It has fallen significantly since 2014, when women earned, on average, 18.5 per cent less than men. One reason for this gap is that male-dominated industries, such as mining and financial services, tend to pay more than industries with higher proportions of female workers, such as health and education (the gender pay gap is 22.1 per cent in Western Australia, which has a higher proportion of mining and construction industry jobs, whereas it is only 7.8 per cent in South Australia). The gap is also higher in the private sector (16.1 per cent) than the public sector (11.2 per cent), and higher for those on individual agreements (16.1 per cent) compared to collective agreements (12.8 per cent).

Not every comparative measure shows women being paid less than men. Among employees who are directly covered by awards, pay for women is 3.8 per cent higher than for men. Award-only pay is more common in industries with higher female employment, reflected in the fact that women are the majority of the 23 per cent of employees who are on award-only pay arrangements (comprised of 13.6 per cent women, 9.4 per cent men). But since award-only employees are typically paid less than those on enterprise agreements or common law contracts, in overall terms the gender pay gap is not bridged by the award system.

reviewquestions

1 Describe TWO ways in which disputes between employers and employees might be solved.

2 Explain how the role of industrial tribunals in dispute resolution has changed in recent years.

17.5 Decentralisation of the labour market

Australia's industrial relations system has undergone a historic shift in recent decades from a highly centralised wage determination system for most of the 20th century, to a system where wages are mostly determined through enterprise bargaining at the level of individual businesses or workplaces. This reflects a shift from using **non-market forces** to a greater reliance on **market forces** to determine wage outcomes.

A **centralised** labour market is one in which wages and other labour market outcomes are primarily determined by a government, or a government-appointed tribunal such as the Fair Work Commission. A **decentralised** labour market determines wage outcomes at a workplace level, with a lesser role for industrial tribunals. This means that market forces of supply and demand for labour, as well as the individual firm's capacity to pay, play a greater role in determining wage increases. This ensures that there is more flexibility, and wage levels change between different firms and industries.

Early in the 20th century, Australia developed a centralised system of wage determination that reflected a national culture of fairness and a belief that workers should be paid the same wage for doing the same work. It also reflected the influence of the union movement, with most Australian workers belonging to a union. The national industrial tribunal was known from 1904 to 1956 as the Commonwealth Court of Conciliation and Arbitration (now the Fair Work Commission), and similar tribunals also existed at a state level. Governments believed that allowing the market to set wage levels would result in some workers being underpaid and exploited. Instead, a system of tribunals could deliver fairer and more consistent outcomes, using a formal process in which representatives of employers and unions presented their arguments for or against a wage increase or a change in working conditions.

In the early 1990s, economists argued that greater flexibility was needed so that wages could increase faster in more efficient sectors (to attract more labour), and wage increases needed to be more closely tied to productivity growth so that employees had the incentive to improve their skills and work practices. As a result, from 1991 Australia began shifting to a labour market where wages were mostly set through enterprise bargaining, while the highly centralised award system would only provide a safety net of minimum wages and conditions.

← Centralisation			Decentralisation →
Single national wage case for all employees	Awards with wages set on an industry or occupation basis	Enterprise bargaining	Individual contracts

Figure 17.6 – Centralised and decentralised wage determination systems

Arguments in favour of decentralisation

- A decentralised system can lead to a more **efficient allocation of resources** and structural change. Firms that are more efficient can afford to pay more and therefore attract higher-skilled employees. In contrast, centralisation can slow down the pace of structural change. If the same wage increases occur across all industries, it becomes difficult for more profitable and growing industries to attract more highly skilled labour from less profitable and declining industries – therefore slowing down the process of structural change in the economy. The decentralised labour market made it easier for Australia's mining industry to attract skilled labour from other sectors of the economy by offering higher pay. Between 2005 and 2015, the Wage Price Index for mining industry workers grew by 53 per cent, compared to an average of 40 per cent for workers generally.
- A decentralised system can promote **productivity**. It gives employees the incentive to work more efficiently, because they can be rewarded directly for their productivity improvements through arrangements at the workplace level. Conversely, under a centralised wage determination system, employees in individual workplaces may not have enough incentive to implement productivity improvements if they are already guaranteed a uniform wage increase, regardless of whether or not they improve their skills or adopt more efficient work practices. Higher productivity also helps to reduce **inflationary pressures** in the economy.
- Wage flexibility can help the labour market adjust when the economy is affected by negative shocks, which helps keep **unemployment** at a lower rate. If a recession causes a reduction in the aggregate demand for goods and services, therefore decreasing the demand for labour, a flexible labour market can allow wages to fall while keeping people in jobs. This might help to minimise job losses or reductions in corporate profits during a downturn. For example, during the COVID-19 pandemic, some firms initially reduced the working hours of full-time employees as a trade off for eliminating fewer jobs. As the economy recovered, staff returned to full-time roles.

Arguments against decentralisation

- Decentralisation tends to lead to greater **inequality** through increased "wage dispersion". Workers doing the same job in different industries or firms may receive different pay and working conditions. This is particularly the case for low-skilled workers, who are easier to replace, might be less familiar with their workplace entitlements and are less able to demand pay rises from their employers.
- A decentralised labour market can produce **outcomes that reflect imbalances in bargaining power** between employers and employees. Those employees who are in an industry or firm where unions have little power are less likely to achieve wage increases, regardless of their productivity, because they lack bargaining power with employers. In practice, wage increases can often reflect the bargaining power of employees more than improvements in productivity. In 2023, the Government enacted "multi-employer" bargaining to give employees more bargaining power.
- **Enforcement of wage entitlements** becomes more difficult under a decentralised system. In recent years, widespread problems with the underpayment of workers have emerged across many Australian industries. In 2023, Fair Work Australia secured undertakings to redress underpayments from a wide range of small to large businesses, including $32 million from Suncorp and $4 million from the University of Technology, Sydney. Even the Reserve Bank owned up in 2023 to over $1 million of underpayments. In 2023, the Government announced plans to strengthen enforcement for wage entitlements through introducing criminal penalties and requiring employers to pay superannuation at the same time as ordinary wages to prevent long-term underpayments of superannuation.

- Centralised wage determination can provide an **additional policy tool** for the government to influence labour market outcomes and achieve economic policy goals such as lowering inflation. For example, it could restrain wages growth to avoid cost-push inflation, or trade-off a tax cut in exchange for lower wage increases. While economists generally favour more flexible and decentralised wage determination systems, as the *OECD Employment Outlook* highlighted in 2019, some degree of centralisation allows governments to target labour market policies more effectively, including retraining, improving skills, adopting new technology and protecting employee rights.

reviewquestions

1 Explain the difference between a centralised and decentralised industrial relations system.

2 Discuss the advantages and disadvantages of centralised and decentralised wage determination systems.

17.6 Education, training and employment programs

In addition to regulating the industrial relations system, governments also influence labour market outcomes through their policies relating to education and training, apprenticeships, social security (welfare benefits) and employment services. These policies aim to increase participation in the workforce, improve the productivity of the workforce and prepare workers for future changes in the labour market. Labour market policies can use a wide range of policy instruments to achieve these outcomes.

Education and training

Governments play a central role in shaping the education system, ranging from pre-school to tertiary education. From an economic perspective the most successful education system is one that provides students with a broad range of skills that will help make them more productive and able to adjust to changing economic conditions. Overall, the economy will be more productive and grow faster if it has a higher quality and more responsive education and training system.

To improve Australia's capacity to train workers for the skills demanded by a fast-changing job market, in 2022 the Albanese Government established Jobs and Skills Australia. Its role is to improve Australia's long-term planning of skills training, addressing significant national skill shortages and helping workers re-train for jobs in growing sectors. According to the Labour Market Update in May 2023, 92 per cent of new jobs in Australia require post-secondary school qualifications. Increased use of artificial intelligence is accelerating change in the labour market, underscoring the need for ongoing training for workers to have the skills required by the labour market.

To encourage school leavers to study in areas where there are shortages of workers, in 2022 the Morrison Government significantly changed the prices of university degrees. Fees decreased up to 60 per cent for health, maths, agriculture and teaching degrees to encourage high school leavers to study (and ultimately work) in these areas facing shortages. In contrast, in other areas such as humanities and communications, fees increased by 113 per cent. However, data from NSW universities showed that despite the higher fees, there was a 9 per cent increase in enrolments for humanities degrees in 2022. This reflects the fact that fees are only one of several factors, along with interests, abilities and earning potential, that shape student choices.

Several recent education and training programs and reforms have aimed to improve workforce skills, increase job growth and raise productivity:

- The National Cabinet (which brings together Federal, State and Territory governments) agreed on a National Skills Agreement in 2022, which included funding for 300,000 additional fee-free TAFE and vocational education places.
- In 2023, the Government announced a partnership with universities to offer 28 "micro-credential" short courses to fill key skills gaps in the Australian labour market. The courses include teaching, nursing, engineering and cyber security. To encourage uptake of these courses, individuals can access the same scheme to defer payment for their course as standard university degrees.
- Early childhood education standards have been increased and places have been expanded to provide access for all children before starting school.

Labour market programs

Governments deliver a range of labour market assistance programs that aim to improve people's readiness for the labour market and increase participation and productivity. Many of these programs address the individual circumstances that might make it harder for a person to find suitable work – including a disability, mental illness, language barriers or having been out of the paid workforce for a long period of time. These programs are integrated with income support (or welfare) payments, so that the ability of individuals to receive continued income support is often tied to them making genuine efforts to find paid work. In Australia, a national agency called Centrelink oversees individuals' access to income support and their interaction with labour market programs.

Employment services – matching people to jobs and giving them adequate training – are contracted through a network of government-funded employment services agencies. This $1.3 billion network, called the New Employment Services Model, provides funding for employment agencies to prepare unemployed people for work and place them into available jobs. Employment agencies are provided with higher payments for successfully helping the long-term unemployed find work.

A major long-term goal of labour market policies is to increase and sustain participation in the workforce. The Australian Treasury's *Intergenerational Report* predicts a long-term decline in workforce participation, driven by the ageing of the population. Maintaining high workforce participation, including keeping older people in the workforce, will be needed to generate tax revenue that can offset the growing costs of the ageing population. Measures taken to increase workforce participation include:

- During the COVID-19 pandemic in 2020 and 2021, the Government established a JobMaker Hiring Credit aimed to prevent a rise in long-term unemployment among younger people. JobMaker allowed businesses to claim $200 per week for new employees aged 16 to 29 and $100 per week for those aged 30 to 35.
- In 2023, the Albanese Government announced a major overhaul of Australia's immigration system. The reform plan creates a three-tier system: a lower-wage segment in specific sectors with labour shortages, such as aged care; a mid-level segment for jobs paid above a new temporary skilled migration threshold of $70,000; and a lighter-touch approach for highly paid, high-skilled migrants.
- Another feature of the reform plan is making it easier for temporary skilled migrants, who are typically younger workers, to become permanent residents. This helps to reduce the average age of the working population and increase participation rates over the longer term.
- Among its smaller-scale labour market policies, the Government funds job fairs and provides payments of up to $6,000 for workers moving to rural areas to work in agriculture (known as AgMove).

- The 2023–24 Budget announced plans to increase paid parental leave from 18 to 20 weeks from 2023, rising to 26 weeks' leave by 2026. This aims to sustain higher levels of participation in the workforce, especially among women.
- Australian governments have substantially increased funding for childcare, both to expand eligibility for subsidised care and to address shortages of skilled workers in this sector. Increased availability of childcare makes it easier for parents to combine work and caring responsibilities for young children.
- Reforms to the interaction of the tax and welfare systems, to reduce high "effective marginal tax rates" (EMTRs). High EMTRs mean that for every extra dollar that welfare recipients earn, they have to pay tax as well as lose a portion of their welfare benefit, and this can undermine incentives to find paid work.

reviewquestions

1 Discuss the impact of increasing the quality of education on the labour market.
2 Identify TWO labour market policies that aim to reduce unemployment.
3 Explain why increased workforce participation is a priority for labour market policy.

17.7 Evaluating labour market outcomes in Australia

Australia's labour market has a hybrid system of wage determination that emphasises market forces through enterprise bargaining, while retaining some non-market forces such as labour market institutions like the Fair Work Commission. In concluding this chapter we review some of the evidence about the performance of the system in recent years, noting that many factors other than labour market policies can shape outcomes in the labour market.

In overall terms, under enterprise bargaining Australia has sustained moderate wage increases, low inflation and relatively strong employment growth. The shift to a decentralised industrial relations system appears to have contributed to Australia's recent economic outcomes in several ways:

- **Wages growth and inflation**. A key macroeconomic goal for the wage determination system is to sustain a level of wage growth that strikes a balance between stable, low inflation outcomes and real income growth for wage earners. Wage outcomes during recent decades have been consistent with sustained low inflation, but have delivered low increases in real wages. The flexibility of the decentralised system has allowed larger wage rises in specific areas where strong wage pressures exist, without this spilling over to wage increases across the board. The low overall wage outcomes of the late 2010s even prompted the former Reserve Bank Governor, Philip Lowe, to advocate an increase in wage growth in order to increase spending and strengthen economic growth. However, concerns about inflation returned in 2022 following a sharp spike in inflation across the world. Policymakers wanted to prevent the inflation surge from increasing inflationary expectations and creating an inflationary wage spiral. As noted in figure 17.7, wages growth accelerated in 2022–23 but remained well below the rate of inflation.
- **Work practices and productivity**. The deregulation of the labour market since the 1990s has helped to bring about major changes in Australian work practices. Australia experienced its best sustained productivity growth performance on record during the 1990s, averaging 2.1 per cent per year as enterprise agreements

eliminated old, outdated work practices. However, these were one-off gains from reforms, and productivity growth has averaged just 0.6 per cent since the 2010s, according to the ABS. Many other advanced economies have been experiencing low productivity, and economists have differing views about the role of skills, technology, research and development, and regulation in influencing productivity outcomes. To the extent that workplace arrangements can influence future productivity growth, in its recent 5-Year Productivity Inquiry, the Productivity Commission questioned the effectiveness of the enterprise bargaining system.The report cited evidence that bargaining objectives were mostly about wages growth and minimising the risk of industrial action, not driving productivity growth. It recommended that agreements ban the inclusion of clauses that limit productivity-enhancing changes to technology, and that the Better Off Overall Test should be made more flexible so that agreements could be made even if some workers were worse off, provided "the benefits to winners are larger than the losses to losers".

- **Unemployment**. Reforms to the wage determination system have provided Australian workplaces with greater flexibility to adjust to fluctuations in the business cycle. In overall terms, Australia has been successful in combining lower unemployment with rising wages and productivity since the 1990s. In mid-2023,

THE MYSTERY OF AUSTRALIA'S WAGE GROWTH

One of the most surprising features of wage outcomes during the 2010s was that despite low unemployment levels and persistent skills shortages, wage growth remained weak throughout the decade. Figure 17.7 shows that throughout the 2010s, the Treasury forecast an upturn in wages growth in Australia, but it never materialised. The average national pay increase was just 2 per cent for the five years between 2015 and 2020, and annual real wage growth fell to just 0.5 per cent.

In 2022–23, nominal wages grew substantially for the first time since the global financial crisis, increasing 3.7 per cent in the year to March 2023. However, inflation outpaced income growth, rising to a 30-year high of 7.8 per cent over the same period. This means real wages fell 4.1 per cent. Economists debated whether wages growth should be kept below inflation, to prevent locking in a higher inflation rate, or whether they should keep pace with inflation, to preserve living standards for low- and middle-income earners.

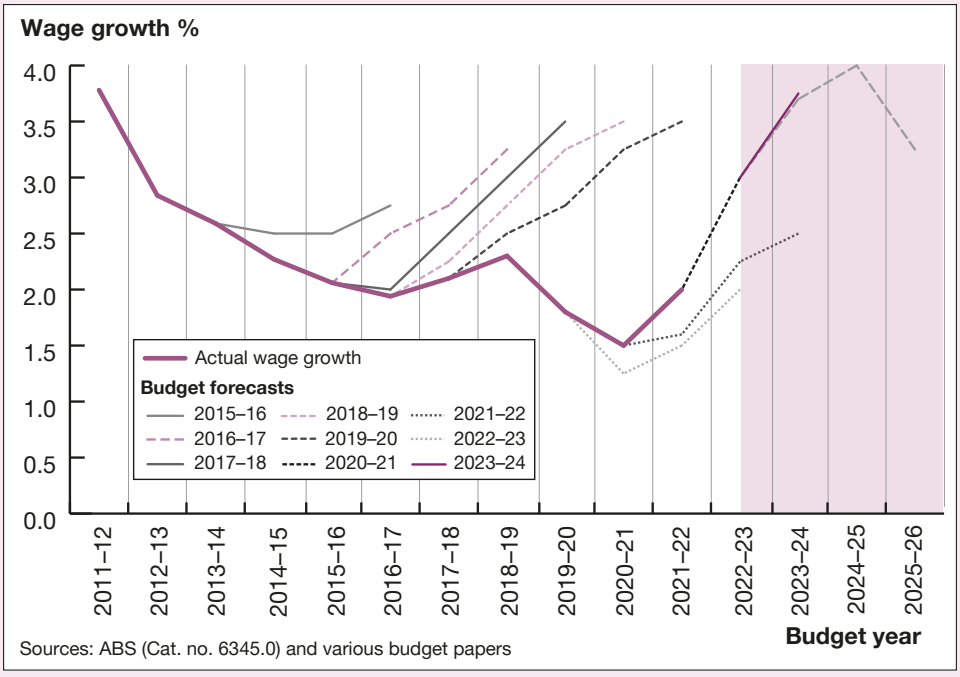


Figure 17.7 – Forecast and actual wages growth

Australia's unemployment was 12th lowest among the OECD's 38 economies, despite the fact that Australia has the highest minimum wage levels in the OECD. The labour market's record of responding flexibly to changing circumstances was shown following COVID-19, with unemployment falling below 4 per cent for the first time since the 1970s.

- **Income inequality**. One of the negative effects of decentralised wage determination is a widening of the gap between higher- and lower-income earners. Workers with greater skills and who belong to stronger unions tend to receive larger wage increases under enterprise agreements, whereas those with lesser skills and in weaker bargaining positions do not. Although the past three decades of enterprise bargaining have resulted in a widening of income inequality, the safety net of awards and minimum wage increases has modestly increased real wages for the lowest-income earners. In the decade to 2020, while consumer prices rose 22 per cent, the national minimum wage rose 32 per cent – slightly faster than the increase in the overall wage price index of 29 per cent. On the other hand, employees at the top of the earning scale have enjoyed the fastest income growth – for example, in 2022–23 the average income growth of CEOs of large Australian companies was 15 per cent, more than four times that of the average worker.

For well over a century, Australians have been debating how the economy should set wages and conditions for workers. This is unsurprising given that labour is the largest cost item for most businesses (on average, labour is around 60 per cent of business costs). Policies that influence labour costs therefore have a major impact on individual businesses and the economy overall. At the heart of this debate are different views of the role of market forces and non-market forces in Australia's wage determination system. Historically, Australian governments have believed that because employers possess unequal bargaining power over individual employees, non-market institutions such as industrial tribunals are needed to ensure outcomes that are fair to employees. In fact, Australia was among the first nations in the world to recognise minimum entitlements for employees, such as the eight-hour day and the right to a minimum wage that was high enough to support a decent standard of living for a family. In its first term in office, the Albanese Government has given priority to reforms to the *Fair Work Act*, to strengthen both the role of the Fair Work Commission and the bargaining power of workers – reflecting the fact that long-running debate is ongoing.

The continued debate over workplace relations demonstrates that workplace issues remain as much a part of Australian economic policy debate now as they have been since Australia's Federation more than 120 years ago. The processes for determining wages, work conditions and work practices are among the most important aspects of economic policy because they have such wide impacts on the economy and on people's lives. For this reason, the debate over labour market policies and their impacts is likely to continue for many years to come.

reviewquestions

1. Explain the relationship between the industrial relations system and productivity outcomes.
2. Discuss the advantages and disadvantages of Australia's shift to a decentralised system of wage determination.
3. Analyse the impacts of industrial relations changes on employers and employees.

chapter summary

1 While the Australian labour market has traditionally been governed by a combined system of federal and state laws, since 2009 Australia has had a unified national system for the private sector under the ***Fair Work Act***, which directly determines wage outcomes for around 7 in 10 Australian workers.

2 Australia's workplace relations system consists of three main streams – awards, collective agreements and individual contracts (common law contracts).

3 The **National Employment Standards** set out in law the minimum employment entitlements of all Australian employees. They include maximum weekly hours of work, annual leave, personal leave (including sick leave), parental leave, a right to request flexible working arrangements if caring for a child, a requirement of notice before termination and a right to redundancy pay.

4 **Modern awards** are a set of pay and conditions that are specific to an employee's work or industry sector, that provide a safety net of minimum wages and conditions. They include flexibility clauses so that employers and employees can vary the effect of an award.

5 **Enterprise bargaining** is a method of wage determination in which a workplace agreement is negotiated collectively between an employer and employees, often represented by unions.

6 **Common law contracts** are individual employment contracts that play a role outside of the formal industrial relations system. They apply automatically and to employees who have informal employment contracts that may provide above-award conditions.

7 In recent decades, Australia has shifted from a system in which industrial tribunals played the main role in **dispute resolution** to a system in which employers and employees are largely responsible for resolving their own disputes.

8 **Decentralisation** refers to a situation in which instead of decisions about wages being made by a government or a central industrial tribunal, they are made in individual workplaces such as through enterprise bargaining.

9 Decentralisation of wage determination can increase productivity and help prevent a flow-on of wage rises from one sector of the economy to another, but as a result can also contribute to greater inequality in the distribution of income.

10 **Labour market programs** are implemented to address unemployment that is related to supply-side factors such as frictional, structural and long-term unemployment. These programs attempt to reduce the non-accelerating inflation rate of unemployment by improving the skills, job-readiness and employment opportunities of people who are currently out of work.

chapter review

1. Outline the main features of Australia's national workplace relations framework.
2. Outline how the minimum entitlements of employees are determined.
3. Define *enterprise bargaining*. Explain the role of enterprise bargaining in Australia's labour market.
4. Explain the role of the workplace relations system in influencing the level of inflation in the economy.
5. Discuss how wage earners who do not have a workplace agreement can achieve wage rises.
6. Describe how disputes between employers and employees are resolved under Australia's workplace relations system.
7. Explain the difference between a centralised and decentralised system of wage determination.
8. Describe the relationship between wage outcomes and productivity.
9. Discuss the arguments for and against increasing the use of individual contracts within the labour market.
10. Analyse the effectiveness of labour market policies in achieving government economic objectives in recent years.

18 Effectiveness and Limitations of Economic Policy

18.1 An overview of the effectiveness of economic management

18.2 Limitations of economic policy

18.3 Evaluating the effectiveness of economic policies

This chapter concludes our study of the Australian economy with a discussion of the effectiveness and limitations of economic policies. This ties together some of the themes of topic 3 and topic 4, as well as reviewing some aspects of the global economy from the first half of the book that impact the effectiveness of economic policies.

As a starting point, we can evaluate the effectiveness of government policies against the six objectives that were discussed in chapter 13:

1. economic growth and wellbeing
2. full employment
3. low inflation
4. external balance
5. an equitable distribution of income and wealth
6. environmental sustainability.

It is also important to consider the limitations of economic policy, including time lags, political constraints and global influences. We conclude by outlining how to evaluate specific policies, with reference to their objectives, implementation, and outcomes, and provide a general overview of the effectiveness of macroeconomic and microeconomic policies in Australia in recent decades.

18.1 An overview of the effectiveness of economic management

Assessing the effectiveness of economic policies involves evaluating their outcomes against the objectives that they were implemented to achieve. Policy objectives change over time, and governments have changed how they prioritise different objectives over recent decades. Policymakers often need to choose between conflicting objectives (as discussed in chapter 13). It is also important to consider the wider context for economic management to assess the effectiveness of policy in addressing specific economic issues.

Macroeconomic policies are policies that affect the economy as a whole with the aim of minimising fluctuations in the business cycle. Also referred to as demand management or counter-cyclical policies.

Since the early 1990s, the roles of different economic policies have been defined in fairly clear terms. Overall, **macroeconomic policy** has aimed to achieve the maximum sustainable rate of economic growth. Australia's long-term potential growth rate has in recent years been revised down to 2.5 per cent, according to Treasury calculations in 2023.

However, when there is spare capacity in the economy, the economy can sustain a higher growth rate in the short to medium term (especially during recovery from a recession, as was the case in 2021–22). Achieving this goal has required balancing the objectives of stronger growth and lower unemployment against the objectives of keeping inflation within the 2 to 3 per cent target range and maintaining external stability. The goal of **microeconomic policies** has been to improve productivity and competitiveness, with the outcome of achieving a higher level of economic growth over the longer term (that is, lifting the sustainable rate of economic growth).

Australia's most distinctive economic achievement in recent decades is that it sustained the longest unbroken run of economic growth on record anywhere in the world, between 1991 and 2019, and that it recovered quickly from the COVID-19 recession. Australia's economic growth rate averaged 2.9 per cent during the growth cycle from 1991 to 2019, significantly stronger than the average 2.1 per cent growth rate among OECD economies during the same period. However in the second half of the 2010s it fell to just 2 per cent, only fractionally above the OECD average, and Australia's slowest growth rate for 60 years on a per capita basis.

Australia ranks well on comparative measures for living conditions and economic development. For example, Australia ranks fifth in the world on the Human Development Index. Global investment bank Credit Suisse in its 2022 *Global Wealth Report* ranked Australians first in the world by median adult wealth, with US$273,900. On the other hand, while it is still among the top 20 countries, Australia's ranking on the global Prosperity Index fell in the decade to 2023 by three places to 15th. The Prosperity Index, which is published annually by the Legatum Institute, ranks countries on the basis of a range of statistical factors, including economic growth, education, health, governance, human rights and environmental standards.

Australia's economic outcomes indicate the improved effectiveness of economic policies since the 1990s. Governments have managed the conflicts between economic policies better, and have generally not been forced to sacrifice one macroeconomic objective for another. This has been helped by reduced volatility in the economy, and governments have been able to strike a balance between their goals for growth, inflation, unemployment and external balance. In contrast, economic management in the 1970s and 1980s had been characterised by constant tensions over whether priority should be given to maintaining low inflation or reducing the level of unemployment, both of which remained high during those two decades.

