

THE ECONOMICS OF INTERNATIONAL MOBILITY

PRESENTATION TO THE AUSTRALIAN PERFORMING ARTS MARKET

12TH AUGUST 2021

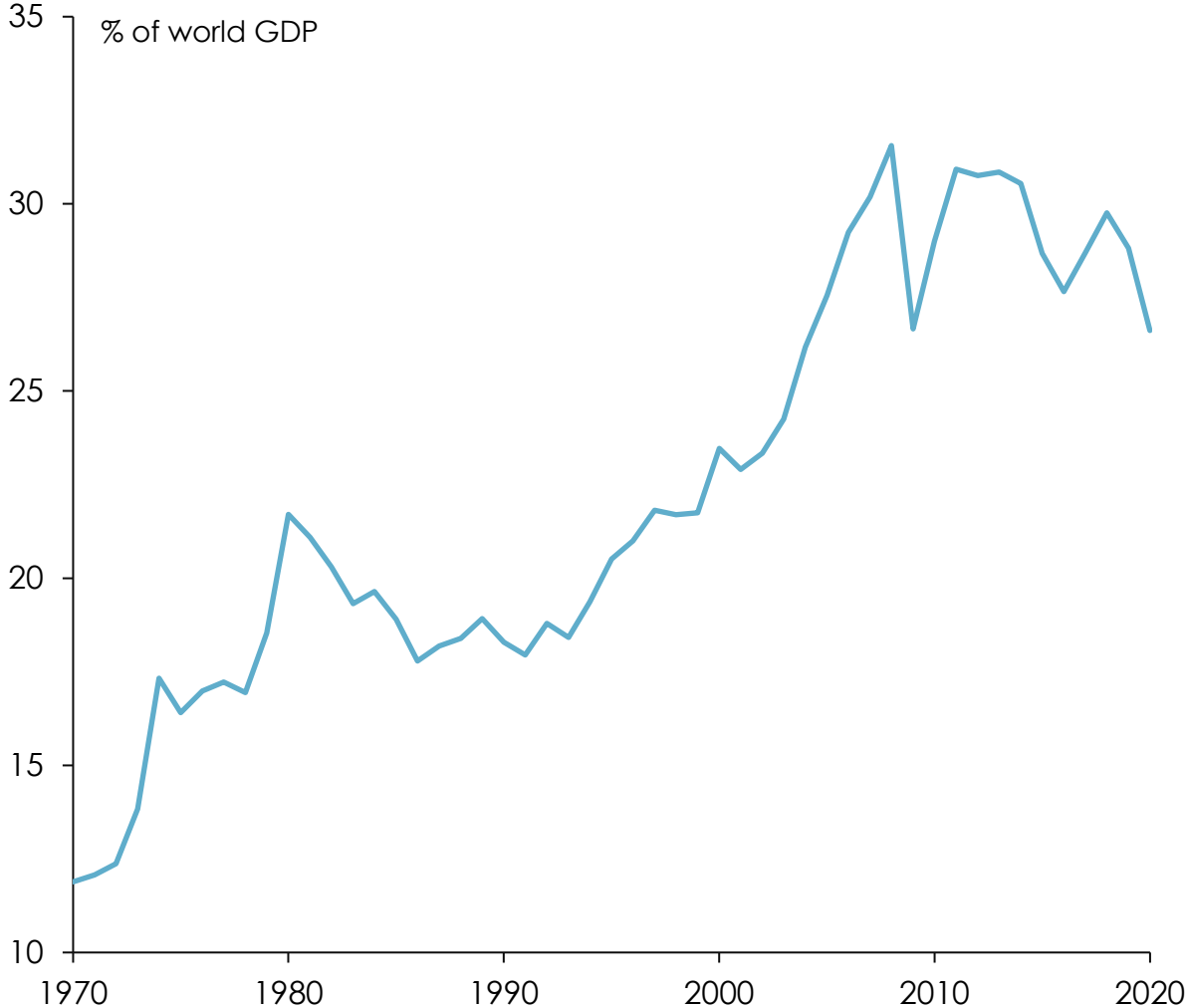
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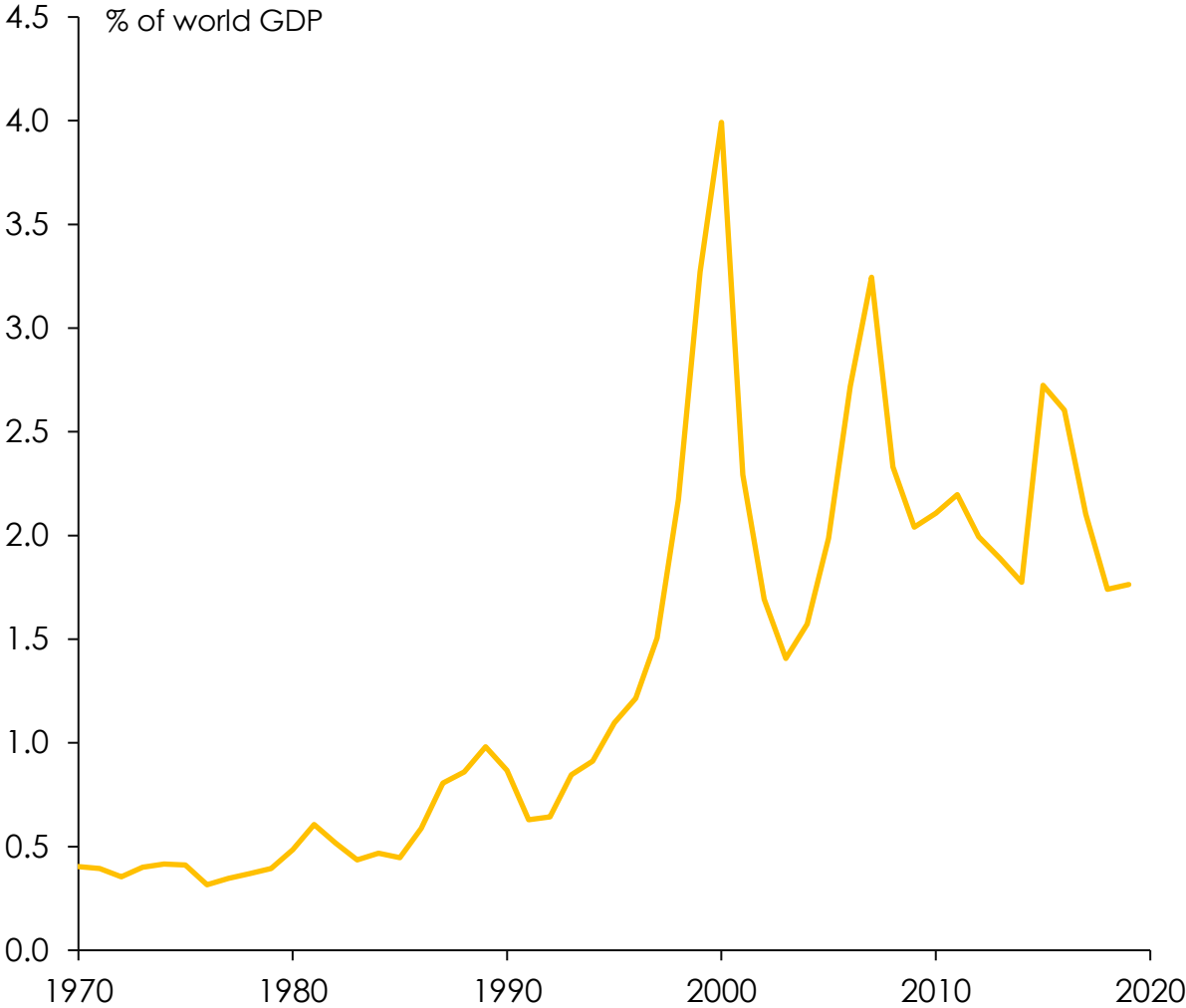
CORINNA ECONOMIC ADVISORY
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Increasing international mobility has been a defining feature of the world economy for the past fifty years – for goods and services, and capital ...

Exports of goods and commercial services as a pc of world GDP



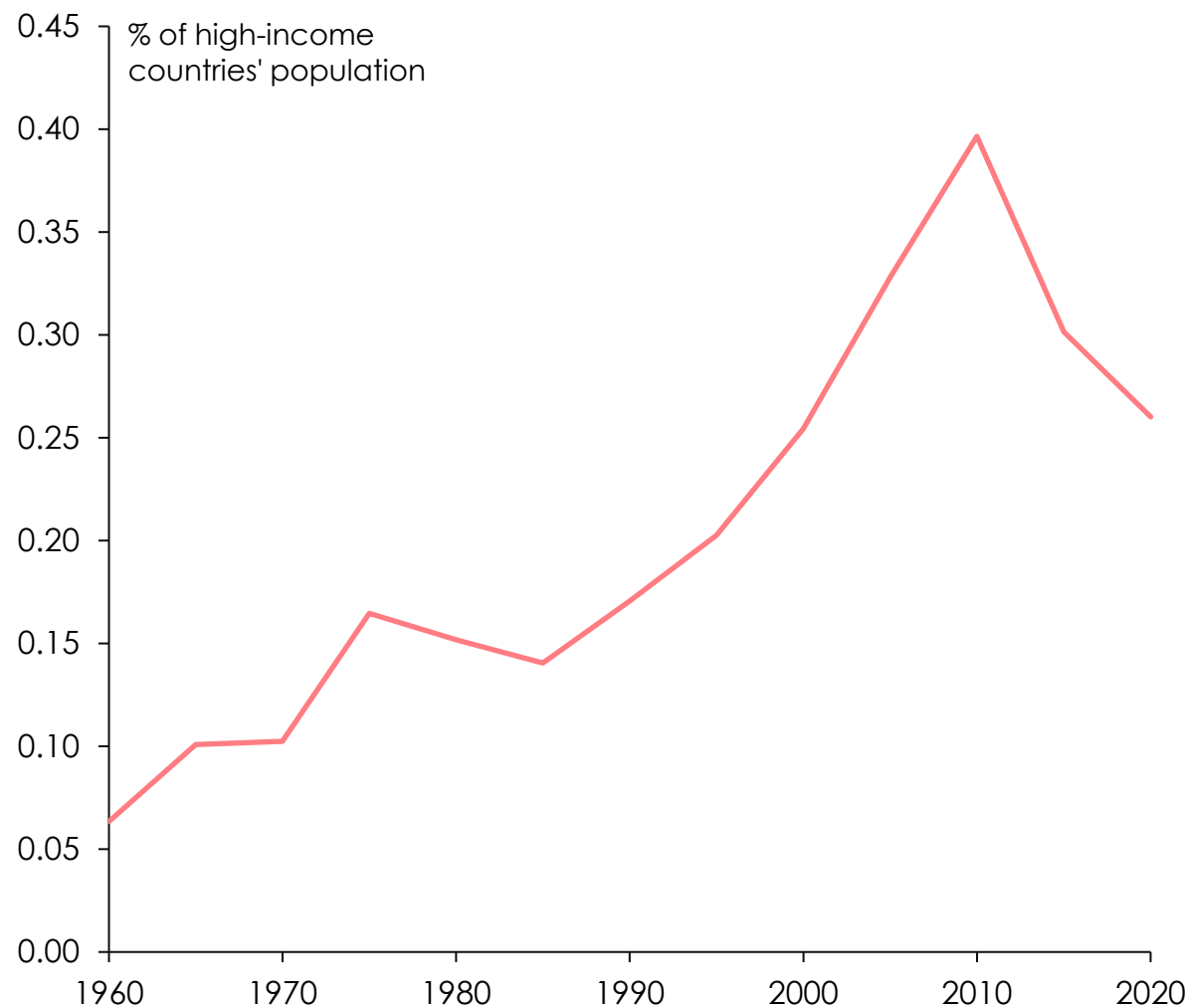
Foreign direct investment (outflows) as a pc of world GDP



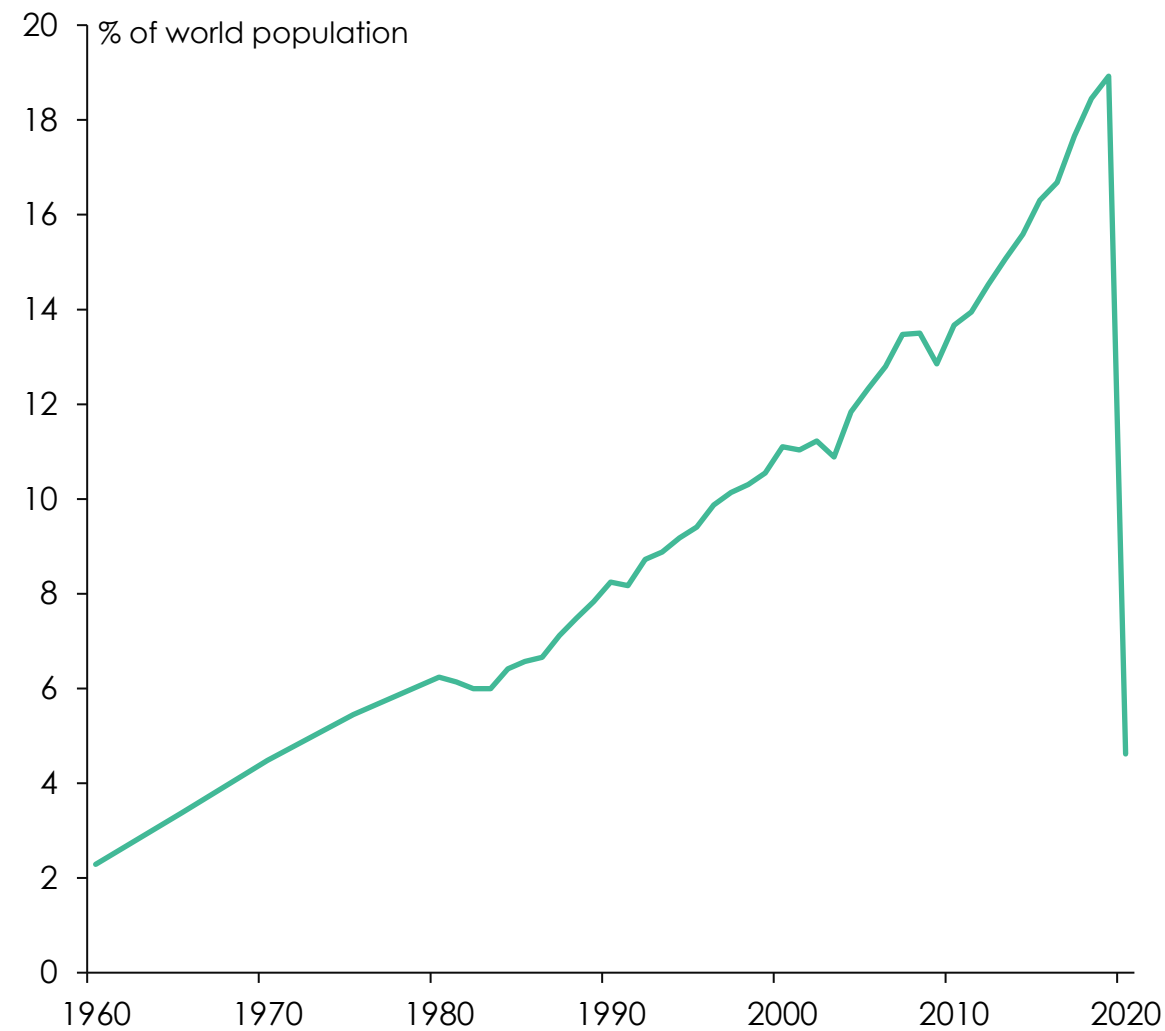
Sources: [World Trade Organization](#); [United Nations Conference on Trade and Development](#); [International Monetary Fund](#).

