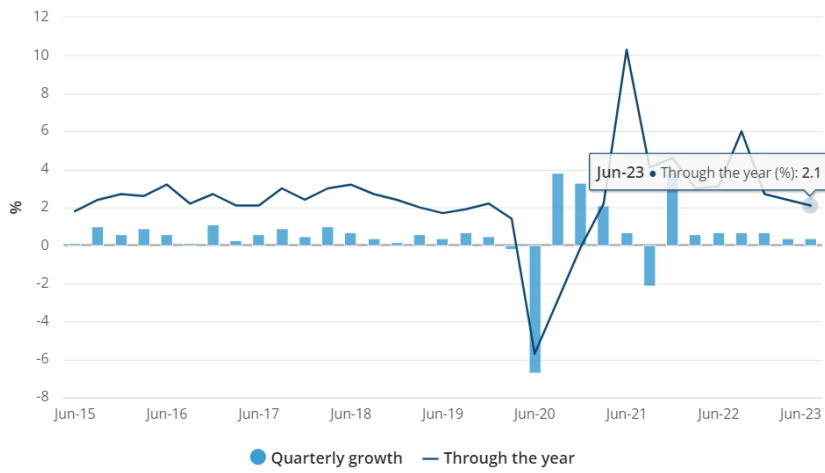
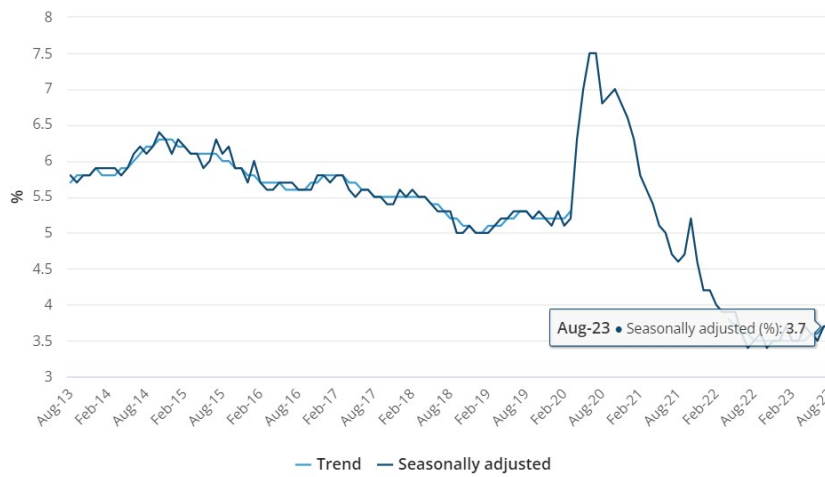


Economics
Notes

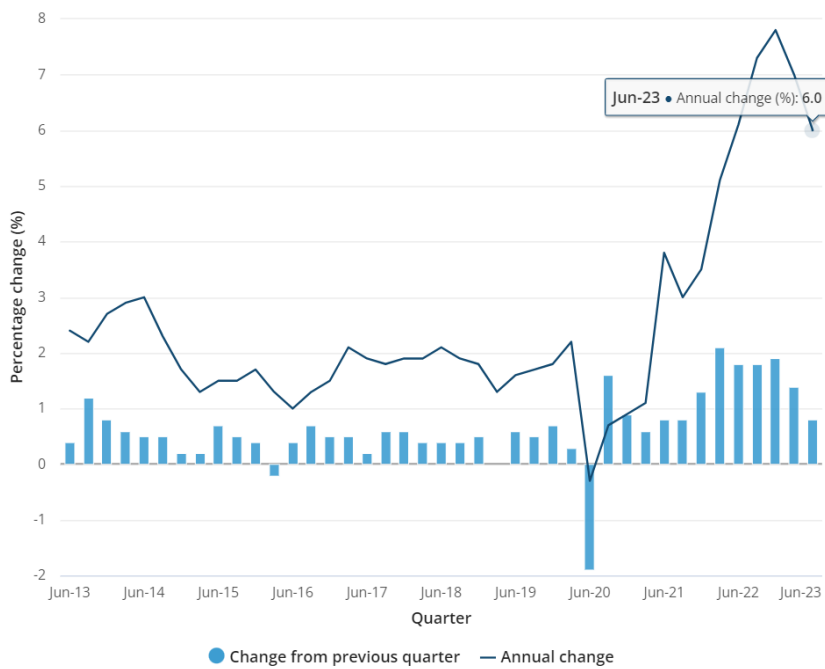
Gross domestic product, chain volume measures, seasonally adjusted



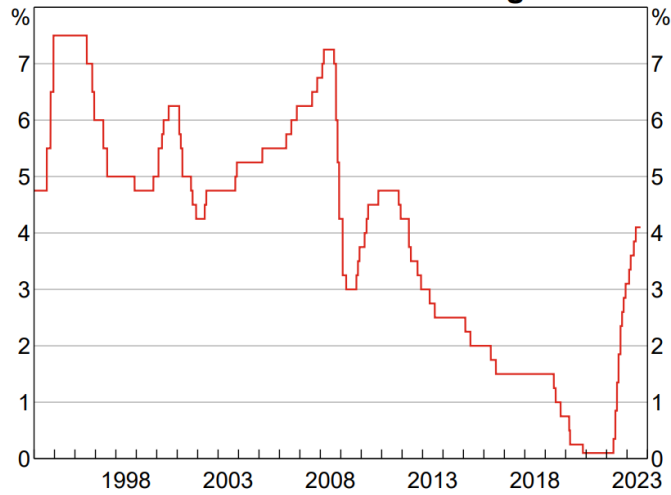
Unemployment rate



All groups CPI, Australia, quarterly and annual movement (%)



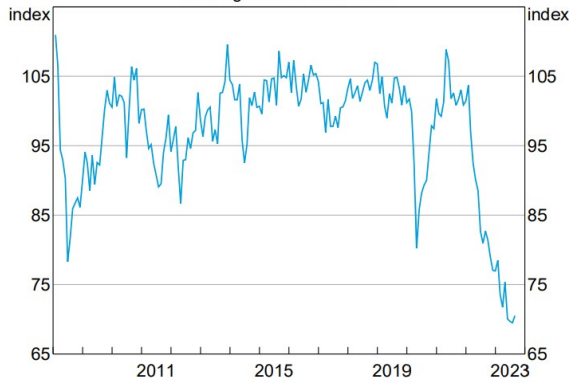
Australian Cash Rate Target



Source: RBA.

Consumer Sentiment*

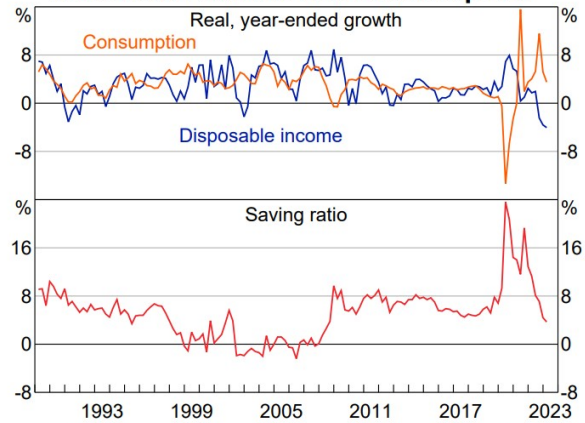
Average since 1980 = 100



* Average of the ANZ-Roy Morgan and Westpac-Melbourne Institute consumer sentiment measure of respondents' perceptions of their personal finances relative to the previous year; ANZ-Roy Morgan index rescaled to have the same average as the Westpac-Melbourne Institute index since 1996.

Sources: ANZ-Roy Morgan; RBA; Westpac and Melbourne Institute.

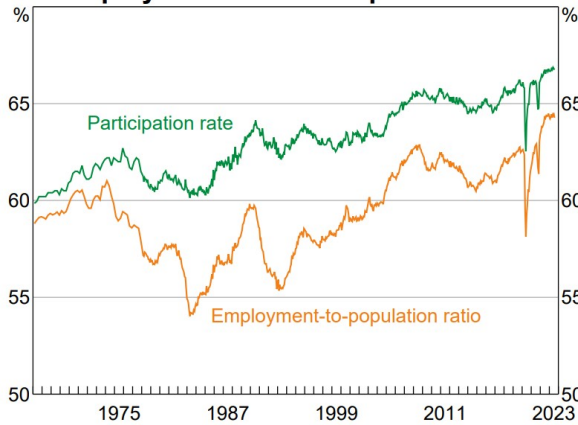
Household Income and Consumption*



* Household sector includes unincorporated enterprises; disposable income is after tax and interest payments; saving ratio is net of depreciation.

Sources: ABS; RBA.

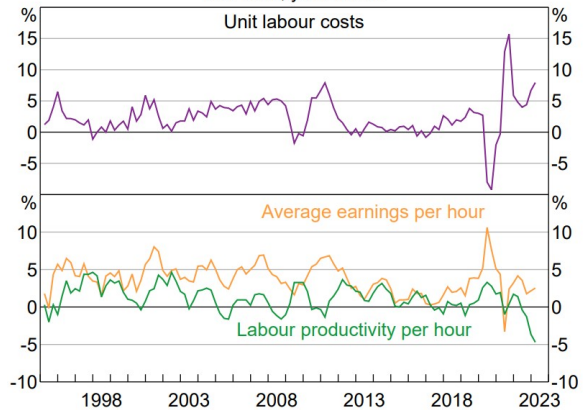
Employment and Participation Rates



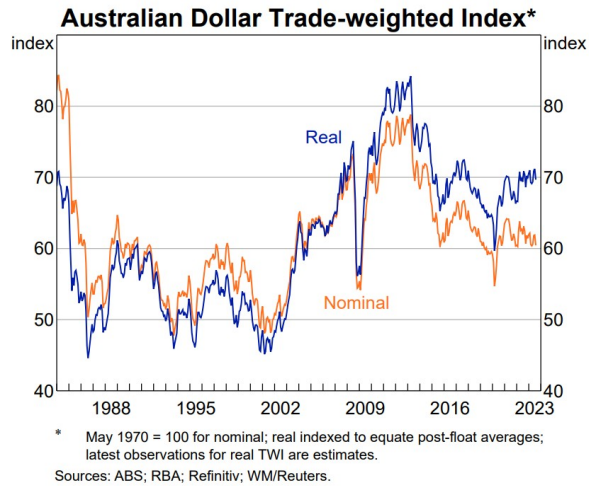
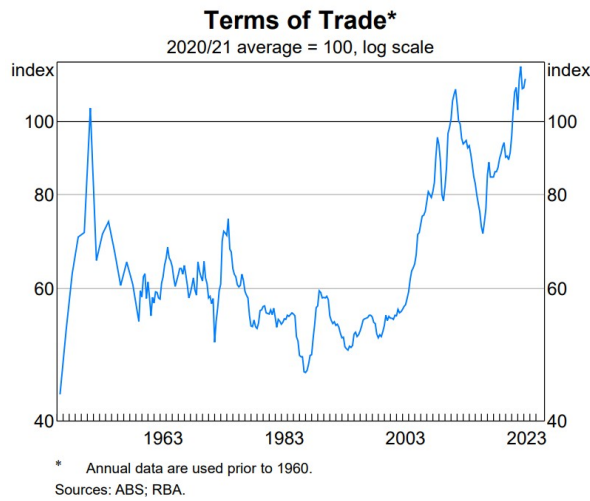
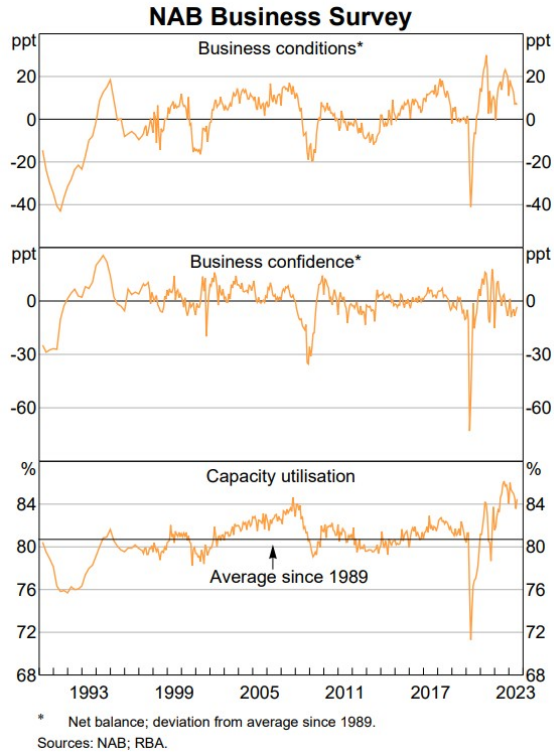
Source: ABS.

Unit Labour Costs Growth

Non-farm, year-ended



Sources: ABS; RBA.



Contents

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Unit 3 Australia's living standards
Area of Study 1: An introduction to microeconomics: the market system, resource allocation and government intervention

	Key knowledge	Chapter references	Tick when learned
1	the concept of relative scarcity, including needs, wants, resources, opportunity cost and the production possibility frontier (PPF) model, and the three basic economic questions	1.1 - 1.5	
2	the meaning and significance of economic efficiency, including allocative efficiency, productive efficiency, dynamic efficiency and intertemporal efficiency and their relationship to the PPF model	1.5 - 1.6	
3	the conditions for a free and perfectly competitive market	2.2	
4	the law of demand and the theory of the law of demand, including the income effect and the substitution effect	2.3	
5	the demand curve, including movements along and shifts of the demand curve	2.3	
6	non-price factors likely to affect demand and the position of the demand curve, including changes in disposable income, the prices of substitutes and complements, preferences and tastes, interest rates, population demographics and consumer confidence	2.4	
7	the law of supply and the theory of the law of supply, including the profit motive	2.5	
8	the supply curve, including movements along and shifts of the supply curve	2.5	
9	non-price factors likely to affect supply and the position of the supply curve, including changes in the costs of production, number of suppliers, technology, productivity and climatic conditions	2.6	
10	the effects of changes in supply and demand on equilibrium prices and quantity traded	2.7 - 2.8	
11	the meaning and significance of price elasticity of demand and supply	2.10	
12	factors affecting price elasticity of demand, including degree of necessity, availability of substitutes, proportion of income and time	2.11	
13	factors affecting price elasticity of supply, including spare capacity, production period and durability of goods	2.13	
14	the role of relative prices in the allocation of resources	2.9	
15	the role of free and competitive markets in promoting an efficient allocation of resources and improved living standards	3.1 + 3.2	
16	types of market failure, including public goods, externalities, asymmetric information and common access resources	3.3	
17	the role and effect of indirect taxation, subsidies, regulations, advertising and direct provision as forms of government intervention in the market to address market failure	3.3	
18	one example of a government intervention in markets that unintentionally leads to a decrease in one of allocative, productive, dynamic or intertemporal efficiency	3.4	
Unit 3 Australia's living standards Area of Study 1: Key Skills			Tick when mastered
define key economic concepts and terms and use them appropriately			
construct and interpret demand and supply diagrams and a PPF model			
interpret and analyse statistical and graphical data			
gather, synthesise and use economic data and information from a wide range of sources to analyse economic issues			

U301: An introduction to microeconomics

Opportunity cost:

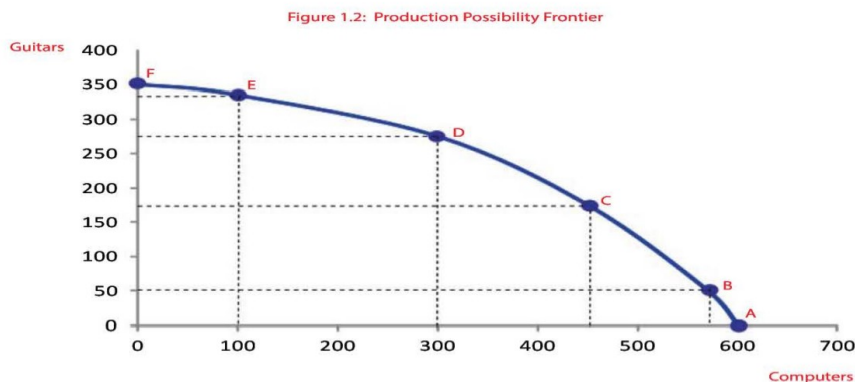
The value of the next best alternative that is foregone whenever a choice is made. Sometimes referred to as economic cost.