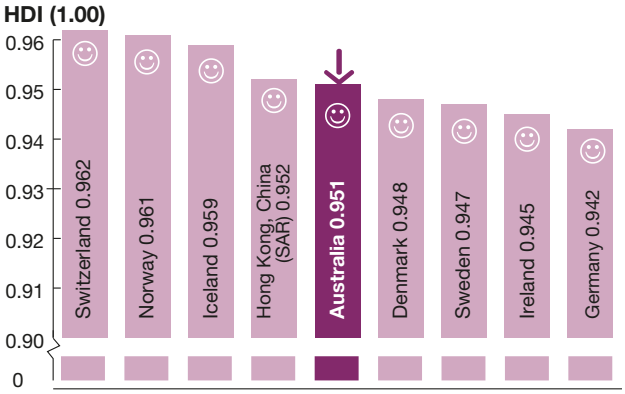
In part, Australia's economic performance reflects more favourable external conditions than those of most other economies. Australia has benefited from its rich endowment of natural resources, which allowed it to take advantage of a historic rise in global commodity prices and the rapid industrialisation of China. Australia's terms of trade rose in the 2000s to almost double their average during the last quarter of the century, and again surged as the global economy emerged from the COVID-19 pandemic and as energy prices soared after Russia's invasion of Ukraine. Australia also benefits from strong population growth (one of the highest rates in the OECD) with a migration program that focuses on skilled migrants who increase the economy's productive capacity.

Outcomes for growth, inflation, unemployment and external balance

One way to assess the effectiveness of economic policies is to examine specific economic outcomes. The sustained **economic growth** in the period from 1991 to 2019 was achieved because the economy avoided major fluctuations in the business cycle, such as where a boom in growth triggers a surge in inflation, which then needs to be curbed by contractionary policies such as high interest rates that might trigger recession. Stable economic growth was underpinned by relatively high population growth, resilient terms

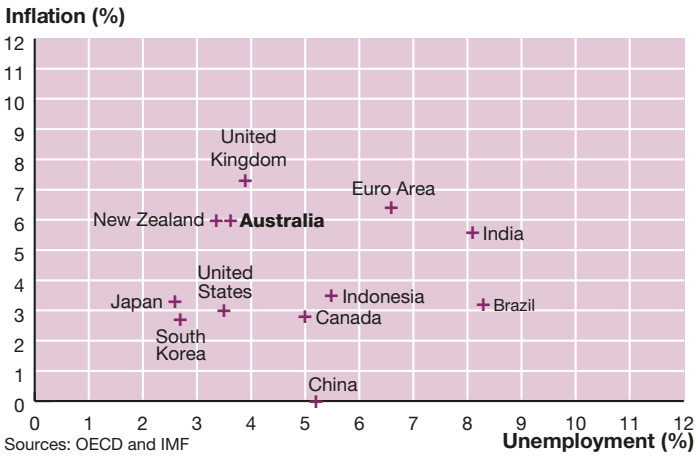
HOW AUSTRALIA STACKS UP

OVERALL, AUSTRALIA IS AMONG THE BEST PLACES TO LIVE IN THE WORLD – WITH A VERY HIGH HUMAN DEVELOPMENT INDEX.



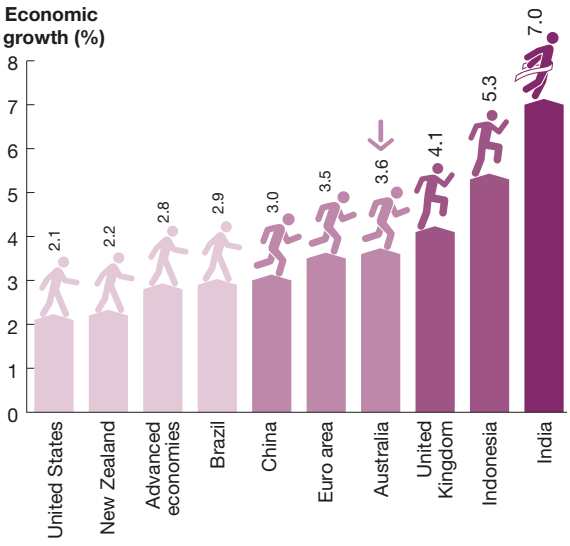
Source: hdr.undp.org

LOW UNEMPLOYMENT AND AFFECTED BY SURGING INFLATION, LIKE OTHER COUNTRIES



Sources: OECD and IMF

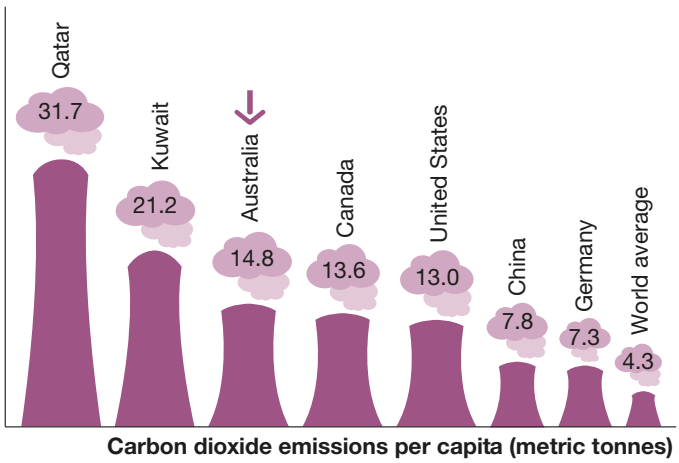
AUSTRALIA'S GROWTH IS ABOVE OTHER ADVANCED ECONOMIES.



Annual economic growth (2022)

Source: World Bank, accessed 2023

AS OTHERS REDUCE THEIR EMISSIONS, AUSTRALIA FACES BIG ADJUSTMENTS AS ONE OF THE LARGEST PER CAPITA EMITTERS OF GREENHOUSE GASES.



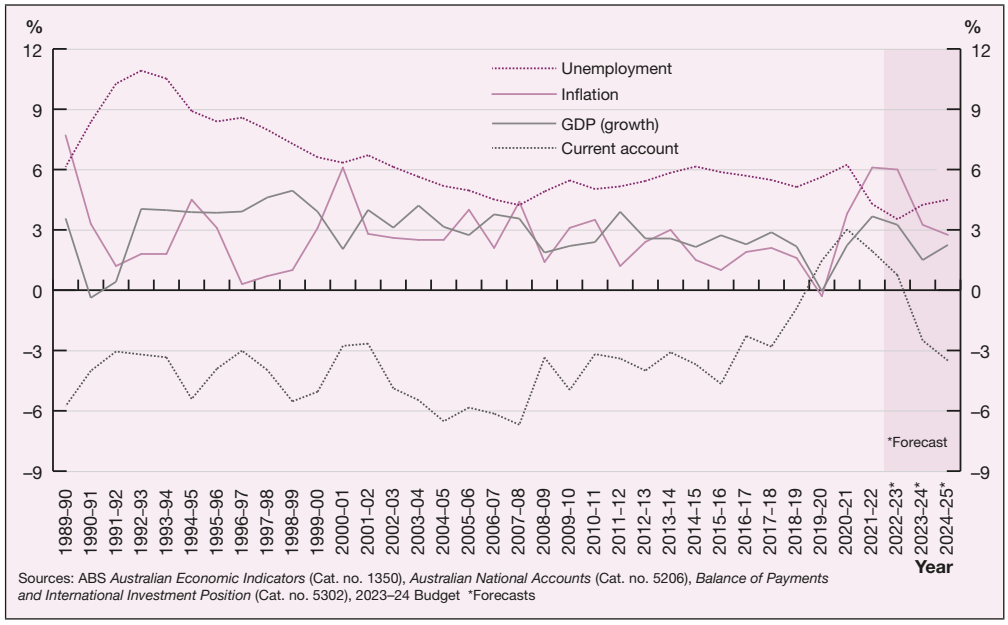
Carbon dioxide emissions per capita (metric tonnes)

Source: World Bank, accessed 2023

of trade that underpinned export revenue, and high levels of workforce participation. On the other hand, Australia's growth rate has slowed in recent years (notwithstanding the volatility caused by the COVID-19 pandemic). Governments aimed for a sustainable growth rate of 3 to 4 per cent through the 1990s and into the 2000s, and more recently have aimed for growth above 3 per cent. Australia's slower growth (of 2.4 per cent) in the 2010s was below its long-term potential. After COVID-19, the long-term sustainable growth rate had fallen to 2.5 per cent, reflecting Australia's long-term trend of weak productivity growth, and the absence of major new sources of growth or investment.

Australia's **inflation** record since the early 1990s has been outstanding, notwithstanding the global surge in inflation in 2022. After averaging 10 per cent during the 1970s and 8 per cent during the 1980s, inflation has averaged around 2.5 per cent since the introduction of inflation targeting in the early 1990s. This was a result of several factors, including a clear and transparent framework for monetary policy, lower tariff

barriers, increased competition across many industry sectors, price reductions resulting from new technologies and cheaper imports, moderate wage outcomes and a period of strong productivity growth in the 1990s. Even during the mining boom, which brought about cost pressures and capacity constraints, Australia was successful in controlling inflationary pressures, and inflation has fallen more quickly than in other countries after its post-COVID-19 surge. Figure 18.1 shows Australia's economic performance since 1990.



Sources: ABS *Australian Economic Indicators* (Cat. no. 1350), *Australian National Accounts* (Cat. no. 5206), *Balance of Payments and International Investment Position* (Cat. no. 5302), 2023–24 Budget *Forecasts

Figure 18.1 – Australia's economic performance since 1990

Australia's labour market is generally regarded as having attained full employment during recent years. The unemployment rate was around 3.5 per cent in 2023, its lowest level in 50 years. While Treasury forecasts pointed to unemployment rising to 4.5 per cent, this was still lower than pre-pandemic levels of above 5 per cent. The strength of the labour market is also reflected in lower levels of underemployment. After growing to above 9 per cent in the 2010s, in 2023 it had fallen to just above 6 per cent.

Favourable external conditions have helped Australia to reduce its large **external imbalances**. The structural improvement in the current account and net foreign liabilities came about as a result of three major developments: China's emergence as Australia's largest export market, a remarkable turnaround in Australia's terms of trade and a long period of record-low global interest rates. In the decade to 2020, the current account deficit averaged around 2.3 per cent of GDP, compared with an average of 4 per cent in the previous three decades. Official forecasts indicated that Australia would return to a current account deficit in 2023–24, after four years of being in surplus. These surpluses reflected a combination of strong export prices, a fall in overseas travel during COVID-19, lower global interest rates during COVID-19 and a surge in energy prices following Russia's invasion of Ukraine. Despite an improvement in its external stability, Australia still has a high level of foreign liabilities and remains vulnerable to adverse external shocks, especially given its reliance on commodity exports and on China as its dominant export market. Australia's external imbalances nevertheless cause less concern now than in previous decades, and the fact that most external debt is denominated in Australian dollars reduces the economy's risk exposure.

While Australia has managed shorter and medium-term risks, its greatest long-term vulnerability may come from the impacts of climate change. Australia's ecological vulnerability has been demonstrated by natural disasters in recent years, including the 2022 floods in Queensland and northern NSW and the "Black Summer" bushfires that burned 186,000 km^2 of bushland across Australia in 2019–20. Agriculture, tourism and

TIME FOR A PARADIGM SHIFT IN ECONOMICS?

For many decades, the economic reform debate in advanced economies has been dominated by the "Washington consensus" policies: reduced government intervention in markets, deregulation, trade liberalisation and privatisation of public assets. Those policies have been advocated by think tanks, business lobby groups and international bodies such as the IMF and World Bank. No other organisation has championed those policies more than the Organisation for Economic Cooperation and Development (OECD) – an organisation that brings together many of the world's leading economists to advise on economic policy for advanced economies, and which has been a major influence on Australian economic policy. Although the OECD never advocated a complete "laissez-faire" approach of governments not intervening in free markets, it paid limited attention to questions of inequality and focused strongly on increasing economic growth.

In the past decade, this has changed dramatically. The OECD now argues that its past approach failed. The world has seen weak growth and increasing inequality in the decade since the global financial crisis. In addition, there is a widespread backlash against globalisation and growing resistance to open trade in many countries.

In recent years, the OECD has called for a major paradigm shift in economic policy around the world. It is urging member countries such as Australia to focus on an agenda of inclusive growth. This approach emphasises issues of income and wealth distribution and economic opportunity, alongside growth. The inclusive growth agenda does not abandon the OECD's historic commitment to market-based mechanisms. But it requires a more active long-term role for government in addressing the inequalities that now pose a growing threat to the stability and social cohesion of many countries. Among other policies, the OECD's Inclusive Growth Initiative urges governments to:

- remove distortions in tax systems that are contributing to inequality (such as capital gains tax concessions, loopholes exploited by multinational companies and the exclusion of housing and inherited wealth from tax systems)
- invest in early childhood development programs (currently, a child born to parents who did not complete high school has a 15 per cent chance of going to university, while there is a 60 per cent chance for a child born with at least one parent who has a university degree)
- support young firms and small and medium-sized enterprises by reducing the barriers to entry to markets, encouraging research and development, and making it easier to obtain finance.

regional economies are especially vulnerable to these impacts. Australia has a poor record in preserving its biodiversity, protecting natural environments, managing scarce water resources and overusing agricultural land. Australia has also made slower progress than other economies in reducing its carbon emissions as one of the world's highest emitters of greenhouse gases per capita, with a heavy reliance on carbon-intensive fossil fuels for both energy generation and export income. Political disagreements over the economic policy response to climate change and frequent policy changes have also resulted in policy uncertainty for the past 15 years, further complicating Australia's pathway to reducing emissions. Despite commitments to achieving net zero emissions by 2050, Australia will face ongoing challenges in the decarbonisation process, such as shifting Australia's coal-dominated electricity market to renewable energy sources.

Another longer-term concern is that despite an unprecedented period of sustained economic growth and falling unemployment, Australia has experienced an increase in inequality in its **distribution of income and wealth**. Like other advanced economies, Australia has experienced a shrinkage of middle-level jobs alongside growth in earnings at the top end and an expansion of lower-paid service industry jobs. Rising property prices have contributed to a widening gap in wealth inequality. A Productivity Commission report in 2018 found that, while the evidence is mixed, in overall terms inequality has

increased in the past three decades, with the fastest growth in income and wealth occurring among the highest earners. A 2021 Productivity Commission report also highlighted disparities between young and older people, which are exacerbated by the high cost of housing in Australia.

The impact of rising inequality has been intensified by a decline in wage growth during recent years. Since 2015, wage growth in Australia has been below the average for OECD economies, following a long period in which Australians became accustomed to some of the highest levels of real wage growth in the world. Together, slow wage growth and rising inequality are contributing to some Australians feeling left behind by globalisation and technological change. In addition, specific groups of Australians are disproportionately affected by entrenched social disadvantage, including Indigenous Australians and people who are excluded from the labour market.

reviewquestions

1 Discuss the extent to which the goals of economic management have been achieved in Australia in recent years.

2 Assess the role of macroeconomic policies, microeconomic policies and international factors in influencing Australia's economic performance in recent years.

18.2 Limitations of economic policy

Several factors can constrain the effectiveness of economic policies and affect whether or not the policies achieve their goals. Below we note three key factors that can influence the effectiveness of policies: time lags, political constraints and global influences.

Time lags

There are two types of time lags that can limit the effectiveness of economic policies. **Implementation time lags** exist when it takes time for the government to make changes to or introduce new economic policies. **Impact time lags** exist when it takes time for a new policy or a policy change to have an impact on the economy. Both of these time lags are summarised for different policies in figure 18.2. A change in **monetary policy** can be implemented very quickly. Under changes effective from 2024, the Reserve Bank holds eight scheduled meetings per year, usually towards the start of the month. The outcome of the meeting is announced to financial markets at 2.30pm on the second day of the meeting. In some extreme situations, however, the RBA Governor may be given the discretion to change interest rates if conditions change during the period of time between RBA meetings. Once the decision is announced, it has an immediate effect on the cash rate.

Policy	Implementation time lag	Impact time lag
Fiscal	Medium term (annual Budget)	Short term (a few months)
Monetary	Short term (monthly RBA meeting)	Medium term (6–18 months)
Microeconomic reform	Long term (a few years)	Long term (up to 20 years)

Figure 18.2 – Policy time lags

On the other hand, the implementation of **fiscal policy** can take a substantial amount of time. Major changes to fiscal policy usually occur annually with the Budget. Substantial changes to spending or revenue collection are mostly made at the time of the Budget, although a government can also announce fiscal policy changes between budgets (in fact,

the largest fiscal policy changes ever made, in response to the COVID-19 pandemic, were announced outside of the normal budget cycle as emergency measures). Most spending and revenue changes need to go through a complex process of budget committee meetings and will be scrutinised by several government departments before being approved. The process of developing each year's Budget starts early in the year and runs for several months until the Budget is finalised in May. It can then take several months for budget legislation to pass through Parliament, and as discussed in more detail below, political constraints can sometimes stop governments from implementing their budget proposals.

Similarly, changes to **microeconomic policies** can take a long period of time. This is because of the planning and complex policymaking involved in microeconomic policies. Microeconomic policy can also take a lot of time to implement if it is necessary to secure the support of state governments as well as the Commonwealth. For example, introducing a national energy policy, reforming Australia's system for schools funding, implementing uniform consumer protection laws and introducing a national disability insurance scheme all required the support of the six states and two territory governments. The process of negotiating these changes often takes a considerable time because of the different interests of each state.

Policies can also take time to achieve their aims due to the differing time lags in their **impacts**. Some policies will take effect in a relatively short time period – for example, while it takes a long time to implement changes in fiscal policy, these changes can have a quick effect on economic activity. A tax reduction can immediately affect income levels or prices, and an increase in government spending can quickly affect economic conditions. The impacts of shorter-term changes in the stance of fiscal policy can generally be seen within a year. Fiscal policy therefore becomes more important during a downturn, as fiscal policy's shorter time lag in impacting the economy makes it the most effective policy to achieve an immediate boost in aggregate demand. This was evident in the Government's rapid expansionary fiscal policy response to shocks such as the global pandemic in 2020 and the global financial crisis in 2008–09.

On the other hand, there is a time lag of up to 24 months for monetary policy changes to have an impact on the economy. This is because it takes some time for changes in the level of interest rates to feed through to changes in the borrowing and savings behaviour of consumers and businesses. Part of the challenge for the Reserve Bank is to adjust monetary policy pre-emptively, based on the future level of inflation and other economic conditions that it expects in a year to 18 months' time, to address this impact lag. The monetary policy time lag has more recently lengthened from 18 months to as long as 24 months because of the higher share of households on fixed-interest rate mortgages (which shot up from around 20 per cent to around 40 per cent during the COVID-19 pandemic). This means that for some households, interest rate increases in 2023 may not be felt until 2025.

The impacts of microeconomic policies can probably only be assessed after a period of several years, and perhaps decades, if we are to get a fuller picture of the effectiveness of these policies. The benefits of structural change can take several years to become apparent as resources are reallocated from one sector to another, and the full effects of those changes flow through to costs, business profits, export growth and productivity. In addition, it can be difficult to accurately measure the impact of microeconomic policies since several microeconomic policies might be implemented at the same time and it may be hard to distinguish the impacts of one reform from another.

Political constraints

Economic policy decisions are made in a democratic context. Governments in Australia are elected to represent the public, and often have specific election commitments that they are responsible to deliver. Once elected, governments can face difficult trade-offs in making decisions that are consistent with their commitments and compatible with

economic conditions, and that will be passed through the Parliament. For example, the Morrison Government was elected in 2019 with a commitment to sustain budget surpluses but instead, due to the COVID-19 pandemic, delivered the largest budget deficits in Australian history.

Governments must be sensitive to public opinion in developing and implementing economic policies. Governments also consider whether a policy will be supported by members of their own political party, and by other stakeholders, and whether that policy might also be opposed by specific groups. Typically, governments implement longer-term (and less popular) policies in the first year of the three-year term. In the year before an election, governments can be reluctant to make unpopular decisions and are often under pressure to implement policies that are popular with the electorate but may not have long-term economic benefits.

The constraints on implementing **unpopular policies** are a major consideration for economic management. Unpopularity has become the largest barrier to economic reform in Australia in the past decade, according to a report in 2021 from the Grattan Institute at Melbourne University. It has become less common for governments to implement unpopular reforms to achieve long-term economic goals, as happened in 2012 with the Gillard Government's introduction of a carbon tax and in 2000 with the Howard Government's introduction of the Goods and Services Tax.

Governments can delegate authority for some decisions to independent government agencies to minimise these political constraints. For example, the Reserve Bank makes interest rate decisions and the Fair Work Commission decides on increases to the national minimum wage and award wages. In addition, independent authorities approve pricing decisions in regulated sectors like postal services and electricity prices. A government responsible for making these decisions would be under political pressure to make short-term, popular decisions, which might not be consistent with long-term economic objectives.

Another aspect of the political constraints on government is the role of the Australian Parliament, and especially the **Senate**. Many economic policies can only be implemented through legislation, including budget measures, changes to the industrial relations system, and changes to business laws. Under the Australian parliamentary system, legislation must receive a majority of votes in both the House of Representatives (the Lower House) and the Senate (the Upper House). Historically, it has been uncommon for a government to have a majority in the Senate, and as a consequence governments have to make compromises to win the support of other senators, from either the Opposition or minor parties, to pass the proposed legislation. Elections in recent years have mostly led to very small majorities in the House of Representatives, and neither party winning a majority in the Senate, which has made it harder to implement changes.

In the May 2022 election, the Albanese Labor Government was elected with 77 out of 151 seats in the House of Representatives (a majority of just one), and only 26 of the 76 seats in the Senate. This means that to pass legislation, the Government has two options: either secure support from the Opposition (the Liberal/National Coalition), which holds 32 seats, or from the Greens (who hold 12 votes) plus one of the six other Senators (2 Lambie Network, 2 One Nation, 1 United Australia Party and 1 Independent). While the Government was successful in having most of its election commitments approved in the Senate, it was unable to secure a majority of votes for its plan to increase social housing, involving the creation of the Housing Australia Future Fund. Some senators opposed it for going too far, and another group of senators opposed it for not going far enough. Combined, the two groups of senators were able to block the legislation.

Australia's system of federalism can act as another political constraint on the Commonwealth Government. The Commonwealth and state governments share responsibility for major parts of the economy, including energy policy, the education system, health care, aged

care, business regulation, and infrastructure such as roads. This means that to implement major changes, the Commonwealth often must win the cooperation and agreement of some or all of the states. The Commonwealth's greater capacity to raise revenue means it can offer financial incentives to achieve reform progress. For example, in August 2023, the Albanese Government provided $3 billion to states and territories and $500 million to local governments in return for planning reforms that would help achieve an increased target of 1.2 million new homes built over the following five years.

When the Commonwealth and the states are unable to agree on a policy compromise, the Commonwealth might try to impose changes on the states, a step that can lead to lengthy constitutional challenges in the High Court. In 2006, for example, the Commonwealth won a major constitutional case in which the states challenged its takeover of their industrial relations powers. The High Court has generally favoured an expansive interpretation of the power of the Commonwealth over the states in recent decades, but the states still retain significant powers under the Australian Constitution.

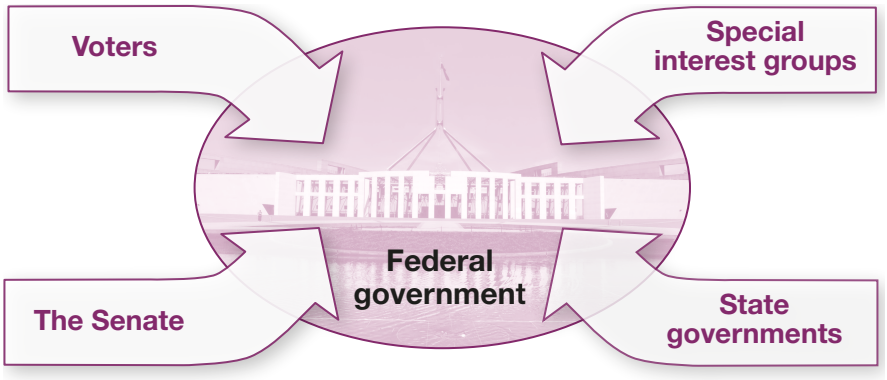


Figure 18.3 – Political constraints on economic policy

Special interest groups can also play an important role in government policymaking. Often, political parties have strong relationships with supporters – business groups tend to have significant influence on the policies of both major political parties, especially the Coalition parties, while unions have a close relationship with the Labor Party. Large businesses often employ lobbyists to influence government policies because of the potential financial impacts of policy decisions on their activities. Interest groups are especially active on the numerous policy debates relating to climate and energy policies, where coal, gas and other fossil fuel interests are frequently in dispute with environmental and climate organisations. Examples of recent policy debates include proposals to introduce a windfall profits tax on the oil and gas industry, increase the royalties tax on Queensland's resources sector, lift Australia's carbon emissions reduction targets, and allow for the building of new coal mines.

Global influences

As the Australian economy has become more integrated with the global economy, global factors have become a greater constraint on economic policy. The constraints imposed by globalisation work at many levels. Conditions in the global economy have a more immediate impact on Australia. Economies often face immediate consequences for economic mismanagement, mainly through the reaction of financial markets. Governments also voluntarily accept constraints on their own economic policy in order to win concessions from other nations, such as through trade agreements.

In a global environment in which exchange rates and economies are vulnerable to sudden shifts in financial flows, governments place a high priority on maintaining the confidence of international investors and **global financial markets**. This has become particularly important in recent years with global financial markets experiencing enormous volatility following the global financial crisis and the pandemic. As we saw in chapter 5, foreign

exchange markets tend to support policies that promote stronger trade and financial linkages to the global economy, and support economic and financial stability. These policies include:

- reduced government spending and reduced budget deficits
- low rates of corporate and capital gains taxes
- reduced trade barriers and openness to foreign investment
- deregulation of the financial sector, including the removal of restrictions on international financial flows
- deregulation across most areas of the economy, with the aim of increasing competition
- privatisation of government-owned businesses
- deregulation of labour markets and better targeting of social welfare
- trade agreements that give overseas businesses the power to take legal action against national governments if policy changes undermine the profitability of their investments.