... and people (at least, until Trump, Brexit and especially Covid came along)

Immigration to high-income countries as a pc of their population

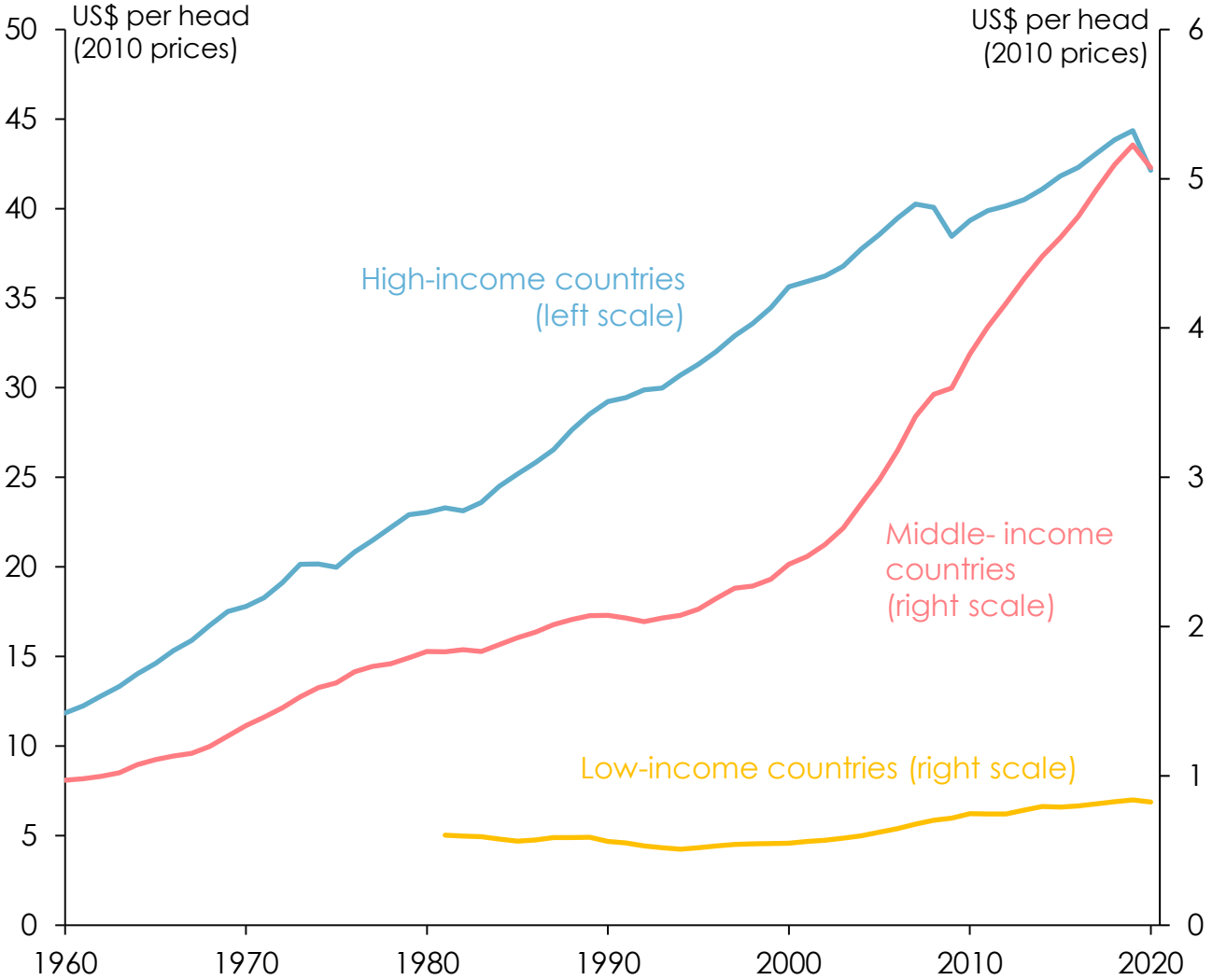


International tourist arrivals as a pc of the world's population

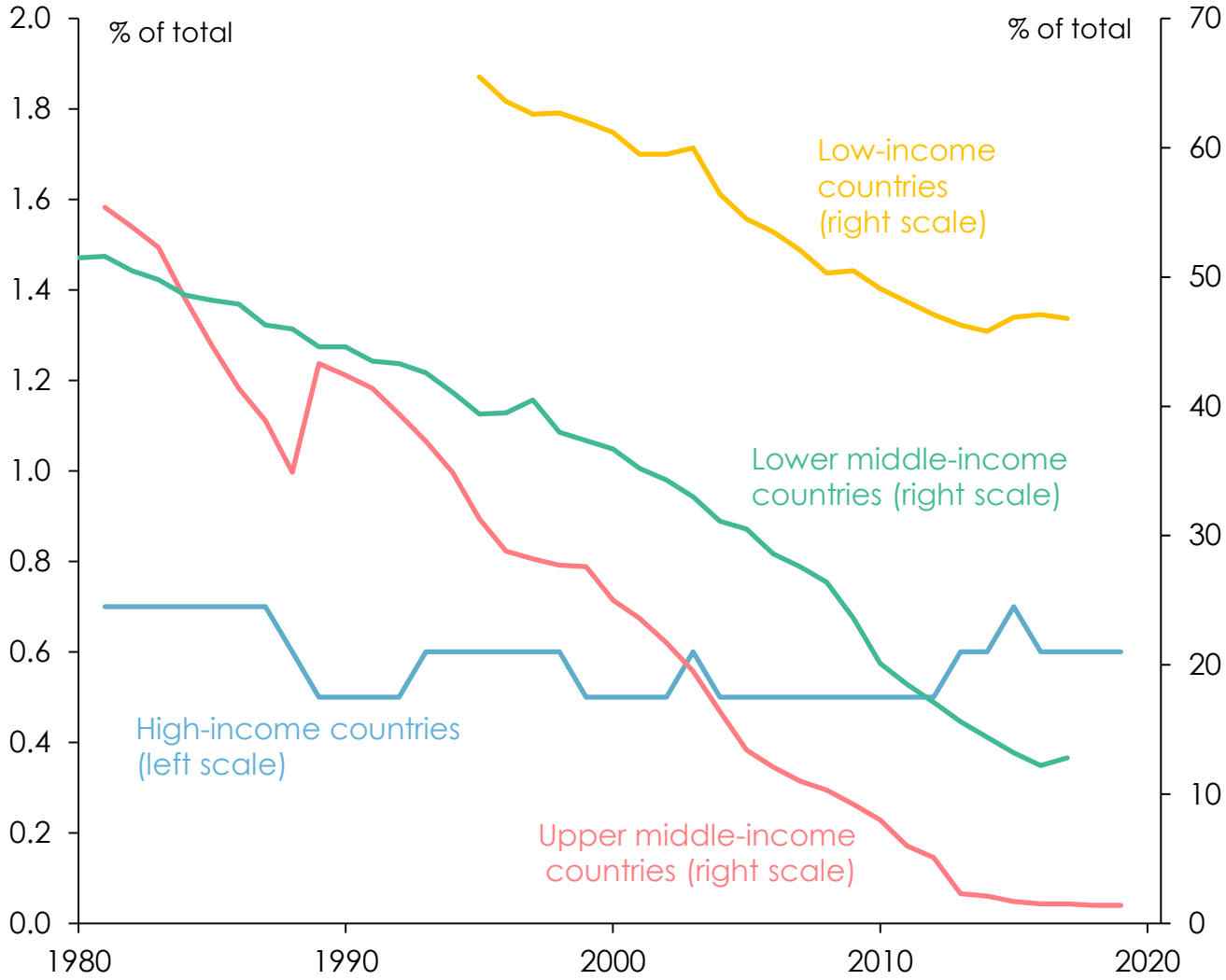


People living in middle-income countries have benefited most from these trends – people in low-income countries have hardly benefited at all

Per capita income



People living on less than US\$1.90 a day



Note: 'High-income' countries are those with per gross national income (GNI) of US\$12,376 in 2018; 'upper middle-income' countries \$3,996-\$12,375; 'lower middle-income' countries \$1,026-\$3,995; 'low-income' countries less than \$1,025. The 'extreme poverty line' of US\$1.90 per head is in constant 2011 US\$ converted at purchasing power parity exchange rates. Source: [The World Bank](#).

While income has become less unequally distributed *among* nations, it has become more unequally distributed *within* many nations

Growth in real income by percentiles of the global income distribution, 1988-2008

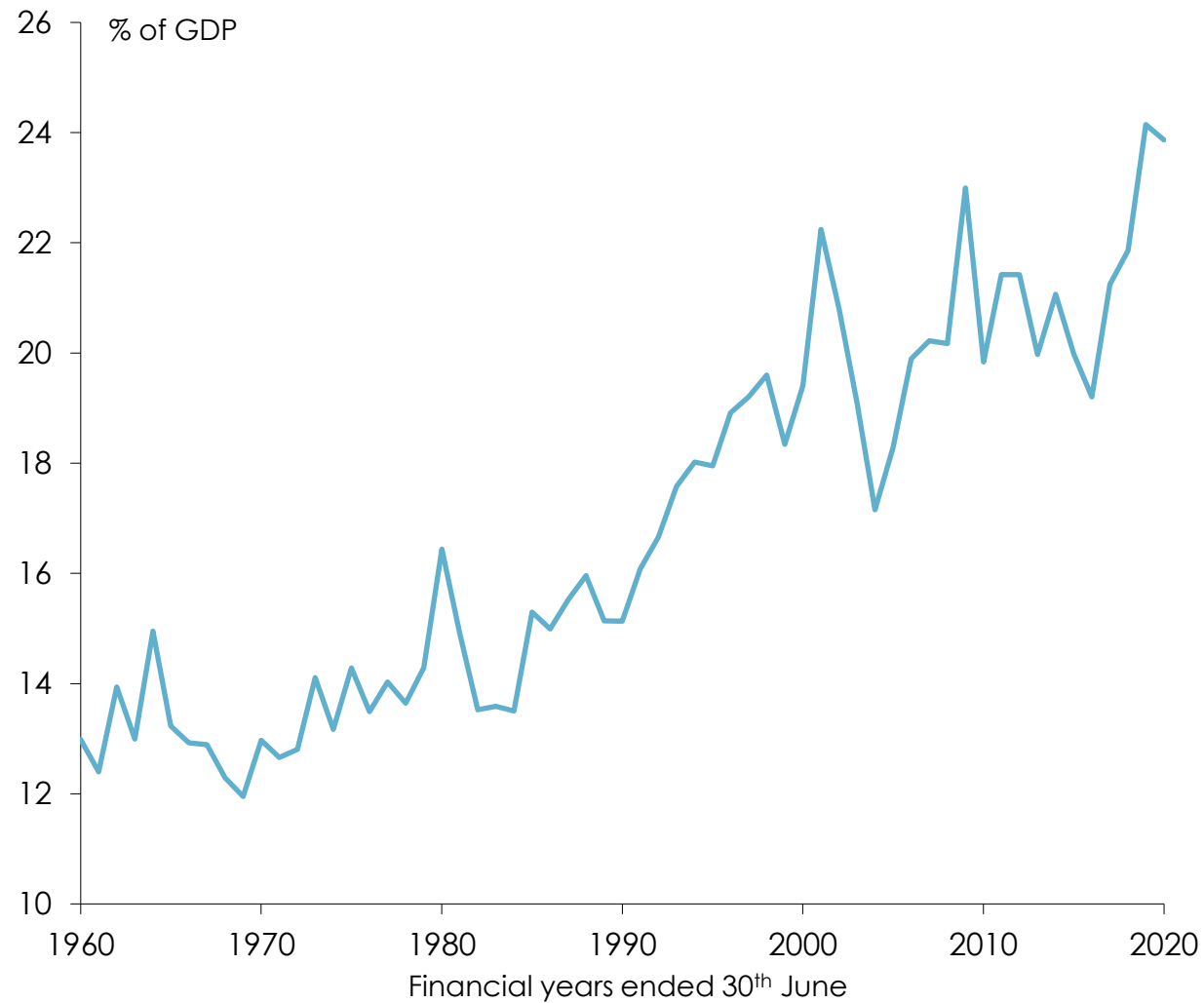


Note: Real income measured in 2005 US dollars (converted at purchasing power parities).

