



**Australian Government**  
**Productivity Commission**

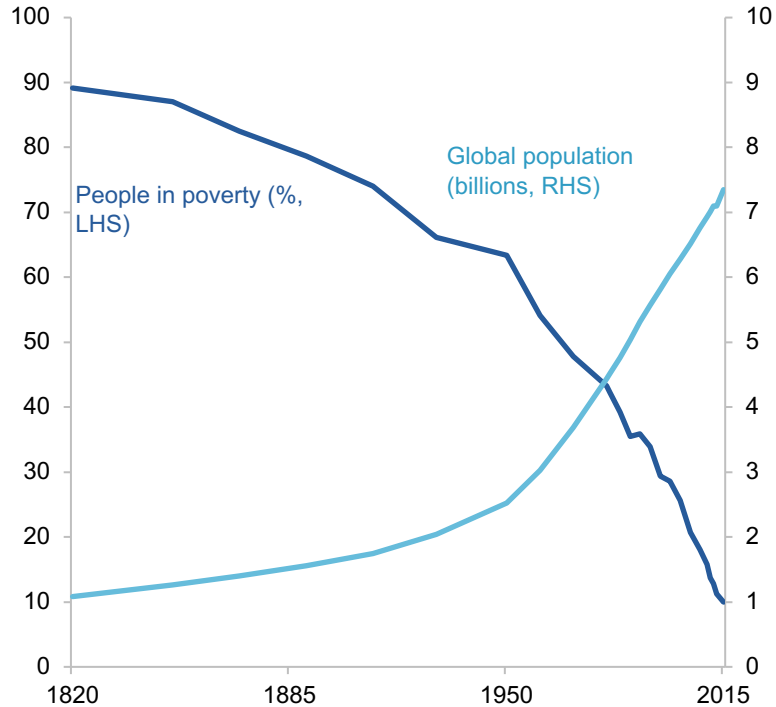
# **The 5-year productivity inquiry**

Australian Business Economists, 30 March 2023