Appendix B: Advanced Economic Analysis at the back of this textbook looks at "crowding out", the twin deficits hypothesis and the quantity theory of money – theories that explain the limitations of macroeconomic policies.

Governments face constraints if they wish to adopt policies that differ from the generally accepted formula for good economic management. Most advanced economies have adopted a similar policy mix in recent years. Critics argue that global financial markets effectively restrict the policy options available to governments, while others argue that financial markets are effective in disciplining governments that might otherwise make bad policy decisions. A government that adopts alternative policies may face a loss of foreign investor confidence and a fall in their currency. For example, ratings agency Fitch took away the US Government's triple A credit rating in 2023, citing its political instability and the way that political disputes in Congress had almost led to a default on the US Government's debt.

Global financial flows and overseas interest rates can also directly influence the conduct of monetary policy. If interest rates are rising in other countries, a country's rate of return will be relatively less attractive for overseas investors. This might result in an outflow of funds and a depreciation in the currency, which in turn may add to inflation and undermine confidence. In order to prevent this, governments will often adjust interest rates in response to changes in other economies. For example in 2022, increases in Australian interest rates mirrored rising global interest rates, as inflationary pressures rose across the world. Market interest rates in Australia can also be directly affected by changes in overseas interest rates, because Australian banks rely on borrowing from overseas to fund their loan portfolios.

The **international business cycle** can also restrict the scope of policymaking within individual countries. It is difficult for a country to significantly increase its level of economic growth if the global economy is in an economic downturn. Faster domestic growth will cause an increase in imports while export growth weakens, resulting in a substantial increase in the current account deficit. This can force the government to slow down the economy through tighter fiscal and monetary policy, risking a more severe recession. This is one reason why industrialised countries generally keep their economic growth in step with both the international and regional business cycle.

Finally, **international organisations** can have a direct influence on domestic macroeconomic and microeconomic policies. The **World Trade Organization** (WTO) can influence individual trade policies because of its enforcement powers. On occasion, the WTO has forced the Australian Government to change export assistance policies or Australia's strict quarantine regulations – such as when Australia was forced to abandon its ban on fresh salmon imports from Canada. Other international forums can also influence economic policymaking, such as the international pressure placed on Australia to step up its climate change commitments ahead of the UN Climate Change Conference in Glasgow in 2021.

Decisions of the **Group of Seven** (G7) nations and the **G20 group** (see chapter 2) can have a significant influence over the global economy and the domestic macroeconomic policies of small countries such as Australia. The growing integration of economies through

globalisation leaves limited scope for small countries to adopt a different macroeconomic policy stance to that adopted by the major industrialised economies.

reviewquestions

1 Explain how time lags limit the effectiveness of economic policies.

2 Outline two major economic policy initiatives undertaken by the Government during the past year, and for each:
   - Summarise arguments for and against the initiative as raised by any special interest group or the media.
   - Discuss how the initiative may have been influenced by political factors.

3 Discuss how the separation of monetary policy decisions from the control of the Commonwealth Government to the Reserve Bank might influence the effectiveness of the policy mix in Australia.

4 Briefly discuss how global economic conditions have constrained or assisted Australia's economic performance in the past year.

18.3 Evaluating the effectiveness of specific policies

To examine the effectiveness of economic policies we must look at individual policies and determine whether or not they have been effective in achieving their goals in comparison with other policies. This can be a challenge because it is often difficult to isolate the specific effects of one policy compared with another. However, we can assess the effectiveness of policies by analysing:

- the specific objectives of a policy
- whether the policy was implemented effectively
- the relevant economic outcomes, and how they compare with the objectives
- time lags
- other factors that may have affected outcomes during that period, including external factors
- whether there were any side effects associated with policy implementation.

In evaluating whether a policy has been effective, we need to identify the policy's original objective. For example, in evaluating the effectiveness of monetary policy we first identify that the Reserve Bank's goal is to keep inflation within a target range of 2 to 3 per cent over the medium term. With this objective, monetary policy over the past two decades at the very least would appear to have been successful. If its target was to achieve zero inflation, then we would conclude that it has failed to achieve its objective.

The next question to ask is whether the government **actually implemented** the policy that it had originally set out to implement. Policies might be changed before they are fully implemented, for example, if a government is voted out of office or has changed its priorities. In addition, sometimes governments have economic policies that they are not able to implement because of political constraints.

The next step in evaluating policies is to review the **economic outcomes**, and how closely they relate to the policy objectives. Sometimes it is difficult to determine whether a policy has been successful, because governments do not always set themselves specific targets or objectives when they implement a policy. For example, governments have set targets for economic growth and inflation during recent years, but not for unemployment, other than a general aim of reducing the rate. Without specific goals, it is more difficult to measure the effectiveness of policies.



For further information on Australia's economic performance and policies, visit the OECD website, and the Treasury website.

The next step to is ask **whether other factors significantly affected the economic outcome**. Government economic policy is always at the mercy of other developments, and economic policy is often just one of many factors that determines economic outcomes. Economists often speak of policies being effective in terms of the Latin phrase "ceteris paribus" – meaning "with everything else being the same" or effectively, "if nothing else changes". The problem in measuring the effectiveness of policies is that other things do change. For example, per capita growth in greenhouse gas emissions fell in the years after Australia abandoned the carbon tax in 2014. However, this was not because of the policy change. Other factors had a larger effect, including reduced fossil fuel emissions given the closure of large-scale manufacturing, oil refineries and aluminium smelters, reduced household demand due to higher energy prices, and the rapid take-up of residential solar power.

Some of the factors that might affect economic outcomes include:

- changes in global economic conditions or the economy of a major trading partner
- overseas interest rate movements
- a sharp movement in the value of the currency
- developments that might affect future expectations, such as a crisis in a particular industry or region of the world
- changes in commodity prices and Australia's terms of trade, such as a fall in oil prices or a rise in iron ore prices
- developments in our natural environment, including droughts, floods, natural disasters and pandemics
- industrial unrest, such as a dispute between a union and a major company
- new technologies or shifts in consumer preferences
- a shift in investor and consumer confidence relating to the economy, for example, as a result of a downward adjustment in credit ratings.

The final question to be considered is whether a policy had any **other consequences** or side effects. This is especially important to ask if there are signs that the policy was reasonably effective in achieving its main aim. At this point, we might ask: at what price was this achieved? Was another part of the economy badly affected by this policy? This highlights the trade-off between policy objectives because of the **conflicting objectives** of economic management. For example:

- There is a short-term trade-off between reducing inflation and reducing unemployment. When inflation exceeds the Reserve Bank's two to three per cent target band, it may be necessary to raise interest rates to reduce inflation, typically resulting in a short-term contraction in economic activity and increased cyclical unemployment. It could be tempting for the Government to avoid taking action against inflation using contractionary macroeconomic policy, particularly during an election year. This is why the Reserve Bank operates independently from the Government, to prevent political considerations from constraining the conduct of monetary policy in achieving price stability. This trade-off came into focus in 2023, with the new RBA Governor Michele Bullock saying unemployment has to rise to return inflation back to target.

> "The unemployment rate is expected to rise to 4.5 per cent by late 2024. While 4.5 per cent is higher than the current rate, this outcome would still leave us below where it was pre-pandemic and not far off some estimates of where the NAIRU might currently be …
>
> Our goal is to return the labour market (and the market for goods and services) back to a level more consistent with full employment – something like the endpoint in our forecasts. We think this can be achieved if employment and the economy more generally grow at a below-trend pace for a while. This would help to bring demand and supply into better balance and give us the greatest chance of securing sustainable full employment into the future."
>
> *– Michele Bullock, (then) Deputy RBA Governor, Speech to Ai Group, 20 June 2023*

- The COVID-19 pandemic forced governments at a state and federal level in Australia to make difficult trade-offs between maintaining economic activity and the public health risks associated with travel and interaction. Lockdowns and closures of Australia's international and state borders cost the economy tens of billions of dollars, but governments assessed that the consequences of not taking those measures would have been even worse.
- In recent years economists have raised concerns about excessive growth in housing prices in Sydney and other cities, and whether Australia's household debt levels are sustainable. Some economists have argued that greater controls should be imposed on lending for housing. However, such measures would also result in lower levels of economic activity and household incomes.
- When economies have high public debt levels, governments must make difficult trade-offs between reducing their budget deficit (to address financial market concerns about public debt levels) and the risk that contractionary fiscal policy could put their economy back in recession. Australia has not faced this difficult trade-off in recent years, because it has had much lower deficits and debt levels than other advanced economies, but several Europeans economies face this constraint.
- Economists have historically accepted that there is a trade-off between achieving higher levels of economic growth and increased inequality in the distribution of income and wealth. In particular, "boom" periods (such as the resources boom in Australia, or the rapid growth in the Chinese economy in the past three decades) often generate income and wealth that is distributed very unevenly. Traditionally, it was thought that countries must accept higher levels of inequality if they wish to achieve faster growth. However, organisations such as the OECD and IMF now emphasise the need for a more inclusive approach to economic growth, because of the negative economic and social effects of increasing inequality. Advocates of inclusive growth argue that policies to promote greater income equality will boost economic growth (because measures to increase the incomes of lower-income earners will boost consumption, and therefore growth). This suggests that there is no longer a clear trade-off between increased equality and increased growth.
- In 2022, Australia legislated its commitment to reduce its carbon emissions to "net zero" by 2050. However delivering on this commitment will require structural changes to the Australian economy over the next quarter century, which in turn will require greater certainty and stability in policy settings. For the past two decades Australian governments have regularly changed their climate and energy policies or have had their proposals rejected in Parliament. There has been extensive debate about how policies that put a price on carbon emissions might affect different parts of the economy, especially carbon-intensive industries in regions like Wollongong, Newcastle and the Hunter Valley. Governments have been forced to make trade-offs between the long-term goal of reducing greenhouse gas emissions and the short-term impact of a carbon price, including higher energy prices, slower economic growth and potential job losses.

Examining the side effects of economic policies, such as those discussed above, can help us to reach a more balanced assessment of the effectiveness of the policy mix.

Economic management in Australia: Past, present and future

Macroeconomic management

Macroeconomic management has mostly proved effective in achieving its **short- to medium-term goals** since the early 1990s. Economic growth has been sustained alongside low inflation and relatively low rates of unemployment. When the global COVID-19 pandemic forced the economy into recession in 2020, Australia was in its 29th consecutive year of economic growth: a world record. Australia recovered quickly from the COVID-19 recession, with unemployment falling to its lowest level in almost half a century.

Monetary policy has worked well since the early 1990s in managing the growth cycle and achieving price stability. The inflation target has largely been achieved (notwithstanding occasional periods of inflation outside the target, as has recently occurred) and Australia has maintained stable economic growth.

Early 1990s: Expansionary	Expansionary fiscal and monetary policies were needed to bring about a gradual economic recovery.
Mid-1990s: Contractionary	Monetary and fiscal policy were both successfully tightened, addressing growing pressures on inflation and the current account by 1996.
Late-1990s: Expansionary then contractionary	The macroeconomic policy mix changed as tighter fiscal policy was offset by looser monetary policy between 1996 and 1998, and interest rates began increasing to head off rising inflation rates with the introduction of GST in 2000.
Early 2000s: Expansionary	As the global economy dipped into recession in 2001, Australia shifted to expansionary fiscal and monetary policies – with interest rates falling to their lowest levels in 30 years – and avoided recession.
Mid-2000s: Contractionary	As the Australian economy returned to normal growth rates, both fiscal and monetary policy became less expansionary to avoid excessive growth and increasing inflationary pressures from the boom in commodity prices. By 2007, monetary policy was contractionary.
2008–2009: Strongly expansionary	With the onset of the global financial crisis in late 2008, policy settings were reversed to provide a large expansionary stimulus for a weakening economy. Interest rates were reduced to their lowest level in 50 years, and the Government embarked on a massive fiscal stimulus to cushion Australia from the full force of the recession.
2010–2019: Neutral stance	As growth recovered, interest rates were returned to more neutral levels, while fiscal policy became mildly contractionary. From 2012, mildly contractionary fiscal policy was offset with expansionary monetary policy where interest rates were reduced to record lows.
2020–2021: Strongly expansionary	The COVID-19 recession prompted the most aggressively expansionary macroeconomic policy settings in Australian history, with a record-level deficit in 2020–21 and interest rates falling to their lowest on record.
2022–2023: Mildly contractionary	With the economy in recovery, the task of fiscal consolidation and stabilising debt re-emerged as a priority. Interest rates rose sharply as inflation surged in Australia and globally.

The effectiveness of monetary policy relies on the overall **policy mix.** The main limitation of monetary policy is that it is rarely effective when it is used on its own – it needs to be supported by similar fiscal policy settings. It is not effective when it is working in the opposite direction to fiscal policy, such as in 2008 when inflation had risen to 5 per cent, and interest rates had to be increased further to counter the inflationary effect of income tax cuts.

The past three decades have also shown that monetary policy is more effective in implementing contractionary macroeconomic policy than expansionary policy. During periods of major economic downturn or an extended period of sub-par growth, low interest rates are generally not enough to stimulate economic activity and lower unemployment. In an effort to support economic growth after they had already reduced interest rates to just above zero in response to the COVID-19 recession in 2020, central banks engaged in more unconventional monetary policy measures such as purchasing government debt ("asset purchase programs") from the private sector, providing low-cost credit to the banking sector and introducing a yield target for government bonds. The use of these approaches demonstrates that conventional monetary policy **can be ineffective** in an already low interest rate and inflation environment. Nevertheless, low interest rates can play a supporting role to expansionary fiscal policy in boosting economic growth. This

is because fiscal policy has a direct impact on aggregate demand, while monetary policy relies on households and businesses responding to interest rate incentives.

> "Flexible inflation targeting, and the RBA's actions within this framework, have been successful overall. The RBA has played a particularly critical role during crises, where it has acted decisively and effectively to support the economy and protect against severe outcomes … Flexible inflation targeting remains the best operational framework for monetary policy to pursue the dual mandate of price stability and full employment."
>
> – *Commonwealth of Australia (2023), An RBA Fit for the Future: Review of the Reserve Bank of Australia, March 2023*

The other main limitation of monetary policy is that it is a **demand management** policy – that is, it can influence aggregate demand but not the structural (or supply-side) causes of certain problems. During the inflation surge of 2022, the Reserve Bank highlighted the fact that inflationary pressures were being driven by supply-side and overseas factors – with the economy's fast recovery from the pandemic contributing to choke points in supply chains and labour shortages, while Russia's invasion of Ukraine resulted in sharp increases in food and energy prices. While higher interest rates can reduce demand pressures, they do not deal with supply-side problems, and for that reason some economists saw the steep increase in interest rates during 2022 and 2023 as excessive. Monetary policy can also struggle with conflicting goals, especially in its impact on demand and asset prices. Prior to the pandemic, the Reserve Bank noted the tension between raising interest rates in order to curb a potentially dangerous housing price bubble and wanting to encourage stronger economic growth. Monetary policy is a blunt policy instrument, and has limited effectiveness if policymakers want to support growth in one sector or region of the economy while restraining growth in another.

Monetary policy also cannot successfully address structural problems such as low productivity growth, the transition to a less carbon-intensive economy or improving external balance. In fact, even though monetary policy is intended to achieve low inflation, it can do little to address inflationary pressures other than those driven by demand from consumers and businesses. Raising interest rates to address other sources of inflation, such as a falling currency, would be attempting to solve the inflation problem by attacking something other than its real cause.

Monetary policy can also face an additional strain during periods of sustained economic growth, because it is also the tool of last resort if wages are growing too quickly. In the absence of an incomes policy that can control wage increases directly, the most effective tool to limit inflation and wage rises is tighter monetary policy. In recent times, the RBA has warned that wages growth must be accompanied by productivity improvements to ensure that wages do not contribute to inflation.

Fiscal policy is the most effective policy to stimulate the economy and job creation during a downturn, but it is less effective in slowing it down when the economy is overheating. Australia's fiscal responses to the COVID-19 recession in 2020 and the global financial crisis in 2008 both proved successful in immediately strengthening aggregate demand before the economy had slumped into recession. In 2009, Australia avoided recession altogether, while in 2021, although Australia could not avoid recession, it staged a quick recovery from the downturn. Fiscal policy was effective in strengthening growth on both occasions with policy packages centred on supporting household incomes but also including investment incentives, wage subsidies (in 2020), industry rescue packages, and infrastructure investment.

Like monetary policy, fiscal policy also has its limitations. Expansionary fiscal policy leads to increased budget deficits and higher public debt levels. In an environment where an economy is growing, it can draw savings away from private investment. Economists generally agree that sustained higher budget deficits over the longer term can contribute

to higher long-term interest rates, lower national savings and an increased current account deficit. One of the longer-term concerns about the increases in public debt resulting from the COVID-19 recession is that it could take decades to pay off the debt, and higher interest rates in the future could make these debt levels a heavier burden on budgets.

> "Australia's economic recovery from the pandemic has been world leading, however to ensure Australians continue to enjoy higher living standards, we need to continue to focus on the task of lifting productivity …
>
> Given the scale and nature of the economic shock caused by the COVID-19 pandemic, it is expected to have an enduring impact on Australia's productivity challenge. The acceleration in the uptake of technology by business and individuals has stimulated growth in remote work, online commerce, businesses' digital presence and innovative delivery of public services like health and education. The pandemic has affected business models in some key sectors and underscored the need for labour mobility across the economy.
>
> In this environment, Australia needs policy settings that foster a flexible and dynamic economy, that is able to adapt in the face of economic challenges and opportunities. Policy settings should encourage the economy to adapt to the growing importance of digital technologies, including through developing a skilled labour force. They must also be forward looking and support an environment that promotes economic dynamism, entrepreneurship and appropriate risk-taking, and innovation and technological adoption."
>
> *– Productivity Commission, 5-year Productivity Inquiry: Advancing Prosperity, 2023*

In the broadest sense, the Government's **macroeconomic policy mix** was successful in sustaining 28 years of economic growth in which Australia progressively reduced unemployment, kept inflation low and enjoyed rising living standards. There was no realistic way that the policy mix could have saved the economy from recession in 2020, given the severe economic effect of lockdowns that imposed a shutdown on several sectors of economic activity. Australia recovered relatively quickly from the pandemic recession although, like other economies, macroeconomic policy then confronted a surge in inflation. The deeper problems of low productivity growth and the need to reduce the carbon intensity of the Australian economy point to the greatest limitation of macroeconomic policies – addressing structural problems.

Microeconomic management

Australia's extensive **microeconomic reforms** since the 1980s are generally regarded as a success. Microeconomic policy has made it possible for the economy to avoid the boom/bust cycle and sustain growth, with improved living standards and reduced unemployment. The Australian economy has become more internationally competitive, and inflationary pressures have been contained. Australia's economy is generally regarded as one of the world's more open and successful economies, despite our geographic isolation from the major centres of the global economy.

Some economists have criticised the lack of ongoing microeconomic reform in the past two decades. Compared with the rapid pace of micro reform in the 1990s – when governments implemented national competition policy, enterprise bargaining, major industry deregulation, accelerated tariff cuts and the introduction of the GST – microeconomic reform has moved slowly in recent decades. To some extent, this is inevitable since many of the reforms of the 1990s involved once-off structural changes that could not be repeated. Nevertheless, the OECD and economic agencies, such as the Treasury and the Productivity Commission, have argued that more needs to be done to accelerate microeconomic reform. For example, in its 5-Year Productivity Inquiry in 2023, the Productivity Commission outlined 71 specific recommendations for policy change, many of which were microeconomic reforms. The reforms included increasing flexibility in workplace agreement making, streamlining planning and zoning laws, charging vehicles for road use, removing anti-competitive regulations on the ownership and location of pharmacies, and reforming the tax system.



For discussion of the recent conduct of monetary policy, visit the Reserve Bank website **www.rba.gov.au** and view the speeches section. In particular, look at the Hansard transcript of the Governor's parliamentary testimony given every six months (around February and August).

Critics argue that despite Australia's relatively successful economic performance, the economy has structural weaknesses. They make the case that Australia has become too reliant on its resources exports to China and other developing economies. Productivity Commission analysis found that in the decade to 2020, Australia's labour productivity growth had slowed to the lowest rate in over 60 years. Despite improving labour market conditions, a significant number of working-age Australians remain either unemployed, underemployed or outside the labour force. Australia has lacked a clear, consistent economic policy response to climate change and has adopted expensive and often ineffective policies. Australia's ranking on competitiveness has also slipped (for example, falling from 4th in 2004 to 19th in the 2023 *World Competitiveness Yearbook*). Australia also faces significant looming challenges, including climate change, an ageing population, declining workforce participation and the risk of a sustained slowdown in China. All these factors underline the need for continued microeconomic reform, diversification of the economy and investments in education, early childhood programs and infrastructure to underpin future productivity growth.

In the longer term, the success or failure of Australia's policy mix will be measured by our capacity to restore and **sustain growth**, employment and living standards, while preparing for the far-reaching disruptive effects of climate change and water shortages, distributing the rewards of economic growth more equitably and achieving a **sustainable** position on the external accounts. The Government acknowledged the need for broader measures of the effectiveness of policy in 2023, with its "Measuring What Matters" statement. It adopted 50 indicators to measure progress across the themes of a healthy, secure, sustainable, cohesive and prosperous Australia.

The effectiveness of economic policies cannot ultimately be judged by reference to economic outcomes alone. Economic policies affect the kind of society we live in and how we lead our lives. Critical questions confront economic policymakers in the 2020s. Does an increase in GDP result in an increase in people's wellbeing and happiness? Should measures of wellbeing play a greater role in policymaking? Do we have a responsibility to future generations to act with more urgency in reducing our carbon emissions and slowing down our consumption of non-renewable resources? Is it fair that one person who grows up in a poor family has far fewer opportunities than someone who grows up in a prosperous family? Is it fair that Australians enjoy such good living standards compared to other nations when so many people are dying of easily preventable diseases in developing countries? These are more than just technical economic issues. They are choices that go to our values as a nation, and what we think is important in life – and answering these questions requires us to go beyond an economics textbook.

reviewquestions

1. Identify TWO major global events in recent years and explain how they have influenced Australian economic policy.
2. Describe an example of a recent government policy that illustrates the conflicts in economic policy objectives.
3. Critically analyse which economic policy instruments have been most effective in recent years in achieving their goals.

chapter summary

1. Since the early 1990s, the main goal of the economic policy mix has been to achieve the maximum **sustainable economic growth rate** in the short to medium term (through macroeconomic policies), while implementing policies that will raise the long-term sustainable growth rate (through microeconomic policies). In overall terms, this policy mix has been reasonably successful.

2. Economic policies differ in their **implementation** time. While monetary policy decisions can be implemented immediately, major changes to fiscal policy generally take several months to plan and implement, and microeconomic policies can often take several years to implement.

3. Economic policies can differ in the **time lag** involved before they impact the economy. While fiscal policy changes such as tax cuts can have an immediate impact on the economy, monetary policy changes take up to 24 months to have their full impact and the impacts of microeconomic reforms can take many years.

4. In the short term, the main **global influences** on the Australian economy are the international business cycle, overseas interest rates, financial market conditions and commodity prices.

5. In the long term, the Australian economy is influenced by global trends in economic management. Examples include the shift away from government intervention to deregulation and privatisation in the 1980s, the adoption of inflation targeting in the 1990s, and policies to reduce carbon emissions.

6. **Political constraints** can have a significant impact on economic management, including the three-year political cycle, the unpopularity of some policies and the difficulty governments often experience in getting legislation through Parliament.

7. Effective economic management often requires governments to trade off some objectives against others and to balance **conflicting goals** such as achieving both low inflation and low unemployment.

8. The goal of achieving a **sustainable rate of economic growth** in the short term balances the objectives of inflation, growth, unemployment and external balance. The longer-term goal of raising the sustainable growth rate involves improving international competitiveness, workforce participation and productivity, and ensuring that Australia's economic growth is compatible with a fair distribution of income and wealth, and environmental outcomes.

9. **Microeconomic policy** is generally regarded as having succeeded in boosting productivity, economic growth and living standards over recent decades. However, some economists argue that Australia has not undertaken enough microeconomic reform in recent years.

10. Governments often face a **trade-off** between the goals of **equity** and **efficiency** in economic management. Inclusive growth policies aim to overcome this trade-off by simultaneously supporting growth and reducing economic inequality.

chapterreview

1 Identify which economic objectives have had the highest priority in recent years.

2 Explain to what extent time lags affect the operation of monetary, fiscal and microeconomic policies.

3 Explain two ways in which global influences affect the conduct of economic management in Australia.

4 Discuss how a major downturn in the global economy might affect the key economic indicators in Australia.

5 Explain how political constraints can influence economic policymaking.

6 Evaluate the effectiveness of Australia's economic policy mix in sustaining economic growth and low inflation during the past decade.

7 Identify a policy objective that has been achieved during recent years and explain the factors contributing to that success.

8 Discuss the relationship between economic growth and increased inequality in the distribution of income and wealth.

9 Evaluate the extent to which economic management in Australia has been successful in recent years compared with preceding decades. Analyse the extent to which this is the result of global or domestic factors.

10 Critically evaluate the extent to which equity and environmental outcomes have been sacrificed to achieve other economic objectives in recent years.

Key Economic Skills

A.1 Introduction

A.2 Drawing and interpreting economics diagrams

A.3 Equations and calculations in economics

A.4 Interpreting economic data and information

A.1 Introduction

Economics is a subject that requires you to understand the relationships between different economic indicators, such as trade flows, exchange rates, unemployment and interest rates, and the role of different actors in the economy such as transnational corporations, international organisations, and government agencies. It is a mix of social science, with an emphasis on human activities, and scientific analysis, where we can test our theories of how economies operate by analysing the relationships between different economic indicators.

Throughout the 18 chapters of this textbook, you've probably found that one of the most challenging aspects of economics is that it is neither a "writing" subject nor a "numbers" subject, but a unique blend of both qualitative and quantitative analysis. In the Year 12 exam, the expected length for each extended response is 800 words, although you will not be penalised for writing more. This is the same as for other courses such as Business Studies and Geography.