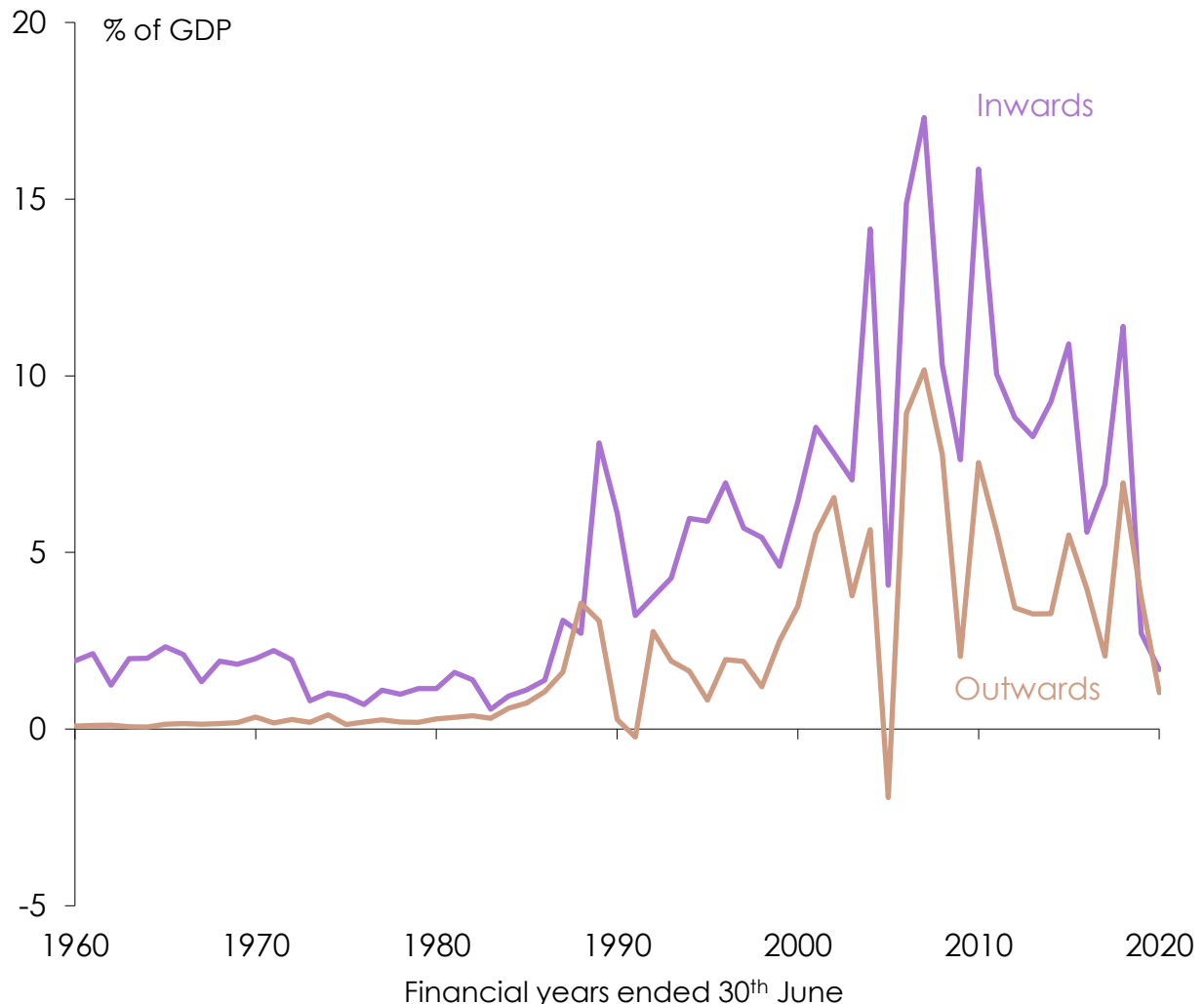
Source: Christoph Lakner and Branko Milanović, *Global Income Distribution: From the Fall of the Berlin Wall to the Great Recession*, 2015.

Increasing international mobility has been a defining feature of Australia's economy for the past fifty years – for goods and services, and capital ...

Exports of goods and commercial services as a pc of Australia's GDP



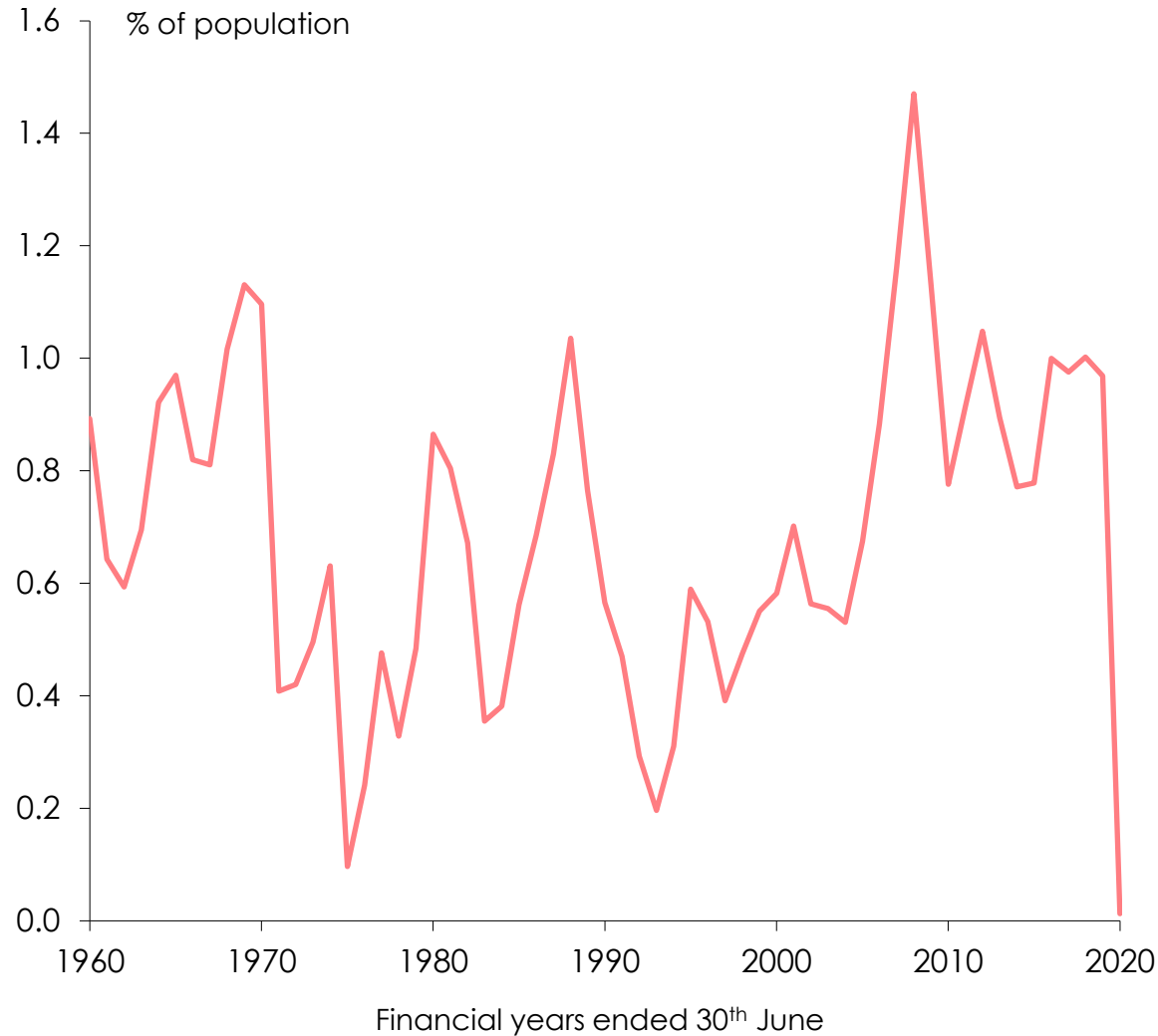
Investment flows into and out of Australia as a pc of GDP



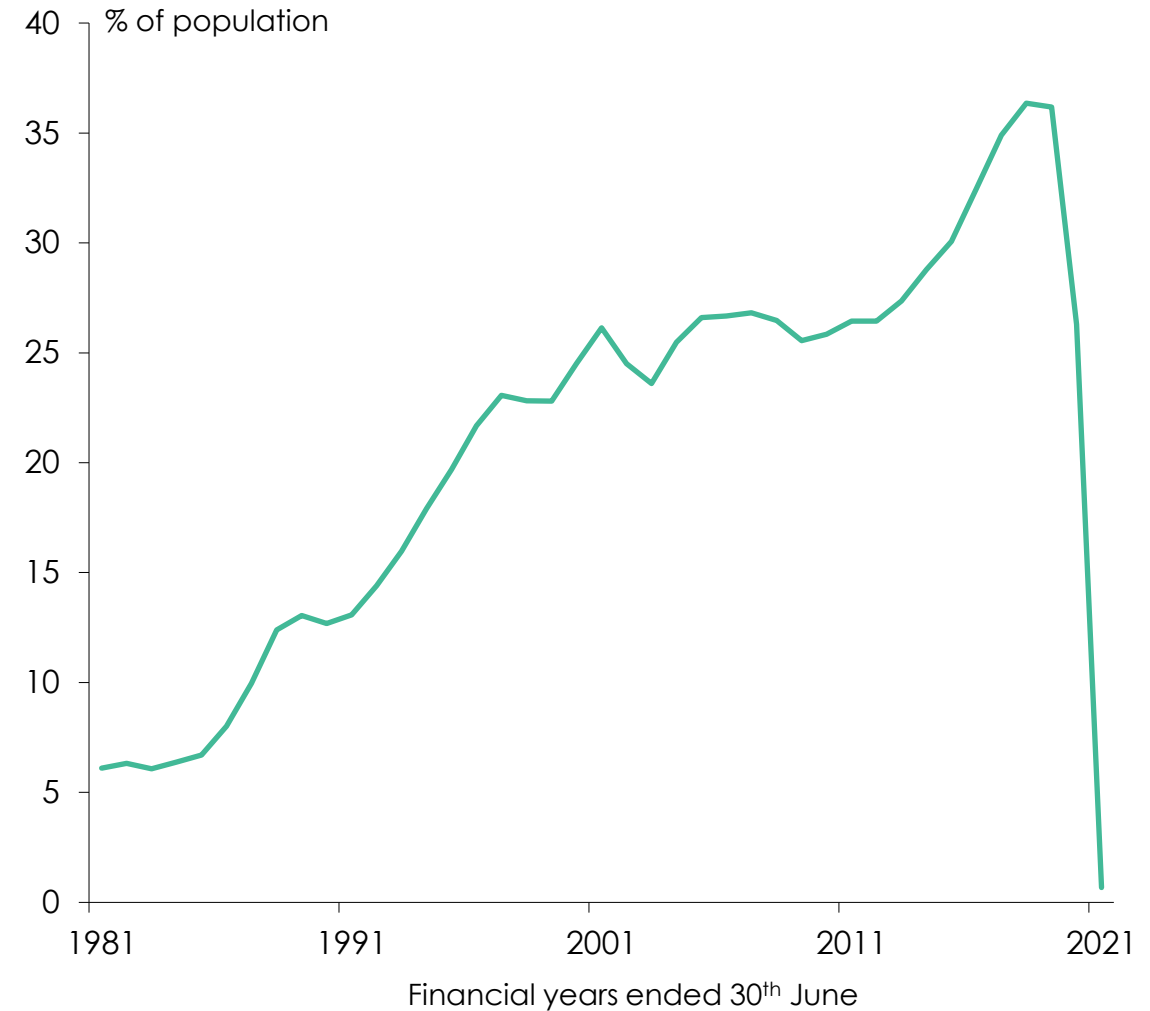
Note: 'Investment flows' refers to direct and portfolio investment flows (and excludes financial derivatives, trade credit and other flows, and transactions in official reserve assets. Source: ABS, [Balance of Payments and International Investment Position, Australia](#).

... and for people – although Covid has made a mess of that

Net overseas migration as a percentage of Australia's population



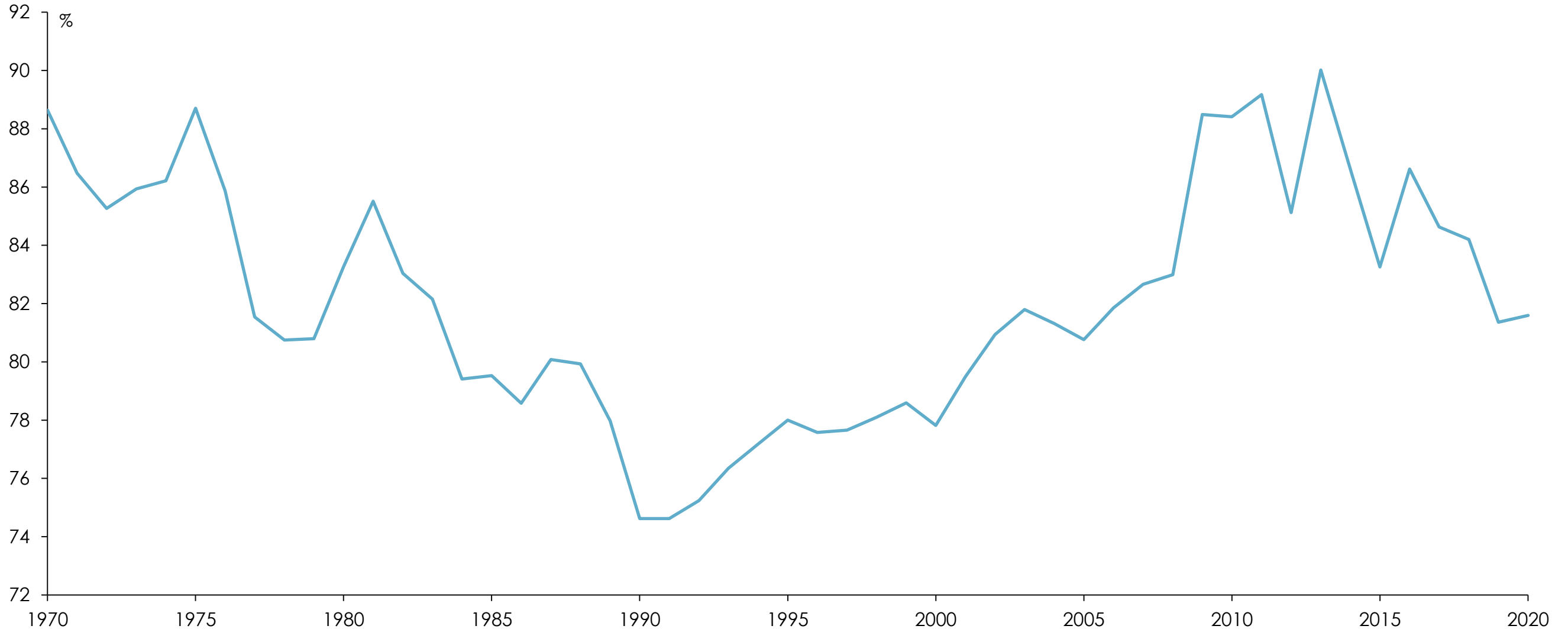
International visitor arrivals as a percentage of Australia's population



Sources: ABS, [Historical population](#); [National, state and territory population](#); and [Overseas Arrivals and Departures, Australia](#).