Relative scarcity:

A situation where resources are limited compared to the demands placed upon those resources via wants and needs. Unlimited needs/wants, limited resources.

Production possibility curve/frontier:

A diagram that illustrates the concept of opportunity cost and shows how an economy might allocate scarce resources. It demonstrates the trade-off between producing two particular goods or services.



Types of Efficiency

Technical efficiency:

Occurs when it is not possible to increase output without increasing inputs (resources). Therefore, the most technically efficient point of production occurs where productivity is at a maximum and where average costs are at a minimum. It is any point on the blue curve on a PPF graph.

Allocative efficiency:

A type of efficiency measured by how well resources are being allocated in the economy. The most efficient allocation of resources occurs when living standards and welfare are maximised and it is not possible to further increase living standards by changing the way resources are allocated.

Dynamic efficiency:

How quickly an economy can reallocate resources to achieve allocative efficiency. Typically in response to changing market conditions or new technologies.

Intertemporal efficiency:

How well resources are allocated over different time periods. Refers to balancing the use of available resources to meet needs and wants in different time periods -e.g. Present vs future.

Market Structures

Perfect competition:

Where consumers are able to purchase the goods and services they want at the lowest prices possible. (normal vs super-normal; very high profits from generally short-term popular goods & services).

- Homogeneous products (no product differentiation, products in the market are identical)
- Sellers are price takers
- Ease of entry & exit
- Full information
- Resource mobility
- A large number of buyers and sellers

Monopolistic Competition:

Monopolistic competition is a market structure characterized by a large number of firms producing differentiated products that are close substitutes for one another.

- Differentiated products
- Ease of entry & exit
- Full information
- A large number of buyers and sellers
- Businesses actively seek to differentiate themselves through non price factors – eg experience, marketing, etc.

Oligopoly:

An oligopoly market structure is characterized by a small number of dominant firms that hold a significant share of the market.

- Few buyers and sellers
- Small number of sellers
- Suppliers have much more information about the product, than buyers/consumers
- Need for regulation to prevent anti-competitive behaviour
- Barriers to exit & entry: Large firms have a considerable ability to control the price at which goods are sold

Monopoly:

A monopoly market structure is characterized by a single seller dominating the entire market, with no close substitutes available.

- Single seller
- Sellers are price makers
- No close substitutes: The product or service offered by the monopolist has no close substitutes available in the market.

Ceteris Paribus

Latin phrase meaning 'all other things being equal.' It is used in economics to describe a situation in which one variable is changed while all other variables are held constant or unchanged. It is used to isolate the effect of a single variable on a dependent variable, ignoring other factors.

Graphs

Expansion:

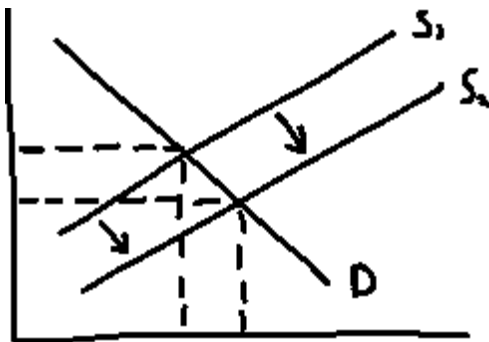
A movement to the right in supply or demand curve

Contraction:

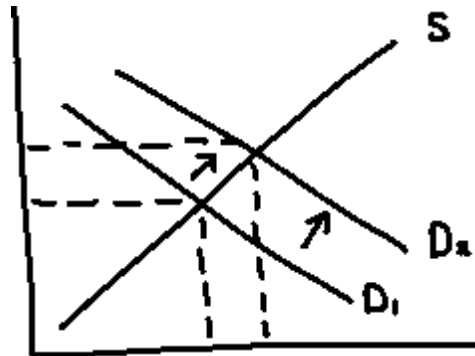
A movement to the left in supply or demand curve

Shift:

An increase or decrease in the supply or demand curve



- Increase in Supply
- Expansion in Demand



- Increase in Demand
- Expansion in Supply

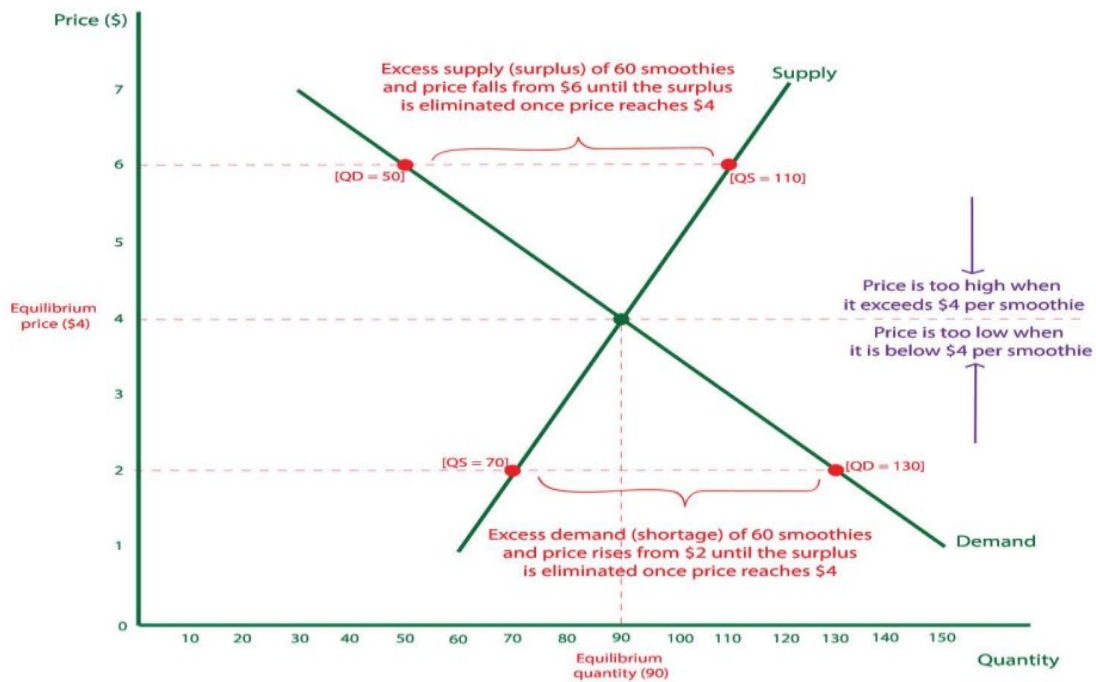
Shortage:

Where quantity demanded exceeds quantity supplied

Surplus:

Where quantity supplied exceeds quantity demanded

Figure 2.6:
Market in disequilibrium



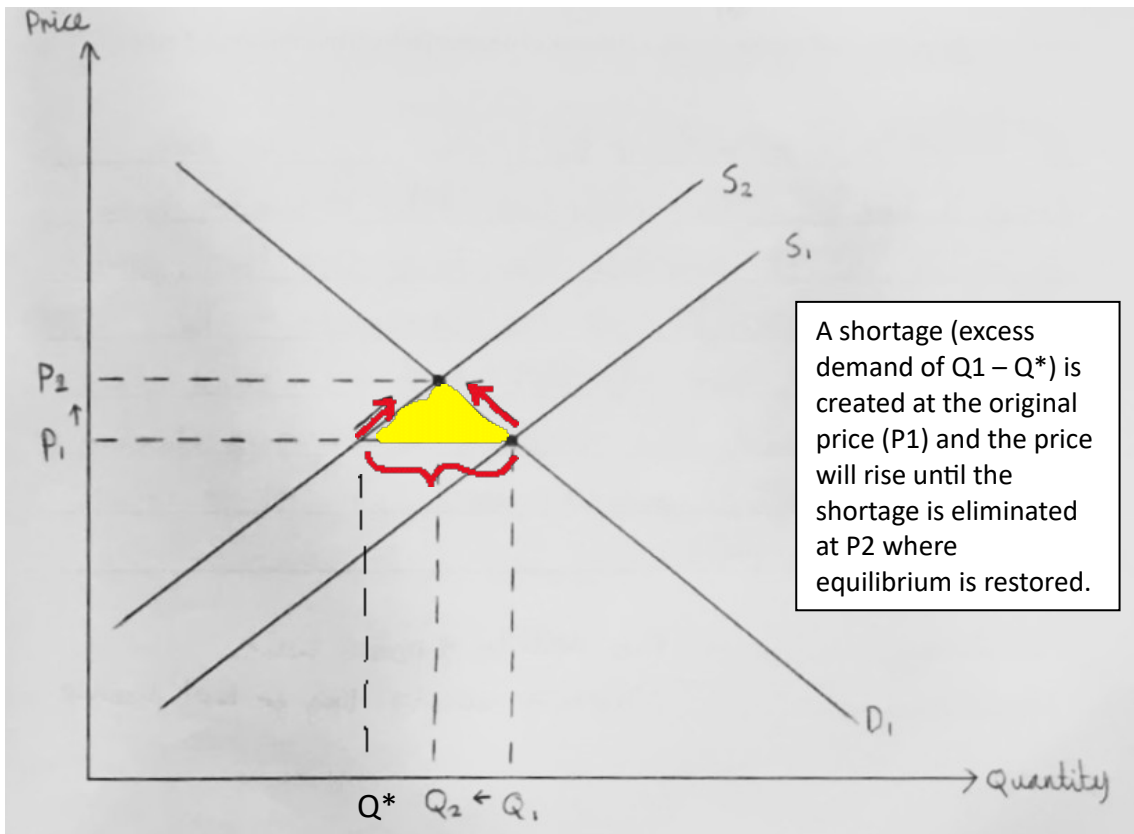
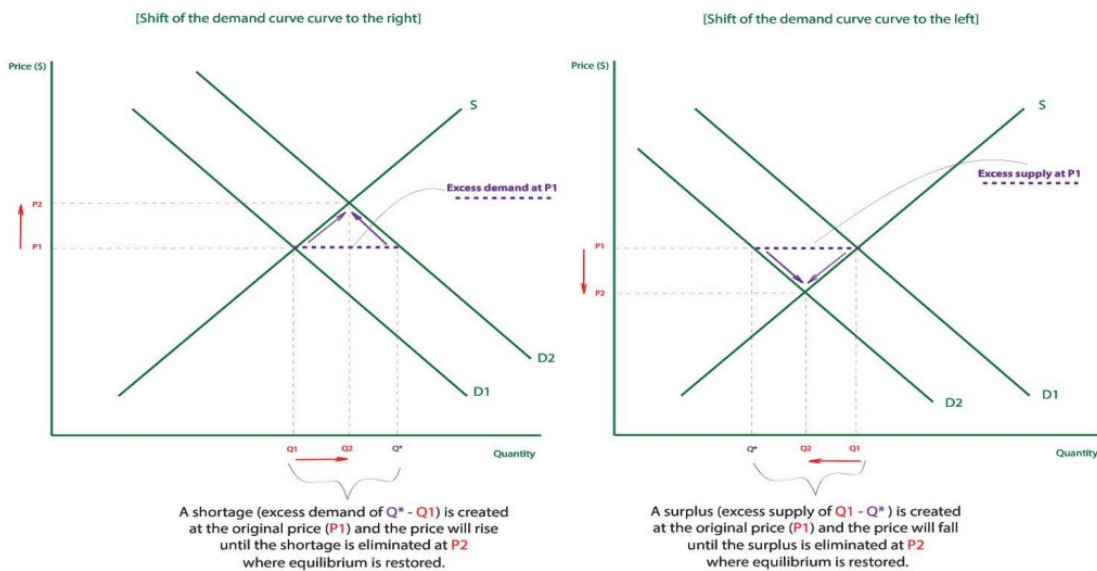


Figure 2.7:
Disequilibrium caused by a shift of the demand curve



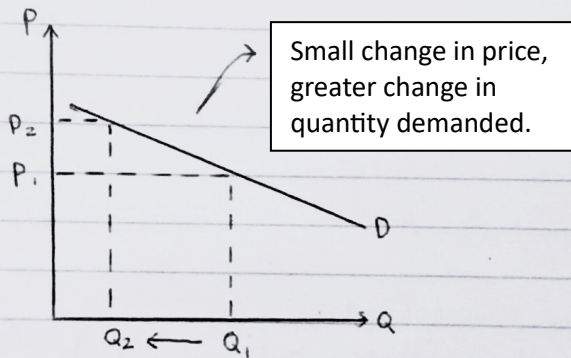
Price Elasticity

How responsive quantity demanded or supplied is to changes in price.

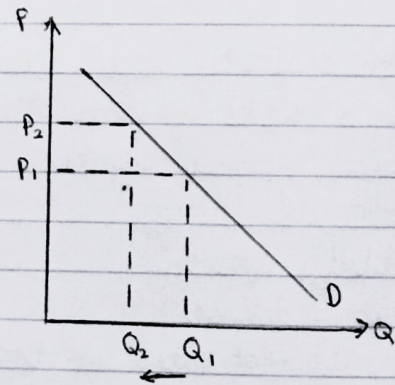
Price elasticity of demand:

$$PED = \text{Percentage change in quantity demanded} / \text{Percentage change in price}$$

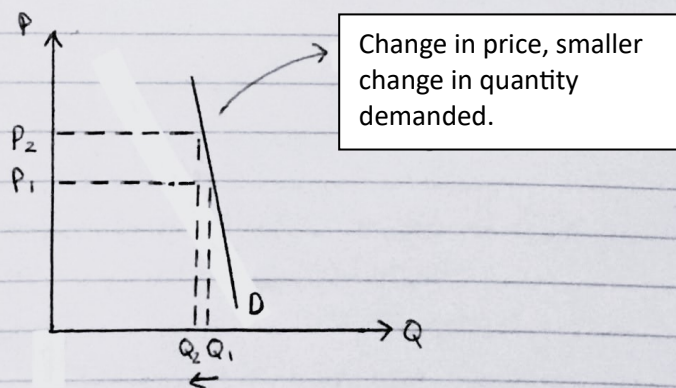
- High: $PED > 1$



- Medium: $PED = 1$ (unit elasticity)



- Low: $PED < 1$

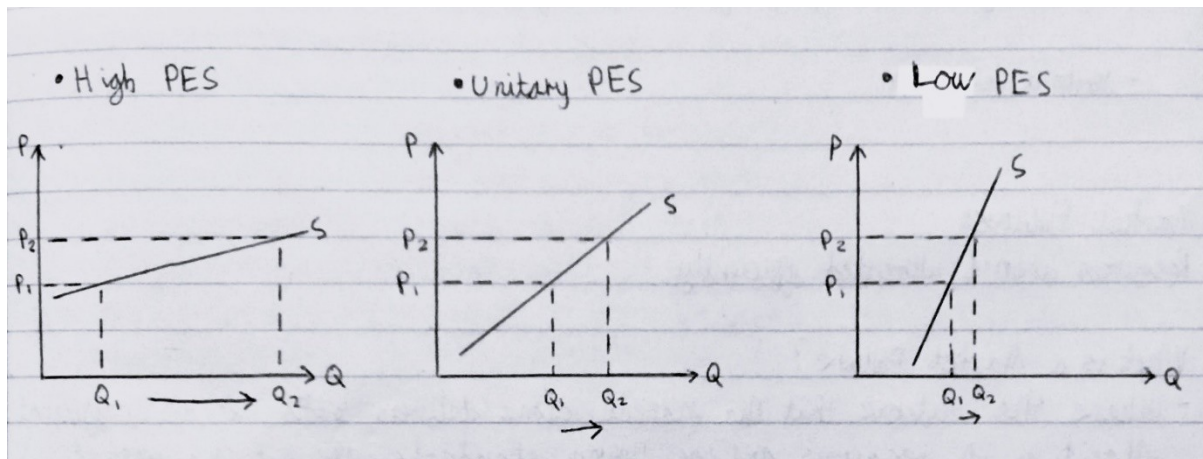


PED factors:

1. Degree of necessity
 - Necessity = low PED
 - Luxury = high PED
2. Availability of substitutes
 - Few Substitutes = low PED
 - Lots of substitutes = high PED
3. Proportion of income
 - Lower % of income = low PED
 - Higher % of income = high PED
4. Time: e.g. the longer a consumer is exposed to a good or service, the more time they have to figure out alternatives.
 - Short term = low PED
 - Long term = high PED

Price elasticity of supply:

$PES = \text{Percentage change in quantity supplied} / \text{Percentage change in price}$



PES factors:

1. Spare capacity:

This excess capacity allows the firm or industry to increase its output in response to an increase in demand without having to invest in new production facilities. In response to an increase in price, firms can quickly increase Qty supplied.