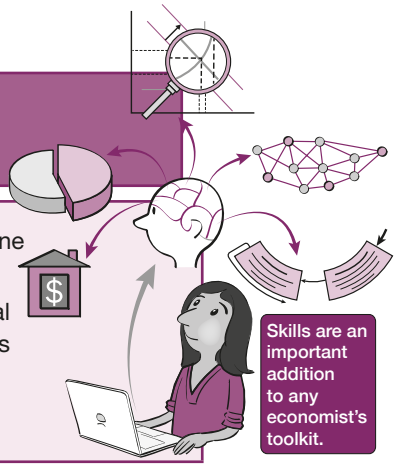


For further information on skills and assessment in Economics or a full copy of the Economics Syllabus, visit the website of the NSW Education Standards Authority

Studying economics is not simply about memorising a lot of information. You must also learn a range of skills to understand how modern economies function, and predict how changes in one part of the economy can affect other parts. For this reason, **applying economic skills is central to the Year 12 Economics Course**. Each topic of the course contains between 3 and 8 skills, and there are 23 skills in total for the whole course.

It is best to learn economic skills as you learn the content of the course. For this reason, each of the economic skills is listed at the beginning of each topic area in this textbook, and the skills are incorporated into the chapter material. **The aim of this section is to reinforce your grasp of economic skills** because of the crucial role that these skills play in economic analysis for the Year 12 Course.

YEAR 12 COURSE TOPIC	SYLLABUS SKILLS
The Global Economy	• analyse statistics on trade and financial flows to determine the nature and extent of global interdependence • assess the impact on the global economy of international organisations and contemporary trading bloc agreements • evaluate the impact of development strategies used in a range of contemporary and hypothetical situations
Australia's Place in the Global Economy	• calculate the main components of Australia's balance of payments • analyse the relationship between the balance of the capital and financial account and the net income balance • explain the relationship between the current account balance and the balance of the capital and financial account • use supply and demand diagrams to explain how the value of a currency is determined under different exchange rate systems • analyse the impact of changes in the components of the balance of payments on the value of the Australian dollar
Economic Issues	• identify and analyse problems facing contemporary and hypothetical economies • calculate an equilibrium position for an economy using leakages and injections • determine the impact of the (simple) multiplier effect on national income • explain the implications of the multiplier for fluctuations in the level of economic activity in an economy • calculate the unemployment rate and the participation rate using labour force statistics • interpret a Lorenz curve and a Gini coefficient for the distribution of income in an economy • use economic concepts to analyse a contemporary environmental issue • assess the key problems and issues facing the Australian economy
Economic Policies and Management	• explain how governments are restricted in their ability to simultaneously achieve economic objectives • use (simple) multiplier analysis to explain how governments can solve economic problems • identify limitations of the effectiveness of economic policies • explain the impact of key economic policies on an economy • propose and evaluate alternative policies to address an economic problem in hypothetical and the contemporary Australian contexts • explain, using economic theory, the general effects of macroeconomic and microeconomic policies on an economy • select an appropriate policy mix to address a specific economic problem



Source: NSW Board of Studies, Offical Notice BOS 47/09, 2009

Figure A.1 – Economic skills in the Year 12 Economics Course

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Knowledge and understanding of course content is worth 40 per cent of Year 12 assessment. The other 60 per cent is divided equally between three other components – each of which you can strengthen with the material in this chapter: *stimulus-based skills* (20 per cent); *inquiry and research* (20 per cent); and *communication of economic information, ideas and issues in appropriate forms* (20 per cent).

The course skills can be divided into three main areas:

- drawing and interpreting economics diagrams
- equations and calculations in economics
- interpreting economic data and information.

A.2 Drawing and interpreting economics diagrams

Being able to draw and interpret diagrams is an essential skill in the Year 12 Economics course. Some diagrams, like supply and demand in the foreign exchange market, are explicitly referred to in the Syllabus. Other diagrams, such as those representing the labour market and market failure, are not explicitly referred to in the Syllabus but are nevertheless useful for deepening your understanding of how economies operate. Some diagrams are useful for representing the macro-economy at the "big picture" level, while others are useful for analysing the microeconomic impacts of changes in specific parts of the economy.

In this section, we review the skills of the Course where diagrams can be used to help explain how economies operate.

Assess the impact on the global economy of international organisations and contemporary trading bloc agreements

Global protection levels have been significantly affected by international organisations and trade agreements. The World Trade Organization (supported by the International Monetary Fund and World Bank) has tried to achieve reductions in trade protection levels, such as tariffs, by facilitating trade negotiations. The impact of these organisations on tariff levels can be shown in a simple supply and demand diagram (see figure A.2). For an individual economy, the removal of a tariff lowers the domestic price of products (from P^T to P^W), and increases the amount of foreign products available (from Q_2Q_3 to QQ_1). The contraction in domestic supply from import-competing firms (from $0Q_2$ to 0Q) may cause a (short-term) rise in domestic unemployment.

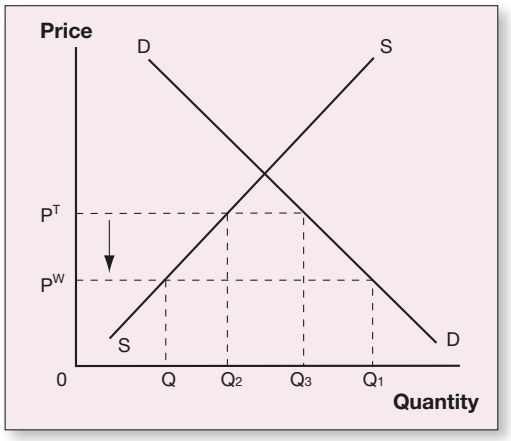


Figure A.2 – International organisations and trade agreements may result in lower tariff levels

The impact of contemporary trading bloc agreements is more complex. They may work to reduce tariff levels for all their trading partners (as is the goal of the APEC forum), or they may only reduce tariff levels for members of the trading bloc (as is the case in USMCA). In some cases, such as the European Union, however, trading blocs may not only maintain high tariff levels to shield producers from outside competition, but may also increase production subsidies, the effects of which can be shown in a diagram (see figure A.3). The production subsidies reduce the cost of production, shifting the industry's supply curve to the right, causing an oversupply of products and depressing global price levels, which will have adverse impacts on exporters outside the trading bloc that do not receive government subsidies.

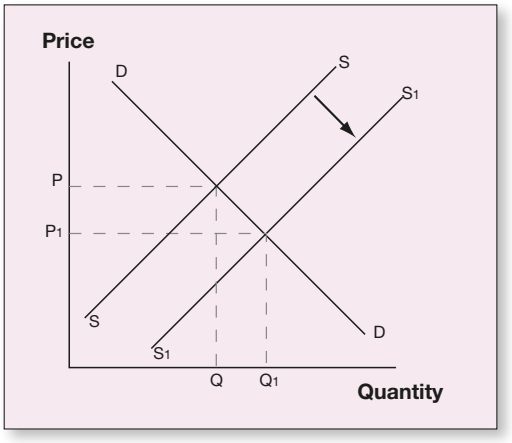


Figure A.3 – Trading blocs may increase subsidies and depress global price levels

Analyse the relationship between the balance of the capital and financial account and the net income balance

If a nation experiences a current account deficit (CAD), it must be offset by a capital and financial account (KAFA) surplus if it has a floating exchange rate system (because the supply and demand for currency must always be equal). In simple terms, the financial inflow on the KAFA must either come from overseas borrowing, which adds to the foreign debt, or through the sale of assets to overseas investors, which adds to foreign equity. Either way, a build up of debt and equity (together known as foreign liabilities) must be serviced through either interest repayments or dividend payments on the primary income account of the CAD. If a nation continues down this path, it can result in the "debt-trap" cycle, which can be difficult to break because further borrowing is required just to service past borrowings.

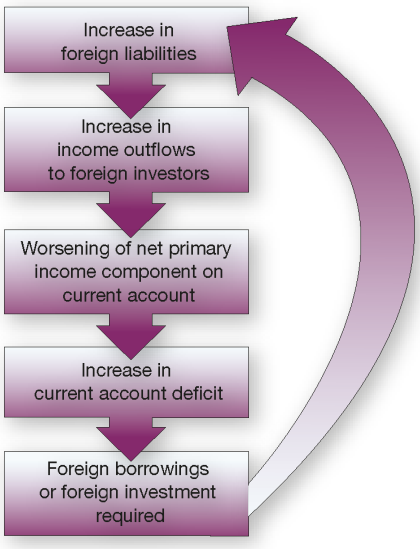


Figure A.4 – The "debt-trap" cycle

Use supply and demand diagrams to explain how the value of a currency is determined under different exchange rate systems

Supply and demand diagrams can be used to show how the value of a currency is determined. In the case of a floating exchange rate mechanism, the factors affecting the supply and demand for a currency, such as interest rates, international competitiveness, inflation rates, economic conditions and the sentiment of foreign exchange market speculators, will determine the value of the currency. Changes in these factors can be shown by shifts to the right or left of either the supply or demand curves, which will cause either an appreciation or depreciation of the currency.

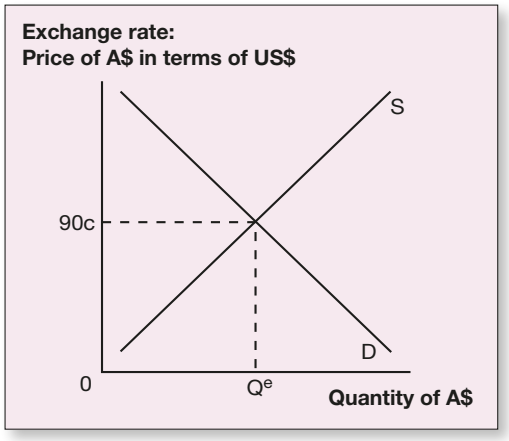


Figure A.5 – Exchange rate determination under a floating exchange rate system

A fixed exchange rate system can be explained using a similar diagram (see figure A.6). For this exchange rate mechanism, the fixed rate is drawn above or below the exchange rate that would prevail under a floating system, known as the "market rate". The government or central bank need to buy the excess currency (Q_1Q_2) if the fixed rate is above the market rate, or sell currency if the fixed rate is below the market rate.

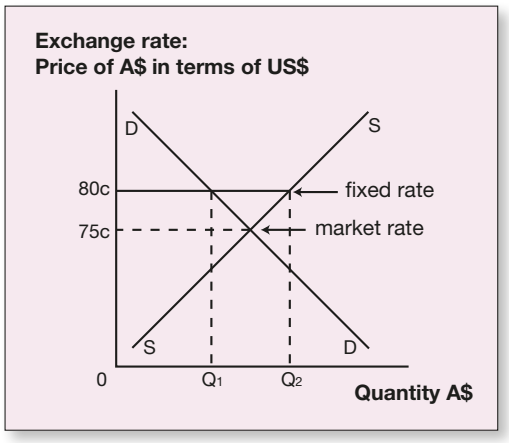


Figure A.6 – Exchange rate determination under a fixed exchange rate system

Analyse the impact of changes in the components of the balance of payments on the value of the Australian dollar

The balance of payments comprises the current account, and the capital and financial account. Any credit on the balance of payments, such as an increase in exports, increase in primary or secondary income received, or an increase in capital or financial inflow, will increase demand for the Australian dollar, causing an appreciation. Alternatively, any debit on the balance of payments, such as an increase in imports, increase in primary or secondary income payments, or an increase in capital or financial outflow, will increase the supply of the Australian dollar, causing a depreciation.

Figure A.7 shows that an increase in demand leads to an appreciation of the exchange rate. Figure A.8 shows that an increase in supply leads to a depreciation of the exchange rate.

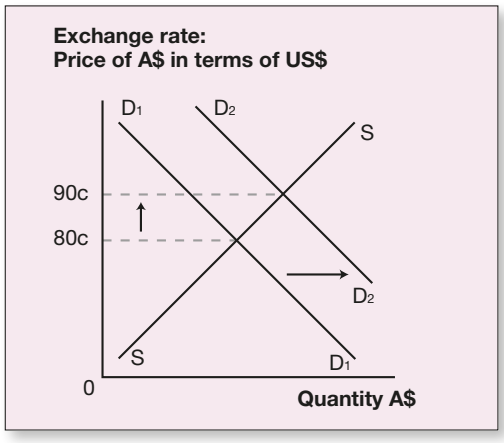


Figure A.7 – An increase in demand and appreciation of the Australian dollar

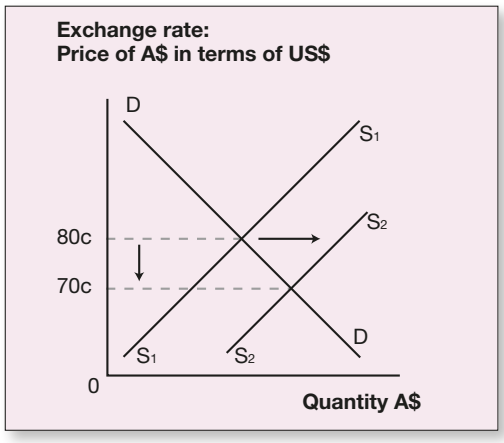


Figure A.8 – An increase in supply and depreciation of the Australian dollar

Interpret a Lorenz curve and a Gini coefficient for the distribution of income in an economy

The Lorenz curve shows us the cumulative proportion of income that is received (vertical axis) by the cumulative proportion of income recipients (horizontal axis). If income were distributed evenly across the whole population, the Lorenz curve would be the diagonal line through the origin of the graph. The further the Lorenz curve is away from this line, the greater the degree of income inequality in society.

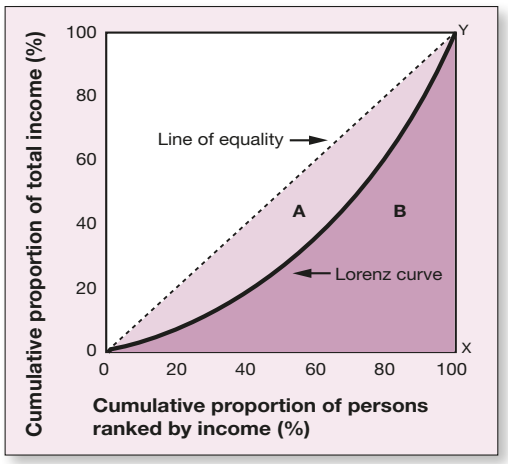


Figure A.9 – A hypothetical Lorenz curve

The Gini coefficient is a single statistic that summarises the distribution of income across the population, calculated as the ratio of the area between the actual Lorenz curve and the line of equality (area A in figure A.9) and the total area under the line of equality (A+B). The Gini coefficient ranges between zero when all incomes are equal, and one when a single individual receives all the income. The smaller the Gini coefficient, the more even is the distribution of income.

$$\text{Gini coefficient} = \frac{A}{A + B}$$

Use economic concepts to analyse a contemporary environmental issue

A key concept in explaining contemporary environmental issues such as pollution, climate change and preserving natural environments is externalities. Externalities occur because the price mechanism takes account of private benefits and costs of production to consumers and producers but does not take account of wider social costs and benefits borne by all of society. Negative externalities are a cost to society and can be shown as in figure A.10.

The society's supply curve is above the producer's supply curve. The socially optimum price is above the market price and the socially optimum quantity is below the market quantity.

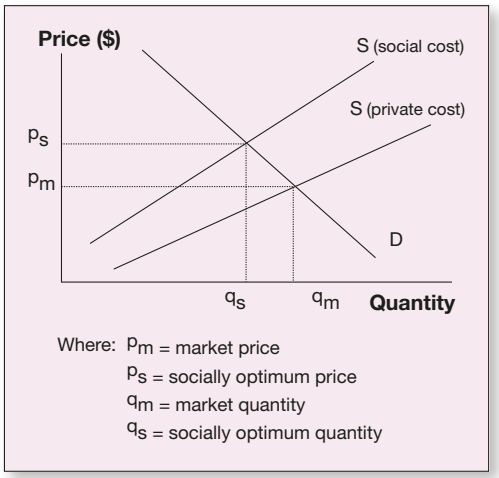


Figure A.10 – Negative externalities

Explain how governments are restricted in their ability to simultaneously achieve economic objectives

Governments face many trade-offs when trying to simultaneously achieve their economic and other policy objectives, not all of which can be demonstrated by the use of diagrams. The best known diagram that shows these conflicts is the Phillips curve diagram, which demonstrates, in the short term at least, that governments face a choice between achieving their goal of price stability (low inflation) or full employment (low unemployment) (see figure A.11). Implementing expansionary macroeconomic policy is likely to see the economy move up the curve to the left (with lower unemployment but higher inflation), while contractionary macroeconomic policy settings may see the economy move down the curve to the right (with lower inflation but higher unemployment).

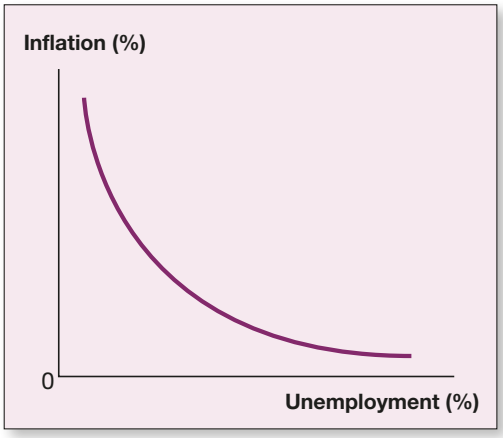


Figure A.11 – The Phillips curve

The government may also face a trade-off in its goals of full employment and a fair distribution of income. If the government imposes a minimum wage rate above the market clearing wage level, such as W_1 in figure A.12, it may reduce the level of income inequality between workers, but may also see some workers remain unemployed ($L_S - L_D$) if the real wage rate is too high to achieve equilibrium in the labour market.

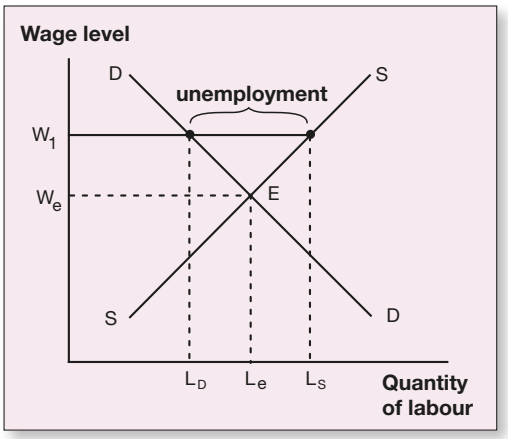


Figure A.12 – High minimum wages may cause unemployment

The government may also face a trade-off between its short-term objective of economic growth and its longer-term objective of ecologically sustainable development. If economic growth is unsustainable because of poor production techniques or the rapid depletion of natural resources, it may over time reduce the productive capacity of the economy. This can be shown by a production possibilities curve moving towards the origin because fewer goods and services can be produced.

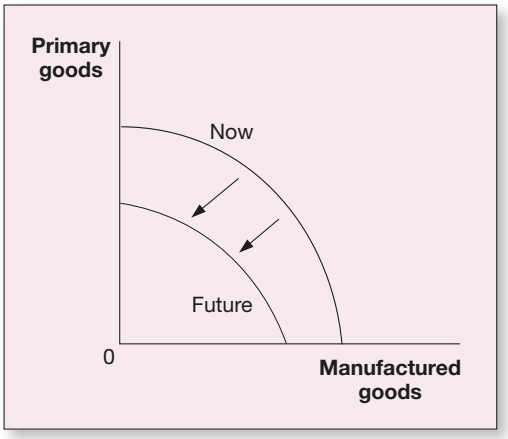


Figure A.13 – Unsustainable economic growth may reduce productive capacity in the long term

Explain the impact of key economic policies on an economy

No single diagram will show all of the economic effects of any single policy. Here are some suggestions of how diagrams explained in this section could be used to illustrate the impacts of key economic policies on particular economic indicators:

- The general impacts on output and price levels of macroeconomic and microeconomic policies can be demonstrated using the aggregate supply and aggregate demand diagram.
- The expansionary and contractionary impacts of macroeconomic policies on inflation and unemployment can be shown using the Phillips curve.
- The impacts of reducing protection levels on prices, imports, and production levels of import-competing firms can be shown using the tariff diagram.
- The impact of central bank intervention in foreign exchange markets, or of abandoning a fixed exchange rate system, could be illustrated using the exchange rate diagram.
- The impact of labour market reforms or income policy changes, such as a rise or fall in the minimum wage rate and fall or rise in unemployment, could be illustrated using the labour market diagram.
- The impact of policies on income inequality could be illustrated using a Lorenz curve.
- The impact of environmental policies to conserve or better use natural resources could be illustrated using a production possibility curve.

Explain using economic theory the general effects of macroeconomic and microeconomic policies on an economy

The aggregate supply and aggregate demand diagram (known as the AS-AD diagram) can be used to show the impacts of changes in macroeconomic policy, also known as demand-management policy, and microeconomic policy, also know as supply-side policy. The AS-AD diagram graphs the impacts of changes in aggregate demand and supply on the general price level and the total output (or income) of the economy.

Expansionary macroeconomic policy (such as a reduction in interest rates, a reduction in taxation or an increase in government spending) increases aggregate demand, shifting the AD curve to the right (see figure A.14). At the new equilibrium, total output and income have increased, so unemployment will fall, and there is a rise in the general price level (higher inflation).

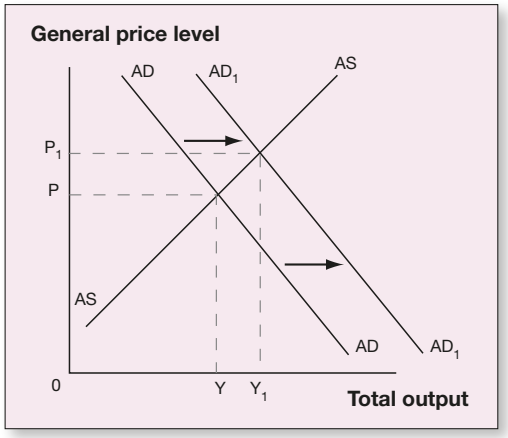


Figure A.14 – Expansionary macroeconomic policy shifts AD to the right, causing a rise in output and inflation

Contractionary macroeconomic policy (such as an increase in interest rates, an increase in taxation or a decrease in government spending) reduces aggregate demand, shifting the AD curve to the left (see figure A.15). At the new equilibrium, total output and income have decreased, so unemployment will rise, and there is a fall in the general price level (lower inflation).

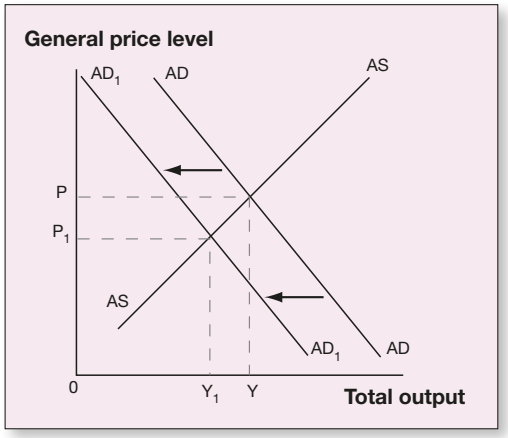


Figure A.15 – Contractionary macroeconomic policy shifts AD to the left, causing a fall in output and inflation

Microeconomic policies, such as reducing protection, deregulating markets or increasing competition, should in the long term increase aggregate supply, shifting the AS curve to the right (see figure A.16). At the new equilibrium, total output and income have increased, so unemployment will fall, and there is a fall in the general price level (lower inflation).

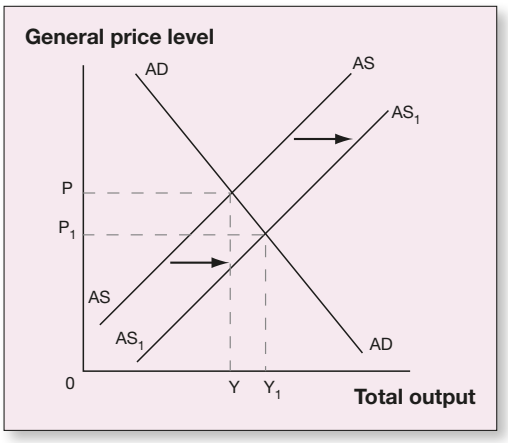


Figure A.16 – Microeconomic reform shifts AS to the right, causing a rise in output and a fall in inflation

A.3 Equations and calculations in economics

Mathematical skills play a small but important role in the Year 12 Economics course. Compared with natural sciences, the "mathematical" component of economics is relatively straightforward, involving only a handful of calculations and equations. But compared with other humanities (essay writing) subjects, like History and English, studying economics does require a greater understanding of how numbers operate, or more technically, how quantitative information can be used to understand how economies operate. Equations and calculations can be used to examine the economy as a whole, such as through the injections and leakages equations, or to quantify specific economic outcomes, such as the terms of trade index and the level of unemployment. In this section, we review the skills that require equations and calculations.

Calculate the main components of Australia's balance of payments

Explain the relationship between the current account balance and the balance of the capital and financial account

The current account and the capital and financial account are the two main components making up the balance of payments, and the sum of these two accounts adds up to zero under a floating exchange rate system. The numerical value of the current account is equal to the capital and financial account, but one account will have a positive value (in surplus) and the other will be negative (in deficit). If there is an increase in the value of the current account deficit there would be an equal increase in the value of the capital and financial account surplus.

The current account is calculated as:

net goods + net services
(the balance on goods and services)
+
net primary income + net secondary income

The capital and financial account is calculated as:

capital account + direct investment + portfolio investment
+
other investment + reserve assets + financial derivatives

The balance of payments is calculated as:

current account + capital and financial account
+
net errors and omissions = 0

Figure A.17 – Calculating the balance of payments

If you are provided a limited number of components of the balance of payments you can use the formulas shown in figure A.17 to calculate unknown components. For example, if you are provided with values of the capital and financial account surplus, and the net primary income deficit and net secondary income deficit, you can calculate the balance on goods and services.