Freer movement of goods and services, capital and people across Australia's borders has contributed to improved average living standards

Australia's per capita income as a percentage of the United States'

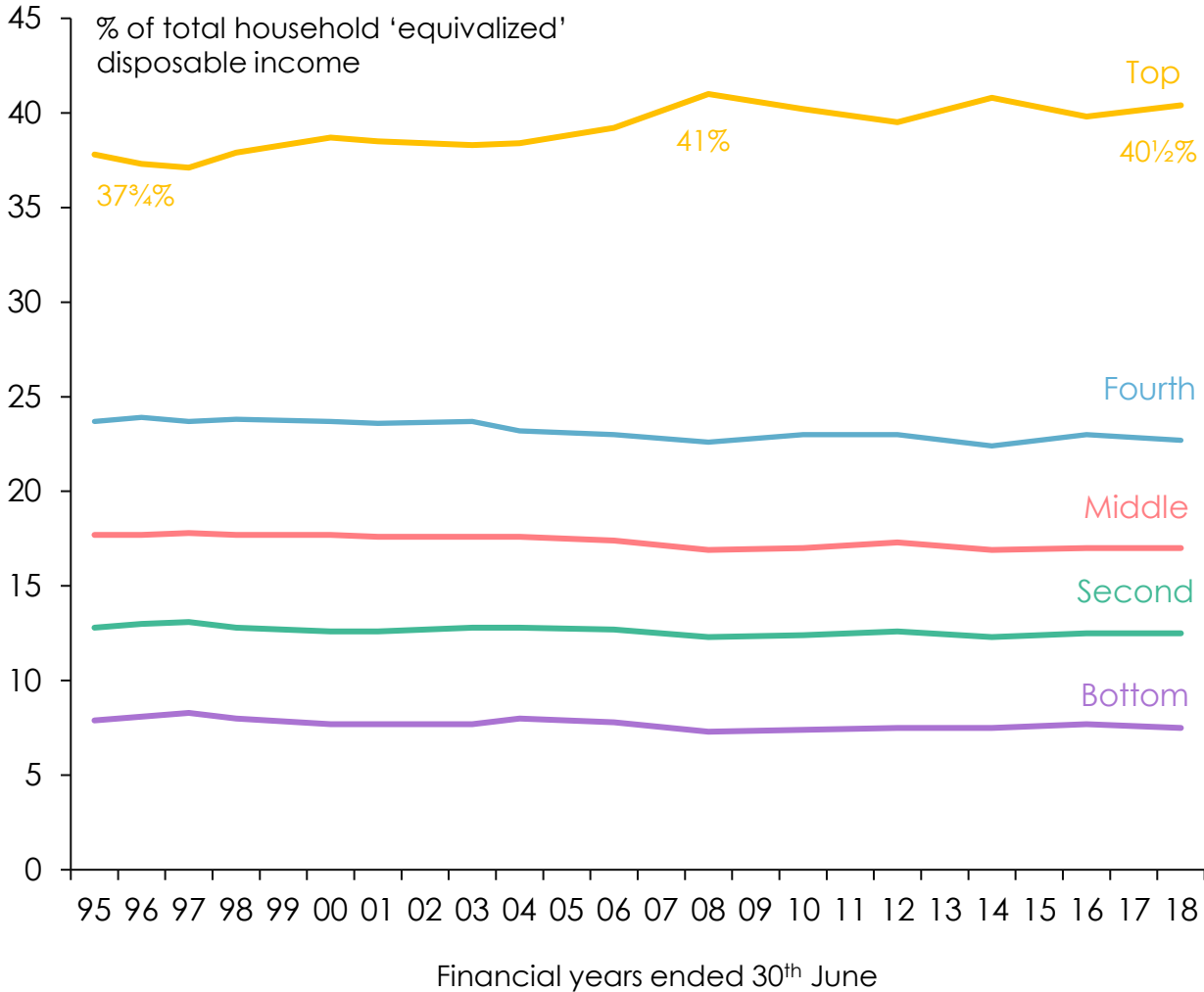


Note: GDP is measured in constant 2015 prices and converted to US dollars at purchasing power parity exchange rates.

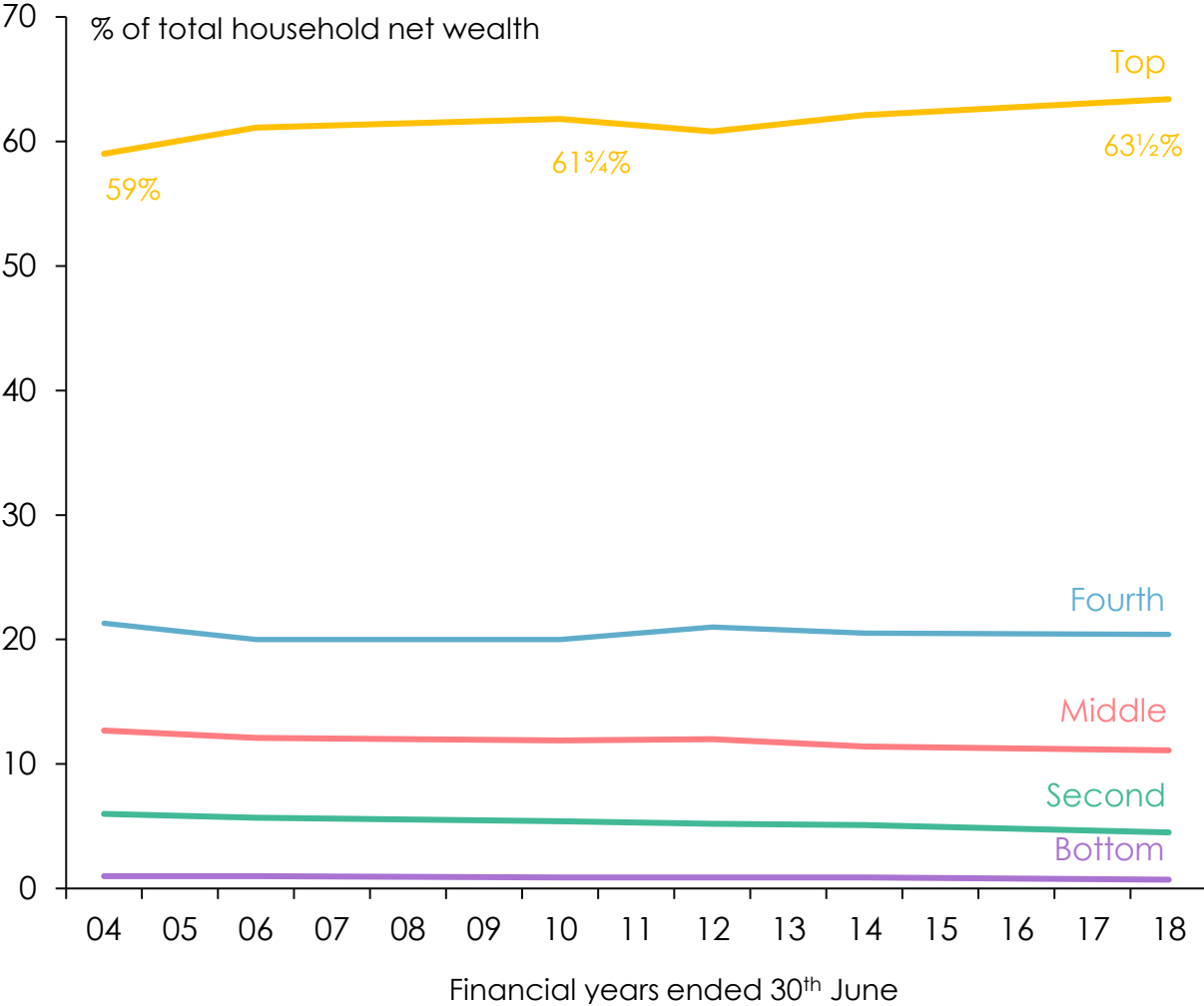
Source: OECD.stat, [Level of GDP per capita and productivity](#).

The distribution of Australian household income hasn't changed much over the past 20 years – but wealth distribution has become more unequal

Household income distribution, by 'quintile'



Household wealth distribution, by 'quintile'



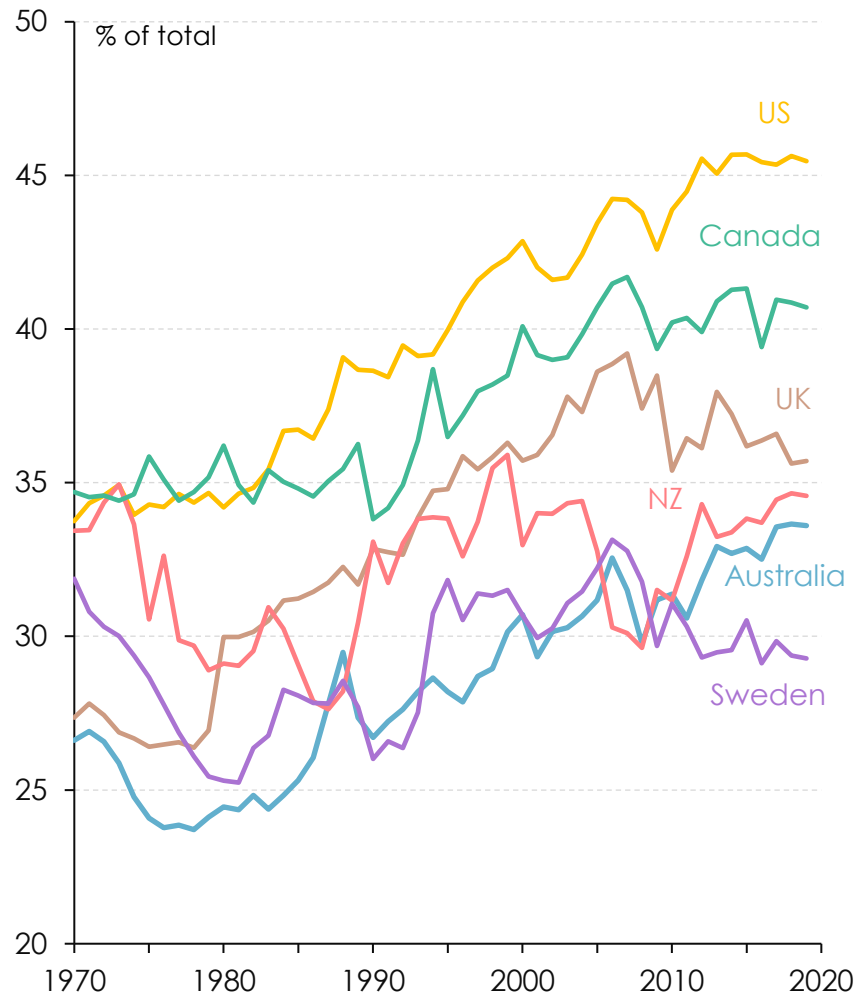
Note: 'quintiles' are 20% 'slices' (or fifths) of households ranked by income or wealth. 'Equivalized' disposable income means income after taxes and social security benefit payments, adjusted for differences in the size and composition (ie, adults and dependent children) of households.

Sources: ABS, [Household Income and Wealth, Australia](#), 2017-18, and previous issues.

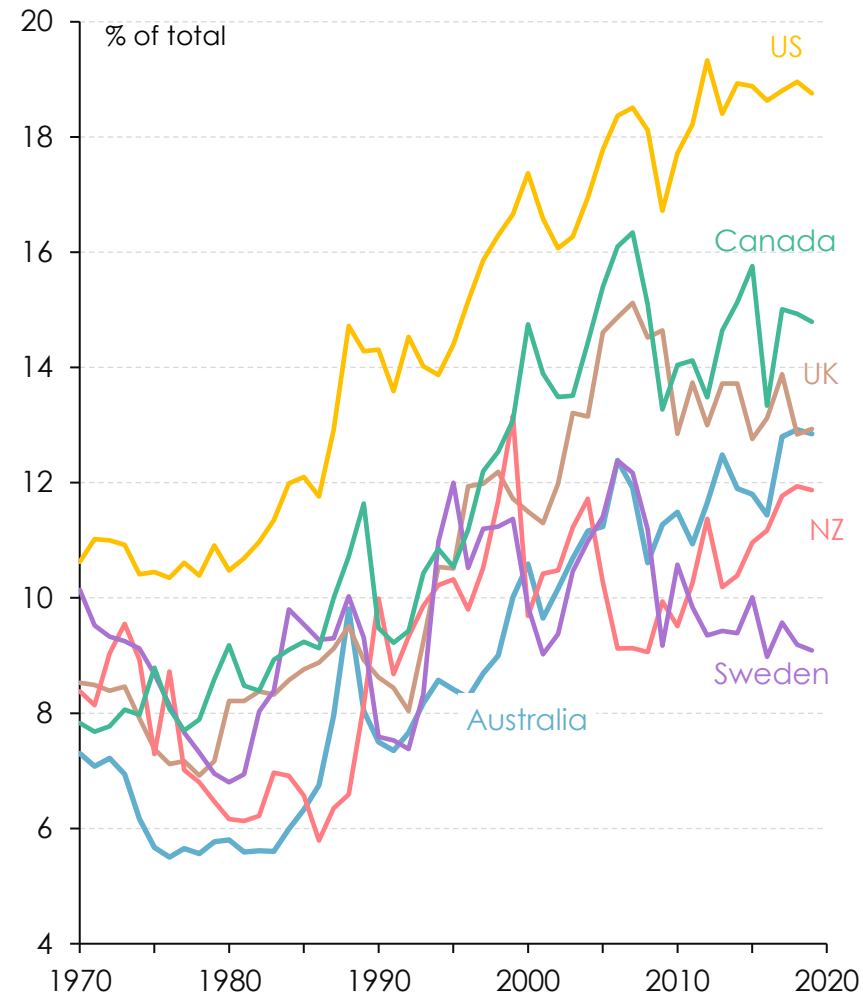
Australia is at the Swedish (ie, lower) end of the spectrum of increases in incomes going to upper income groups

Upper income groups' share of total pre-tax income in selected 'advanced' economies