- More spare capacity = high PES

2. Production period

- Quick process, quicker to respond to price = high PES

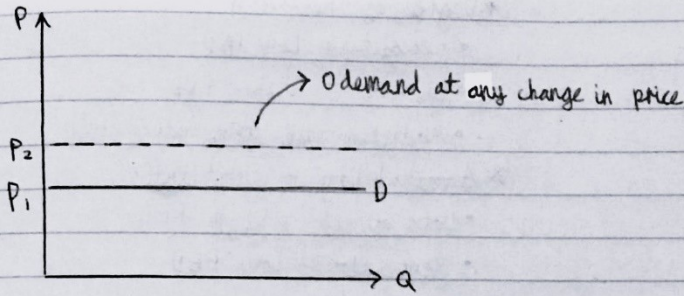
3. Durability

Given the sudden increase in the price of a good that is durable, it is more likely to already be in inventory, thus more could be sold.

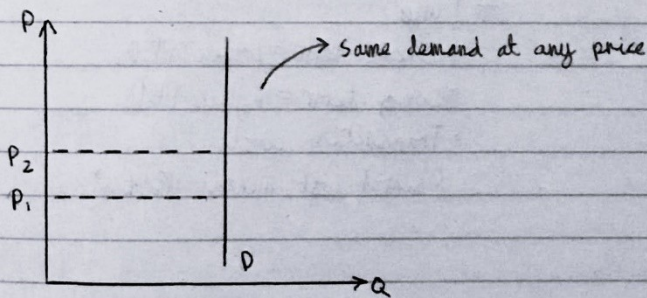
- Higher durability / easier to stock up = higher PES

Perfect elasticity & inelasticity

Perfect elasticity:



Perfect inelasticity:



	Excludable	Non-Excludable
Rival	<p>Private Goods</p> <p>"Typical Goods" (Clothes, Food, Flowers, etc.)</p>	<p>Common Goods</p> <p>"Common Pool Resources" (Mines, Fisheries, Forests, etc.) Air</p>
Non-Rival	<p>Club Goods</p> <p>"Artificially Scarce Goods" (Cable TV, Private Parks, Cinemas, etc.)</p>	<p>Public Goods</p> <p>"Collective Goods" (Air, News, Sunshine, etc.)</p>

Excludable:

Excludable goods are those that can be restricted to certain individuals or groups and whose use can be limited or prevented altogether by the owner or seller.

Rival:

Rivalrous goods are those that are consumed or used by one person and are not available for consumption or use by others.

Market failure

Where the outcome that the market alone delivers leads to an inefficient allocation of resources and/or living standards are not maximised.

Under allocation of resources:

When resources are allocated inefficiently, resulting in less of a particular good or service being produced than is socially optimal.

Over allocation of resources:

When resources are allocated inefficiently, resulting in more of a particular good or service being produced than is socially optimal.

Public Goods:

Goods or services that are both non-excludable and non-rival (non-depletable) in consumption. A person who does not pay for the good cannot be excluded from consuming it and one person's enjoyment does not lessen another's enjoyment.

- under allocation of resources
- free rider problem: producers cannot capture profit from everyone; thus, they will allocate resources elsewhere.
- under allocation of resources to the production of the relevant good or service means that allocative efficiency is therefore not achieved, resulting in market failure.
- Government responses:
 - Government subsidies: direct cash payment, low/no interest loans, subsidised costs (e.g. tax-free petrol)
 - Direct Government provision: the government becomes a producer in that market.

Externalities:

An externality (or spill over) occurs when a transaction leads to a cost or benefit imposed on a third party that is not involved in the exchange.

	Positive externalities Markets with positive externalities will under-allocate resources compared to the socially optimal level.	Negative externalities Markets with negative externalities will over-allocate resources compared to the socially optimal level.
Production	A benefit imposed on a third party in the production process of a good or service. Research & development may result in the implementation of new technology across many sectors in the economy.	A cost imposed on a third party in the production process of a good or service. The production process of goods & services may lead to higher carbon emissions.
Consumption	A benefit imposed on a third party in the consumption of a	A cost imposed on a third party in the consumption of a

	<p>good or service.</p> <p>Unvaccinated people also benefit from others being vaccinated.</p>	<p>good or service.</p> <p>When a person consumes a cigarette in public, the toxins in the cigarette are passed from the consumer to the third party.</p>
	<p>Government responses:</p> <ul style="list-style-type: none"> -Government Regulation -Advertising -Subsidies -Direct provision 	<p>Government responses:</p> <ul style="list-style-type: none"> -Government Regulation -Indirect taxation (tax that is levied to producers/supplies but is ultimately paid by consumers) -Subsidies -Government advertising

Direct tax: Income

Asymmetric information:

Asymmetric information refers to a market transaction where one party has access to more information than the other.

- Seller has more knowledge: Used car market
 - Under allocation of resources
- Buyer has more knowledge: Health insurance (buyers knows what health conditions they have, seller does not)
 - Under allocation of resources
 - Moral hazard: when one party in a transaction takes on more risk because they are protected from the consequences of their actions.
- Government responses:
 - Government regulation
 - Government advertising
 - Subsidies

Common Access Resources:

Common access resources are resources that are owned by no one and are available for use by anyone in the society.

- The overuse and exploitation of common access resources by current generations reduces the amount that is available for future generations, resulting in lower living standards.
- 'Tragedy of the commons': each person acting in their own self-interest
- Government responses:
 - Government regulation
 - Indirect taxation
 - Subsidies

The three basic economic questions

What to produce?

This question relates to the decision of what goods and services should be produced in an economy. It involves choosing which products and services to allocate resources towards producing based on factors such as consumer demand, availability of resources, and the cost of production.

How to produce?

This question pertains to the decision of how goods and services should be produced. It involves choosing the most efficient and cost-effective methods of production that will result in the best use of resources and produce the highest output of goods and services.

For whom to produce?

This question involves deciding how goods and services should be distributed among the members of an economy. It involves determining who should receive the goods and services produced based on factors such as their ability to pay, social needs, and priorities.

Disposable & Discretionary income

Disposable income:

Disposable income is the amount of income that an individual or household has available to spend or save after income taxes and other mandatory deductions have been taken out.

Discretionary income:

The disposable income available for consumption following the payment of all 'non-discretionary' or 'non-avoidable' expenditures such as those related to food, clothing, and shelter. Discretionary income is spent on wants, luxury items, etc.

Relative Prices

The prices of products relative to other products. Changes in relative prices send clear signals to producers and consumers and therefore direct resources to their most profitable ends.

Government Failure

Price controls:

Price floors and price ceilings set by the government can cause market inefficiencies, such as shortages or surpluses.

E.g. If the government sets a price floor on the minimum wage that is higher than the equilibrium wage rate, it can lead to higher unemployment as employers may not be able to afford to hire as many workers at the higher wage rate.

Subsidies:

E.g. Government spending on programs or projects that do not provide a significant benefit to society, or that are wasteful or inefficient.

Protectionism:

Protectionism refers to government policies or actions that limit or restrict international trade in an effort to protect domestic industries from foreign competition.

E.g. Higher prices for consumers.

Moral hazard:

When one party in a transaction takes on more risk because they are protected from the consequences of their actions.

E.g. In 2008, when the US government decided to bail out failing financial institutions with taxpayer money, it created a moral hazard because it sent a message to the banks that they could engage in risky behaviour and still expect to be bailed out in the event of a crisis.

One example of a government failure:

1. Alcopops tax – was introduced in 2008 in response to concerns about the explosive growth in sales and consumption of ready-to-drink sugary alcoholic beverages that had occurred in Australia. The 70% excise tax increase was intended to reduce supply and increase the price of these beverages, which it did. However, the use of alcohol wasn't mitigated effectively as consumers substituted to buying straight spirits with larger concentrations of alcohol. This had negative consequences on the allocation of resources as consumers still ended up in the emergency department, resulting in an over allocation of resources to hospitals, which could have been avoided all together and allocated elsewhere to maximise living standards and welfare.
2. As cigarettes are harmful and have negative externalities in consumption, the government had introduced excise duty on Australian-made and customs duty on imported tobacco products to curb their consumption. The tax levied on producers and importers have only been getting higher and higher, and have been linked to a substantial increase in the consumption of vapes amongst youths, as many substitute away from tobacco products to cheaper alternatives. As some e-cigarettes don't contain tobacco, they aren't taxed the same way, making it cheaper and more accessible to customers. The intended effect was to minimise harm caused by cigarettes but had unintendedly led to an increase in the consumption of e-cigarettes, which come with their own health risks. This reduces society's overall living standards, leading to an inefficient allocation of resources with the overallocation of resources to the production of vapes compared to socially optimal levels.

**Unit 3 Australia's living standards
Area of Study 2: Domestic macroeconomic goals**

Key knowledge		Chapter references	Tick when learned
<i>The purpose of economic activity</i>			
19	the difference between material and non-material living standards and factors that may affect living standards, including access to goods and services, environmental quality, physical and mental health, crime rates and literacy rates	4.1 - 4.2	
20	the five-sector circular flow model of income, including the role of households, businesses, government, financial institutions and the external sector in an open contemporary macroeconomy	4.3	
21	the business cycle and its causes	4.4	
22	the meaning and importance of aggregate demand and the factors that may affect the level of aggregate demand in the economy, including disposable income, interest rates, consumer confidence, business confidence, the exchange rate and rates of economic growth overseas	4.5 - 4.6	
23	the meaning and importance of aggregate supply and the factors that may affect the level of aggregate supply in the economy, including quantity and quality of the factors of production, costs of production, technological change, productivity growth, exchange rates and climatic conditions, and other events including government regulations and disruptions to international supply chains	4.7	
<i>The Australian Government's domestic macroeconomic goals</i>			
24	the meaning of the goal of strong and sustainable economic growth	5.1	
25	measurement of the rate of economic growth using growth in real Gross Domestic Product (GDP)	5.2	
26	consequences of not achieving the goal of strong and sustainable economic growth and its effect on living standards, including environmental degradation, external pressures, high inflation if growth is too high, and high unemployment if growth is too low	5.3	
27	the meaning of the goal of full employment, including the NAIRU (natural rate of unemployment)	5.4	
28	classifications within the labour force, including employed, unemployed, hidden unemployed, long-term unemployed, underemployed and frictional unemployment	5.5	
29	measurement of the labour force, including the participation rate, the unemployment rate and the labour force under-utilisation rate	5.5	
30	the difference between cyclical and structural unemployment	5.6	
31	the consequences of not achieving the goal of full employment and its effect on living standards, including the impact on GDP and tax revenue if unemployment is too high and the effects on inflation if unemployment is too low	5.7	
32	the meaning of the goal of low and stable inflation (price stability)	5.8	
33	the distinction between inflation, disinflation and deflation	5.8	
34	measurement of the inflation rate using the Consumer Price Index (CPI), including the difference between the headline and underlying (core) rate of inflation	5.9	
35	causes of inflation, including demand inflation and cost inflation	5.10	
36	consequences of not achieving the goal of low and stable inflation (price stability) and its effect on living standards, including erosion of purchasing power, development of a wage-price spiral, distortion of spending and investment decisions, lower returns on investment, loss of international competitiveness if it is too high, and delayed consumption and unemployment if it is too low	5.11	
37	aggregate demand and aggregate supply factors that have affected the level of achievement or non-achievement of the goals of strong and sustainable economic growth, full employment and low and stable inflation over the past two years	6.1 - 6.2	

Unit 3 Australia's living standards Area of Study 2: Key Skills	Tick when mastered
define key economic concepts and terms and use them appropriately	
calculate relevant economic indicators using real or hypothetical data	
construct, interpret and apply economic models including the five-sector circular flow model of income and the business cycle	
explain and interpret trends and patterns in economic data and other information	
gather, synthesise and use economic data and information from a wide range of sources to analyse economics issues	
apply economic concepts to analyse economic relationships and make predictions	
evaluate the extent to which the economy has achieved the domestic macroeconomic goals over the past two years and discuss the effect of this on living standards	

U302: Domestic macroeconomic goals

Living Standards

Material:

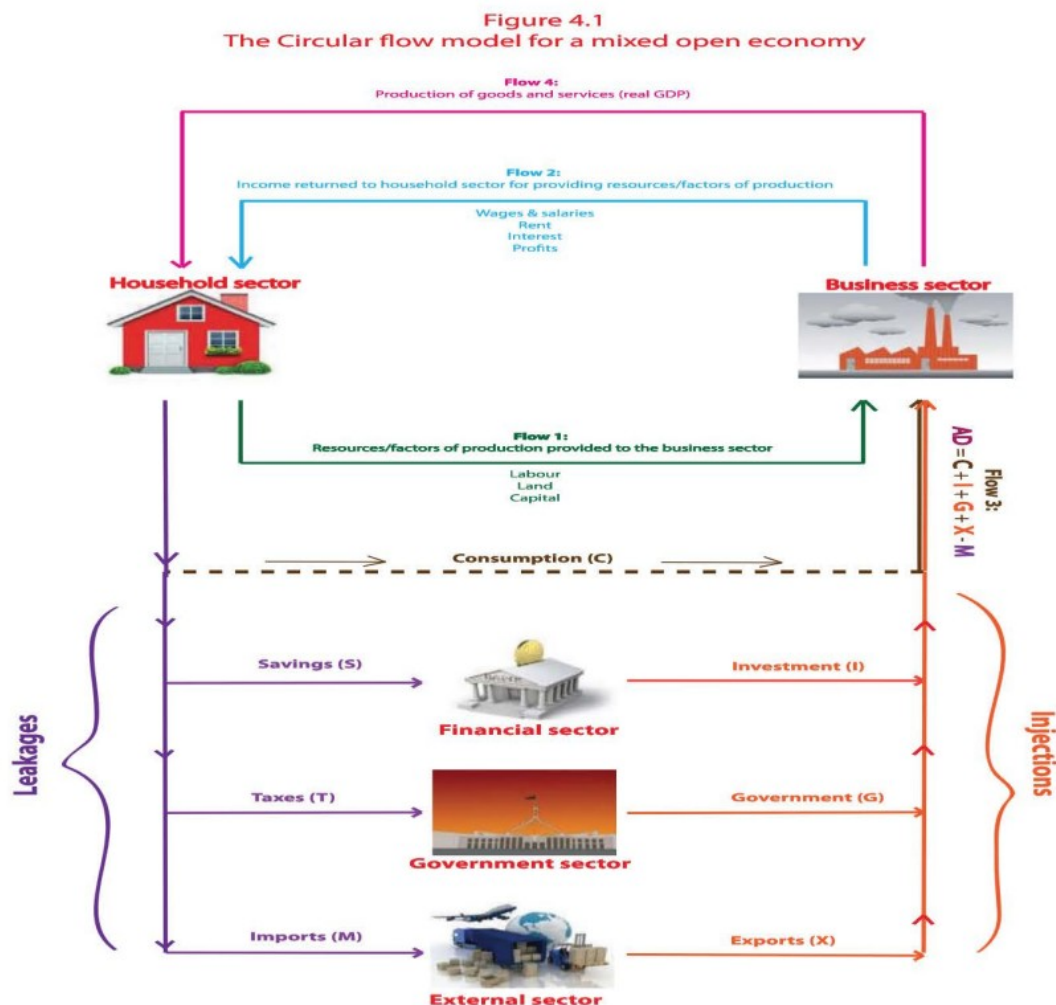
Living standards as measured by access to goods and services.

Non-material:

Living standards that cannot be measured in monetary terms through tangible possessions.