Calculate an equilibrium position for an economy using leakages and injections

An economy is in equilibrium if savings, taxation and import leakages are equal to investment, government spending and export injections. If you are provided with the values of all six leakages and injections, you can test to see whether the economy is in equilibrium or not. If you are told that the economy is in equilibrium and you are provided with the values of five items, you can calculate the sixth item. If you know the economy is in equilibrium and you are provided with the value of three of these items and either the trade deficit

(X-M), the budget deficit (G-T) or the savings-investment imbalance (S-I), you can also calculate the remaining item. **Remember** – the leakage and injection equation is only true when the economy is in equilibrium. Therefore, it is sometimes called an **equilibrium condition**.

$$S + T + M = I + G + X$$
$$\text{Leakages} = \text{Injections}$$

- **S** = saving by households
- **T** = taxation by the government
- **M** = spending on imports
- **I** = investment spending by businesses
- **G** = government spending
- **X** = export revenue

Note: If you are given a question and you are provided with or need to calculate the level of consumption (C), aggregate demand (AD), or income (Y, also known as aggregate supply), the leakage/injection equation will not help because C, AD and Y are not in that equation. In this case you need two other equations – those for aggregate demand and aggregate supply. The equation for aggregate demand is consumption plus investment plus government spending plus "net exports". The equation for aggregate supply (income) is consumption plus savings plus taxation. Both the AD and AS equations are **identities**, in that they are always true regardless of whether the economy is in equilibrium or disequilibrium. If you set AD and AS equal to each other, that is, for equilibrium, a simple substitution and rearrangement of the equation gives the leakage and injection equation.

Equilibrium occurs when:

Aggregate Supply = Aggregate Demand

$Y = AD$

Substituting for aggregate demand gives:

$Y = C + I + G + (X - M)$

Substituting for aggregate supply gives:

$C + S + T = C + I + G + (X - M)$

By rearranging the equation:

$S + T + M = I + G + X$

Leakages = Injections

$$AD = C + I + G + (X - M)$$

Where:

- AD = aggregate demand
- C = consumer spending by households
- I = investment spending by businesses
- G = government spending
- X = export revenue
- M = spending on imports

$$Y = C + S + T$$

Where:

- Y = aggregate supply or national income
- C = consumer spending by households
- S = saving by households
- T = taxation by the government

It is a good idea to become very familiar with the various combinations of these equations that can be used to calculate the values of economic indicators.

Determine the impact of the (simple) multiplier effect on national income

Explain the implications of the multiplier for fluctuations in the level of economic activity in an economy

Use (simple) multiplier analysis to explain how governments can solve economic problems

The multiplier shows that if equilibrium in the circular flow is disrupted by an injection or leakage, it will have a more than proportional impact on national income. An injection of export revenue to businesses, for example, initially results in a proportional increase in income for individuals. When individuals spend this income on consumption, it further boosts firm revenue and individual income – multiplying the effect of the export injection. However, the increase in individual income will also increase individuals' savings, taxation payments and spending on imports (which are all leakages). These all reduce the "speed" of the multiplier.

For the Year 12 Course, we limit our concern to the "simple" multiplier, which only takes into account the savings leakage. The multiplier is calculated as 1 divided by the "speed limit" – the marginal propensity to save. To calculate the total impact on national income of an injection or leakage, multiply the initial change in the injection or leakage (the change in aggregate demand) by the multiplier.

$$k = \frac{1}{MPS}$$ (k being the symbol for the multiplier)

or

$$k = \frac{1}{1-MPC}$$ (since MPC + MPS = 1)

$$\triangle Y = k \times \triangle AD$$

The size of the multiplier is an indication of how much economic activity will fluctuate in the event of an economic shock. A lower marginal propensity to save increases the multiplier and makes economic fluctuations larger. Conversely, a higher marginal propensity to save decreases the multiplier and reduces economic fluctuations.

$$\uparrow k = \frac{1}{\downarrow MPS}$$

Lower savings leakage increases the multiplier and economic fluctuations

A higher multiplier generally makes life more difficult for governments. The economy will experience greater fluctuations when there are economic shocks of increased injections or leakages, suggesting the economy will need more active macroeconomic (counter-cyclical) policies. And yet the economy with the higher multiplier will also be more responsive to policy instruments, making "fine-tuning" more difficult. When the multiplier is lower, fiscal policy adjustments (government spending and taxation) and monetary policy adjustments (interest rates, which mainly affect investment and consumption flows) are less necessary and have a smaller impact.

Calculate the unemployment rate and the participation rate using labour force statistics

Two important labour market outcomes require a calculation. The first is the labour force participation rate, which is the total number of people employed or unemployed, divided by the working-age population. The second is the unemployment rate, which is the total number unemployed, divided by the labour force.

$$\text{Labour force participation rate (\%)} = \frac{\text{Labour force}}{\text{Working-age population (15+)}} \times \frac{100}{1}$$

$$\text{Unemployment rate (\%)} = \frac{\text{Number of persons unemployed}}{\text{Total labour force}} \times \frac{100}{1}$$

A.4 Interpreting economic data and information

Our study of economics would be incomplete (and fairly boring) if we only ever looked at diagrams, equations and economic theories without reference to how economies operate in the real world. Analysing the nature of economic relationships and the performance and structure of economies in the real world is central to the Year 12 Course. In broad terms, the Syllabus highlights the importance of researching information from a variety of sources; analysing, synthesizing and evaluating that information; and being able to communicate economic information, ideas and issues. In the final section of this chapter, we look at the key skills in the Year 12 Syllabus that require individual research and how you can **find, interpret and explain economic data and information**.

In what follows, we **focus on the use of the internet and websites**, highlighting the role of online resources on economic research methods and techniques. For each of the key skills highlighted in the Syllabus, we have identified useful research terms and websites which provide data and analysis.

There are six broad categories of websites that we discuss – latest news, Australian Government sites, financial institutions, community sector organisations, international organisations, and educational bodies. Artificial intelligence tools are also becoming increasingly useful for research. These tools can develop responses to queries that draw from several different sources, but responses should always be checked against other sources for accuracy and completeness.

Analyse statistics on trade and financial flows to determine the nature and extent of global interdependence

Global interdependence is a complex phenomenon that can not be adequately described by a couple of statistics showing that trade flows and financial flows have increased in recent decades. Appreciating the more subtle features of global interdependence requires an understanding of specific trends in trade and financial flows, such as the pace and volatility of trade growth, the level of interdependence between regions and countries, the extent of changes to

financial flows, and identifying who and what are the most important drivers of global economic flows. Most major international organisations have their own statistical databases and key economic publications.

Useful research terms:

- Trends in global interdependence
- Drivers of trade and financial flows
- Changing pace of globalisation

Key data sources:

- World Bank – World Development Indicators
- World Trade Organization – World Trade Report
- United Nations Conference on Trade and Development – Trade and Development Report and World Investment Report
- International Monetary Fund – World Economic Outlook

Assess the impact on the global economy of international organisations and contemporary trading bloc agreements

Globalisation has increased the importance and role of organisations that operate across the borders of different economies. Most of these bodies are trade-related – from the global influence of the World Trade Organization to the regional influence of the Association of South-East Asian Nations, to the local influence of bilateral trade deals.

Useful research terms:

- Function and influence of the World Trade Organization
- Criticisms of the current structure of world trade
- Australia's free trade agreements
- Global trade statistics

Key data sources:

- APEC Forum
- Association of South-East Asian Nations
- Department of Foreign Affairs and Trade – Free trade agreements
- Oxfam

Evaluate the impact of development strategies used in a range of contemporary and hypothetical situations

One of the most complex tasks faced by economists is assessing whether or not development strategies in individual economics have been successful. A central requirement in the Year 12 Course is that you must undertake a case study of an economy other than Australia.

Useful research terms:

- Economic development strategies
- Economic performance
- Issues with economic development

Key data sources:

- *The Economist*
- United Nations Development Programme
- United Nations Conference on Trade and Development
- OECD
- Centre for Global Development

Use economic concepts to analyse a contemporary environmental issue

At a general level, some of the environmental issues facing the Australian economy include climate change and controlling pollution of land, water and the air. More specific problems include preserving native habitats and the sustainable use of water for agricultural, household and business use.

Useful research terms:

- Australian Government environmental policies
- Climate change policy
- Ecologically sustainable development
- Environmental externalities

Key data sources:

- Australian Government Department of Climate Change, Energy, the Environment and Water
- Office of Environment and Heritage
- United Nations Climate Change Conference (COP 28)

Identify and analyse problems facing contemporary and hypothetical economies

Assess the key problems and issues facing the Australian economy

Identify limitations of the effectiveness of economic policies

Propose and evaluate alternative policies to address an economic problem in hypothetical and the contemporary Australian contexts

Select an appropriate policy mix to address a specific economic problem

These final five economic skills are of a general nature, covering the second half of the Course – Topic 3 Economic Issues and Topic 4 Economic Policies and Management. Interpreting economic data and information for these skills is a potentially endless job. So instead of limiting you to a few websites, we would recommend you consult widely from a range of sources. In visiting some of the following websites, you should be able to explain, using statistics and other evidence, the key features of economic problems and how government policies are (or could) addressing these problems.

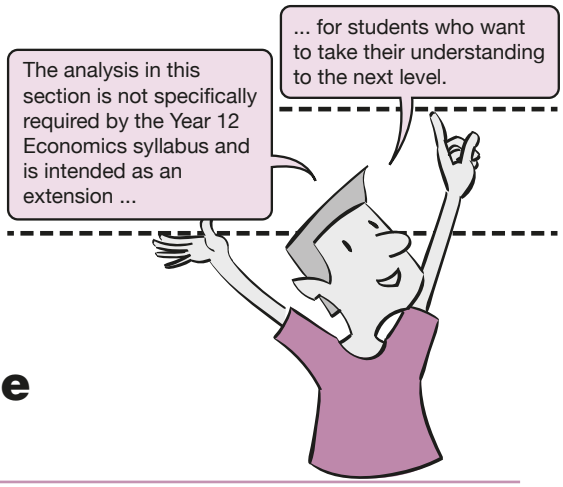
- **Government agencies** like the Australian Bureau of Statistics, the Reserve Bank, the Productivity Commission and the Australian Competition and Consumer Commission, and Government departments like Treasury and Foreign Affairs and Trade all publish statistics and analysis of Australian economic problems and policies.
- **Research bodies** like the National Centre for Social and Economic Modelling and the Melbourne Institute (attached to universities), the Grattan Institute (independent), and the Economic Society of Australia and Australian Business Economists (professional associations) publish more specialised (and more difficult to understand) economic papers.
- **Private sector organisations** such as commercial banks and financial services companies are good sources for up-to-date and market-oriented commentary about Australia's economic policy and performance.
- **Economic media** sources such as the *Australian Financial Review* and Analysis and Policy Observatory have some of the most concise and up-to-date commentary on Australian economic issues and policies.
- **Think tanks, industry associations, trade unions and community organisations** often focus on a small number of economic issues, and can have highly relevant commentary for some parts of the Course. Examples include The Australia Institute, the Australian Industry Group, the Business Council of Australia, the Committee for the Economic Development of Australia, the Australian Council of Trade Unions and the Australian Council of Social Service.

If you still haven't had enough of economics, check out some of the following:

- Weekly economic analysis by Ross Gittins
- Pannell Discussions – Professor David Pannell's blog on economics, environment and policy
- Paul Krugman's *New York Times* blog – blog of one of the world's leading economic commentators

Advanced Economic Analysis

B.1 Comparative advantage and gains from trade
B.2 Income-expenditure diagram
B.3 Long-run Phillips curve
B.4 Limitations of macroeconomic policy



B.1 Comparative advantage and gains from trade

In sections 2.1 and 2.2 of chapter 2 we examined the advantages and disadvantages of free trade and the reasons for protection. In this section we take our analysis further, looking at how countries can achieve gains from trade when they specialise in the production of goods and services in which they have a comparative advantage.

Absolute advantage

In economics, few topics have generated quite as much debate as the issue of free trade. The COVID-19 pandemic resulted in a wave of protectionism as countries looked towards self-sufficiency amid global trade controls. Among economists, debates over trade policy are mainly concerned with a range of more subtle issues, such as whether protection is justified for certain industries or during certain circumstances; which methods of protection are better and worse for the economy; and whether bilateral and regional trade agreements play a constructive role in achieving global free trade. Most fierce, however, are the debates inside the World Trade Organization negotiations in recent years about the process by which freer global trade should be achieved.

Trade theory traces its origins back to the writings of Scottish economist Adam Smith, a man generally regarded as the founder of modern economics. In his 1776 book, *The Wealth of Nations*, Smith argued against the prevailing wisdom of the time, known as **mercantilism**, which stated that countries should use heavy protectionist methods to maximise their exports and minimise their imports, thus achieving a trade surplus and an inflow of wealth in the form of gold and silver (used for international transactions at the time). Adam Smith, by contrast, argued that this strategy would produce inflation because the inflow of gold and silver might not be matched by an increase in the production of goods and services. Smith argued that it was better for a country to specialise in the production of goods it could produce efficiently, and import goods from other countries if they could produce them more efficiently.

Adam Smith's argument for free trade is known as **absolute advantage**. This theory states that achieving an increase in a nation's wealth requires the removal of protection and encouraging specialisation in those products in which the economy has an absolute advantage. An economy has an absolute advantage if it can produce a greater quantity of a product with a given level of resources than another economy is able to. Smith argued that by reducing protection, consumers would gain access to more goods and services at lower prices, which would improve standards of living.

> *"If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of [sic] them with some part of the produce of our own industry, employed in a way in which we have some advantage."*
>
> *– Adam Smith, An Inquiry Into the Nature and Causes of the Wealth of Nations, Book IV*

However, the theory of absolute advantage is not a sufficient basis for global free trade. It suggests that countries that are unable to produce any product with an absolute advantage (perhaps due to a lower skilled labour force or poor production techniques) have no basis for trade.

Comparative advantage

The theory that best illustrates the benefits of free trade is **comparative advantage**, which was developed by another British economist, David Ricardo, writing almost half a century after Adam Smith.

Comparative advantage states that an economy should specialise in the production of goods and services that it can produce at a **lower opportunity cost**, even if it cannot produce a greater quantity than another economy. Comparative advantage is focused on the relative efficiencies of production. When an economy specialises in production of a good in which it has a comparative advantage, it can trade with other economies using the income from its exports to pay for imports of products in which it does not have a comparative advantage.

The theory of comparative advantage can be illustrated using a simple model with a few assumptions. There are two economies, Australia and France, which produce two products, grapes and cheese, of identical quality and each economy has the same resource endowment. Each economy has a different set of production techniques, which leads to different output quantities. In the example in figure B.1, Australia can produce a maximum of 300 tonnes of grapes or a maximum of 100 tonnes of cheese. France can produce a maximum of 400 tonnes of grapes or 300 tonnes of cheese.

	Grapes (tonnes)	Cheese (tonnes)
Australia	300	100
France	400	300

Figure B.1 – A simple two-good two-economy model

In the example above, France has the absolute advantage in the production of both grapes and cheese since with the same level of inputs it can produce a greater quantity of each compared with Australia. Under the theory of absolute advantage there is no basis for trade between the countries.

To determine which economy has a comparative advantage we must calculate the opportunity costs within each economy. We first determine which economy has a comparative advantage in grapes. To do so, we must calculate the opportunity cost of growing grapes in Australia and then in France.

In Australia:

$$\text{Opportunity cost of grapes} = \frac{\text{Cheese}}{\text{Grapes}} = \frac{100}{300} = \tfrac{1}{3} \text{ tonnes of cheese}$$

In France:

$$\text{Opportunity cost of grapes} = \frac{\text{Cheese}}{\text{Grapes}} = \frac{300}{400} = \tfrac{3}{4} \text{ tonnes of cheese}$$

For Australia to produce an additional tonne of grapes it must give up production of one-third of a tonne of cheese, whereas France must give up three-quarters of a tonne of cheese. Since Australia had to give up fewer resources to produce grapes, Australia has a comparative advantage in grapes.

We will now determine which economy has a comparative advantage in cheese. As we did before, we calculate the opportunity costs of making cheese in Australia and then in France.

In Australia:

$$\text{Opportunity cost of cheese} = \frac{\text{Grapes}}{\text{Cheese}} = \frac{300}{100} = 3 \text{ tonnes of grapes}$$

In France:

$$\text{Opportunity cost of cheese} = \frac{\text{Grapes}}{\text{Cheese}} = \frac{400}{300} = 1\tfrac{1}{3} \text{ tonnes of grapes}$$

For Australia to produce one additional tonne of cheese it must give up producing three tonnes of grapes, whereas France must give up only one and a third tonnes. Since France had to give up fewer resources to produce cheese, France has a comparative advantage in cheese.

You will notice from the previous example that it is impossible for one economy to have a comparative advantage in both products. If one economy is relatively better at producing one product, then it must be relatively worse at producing the other.

Following the theory of comparative advantage, Australia ought to specialise in the production of grapes and import cheese from France. France ought to specialise in the production of cheese and import grapes from Australia.

Ordinarily, the level of consumption within an economy is limited by its production possibilities curve. In a closed economy (one which does not trade), the economy will consume all that it produces. In the Preliminary Economics Course we saw that if an economy is at full employment of resources, it cannot produce on a point outside the production possibilities curve. The only way to increase production levels is to improve production methods or discover new resources.

However, an economy is able to consume at a point above its production possibility curve through international trade. By specialising in the production of goods and services in which the economy has a comparative advantage and trading with another economy, there will be a greater amount of goods and services available in the global economy, allowing for higher consumption in each economy.

Gains from trade

To examine the gains from trade we return to our example where Australia was specialising in grapes and France was specialising in cheese. Remember that Australia could produce 300 tonnes of grapes or 100 tonnes of cheese and France could produce 400 tonnes of grapes or 300 tonnes of cheese. These production possibilities are shown in the production possibility curves (unbroken lines) in figure B.2.

To calculate gains from trade we must now also consider the **prices** of the two products. Let us suppose that cheese is twice as expensive as grapes – that is, one tonne of cheese will purchase two tonnes of grapes or one tonne of grapes will buy half a tonne of cheese.

Australia begins by producing 300 tonnes of grapes. It exports some of its produce. For each tonne of grapes that Australia exports it is able to import half a tonne of cheese. If Australia exports all of its grapes, it will be able to import a total of 150 tonnes of cheese. This is illustrated graphically in Australia's **consumption possibilities curve** (the broken line in figure B.2). The consumption possibilities curve begins at the country's point of specialisation (in this case, 300 tonnes of grapes) and extends out to the maximum number of imports the country can afford (150 tonnes of cheese).

Similarly, imagine France begins by producing 300 tonnes of cheese. It exports some of its produce. For each tonne of cheese it exports, it is able to import two tonnes of grapes. If France wants to purchase all of Australia's grapes, it only has to sell 150 tonnes of cheese. This is illustrated in France's consumption possibilities curve.

Notice that in figure B.2 for each economy the consumption possibilities curve is higher than the production possibilities curve, allowing each economy to consume a greater quantity than it could without trade.

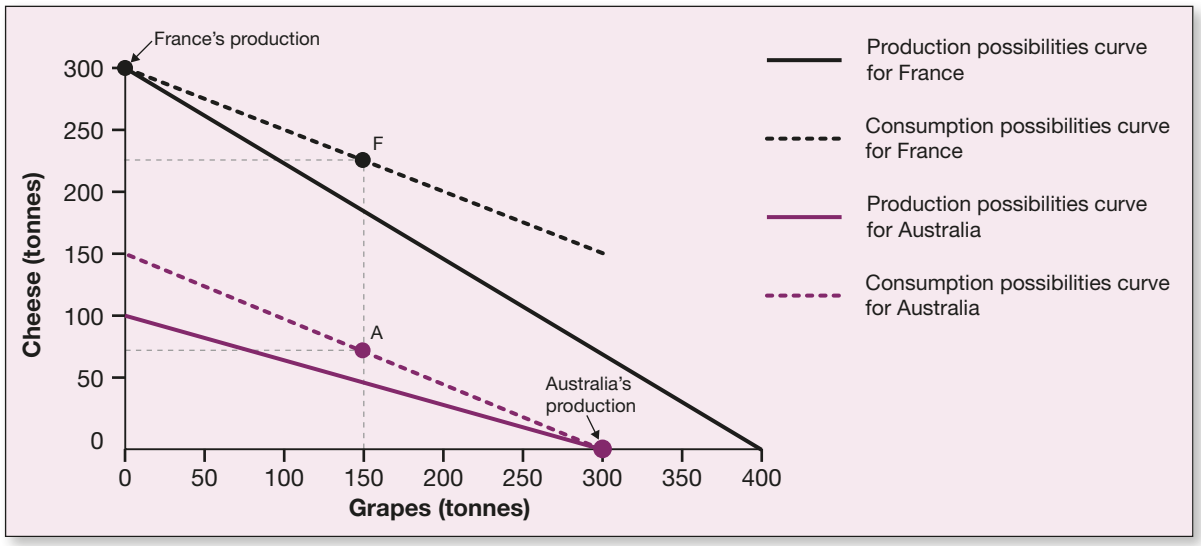


Figure B.2 – Gains from trade

The actual consumption combination will be determined by consumer demand within each economy. Suppose, for example, that given the price of cheese, Australia sells 150 tonnes of grapes to buy 75 tonnes of cheese. Australia will consume at point A on its consumption possibilities curve, and is able to consume 25 more tonnes of cheese than it could produce itself. France sells 75 tonnes of cheese and purchases 150 tonnes of grapes, consuming at point F, also above what it could have produced itself.

Terms of trade

The consumption possibilities curve is determined by the **terms of trade**, which measures the price level of an economy's exports relative to the price of its imports. If the terms of trade improve, an economy is able to purchase more imports with a given quantity of exports. If the terms of trade deteriorate, the economy can purchase fewer imports with the same level of exports.

A movement in the terms of trade will alter the consumption possibilities curve. Suppose now that Australia's terms of trade improves, and when Australia sells 150 tonnes of grapes it can purchase 100 tonnes of cheese. Australia's consumption possibilities curve will shift upward – the improvement in the terms of trade means that for every tonne of grapes Australia exports it can now import a higher quantity of cheese.

However, since France exports cheese, which has fallen in price, its terms of trade will have deteriorated. Its consumption possibilities curve will fall since every tonne of grapes that France wishes to import must be paid for with a higher quantity of cheese. However, France's consumption possibilities curve is still higher than the production possibilities curve, and so France will continue to trade with Australia so long as the gains from trade exist.

The theory of comparative advantage provides a powerful argument in favour of free trade. Not only will firms benefit from increased levels of output, but overall levels of consumption can rise throughout the world, improving the standards of living for millions of people in absolute poverty, and overcoming some of the limits imposed by the natural scarcities within individual countries.

This does not mean, however, that the arguments supporting protection (examined in section 2.2) are all invalid or that continued use of protectionist policies in the global economy is surprising. In the simple model above, for example, we assumed the free movement of labour and capital between the grape and cheese industries in Australia, depending on changes in consumer tastes and price levels.

The real world is very different: if cheese production were to grind to a halt overnight, dairy industry workers would not simply leave their Victorian cheese factory to take up a job on a South Australian vineyard. It might be too far away. They may not have the right skills. The former dairy worker might be unemployed for a long period of time. The grape and cheese example also does not consider the impact of a shrinking grape industry on French culture and farm life, for example, or how a surge in imported grapes will affect the French economy's trade balance or exchange rate. While it is one of the most powerful theories in economics, comparative advantage has clearly not ended all disagreements about trade policy in the global economy.

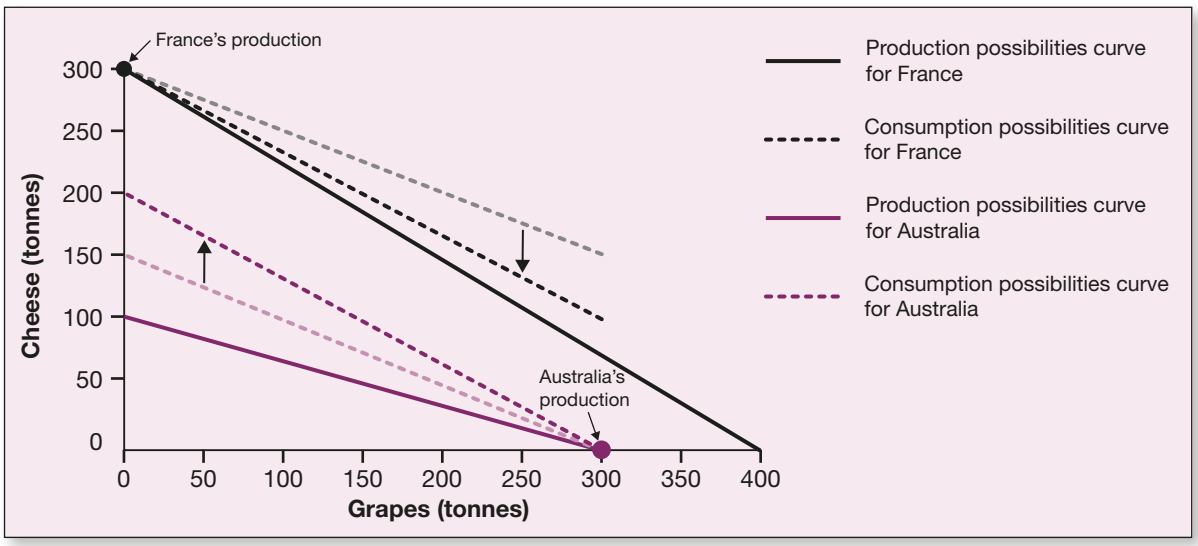


Figure B.3 – Effect of terms of trade

B.2 Income-expenditure diagram

In sections 7.2 and 7.3, we examined the conditions for equilibrium in the economy, the components of aggregate demand and supply, and the multiplier process through which changes in aggregate demand cause the economy to grow. In this section we examine these economic principles through the income-expenditure diagram.

The income-expenditure diagram is shown in figure B.4. It has income (Y) on the x-axis and expenditure (E) on the y-axis. And on the income-expenditure diagram there are two lines – the line of equilibrium and the line of aggregate demand.

