



RESERVE BANK OF AUSTRALIA

Teacher Immersion Event 2024

H.C. Coombs Centre, Kirribilli
19 July 2024

Education



RESERVE BANK OF AUSTRALIA

Explaining and Teaching Economic Concepts in the Classroom

Economic Growth

Education



RESERVE BANK OF AUSTRALIA

Economic Growth

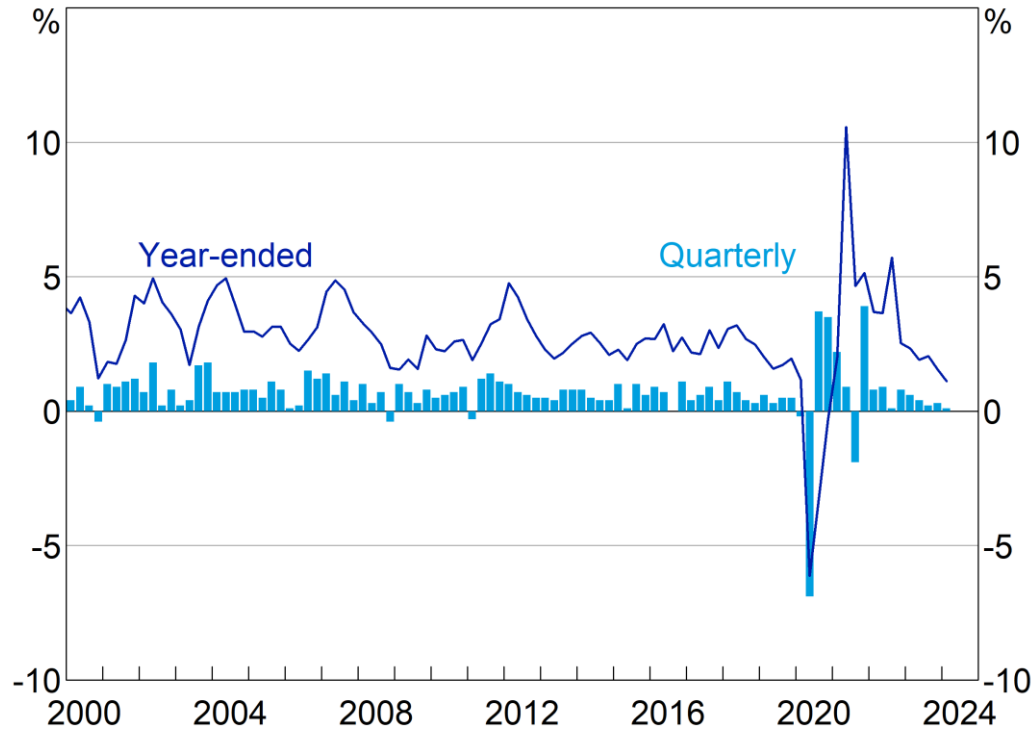
Kate McLoughlin

(Economic Analysis Department)

Education



GDP Growth



Source: ABS.



Who and what?*



*It's a lot more fun than these pictures suggest!

GDP (A) – average of 3 imperfect measures

How is GDP Measured?

GDP is defined as:

The total production
of goods and services
in the economy

GDP can be measured by:

Production
Income
Expenditure

GDP (P)

GDP (I)

GDP (E)

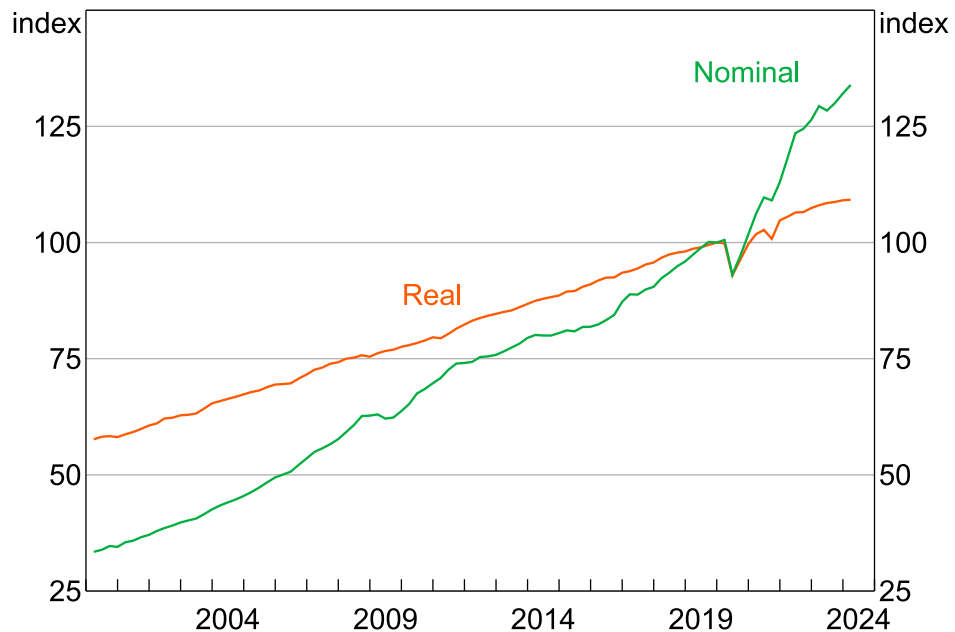
Average of
these three –
GDP (A)



Nominal and real GDP...

GDP

DQ2019 = 100



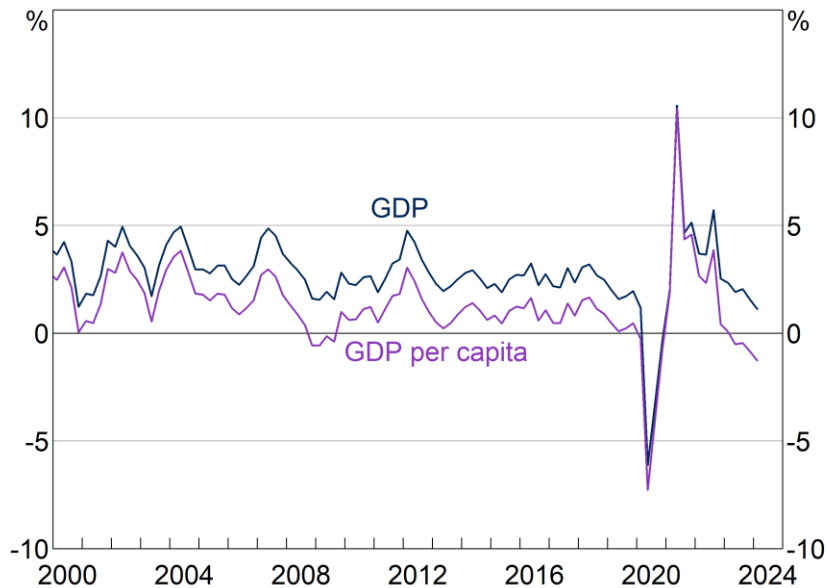
Sources: ABS; RBA.



