ECONOMIC AND POLITICAL FACTORS AFFECTING THE OUTLOOK FOR RAIL

PRESENTATION TO AUSRAIL PLUS 2022

SYDNEY INTERNATIONAL CONVENTION CENTRE 28TH FEBRUARY 2022



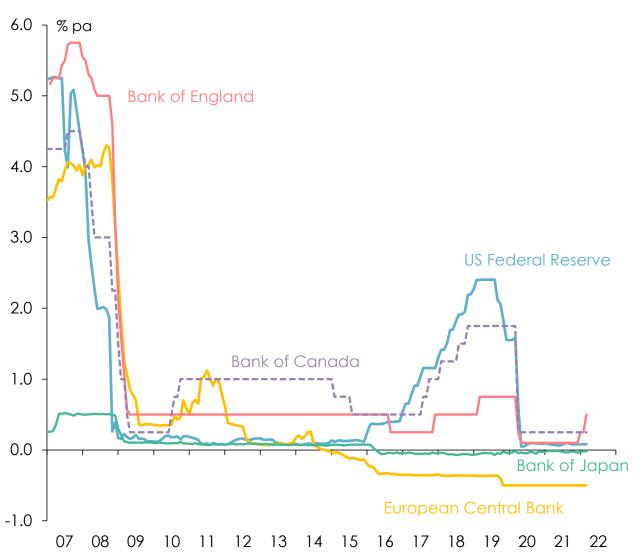
Four global factors to be aware of

- ☐ Geo-politically the world is looking potentially more dangerous than at any time since the end of the 'Cold War'
 - while full-scale military conflicts between the world's major powers still seems "unlikely", the risks of it are clearly rising
 - and it seems very clear that the era of US dominance of the world is ending
 - something which will occur sooner rather than later if Republicans re-capture either or both Houses of Congress this November (likely) and/or the White House in 2024 (less clear)
- ☐ Also ending is the (rather briefer) era of 'free money'
 - before the end of this year, all of the world's major central banks (except the Bank of Japan) will have stopped 'printing money' and started raising interest rates
- ☐ China's economy is well into a 'structural slowdown'
 - based on the 'fundamental' drivers of declining population, falling participation in employment, shorter working hours and slower productivity growth
 - re-inforced, at least for the next few years, by policy changes on the part of China's government
- ☐ For both political <u>and</u> economic reasons, there is now (and will be for some time) and intense focus by governments and business, on the adequacy and resilience of supply chains

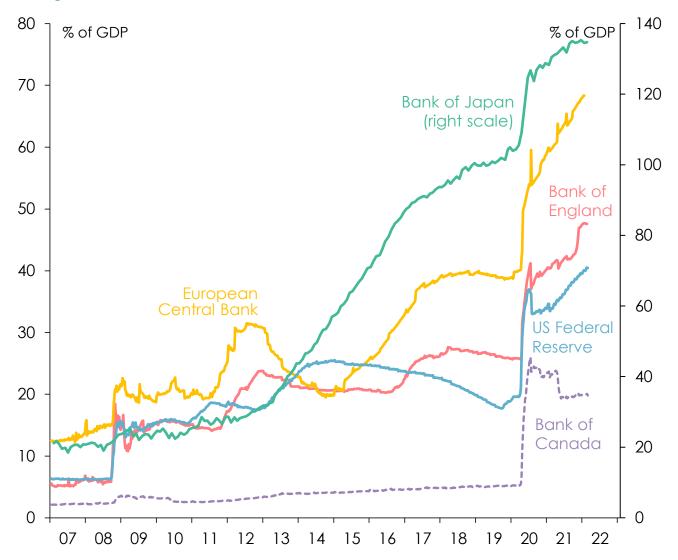


All of the major advanced economy central banks, except Japan's, will be tightening monetary policy this year

Major central bank policy interest rates



Major central bank balance sheets

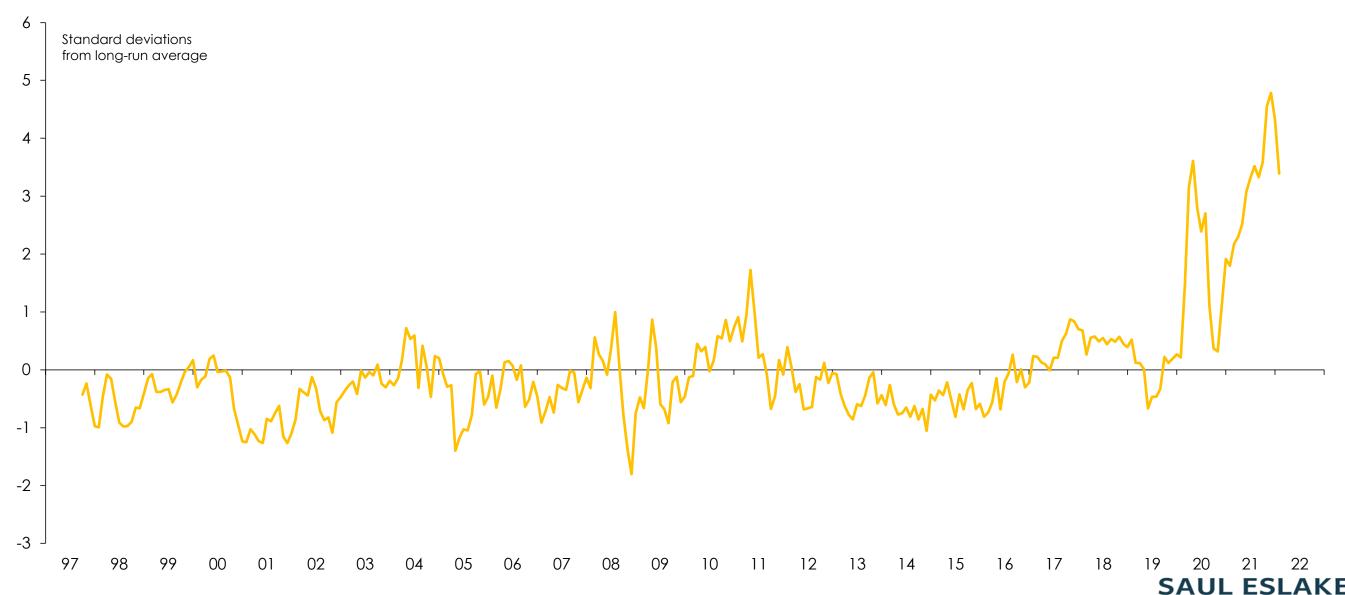






Global supply chains have come under more pressure during Covid-19 than at any other time in the past 25 years

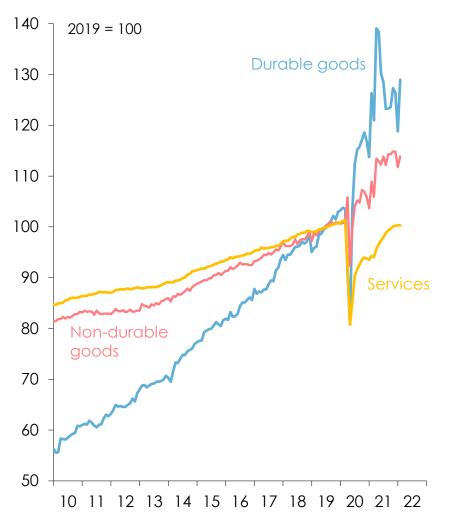
NY Fed global supply chain pressure index



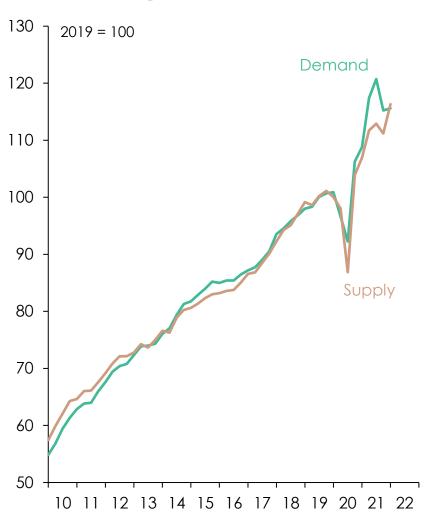
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These global supply chain pressures stem largely from Covid's effect on both the demand for, and supply of, consumer durable goods

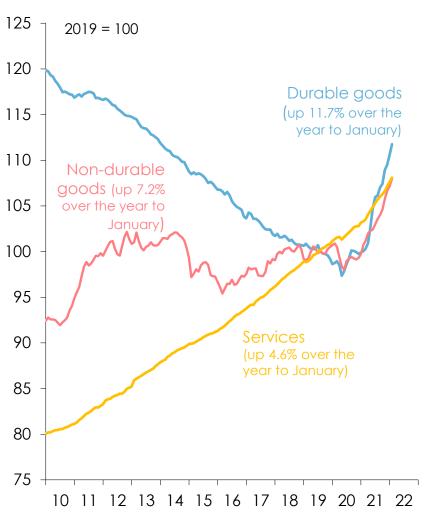
Composition of US personal consumption expenditures



Aggregate demand for and supply of durable goods in the US



US price indexes (implicit price deflators) of personal consumption



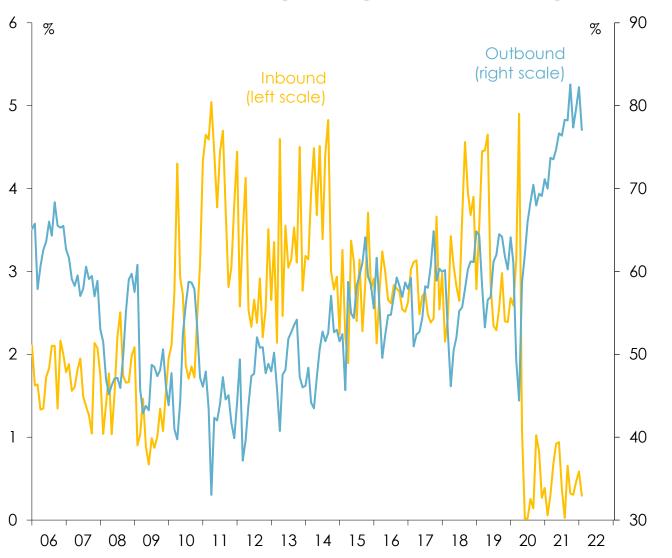
Note: 'Aggregate demand' for durable goods comprises personal consumption of durable goods plus business investment in equipment. 'Aggregate supply' of durable goods comprises gross domestic product (final sales plus change in inventories) plus net imports of durable goods.