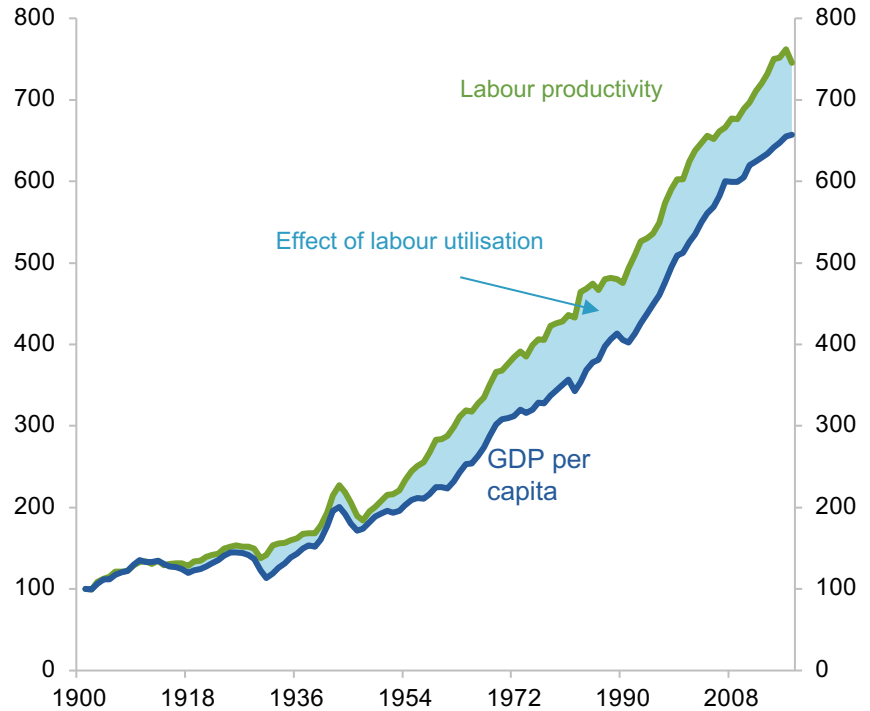
Michael Brennan, Chair

# Productivity – a key to prosperity

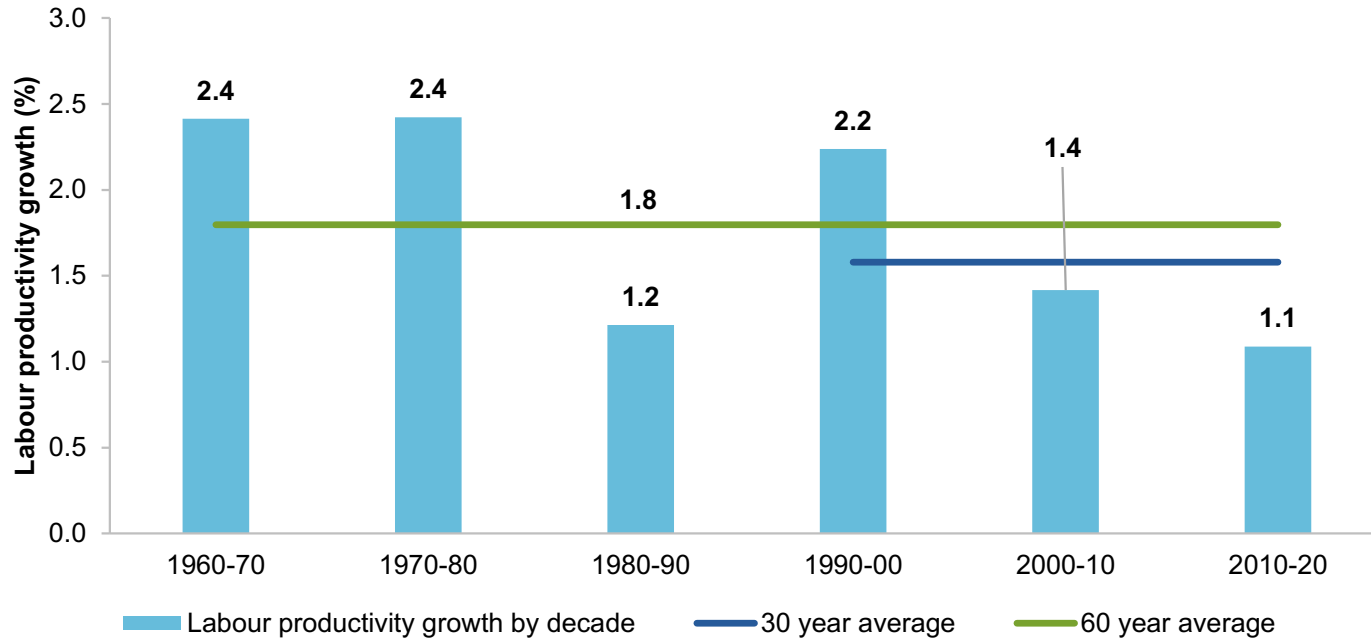
## Extreme poverty has plummeted while populations soared