What about living standards?

GDP Growth

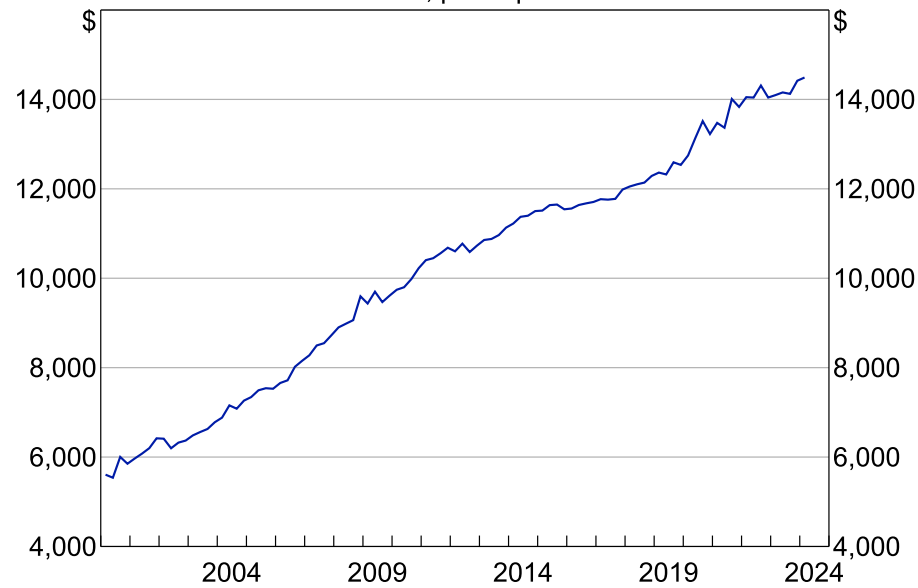
Year-ended



Source: ABS.

Household Disposable Income

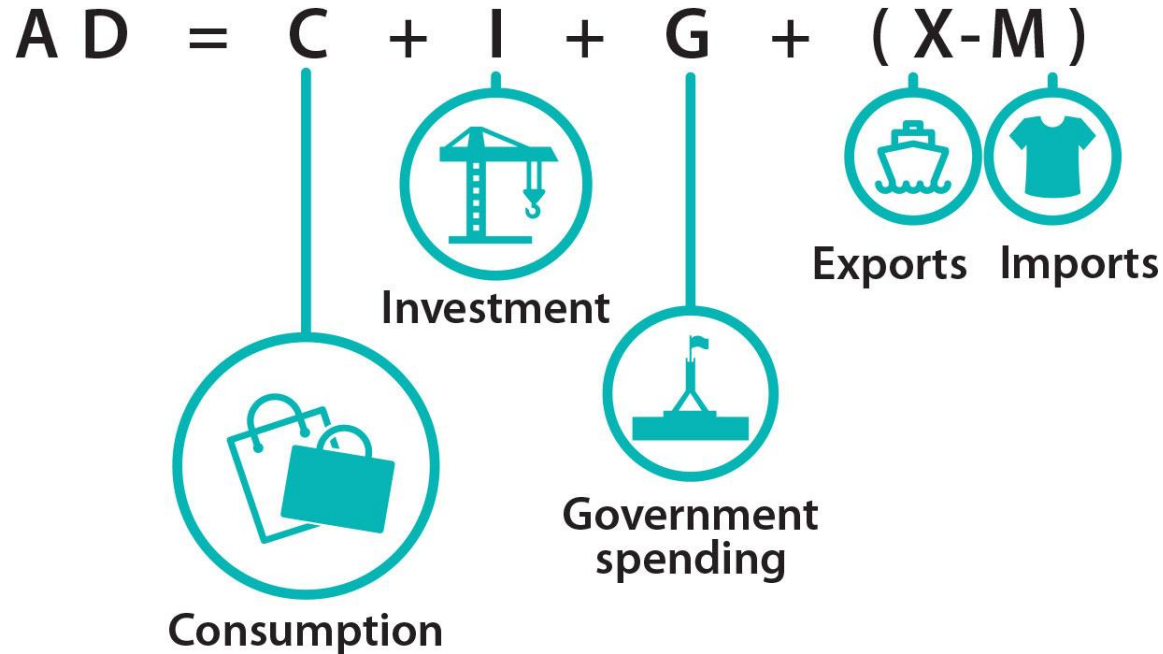
Real, per capita



Sources: ABS; RBA.