Sources: US Bureau of Economic Analysis, National Income and Product Accounts, Tables 2.8.3-5, 1.1.6, 1.2.6 and 4.2.6.

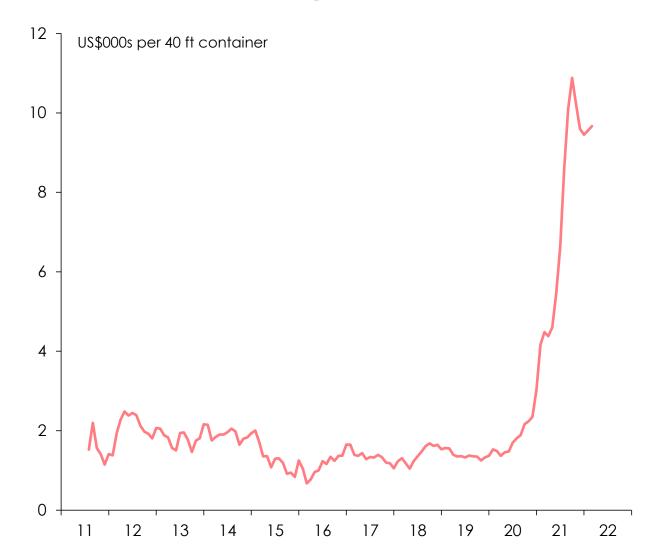


An unprecedently unbalanced pattern of global trade has caused massive dislocation to container shipping and huge increases in shipping costs

Empty containers passing through Port of Los Angeles



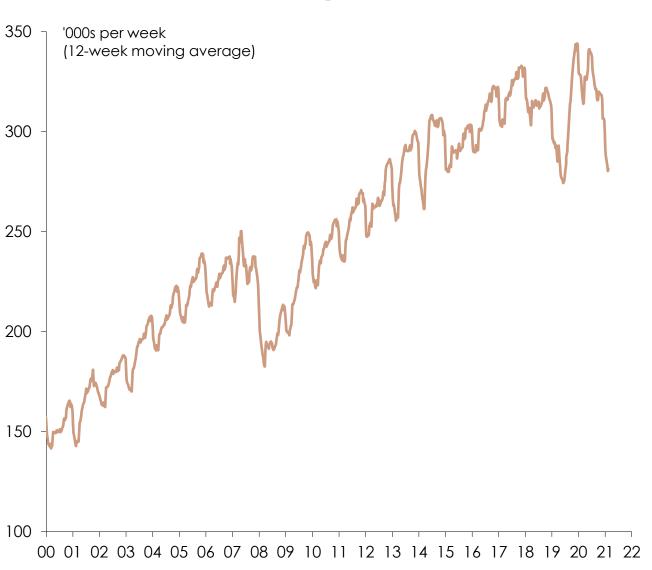
Global container shipping costs



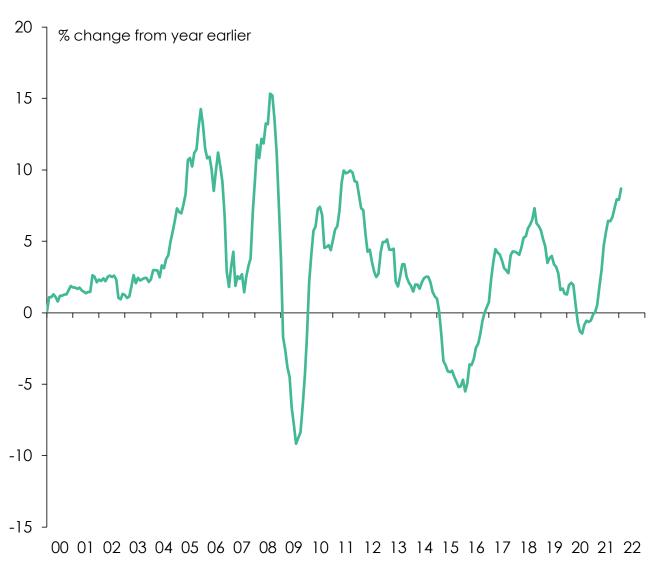


Rail container traffic in the US has also experienced disruptions, resulting in the fastest increases in freight rates in over a decade

US railroad container loadings



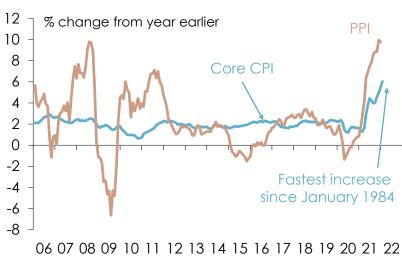
US producer price index of railroad freight rates



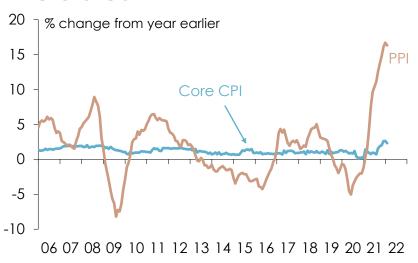


Along with higher commodity prices and, in the US and the UK, higher wages, rising logistic costs are a contributor to rising inflation

United States



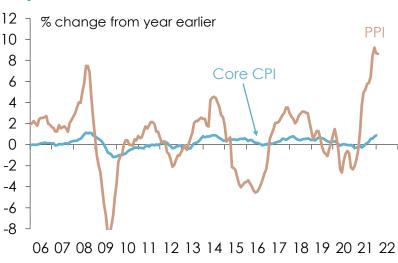
Euro area



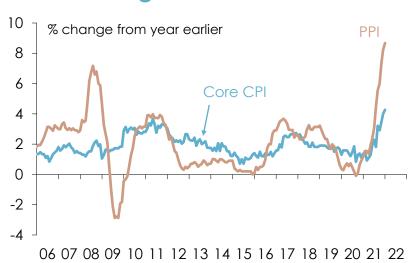
Canada



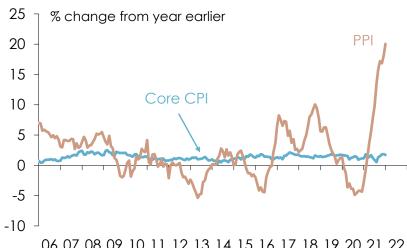
Japan



United Kingdom



Sweden

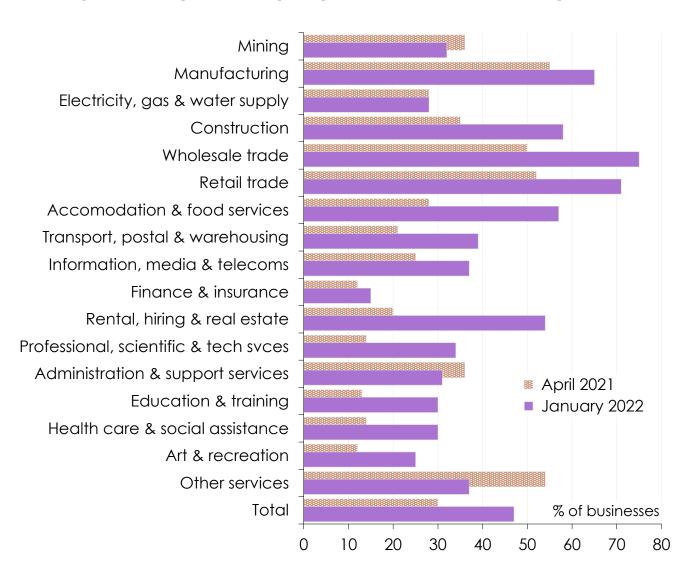


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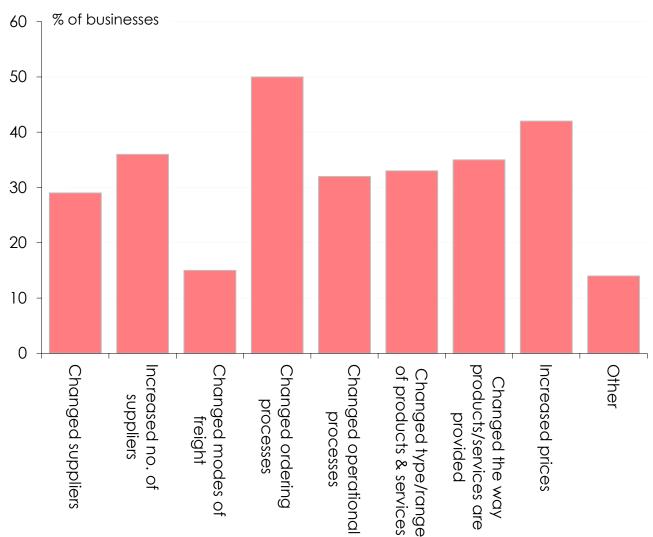