## Australians are better off due to rising productivity (index = 100 in 1901)



# Productivity – Labour productivity growth is slowest in 60 years

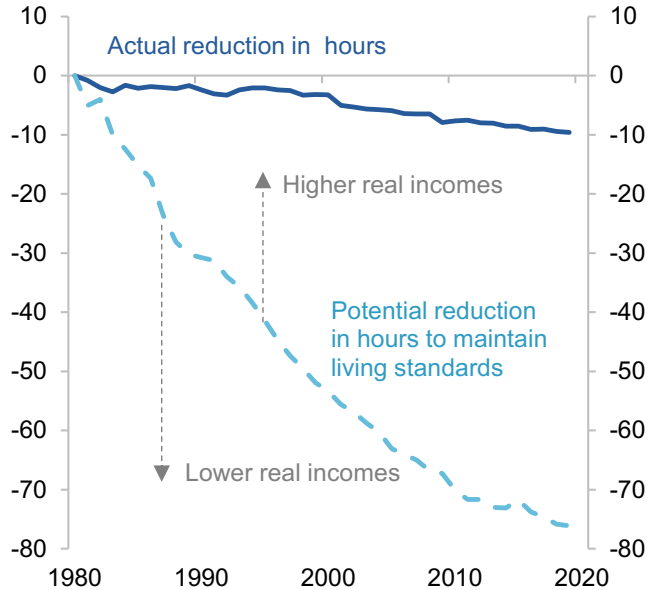


# Then and now

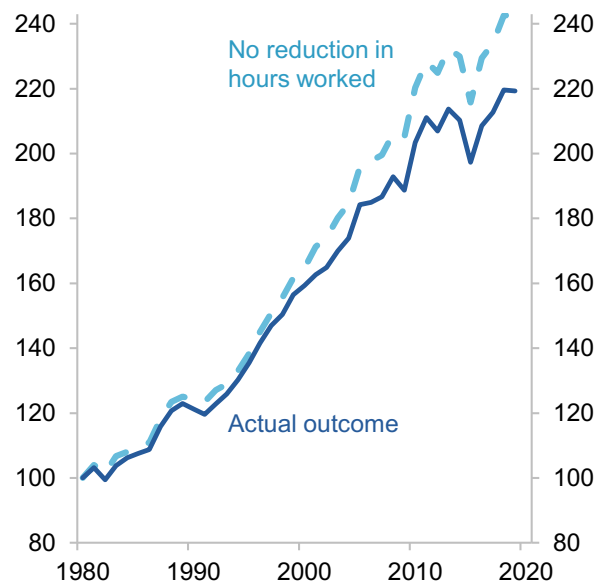
Ford Model T (1908)	VS	Tesla Model 3 (2022)
 <p>20hp crank started Internal combustion</p> <p>~70km/h</p> <p>34-64 km</p> <p>no seat belts</p> <p>Paper maps</p> <p>Sprung Leather seats stuffed with horsehair and cotton</p>	<p><b>Engine</b></p> <p><b>Top speed</b></p> <p><b>Range</b></p> <p><b>Safety</b></p> <p><b>Navigation</b></p> <p><b>Comfort</b></p>	 <p>283hp electric</p> <p>&gt;250km/h</p> <p>600km</p> <p>seat belts, air bags, automatic braking and computer aided collision avoidance systems</p> <p>GPS navigation on an internal touch screen</p> <p>Heated seats and steering wheel and 13 speaker audio system</p>
Apple PowerBook 100 (1991)	VS	Apple MacBook Air (2022)
 <p>9 inch monochrome (1 colour) 640 x 400 pixels</p> <p>Lead acid battery with &lt;4 hours</p> <p>2.3kg</p> <p>up to 40 megabytes</p> <p>Plastic</p> <p>serial modem</p> <p>Single speaker</p>	<p><b>Screen</b></p> <p><b>Battery</b></p> <p><b>Weight</b></p> <p><b>Storage</b></p> <p><b>Material</b></p> <p><b>Communication</b></p> <p><b>Sound</b></p>	 <p>13.3 inch touch screen, millions of colours, 2560 x 1600 pixels</p> <p>Lithium polymer up to 18 hours</p> <p>1.3kg</p> <p>1TB (25,000 times larger)</p> <p>Aluminium</p> <p>WiFi, Bluetooth and built in high definition camera</p> <p>Stereo speakers &amp; headphone jack</p>

# Productivity growth makes it possible to consume more and work less

## Actual vs potential change in hours worked per week to maintain GDP per capita at 1980



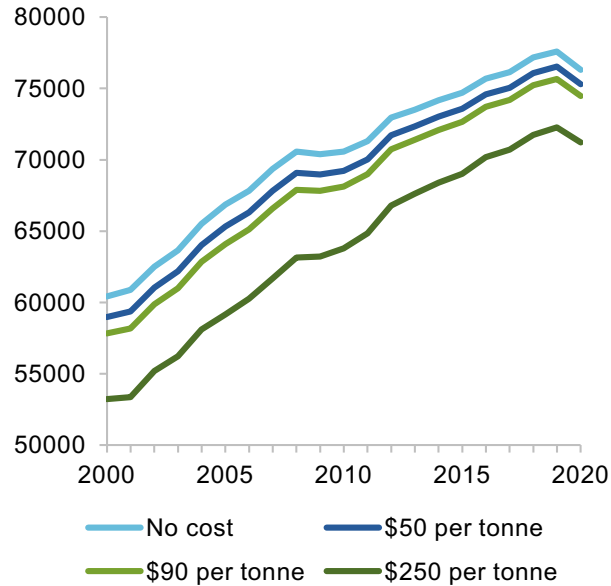
## Actual vs potential income (GDP per capita) growth since 1980a (index 1980=100)



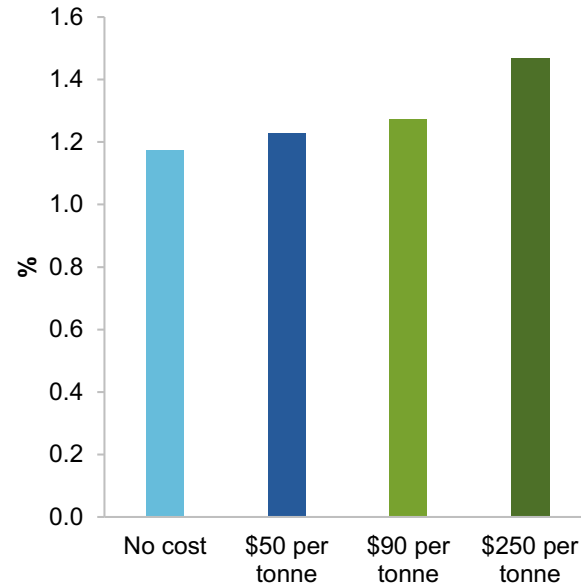
# Accounting for the environmental impact of carbon emissions...