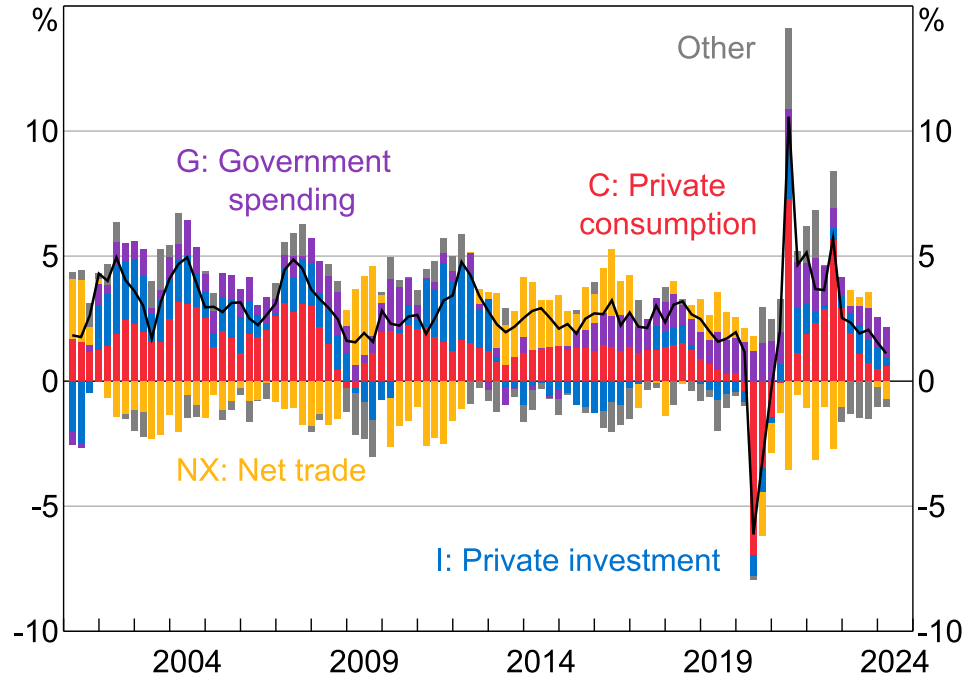
The GDP equation:





GDP

Year-ended; with contributions



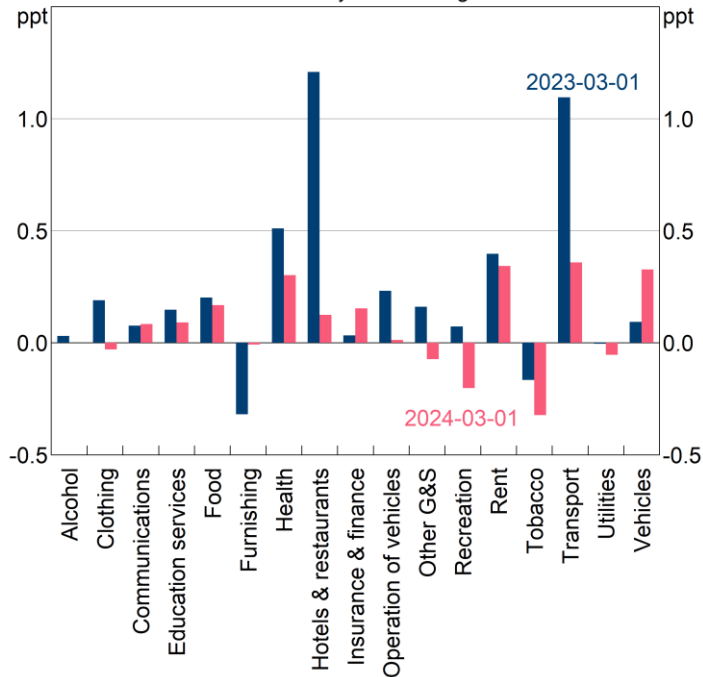
Sources: ABS; RBA.



C: Consumption – of what and by whom?

Household Consumption

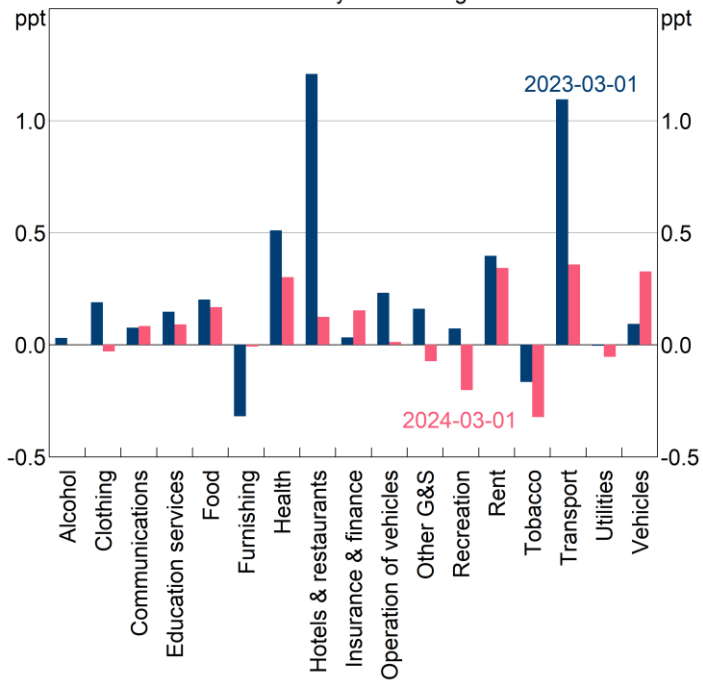
Contribution to year-ended growth





Household Consumption

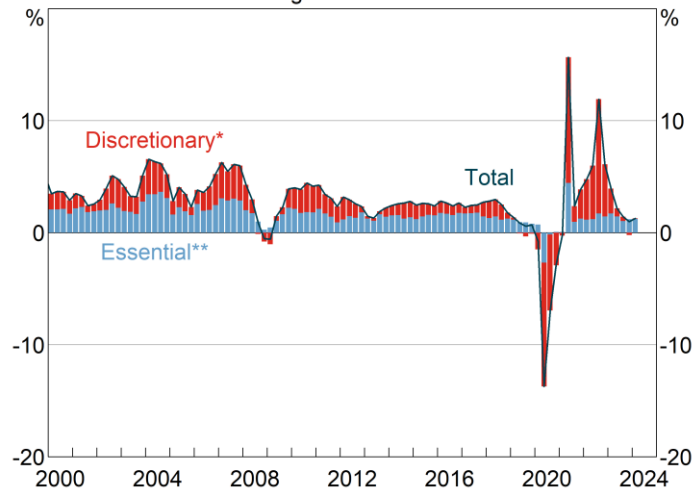
Contribution to year-ended growth



Source: ABS.