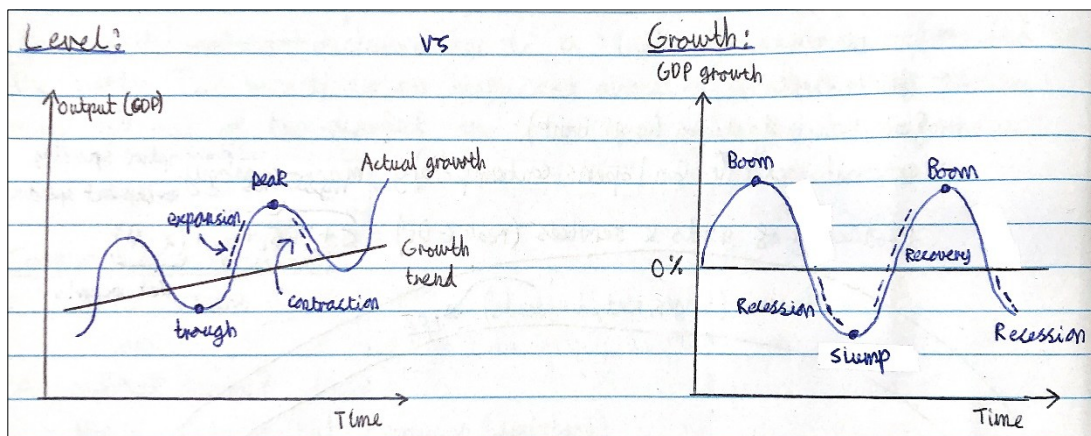
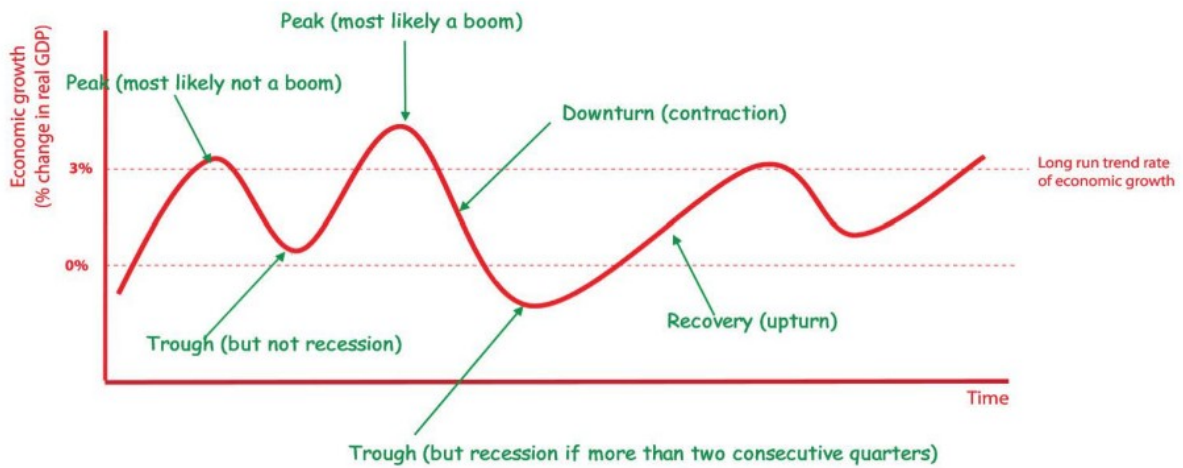
Factors affecting living standards	
•	Access to goods & services
•	Environmental quality
•	Physical & mental health
•	Life expectancy
•	Crime rates
•	Literacy rates

The Circular Flow Model



The Business Cycle

Figure 4.2 Business cycle



If the peak is considered to be a boom, then the rate of economic growth generally becomes excessive and unsustainable.

Inflation	+ ↑ (increase above zero)
Disinflation	+ ↓ (decrease above zero)
Deflation	- ↓ (decrease below zero)

Stage 1 (Peak):

- More consumer spending.
- Injections.

Stage 2 (Contraction/Downturn):

- If we hit capacity (on PPF), expanding production is hard.

- With high inflation, we see overvalued assets.
- When assets prices begin to correct, households increase savings & reduce debt.
- Confidence falls, inflation reduces.

Stage 3 (Trough):

- When growth hits a minimum (low or negative growth).
- May be in recession (if two consecutive quarters of negative growth).
- Lower growth; lower resource utilisation (e.g. underemployment).
- Higher leakages; lower inflation (potentially deflation).

Stage 4 (Recovery):

- Cheaper products (low inflation, low labour costs, low interest rates).
- Increasing consumption, investment, exports.

Aggregate Demand

The total expenditure on new final Australian made goods and services.

- Total expenditure – produced goods & services may not be bought, such they aren't counted.
- New – not second hand (e.g. doesn't include resold houses).
- Final – after import, transport, shelving, advertising, etc.
- Australian made – domestic, macro economy.

$$AD = C + I + G + (X - M)$$

Aggregate Demand Factors:

- Disposable income.
- Interest rates.
- Consumer confidence.
- Business confidence.
- The exchange rate.
 - Appreciation of the AUD relative to other nations results in more expensive exports and cheaper imports (\$↑ Exports, \$↓ Imports).
 - Depreciation of the AUD relative to other nations results in cheaper exports and more expensive imports (\$↓ Exports, \$↑ Imports).
- Rates of economic growth in overseas nations.

Aggregate Supply

Represents the total volume of goods and services that all suppliers have produced and supplied over a period of time.

Aggregate Supply Factors:

- The quantity of factors of production.
- The quality of factors of production.
- The costs of production.
- Technological change.
- Productivity growth.

- Exchange rates.
 - Appreciation of the AUD relative to other nations results in more expensive exports and cheaper imports (\$↑ Exports, \$↓ Imports).
 - Depreciation of the AUD relative to other nations results in cheaper exports and more expensive imports (\$↓ Exports, \$↑ Imports).
- Government regulations
- Climatic conditions (“supply shocks”).

Strong and sustainable economic growth: (3 – 3.5%)

The highest growth rate possible, consistent with strong employment growth, without running into external or environmental pressures.

Economic growth; refers to any increase in the amount or level of national production that has occurred over time.

GDP:

- Real GDP – prices are adjusted for inflation.
- Nominal GDP – prices are **NOT** adjusted for inflation.

Examples of calculating GDP growth:

$$\begin{aligned}
 \text{Quarterly growth (June Qtr 2022)} &= \frac{\text{GDP}_{\text{Jun}} - \text{GDP}_{\text{Mar}}}{\text{GDP}_{\text{Mar}}} = \frac{533092 - 528374}{528374} \times 100 = 0.9\% \\
 \text{Annual growth (year on year)} &= \frac{\text{GDP}_{\text{June 22}} - \text{GDP}_{\text{June 21}}}{\text{GDP}_{\text{June 21}}} = \frac{533092 - 514593}{514593} \times 100 = 3.6\% \\
 \text{Annualised growth (June Qtr)} &= \text{Quarterly growth} \times 4 = 0.9 \times 4 = 3.6\%
 \end{aligned}$$

Why pursue strong rates of economic growth?

- Growth in real income – improve living standards.
- Lower the unemployment rate.
- Increased ability of government to provide essential services.

Consequences if economic growth is too low:

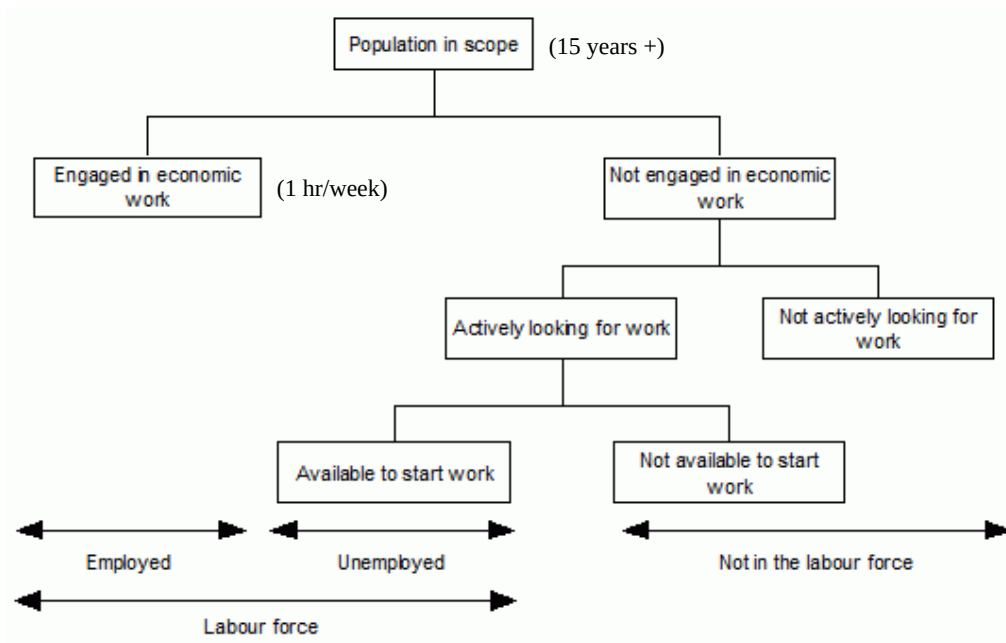
- Higher unemployment.
- Reduced Incomes.
- Reduced Government Revenues (Tax).

Consequences if economic growth is too high:

- Environmental degradation.
- Excessive national spending may lead to an increase in foreign debt as resources deplete.
- High inflation.
- Wealth Inequality.

Full Employment ≈ 4.5%

That level of unemployment that exists when the government's economic growth objective is achieved and where cyclical unemployment is non-existent.



Unemployment is caused by:

Cyclical	Natural
<ul style="list-style-type: none"> The business cycle: Cyclical unemployment results from changes in economic activity over the business cycle, where lower levels of Aggregate Demand results in a drop in the demand for labour. 	<ul style="list-style-type: none"> Structural unemployment: Where the skills of the unemployed do not match the skills required by the industry. Seasonal unemployment: Where a person is unemployed because their skills are only demanded during certain times of the year. Frictional unemployment: Where a person is unemployed for a period of time while they are moving from one job to another. Hard core unemployment: Where a person is unemployed due to mental, physical, or other characteristics that prevent them from receiving a job offer.

Non Accelerating Inflation Rate of Unemployment (NAIRU):

An estimate goal that involves the attainment of the lowest unemployment rate possible before inflation begins to accelerate.

- The NAIRU is the same as the ≈ 4.5% rate for full employment.

The Unemployment Rate:

The unemployment rate represents the percentage of the labour force that is unemployed. It is calculated by dividing the number of unemployed by the total labour force.

$$\text{Unemployment Rate} = \frac{\text{Unemployed}}{\text{Employed} + \text{Unemployed (Labour Force)}}$$

The Participation Rate:

The participation rate is defined as the percentage of the total 'working age' population (over 15) who are members of the labour force.

$$\text{Participation Rate} = \frac{\text{Employed} + \text{Unemployed (Labour Force)}}{\text{Working age population}}$$

Hidden Unemployment - discouraged job seekers:

Potential workers who would like to engage but are not a part of the labour force as they are not actively seeking employment.

Underemployment:

Individuals that are classified as employed but are not working as many hours as preferred.

The Underutilisation Rate:

The percentage of workers unemployed or underemployed in the labour force.

$$\text{Underutilisation Rate} = \frac{\text{Unemployed} + \text{Underemployed}}{\text{Employed} + \text{Unemployed (Labour Force)}}$$

Consequences of not achieving full employment:

- Loss of GDP.
 - Increase avoidable Government Expenditure (e.g. social welfare)
- Loss of tax revenue.
- Greater income inequality.
- Reduction in living standards.

Effects on inflation if unemployment is too low:

- Non Accelerating Inflation Rate of Unemployment (NAIRU).

Low and stable inflation: (2 – 3%)

- Range provides flexibility to shift focus away from inflation (and allow it to climb towards 3%) in an effort to achieve higher economic and employment growth.

Inflation:

A sustained increase in the general or average price level over time.

Why not target an inflation rate of zero?

1. Small amounts of inflation actually allows for a reduction in “real” (adjusted for inflation) prices of some goods & services.
2. Some inflation is really accounted for by rising quality of goods & services, which may not be fully captured in CPI figures.

- It may create other economic problems like growth rates that are too low, increases in unemployment and/or even deflation.

The Consumer Price Index (CPI):

- It is calculated by the Australian Bureau of Statistics on a quarterly basis to determine the change in the prices of goods and services purchased by the average Australian household.
- It is determined by collecting approximately 100,000 prices of more than 1,000 goods & services that are purchased by private households in the eight Australian capital cities. Weightings are then attached to each group (and sub-group) to reflect their relative importance.

Headline Rate of Inflation:

Captures the price movements of **all** goods and services contained in the CPI.

- Provides an indication of **short-term trends**.

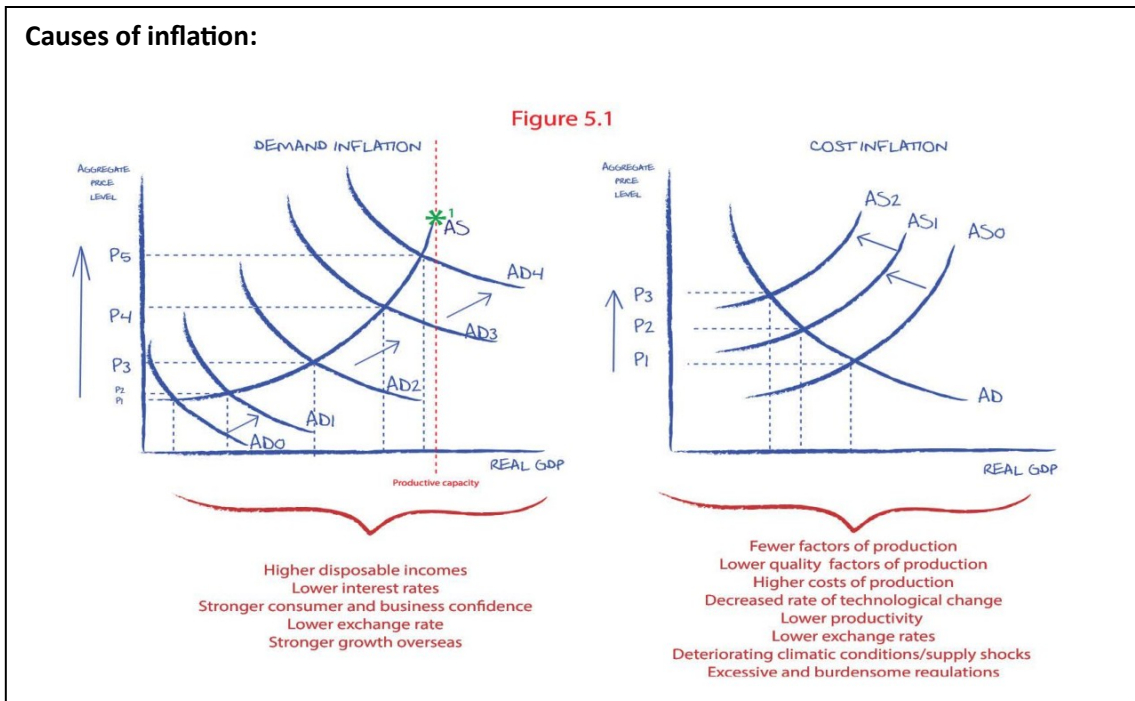
Underlying Rate of Inflation:

Captures the price movements of goods and services in the **trimmed mean** or the **weighted median** to exclude one off and/or volatile items from the calculation.

- It helps to identify **long-term trends** in prices and assess whether inflation is becoming a structural issue rather than a temporary one.

Other measures of inflation:

- Producer Price Index
- Wage Price Index
- Terms of Trade Index $\hat{=}$ $\frac{\text{Export Price Index}}{\text{Import Price Index}}$
- House Price Index
- Pensioner and Beneficiary Living Cost Index



Consequences of high inflation:

- The erosion of purchasing power.
 - Goods & services increase in cost over time, which erodes the purchasing power of any given level of income or cash.
- Distorting the allocation of resources.
 - Loss of efficiency – investment may be diverted away from productive areas that create wealth and jobs into those that offer the best protection against inflation (eg. Gold)
 - Savings and Investment – consumers will tend to spend more now to minimise any losses associated with holding money, resulting in less savings for the future. It will also discourage lending (or saving) and encourage borrowing as lenders are effectively earning less and borrowers are paying less.
- Increase interest rates.
- Loss in international competitiveness.
 - Other nations would be discouraged from purchasing Australian exports ($\$ \uparrow$ Exports, $\$ \downarrow$ Imports).
- Damaging business confidence.
 - Investors may divert funds away from productive investment.
- The wage-price spiral.

Figure 5.2: The wage/price spiral



- The government's goals.
 - Less equitable distribution of income – low income groups will experience a relatively bigger erosion of their purchasing power compared to other groups as their incomes are less likely to rise.
 - Add additional pressure on net foreign debt as imports will likely increase more relative to exports.