...Decreases the measured level of incomes but increases measured growth rates

## GDP per capita levels



## GDP per capita annual growth (1999 to 2020)



# Headwinds – the growing services sector



Non-market services could increasingly weigh on growth

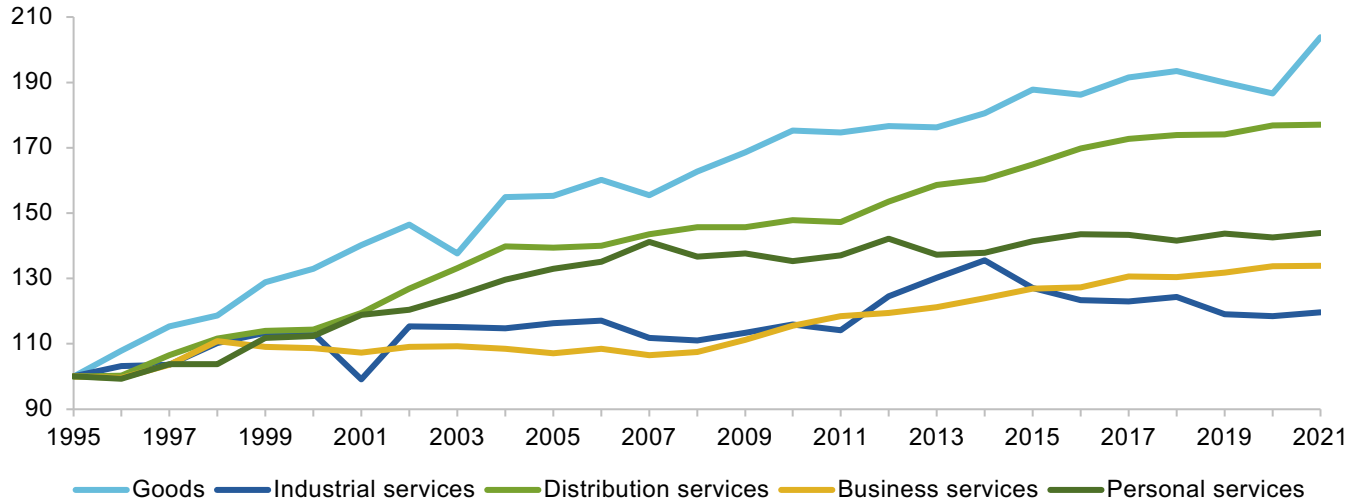


Productivity gains may be hard won, even in market services



A services economy requires a highly skilled workforce

**Labour productivity growth in Australia by subsector**  
Index (1995 = 100) between 1994-95 and 2020-21



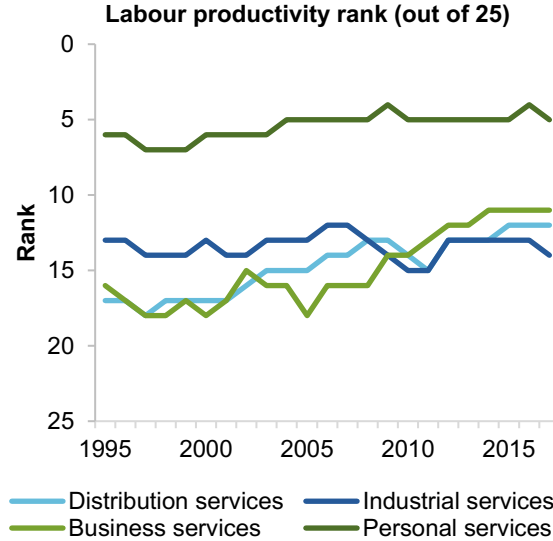
# Headwinds – the growing non-market sector

## Australian mining and agriculture have very high productivity

Goods sub-sectors



Services sub-sectors

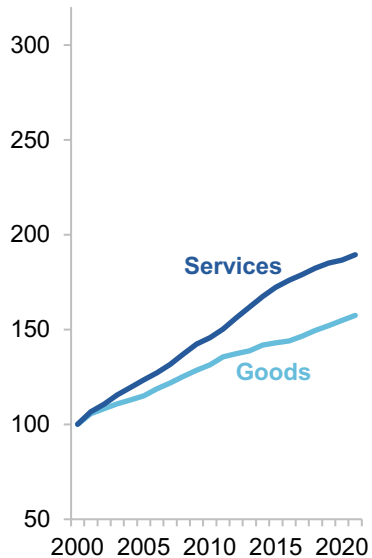




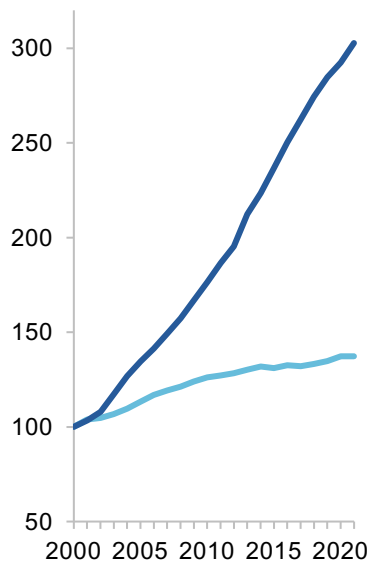
# Price growth in services has outstripped goods