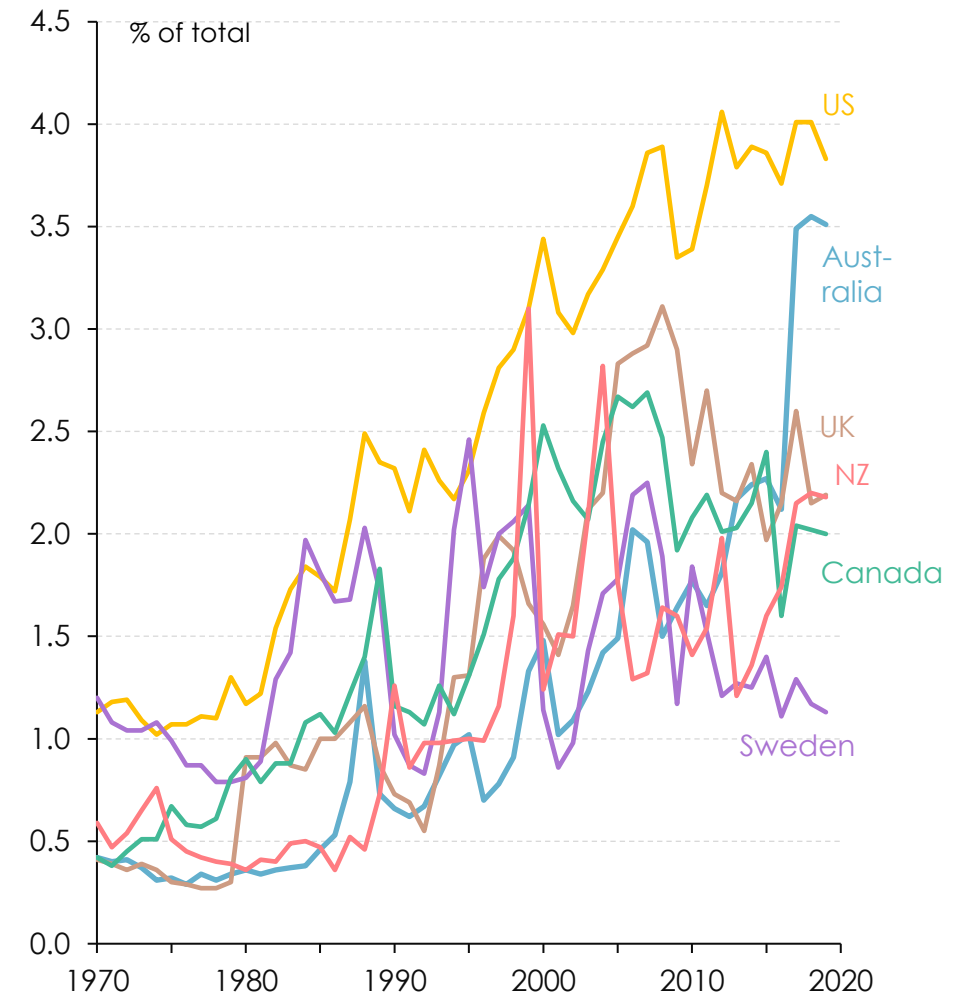
Top 10%



Top 1%



Top 0.1%

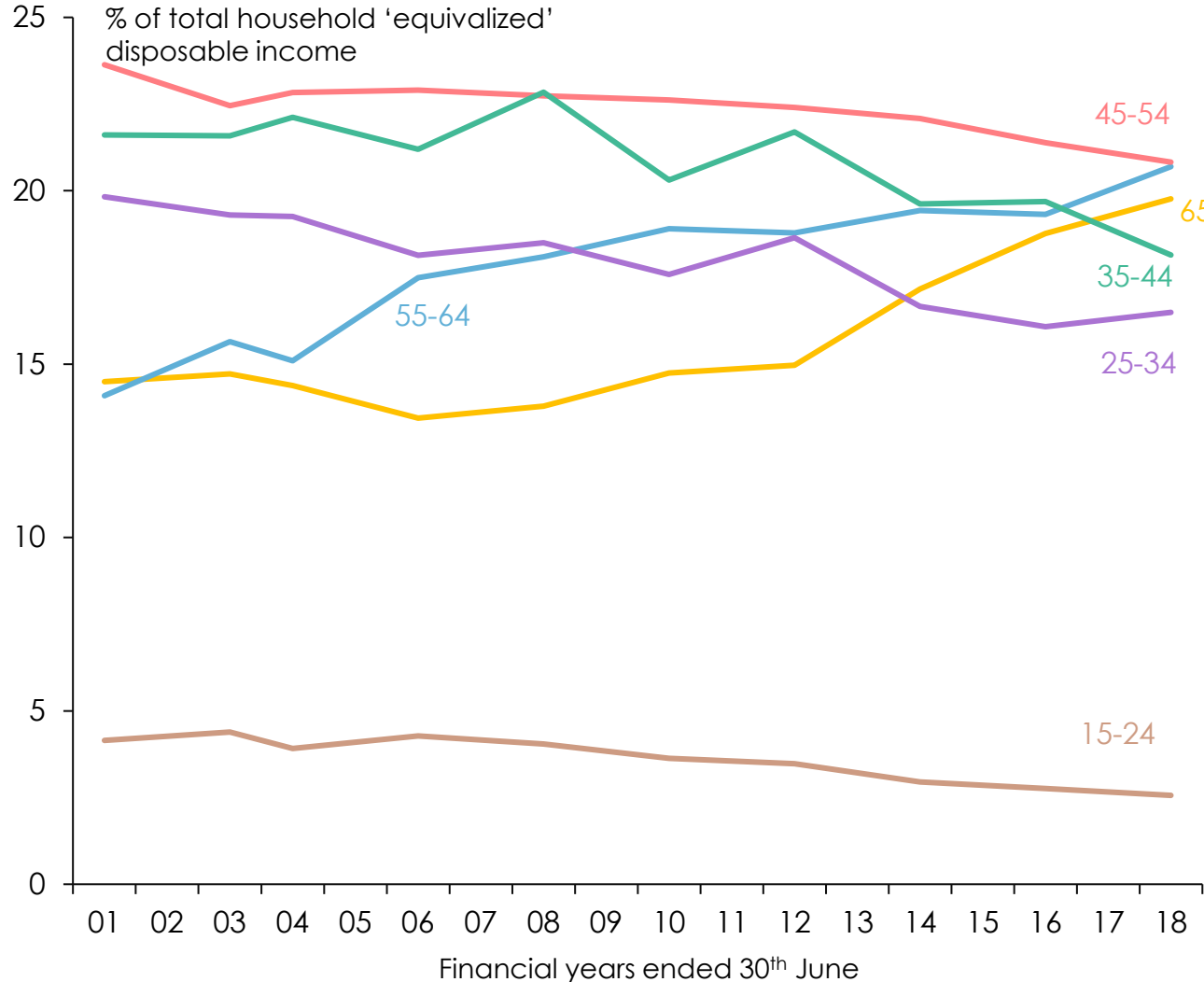


Note: Shares are of pre-tax taxable income as reported to and published by national tax collection agencies.

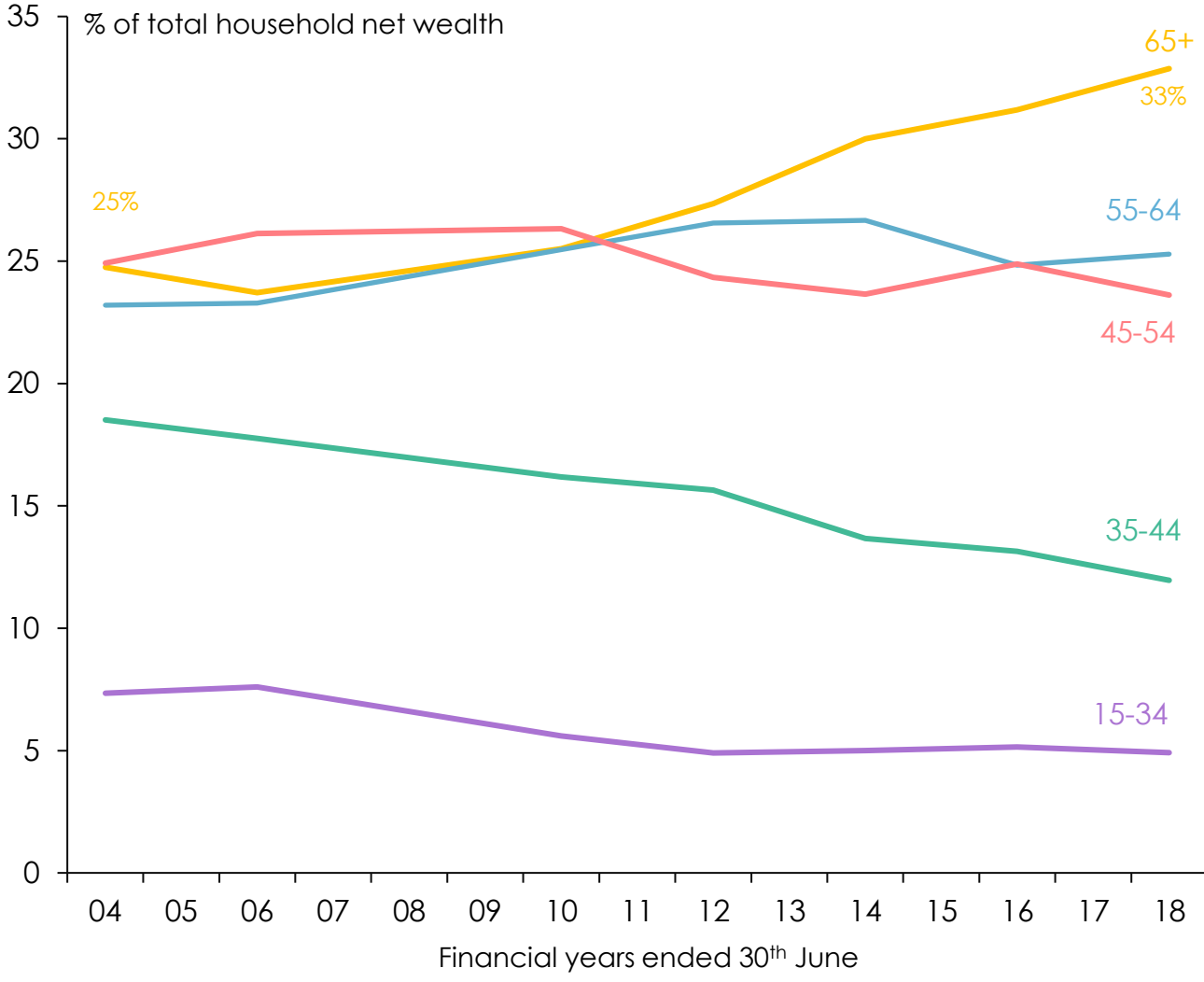
Source: Facundo Alvaredo, Tony Atkinson, Thomas Piketty, Emmanuel Saez and Gabriel Zucman, [The World Wealth and Income Database](#).

What's more striking is the increase in inequality in the distribution of income and wealth as between age groups over the past twenty years

Household income distribution, by age group



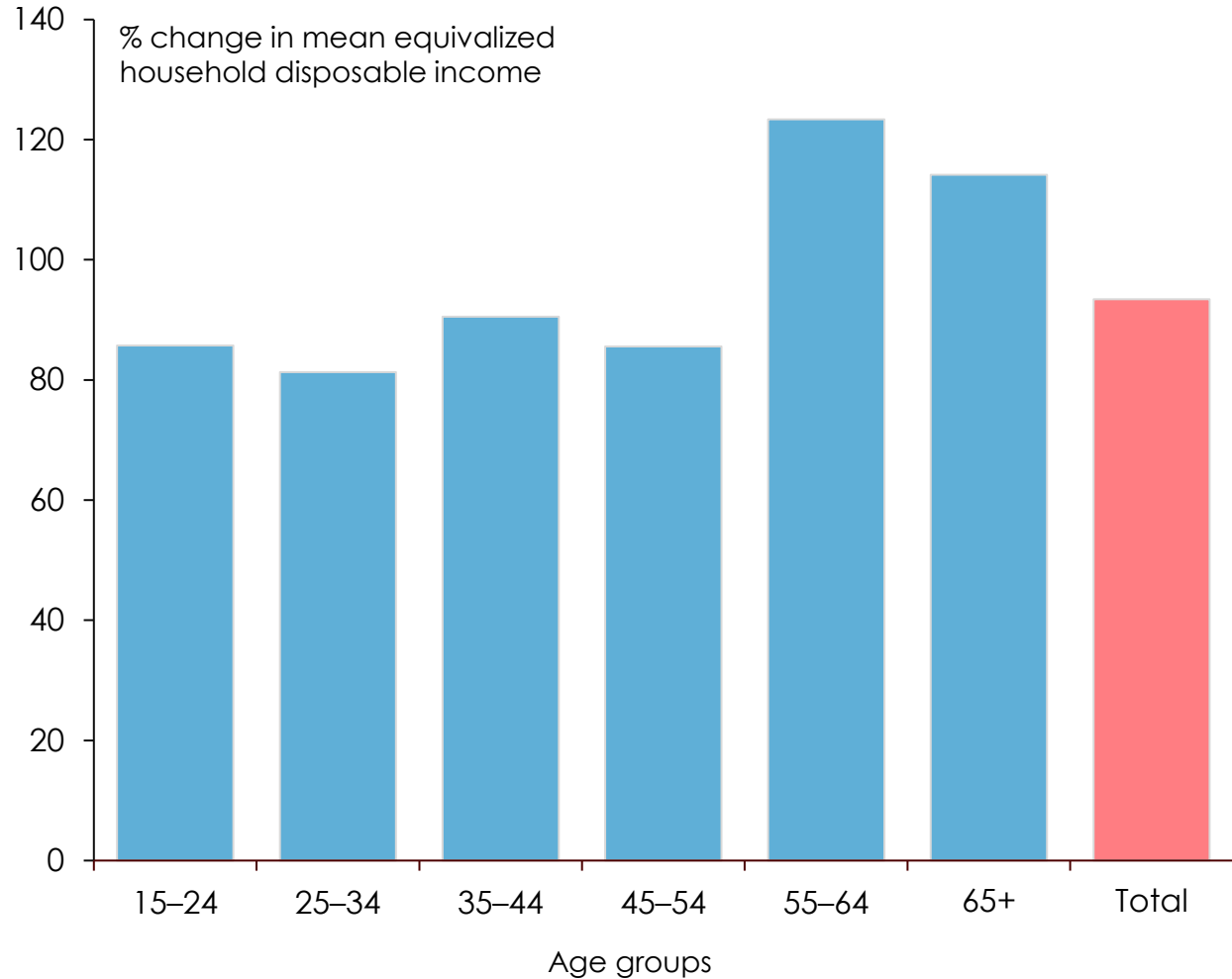
Household wealth distribution, by age group



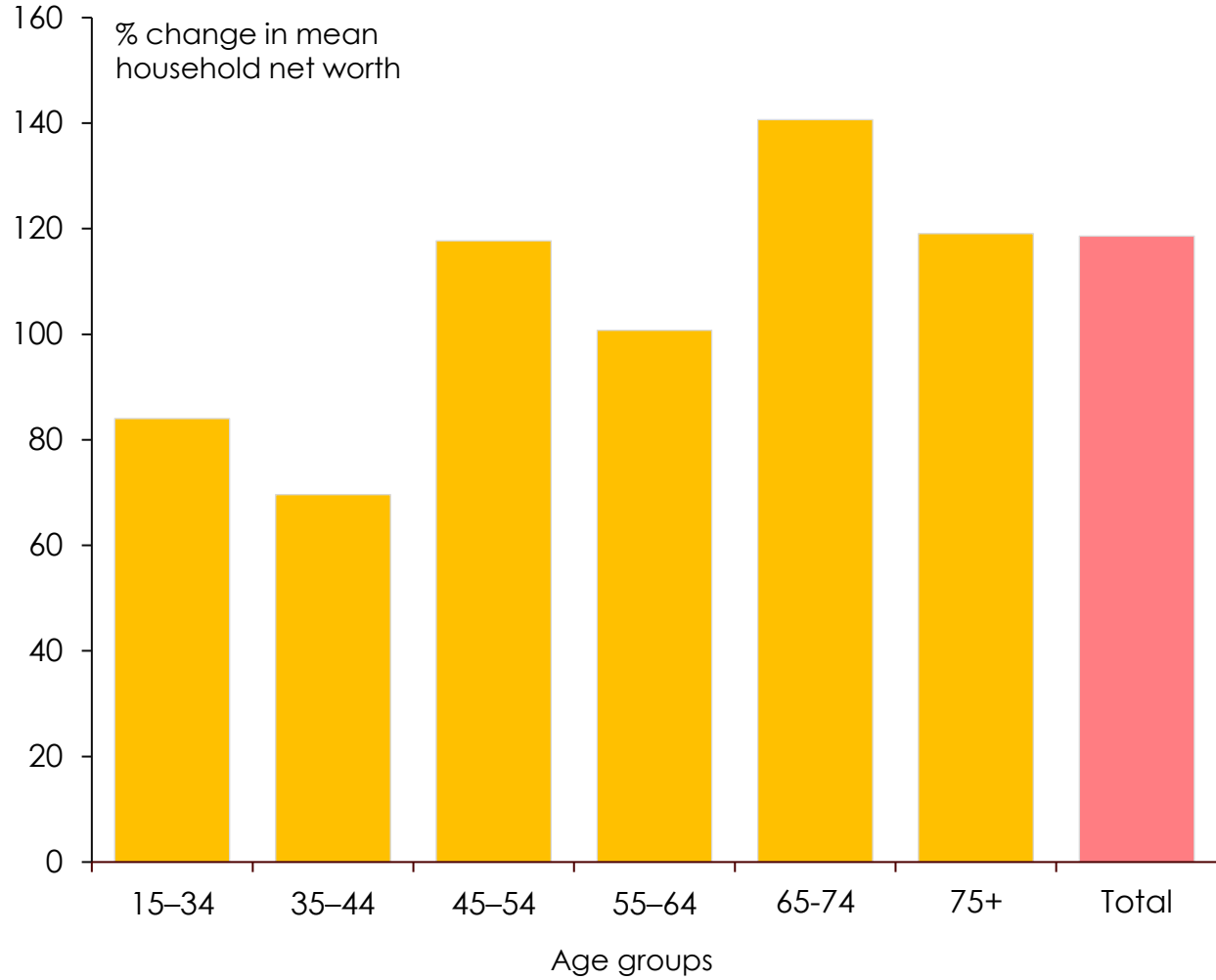
Note: 'Equivalentized' disposable income means income after taxes and social security benefit payments, adjusted for differences in the size and composition (ie, adults and dependent children) of households. Sources: ABS, [Household Income and Wealth, Australia](#), 2017-18, and previous issues.