47% of Australian businesses experienced supply chain disruptions in January – and 42% responded by raising prices

Businesses affected 'to a great extent' by supply chain disruptions, by industry, April 2021 and January 2022

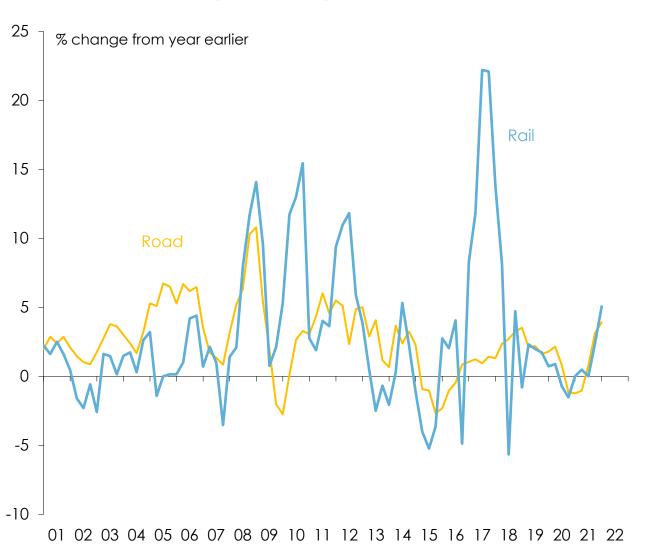


Actions taken by businesses in response to supply chain disruptions, January 2022

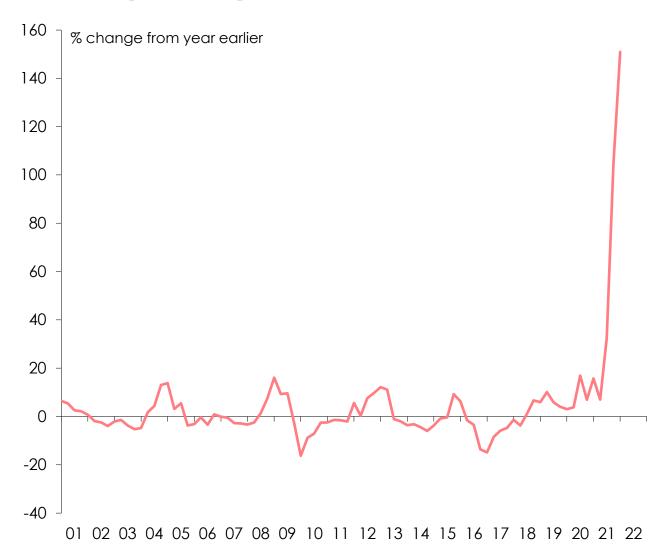


Rail freight rates rose 5% on average last year – not as much as in 2017 – and not nearly as much as sea freight charges have risen

Land-based freight charges



Sea freight charges

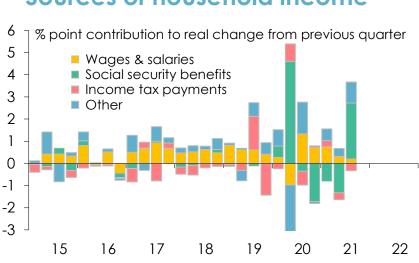




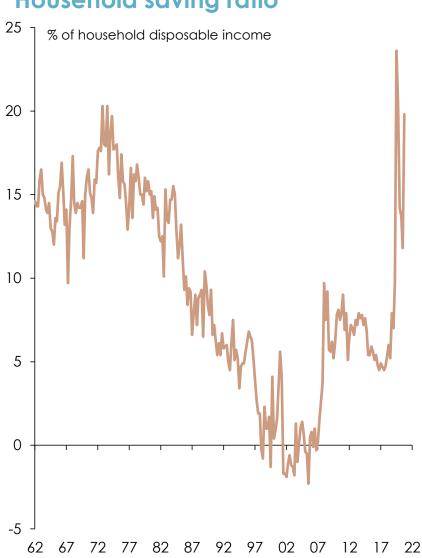
Household incomes have been supported by government payments, but spending has been curtailed, so households have lots of savings to spend

Household income and spending % change from year earlier (chain volumes) 15 Household 10 income 5 0 Household -5 consumption expenditure -10 -15 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22

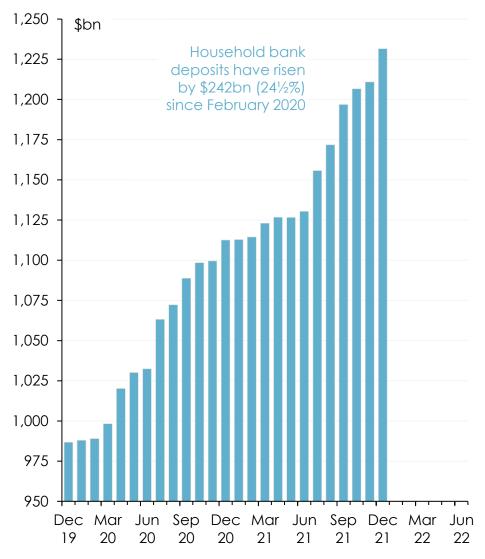
Sources of household income



Household saving ratio



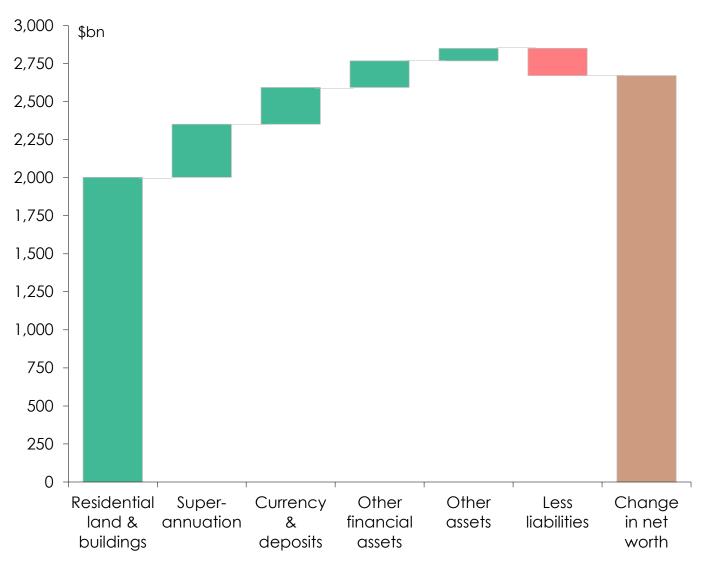
Household bank deposits



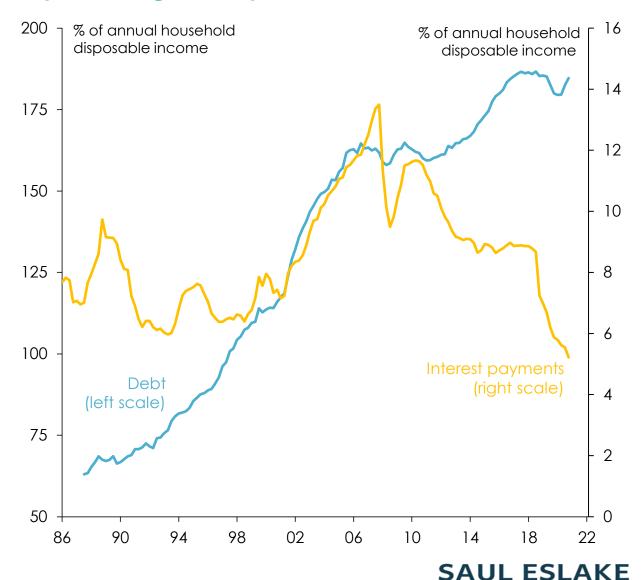


Household net worth has risen by \$2.7trn (23¾%) since the end of 2019, while debt service payments have fallen as a pc of income

Sources of gains in household net worth, Q4 2019 to Q3 2021



Household net debt and interest payments as a percentage of disposable income



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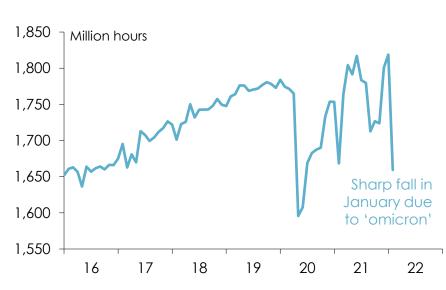
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The Australian labour market has tightened more rapidly than expected

Employment



Total hours worked



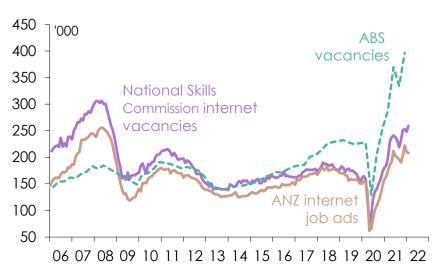
Labour force participation rate



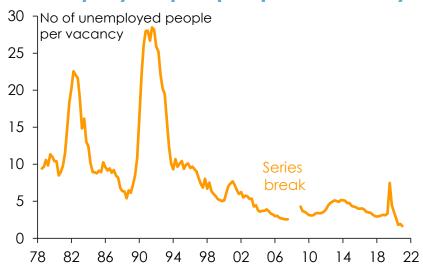
Unemployment rate



Job vacancies



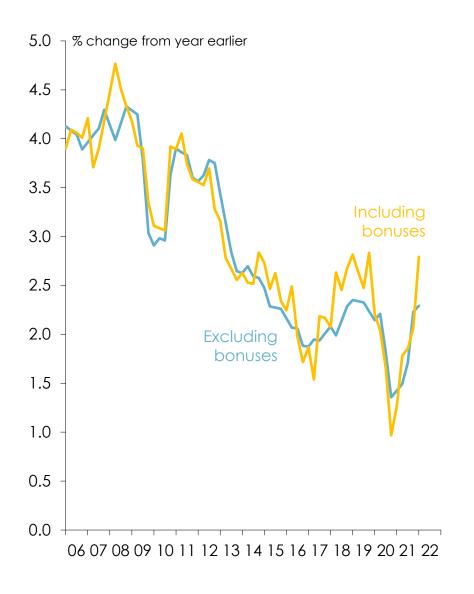
Unemployed people per vacancy





Wages growth picked up a bit in the second half of last year but remains well below levels the RBA regards as consistent with its 2-3% inflation target