## CPI index for various pairs of related services and goods (2000 = 100)

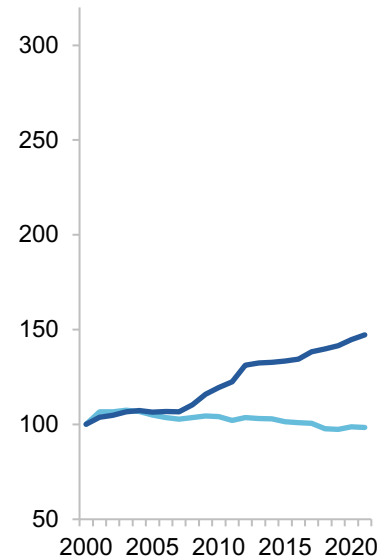
All goods and services



Medical products



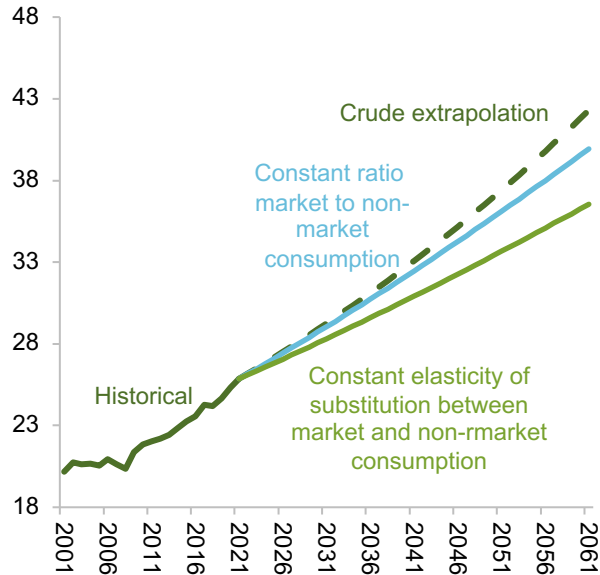
Clothing products



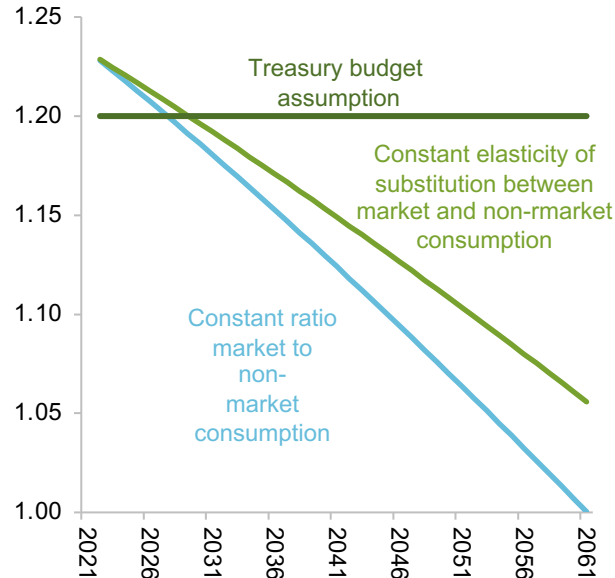
# Headwinds – the growing non-market sector

## Projected growth of the non-market share and aggregate labour productivity

Non-market labour share (%)



Labour productivity growth (%)



# The policy agenda

## Factors influencing the Commission's choice of focus area

Determinants of market growth

Human capital



Investment



Innovation



Role of Government in markets

Laws and regulations



Taxes and spending



Institutional settings



Headwinds to productivity

Rise of services



Climate change and geopolitical tensions



# The policy agenda

## The policy agenda for a more productive Australia



**Building an adaptable workforce** to supply the skilled workers for Australia's future economy



**Harnessing data, digital technology and diffusion** to capture the dividend of new ideas



**Creating a more dynamic economy** through fostering competition, efficiency and contestability in markets



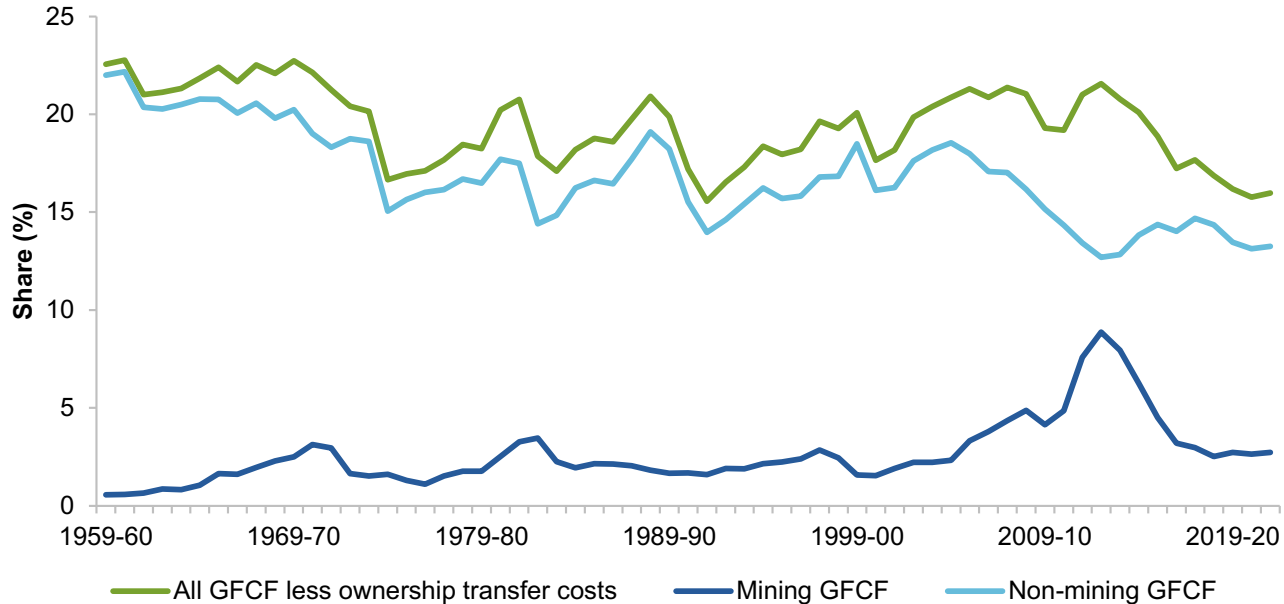
**Lifting productivity in the non-market sector** to deliver high quality services at the lowest cost