Household Consumption

Year-ended growth with contributions



* Includes furnishing & household equipment, clothing & footwear, recreation & culture, motor vehicle sales, alcohol & tobacco, air & water transport, hotels, cafes & restaurants, and 'other goods and services'

** Calculated as a residual; includes categories such as food, housing, health, education and utilities

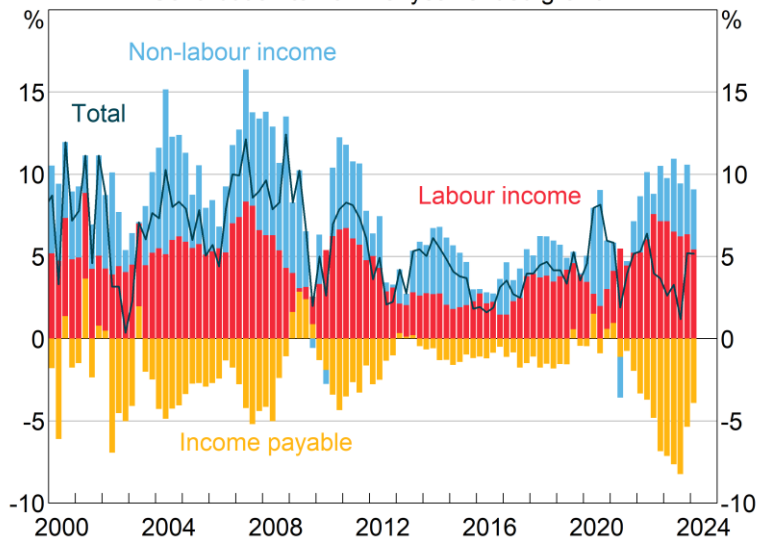
Sources: ABS; RBA.



What supports C? a bit of GDP(I)

Household Disposable Income

Contribution to nominal year-ended growth

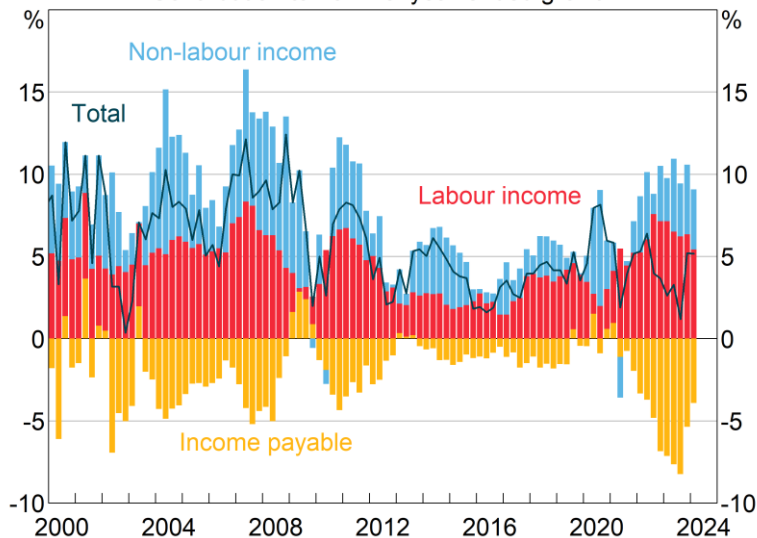


Source: ABS.



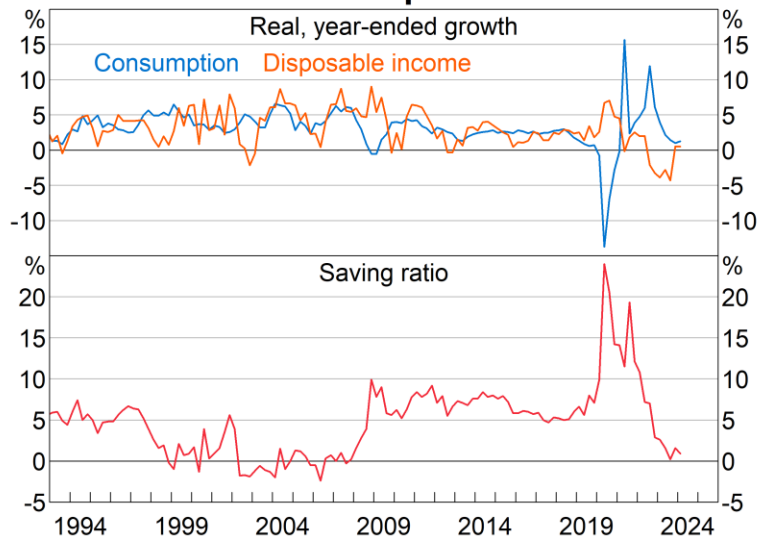
Household Disposable Income

Contribution to nominal year-ended growth



Source: ABS.

Household Consumption and Income



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

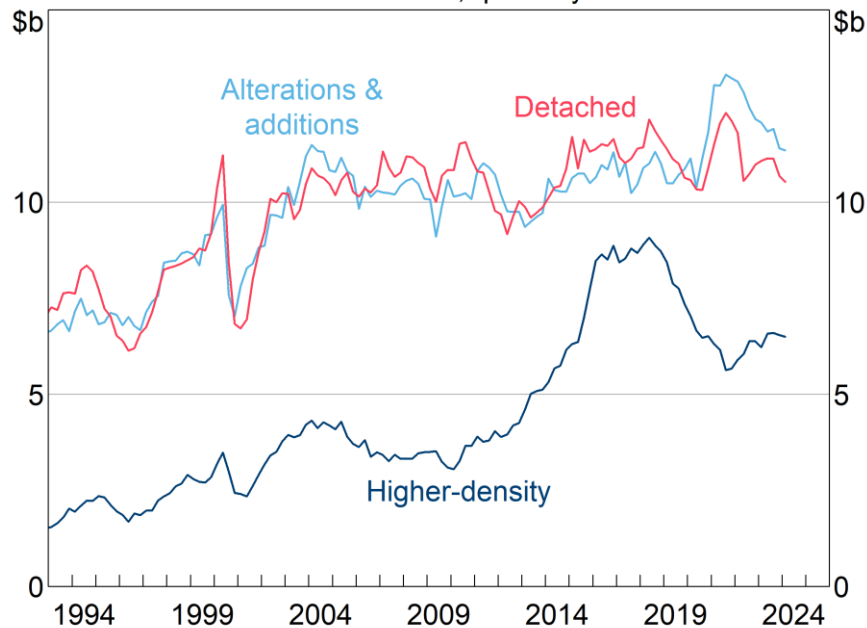
Source: ABS.