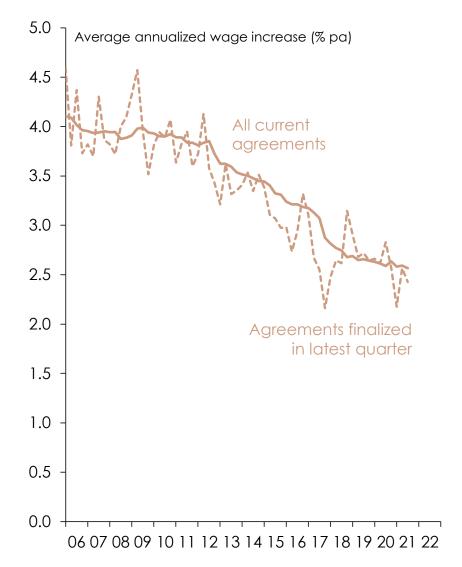
Wage price index – all sectors



WPI – private vs public sectors



Enterprise bargaining agreements



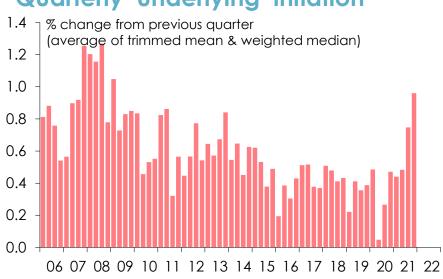


Australia's inflation rate has clearly picked up, but largely due to a small number of factors and the RBA is as yet unsure it's "sustainable"

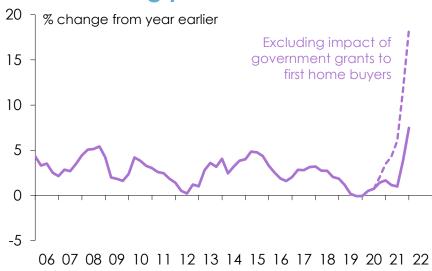
Consumer prices – annual change



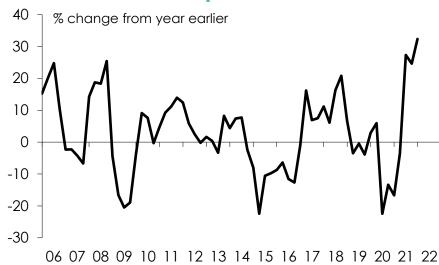
Quarterly 'underlying' inflation



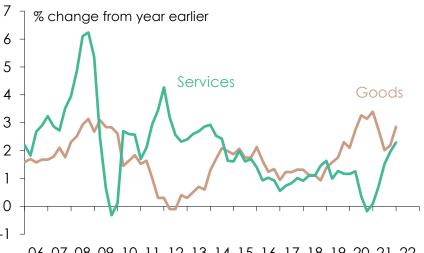
New dwelling purchase costs



Automotive fuel prices

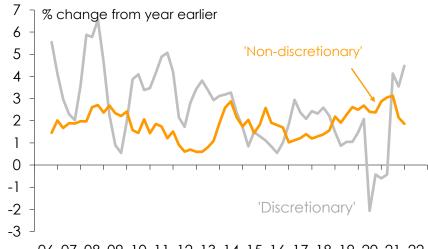


'Market' goods vs services



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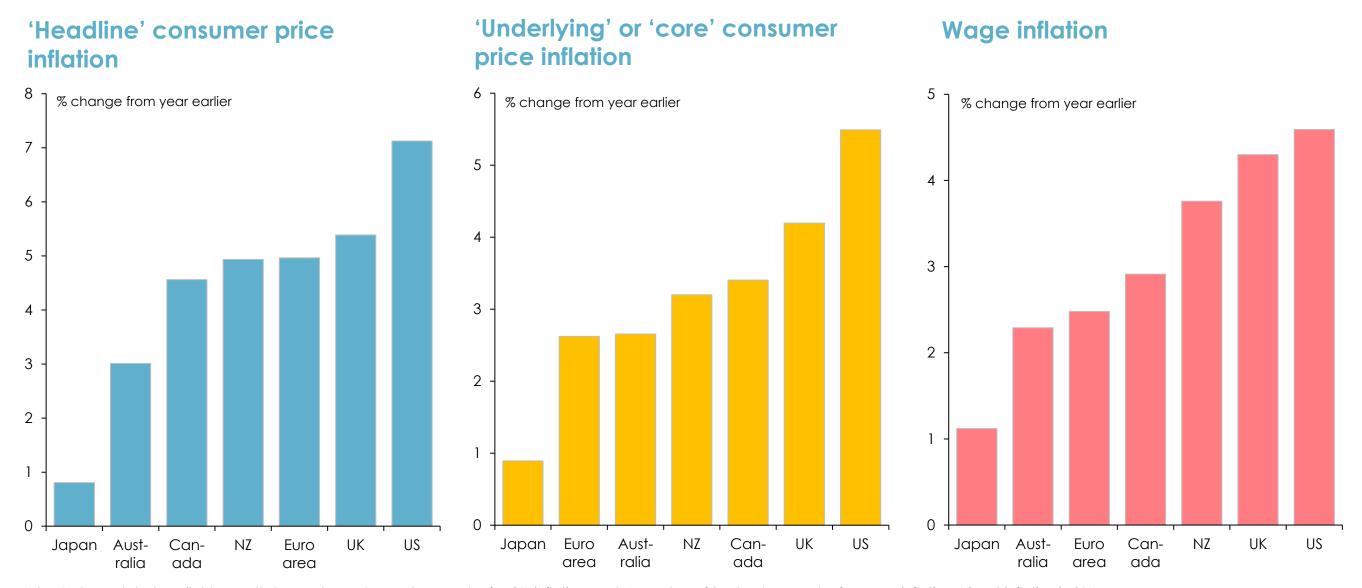
'Discretionary' vs 'essential' items



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Although it has surprised to the upside, inflation in Australia hasn't risen nearly as much as in the US, the UK, Canada or New Zealand

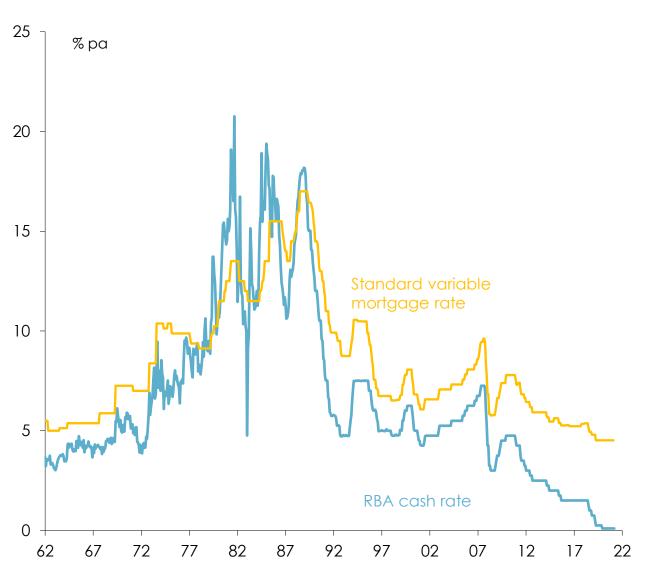


Note: Data are latest available, mostly December or December quarter for CPI inflation, and November of September quarter for wage inflation. 'Core' inflation is CPI excluding food & energy for the US, UK and Canada; trimmed mean for Japan and Australia; and 'sectoral factor model' for NZ. Wage inflation is average hourly earnings for Japan, the UK and Canada (and hence affected by changes in workforce composition), and wage price index or equivalent for the US, euro area and Australia. Sources: ABS; US Bureau of Labor Statistics; Eurostat; Statistics Bureau of Japan and Bank of Japan; UK Office for National Statistics; Statistics Canada; Statistics New Zealand and Reserve Bank of New Zealand.