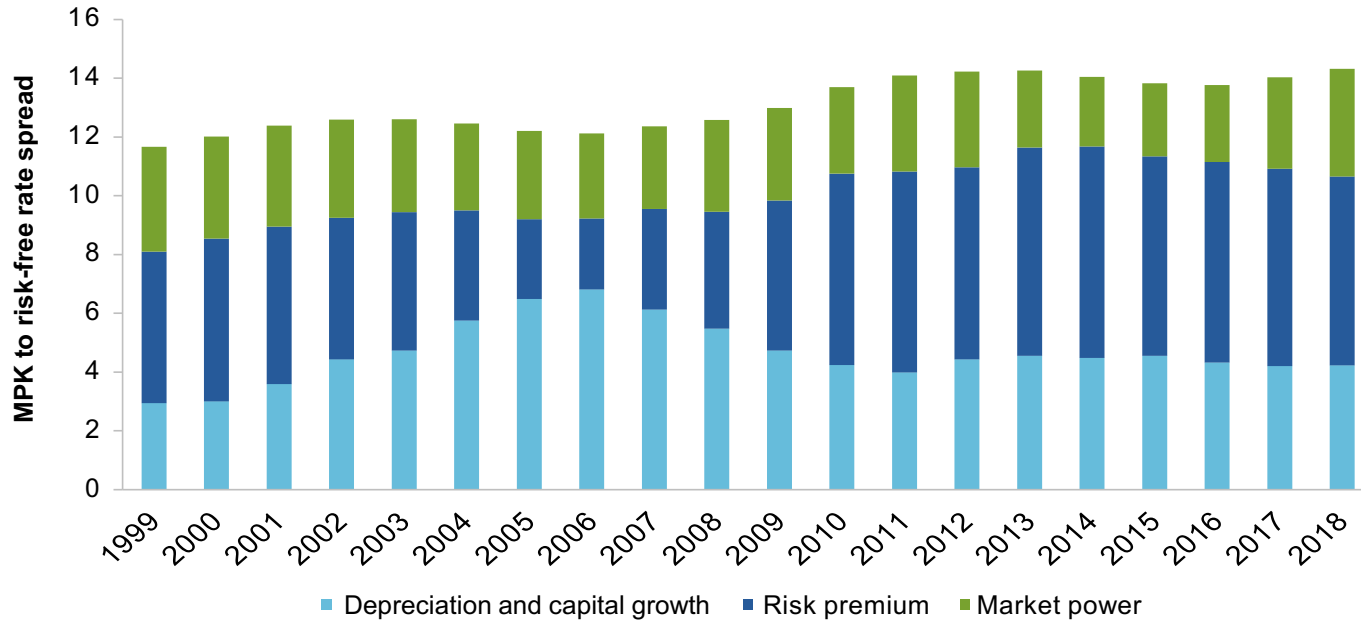
**Securing net-zero at least cost** to limit the productivity impact caused by climate change