I: Investment (private)... Housing

Private Dwelling Investment

Chain volume; quarterly*



* Reference year is 2021/22

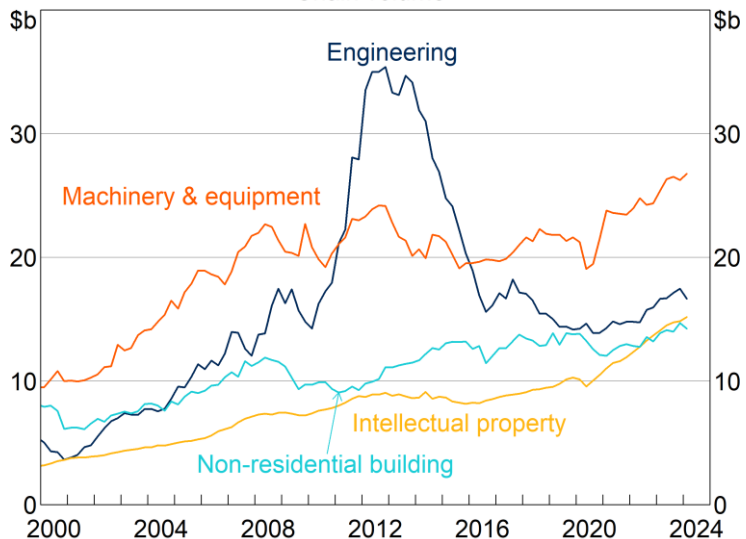
Sources: ABS; RBA.



I: Investment (private)... Firms' investment

Private Business Investment

Chain volume*

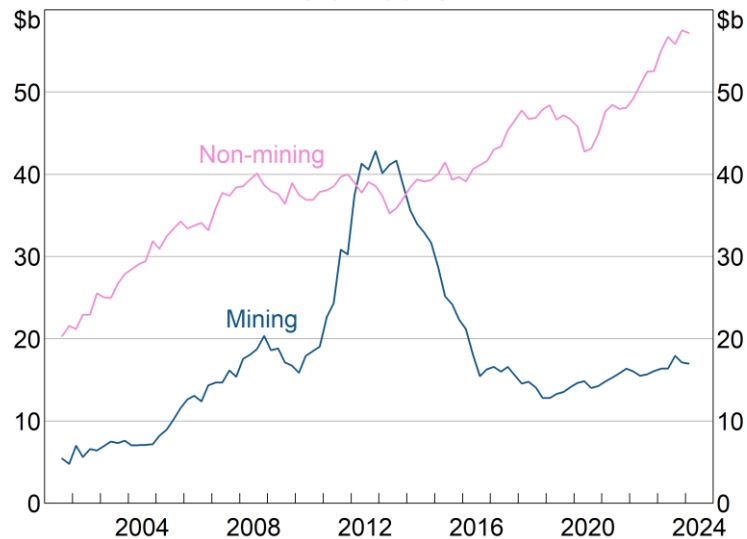


* Adjusted for second-hand asset transfers between the private and other sectors; reference year is 2021/22

Sources: ABS; RBA.

Private Business Investment

Chain volume*

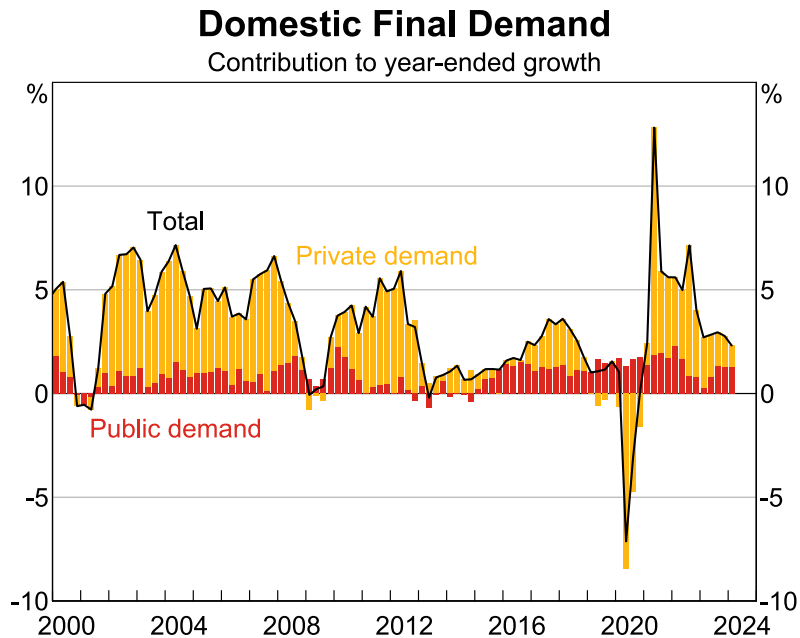


* Net of second hand asset transfers; reference year is 2021/22

Source: ABS.



G: Governments' expenditure



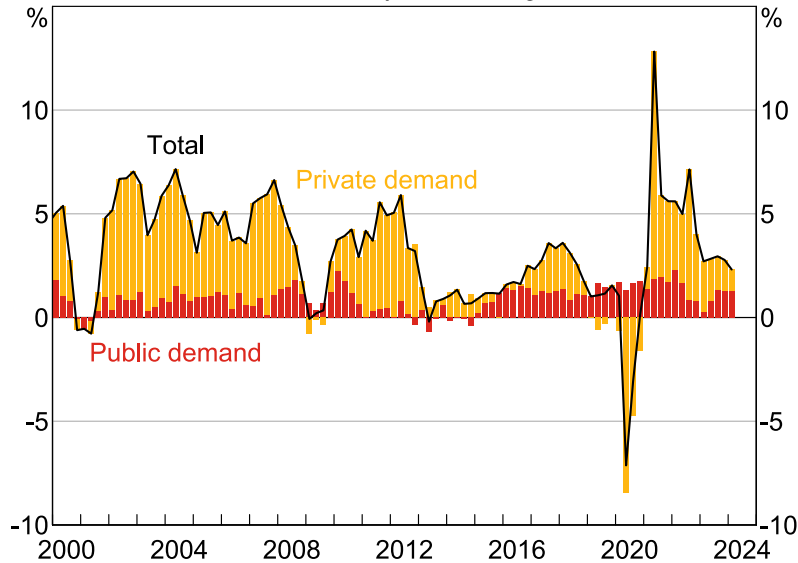
Source: ABS.