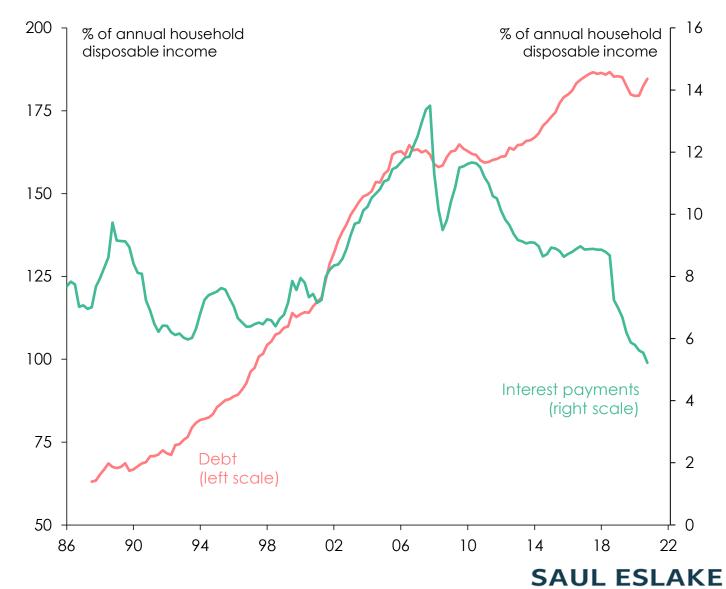


The RBA will probably start raising rates in August – but it won't have to raise them much to have a noticeable impact on household spending

Australian interest rates



Australian household debt & interest payments



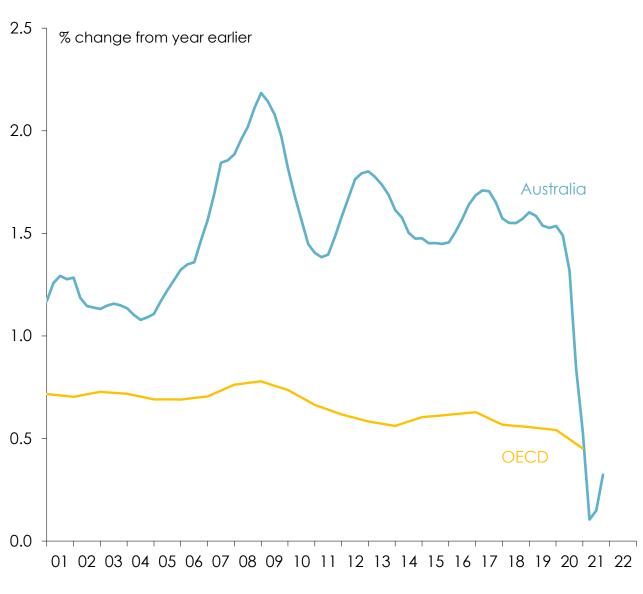
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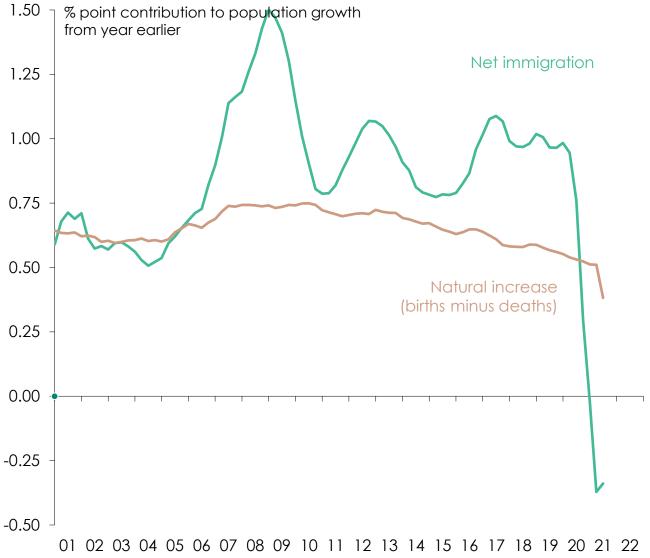
Sources: Reserve Bank of Australia, <u>Statistical Tables F1.1</u>, <u>F6</u> and <u>E2</u>.

Australia's population growth probably won't return to as rapid a pace as experienced over the first two decades of this century

Australia and OECD population growth



Sources of Australia's population growth



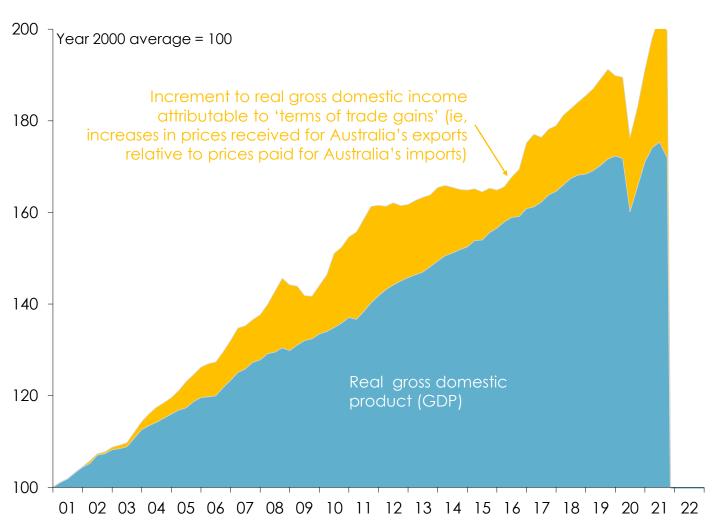


Australia almost certainly won't enjoy a 'free ride' from improvements in the relative prices of our exports over the next two decades

Prices of Australia's exports and imports of goods and services



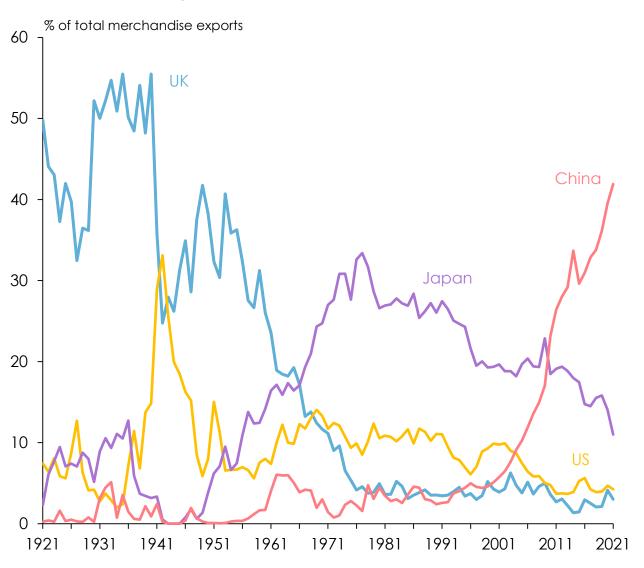
Additions to Australia's national income from terms of trade gains



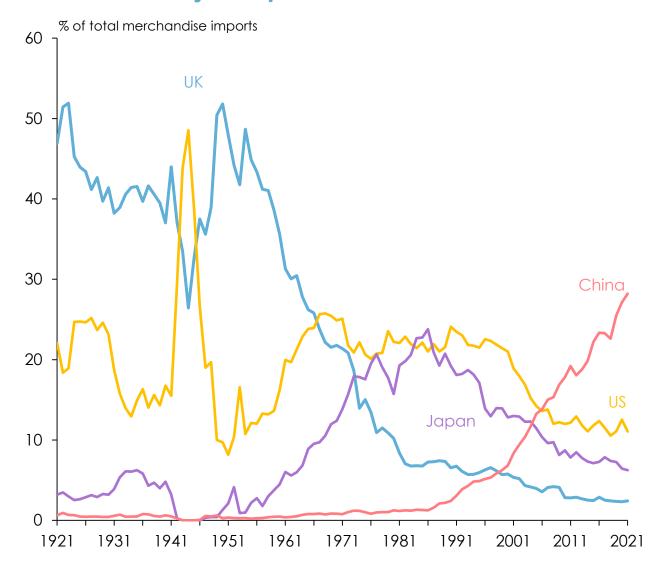


Australia has gained enormous economic benefits from its relationship with China over the past two decades – but that's unlikely to be repeated

Australia's major export markets, 1921-2021



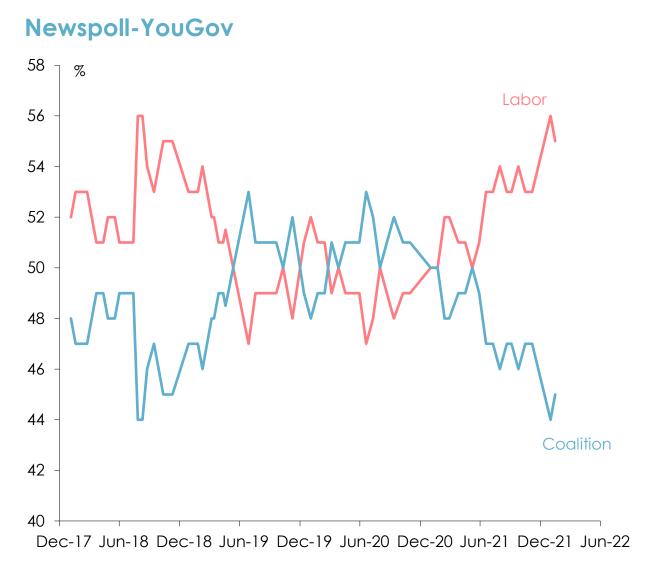
Australia's major import sources, 1921-2021

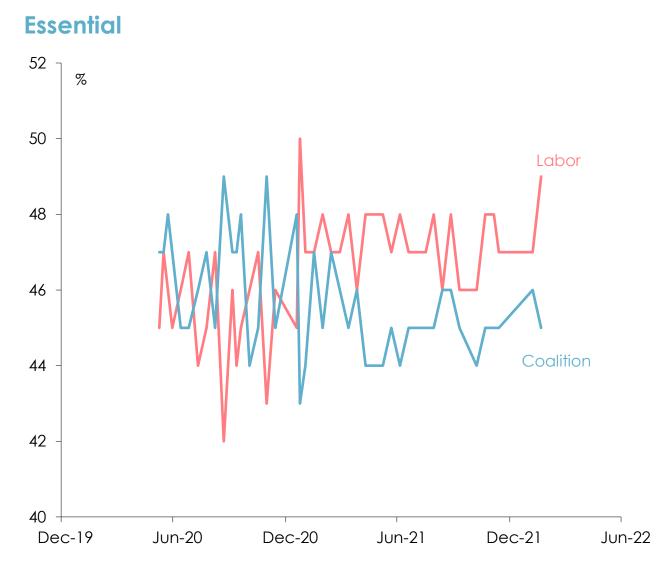




A federal election has to be held no later than 21st May – and if the opinion polls are any guide, there may be a change of government