Aggregate demand and supply factors

Figure 6.1

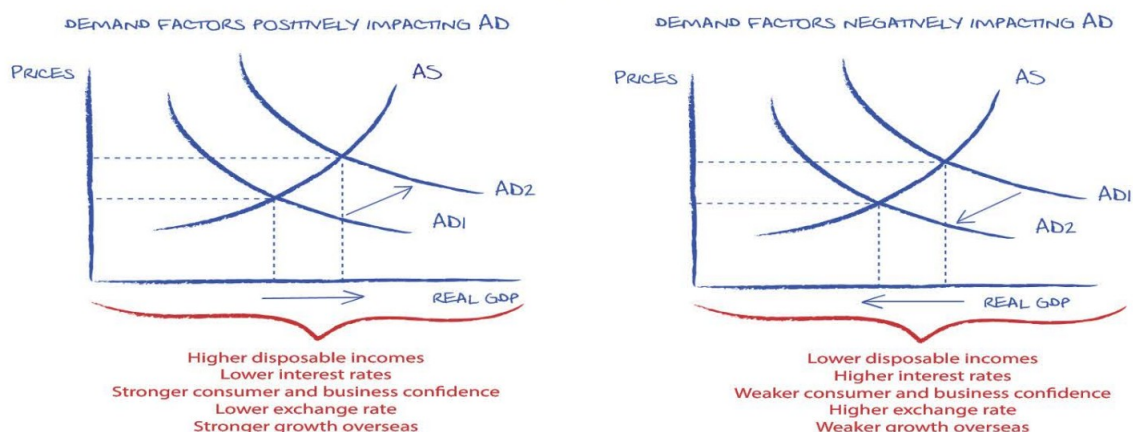
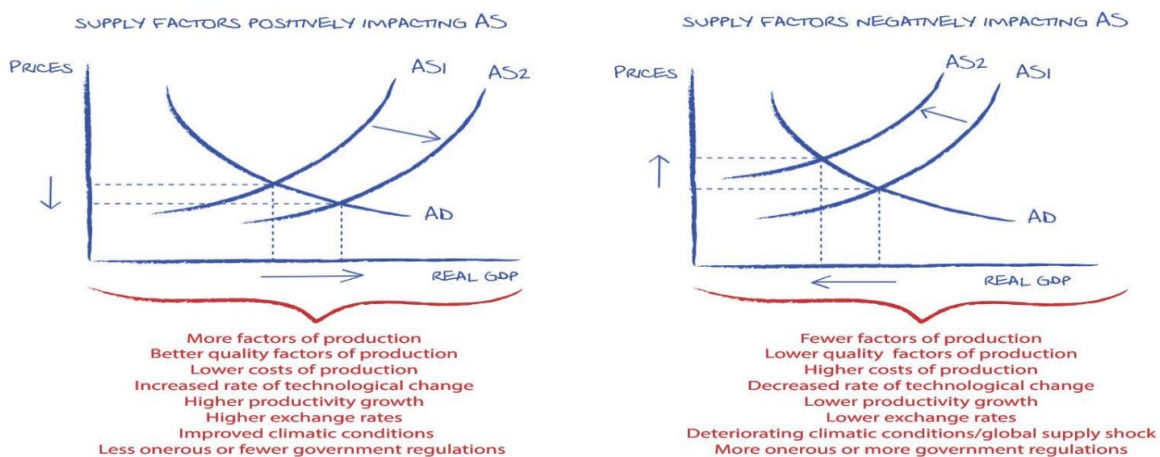


Figure 6.2



Impact of AD and AS factors over the past two years

Aggregate Demand Effects (past 2 years):

	GDP growth rate	Unemployment rate	Inflation rate	Living standards
Disposable income: During 2020, disposable incomes increased due to JobKeeper and temporary doubling of JobSeeker. When restrictions eased over the first half of 2021, spending increased.	From -0.1% (Dec-20) ↑ Increased	From 7.5% (Jul-20) ↓ Decreased <i>Now below NAIRU ↓</i>	From -0.3% (Jun-20) ↑ Increased <i>Now above 2-3% ↑</i>	↑ Improved
Interest rates: Low cash rate of 0.10% (Nov-20 to Apr-22).	From -0.1% (Dec-20) ↑	From 7.5% (Jul-20) ↓	From -0.3% (Jun-20) ↑	↑ Improved

	Increased	Decreased <i>Now below NAIRU ↓</i>	Increased <i>Now above 2-3% ↑</i>	
Consumer confidence: Consumer confidence had fallen over the first part of 2022 due largely to the effects of the war in Ukraine, natural disasters, and the rise in interest rates.	From 4.6% (Dec-21) ↓ Decreased	<i>Should have increased, but didn't due to tight market.</i>	From 3.5% (Dec-21) ↑ Increased	↓ Worsened
Business confidence: Business conditions were still favourable over 2021-22 which helped to stimulate business investment.	From -0.1% (Dec-20) ↑ Increased	From 7.5% (Jul-20) ↓ Decreased <i>Now below NAIRU ↓</i>	From 3.5% (Dec-21) ↑ Increased	↑ Improved
The exchange rate: The Australian Dollar began to appreciate towards the end of 2021.	From 4.6% (Dec-21) ↓ Decreased	<i>Should have increased, but didn't due to tight market.</i>	<i>Should have decreased, but didn't due to high AD.</i>	↓ Worsened
Rates of economic growth overseas: Since 2020, Global growth has rebounded, particularly in emerging economies of China and India, boosting the demand for Australian minerals.	From -0.1% (Dec-20) ↑ Increased	From 7.5% (Jul-20) ↓ Decreased <i>Now below NAIRU ↓</i>	From -0.3% (Jun-20) ↑ Increased <i>Now above 2-3% ↑</i>	↑ Improved

Aggregate Supply Effects (past 2 years):

	GDP growth rate	Unemployment rate	Inflation rate	Living standards
Quantity of factors of production: The size of the labour force has increased significantly over the past two years due to skilled migration.	<i>Should have increased, but didn't due to less productivity.</i>	From 7.5% (Jul-20) ↓ Decreased <i>Now below NAIRU ↓</i>	<i>Should have decreased, but didn't due to high AD.</i>	↓ Worsened
Quality of factors of production, technological change, and productivity: Labour productivity has declined since early 2022.	From 4.6% (Dec-21) ↓	<i>Should have increased, but didn't</i>	From 3.5% (Dec-21) ↑	↓ Worsened

	Decreased	<i>due to tight market.</i>	Increased	
The costs of production: Labour costs, as measured by the Wage Price Index (WPI), has continued to increase since 2021.	<i>Should have decreased, but didn't, as COVID restrictions were lifted.</i>	<i>Should have increased, but didn't due to tight market.</i>	From 3.5% (Dec-21) ↑ Increased	↓ Worsened
The exchange rate: The Australian Dollar began to appreciate towards the end of 2021.	From 4.6% (Dec-21) ↓ Decreased	<i>Should have increased, but didn't due to tight market.</i>	<i>Should have decreased, but didn't due to high AD.</i>	↓ Worsened
Climatic conditions: Early 2022 Eastern Australia floods throughout Queensland and New South Wales.	From 4.6% (Dec-21) ↓ Decreased	<i>Should have increased, but didn't due to tight market.</i>	From 3.5% (Dec-21) ↑ Increased	↓ Worsened

Unit 3 Australia's living standards Area of Study 3: Australia and the international economy			
Key knowledge		Chapter references	Tick when learned
38	the gains from international trade, including lower prices, greater choice, access to resources, economies of scale, and increased competition and efficiency	7.1	
39	the balance of payments and its components	7.2	
40	cyclical and structural influences on Australia's current account balance	7.3	
41	the composition and cause of net foreign debt and net foreign equities	7.4	
42	the exchange rate, its meaning and measurement and the factors affecting its value, including relative interest rates, commodity prices and the terms of trade, demand for exports and imports, foreign investment, relative rates of inflation, credit ratings and speculation	7.6 - 7.7	
43	the terms of trade, its meaning and measurement and the factors that may affect the terms of trade, including commodity prices and production costs in trading partners	7.5	
44	international competitiveness and the factors that may affect international competitiveness, including productivity, production costs, availability of natural resources, exchange rates and relative rates of inflation	7.8	
45	the effect of movements in the terms of trade and the exchange rate, and changes in international competitiveness on the domestic macroeconomic goals and living standards	7.8 - 7.9	

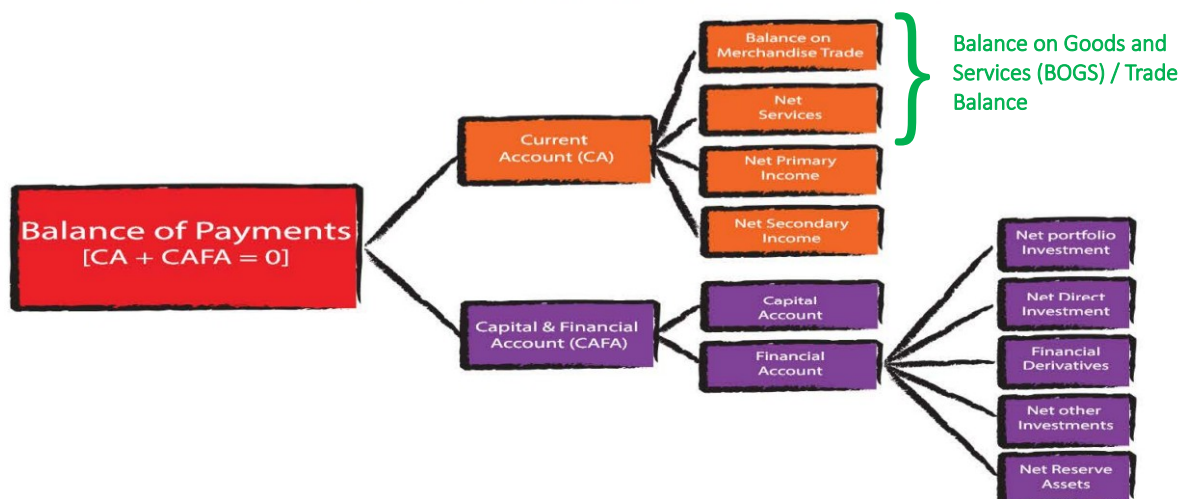
Unit 3 Australia's living standards Area of Study 3: Key Skills	Tick when mastered
define key economic concepts and terms and use them appropriately	
explain key international economic relationships	
explain and interpret trends and patterns in economic data and other information	
apply economic concepts to analyse economic relationships and make predictions	
calculate relevant international economic indicators using real or hypothetical data	
gather, synthesise and use economic data and information from a wide range of sources to analyse and discuss economic issues	

U3O3: Australia and the international economy

The Gains from International Trade

- Lower prices for consumers.
- Better choice.
- Access to resources (land, labour & capital).
- Economies of scale – Australian businesses can sell to a larger marketplace and spread fixed costs (costs that don't change based on volume, e.g. warehouse) across a greater volume of sales, thus reducing the cost per unit.
- Increased competition and efficiency.

Australia's Balance of Payments and its components



Surplus = (credits > debits)

Deficit = (credits < debits)

Stock = measurement at a point in time, e.g. debt outstanding.

Flow = measured over a period of time, e.g. surplus of \$50B over the quarter.

$$CA + CAFA = 0$$

The value of whatever is traded (recorded in the current account) is offset by a movement of some form of asset to pay for it (recorded in the capital and financial account).

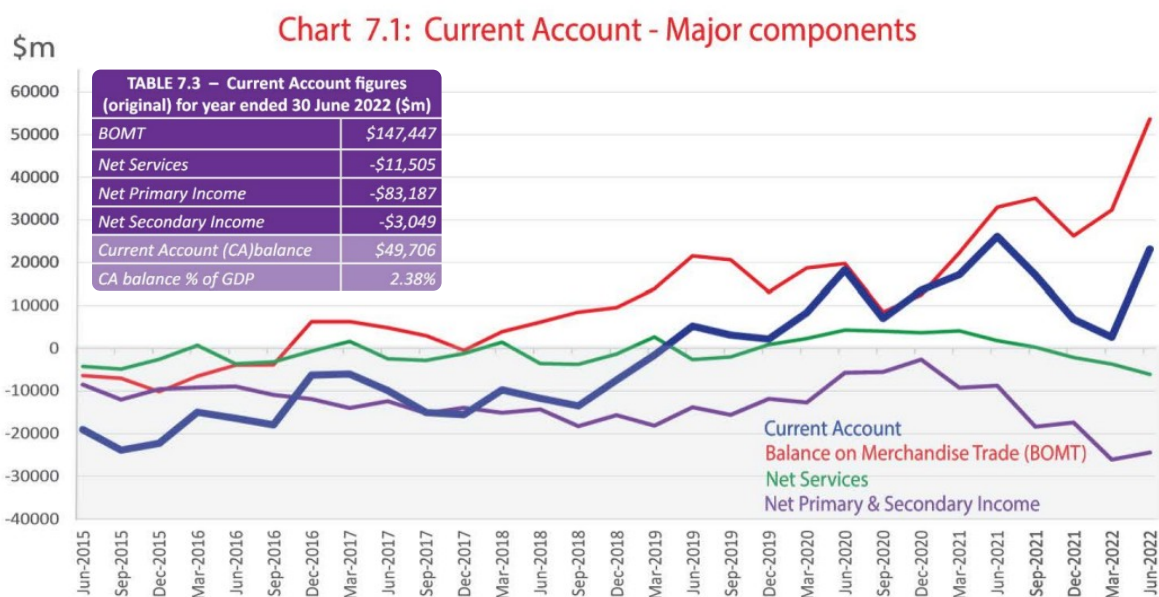
E.g. When Australia borrows from overseas, it represents the sale of shares to foreigners. This would represent a credit in the CAFA and a debit in the CA as dividends are paid to foreigners.

The Current Account (CA) – (Flow Measurement)

'Current' is used in describing the current account because the goods, services and income being traded in will be consumed or received in the current period (no future obligations).

- Balance on Merchandise Trade (BOMT): **(Goods Credits – Goods Debits)**
- Net Services: **(Services Credits – Services Debits)**
- Net Primary Income: **(Primary Income Credits – Primary Income Debits)**
 - Primary income = dividends, profits, rent & interest
 - This is made up of Primary Income Credits from holding foreign assets, minus Primary Income Debits to service foreign liabilities.
- Net Secondary Income: **(Secondary Income Credits – Secondary Income Debits)**
 - Involves a one-way movement of money where nothing is expected in return.

Relevant subsection	What is recorded in this subsection	Examples of credits (\$ coming into Aust)	Examples of debits (\$ leaving Aust)
BOMT	Exports and imports of goods	Iron ore, coal, wine, beef, medicines	TVs, cars, furniture, gadgets
Net Services	Exports and imports of services.	Education, tourism, banking and insurance.	Entertainment, call centre services, tourism.
Net Primary Incomes	Payment/receipt of income flows that service net foreign liabilities (debt and equity) or reflect payment for foreign labour	Dividends/profits received on foreign shareholdings/ ownership and interest received from foreign borrowers	Profits/dividends/rent paid to foreign owners of Australian assets and interest paid to foreign lenders
Net Secondary Incomes	A transaction that involves the transfer of funds in one direction (creates no future or current obligation)	Gifts sent from overseas to Australia. The payment of a European pension to an Australian immigrant	Payment of foreign aid to heavily-indebted, low-income countries



The Capital and Financial Account (CAFA) – (Flow Measurement)

Capital Account:

The Capital Account is a relatively insignificant account and covers capital transfers (such as debt forgiveness) and the acquisition/disposal of non-produced, non-financial assets (such as sales of copyrights, licenses, or patents) between residents and non-residents.

- Very small part of BOP - unlikely you will need to know this.

Financial Account:

Records a change of ownership of Australia's assets or liabilities, and effectively records how Australia finances any Current Account deficits.

- Net Direct Investment:
 - The creation of new assets & liabilities in a foreign country, including the setting up of a production facility or controlling 10% or more of a company's shares.
- Net Portfolio Investment:
 - Transactions involving less than 10% control of a company and the sale/purchase of debt.
- Net Financial Derivatives:
 - Changes in ownerships of financial contracts that create assets or liabilities.
- Net Other Investments:
 - Transactions that do not fit into one of the other categories.
 - One example is 'trade credit' where an importer purchases goods from overseas and does not pay for the goods until they are received.
- Net Reserve Assets:
 - The purchases or sale of reserve assets held by the Reserve Bank.