Note: $DFD=C+I+G$



Domestic Final Demand

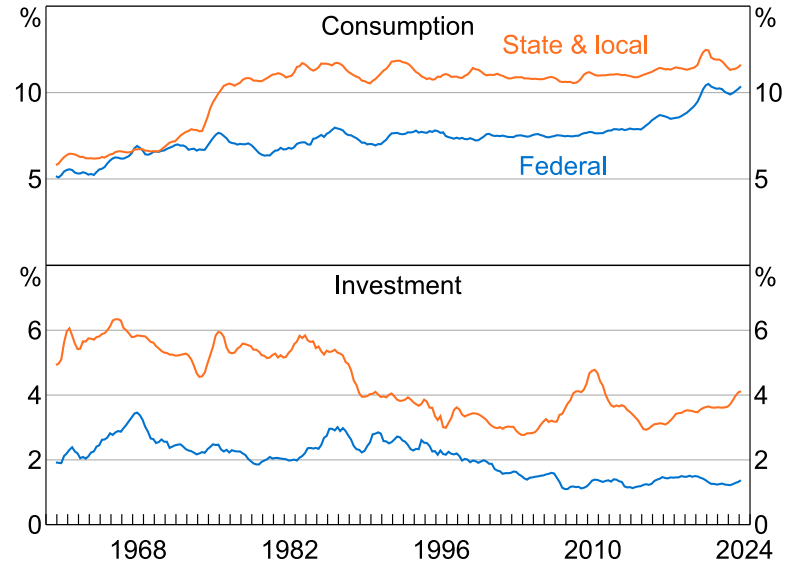
Contribution to year-ended growth



Source: ABS.

Public Demand

Share of GDP

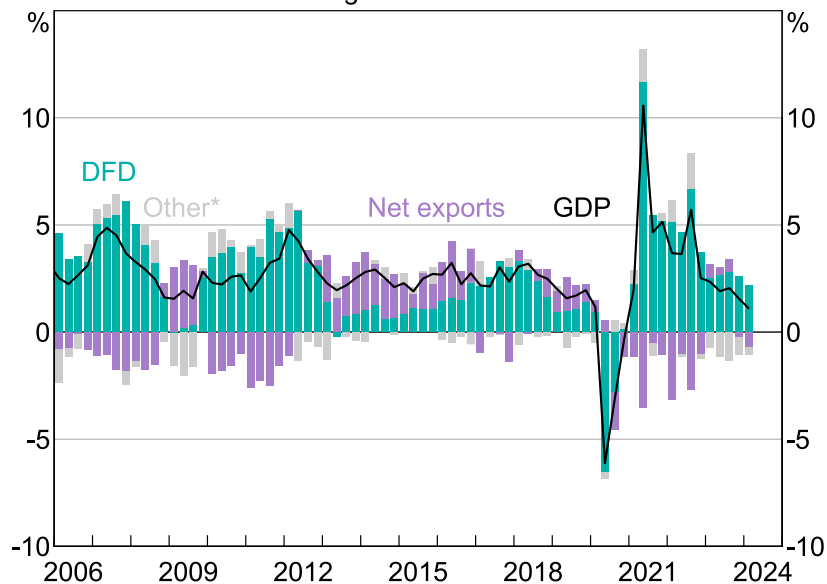


Source: ABS.

NX: Net Exports = Exports – Imports

Domestic and External Growth

Year-ended growth with contributions



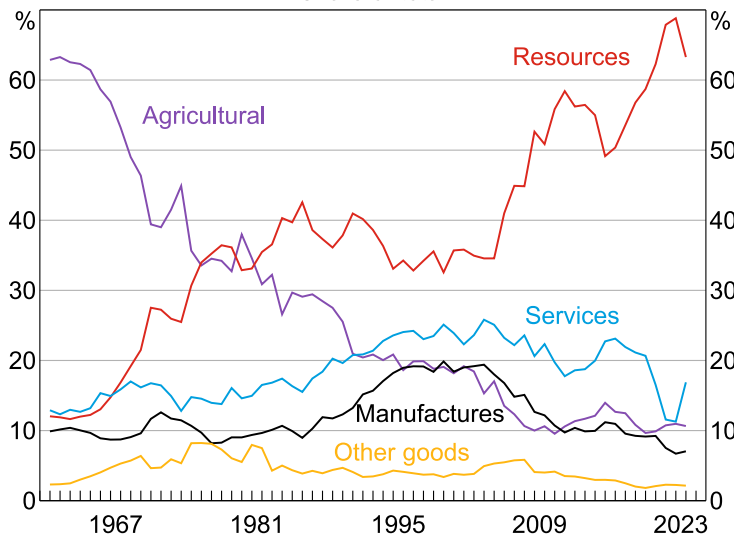
* Changes in inventories and statistical discrepancy



What do we trade?

Composition of Exports

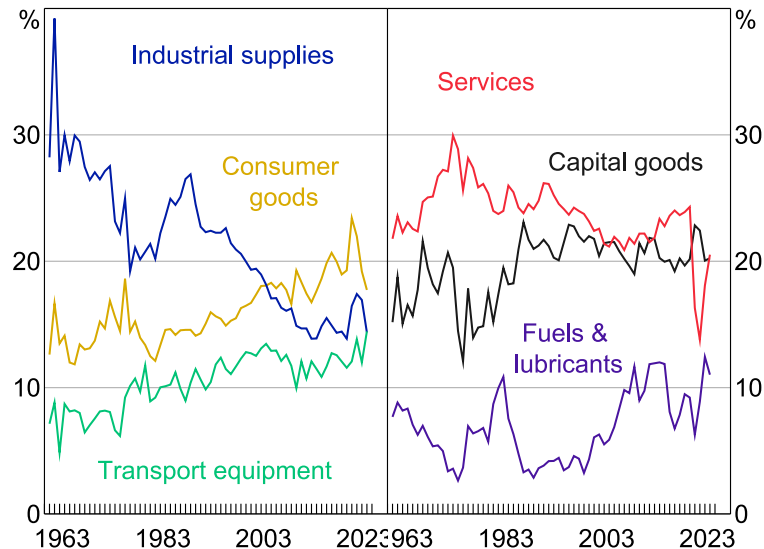
Share of total



Sources: ABS; RBA.