Two-party-preferred vote according to opinion polls

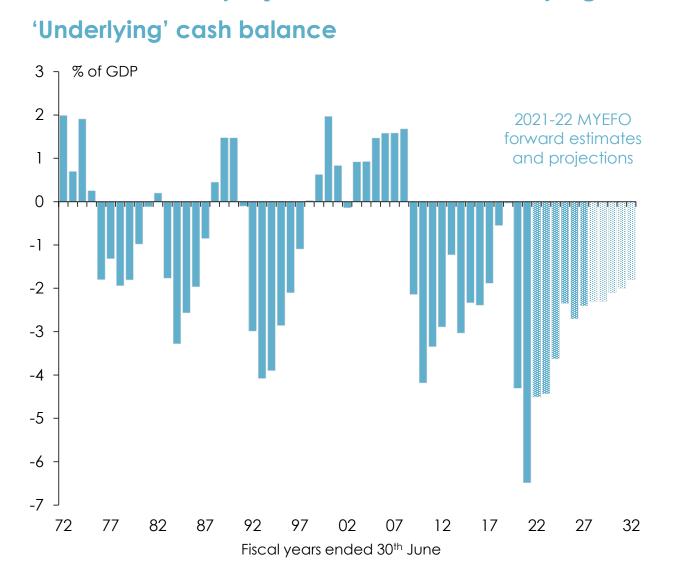


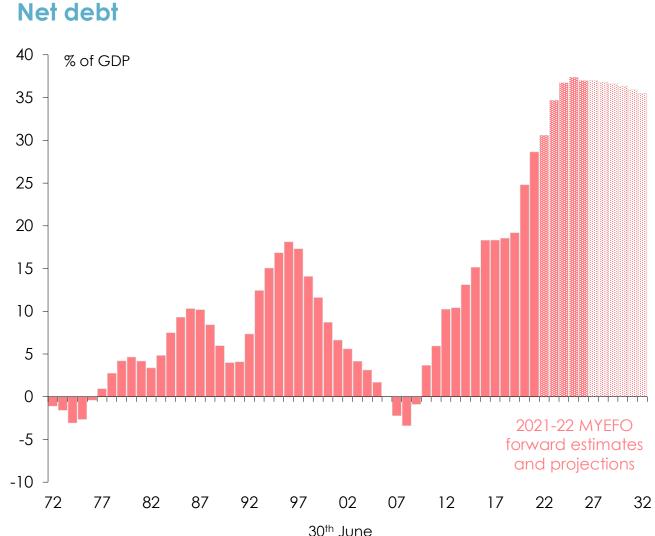




Whoever wins the Federal election due before 21st May this year will be under some pressure to reduce the budget deficit and public debt

'Medium-term' projections of the 'underlying cash balance' and net debt

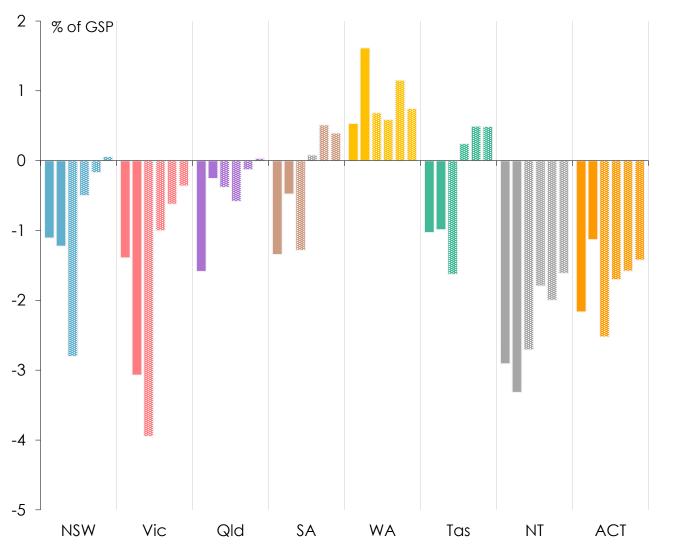




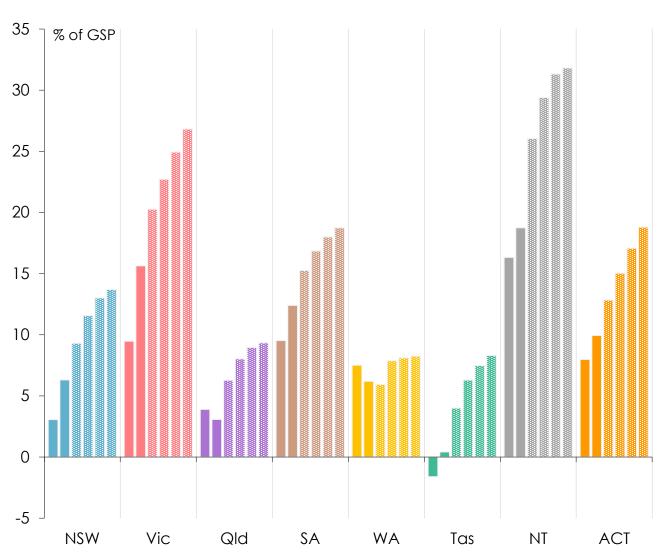


Some states and territories – especially Victoria and the Northern Territory – also have significant budgetary challenges ahead of them

States and territories – 'net operating balances'



States and territories – net debt

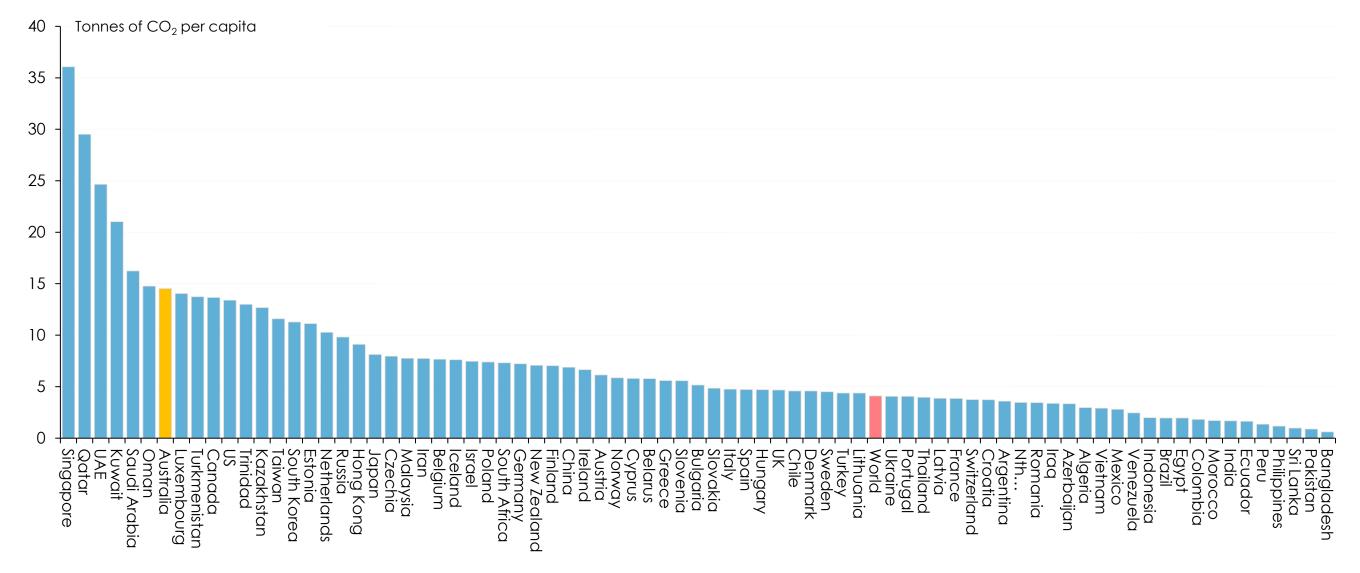


Note: Estimates are for the 'general government' sector, ie excluding GBEs, etc. 'Net operating balance' is the difference between 'operating expenses' (ie excluding net purchases or leases of non-financial assets). Estimates of nominal gross state product (GSP) for states and territories other than NSW and Victoria are derived from State or Treasury estimates of real GSP growth combined with Federal Treasury estimates of the (national) GDP price deflator. Sources: State and Territory 2021-22 Mid-Year Reviews.