First, the line of equilibrium. When expenditure (aggregate demand) is equal to income (aggregate supply), the economy is in equilibrium. This means that whenever the economy is on a point on the **Y = E line**, that is the **45-degree diagonal line**, the economy's injections equal its leakages, and the economy is in **equilibrium**.

Another relationship between income and expenditure is shown in the **aggregate demand line**. When there is a change in income, there is a change in expenditure by individuals across the economy.

In section 7.2, we looked at a simple version of the aggregate demand equation:

$$AD = C + I + G + (X - M)$$

So, what is the relationship between aggregate demand and income? In our most simple model, investment, government spending, and net exports are considered independent of income (that is, they do not rise or fall when income changes). Therefore, it is **via consumption** that income and expenditure are related. When income increases so too does consumption, and hence, overall expenditure in the economy. However, not all additional income is spent on consumption; some is leaked into savings. And even when income is very low, individuals will still spend a small amount on necessities, paid for out of their savings, or by borrowing money. Consumption is equal to this "autonomous consumption", C_0, plus the proportion of income that is spent on "induced consumption", calculated as the marginal propensity to consume multiplied by income.

$$C = C_0 + mpcY$$

Therefore,

$$AD = C_0 + mpcY + I + G + (X - M)$$

Putting these three factors together, the aggregate demand line is **upward sloping** (because higher income means higher expenditure), **flatter than 45 degrees** (because of the savings leakage) and **cuts the y-axis above the origin** (because investment, government spending, net exports and autonomous consumption are independent of income). Figure B.4 shows the income-expenditure diagram. Where the aggregate demand line cuts the 45 degree line, the economy is in equilibrium, at Y_1.

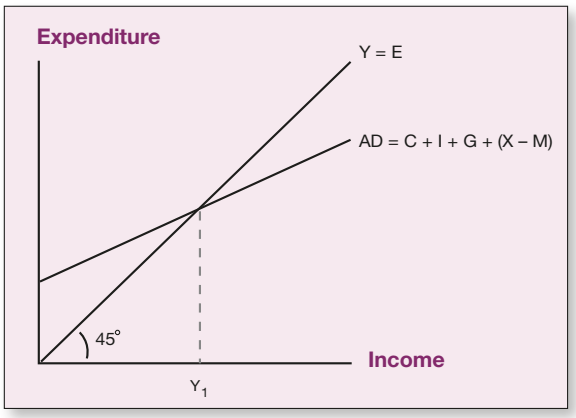


Figure B.4 – Income-expenditure diagram

If there is a change in any of the components of aggregate demand (for a reason other than a change in income), the AD line will move upwards or downwards.

- A rise in consumption, investment, government spending, exports (or a fall in imports) will shift the AD line upwards.
- A fall in consumption, investment, government spending, exports (or a rise in imports) will shift the AD line downwards.

Also note that the AD line will become steeper if there is a rise in the marginal propensity to consume and flatter if there is a decrease in the marginal propensity to consume.

Figure B.5 shows that a rise in aggregate demand (such as from a rise in investment caused by an increase in business confidence) shifts the AD line upwards from AD_1 to AD_2. Equilibrium will be achieved when income increases from Y_1 to Y_2. Note that income has increased by more than the initial change in aggregate demand because changes in AD have a multiplied impact on national income. If you were to calculate $Y_2 - Y_1$ divided by $AD_2 - AD_1$, this would give you the size of the multiplier in the economy.

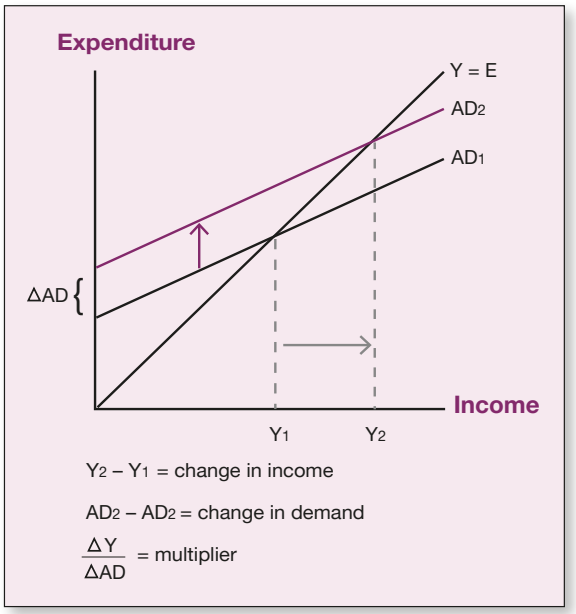


Figure B.5 – An increase in aggregate demand and national income

With the orderly adjustment process outlined above, it is not immediately obvious why governments decide to intervene in the operation of the economy. Each time there is a shock, the multiplier process does its magic, and the economy adjusts to its new level of equilibrium income and expenditure. Why should governments use macroeconomic policies to increase or decrease aggregate demand if the multiplier process can already do the job?

The answer, as outlined by British economist John Maynard Keynes, is that there may be a difference between the equilibrium level of income determined by the forces of demand and supply, and the level of income consistent with full employment. Put another way, it is possible for the economy to reach an equilibrium, that is, for there to be no tendency to change, and for the unemployment rate to still be high. In figure B.6, the **current equilibrium level of income**, Y_e is below the **full employment level of income** Y_f. The difference between AD_1 and the 45 degree line at Y_f is called the **deflationary gap**.

In this economy, the government may want to increase government spending, G, to increase aggregate demand and raise income to its full employment level. Figure B.6 shows that the government, by increasing government spending from G_1 to G_2, can increase aggregate demand from AD_1 to AD_2 and boost income from its initial equilibrium level Y_e to the full employment level of income, Y_f.

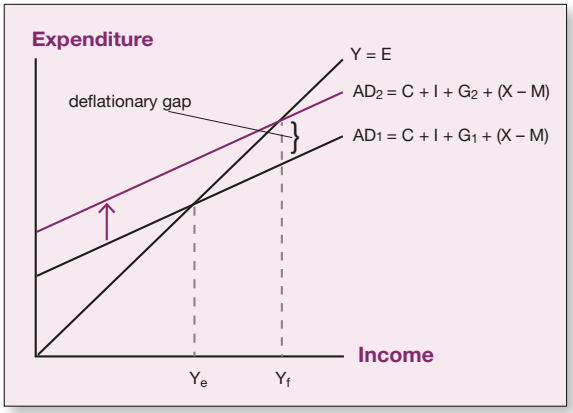


Figure B.6 – Full employment equilibrium and the deflationary gap

Alternatively, if the full employment level of income was below the current equilibrium level (that is, Y_f was to the left of Y_e), there would be an **inflationary gap**. The government may want to decrease government spending, G, to reduce aggregate demand and income to contain inflationary pressures in the economy. Therefore, macroeconomic policies are important to achieve the government's objective of reducing unemployment and inflation. The relationship between the output of the economy, unemployment and inflation is discussed in further detail in chapters 8, 9 and 13.

B.3 Long-run Phillips curve

The Phillips curve shows the trade-off governments face in trying to simultaneously achieve the economic objectives of low inflation and low unemployment. While higher economic growth creates jobs and reduces unemployment, it can also lead to excessive demand in the goods market, pushing up prices. It can also create extra demand in the labour market, causing an increase in wages, which will add to inflation as businesses raise prices to protect profit margins. The principle of a trade-off between low inflation and low unemployment was an important part of macroeconomic policy setting in the decades following the Second World War. In the economy shown in figure B.7, for example, expansionary government policies could reduce the unemployment rate from 6 per cent to 3 per cent, but only at the cost of increasing the rate of inflation from 2 per cent to 4 per cent (that is, moving from point A to point B).

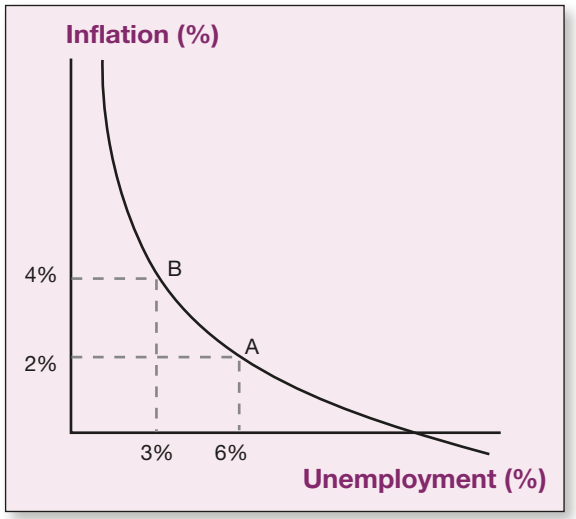


Figure B.7 – Phillips curve

In the 1970s, however, this relationship between unemployment and inflation broke down. (In reality, it never existed as neatly as the theory suggested). In Australia, as in many other industrialised nations, inflation levels increased and remained high even when the economy was stagnating and unemployment was high – a situation called **stagflation**. It was not clear whether governments should be loosening macroeconomic policies to reduce unemployment or tightening macroeconomic policies to combat rising inflation. At one level, the new crisis simply demonstrated that inflation has cost-push causes, such as the world oil price spikes of the time, as well as demand-pull causes, such as faster economic growth. However, the high rates of inflation and unemployment were such an intractable problem for governments that it prompted an entire rethink of the relationship between unemployment and inflation.

The outcome of this rethink was the **Long-run Phillips curve** (also called the Friedman-Phelps Expectations Augmented Phillips curve). This new curve was based on the inclusion of two long-term economic principles in the explanation of the relationship between inflation and unemployment: the natural rate of unemployment and inflationary expectations. The **natural rate theory** says that there will always be some level of frictional, structural, seasonal, and hard-core unemployment, U_n, that cannot be addressed through demand-management or macroeconomic policies. If a government uses expansionary macroeconomic policies to lift demand and reduce unemployment, it will result in an increase in wage levels and inflation. As workers become used to the higher level of inflation, they will begin to demand even higher wages, which, if granted, will see the unemployment rate return to its natural level. Their **inflationary expectations**, however, will remain high. As a result, in the "long-term" (defined here as the time it takes for workers' expectations of inflation to catch up to the new level), expansionary macroeconomic policy is not effective in reducing unemployment because unemployment is locked-in at the natural rate. The only long-term impact of expansionary policy is a permanently higher level of inflation.

Figure B.8 shows the Friedman-Phelps Expectations Augmented Phillips curve. The Long-Run Phillips curve is a vertical line at the natural rate of unemployment, U_n, which is equal to 5 per cent in this hypothetical economy. The economy starts on Short-Run Phillips curve P_1, at point A, with an unemployment rate of 5 per cent and 0 per cent inflation. If the government operates expansionary macroeconomic policy, such as through an increase in government spending, the economy will move to point B, with a lower rate of unemployment at 3 per cent, but higher rate of inflation at 2 per cent.

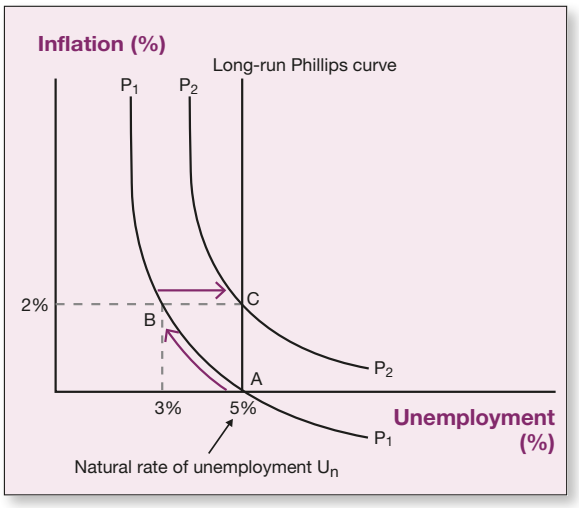


Figure B.8 – Friedman-Phelps Expectations Augmented Phillips curve

However, when workers realise inflation is now 2 per cent, they will demand higher wages to offset the increase in the cost of living. Businesses, realising that the prices of other goods have also risen by 2 per cent, and facing higher wage costs, are likely to cut back production and reduce their workforce. Unemployment will slowly creep back up to the natural rate, but inflationary expectations will remain high. The economy jumps from one Short-run Phillips curve to another – from P_1 to P_2. In the long term, the expansionary policies have simply raised inflation to 2 per cent with the same level of unemployment – that is, the economy will be at point C.

In theory, the processes outlined above can be reversed through the adoption of contractionary macroeconomic policies. Tight macroeconomic policies will move the economy downwards to the right along a Short-run Phillips curve. Inflation will fall and unemployment will rise. When the inflationary expectations of businesses and workers fall, the economy will gradually return to the natural level of unemployment, but with a lower level of inflation. The economy will have shifted onto a lower Short-run Phillips curve and move back to where it started. This would suggest that any damage done (to inflation) by short-term policies to expand the economy and reduce unemployment can be easily reversed.

However, macroeconomic policy experience has found that this is not the case. Contractionary economic policies, which raise the level of unemployment in the short term, also tend to increase the natural rate of unemployment. This phenomenon, called **hysteresis**, is where the cyclically unemployed lose their skills, job contacts and motivation while unemployed, and subsequently find it difficult to get a job even when economic conditions pick up (that is, they become structurally unemployed). In figure B.8, hysteresis would be shown by a **rightward shift** of the Long-run Phillips curve when unemployment is higher than the natural rate.

The analysis of the Friedman-Phelps Expectations Augmented Phillips curve has **profound implications for macroeconomic policy**:

1. Expansionary macroeconomic policy cannot reduce the level of unemployment in the long run.
2. Expansionary macroeconomic policy will only increase the level of inflation in the long run.
3. Contractionary macroeconomic policy may increase the level of unemployment in the long run through hysteresis.
4. The only way to reduce unemployment in the long run is through supply-side or microeconomic policies.
5. It is important to contain inflationary expectations.

This analysis led policymakers to give priority to reducing inflation, putting a higher priority on long-term measures to reduce unemployment.

Australia's policy mix reflects some of the lessons of the Friedman-Phelps Augmented Phillips curve. The most important macroeconomic policy, monetary policy (the setting of interest rates), is generally focused on fighting inflation first, and has an **inflation target band** to guide its policy decisions and which acts as an anchor for inflationary expectations. While it does not produce an estimate of the non-accelerating inflation rate of unemployment (NAIRU), the Reserve Bank watches very closely for any signs of excessive demand in the labour market when setting interest rates. The other macroeconomic policy, fiscal policy, plays a support role in managing aggregate demand during periods of slower economic growth such as in 2009 and 2020. Expansionary fiscal policy was also being used to create jobs and stop unemployment rising during the COVID-19 pandemic, but generally, low unemployment is pursued through microeconomic policies such as training policies, reform of the tax and welfare systems, and promoting market forces in the economy.

B.4 Limitations of macroeconomic policy

In this section we look at three examples of the limitations of macroeconomic policy: how the success of expansionary fiscal policy may be limited by its impact on interest rates (the **crowding out effect**) and the current account deficit (the **twin deficits hypothesis**) and how the success of expansionary monetary policy may be limited by its impact on inflation (the **quantity theory of money**).

Crowding out effect

Expansionary fiscal policy occurs where the government increases spending or reduces taxation to boost aggregate demand and promote growth in the economy. The objective of this policy stance is to raise living standards and create jobs. Some economists, however, argue that increased public sector economic activity simply "crowds out" the private sector and cannot achieve its intended objectives.

In its most simple form, the "crowding out" theory says that if a government moves from a balanced budget to a deficit budget position, it will have to borrow money from the private sector. If there is a limited supply of borrowable funds, that is, savings, in the economy, then government borrowing will raise the demand for money and put upward pressure on interest rates. As interest rates rise, some businesses will not be able to borrow to fund their investment and expansion plans – that is, they will be crowded out. As a result, the move by the government to boost growth simply shifts activity from the private sector to the public sector, and leaves the economy with higher interest rates.

In modern, open economies like Australia, this version of the crowding out theory does not describe how the economy really works. Interest rates in Australia are indirectly set by the Reserve Bank independently of the level of government borrowing, and access to global capital markets generally means there is no shortage of borrowable funds.

However, this does not mean that government borrowing (fiscal policy) and interest rates (monetary policy) are unrelated. If a government was to shift from a contractionary fiscal stance to an expansionary fiscal stance at a time when economic growth was already high, it will add to demand pressure in markets for labour, for raw materials, and final goods and services. For example, if the government announces large tax cuts that people spend on renovating their houses, it will increase prices for building materials and wages for construction workers. If these pressures feed through into a higher overall inflation rate, the Reserve Bank may raise interest rates to defend its 2–3 per cent inflation target band. As interest rates rise, private sector business activity will contract as it is crowded out.

Some economists also point out that if government spending fuels inflation and interest rate rises, it will also attract foreign financial inflows. As the exchange rate appreciates, and the international competitiveness of exporters falls, the government may be crowding out private sector export activity.

Indirectly, therefore, fiscal policy and monetary policy are related. To the extent that there is a speed-limit on how fast the economy can grow each year, governments face a trade-off: increased public sector activity or a shift to expansionary fiscal policy may simply crowd out private sector activity. Note: if the government shifted fiscal policy to contractionary settings, it would put downward pressure on interest rates and encourage private sector activity (known as the "reverse crowding out effect").

In recent decades in Australia, the potential for a "crowding out effect" has been limited because the shifts in the stance of fiscal policy (measured by changes in the budget balance, as a percentage of GDP) were small. Where government spending has increased more rapidly, such as in response to the COVID-19 pandemic, it has occurred when private sector activity has been weak and unemployment has been rising. Additionally, some government borrowings, such as for railway infrastructure, may encourage private sector activity, such as construction of homes near train stations. This is known as the "crowding in effect". And while potentially adding to activity and inflation in the short term, government investments in education, research and development and physical infrastructure also add to the economy's growth potential in the long term.

Twin deficits hypothesis

Another potential limitation on the effectiveness of expansionary fiscal policy in promoting economic growth and reducing unemployment is the twin deficits hypothesis. The twin deficits hypothesis says that budget deficits, used to stimulate the economy, cause current account deficit, and therefore should be minimised.

The hypothesis is derived from the equilibrium condition that injections equal leakages. By rearranging the injections and leakages equations, we see that the trade balance (X–M) must be equal to the savings-investment imbalance plus the budget balance. If one assumes that the savings-investment imbalance is not affected by the government's spending and revenue decisions (that is, is constant), then it can be shown that an increase in the budget deficit causes an increase in the trade deficit. (Although the theory is usually quoted as saying it will cause a current account deficit).

Injections = Leakages

$I + G + X = S + T + M$

$(X - M) = (S - I) + (T - G)$

Holding S – I constant,

$\triangle(T - G) = \triangle(X - M)$

Increase in budget deficit causes increase in current account deficit

"The fiscal balance measures the Australian Government's investment-saving balance. It measures in accrual terms the gap between government savings plus net capital transfers, and investment in non-financial assets. As such, it approximates the contribution of the Australian Government General Government Sector to the balance on the current account in the balance of payments."

– 2023–24 Budget Paper 1, Appendix A

There are, however, limitations of this theory. First, it is based on an equilibrium economy. If the economy is not in equilibrium, the budget deficit and trade deficit do not have to be equal. Second, the savings-investment imbalance is not constant or unaffected by the budget balance. If the crowding out theory is true, an increase in the budget deficit will actually cause investment to fall relative to savings, potentially leaving the trade balance unchanged. Alternatively, if the government achieved a surplus, the resulting lower interest rates may simply increase the savings-investment imbalance and leave the trade balance unchanged. Evidence from the Australian economy over the past decade supports the view that the twin deficits hypothesis is not a very useful theory. In the late 1990s, the government argued that the primary reason for shifting the budget balance from deficit to surplus was to reduce the current account deficit. Yet even when modest surpluses were achieved, Australia's current account deficit grew larger. The government no longer uses fiscal policy to target a reduction in the current account deficit.

Quantity theory of money

Efforts to use expansionary monetary policy to increase the level of aggregate demand and reduce unemployment also face limitations. According to the quantity theory of money, expansionary monetary policy has no long-run impact on the level of economic activity and unemployment and instead only has the impact of increasing the level of inflation. Put another way, changes in the "money" side of the economy (the money supply and interest rates) do not have impacts on the "real" side of the economy (output and employment). Under this theory, revived in the 1970s by Milton Friedman (the same economist who developed the Friedman-Phelps Expectations Augmented Phillips curve), unemployment in the long term is fixed at the natural rate, with an associated fixed level of national output and income.

The quantity theory of money, much like the twin deficits hypothesis, relies on applying a range of principles and assumptions to an equation. The **equation of exchange** says that the money supply multiplied by the velocity of circulation (the volume of times of the money supply is used) must equal the total volume of goods and services purchased, multiplied by the price level. For example, if the money supply in Australia was $200 billion and it was used five times in a year, total transactions would equal $1 trillion, and this would be equal to the sum of the prices of all the goods and services produced in the economy over the same period (that is, GDP).

$MV = PT$

Where:

M = money supply
P = price level
V = velocity of circulation
T = volume of transactions

The quantity theory then makes **two assumptions**: that velocity of circulation is fixed and that the volume of transactions (that is, the output of goods and services) is fixed. If these assumptions are accurate, then any increase in the money supply (through a reduction in interest rates) will simply cause an increase in the price level.

The quantity theory of money was used by **monetarist economists** in the 1970s to argue that central banks should target the growth rate of the money supply to contain the level of inflation. After a brief use of monetary targeting in the

late 1970s and early 1980s, it was abandoned in Australia in 1985 because the targets were not achieved and inflation was not contained.

The main problem with the quantity theory is that the assumptions do not hold – that is, the velocity of circulation could be influenced by behavioural changes in consumers or businesses and not be constant, and factors that expand the productive capacity of the economy will increase the amount of output and transactions. Since the adoption of interest-rate setting monetary policy in Australia, the Reserve Bank does not even have direct control of a money supply measure that could be used to influence the level of inflation, making the theory even less useful.

The one lesson of the quantity theory of money that maintains relevance today is that it is not possible to use consistently expansionary monetary policy to achieve increases in output and employment. To the extent that the economy has a **speed limit determined by structural factors** such as technology levels, education levels, market flexibility, international competitiveness and efficiency, macroeconomic policy cannot keep the economy above this speed limit without adding to inflationary pressure. Long-term economic challenges require the government to implement successful microeconomic policies and invest in the long-term drivers of economic growth.

Modern Monetary Theory

Modern Monetary Theory (MMT) is a "heterodox" (unconventional) economic theory focused on the relationship between the money supply and economic activity, but with very different conclusions. Its focus is explaining the financial conditions that have prevailed since the global financial crisis that began in 2008. While it is generally rejected by mainstream economists, its ideas have sparked debate about current economic conditions. The naming of MMT is credited to Australian economist Bill Mitchell (from the University of Newcastle), who gained increased public attention during the COVID-19 recession.

MMT asserts that because governments issue their own currency, they can never run out of money – after all, they can always just create more money. It argues that governments can spend as much as they like, funding it by "printing money" – that is, issuing bonds and paying for them by "creating reserve assets". While this approach has been associated with economic instability in past eras, the advocates of MMT argue that in recent years the private sector has demonstrated little reluctance about buying such bonds.

MMT argues that the one major limiting factor on government spending is the rate of inflation, which can rise with excessive creation of money. It advocates large-scale spending during severe downturns (such as in 2020) because in such situations, inflation is rarely a significant problem. In addition to increased spending on cash transfers and public services, MMT proposes a universal job guarantee that gives every person a government-funded job at the minimum wage.

Monetary policy would not be used to control levels of economic activity under an MMT framework, and interest rates would be set to zero. While taxes could be raised if fiscal policy needed to become contractionary, its advocates argue that taxes are not needed to balance government budgets. In fact, they say taxes are a tool to encourage citizens to earn income and conduct exchanges in the local currency. MMT economists argue that the solution to inflation in product or labour markets is measures such as competition policy, regulation or incomes policies, but not higher interest rates.

The limitation of MMT is that it has been developed in response to a specific and relatively short-term set of economic conditions. Its arguments are in many ways a more extreme version of a conventional view, that debt is affordable in a time of low inflation, low interest rates and weak demand. Its focus is what governments can do when economic activity and inflation levels are very low, and it does not propose new solutions to the historic problem that expanding the money supply creates inflation and economic instability. Its approach could also make labour markets more inefficient and currencies more unstable, and its relevance may be limited to the relatively unusual period of economic history of the early 21st century. But it has contributed to the economic debate, and shone a light on the way that conventional approaches failed to restore robust growth after the global financial crisis.

Glossary



A

Absolute poverty refers to the condition of people with the lowest living standards in the global economy, and is measured by an income level of less than US$1.90 per day. See also, *relative poverty*.

Advanced economies refer to high-income, industrialised or developed economies. The group of advanced economies includes 39 economies across North America, Europe and the Asia-Pacific.

Aggregate demand refers to the total demand for goods and services within the economy. Components of aggregate demand are: consumption (C); investment (I); government spending (G); and net exports (X-M).

Aggregate supply refers to the total productive capacity of an economy, that is, the potential output when all factors of production are fully utilised.

Allocative efficiency refers to the economy's ability to shift resources to where they are most valued and can be used most efficiently. See also, *dynamic efficiency and technical efficiency*.

Appreciation is an increase in the value of an economy's currency in terms of another currency. See also, *depreciation*.

Arbitration is a dispute resolution process in which an industrial tribunal hands down a legally binding ruling to firms and employees. See also, *conciliation*.

ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) is a regional trade agreement in effect from 2010.

ASEAN Free Trade Area (AFTA) is a regional free trade agreement signed in 1992 which covers the 10 ASEAN members. See also, *ASEAN*.

Asia Pacific Economic Cooperation (APEC) forum is a group of 21 Asia-Pacific economies including Australia that promotes free trade and economic integration.

Association of South-East Asian Nations (ASEAN) was established in 1967 to reduce regional tensions and to develop cooperative approaches in dealing with outside countries. Its members are: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

Australia-India Economic Cooperation and Trade Agreement (Australia-India ECTA) is a regional free trade agreement signed in 2022.

Australia-New Zealand Closer Economic Relations Trade Agreement (ANZCERTA) is a bilateral free trade agreement between Australia and New Zealand, which came into effect in 1983.

Australia-United Kingdom Free Trade Agreement (A-UK FTA) is a free trade agreement which entered into force in 2023.