The increase in older households' shares of income and wealth isn't simply because they're a larger share of the population

Increase in average household disposable income, 2003-04 to 2017-18, by age group



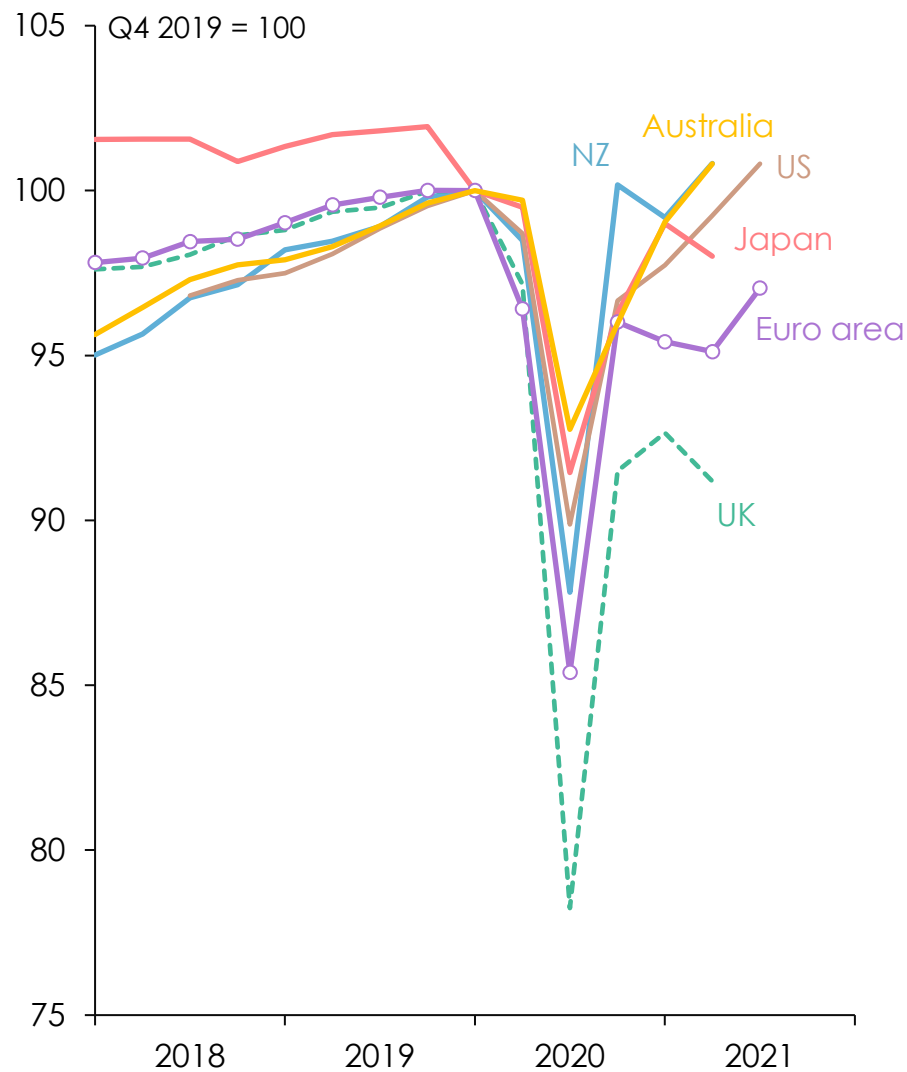
Increase in average household net worth, 2003-04 to 2017-18, by age group



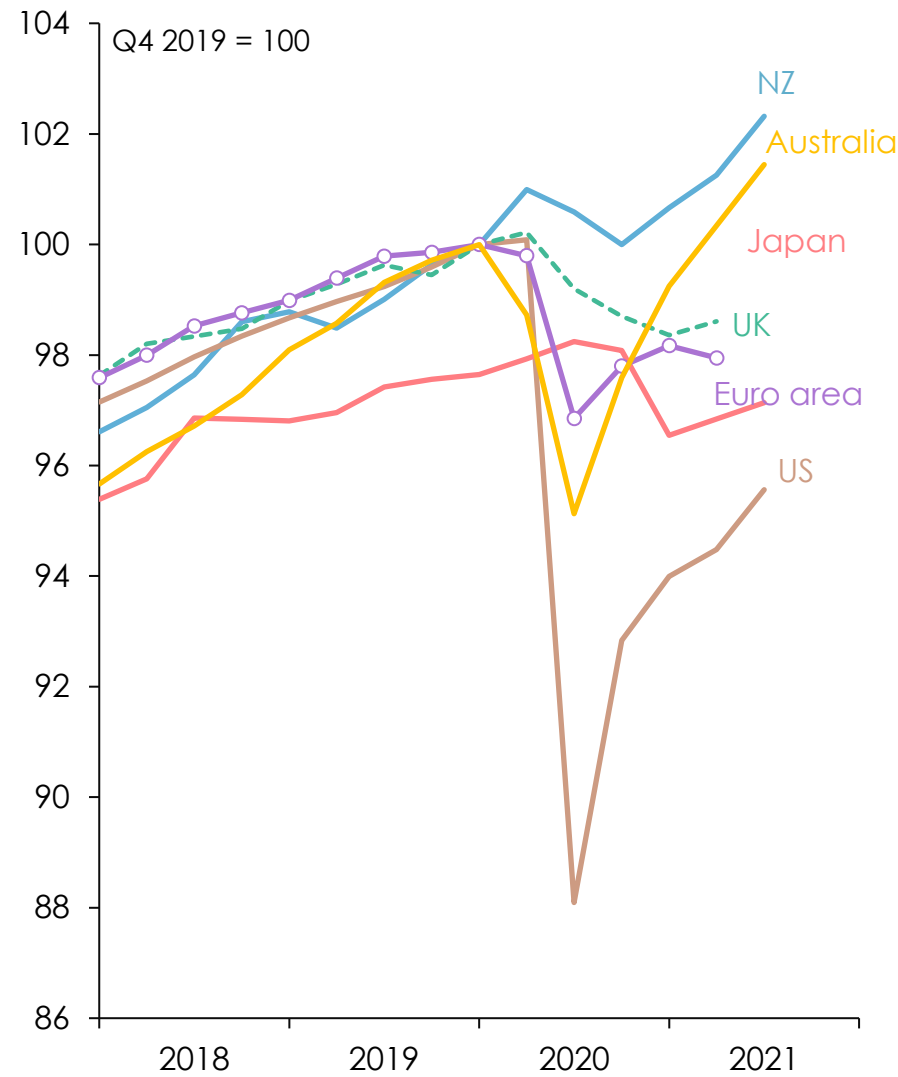
Note: 'Equivalentized' disposable income means income after taxes and social security benefit payments, adjusted for differences in the size and composition (ie, adults and dependent children) of households. Sources: ABS, [Household Income and Wealth, Australia](#), 2017-18, and previous issues.

Australia's recession hasn't been as severe as those experienced in most other comparable countries