Australia risks being seen as a 'climate change pariah' with potentially adverse consequences for our trade

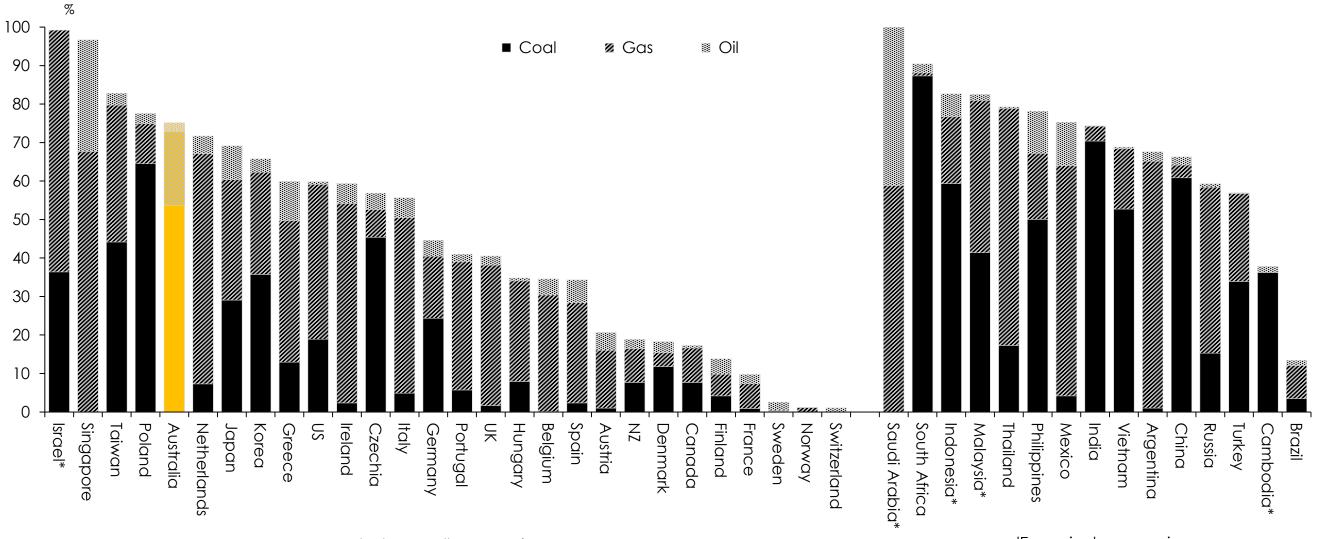
CO₂ emissions per capita, 2020





In any event Australia has a greater challenge than most 'advanced' economies in reducing its dependence on fossil fuels for energy generation

Source of electricity generation, by country, 2020



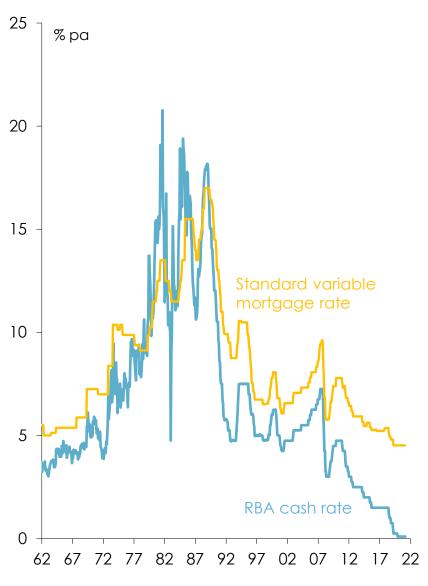
'Advanced' economies

'Emerging' economies

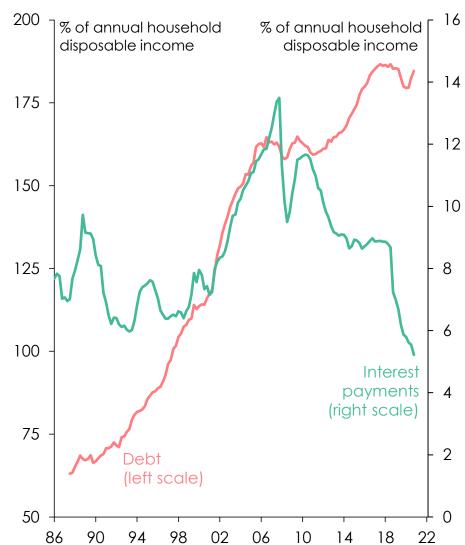


Nor will Australia be able to rely on ever-lower interest rates and rising household debt as drivers of economic growth

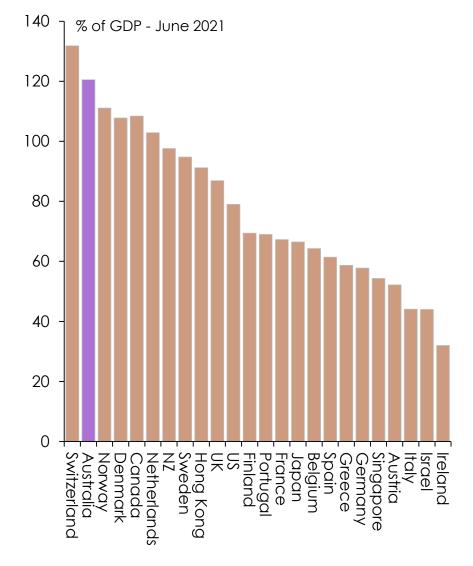
Australian interest rates



Australian household debt



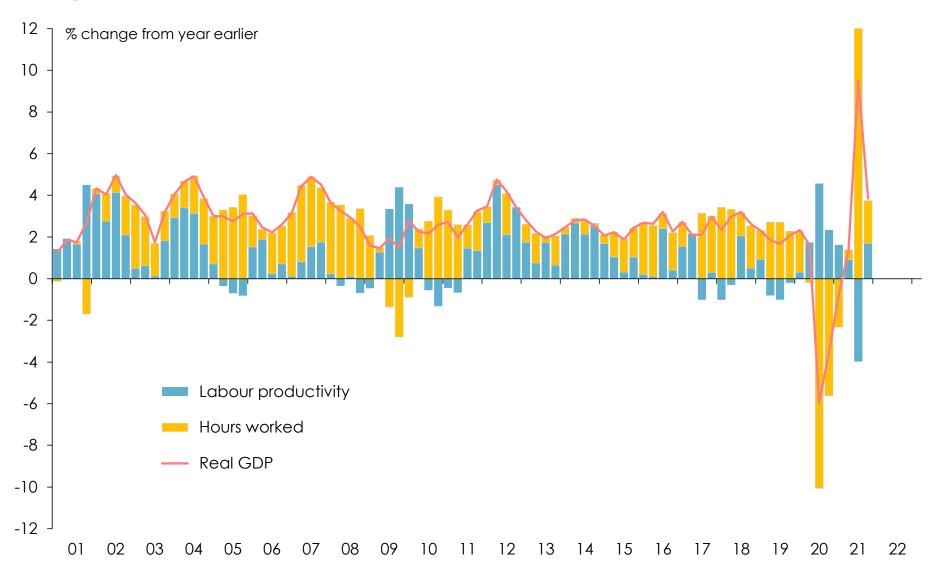
Household debt in other countries





If Australia is to sustain the growth rates to which we'd become accustomed before Covid we'll need to lift our productivity performance

Labour input and labour productivity contributions to Australian real GDP growth

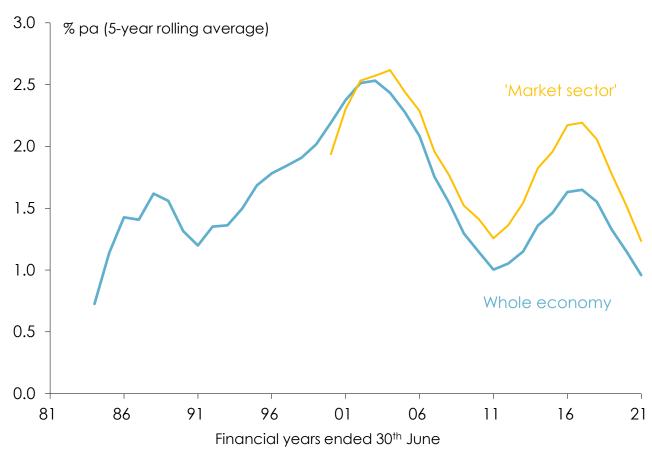


- Over the five years between the end of the 'mining boom' and the onset of the Covid-19 pandemic, 72% of Australia's real GDP growth came from increased labour input, and only 28% from labour productivity growth
- By contrast, between the end of the early 1990s recession and the onset of the global financial crisis, 46% of Australia's real GDP growth came from increased labour input and 54% from productivity growth



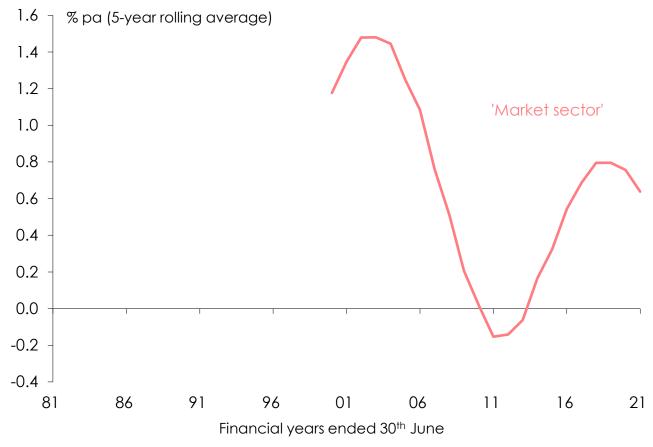
Australia's productivity performance has been pretty ordinary (to put it mildly) over the past decade or so

Labour productivity growth



□ Labour productivity growth averaged 1.3% pa between the GFC and the onset of Covid-19, down from 2.0% pa between the end of the early 1990s recession and the beginning of the GFC

'Multi-factor' productivity growth

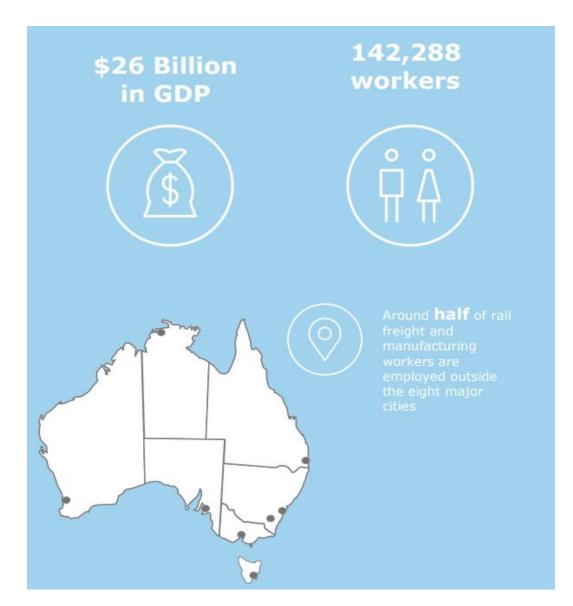


'Multi-factor' productivity (which measures the efficiency with which labour & capital are combined) grew at an average rate of 0.5% pa over the decade to 2019-20, down from 1.0% pa over the 12 years to 2007-08



What's the role of rail in all of this?