# Non-mining investment has stagnated

## Private capital formation as share of GDP, 1959-60 to 2021-22

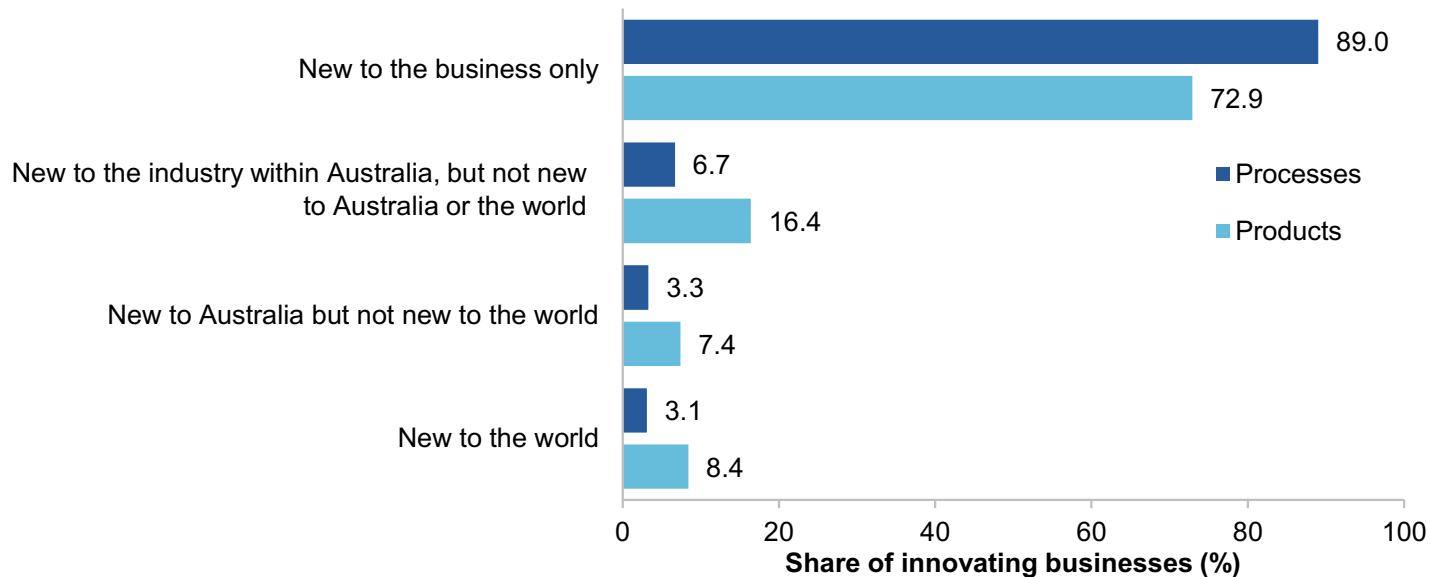


# Components of investment to risk-free rate spread



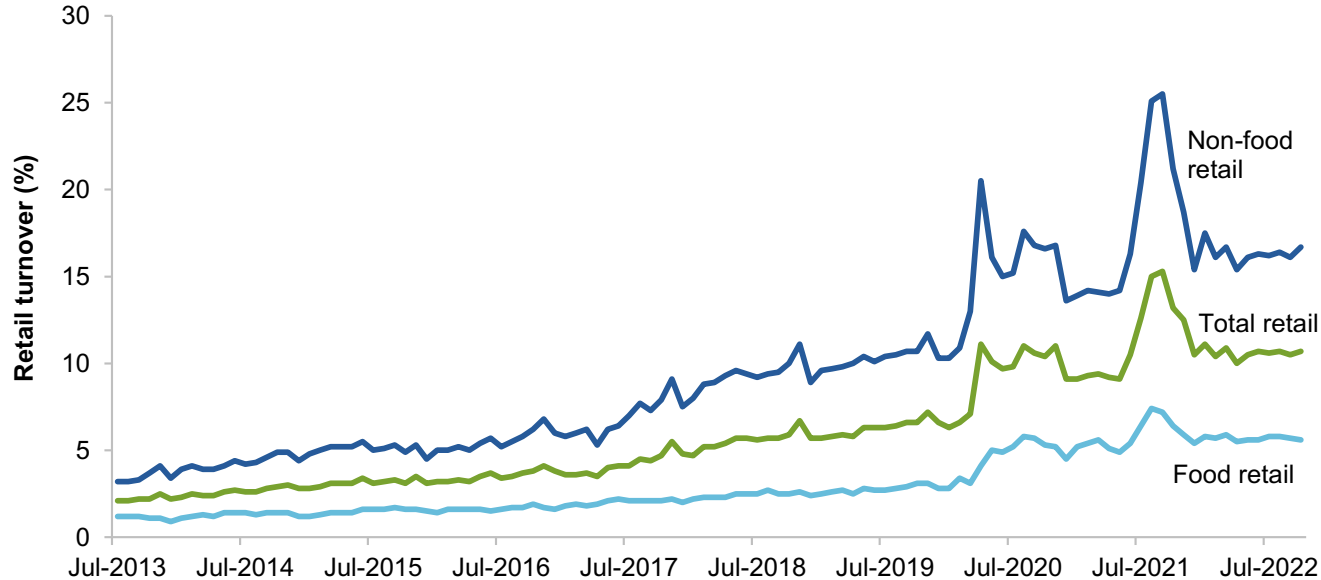
# Most Australian business innovations are only new to the business