Table 7.4: The capital and financial account: summary of each subsection			
Relevant subsection	What is recorded in this subsection	Examples of credits (\$ coming into Aust)	Examples of debits (\$ leaving Aust)
Capital account			
	Movement of 'capital' between nations.	The sale of license to a USA broadcaster to use content developed by Australians	The Australian Government agrees to cancel a loan owing from Papua New Guinea
Financial account			
Direct investment	The creation of new assets and liabilities in a foreign country, including the setting up of a production facility or controlling 10% or more of a company's shares	The purchase of the Toll Group by Japanese company, Japan Post Holdings, or the opening of a new store by Uniqlo at Chadstone shopping centre	A new oil field opened in Papua New Guinea by Oilsearch (an Australian company)
Portfolio investment	Transactions involving less than 10% control of a company and the sale/purchase of debt	The sale of shares in Qantas to a foreign household or the sale of bonds to foreigners	The purchase of shares in Apple by Australian Super or the purchase of foreign bonds
Financial derivatives	Complex financial instruments that create assets or liabilities	The sale of options by the Commonwealth Bank of Australia to an American merchant bank	The purchase of iron-ore futures by Fortescue Metals Group.
Other investment	Investment flows that do not fit in one of the other categories (e.g. trade credit and some special categories of loans, such as those between central banks)	Receipt of a shipment of imports where payment is delayed until a future date	Delivery of exports to foreigner where receipt of funds is delayed until a future date
Reserve Assets	RBA and government transactions involving foreign currency and contributions to the IMF and UN.	The RBA purchases AUD on the foreign exchange market to smooth out volatility in the exchange rate.	The Australia Government sends money to the UN to help them with their research.

Influences on the current account balance

Structural:

Broadly AS factors - persistent / stable in the short-term.

- Savings/investment imbalance:
 - Australia has funded much of its investment by borrowing money from overseas, this is recorded as a credit in the CAFA and a debit in the CA, pushing the CA towards a deficit or away from a surplus.

- Favourable/unfavourable movements in AS factors which impact our international competitiveness (impacts trade balance). E.g.
 - Productivity
 - Costs of production
 - Immigration

Cyclical:

Broadly AD factors - fluctuates in the short-term inline with the business cycle.

- Movements in overseas economic growth (impacts trade balance).
- Movements in in any factor that affects AD in Australia (imports) or AD overseas (exports).
- Movements in the Terms of Trade (from a change in trade balance).

Composition and cause of net foreign debt and net foreign equity

Net foreign debt (NFD): – (Stock Measurement)

NFD > 0 = AUS owes more \$\$ to foreigners in net terms

The net financial obligations Australians have to the rest of the world that stems from Australia's 'total borrowing' from overseas exceeding the 'total lending' to overseas.

- Caused by the savings/investment imbalance.

Net foreign equity (NFE): – (Stock Measurement)

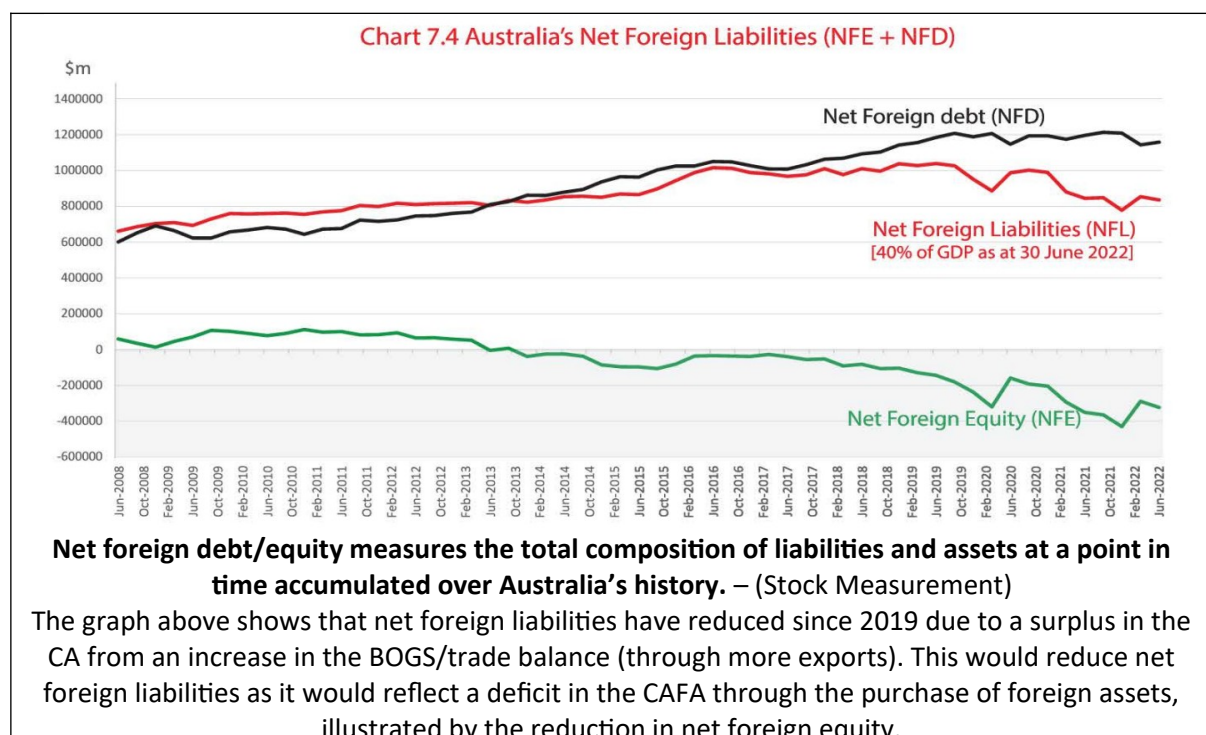
NFE > 0 = Foreigners own more of AUS assets in net terms

Financial obligations that stem from foreign ownership of Australian assets, such as property and shares, less Australian ownership of foreign assets.

- Negative NFE is caused by Australia’s large pool of superannuation funds invested overseas.

Net foreign liabilities = (NFD + NFE)

The net value of financial obligations that Australia has to the rest of the world.



Terms of Trade

The Terms of Trade (TOT) is a ratio of the average prices received for Australian exports relative to the average prices paid for our imports, and is measured using an index of export and import prices over a number of years.

$$\text{Terms of Trade Index} = \frac{\text{Export price index}}{\text{Import price index}} \times 100$$

Factors that may affect the TOT:

- Commodity prices (exports).
 - The main driver of the TOT in Australia is the price of commodity exports.
 - Commodity prices fluctuate on world markets.
 - Prices of commodities, e.g. iron ore, coal, oil, natural gas, and gold are determined by global demand and supply (Australia makes up a larger proportion of global supply for a lot of commodities).
 - Production costs in trading partners (imports).
 - An increase in costs of production overseas will increase the price paid for imports, leading to a decrease in the TOT.
-

The Exchange Rate

Usually measured by the value of AUD compared to USD or the Trade Weighted Index (TWI), where the TWI is the average value of the AUD compared to a weighted basket of foreign currencies of Australia's major trading partners.

Demand for AUD:

Demand for AUD increases when foreigners convert foreign currency to buy Australian dollars.

- A credit transaction in the Balance of Payments will increase the demand for AUD.
- When AUD depreciates, foreigners can buy more AUD for less foreign currency, increasing the quantity demanded for AUD.

Supply of AUD:

Supply of AUD increases when Australians sell AUD to convert to foreign currency.

- A debit transaction in the Balance of Payments will increase the supply of AUD.
- When AUD appreciates, Australians can buy more foreign currency for less AUD, increasing the quantity supplied for AUD.

Factors that affect value of AUD:

- Relative interest rates.
 - If relative interest rates are higher in Australia, foreigners will convert foreign currency to AUD and invest in Australia in hopes of better returns, thus increasing the demand for AUD.
- Commodity prices and the terms of trade.
 - Higher commodity prices / (\$↑ Exports) means more AUD is required by foreigners to purchase the same volume of exports, thus increasing the demand for AUD.
 - An increase in the price of imports would require Australians to purchase more foreign currency for the same volume of imports, thus increasing the supply of AUD.

- Demand for exports.
 - Higher demand for exports would increase the demand for AUD, appreciating the Australian dollar.
 - Demand for imports.
 - Higher demand for imports would increase the supply of AUD, depreciating the Australian dollar.
 - Foreign investment.
 - Investment by foreigners into Australia would increase the demand for AUD.
 - Investments by Australians overseas would increase the supply of AUD.
 - Relative rates of inflation.
 - Lower relative rates of inflation in Australia would increase the demand for AUD by foreigners as goods & services will be cheaper here.
 - Credit ratings.
 - Higher credit ratings held by the Australian government signals that lending to Australia is safer, this would increase the demand for AUD.
 - Speculation.
 - If AUD is perceived as undervalued, it would increase the demand for AUD.
-

International Competitiveness

An improvement in Australia's international competitiveness means that Australian firms or industries are producing goods and services at relatively lower prices or higher quality compared to competitors overseas.

Factors that may affect international competitiveness:

- Productivity.
 - Production costs.
 - Availability of natural resources.
 - Exchange rates.
 - A depreciation in the AUD would make Australia more internationally competitive.
 - Relative rates of inflation.
 - Lower relative rates of inflation in Australia would make Australia more internationally competitive.
-

Domestic Macroeconomic Goals and Living Standards

Terms of Trade:

- Strong and sustainable economic growth & full employment.
 - Favourable movement in the TOT caused by an increase in export prices would lead to an increase in **Gross Domestic Income (GDI)**. The higher incomes would therefore help facilitate stronger economic growth and improve employment through a raise in investment, consumption (from higher wages), and government expenditure (from tax revenue). – increase in AD.
 - Favourable movement in the TOT caused by a decrease in import prices would reduce the costs of production for businesses. This would improve employment through AD factors and also improve the ability and willingness for businesses to produce (AS).
- Low and stable inflation.

- Favourable movement in the TOT caused by an increase in export prices would contribute to inflationary pressure as more goods & services are offered in export markets, and less are produced for domestic consumers.
- Favourable movement in the TOT caused by a decrease in import prices would help to reduce inflationary pressure as costs of production reduces.

The Exchange Rate:

- Strong and sustainable economic growth & full employment.
The Australian dollar can act as an automatic stabiliser, helping smooth out peaks & troughs in the business cycle. – During times of strong economic growth due to an increase in net exports, AUD will appreciate, pushing up the price of exports. Australian exports would therefore be less attractive and reduce the demand for AUD, pushing back on economic growth.
(Change in AD > Change in AS)
 - Depreciation of the AUD would; **↑AD through increased exports & ↑AD through improved competitiveness against imports**, improving economic growth and employment even though more expensive imports would mildly **↓AS due to higher production costs**.
 - Appreciation of the AUD would; **↓AD through reduced exports & ↓AD through reduced competitiveness against imports**, lowering economic growth and employment even though cheaper imports would mildly **↑AS due to lower production costs**.
- Low and stable inflation.
 - Depreciation of the AUD would **↑AD through increased exports & ↓AS due to higher production costs**, increasing inflationary pressure.
 - Appreciation of the AUD would **↓AD through reduced exports & ↑AS due to lower production costs**, reducing inflationary pressure.

International Competitiveness:

- Strong and sustainable economic growth & full employment.
 - An increase in international competitiveness would increase AD, improving economic growth and employment.
- Low and stable inflation.
 - An increase in international competitiveness would increase AD, increasing inflationary pressure.

Unit 4 Managing the economy
Area of Study 1: Aggregate demand policies and domestic economic stability

Key knowledge		Chapter references	Tick when learned
46	the need for aggregate demand policies, including monetary policy and budgetary policy in terms of stabilising the business cycle	8.2 + 8.10 + 9.1 - 9.2	
Monetary policy			
47	the role of the RBA with respect to monetary policy as outlined in its charter	9.2	
48	conventional monetary policy (cash rate target) and how it affects interest rates	9.3 + 9.5	
49	one example of the operation of an unconventional monetary policy tool from the past two years	9.4	
50	transmission mechanism of monetary policy and its effect on the level of aggregate demand, including the four channels of savings and investment, cash-flow, exchange rate, and asset prices and wealth	9.6	
51	the stance of monetary policy: expansionary (accommodative), contractionary (restrictive) or neutral	9.7	
52	the stance of monetary policy over the past two years and its likely effect on the achievement of the domestic macroeconomic goals and living standards	9.7 + 9.9 - 9.12	
53	the strengths and weaknesses of using monetary policy to affect aggregate demand and influence the achievement of the domestic macroeconomic goals and living standards	9.13	
Budgetary policy			
54	sources of government revenue, including direct and indirect taxation; progressive, regressive and proportional taxes; and revenue from government businesses and the sale of government assets	8.3	
55	types of government expenses, including government current and capital expenditure and transfer payments	8.3	
56	the budget outcome: balanced, deficit or surplus	8.4 + 8.12	
57	the underlying cash balance (budget outcome), including as a proportion of Gross Domestic Product (GDP)	8.4	
58	methods of financing a deficit or utilising a surplus	8.9	
59	the relationship between the budget outcome and the level of government (public) debt	8.9	
60	the role of automatic stabilisers (cyclical component of the budget) in influencing aggregate demand and stabilising the business cycle	8.5	
61	the role of discretionary stabilisers (structural component of the budget) in influencing aggregate demand and stabilising the business cycle	8.5	
62	the effect of automatic and discretionary changes in the budget on the budget outcome and government (public) debt	8.5 + 8.7 + 8.9	
63	the stance of budgetary policy: expansionary or contractionary	8.8 + 8.12	
64	the effect of the budgetary policy stance and budgetary initiatives over the past two years and their likely effect on the achievement of the domestic macroeconomic goals and living standards	8.10 - 8.11 + 8.13	
65	the strengths and weaknesses of using budgetary policy to affect aggregate demand and influence the achievement of the domestic macroeconomic goals and living standards	8.14	

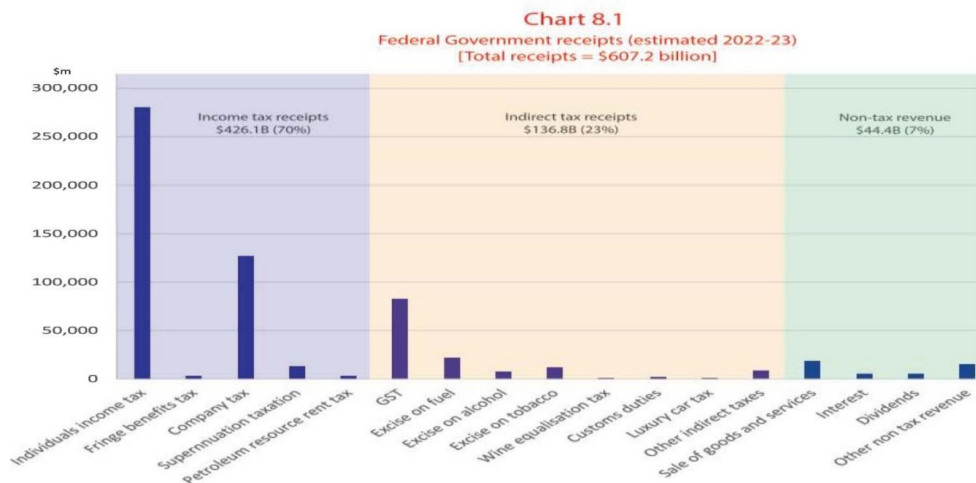
Unit 4 Managing the economy
Area of Study 1: Key Skills

Tick when mastered

define key economic concepts and terms and use them appropriately	
gather, synthesise and use economic data and information from a wide range of sources to analyse economic issues and form conclusions	
discuss the operation of aggregate demand policies	
analyse the effect of current factors on the setting of aggregate demand policies and living standards	
predict the impact of changes in aggregate demand policies on the achievement of the domestic macroeconomic goals and living standards	
analyse the strengths and weaknesses of aggregate demand policies in achieving the domestic macroeconomic goals and living standards	

U4O1: Budgetary/Fiscal policy

Revenues



Direct tax:

Collection of tax directly from individuals or businesses on income or profits. E.g;

- Income tax
- Corporate tax
- Medicare levy
 - 2% in addition to taxable income for all individuals. Additional Medicare Levy Surcharge is paid by those who do not have private hospital cover.