Australia-United States Free Trade Agreement (AUSFTA) is a bilateral free trade agreement between Australia and the United States, which came into force in 2005.

Australian Competition and Consumer Commission (ACCC) is Australia's competition watchdog whose role is to enforce the *Competition and Consumer Act 2010* and ensure that businesses do not engage in anti-competitive behaviour.

Australian Council of Trade Unions (ACTU) is the peak trade union body in Australia, covering most trade unions.

Australian Prudential Regulation Authority (APRA) is the government body established to regulate all deposit-taking institutions, life and general insurance organisations and superannuation funds.

Australian Securities and Investments Commission (ASIC) is the government body with responsibility for corporate regulation, consumer protection and the oversight of financial service products.

Australian Trade and Investment Commission (Austrade) is a government organisation that assists Australian exporters to succeed in developing overseas markets.

Automatic stabilisers are instruments inherent in the government's budget that counterbalance economic activity. In a boom period, they decrease economic activity and, in a recession, they increase economic activity. The most common examples are transfer payments and a progressive tax system.

Average propensity to consume (APC) is the proportion of total income that is spent on consumption. See also, *marginal propensity to consume*.

Average propensity to save (APS) is the proportion of total income that is not spent, but is saved for future consumption. See also, *marginal propensity to save*.

Average rate of tax is the proportion of total income earned that is paid in the form of a tax. See also, *marginal rate of tax*.

Awards establish the minimum wage and working conditions for employees depending on their industry, occupation or workplace. Restructured and streamlined awards are known as modern awards.

B

Balance of payments is the record of the transactions between Australia and the rest of the world during a given period, consisting of the current account and the capital and financial account.

Balanced budget is the budget outcome in which the level of taxation revenue is equal to government spending.

Better off overall test (BOOT) is a test that enterprise agreements must pass in order to be approved under the *Fair Work Act*. It examines whether an employee is better off than they would be under the applicable industrial award.

Bilateral free trade agreement is an agreement between two economies to lower tariff levels and other trade barriers in order to encourage increased trade flows. See also, *multilateral free trade agreement* and *regional free trade agreement*.

Broad money is a measure of the money supply that consists of currency in circulation; all bank deposits, and deposits in non-bank financial intermediaries minus their holdings of bank deposits.

Budget is the tool of the government for the exercise of fiscal policy. It shows the government's planned expenditure and revenue for the next financial year.

Budget deficit is a budget outcome in which government spending is greater than revenue.

Budget surplus is a budget outcome in which government spending is less than revenue.

Business cycle refers to fluctuations in the level of economic growth due to either domestic or international factors.

Business firm is an organisation involved in using entrepreneurial skills to combine factors of production to produce a good or service for sale.

C

Capital is the manufactured products used to produce goods and services, commonly described as "the produced means of production". See also, *labour*, *land*, *natural resources* and *enterprise*.

Capital and financial account records the borrowing, lending, sales and purchases of assets between Australia and the rest of the world. Financial inflow has the immediate effect of increasing the supply of foreign exchange to Australia whereas financial outflow reduces it.

Capital gains are the profits made by investors who sell their shares or assets at a price above the level that they originally paid for them.

Capital goods are items that have not been produced for immediate consumption but will be used for the production of other goods. See also, *consumer goods*.

Carbon border adjustments are import taxes on emission-intensive goods from countries that do not adequately charge producers for carbon emissions. These operate in a similar way to tariffs.

Carbon tax is an environmental management policy in which businesses must pay a price for each tonne of carbon dioxide emitted through energy or industrial production process. It is designed to discourage activities that contribute to climate change.

Cartel describes a situation in which individual firms have implicitly or explicitly agreed to restrict competition, such as through agreements to fix prices, segregate the market, or limit the quantity of goods produced.

Cash rate is the interest rate paid on overnight loans in the short-term money market. See also, *interest rates*.

Casualisation of work refers to the growth of casual employment (and the relative decline of full-time permanent jobs) as a proportion of the total workforce. See also, *underemployment*.

Centralised incomes policy is a system in which a government or industrial tribunal determines wages and working conditions for all employees, regardless of which firm they work for. See also, *decentralised incomes policy*.

Centrally planned economy is an economic system whereby government planners make economic decisions and there is little scope for individual choice to influence economic outcome. See also, *market economy* and *mixed economy*.

Ceteris paribus is the concept in economics that in order to understand the relationship between two factors, we need to analyse the impact of one factor on another factor while assuming nothing else changes. It is a Latin phrase that means "other things being equal" or assuming that everything else is held constant.

Circular flow of income is a model that describes how economic activity occurs between the different groups in an economy. Saving, taxation and spending on imports represent leakages from the circular flow, that is, they decrease the level of economic activity. Investment, government spending and export revenue represent injections into the circular flow, that is, they increase the level of economic activity.

China-Australia Free Trade Agreement (ChAFTA) is a bilateral free trade agreement that entered into force in 2015.

Clean float is an exchange rate system in which the Reserve Bank does not intervene in foreign exchange markets to influence the value of the Australian dollar. See also, *dirty float* and *dirtying the float*.

Collective agreement is a workplace agreement that is negotiated between an employer and a group of employees, usually through a union. See also, *enterprise bargaining*.

Collective bargaining (see *enterprise bargaining*)

Collective wants are wants of the whole community. This will depend on the preferences of the community as a whole and not individuals. In Australia, collective wants such as parks and libraries are most commonly provided by the government. See also, *public good*.

Collusion occurs when firms agree on a pricing or market sharing arrangement that reduces effective competition between them, and tends to inhibit the entry of competitors into the market.

Common Agricultural Policy is a scheme used by economies in the European Union to promote European farm production through export subsidies and restrictions on imports from economies outside the EU.

Common law contract is an individual agreement between an employer and employee that sets out pay and conditions for work. These are commonly used by

small businesses and high-income earners not covered by awards. See also, *individual agreement*.

Comparative advantage is the economic principle that nations should specialise in the areas of production in which they have the lowest opportunity cost and trade with other nations, so as to maximise both nations' standards of living.

Competition is the pressure on business firms in a market economy to lower prices or improve the quality of output to increase their sales of goods and services to consumers. See also, *pure competition*.

Competitiveness (see *international competitiveness*)

Complement is a good that is used in conjunction with another good. For example, chargers would be a complement of laptops.

Conciliation is a dispute resolution process in which firms and employees meet to discuss their differences in the presence of a third party (such as from an industrial tribunal) who attempt to bring the parties to an agreement. See also, *arbitration.*

Constitution (Australian) is the document that provides the overall framework for Australia's system of democratic government and the relationship between the Commonwealth (or federal) and state governments.

Consumer goods and services are items produced for the immediate satisfaction of individual and community needs and wants. See also, *capital goods*.

Consumer Price Index (CPI) is a measure of the movement in the prices of a basket of goods and services weighted according to their significance for the average Australian household. It is used to measure inflation in Australia. See also, *inflation*.

Consumer sovereignty refers to the manner in which consumers, collectively through market demand, determine what is produced and the quantity of production.

Consumption function is a graphical representation of the relationship between income and consumption for an individual or an economy. It is usually upward sloping with a gradient less than one, and with a positive *y*-intercept.

Contracting out (see *outsourcing*)

Contractionary policies are government policies that attempt to reduce economic activity. Contractionary fiscal policy would involve decreasing government spending or increasing taxation. Contractionary monetary policy would involve an increase in interest rates.

Convergence (see *international convergence*)

Corporatisation occurs when the government changes the rules around how government-owned businesses are operated so that they behave more like private sector businesses, independent from the government. See also, *privatisation*.

Cost-push inflation occurs when there is an increase in production costs (such as oil price increases or wage increases) that producers pass on in the form of higher prices thus raising the rate of inflation.

Council of Financial Regulators is a coordinating body for financial market regulation that provides for cooperation and collaboration among its four members – the Reserve Bank of Australia, the Australian Prudential Regulation Authority, the Australian Securities and Investments Commission, and the Australian Treasury.

Counter-cyclical policies are economic policies designed to smooth fluctuations in the business cycle. Macroeconomic policies such as fiscal policy and monetary policy are usually used as counter-cyclical policies.

Credit is loans to individuals, businesses and governments for spending on consumption and investment.

Crowding out effect occurs where government spending is financed through borrowing from the private sector, which puts upward pressure on interest rates and "crowds out" private sector investors that cannot borrow at the higher rates of interest.

Current account is the part of the balance of payments that shows the receipts and payments for trade in goods and services, as well as both primary and secondary income flows between Australia and the rest of the world in a given time period. These are non-reversible transactions.

Current account deficit (CAD) is recorded when the debits in the current account (imports and income payments to overseas) are greater than the credits (exports and income payments from overseas).

Cyclical unemployment refers to those persons that have become unemployed due to a downturn in the business cycle.

Debt servicing ratio is the proportion of export revenue that is used to make repayments on foreign debt, and is a common measure of the sustainability of Australia's foreign debt level.

Decentralised incomes policy is a system in which wages and working conditions are determined through negotiations between individual firms and their employees. See also, *centralised incomes policy*.

Demand is the quantity of a particular good or service that consumers are willing and able to purchase at various price levels, at a given point in time.

Demand-pull inflation occurs when aggregate demand or spending is growing while the economy is nearing its supply capacity, so that higher demand leads to higher prices rather than more output.

Depreciation (of capital) refers to the "wear and tear" that all capital goods experience, which causes their value to fall over time.

Depreciation is a decrease in the value of an economy's currency in terms of another currency. *See* also, *appreciation*.

Deregulation is the removal of government controls over an industry that is intended to make business more responsive to market forces.

Devaluation occurs when the government (or central bank) lowers the value of a currency that operates with a fixed exchange rate. See also, *revaluation*.

Developing economies are economies with a low level of material well-being and economic development, and which tend to have poor health and education standards, weak infrastructure and agriculture-based economies.

Diminishing marginal returns occur when a firm experiences a decline in additional output as it increases a factor of production (such as labour) while holding the amount of other factors of production constant.

Direct tax is a tax where the person upon whom a tax is levied must pay the tax because it cannot be passed onto someone else. For example, income tax. See also, *indirect tax*.

Dirty float is an exchange rate system in which the value of the currency is mainly determined by demand and supply in foreign exchange markets, but the Reserve Bank occasionally intervenes to stabilise the value of the Australian dollar during periods of excessive volatility. See also, *clean float* and *dirtying the float*.

Dirtying the float is where the Reserve Bank buys and sells Australian dollars in foreign exchange markets to influence the value of the exchange rate. See also, *clean float* and *dirtying the float*.

Diseconomies of scale (see *internal diseconomies of scale* and *external diseconomies of scale*)

Distribution of income (see *income distribution*)

Diversification occurs when a firm enters a new industry that is not directly related to its existing business operations.

Dividends are the profit returns received by the shareholders (owners) of a business. See also, *profit*.

Division of labour (see *specialisation of labour*)

Domestic Market Operations are actions by the Reserve Bank in the short-term money market to buy and sell second hand Commonwealth Government Securities in order to influence the cash rate and the general level of interest rates. See also, *monetary policy*.

Dumping is the practice of exporting goods to a country at a price lower than their selling price in their country of origin.

Dutch disease is a term that refers to high commodity export prices driving up the value of the currency, making other parts of the economy less competitive, leading to a higher current account deficit and a greater dependence on commodities. The term was coined in 1977 by *The Economist* magazine to describe the impact of gas discoveries on the economy of the Netherlands.

Dynamic efficiency refers to the economy's ability to shift resources between industries in response to changing patterns of consumer demand. See also, *allocative efficiency*, *technical efficiency*.

Ecologically sustainable development involves conserving and enhancing the community's resources so that ecological processes and quality of life are maintained.

Economic cost (see *opportunity cost*)

Economic development is a broad measure of welfare in a nation that includes indicators of health, education and environmental quality as well as material living standards.

Economic growth occurs when there is a sustained increase in a country's productive capacity over time. This is commonly measured by the percentage increase in real Gross Domestic Product. See also, *Gross Domestic Product*.

Economic policy mix refers to the combination of macroeconomic (fiscal and monetary) and micro-economic policies used by the government to achieve its economic objectives.

Economic problem involves the question of how to satisfy unlimited wants with limited resources.

Economies of scale (see *internal economies of scale* and *external economies of scale*)

Efficiency (see *allocative efficiency*, *technical efficiency* and *dynamic efficiency*)

Elaborately transformed manufactures (ETMs) are technologically advanced and high value-added manufacturing products, such as motor cars, that generally command high prices on international markets. See also, *simply transformed manufactures*.

Elasticity (see *price elasticity of demand*, *price elasticity of supply*)

Elasticity of demand (see *price elasticity of demand*)

Elasticity of supply (see *price elasticity of supply*)

Emerging economies are economies experiencing the fastest rates of growth in the global economy with many undergoing rapid industrialisation. The group includes China, India, Brazil, Mexico, Egypt and Poland and many other economies across Asia, Latin America, Central and Eastern Europe, the Middle East and North Africa.

Emissions trading scheme is an environmental management policy where the government sets a cap on the amount of greenhouse gas emissions, requires companies to have a permit to emit gases, and allows permits to be traded between companies, providing an incentive to reduce emissions.

Employer associations are organisations that are formed to represent the interests of businesses, especially in industrial relations and in lobbying the government.

Enterprise involves the organisation of the other factors of production to produce goods and services. The entrepreneur makes the decisions and bares the risk of the business. The return for enterprise is profit. See also, *land*, *natural resources*, *capital* and *labour*.

Enterprise agreement is a collective workplace agreement that sets out pay and conditions for employees. EAs are negotiated between an employer and a group of employees, usually through a union. See also, *collective agreement* and *enterprise bargaining*.

Enterprise bargaining refers to negotiations between employers and employees (or their representatives) about pay and work conditions at the level of the individual firm.

Environment is the surroundings or conditions in which human society lives, and includes the land, water, climate and plant and animal life.

Environmental management refers to actions to protect and enhance the natural environment, including protecting the quality of air, water and soil, preserving natural environments and biodiversity, ensuring the sustainable use of renewable and non-renewable resources, and minimising the negative environmental consequences of economic activity.

Equilibrium is achieved in an individual market when any consumer who is willing to pay the market price for a good or service is satisfied, and any producer who offers their goods or services at the market price is able to sell their produce. It occurs when quantity demanded is equal to quantity supplied, that is, when the market clears.

Equilibrium level of income refers to the level of income, output and employment at which the spending plans of the various sectors of the economy are identical to the aggregate production plans of the economy, that is, aggregate demand is identical to aggregate supply. Alternatively, it may be thought of as the level of aggregate income where total leakages from the economy are identical to the total injections into the economy.

Ethical decision-making is when business decisions about production methods, employment and other matters are made to improve outcomes for the broader society and the environment, and not simply to maximise profits for the firm.

Euro area (also known as the **eurozone**) refers to the monetary union of 20 countries of the European Union.

European Union (EU) is an economic and political association of 27 European nations that has a single market for goods, services, finance and labour.

Excess capacity refers to the situation where a firm or economy is operating below maximum potential output. This is due to unemployed or under-utilised resources, that is, the economy is producing inside its production possibility curve.

Exchange rates are the price of one currency in terms of another economy's currency.

Exchange settlement accounts are the funds held by banks with the Reserve Bank of Australia (RBA) in order to settle payments with other banks and the RBA.

Expansionary policies are policies that attempt to increase aggregate economic activity in the economy. Expansionary fiscal policy would involve increasing government spending or reducing taxation. Expansionary monetary policy would involve a reduction in the interest rates.

Exports are goods or services that are produced domestically and purchased by overseas consumers. See also, *imports*.

External diseconomies of scale are the disadvantages faced by a firm because of the growth of the industry in which the firm is operating, and are not the result of a firm changing its own scale of operations. See also, *internal diseconomies of scale*.

External economies of scale are the advantages that accrue to a firm because of the growth of the industry in which the firm is operating, and are not the result of the firm changing its own scale of operations. See also, *internal economies of scale*.

External stability is an aim of government policy that seeks to promote sustainability on the external accounts so that Australia can service its foreign liabilities in the medium to long run and avoid currency volatility.

Externalities are external costs and benefits that private agents in a market do not consider in their decision making process. For example, airlines and passengers do not consider aircraft noise when negotiating airfares. See also, *market failure*, *positive externality*, *negative externality*.

F

Factors of production are any resources that can be used in the production of goods and services. The four main types are natural resources (or land), capital, labour and enterprise.

Factor market is a market for any input into the production process, including land, labour, capital and enterprise. See also, *labour market* and *product market*.

Fair Work Commission is the government agency that regulates industrial relations in Australia. It combines the functions of an industrial tribunal (such as the Industrial Relations Commission) with a role of education and promotion of enterprise bargaining.

Fair Work Ombudsman is the government agency that investigates complaints and enforces compliance with Australia's workplace laws.

Financial aggregates are the Reserve Bank of Australia's three main indicators of the money supply – money base, M3 and broad money.

Fiscal policy is a macroeconomic policy that can influence resource allocation, redistribute income and reduce the fluctuations of the business cycle. Its instruments include government spending and taxation and the budget outcome.

Fixed exchange rate is when the value of the economy's currency is officially set by the government or the central bank.

Flexible peg is an exchange rate system in which the currency's value is fixed at a pre-announced level, but it can be changed by the central bank in response to the forces of supply and demand in foreign exchange markets.

Floating exchange rate is when the value of a economy's currency is determined by the forces of demand and supply in foreign exchange markets.

Foreign debt refers to the total level of outstanding loans owed by Australian residents to overseas residents. See also, *foreign equity*, *foreign liabilities*, *net foreign debt*.

Foreign direct investment (FDI) refers to the movement of funds between economies for the purpose of establishing a new company or buying a substantial proportion of shares in an existing company (10 per cent or more). FDI is generally considered to be a long-term

investment and the investor normally intends to play a role in the management of the business.

Foreign equity is the total value of Australian assets such as land, shares and companies in foreign ownership. See also, *foreign debt*, *foreign liabilities*, *net foreign equity*.

Foreign exchange market (or forex market) refers to the market in which currencies are traded.

Foreign liabilities are Australia's total financial obligations (foreign debt plus foreign equity) to the rest of the world. See also, *net foreign liabilities*.

Free riders refers to when groups or individuals benefit from a good or service without contributing to the cost of supplying the good or service. As a consequence, the good or service is likely to be under-supplied in relation to the total demand.

Free trade is a situation where there are no artificial barriers to trade imposed by governments for the purpose of shielding domestic producers from foreign competitors.

Frictional unemployment are those who are unemployed due to time lags involved in the transition between jobs.

Full employment occurs when it is no longer possible to achieve a sustained reduction in unemployment through stronger economic growth. See also, *natural rate of unemployment*.

Future Fund is a Commonwealth Government investment account that receives the proceeds of budget surpluses and asset sales and invests them in order to generate returns to meet the Commonwealth Government's future superannuation liabilities.

G

Geographical mobility refers to the ability of labour to move between different locations to gain higher wages or improved employment opportunities.

Gini coefficient is a number between zero and one that measures the extent of income inequality in an economy. It is calculated by measuring the degree to which the Lorenz curve deviates from the line of equality. See also, *Lorenz curve*.

Global economy refers to the sum of the interactions between the economies of individual countries that are now increasingly linked together into one larger economic system.

Global financial crisis describes the period of extreme volatility on world financial markets in 2008 and 2009 that caused the deepest recession in the world economy since the Great Depression of the 1930s.

Globalisation refers to the integration between different countries and economies and the increased impact of international influences on all aspects of life and economic activity.

Goods and Services Tax (GST) is a 10 per cent sales tax imposed on most goods and services in Australia.

Government Business Enterprises (GBEs) (*see public trading enterprises*)

Government expenditure is an injection in the circular flow of income. It includes all money that the government spends to provide services such as health and education.

Government procurement refers to the policies and procedures for purchasing goods and services for the use of the government and public trading enterprises.

Gross Domestic Product (GDP) is the total market value of all final goods and services produced in an economy over a period of time. See also, *economic growth*.

Gross National Income (GNI) is the total income earned by domestically owned factors of production over a period of time. See also, *gross domestic product*.

Gross World Product (GWP) refers to the sum of total output of goods and services by all economies in the world over a period of time.

Group of Seven (G7) refers to the seven largest industrialised nations who meet annually to discuss economic and political issues and wield tremendous influence over the global economy. Its members are the US, UK, France, Germany, Italy, Canada, and Japan.

Growth (see *economic growth*)

G20 is the group of the world's 20 largest economies. It was formed in 1999 and has played an increasingly important role in addressing the reform of the global financial system and macroeconomic coordination. It incorporates the G7 economies, plus the European Union, Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Africa, South Korea and Turkey.

H

Hard-core unemployment refers to long-term unemployed people who may be considered unemployable by employers because of personal circumstances such as drug use or mental or physical disabilities.

Heavily Indebted Poor Countries (HIPCs) are a group of developing countries, mostly in Africa, that suffer extreme external debt sustainability problems.

Hidden unemployment refers to those people who can be considered unemployed but do not fit the official definition of unemployment and are thus not reflected in the unemployment statistics.

Horizontal integration occurs when a firm takes over another business involved in the same kind of production, that is, one of its competitors.

House of Representatives is the main chamber of the Australian Parliament. When a party coalition has a majority of votes in the House of Representatives it forms a government under a Prime Minister who is also one of the 151 members of the House of Representatives.

Household savings is the proportion of total household disposable income not spent on consumption.

Human capital is the economic concept that the supply of labour cannot be simply measured by the size of the labour force, but also by its quality, which can be increased through education and training.

Human Development Index (HDI) is a measure of economic development devised by the United Nations Development Program. It takes into account life

expectancy at birth, levels of educational attainment and material living standards (as measured by Gross National Income per capita).

Hysteresis is the process whereby unemployment in the current period results in the persistence of unemployment in future periods as unemployed people can lose their skills, job contacts and motivation to work.

Imperfect competition is any market structure that is not a perfectly competitive market, which gives individual firms the ability to influence price levels.

Imported inflation occurs when there is an increase in the price of imports, either due to inflation in the economies of our trading partners or because of a depreciation of the A$, which results in higher prices of consumer imports and imported inputs.

Imports are goods and services that are produced overseas and purchased by domestic consumers. See also, *exports*.

Income is the amount of money, or other benefits measured in money terms, which flow to individuals or households, usually for their contribution to the production process or as a direct payment from the government over a period of time.

Income distribution refers to the way in which an economy's income is spread among the members of different social and socio-economic groups.

Indirect tax is a tax that is levied on an aspect of economic activity other than a person or an organisation's income, such as sales tax. See also, *direct tax*.

Individual agreement is an agreement between an employer and individual employee that sets out pay and conditions for work. These are commonly used by small businesses and high-income earners not covered by awards. See also, *common law contract*.

Industrial dispute occurs when employers or employees take action to disrupt the production process in order to highlight a disagreement between employers and employees.

Industrial relations refers to the relationship between employers, employees, and their representatives. See also, *industrial relations system*. Also known as workplace relations.

Industrial relations system involves the laws, institutions and processes established to manage relations between employers and employees. The structure of the industrial relations system determines the process of wage determination and conflict resolution in the Australian labour market. Also known as workplace relations system.

Industrial tribunals are government agencies that oversee the industrial relations system and attempt to prevent or resolve workplace conflict between employees (usually represented by unions) and employers (sometimes represented by employer associations). Fair Work Commission is the main industrial tribunal in Australia

Industry is the collection of firms involved in making a similar range of items that usually compete with each other, such as the financial services industry or the car industry.

Industry policy involves measures to support the development of key industries and increase the competitiveness of domestic industries against foreign competitors.

Inelastic demand (see *price elasticity of demand*)

Inelastic supply (see *price elasticity of supply*)

Infant industry argument refers to the argument that newly established or "infant" industries during the early years are not competitive with established industries in other countries and may need protection from overseas competition in order to survive.

Inflation is the sustained increase in the general level of prices over a period of time, usually one year. This is commonly measured by the percentage change in the Consumer Price Index (CPI).

Inflation targeting occurs when a central bank implements monetary policy with the aim of achieving a particular level of inflation. In Australia, the Reserve Bank has an inflation target of 2-3 per cent, on average, over the course of the economic cycle.

Inflationary expectations is where inflation may be perpetuated by the expectations of workers and firms that it will occur.

Injections into the circular flow model of income are those flows of money that increase aggregate income and the general level of economic activity. The three injections are investment, government spending and exports. See also, *leakages*.

Interest is the reward to the factor of production capital for its use in the production of goods and services. See also, *wages*, *profit* and *rent*.

Interest rate differential is the difference between two interest rates, either between two economies' interest rates or between a financial institution's borrowing and lending interest rates.

Interest rates are the cost of borrowing money expressed as a percentage of the total amount borrowed.

Intermediate goods are semi-finished goods that are transformed into higher-value goods before sale to consumers (for example, steel is an intermediate good in the production of motor vehicles). See also, *capital goods* and *consumer goods and services*.

Internal diseconomies of scale are the cost disadvantages (specifically, the increase in marginal costs per unit) faced by a firm as a result of the firm expanding its scale of operations beyond a certain point. They occur when a firm's output level is above the technical optimum. See also, *external diseconomies of scale*.

Internal economies of scale are the cost saving advantages that result from a firm expanding its scale of operations. They occur when a firm's output level is below the technical optimum. See also, *external economies of scale*.

International business cycle refers to fluctuations in the level of economic activity in the global economy over time.

International competitiveness refers to the ability of an economy's exports to compete on global markets. An economy may be competitive by selling products of a higher quality or a lower price than its competitors.

International convergence refers to the increasing similarity of economic conditions in different economies during the globalisation era, in terms of economic systems, performance and structure, and living standards.

International division of labour is how the tasks in the production process are allocated to different people in different countries around the world.

International Monetary Fund (IMF) is an international agency that consists of 190 members and oversees the stability of the global financial system. The major functions of the IMF are to ensure stability of exchange rates, exchange rate adjustment and convertibility.

Investment is any current expenditure where the benefits will be obtained in the future. Most typically, this injection will involve the purchase of capital goods or the build up of stock or inventory.