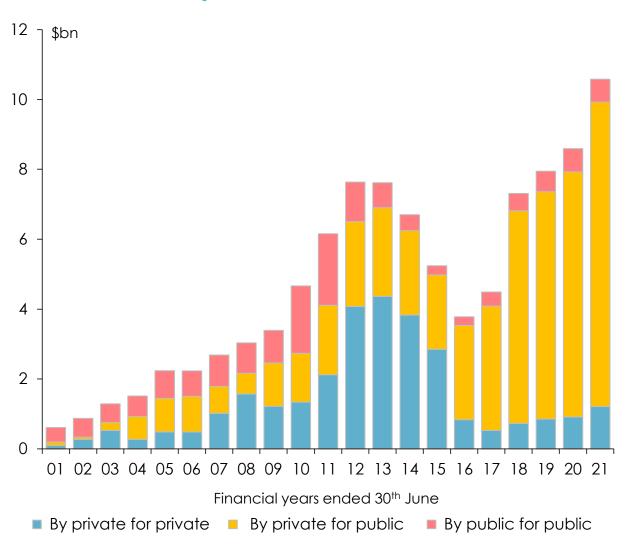
- The rail industry (passenger and freight transport, railway construction, and rolling stock manufacture) directly contributes \$13.3bn (0.8%), and indirectly another \$12.8bn (making \$26.1bn or 1.6%) to GDP (in 2015-16)
- ☐ It directly accounted for 53,500 FTE jobs (0.5%) and indirectly another 88,800 (making 142,300 in all, or 1.4% of total employment (again, in 2015-16)
 - a significant proportion of these jobs (~ 60% of rail freight jobs and ~45% of rolling stock manufacture and repair jobs) are in regional areas
- □ Rail freight produces one-sixteenth as much carbon emissions per tonne km as road freight, while rail passenger transport produces about two-thirds as much per passenger km as car travel
 - so rail has a potentially very important role to play in reducing Australia's carbon emissions
- Costs resulting from crashes and accidents involving rail freight and passenger transport are each less than one-tenth (per tonne km) of those resulting from road freight and passenger transport
 - suggesting that there are potential productivity gains ('avoidable costs') from moving freight and passengers from road to rail, where that's feasible



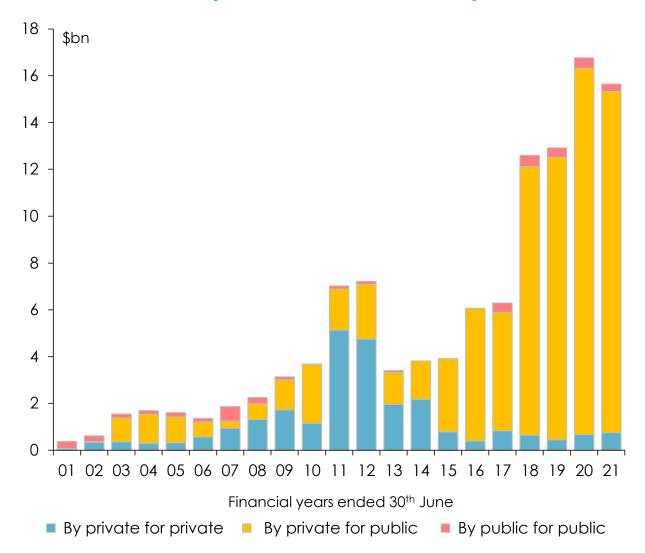


The contribution of rail to the Australian economy has increased since 2016, and will likely increase further over the next 3-5 years

Value of railway construction work done



Value of railway construction work yet to be done





But is all of this (mostly taxpayers') money being spent wisely?

Major Rail and Road Flooding Causes Freight Delays



Supply chains already stretched due to Covid-related staff shortages have been s South Australia washed away parts of the railway linking the eastern states with \ Northern Territory.

Report slams 'deficient' Victorian Gover agencies for failed Murray Basin Rail Pr upgrade

A report by Victoria's Auditor-General has slammed the state's har Murray Basin Rail Project (MBRP) upgrade in Victoria's west as "de "inadequate".

The Auditor-General found the weight restriction of 19 tonnes remain operators using the network — despite a clear project aim of incre tonnage to 21.

Hundreds of kilometres of rail track upgrades remain incomplete, despite the public spend, and where work has been done crippling speed and weight restrictions remain in place.

The Auditor-General ha

Victorian terminal at Yelta is now 128 kilometres longer than the original broadgauge route.

Interim report outlines planned safety action following Wallan XPT derailment



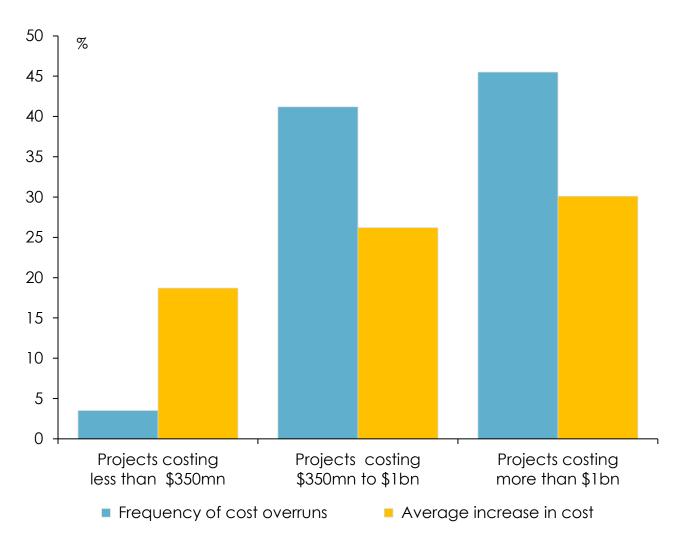
The interim report notes that the rail signalling system for the standard-gauge track through Wallan had been damaged on 3 February 2020. As a result, ARTC was managing trains through the Wallan area using Train Authority procedural systems.

On the day of the derailment, the points at either end of the crossing loop at Wallan had been manually reconfigured to divert rail traffic through the loop, which ARTC had detailed through a route to port from the r.o. supplemental train notice issued on 19 February.

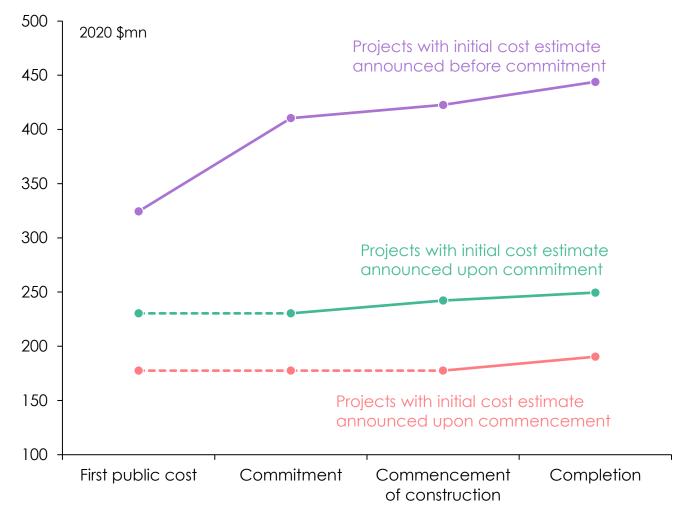


Big projects, and projects where cost estimates are announced prematurely, are more likely to experience big cost over-runs

Cost over-runs in road and rail projects, 2000-2020



Road & rail project costs by timing of first cost estimate





Conclusion – some thoughts about 'resilience'

- □ Rising geo-political tensions (first China, now Russia), the growth of cyber-crime, the declining status of international organizations (in particular the WTO), and Covid-19 have (in different ways) resulted in a heightened focus on the resilience of 'supply chains'
 - management, political and intellectual 'fashion' is shifting from "just in time" to "just in case"
- □ 'Resilience' like insurance doesn't come for free
 - nor can it be obtained, reliably, 'on the cheap'
 - rather, it requires trade-offs with other objectives including cost and choice
- ☐ The quest for greater 'resilience' shouldn't be a Trojan horse for the revival of protectionism
 - 'home-made' doesn't necessarily mean 'safer and surer'
 - though it will often mean 'more expensive', and it will sometimes mean 'lower quality'
- ☐ 'Resilience' shouldn't be used as an excuse to prevent questioning or scrutiny of government decisions
 - in the way that 'security' has been for the past twenty years
- ☐ For Australian rail, 'resilience' should mean paying more attention (and probably directing more dollars) to looking after what we already have
 - rather than devoting so much of limited resources of money and time to 'announceables' and plaqueunveiling opportunities



Important information

This document has been prepared by Saul Eslake on behalf of Corinna Economic Advisory Pty Ltd, ABN 165 668 058 69, whose registered office is located at Level 11, 114 William Street, Melbourne, Victoria 3000 Australia.

Corinna Economic Advisory is a partner (with Llewellyn Consulting, of 1 St Andrews Hill, London EC4V 5BY, United Kingdom) in Independent Economics.

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