Composition of Imports*

Share of total



* The 'other goods' category has not been shown but is small.

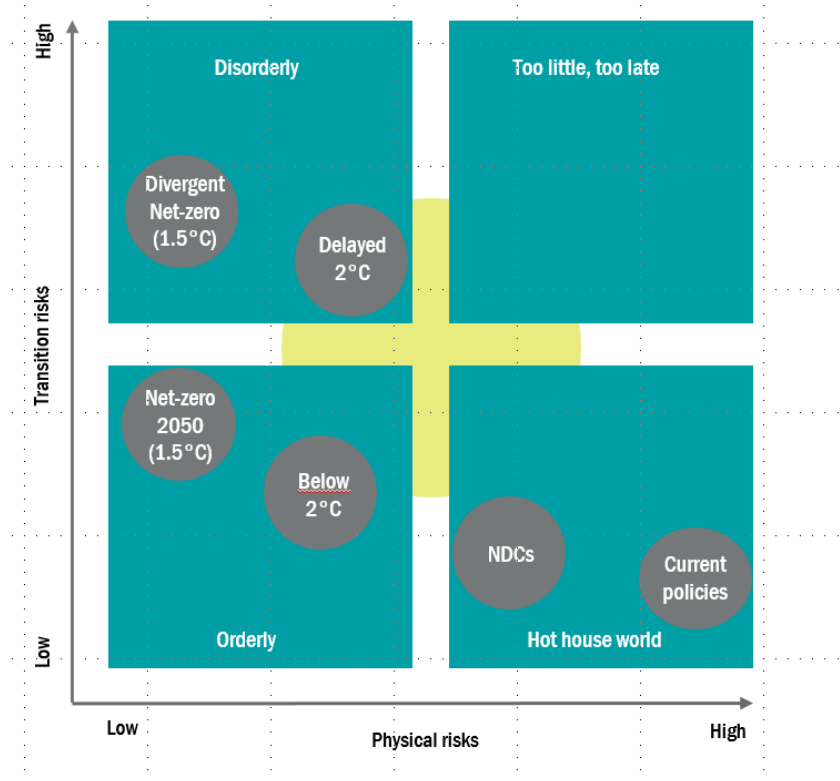
Sources: ABS; RBA.



GDP and the environment



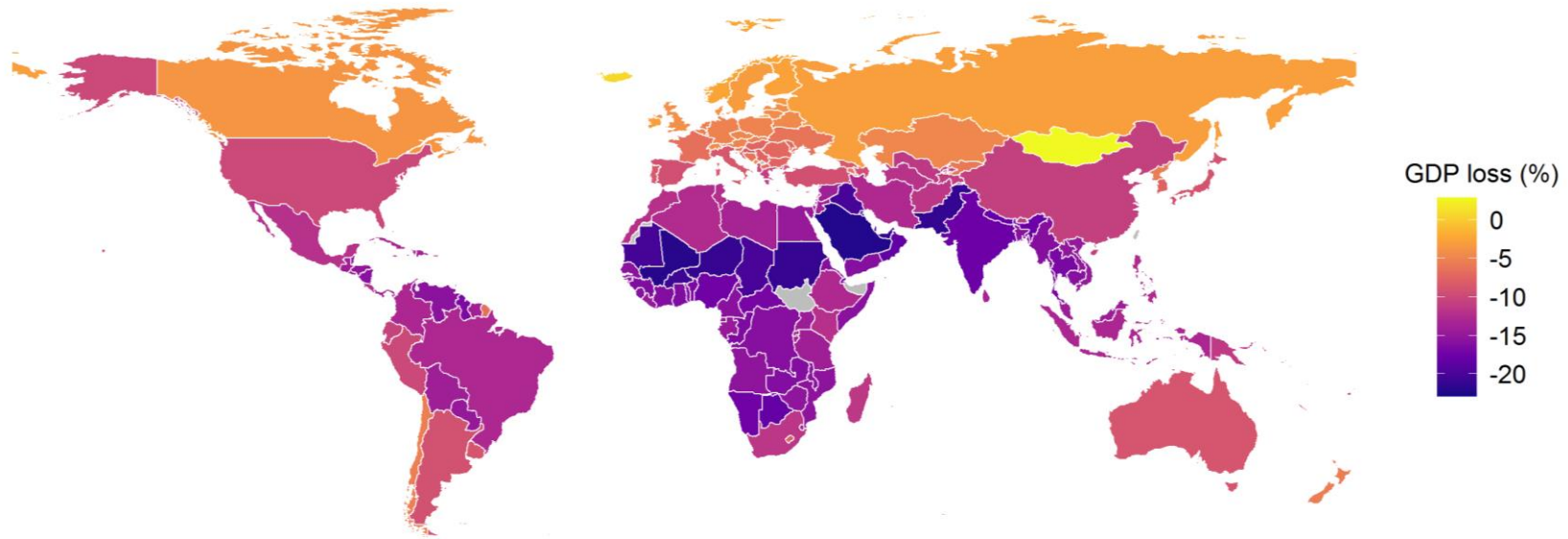
The effects of climate change are uncertain...





GDP losses in an NGFS hot-house-world scenario


By year 2100




Note: Based on the second generation of NGFS scenarios


Source: NGFS


Where to learn more




RESERVE BANK OF AUSTRALIA

 rba.gov.au/education

 better.com/RBAinfo

 facebook.com/ReserveBankAU

 youtube.com/ReserveBank

Economic Growth

What is Economic Growth?

Economic growth refers to an increase in the size of a country's economy over a period of time. The size of an economy is typically measured by the total production of goods and services in the economy, which is called gross domestic product (GDP).