J

J-curve effect is an economic concept that suggests that a depreciation of a currency will lead to a short-term deterioration of Australia's trade balance (as exporters receive lower revenue for a given quantity of exports and import spending rises for a given quantity of imports) and a long- term improvement in the trade balance as exports become more competitive and imports less competitive, so that export volumes rise and import volumes fall.

K

Korea-Australia Free Trade Agreement (KAFTA) is a bilateral free trade agreement between Australia and Korea signed in 2014.

Kyoto Protocol is an agreement ratified by 191 countries since 1997 designed to lower emissions of carbon dioxide and other greenhouse gas emissions in order to combat climate change.

L

Labour is human effort, both physical and mental, used to produce goods and services. The return for labour is wages. See also, *land*, *capital* and *enterprise*.

Labour force consists of all the employed and unemployed persons in the country at any given time. Also known as the workforce.

Labour force participation rate (LFPR) (see *participation rate*)

Labour on-costs (see *on-costs*)

Labour market is where individuals seeking employment interact with employers who want to obtain the most appropriate labour skills for their production process.

Labour market policies are microeconomic policies that are aimed at influencing the operation and outcomes in the labour market, including industrial relations policies that regulate the process of wage determination as well as training, education and job-placement programs to assist the unemployed.

Labour productivity refers to the quantity of output produced in a production process per unit of labour per unit of time. See also, *multifactor productivity*.

Land is the natural resources used to produce goods and services. The return for land is rent. See also, *capital*, *land* and *enterprise*.

Leakages are the items that remove money from the circular flow of income, decreasing aggregate income and the general level of economic activity. The three leakages are savings, taxation and imports. See also, *injections*.

Least Developed Countries (LDCs) are those economies that suffer from low living standards (as measured by GDP per capita levels less than around US$900 per year) and longer term impediments to economic development.

Liquidity is the ease with which a financial asset can be transformed into cash so it can be used as a medium of exchange.

Local content rules specify that goods must contain a minimum percentage of locally made parts to qualify for trade protection assistance.

Long-term unemployment refers to a person being unemployed for a period of one year or longer.

Lorenz curve is a graphical representation of income distribution, plotting the cumulative increase in population against the cumulative increase in income. See also, *Gini coefficient*.

M

M3 is a measure of the money supply that consists of all currency in circulation, bank deposits with the Reserve Bank and private sector deposits in banks.

Macroeconomic policies are policies that affect the economy as a whole with the aim of minimising fluctuations in the business cycle. Also referred to as demand management or counter-cyclical policies.

Malaysia-Australia Free Trade Agreement (MAFTA) is a bilateral free trade agreement between Australia and Malaysia signed in 2012.

Managed exchange rate is an exchange rate system where the value of the currency is determined or substantially influenced by central bank intervention in the foreign exchange market, but where the level of exchange is not held at a permanently fixed level.

Marginal propensity to consume (MPC) is the proportion of each extra dollar of earned income that is spent on consumption. See also, *average propensity to consume*.

Marginal propensity to save (MPS) is the proportion of each extra dollar of earned income that is not spent, but saved for future consumption. See also, *average propensity to save*.

Marginal rate of tax is the proportion of each extra dollar earned that must be paid in tax. See also, *average rate of tax*.

Market clearing occurs when there is equilibrium in the market, that is, when the demand and supply curves intersect, when quantity demanded equals quantity supplied and there is no tendency for change.

Market economy is an economic system whereby all major economic decisions are made by individuals and private firms, which are both motivated by self-interest,

without government intervention. See also, *centrally planned economy* and *mixed economy*.

Market equilibrium (see *equilibrium*)

Market failure occurs when the price mechanism takes into account private benefits and costs of production to consumers and producers, but it fails to take into account indirect costs such as damage to the environment.

Market learning (also known as learning by doing) is where a business becomes more efficient at producing a particular good or service as it gains more experience producing that good or service. This will shift the business's average cost curve downwards and shift its supply curve to the right.

Merit goods are goods that are not produced in sufficient quantity by the private sector because private individuals do not place sufficient value on those goods, that is, they involve positive externalities that are not fully enjoyed by the individual consumer. Merit goods include education and health care.

Microeconomic policies are policies that are aimed at individual industries, seeking to increase aggregate supply by improving the efficiency and productivity of producers.

Migration is the movement of people between countries on a permanent or long-term basis, usually for 12 months or longer.

Microeconomics is concerned with the study of economics at the level of individual economic actors or sectors of industry.

Mixed economy is an economic system where the decisions concerning production and distribution are made by a combination of market forces and government decisions. See also, *market economy* and *centrally planned economy*.

Mobility of labour (see *geographical mobility*, *occupational mobility*)

Monetary aggregates (see *financial aggregates*)

Monetary policy is a macroeconomic policy that aims to influence the cost and supply of money in the economy in order to influence economic outcomes such as economic growth and inflation. The Reserve Bank of Australia (RBA) administers monetary policy by influencing the level of interest rates.

Monetary union is where two or more countries share a common currency.

Money is the medium of exchange in most modern economies.

Money base is a measure of the money supply that consists of all currency in circulation and all bank deposits with the Reserve Bank.

Money wage (see *nominal wage*)

Money supply is the total amount of funds in an economy that can be used as a medium of exchange, a measure of value, a store of value and a method of deferred payment. The Reserve Bank's measure of the money supply is M3.

Monopolistic competition is a market structure in which there are many sellers producing differentiated products, and there are no significant barriers to entry. This is not the same as monopoly.

Monopoly describes an industry where there is only one seller producing a unique product. There are high barriers to entry, so the monopolist has market power and can determine price or output (but not both). See also, *natural monopoly*.

Multifactor productivity refers to the quantity of output produced in a production process per combined input of labour and capital per unit of time. See also, *labour productivity*.

Multilateral free trade agreement is an agreement between a number of countries, usually in a region, to lower tariff levels and other forms of protection in order to encourage increased trade flows. See also, *bilateral free trade agreement* and *regional free trade agreement*.

Multinational corporations are firms that sell and produce goods or services in more than one country. See also, *transnational corporations*.

Multiplier is the greater than proportional increase in national income resulting from an increase in aggregate demand.

National competition policy is an agreement between Australia's Commonwealth and state governments signed in 1995 to encourage microeconomic reform throughout the Australian economy.

National Federation Reform Council (NFRC) is a forum including the Prime Minister, Premiers, Chief Ministers, and Treasurers, which meets to focus on priority national federation issues. The NFRC replaced the Council of Australian Governments in 2020.

National saving is the proportion of national income not spent by consumers, firms or the government.

Natural monopoly is a market situation in which only one operator can operate efficiently in an industry, usually because of extremely high barriers to entry, for example, the capital cost of a railway network.

Natural rate of unemployment refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment. See also, *full employment*, *non-accelerating inflation rate of unemployment (NAIRU)*.

Natural resources include all the resources provided by nature that are used in the production process. These are often simply referred to as "land". The reward (return) to the owners of natural resources is called rent. See also, *land*, *capital*, *labour*, *enterprise.*

Necessities (see *needs*)

Needs are individual desires for the basic necessities of life, such as food and shelter.

Negative externality is an unintended negative outcome of an economic activity whose cost is not reflected in the operation of the price mechanism. See also, *positive externality*.

Net errors and omissions is the entry on the balance of payments that ensures that the sum of the current account and the capital and financial account equals zero.

Net foreign debt refers to the level of outstanding loans owed by Australian residents to overseas residents minus the level of outstanding loans owed by overseas residents to Australian residents. See also, *foreign debt*.

Net foreign equity is the value of Australian assets such as land, shares and companies in foreign ownership minus the value of foreign assets in Australian ownership. See also, *foreign equity*.

Net foreign liabilities are equal to Australia's financial obligations (foreign debt plus foreign equity) to the rest of the world minus the rest of the world's financial obligations to Australia. See also, *net foreign debt* and *net foreign equity*.

Net primary income is a component on the current account of the balance of payments calculated by subtracting primary income debits from income credits. Primary income debits include interest payments, dividends and rent paid by Australians on foreign liabilities, while income credits consist of similar payments by foreigners to Australians.

Net secondary transfers is a component of the current account that includes all transactions in which products or financial services are provided without a specific good or service being provided in return. This includes items such as aid to developing nations.

Net zero emissions are achieved when anthropogenic emissions of greenhouse gases to the atmosphere are balanced globally by anthropogenic removals over a specified period – in other words, the amount of greenhouse gases that an economy produces is the same or less than the amount it removes.

Newly industrialised countries (NICs) refers to economies that experience rapid economic growth in national output over an extended period, some of which now have living standards that are similar to advanced industrialised countries.

Nominal wage is the pay received by employees in dollar terms for their contribution to the production process, not adjusted for inflation. See also, *real wage*.

Non-accelerating inflation rate of unemployment (NAIRU) refers to the level of unemployment at which there is no cyclical unemployment, that is, where the economy is at full employment. See also, *natural rate of unemployment*.

Non-excludable goods are goods or services whose consumption cannot be restricted to those willing to pay for them, such as clean air and national defence. The private sector is generally unwilling to provide non-excludable goods because individuals may not pay for using them. See also, *free riders*, *public good*.

Non-renewable resources are inputs to production where the stock of the resource is reduced in the process of production and consumption, for example, petroleum and coal. See also, *renewable resources.*

Non-rival goods are goods and services whose consumption by one individual does not reduce the ability of other individuals to also consume the good or service. See also, *public good*.

North American Free Trade Agreement (NAFTA) was a free trade agreement between the United States, Canada and Mexico in effect from 1994 to 2020. It has been replaced by the United States-Mexico-Canada Agreement. See also, *United States-Mexico-Canada Agreement (USMCA)*

Non-wage outcomes are the benefits that many employees receive in addition to their ordinary and overtime payments, such as sick leave, superannuation, a company car, study leave or arrangements for employees to work from home for part of the week.

O

Occupational mobility refers to the ability of labour to move between different occupations to gain higher wages or improved employment opportunities.

Okun's Law explains the relationship between unemployment and economic growth, showing that to reduce unemployment, the annual rate of economic growth must exceed the sum of percentage growth in productivity *plus* increase in the size of the labour force in any one year.

Oligopoly describes a market structure consisting of a few large firms producing slightly differentiated products. There are significant barriers to entry and each firm engages in non-price competition.

On-costs are the additional costs to business of employing labour (beyond their wage rates) such as sick leave and workers' compensation.

Open Market Operations (see *Domestic Market Operations*)

Opportunity cost represents the alternative use of resources. Often referred to as the "real" cost, it represents the cost of satisfying one want over an alternative want. This is also known as economic cost.

Organisation for Economic Cooperation and Development (OECD) is an organisation of 38 developed countries that seeks to promote economic growth and free markets amongst its members.

Outsourcing occurs when an organisation pays another business to perform a function that it does not regard as a core part of its business focus. Also known as sub-contracting or contracting out.

Outlay method (see *total outlay method*)

P

Participation rate refers to the percentage of the population, aged 15 and over, in the labour force, that is either employed or unemployed.

Perfect competition (see *pure competition*)

Perfectly elastic demand is where consumers demand an infinite quantity of a good or service at a particular price but nothing at all at a price above this. This situation can be represented by a horizontal demand curve.

Perfectly elastic supply is where producers are willing to supply an infinite quantity of a good or service at a particular price but nothing at all at a price below

this. This situation can be represented by a horizontal supply curve.

Perfectly inelastic demand is where consumers are willing to pay any price in order to obtain a given quantity of a good or service. This situation can be represented by a vertical demand curve.

Perfectly inelastic supply is where producers are willing to supply a given quantity of a good or service regardless of price. This situation can be represented by a vertical supply curve.

Phillips curve is a graphical representation of the theory that the economy faces a trade-off between low levels of inflation and low levels of unemployment.

Policy mix (see *economic policy mix*)

Portfolio investment refers to the short-term movement of funds between economies for loans or the purchase of small share holdings (less than 10 per cent of the total value of a company).

Positive externality is an unintended positive outcome of an economic activity whose value is not reflected in the operation of the price mechanism. See also, *negative externality*.

Poverty (see *absolute poverty*, *relative poverty*)

Precautionary motive is the demand for money for the purposes of unpredictable circumstances and emergencies for which people need to have liquid assets such as cash.

Price ceiling is a maximum price set by the government for which a good, service or factor of production can be sold, usually resulting in market disequilibrium as market demand will be greater than market supply.

Price discrimination is when a firm sells the same good or service in different markets (or to different consumers) at different price levels.

Price floor is a minimum price set by the government for which a good, service or factor of production can be sold, usually resulting in market disequilibrium as market supply will be greater than market demand.

Price elasticity of demand measures the responsiveness of quantity demanded to a change in price. It is calculated as the percentage change in quantity demanded divided by the percentage change in price.

Price elasticity of supply measures the responsiveness of quantity supplied to a change in price. It is calculated as the percentage change in quantity supplied divided by the percentage change in price.

Price mechanism is the process by which the forces of supply and demand interact to determine the market price at which goods and services are sold and the quantity produced.

Price stability is a goal of government economic policy seeking to restrain the growth rate of the general price level, essentially meaning low inflation.

Prices and incomes policy is a government macro-economic policy that seeks to control the growth rate of prices and/or wages and expand employment by imposing restraints on wages growth.

Primary financial markets are markets in which firms raise funds by selling financial assets, such as shares or debentures, to investors.

Private good is a good that is temporarily or permanently used up when someone consumes it and is easy to exclude people who are unwilling to pay for its benefits. See also, *public good*.

Private sector refers to those sectors of the economy that concern private individuals, that is, the household, the firm and the financial sector.

Privatisation occurs when the government sells public trading enterprises to the private sector. See also, *corporatisation*.

Product differentiation is when firms try to make their good or service look different from competitors (such as through packaging or product image) to increase brand loyalty and give the firm some degree of price setting power.

Product market is the interaction of demand for and supply of the outputs of production, that is, goods and services.

Production possibility frontier is a graphical representation of all the possible combinations of the production of two goods and services (or two types of goods and services) that the economy can produce at any given time.

Productivity refers to the quantity of goods and services the economy can produce with a given amount of inputs such as capital and labour. See also, *labour productivity* and *multifactor productivity*.

Profit is the return to the factor of production enterprise for its role in the production of goods and services. See also, *interest*, *rent* and *wages*.

Profit motive refers to the process by which a business seeks to maximise profit by using the lowest cost combination of resources and charging the highest possible price.

Progressive tax system is a tax system in which higher income earners pay proportionally more tax. As income increases, the average rate of tax increases.

Proportional tax system is a tax system in which all income earners pay proportionally the same amount of tax. The average rate of tax remains constant as income rises.

Protection refers to government policies that give domestic producers an artificial advantage over foreign competitors, such as tariffs on imported goods.

Public company is an entity whose shares are traded freely on the share market, and are not subject to any restrictions on being transferred to other parties.

Public good is an item that private firms are unwilling to supply as they are not available to restrict usage and benefits to those willing to pay for the good. Because of this, governments should provide these goods. See also, *private good*.

Public sector refers to the parts of the economy that are owned or controlled by the government. It includes all

tiers of the government as well as government business enterprises.

Public sector goods are goods and services provided by the government such as train services and hospitals. See also, *public good*.

Public Trading Enterprises (PTEs) are businesses owned and managed by a government at either the Commonwealth or state level.

Purchasing power parity (PPP) states that exchange rates should adjust to equalise the price of identical goods and services in different economies throughout the world.

Pure competition describes the theoretical market structure where there are many buyers and sellers. They each sell a homogeneous product and there are no barriers to entry into the industry. They are price takers, as individually they have no power to influence price.

Q

Quality of life refers to the overall well-being of individuals within a country according to their material living standards and a range of other indicators such as education levels, environmental quality and health standards. See also, *standards of living*.

Quantitative easing involves a central bank creating new money electronically, and then injecting it into the money supply through buying assets, usually government bonds, from investors such as fund managers and banks. By increasing liquidity and lowering interest rates, quantitative easing aims to increase borrowing and stimulate economic activity in the private sector.

Quotas refer to restrictions on the amounts or values of various kinds of goods that may be imported.

R

Real Gross Domestic Product is the total value of all final goods and services produced in an economy over a period of time, adjusted for changes in the general price level.

Real cost (see *opportunity cost*)

Real wage is a measure of the actual purchasing power of money wages (that is, adjusting nominal wages for the effects of inflation). See also, *nominal wage*.

Recession is the stage of the business cycle in which there is decreasing economic activity, defined as two consecutive quarters (six months) of negative economic growth, that is, a fall in GDP.

Regional business cycles are fluctuations in the level of economic activity in a geographical region of the global economy over time.

Regional free trade agreement is a multilateral agreement between three or more economies within a geographic region to lower tariff levels and other forms of protection in order to encourage increased trade flows. See also, *bilateral free trade agreement* and *multilateral free trade agreement*.

Regressive tax system is a tax system in which lower income earners pay proportionally more tax. As income increases, the average rate of tax falls.

Regulation is the collection of government rules and institutions that influence the operation of markets and the participants in markets.

Relative poverty refers to those whose standards of living are substantially lower than the average for the economy as a whole, and is often defined as a level of income below 30 per cent of average earnings. See also, *absolute poverty*.

Renewable Energy Target (RET) is the policy to increase Australia's production of electricity from renewable energy such as solar, wind, and geothermal energy to 33,000 gigawatt hours per year by 2020. The target stays the same from 2020 to 2030, with new renewable energy power stations still able to be accredited after 2020.

Renewable resources are inputs into the production process that reproduce themselves, ensuring that present consumption of these resources does not necessarily reduce the ability of future generations to consume these resources in the future, for example, timber. See also, *non-renewable resources*.

Rent is the return to the factor of production natural resources (land) for its use in the production of goods and services. It does not just include rent from property but all income rewards derived from the productive use of natural resources. See also, *wages*, *interest* and *profit*.

Reserve assets refer to holdings of foreign currency and gold held by the Reserve Bank to use in foreign exchange markets in order to influence the value of the Australian dollar.

Reserve Bank of Australia (RBA) is Australia's central bank. Its main roles are to conduct monetary policy and oversee the stability of the financial system.

Returns to production are the payments made to factors of production to compensate for their use. The returns to production include: wages to labour, rent on land, interest on capital and profit on enterprise.

Revaluation occurs when the government, or central bank, increases the value of a currency that operates with a fixed exchange rate. See also, *devaluation*.

Salary (see *wages*)

S

Satisficing behaviour is the idea that firms will attempt to pursue a satisfactory level in all goals (profit maximisation, sales maximisation etc.) rather than maximising any single goal.

Savings represent the amount of disposable income that is not spent on consumption. Savings is a leakage from the circular flow of income, which is necessary to fund investment. The reward for savings is interest.

Seasonal unemployment affects those persons unemployed due to the seasonal nature of their work. Their jobs are only available at certain times of the year such as fruit picking or being a shopping centre Santa Claus.

Secondary financial markets are markets in which investors trade financial assets, such as shares or debentures, with other investors.

Share is a type of financial asset that provides an individual with ownership over part of a business or company.

Share market is a market for the sale of equity interests in companies.

Simply transformed manufactures (STMs) are low-value added manufacturing goods that generally command low prices on international markets, such as socks and singlets. See also, *elaborately transformed manufactures*.

Singapore-Australia Free Trade Agreement (SAFTA) is a bilateral free trade agreement between Australia and Singapore that was signed in 2003.

Social welfare payments are payments from the government to assist people with basic costs of living. A number of terms are commonly used for transfer payments including: transfer payments, government benefits, social security, income support and Centrelink payments.

Specialisation occurs when an economy concentrates on producing a particular set of goods or services in which it has a comparative advantage.

Specialisation of labour occurs when the volume of production is large enough for workers to concentrate on a particular stage of the production process.

Speculators are investors who buy or sell financial assets with the aim of making profits from short-term price movements. They are often criticised for creating excessive volatility in financial markets.

Stagflation occurs when the rate of inflation and the rate of unemployment rise simultaneously.

Standards of living refers to the material wellbeing of individuals within a country, usually measured by Gross National Income (GNI) per capita. See also, *quality of life*.

Structural change involves changes in the patterns of production that reflect changes in technology, consumer demand, global competitiveness and other factors. It results in some products, processes and even industries disappearing, while others emerge.

Structural unemployment describes those persons unemployed because of a mismatch between their skills and those skills demanded by employers. This occurs due to factors such as technological change and rapid changes in consumer demand, where labour skills cannot adapt quickly enough to such changes.

Stock exchange is an organisation that provides facilities for investors to trade shares and other financial assets. See also, *share market*.

Sub-contracting (see *outsourcing*)

Subsidies are cash payments from the government to businesses to encourage production of a good or service and influence the allocation of resources in an economy. Subsidies are often granted to businesses to help them compete with overseas produced goods and services.

Substitute is a good that consumers may choose to buy in place of another good, such as butter and margarine or tea and coffee.

Superannuation is a form of saving that individuals cannot access until they reach retirement age.

Supply is the quantity of a good or service that all firms in a particular industry are willing and able to offer for sale at different price levels, at a given point in time.

Tariffs are taxes on imported goods imposed for the purpose of protecting Australian industries.

Tax (see *taxation*)

Tax base is the items that are taxed by the government, such as income, wealth or consumption.

Tax-free threshold refers to the level of income below which income tax is not payable.

Taxation is a leakage from the circular flow model of income. It refers to the amount of revenue that the government obtains from different sectors and activities in the economy.

Technical efficiency is the ability of an economy to achieve the maximum level of output for a given quantity of inputs. See also, *allocative efficiency* and *dynamic efficiency*.

Technical optimum is the most efficient level of production for a firm. At this point, average costs of production are at their lowest possible level.

Technology transfer occurs when falling global barriers to trade and financial flows allow developing economies to access more advanced technology from overseas.

Terms of trade measures the relative movements in the prices of a economy's imports and exports over a period of time. The terms of trade index is calculated as export price index divided by import price index multiplied by 100.

Thailand-Australia Free Trade Agreement (TAFTA) is a bilateral free trade agreement between Australia and Thailand signed in 2003.

Total outlay method is a way to calculate the price elasticity of demand by looking at the effect of changes in price on the revenue earned by the producer. If price and revenue move in the same direction, demand is inelastic; if price and revenue move in the opposite direction, demand is elastic; and if revenue remains unchanged in response to a price change, demand is unit elastic.

Trade bloc occurs when a number of countries join together in a formal preferential trading agreement to the exclusion of other countries.

Trade liberalisation is the process of reducing tariffs, subsidies and other barriers to trade in order to encourage increased linkages between economies.

Trade union is an organisation that represents the interests of workers, primarily by seeking to improve their wages and working conditions.

Trade Weighted Index (TWI) is a measure of the value of the Australian dollar against a basket of foreign currencies of major trading partners. These currencies are weighted according to their significance to Australia's trade flows.

Tragedy of the commons refers to a situation where the failure of the market to assign costs to individuals

leads to an overuse of resources such as the natural environment, which have no single owner.

Transactions motive is the demand for money for day-to-day purchases for which people need to use money.

Transfer payments (see *social welfare payments*).

Transition economies are former socialist economies that are now becoming market economies, and are concentrated in Central and Eastern Europe and Asia.

Transmission mechanism explains how changes in the stance of monetary policy pass through the economy to influence economic objectives such as inflation and economic growth.

Transnational Corporations (TNCs) are global companies that dominate global product and factor markets. TNCs have production facilities in at least two countries and are owned by residents of at least two countries.

Treasury is the Australian Government department responsible for developing fiscal policy through the Federal Budget, and advising the government on financial stability issues.

U

Underemployment refers to those persons who are working less than full time (and therefore not unemployed) but would like to work more hours.

Underlying inflation is a measure of the increase in the general price level that removes the effect of one-off or volatile price movements.

Unemployment refers to a situation where individuals want to work but are unable to find a job, and as a result labour resources in an economy are not utilised.

Unemployment rate is the number of people officially unemployed as a percentage of the labour force.

Union (see *trade union*)

Unit elasticity of demand is where a change in price causes a proportional change in quantity demanded such that total spending by consumers on a good remains unchanged.

United Nations is a global organisation of 193 member states established in 1945 with a broad agenda covering the global economy, international security, the environment, poverty and development, international law, and global health issues.

United States-Mexico-Canada Agreement (USMCA) came into effect on 1 July 2020. It is an updated version and replacement of the NAFTA. See also, *North American Free Trade Agreement (NAFTA)*.

Utility is the satisfaction or pleasure that individuals derive from the consumption of goods and services.

V

Valuation effect is where an appreciation (or depreciation) of the currency causes an immediate decrease (or increase) in the Australian dollar value of foreign debt.

Voluntary export restraints are agreements to restrict the number of exports to another country in exchange for a similar concession from the other nation.

W

Wages are the return to the factor of production labour for its use in the production of goods and services. These not only include wages but also salaries, fees, commissions and other earnings. See also, *interest*, *profit*, *rent*.

Wants are material desires of individuals that provide some pleasure when they are satisfied. This will depend on personal preferences. Wants are said to be unlimited. See also, *collective wants*.

Wage Price Index is a measure of growth in hourly rates of pay that is released quarterly by the Australian Bureau of Statistics. It is regarded as the most reliable indicator of underlying wage growth as the index is not affected by changes in bonuses or the quality or quantity of work.

Wealth is the value of the stock of assets held by individuals at a point in time.

Wealth effect occurs when an increase in the price of assets such as property and shares leads to an increase in consumption. This occurs because rising asset prices make the owners of these assets feel wealthier and so more willing to spend a greater a proportion of their income.

Welfare (see *utility*, *social welfare payments*)

Workable competition is the government's objective to achieve the maximum level of competition within an industry that is compatible with the market structure and specific conditions of the industry, that is, a situation where all markets are contestable.

Workforce (see *labour force*).

Workforce Australia is a federal government service that enables people to search for jobs and information related to employment.

Workforce participation rate (see *participation rate*)

Workplace relations system is the laws, institutions and processes established to determine wage outcomes and manage interactions between employees and employers. Also known as *industrial relations system*.

World Bank is a financial institution owned by 189 member countries that assists poorer nations with economic development through loans (often at little or no interest rates) to fund investment and reduce poverty. See also, *Heavily Indebted Poor Countries (HIPCs)*.

World Trade Organization (WTO) is an organisation of 164 member countries that implements and advances global trade agreements and resolves trade disputes between nations.

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