Indirect tax:

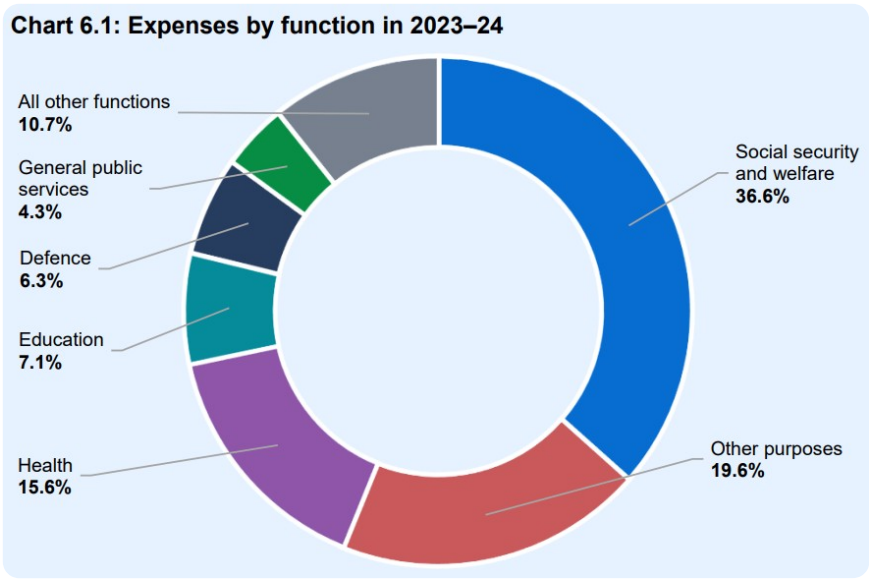
A tax levied on the buyers/sellers of goods & services, not directly on income/profits. E.g;

- GST
- Excise tax
 - Generally applied to correct negative externalities on products such as tobacco, alcohol & fuel.
- Tariffs
 - Tax on imports.

Types of taxes:

- Progressive.
 - A tax that collects proportionally more from higher income earners compared to lower income earners. **E.g. Income Tax.**
- Proportional.
 - A tax that collects proportionally identical amounts from all income earners. **E.g. 30% company tax (large business), 25% company tax (small business).**
- Regressive.
 - A tax that collects proportionally more from lower income earners compared to higher income earners. **E.g. GST takes up a larger proportion of income for small income earner.**

Expenditure



Current expenditure (G1):

Represents payments for goods & services that are consumed in the current budget period with no future benefits. *E.g. public servant wages (maintenance, cleaning, repairs).*

Capital expenditure (G2):

Involves the purchase of capital assets that will have ongoing benefits into the future. *E.g. defence equipment, infrastructure.*

Transfer payments:

Involves the movement of cash from one group to another. No sale/purchase of goods & services is involved, and thus does not contribute to AD. *E.g. Centrelink welfare (aged pension, youth allowance, JobSeeker).*

Budget outcomes – (Flow Measurement)

<p><i>Budget deficit = (receipts < outlays)</i></p> <p><i>Budget balance = (receipts = outlays)</i></p> <p><i>Budget surplus = (receipts > outlays)</i></p>

The headline cash balance:

The headline cash balance is the total cash received by the Federal Government less the total cash paid.

The underlying cash balance:

The underlying cash balance is the headline cash balance excluding *Net cash flows from investments in financial assets for policy purposes* (and also excludes Net Future Fund earnings before 2020-21).

- These items are excluded because they have no direct or immediate impact on the economy and their inclusion in the headline outcome only serves to distort the true cash flow position of the government. – *Under the Future Fund Act 2006, net Future Fund earnings will be available to meet the Australian Government’s superannuation liability in 2020-21, therefore is included in the underlying cash balance since 2020-21.*

The underlying cash balance as a proportion of GDP:

Example:

- A \$20b Deficit for a \$40b economy = 50% of GDP
- A \$20b Deficit for a \$1t economy = 2% of GDP

- If the deficit grows in line with GDP = 'neutral'
- If the deficit grows as a slower pace than GDP = 'good'
- If the deficit grows faster than GDP = 'bad'

Financing a deficit/utilising a surplus

Financing a deficit:

Bonds – A debt instrument issued by governments or corporations. The bond purchaser lends money to the issuer and is paid interest on it.

- Selling bonds to Australian investors.
 - Is likely contractionary as government bond sales effectively increase the supply of bonds in the market, lowering bond prices and prompting investors to demand higher yields (interest rates).
 - Higher interest rates result in a **crowding out of the private sector** as consumers and businesses reduce consumption and investment. It may also cause local borrowers to borrow from overseas at lower interest rates, leading to an appreciation of the AUD (increased demand for AUD), **crowding out the external sector** where Australian exporters and import competing businesses lose market share.
- Selling bonds to international investors.
 - Selling bonds overseas exerts upwards pressure on the AUD (increased demand for AUD), **crowding out the external sector** as it negatively impacts on AD and net export demand, reducing the expansionary impact of a budget.
- Selling bonds to the RBA (rare).
 - Selling bonds to the RBA is the most expansionary and most inflationary way to finance a deficit because it releases new money into circulation, thereby increasing the money supply.

Utilising a surplus:

- Pay off debt.
 - Paying off debt to Australian investors contributes to a **crowding in of the private sector**, as reduced supply of bonds in the market increases bond prices and lowers interest rates, leading to an increase in consumption and investment, exerting upwards pressure on AD.
 - Paying off debt to overseas investors would exert downwards pressure on the AUD (increased supply of AUD), **crowding in the external sector** as it positively impacts on AD and net export demand.
- Invest.

- The government could potentially invest in the **Future Fund**, which is a pool of over \$200b which is invested and put away for future government spending.
- Save.

Relationship between a deficit and **government debt – (Stock Measurement)**:

- The government must finance a deficit through the sale of bonds, consequently increasing public debt.
 - Any time the government runs a deficit, debt increases.
- An increase in public debt leads to an increase in interest repayments for the government as it is seen as more risky, which is an expense for the government. This would lead to an increase in the size of a future deficit.

Fiscal consolidation:

The government consolidating its finances by reducing expenditure and raising revenue in order to reduce the deficit or return the budget to a surplus.

- It can help to buffer Australia against future economic decline as surplus funds can be saved and then spent when the economy requires fiscal stimulus.
- It helps to preserve Australia's credit rating and reducing the cost of future borrowing.
- It allows the cyclical component of the budget to do its job of automatically reducing the deficit as the economy recovers.
- It allows monetary policy to better manage the economy (particularly the rate of inflation) as the RBA can loosen policy with less fear about its inflationary effects.

Automatic and discretionary stabilisers

Automatic stabilisers (cyclical component of the budget):

The changes to the budget that occur automatically with changes in the level of economic activity. Governments rely on automatic stabilisers to swing into action in a counter-cyclical manner, stimulating the economy when it experiences a downturn and restraining the economy when it expands.

- In an expansion.
 - Tax **revenue will increase** as individuals move up tax brackets, increasing leakages and restraining economic growth.
 - Welfare **expenses will decrease** as a lower unemployment rate will result in less people qualifying for welfare payments such as JobSeeker, reducing injections and restraining economic growth.
 - **More revenues & less expenses will either contribute to a surplus or reduce a deficit.**
- In a contraction.
 - Tax **revenue will decrease** as individuals move down tax brackets, reducing leakages and stimulating economic growth.
 - Welfare **expenses will increase** as a higher unemployment rate will result in more people qualifying for welfare payments such as JobSeeker, increasing injections and stimulating economic growth.
 - **Less revenues & more expenses will either contribute a deficit or reduce a surplus.**

Discretionary stabilisers (structural component of the budget):

Discretionary stabilisers are deliberate policy decisions designed to change receipts or outlays in an effort to influence economic activity.

- In an expansion.

- Increase the income tax rate, leading to an **increase in revenue** and resulting in more leakages, thus helping restrain economic growth.
- Decrease the level of current (G1) & capital (G2) spending in the economy, **reducing expenses** and resulting in less injections, thus helping restrain economic growth.
- **More revenues & less expenses will either contribute to a surplus or reduce a deficit.**
- In a contraction.
 - Decrease the income tax rate, leading to a **decrease in revenue** and resulting in less leakages, thus helping stimulate economic growth.
 - Increase the level of current (G1) & capital (G2) spending in the economy, **increasing expenses** and resulting in more injections, thus helping stimulate economic growth.
 - **Less revenues & more expenses will either contribute to a deficit or reduce a surplus.**

Budgetary policy stance

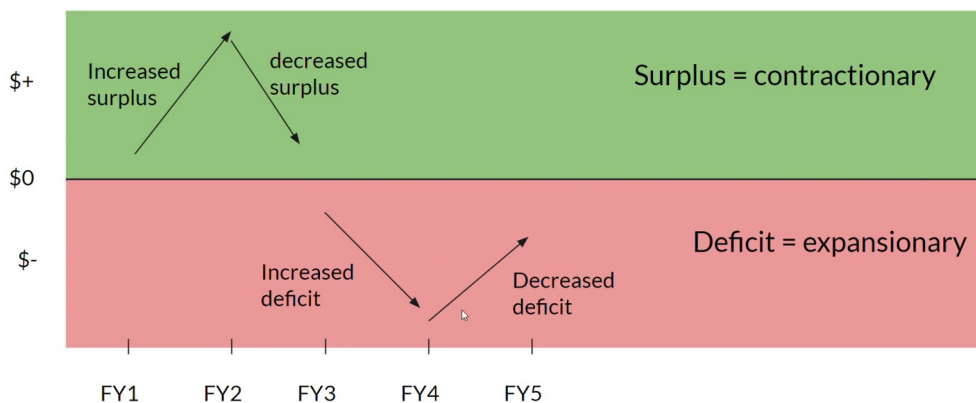
Using the budget to contract economic activity = contractionary stance

Using the budget to expand economic activity = expansionary stance

Surplus (revenues > expenses) = **contractionary** (leakages > injections)

Deficit (revenues < expenses) = **expansionary** (leakages < injections)

Stance over time:



- Increases surplus = more expansionary.
- Decreased surplus = less expansionary.
- Increased deficit = more contractionary.
- Decreased deficit = less contractionary.

Strengths and weaknesses of Budgetary Policy

Strengths:

- Ability to target particular sectors.
- Flexible.
- Ability to target a greater range of economic goals.
- Short impact lag.
- Effective in stimulating AD.
- Includes many parliamentary 'checks and balances'.

- Can face public scrutiny.

Weaknesses:

- Political hurdles.
 - Political bias.
 - Long implementation lag.
 - The crowding out problem.
-

Budgetary policy stance and budgetary initiatives over the past two years

Investing in Skills and Training: – (2023-24 Budget)

The planned provision of 300,000 TAFE and vocational education training places to become fee-free.

- Strong and sustainable economic growth & full employment.
 - Economic growth and employment will increase with a more skilled labour force.
- Low and stable inflation.
 - Inflation will likely increase as students will have more discretionary income for consumption as their education is fee-free.

Small Business Energy Incentive: – (2023-24 Budget)

Will provide \$310 million in tax relief and support up to 3.8 million businesses make investments like electrifying their heating and cooling systems, installing batteries, and upgrading to high-efficiency electrical goods.

- Strong and sustainable economic growth & full employment.
 - Economic growth and employment will increase as these investments can improve productivity.
 - Low and stable inflation.
 - Inflation will likely decrease as higher productivity will boost aggregate supply.
-

U4O1: Monetary policy

The role of the RBA with respect to monetary policy

Reserve Bank Act 1959 sets out the RBA's 3 goals:

1. The stability of the currency of Australia – (low and stable inflation)
 2. The maintenance of full employment in Australia – (full employment)
 3. The economic prosperity and welfare of the people of Australia – (strong and sustainable economic growth)
-

Conventional Monetary Policy

The RBA can target the cash rate which commercial banks borrow and lend to each other. Banks pass these rates down onto businesses and households.

Exchange Settlement Account (ESA):

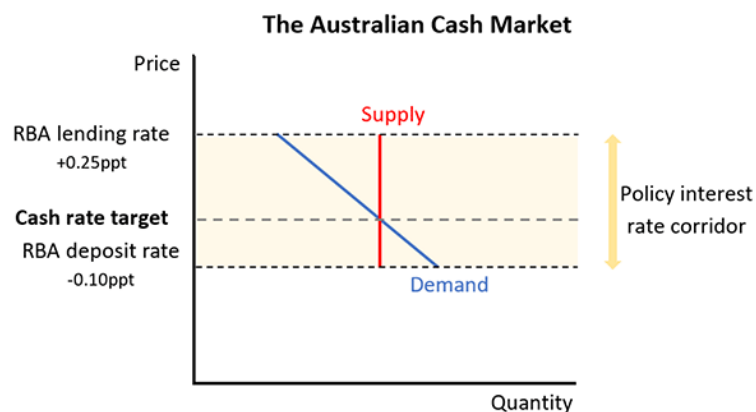
- All commercial/retail banks must hold an account with the RBA.

- This is used to settle transactions between banks (in batches) in the overnight money market.
- Exchange settlement accounts must be positive at the end of the day after all transactions have been settled.

Virtually, banks must settle what they owe each other at the end of the day, and if the ESA balance is negative (i.e. in deficit), the bank must borrow from another bank.

The overnight money market/Australian cash market:

- How does the RBA target the cash rate?
 - The RBA places a floor and ceiling on the interest rate in the overnight money market.



RBA lending rate: What the RBA charges for the banks to borrow from them.

Banks will lend below the ceiling in order to be more attractive to borrowers, and would be disincentivised from lending above the ceiling as other banks can borrow from the RBA at a lower rate.

RBA deposit rate: What the RBA gives to banks for holding an ESA balance above zero.

Banks will lend above the floor as they can get a higher return, and would be disincentivised from lending below the floor as they can get a higher return by just holding it in their ESA.

Cash rate target = The quoted rate from the RBA.

Actual cash rate = Where the supply and demand curves intersect.

**Supply curve is perfectly inelastic as the RBA controls the supply of ESA balances.*

**Supply & demand cannot go above the ceiling or below the floor as there will be no transactions that take place outside of the policy interest rate corridor.*

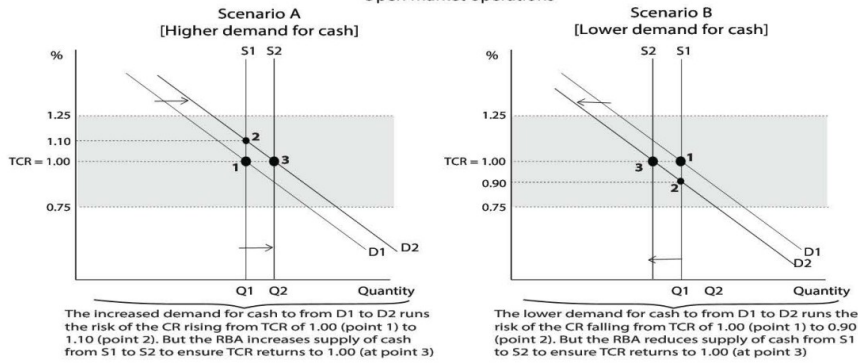
Open Market Operations:

OMOs refer to the RBA's buying and selling of financial instruments, such as Australian Government Securities (AGS), or repurchase agreements (repos) to participants in the overnight money market.

1. Reaction to a change in demand.

Demand in the overnight money market can and does move around. For example, an increase in the demand for cash (borrowing) by the private sector will exert pressure on the cash rate to climb above the target cash rate. This has to be counteracted by the RBA by manipulating supply.

Diagram 9.3a
Open market operations

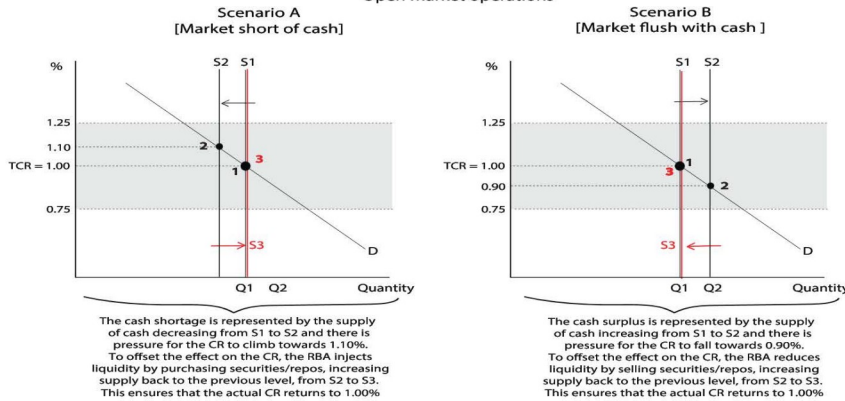


2. Reaction to a change in supply.

The RBA is the banker to the federal government, and processes all government payments (e.g. welfare payments) and receipts (e.g. taxes). These government transactions effectively change the ESA balances of commercial banks as funds are taken in and out of the accounts, to and from the government's own accounts. This has to be counteracted by the RBA by manipulating supply.