Economic growth can be measured in 'nominal' or 'real' terms. Nominal economic growth refers to the increase in the dollar value of production over time. This includes changes in both the volume of production and the prices of goods and services produced. Economists normally talk about real economic growth – that is, increases in the volume produced only, which takes away the effect of prices changing. This is because it better reflects how much a country is producing at a given time, compared with other points in time.

How is GDP Measured?

To measure GDP each quarter, the Australian Bureau of Statistics (ABS) collects data from households, companies and government agencies. The ABS then calculates GDP in three different ways, looking separately at information about production (P), income (I) and expenditure (E). The three definitions of GDP are:

- GDP(P): total value added from goods and services produced
- GDP(I): total income generated by employees and businesses (plus taxes less subsidies)
- GDP(E): total value of expenditure by consumers, businesses and governments on final goods and services.

These are three different ways to estimate the same thing. In practice, different results can be obtained because there are never enough data to build a complete picture of the economy. Many economic activities have to be estimated and measurement errors arise. In Australia, the ABS and economists generally focus on the average of the three measures – GDP(A).

How is GDP Measured?

GDP is defined as:

The total production of goods and services in the economy

GDP can be measured by:

Production	GDP (P)
Income	GDP (I)
Expenditure	GDP (E)

Average of these three – GDP (A)

RESERVE BANK OF AUSTRALIA | Education Economic Growth 1

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

Bringing the aggregate demand equation to life

RESERVE BANK OF AUSTRALIA

6:19

Bringing the aggregate demand equation to life

Current Economic Conditions





* Excludes during the COVID-19 pandemic were included. Source: ABS, IMA.



8:50

Current Economic Conditions – data as at 1 May 2024

Aggregate Demand and Aggregate Supply

13 August 2020

A Video Explainer exploring concepts and issues related to aggregate demand, aggregate supply and the business cycle



Gross Domestic Product (GDP)

14 July 2020


A Video Explainer exploring concepts and issues related to Gross Domestic Product (GDP)



Measuring Economic Variables (Nominal v Real)

14 July 2020

A Video Explainer exploring concepts related to the measurement of economic variables



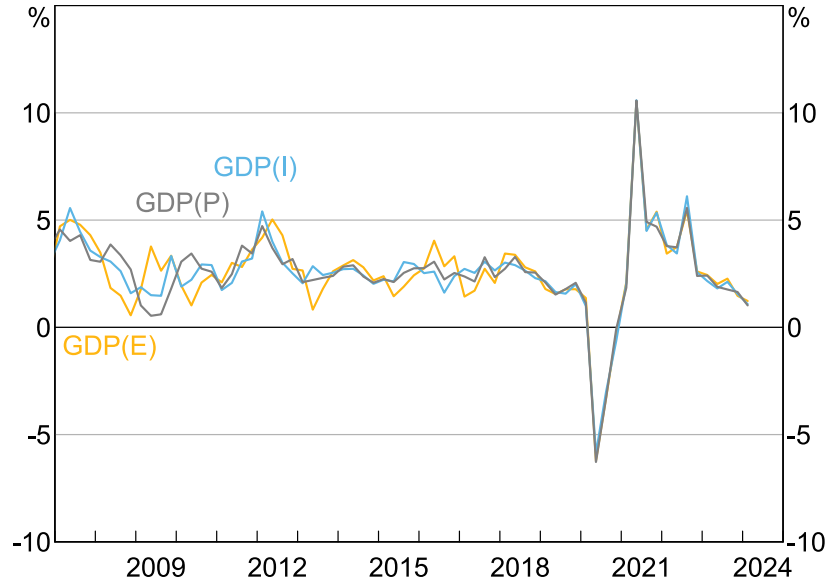


Spare graphs



GDP Growth

Year-ended

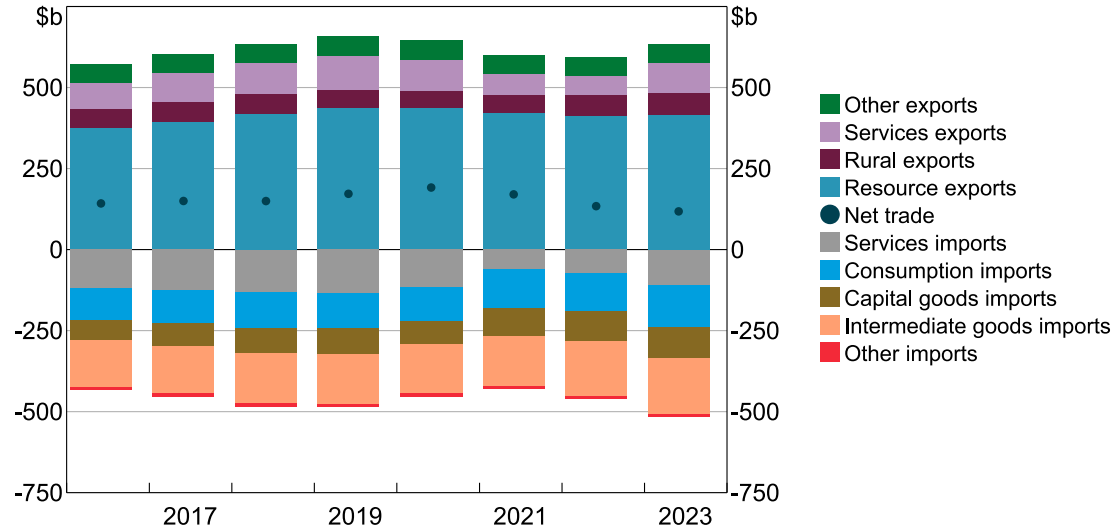


Source: ABS.



Australia's Trade Components

Chain volume



Sources: ABS; RBA.

**Table 1: Impacts of climate change in key macroeconomic variables**

	Acute physical risk (short to medium term)	Chronic physical risk (medium to long term)	Transition risk (medium to long term)
Output	↓	↓	↑/↓
Consumption	↑/↓	↑/↓	↑/↓
Investment	↓	↑/↓	↑/↓
Productivity	↓	↓	↑/↓
Unemployment	↑	↑	↑/↓
Wages	↑/↓	↓	↑/↓
Inflation	↑/↓	↑/↓	↑/↓

Source: adapted from NGFS (2020)