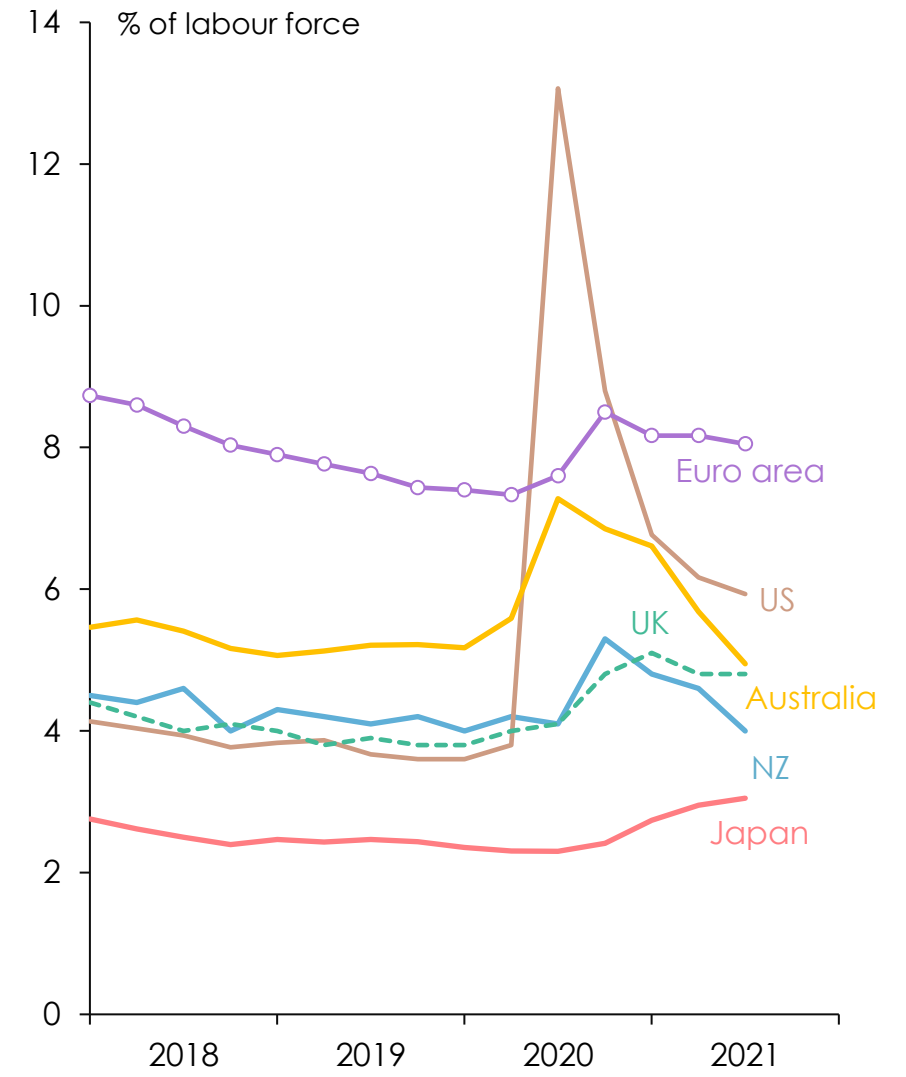
Level of real GDP



Employment



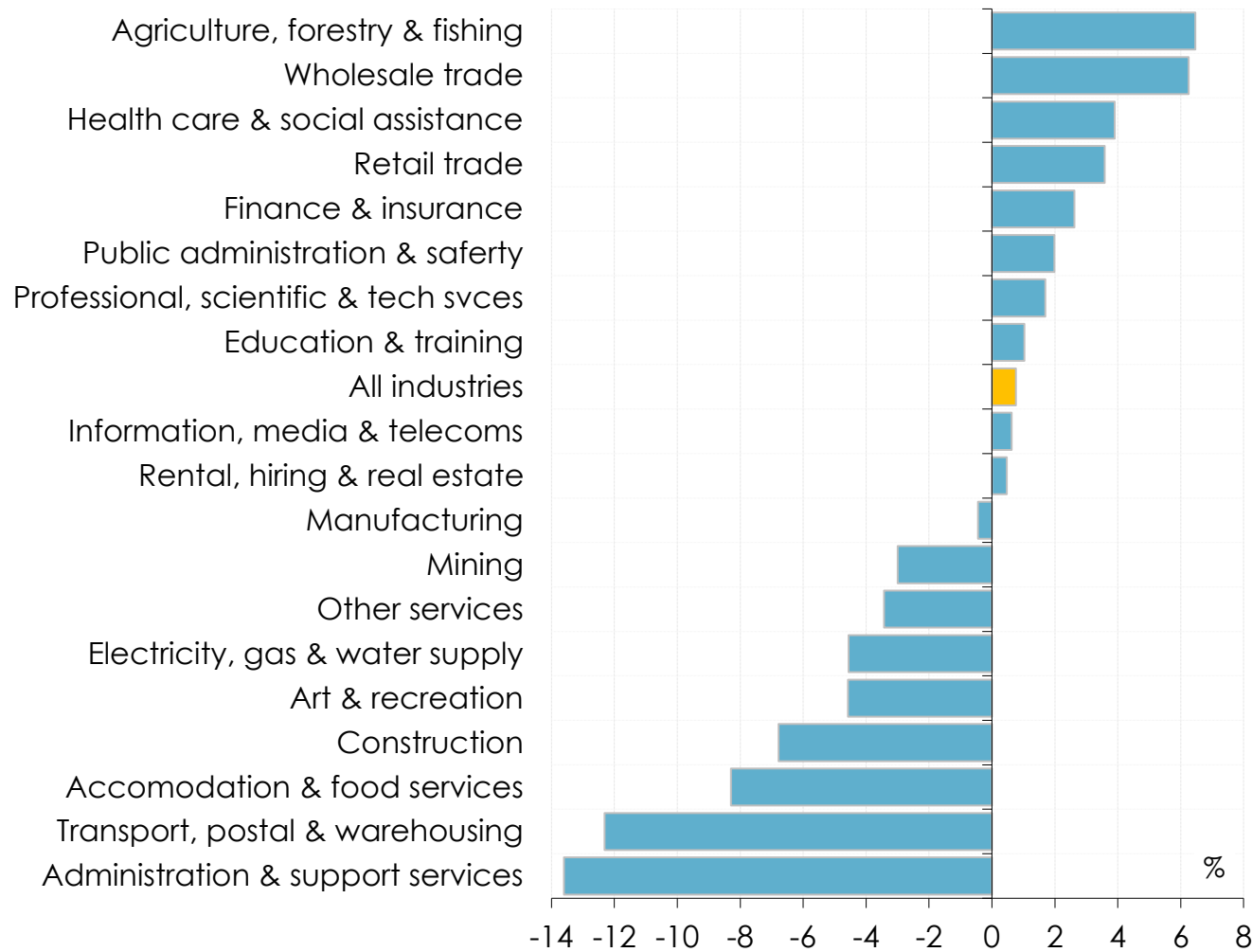
Unemployment



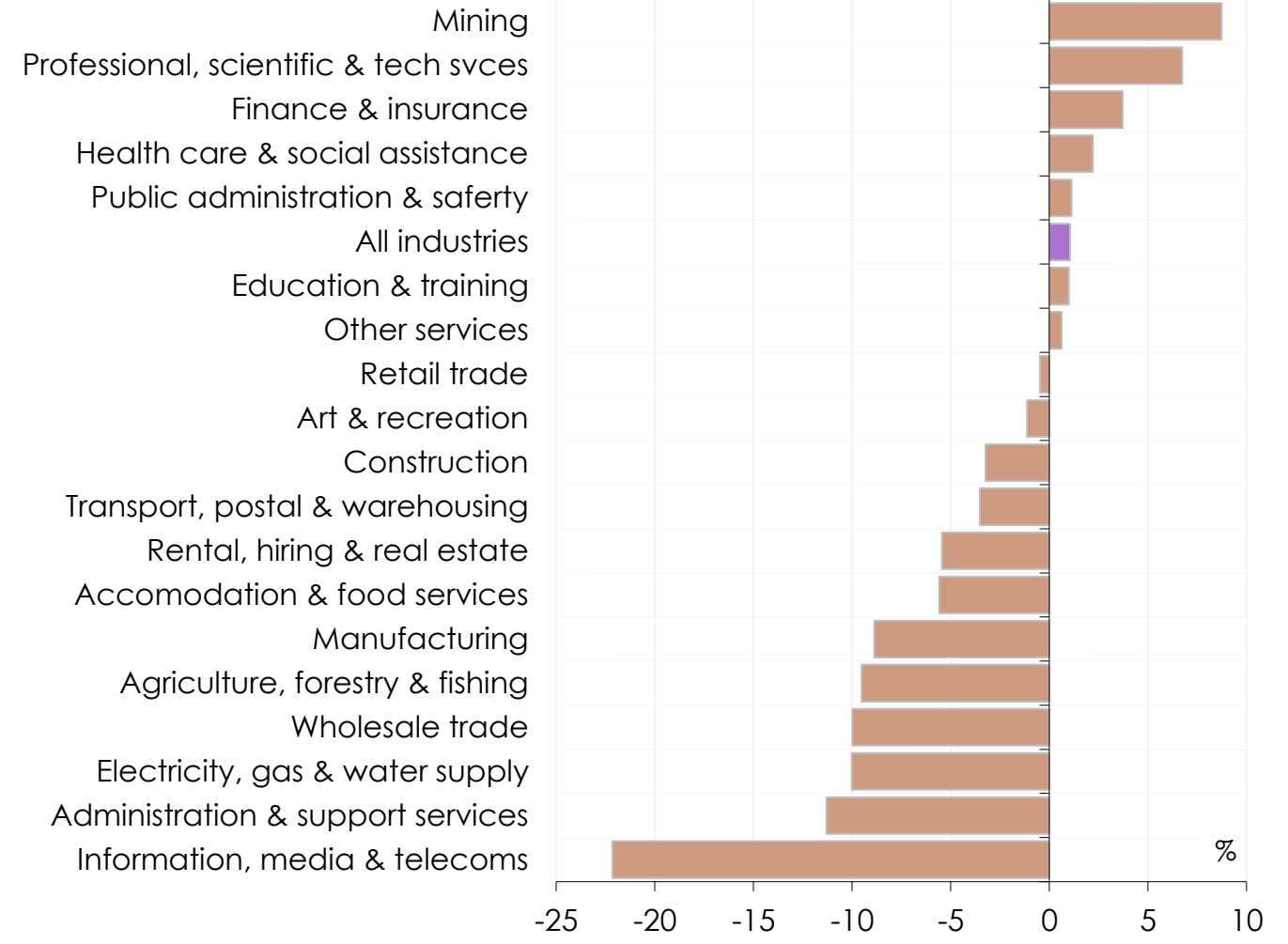
Sources: [ABS](#) ; [Statistics NZ](#) ; US [Bureau of Economic Analysis](#) and [Bureau of Labor Statistics](#); Japan [Cabinet Office](#) and [Statistics Bureau of Japan](#); [Eurostat](#); and UK [Office for National Statistics](#); Corinna.

Most though not all services industries, and manufacturing, are still operating at lower levels of output and employment than before Covid

Q1 2021 real gross value added by industry – change from pre-pandemic peak



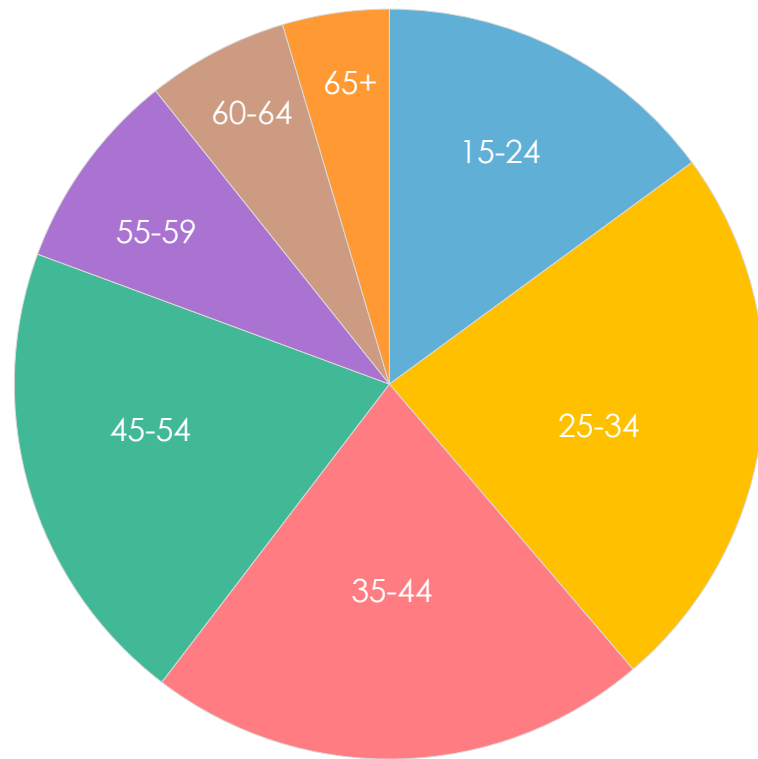
Q2 2021 employment by industry – change from pre-pandemic peak



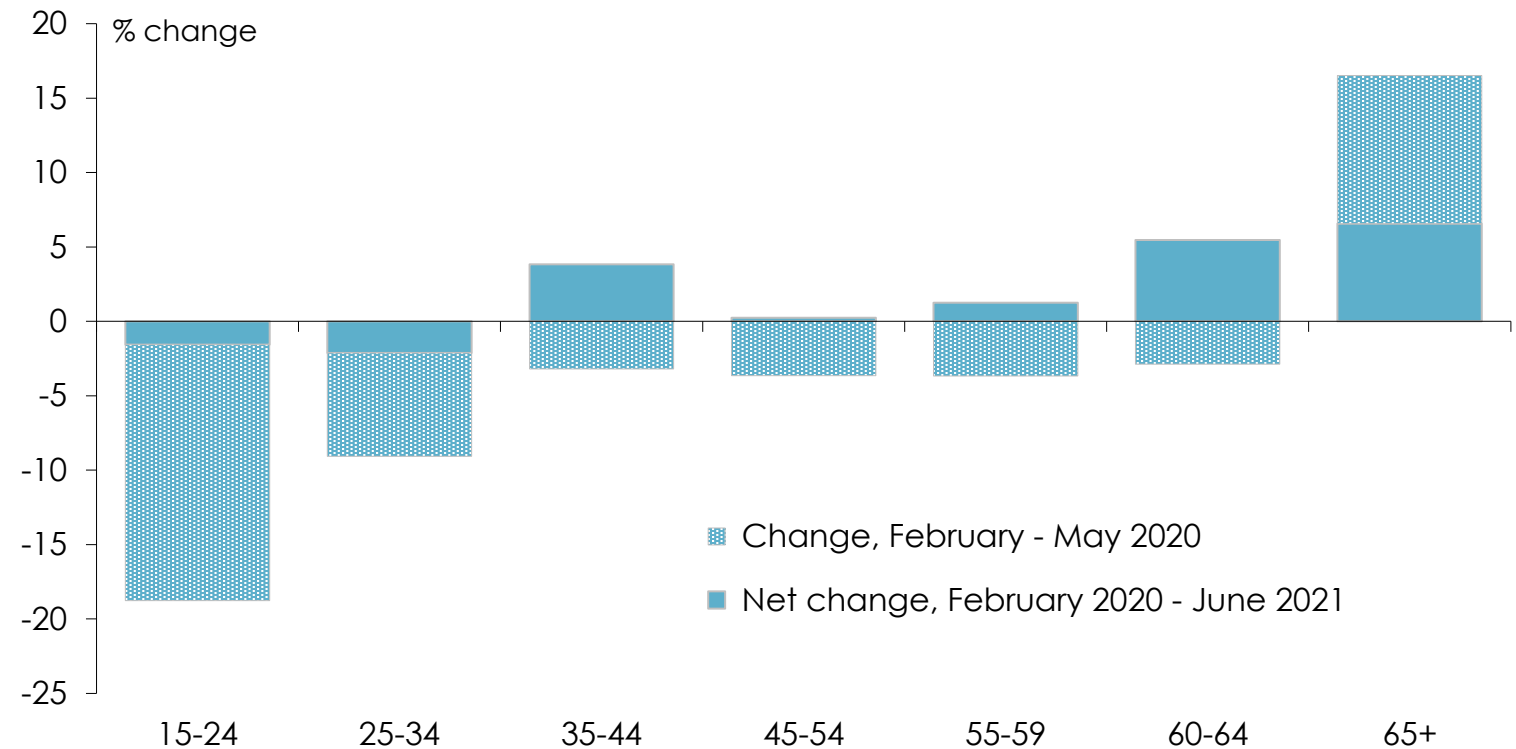
Sources: ABS, [Australian National Accounts: National Income, Expenditure and Product](#), March quarter 2021; and [Labour Force, Australia, Detailed](#), May 2021.

Younger workers bore the brunt of job losses during the early stages of the pandemic and have had a more difficult time regaining jobs

Composition of employment by age group, February 2020



Change in employment between February 2020 and June 2021, by age group

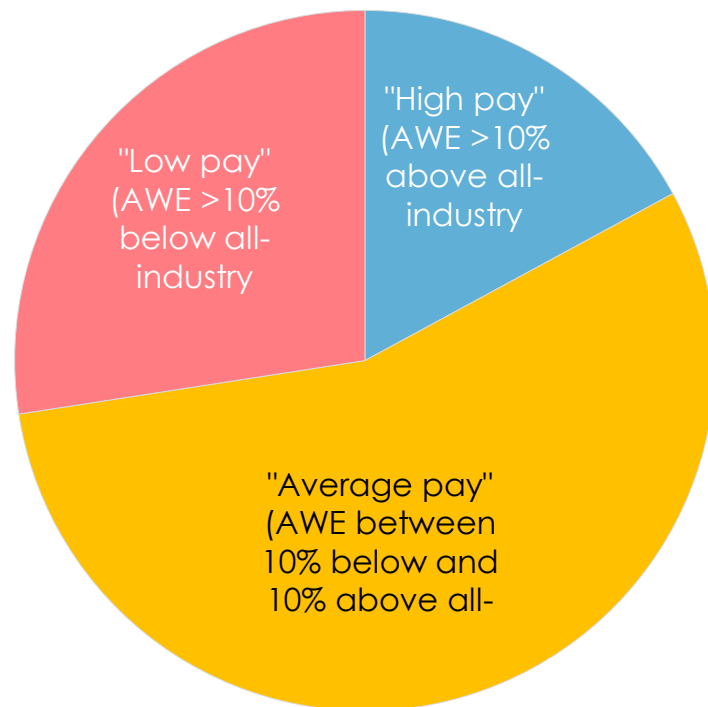


- ❑ People aged 15-24 accounted for 15% of pre-covid employment but experienced 39% of all job losses between February and May last year – and as of June this year their employment was still down 16% from where it had been in February 2020, while that of 25-34 year-olds was down by 2.1%
- ❑ By contrast older age groups have fared much better, with employment of 60-64 year-olds and those aged 65 & over 5.5% and 6.6%, respectively above where it was in February last year, and that of 35-44 year-olds up by 3.8%

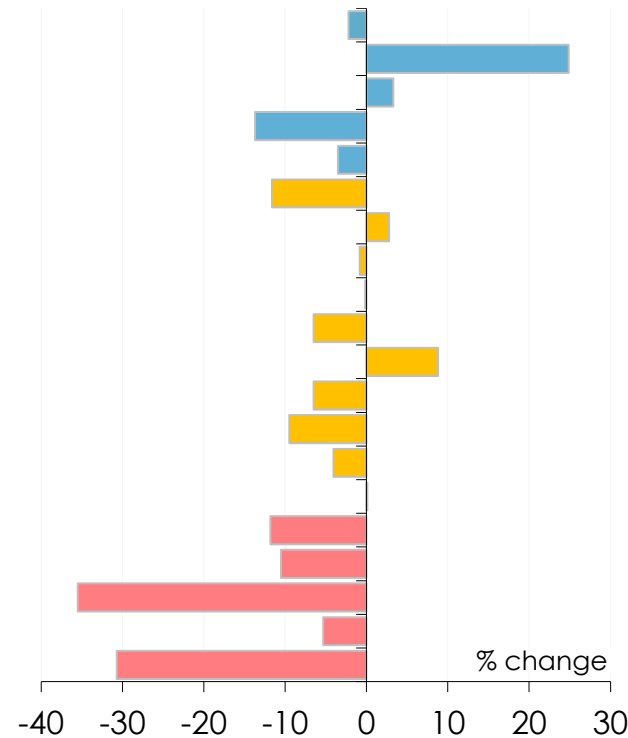
Note: data on employment by age group is not seasonally adjusted. Source: ABS, [Labour Force, Australia, Detailed](#), June 2021.