- *Government Payments (injection)*: ↑ ESA balances, ↑ Cash Supply.
- *Government Receipts (leakage)*: ↓ ESA balances, ↓ Cash Supply.

Diagram 9.3b
Open market operations



How the RBA manages liquidity

When the RBA sells repos/CGS to banks, it decreases the supply of cash as banks will be holding more repos/CGS and less cash.

- *Sell repos/Commonwealth Government Securities*: ↓ Cash Supply, ↑ Actual Cash Rate.

When the RBA buys repos/CGS from banks, it increases the supply of cash as banks will be holding less repos/CGS and more cash.

- *Buy repos/Commonwealth Government Securities*: ↑ Cash Supply, ↓ Actual Cash Rate.

Unconventional Monetary Policy

Unconventional monetary policy involves the RBA using tools or methods, other than a direct change to the cash rate, in order to influence market rates of interest and economic activity.

Forward guidance:

Involves the RBA providing information about the future course of interest rates and its monetary setting.

Towards the second half of 2021, when the Australian economy had been interrupted by the Delta outbreak, the governor stated on many occasions that the cash rate will remain low until progress was made towards full employment and was confident that inflation would be sustainably within the 2-3 per cent range.

Statement by Philip Lowe (5 October 2021):

- *“The Board is committed to maintaining highly supportive monetary conditions to achieve a return to full employment in Australia and inflation consistent with the target.”*
 - *“It will not increase the cash rate until actual inflation is sustainably within the 2 to 3 per cent target range. The central scenario for the economy is that this condition will not be met before 2024.”*
-

The transmission mechanism

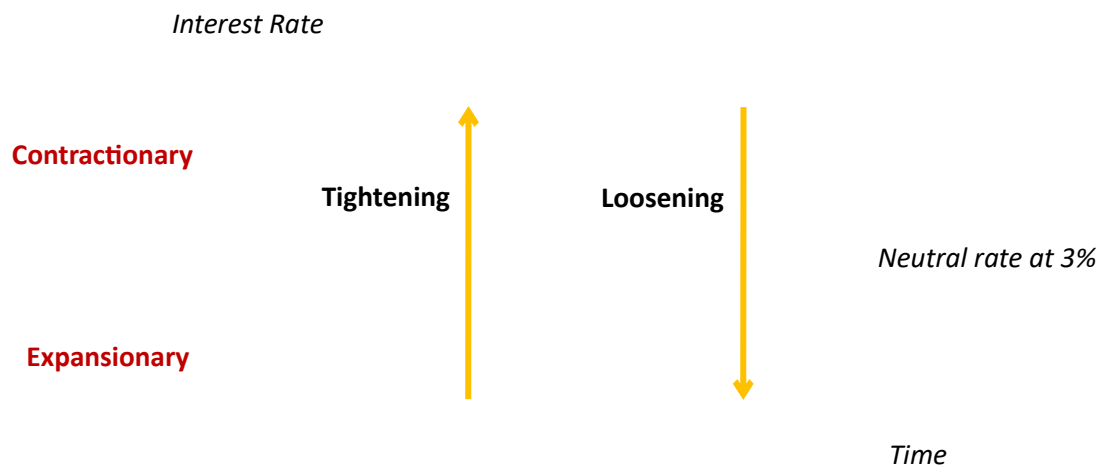
Stage 1 – How other interest rates respond to a change in the cash rate:

The cash rate would influence interest rates for banks, then businesses and households.

Stage 2 – How changes in interest rates influence economic activity and inflation:

- Savings and investment/Cost of credit channel.
 - Changes in interest rates would affect the reward for saving and the cost of borrowing. This would in turn impact the incentive to save vs borrow & spend/invest.
 - Cash flow/Discretionary income channel.
 - Changes in interest rates would affect households and businesses with existing debt on variable loans.
 - Households on variable interest rates would be impacted by changes in interest rates on their discretionary income.
 - Businesses on variable interest rates would be impacted by changes in interest rates on their cash flow.
 - Exchange rate channel.
 - Higher interest rates would appreciate the AUD, resulting in less exports and more imports, leading to a ↓ AD, ↓ Economic growth, ↓ Inflation.
 - Lower interest rates would depreciate the AUD, resulting in more exports and less imports, leading to a ↑ AD, ↑ Economic growth, ↑ Inflation.
 - Asset prices and wealth channel.
 - Changes in interest rates will increase/decrease the price of assets (e.g. shares, bonds, & property).
- Example:*
- Higher interest rates would lower the price of housing as demand would decrease due to higher mortgage repayments.
 - Lower interest rates would increase the price of housing as demand would increase due to lower mortgage repayments.

Monetary policy stance



- Contractionary (restrictive) – During strong growth, to slow down the economy.
- Expansionary (accommodative) – During weak growth, to speed up the economy.
- Neutral at 3%.

Over the past two years:

- The RBA began tightening from 0.10% to 0.35% in May 2022 as the unemployment rate declined to 4% and economic growth began to recover. The cash rate is currently at 4.10% (Sep-23) at a restrictive stance in order to combat a high rate of inflation – 6.0% (Jun-23).

Strengths and weaknesses of Monetary Policy

Strengths:

- No political bias.
- Short implementation lag.
- Broad effect on sectors of the economy.

Weaknesses:

- Long impact lag.
 - Some mortgage holders may still be on fixed rates.
- Blunt tool.
 - Cannot be used to target different sectors.
- Changing the cash rate does not guarantee interest rates will change.
- Less effective at targeting cost inflation.
- Confidence levels can undermine Monetary Policy.

**Unit 4 Managing the economy
Area of Study 2: Aggregate supply policies**

Key knowledge		Chapter references	Tick when learned
66	the use of aggregate supply policies to complement aggregate demand policies in promoting non-inflationary economic growth over time	10.1 - 10.2	
67	the operation of aggregate supply policies in improving supply-side conditions through their impact on the quantity and quality of the factors of production, the costs of production and productivity, and the effect on Australia's international competitiveness, productive capacity and aggregate supply	10.3	
68	how one of the following budgetary policies is designed to affect aggregate supply, Australia's international competitiveness, the achievement of domestic macroeconomic goals, and living standards:: <ul style="list-style-type: none"> • training and education • research and development • subsidies • infrastructure • tax reform 	10.4 - 10.5	
69	the effect of skilled immigration policy on population, productivity and participation and the subsequent effect on productive capacity, aggregate supply, international competitiveness, the achievement of domestic macroeconomic goals, and living standards	10.6	
70	trade liberalisation and its short-term and long-term effects on Australia's international competitiveness, the allocation of resources, aggregate supply, and the domestic macroeconomic goals and living standards	10.7	
71	one market-based environmental policy and its short-term and long-term effects on aggregate supply, intertemporal efficiency and living standards	10.8	

Unit 4 Managing the economy Area of Study 2: Key Skills		Tick when mastered
define key economic concepts and terms and use them appropriately		
gather, synthesise and use economic data and information from a wide range of sources to analyse economic issues and form conclusions		
discuss the operation of aggregate supply policies		
analyse the effect of budgetary, immigration and trade liberalisation policies on aggregate supply, international competitiveness, the achievement of the domestic macroeconomic goals and living standards		
analyse the effect of an environmental policy on aggregate supply and living standards over time		

U4O2: Aggregate supply policies

The aims of aggregate supply policies

All AS policies aim to increase the productive capacity (increase AS) of the economy by increasing the ability and willingness of firms to produce at any given price.

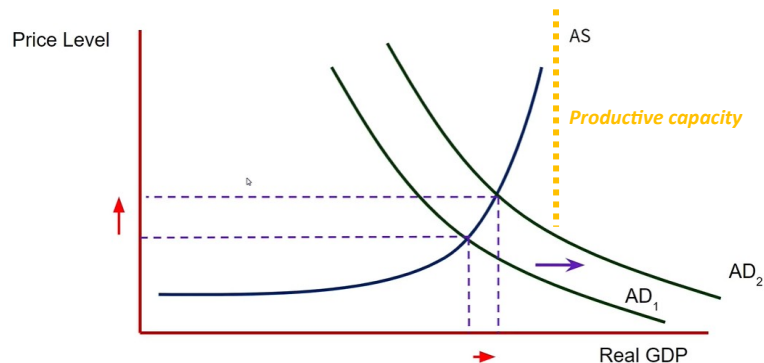
- This may include the aim to;
 - Fight stagflation (high inflation, low economic growth).
 - Expand capacity when nearing capacity constraints.
 - Dealing with supply shocks.

Use of AS policies to compliment AD policies:

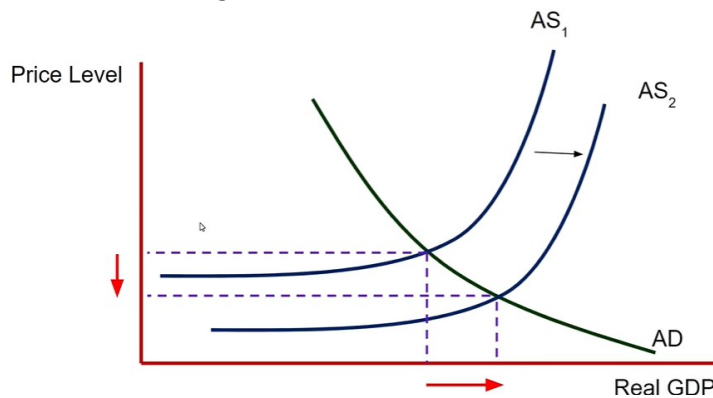
- AD policy works in the short-term to influence the level of spending in an economy.
- AS policy works in the long-term to influence business's willingness/ability to produce.

In the short-term, AD policy may stimulate growth and create jobs, but can also increase inflationary pressures. In order to grow sustainably, AS policies must work to increase the productive capacity of the economy over the longer term.

If the RBA were to stimulate AD to the point of productive capacity, supply would not be able to keep up with demand, and inflation would start to escalate without GDP growth as the AS curve becomes inelastic:



To combat this, the government must improve productive capacity through AS policies, reducing inflation and boosting GDP.



How AS policies work to improve supply side conditions

Productivity – The volume of output that is produced from a given number of inputs.

Quality and quantity of factors of production:

An increase in the quality and quantity of either **labour**, **capital** or **natural resources** will raise productivity by increasing the volume or real value of production relative to the inputs used in the production process.

- Strategies to improve quality may be to;
 - Fund vocational education and training (labour).
 - Invest in capital infrastructure (capital).
 - Provide tax reliefs for businesses switching to cleaner energy (natural).
- Strategies to improve quantity may be to;
 - Increase skilled immigration to improve labour participation (labour).
 - Invest in capital infrastructure (capital).
 - Provide tax reliefs for businesses switching to cleaner energy (natural).

Costs of production:

- Any initiative that improves productivity lowers the average unit cost of production.

International Competitiveness:

- As the cost of production falls, firms pass on these costs to consumers in the form of lower prices. Australian exporting firms are now relatively more competitive, resulting in an increase in international competitiveness.
- As quality of factors of production increases, firms will be able to improve the quality of goods and services, resulting in an increase in international competitiveness.

Productive Capacity:

- As productivity levels rise, more outputs can be produced by the same number of inputs. Hence, the total possible production level increases, resulting in an increase in productive capacity and AS.

Training and education

Spending on education and training is vital to improving the skills and knowledge of the current and future labour force.

- Improves the quality of our labour resources.
- Increases the occurrence of innovation.
- Reduces skills shortages/capacity constraints in certain industries.

This involves spending at all levels of education:

- Early years
- Primary
- Secondary
- Tertiary (University)
- Professional education (In-work education)

How training and education policy works:

- Training and education improves the productivity of the Australian labour force by equipping individuals with the skills and knowledge needed for work. This will;
 - Decrease unit costs for Australian businesses.

- Reduce skill shortages.
- Improve international competitiveness.
- Increase the ability & willingness for Australian businesses to produce.
- Increase productive capacity and AS.
- ↑ Economic growth, ↓ Unemployment, ↓ Inflation.

Effect on living standards:

- Increase in jobs and growth and a decrease in inflation improves peoples access to goods & services, thereby improving material living standards.
 - As individuals get access to higher skilled jobs and have increased satisfaction, there is an improvement in non-material living standards.
-

Skilled immigration policy

Population:

- Australia has an ageing population which can lead to capacity constraints.
- Skill migration increases the population of Australia and fill the gaps left by our ageing population.

Participation:

- Almost all of skilled migrants will enter the labour force, thereby increasing the labour force participation rate.

Productivity:

- Skilled migrants bring unique skills & knowledge and innovation to Australia, helping fill skills shortages and increase the competition for jobs.

Impact on aggregate supply – AS will increase from the following:

- The skills brought to Australia by skilled migrants can improve the quality of labour, thereby helping boost productivity.
- A greater supply of labour can improve the quantity of labour, thereby keeping wages low and helping reduce costs of production.

Domestic macroeconomic goals:

- Strong and sustainable economic growth.
 - An increase in AS will increase GDP.
- Full employment.
 - An increase in AS will reduce unemployment.
- Low and stable inflation.
 - Immigration will help to keep cost inflationary pressures down during times of skills shortages and wage pressures.
 - When immigrants arrive, it can also contribute to more AD. The higher is the ratio of skilled to unskilled migrants (family), the more likely it is that immigration will have a favourable impact on the achievement of price stability over time.

Impact on material living standards:

- Good.
 - To the extent that immigration alleviates skills shortages and improves our international competitiveness, an increase in jobs and growth and a decrease in

inflation improves peoples access to goods & services, thereby improving material living standards.

- Bad.
 - Australians may face increased competition for work and lose their jobs.
 - May put strain on the nation's physical and natural capital (e.g. infrastructure).
 - Supply of housing may not be able to keep up with demand.

Impact on non-material living standards:

- Good.
 - To the extent that immigration brings new cultures and improves the multiculturalism and acceptance in Australia, non-material living standards will increase.
- Bad.
 - May generate potential pressure on social cohesion (the solidarity among members of a community).

Trade liberalisation – ‘Free-er trade’

The removal of barriers and restrictions on the exchange of goods and services to promote ‘free-er’ trade between nations.

- The removal of protections may include;
 - Tariffs (a tax on imports).
 - Quotas (a volume restriction on imports).
 - Subsidies (financial support).

Short term: – (↓ Economic growth, ↑ Unemployment, ↓ Inflation)

Broadly negative.

- Cheaper goods from overseas lead to increased competition for local import-competing producers. This would result in unemployment as Australian businesses won’t be able to keep costs down, and some businesses will exit the industry all together, resulting in slower economic growth.
- Decreased AD for higher priced local goods & services, and cheaper local goods & services produced by Australian businesses that are better able to adjust to the new environment, will exert downwards pressure on inflation.

Long term: – (↑ Economic growth, ↓ Unemployment, ↓ Inflation)

Broadly positive.

- As firms adjust to the new level of competition they must innovate and increase productivity in order to survive. This improves allocative efficiency as resources get reallocated towards its most productive use.
- There is an increase in international competitiveness as business decrease their prices or improve the quality of their offerings.

Emissions Trading Scheme (ETS)

The government provides or sells a certain number of permits to allow businesses release CO2 into the atmosphere and enforces penalties for polluting without permits. Overtime, the government reduces the number of permits in existence (effectively reducing supply), forcing up the price of CO2

permits, and providing an incentive for businesses to reduce their CO2 emissions, improving intertemporal efficiency.

ETS in the short term:

In the short-term it can restrict AS growth.

- Firms now have higher costs of production (decreased international competitiveness if other countries don't follow).
- Firms must reallocate resources towards non-carbon emitting activities, worsening allocative efficiency.

Impact on living standards.

- Negatively affects material living standards in the form of job losses in carbon emitting industries.
- Improves non-material living standards in the short term as emissions are reduced and the environment improves (reducing stress and anxiety).

ETS in the long term:

In the longer-term the environmental stability should increase AS.

- An ETS can provide stable weather and continued access to our environment in the future.

Impact on living standards.

- Creates jobs in renewable industries, increase material living standards.
- Results in better health and wellbeing with cleaner air, increasing non-material living standards.