## Product and process innovation, 2 years ending June 2021



# Online retail has remained above pre-pandemic levels

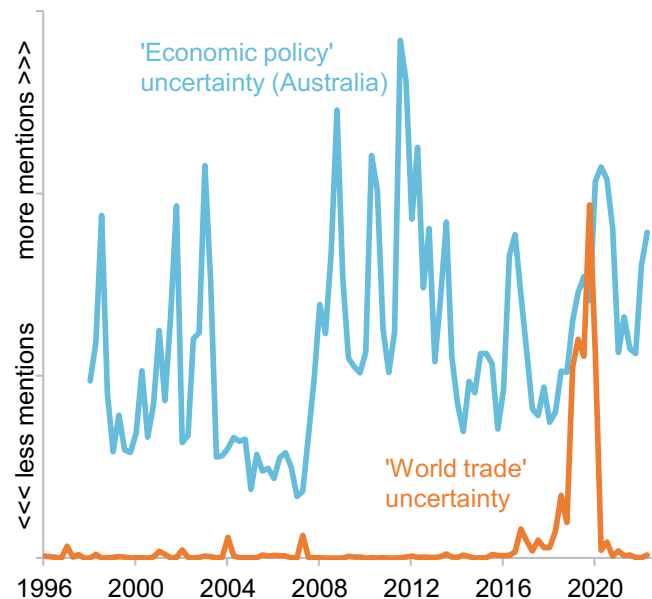
## Online retail as a share of retail turnover, July 2013 to October 2022



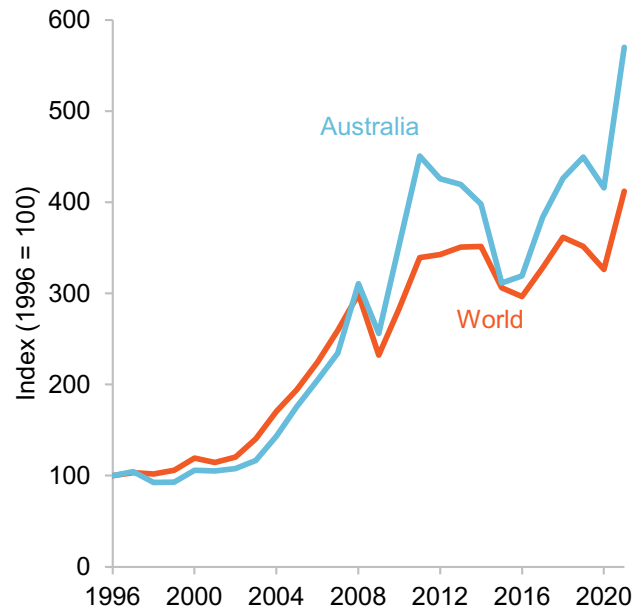


# Trade tensions and COVID 19 caused significant trade uncertainty

## Uncertainty according to media mentions\*



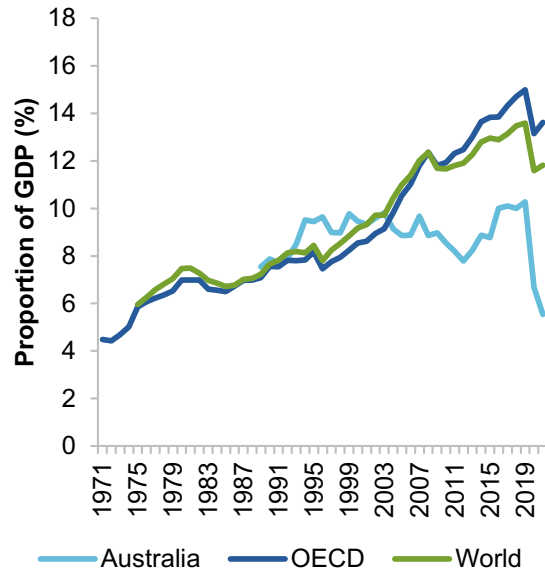
## Global trade in merchandise



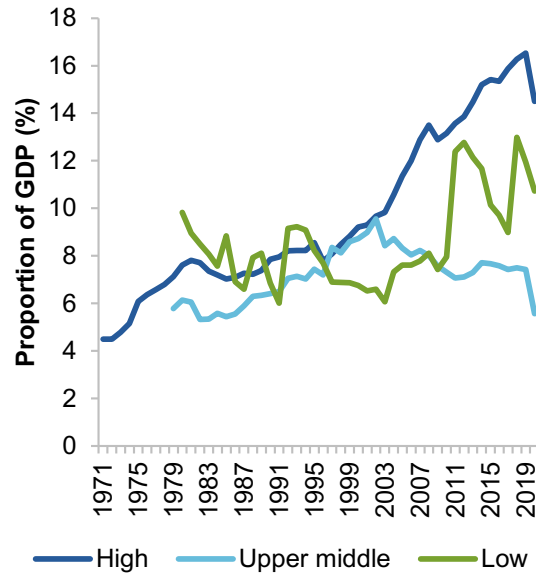
\* Economic policy uncertainty in Australia is based on the number of articles in 8 Australian newspapers that contain variations of the word uncertainty. World trade uncertainty is based on the number of times uncertainty is mentioned within a proximity to a word related to trade in the Economist Intelligence Unit country reports (see Figure 3.1 in Volume 3 of the Productivity Inquiry for more detail)

# Trade in services as a proportion of GDP

## Trade in services by national grouping



## trade in services by national income



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