Workers in low-pay industries experienced the bulk of job losses during the downturn and the greatest difficulty regaining them since then

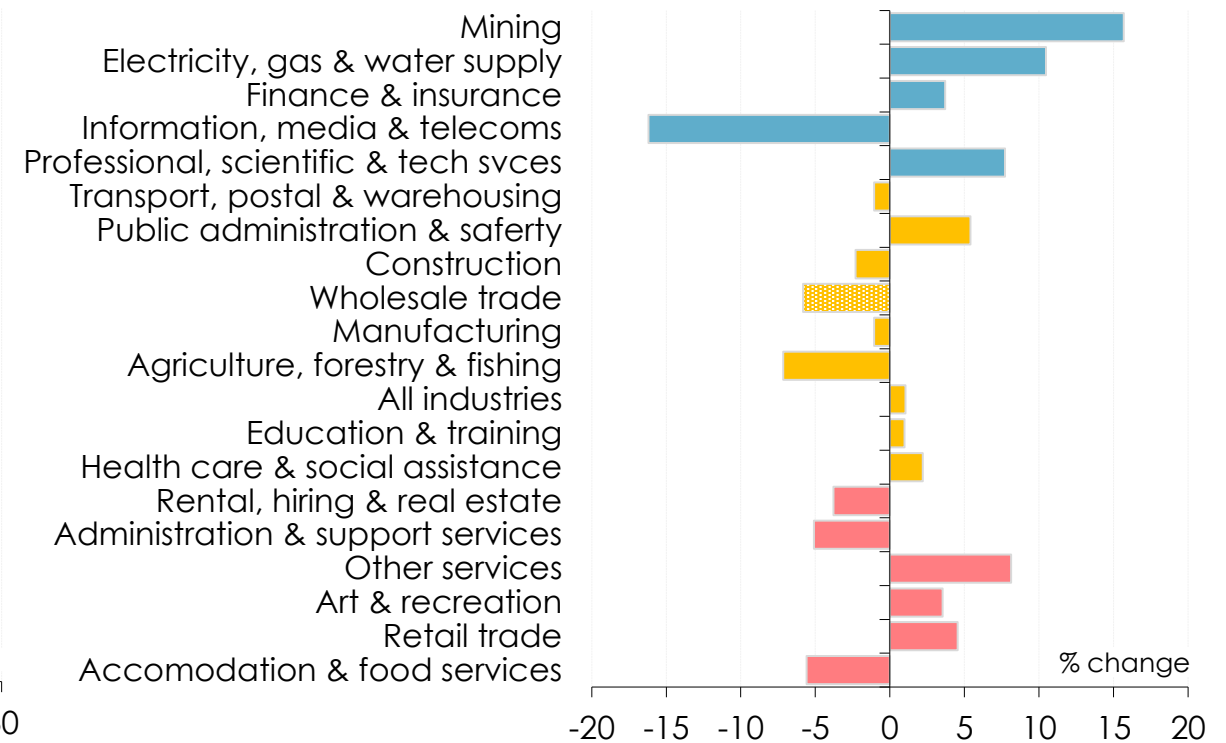
Composition of employment by industry ranked by average weekly earnings, February 2020



Change in employment by industry
February-May 2020



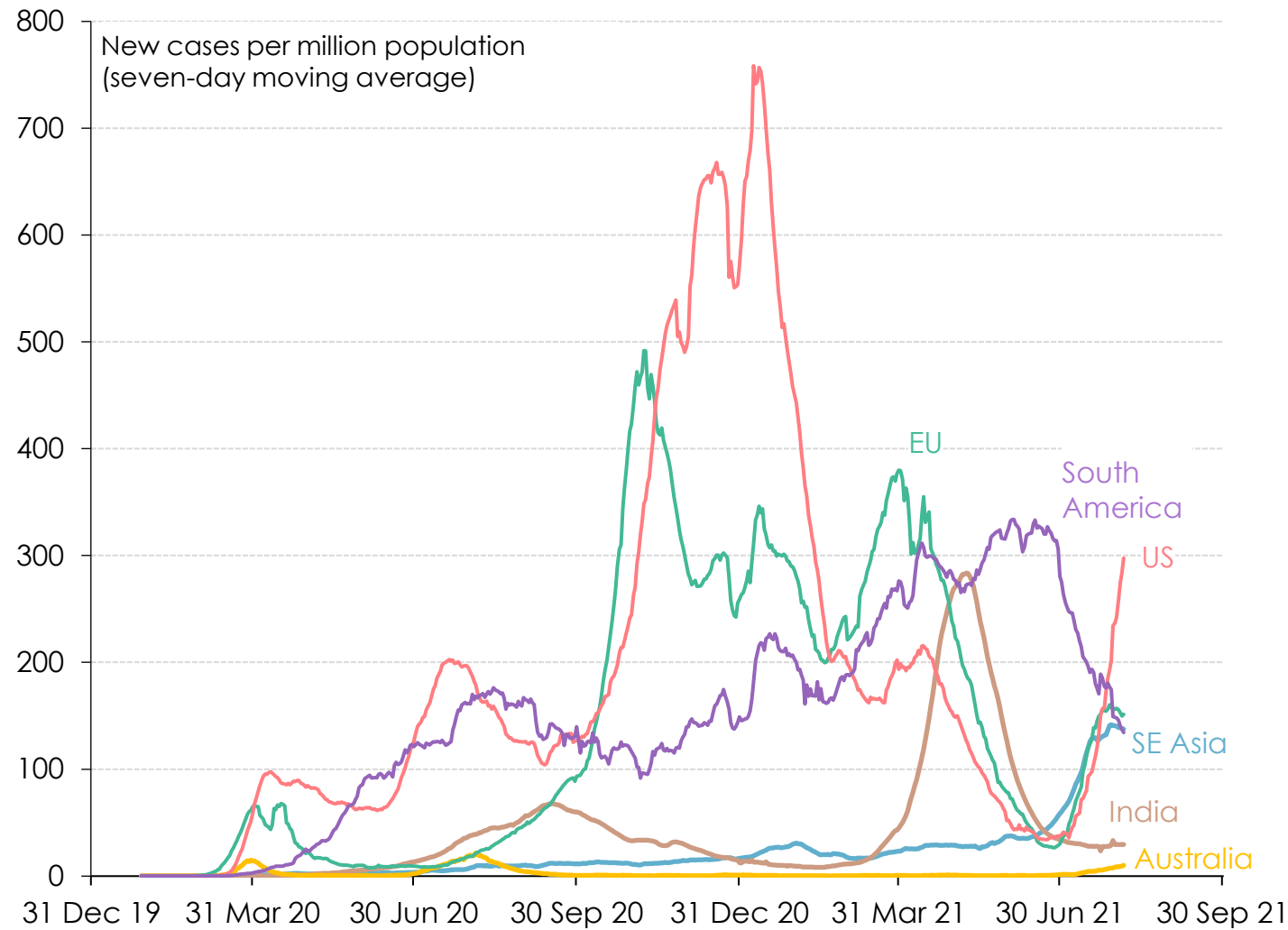
February 2020 – May 2021



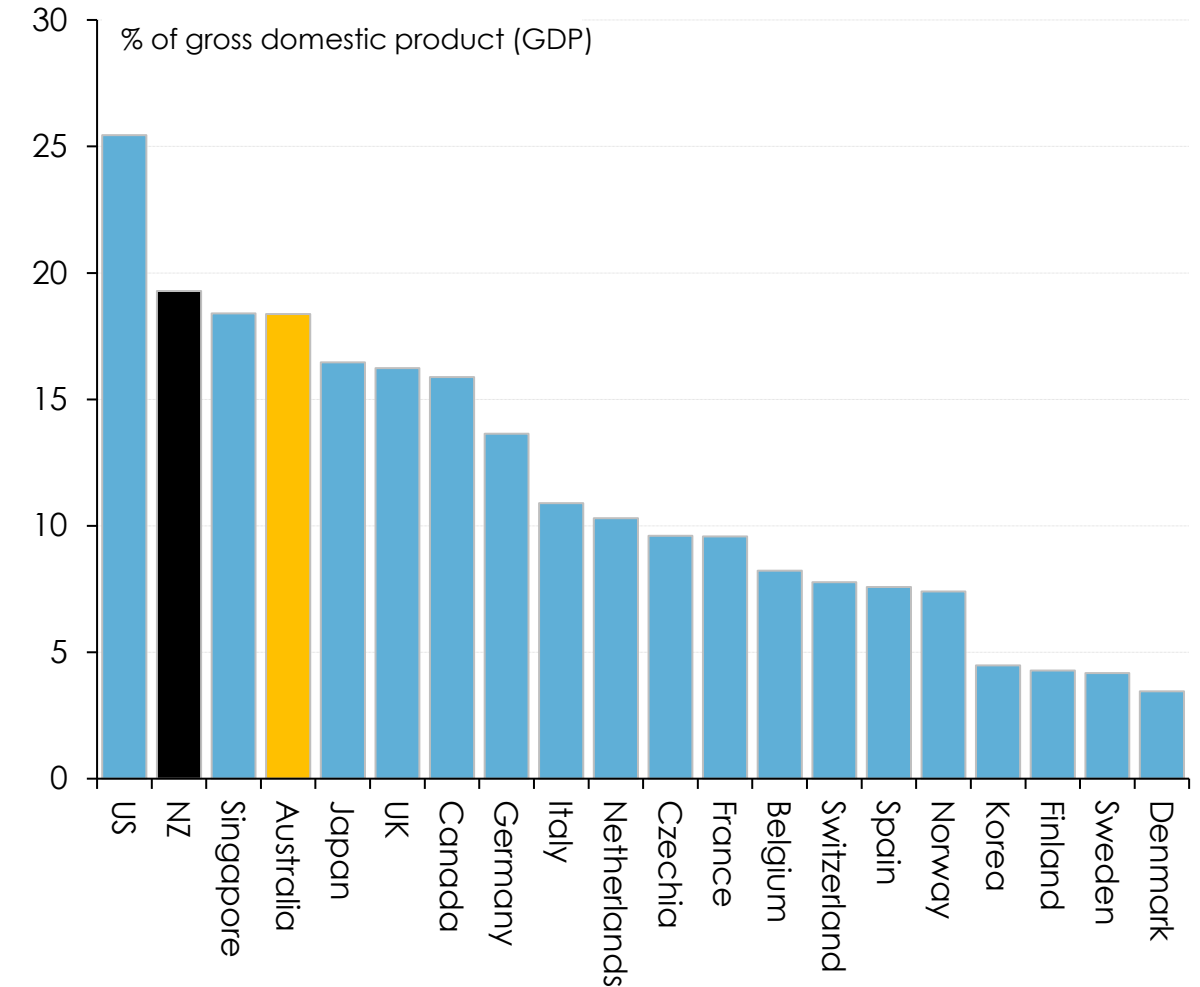
- ❑ Industries with average earnings which are 10% or more below average accounted for 27½% of the pre-pandemic workforce, but experienced 64% of the job losses between February and May last year – and employment in those industries was only 0.6% higher in May this year than it had been in February last year
- ❑ By contrast employment in “high pay” industries (17% of the pre-pandemic workforce) was 5.6% higher than it had been in February last year

Australia has done a better job than most other countries of suppressing the virus – and governments have provided more fiscal support

New covid-19 infections per million population, Australia compared with other countries and regions



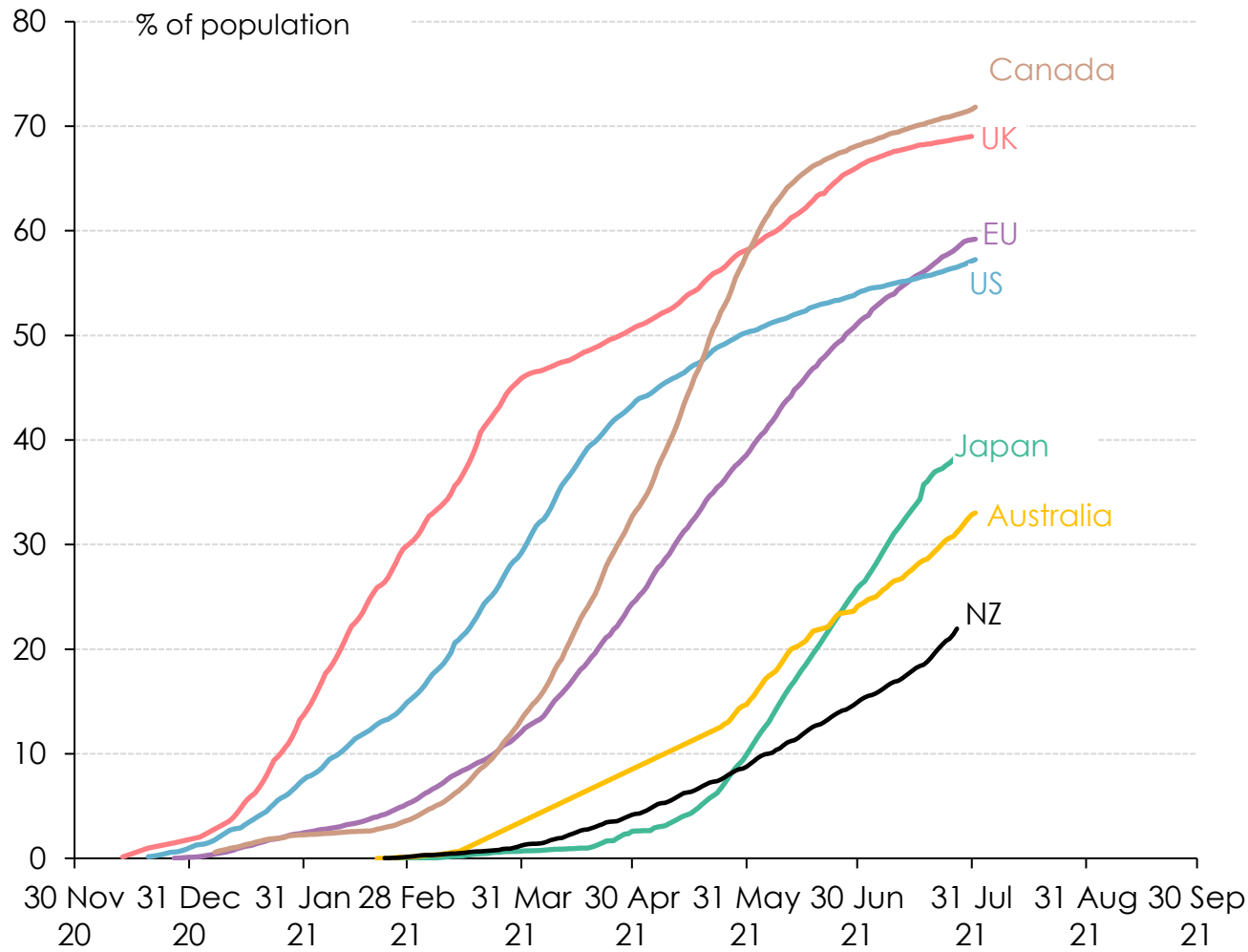
Fiscal policy responses to Covid-19 – selected 'advanced' economies



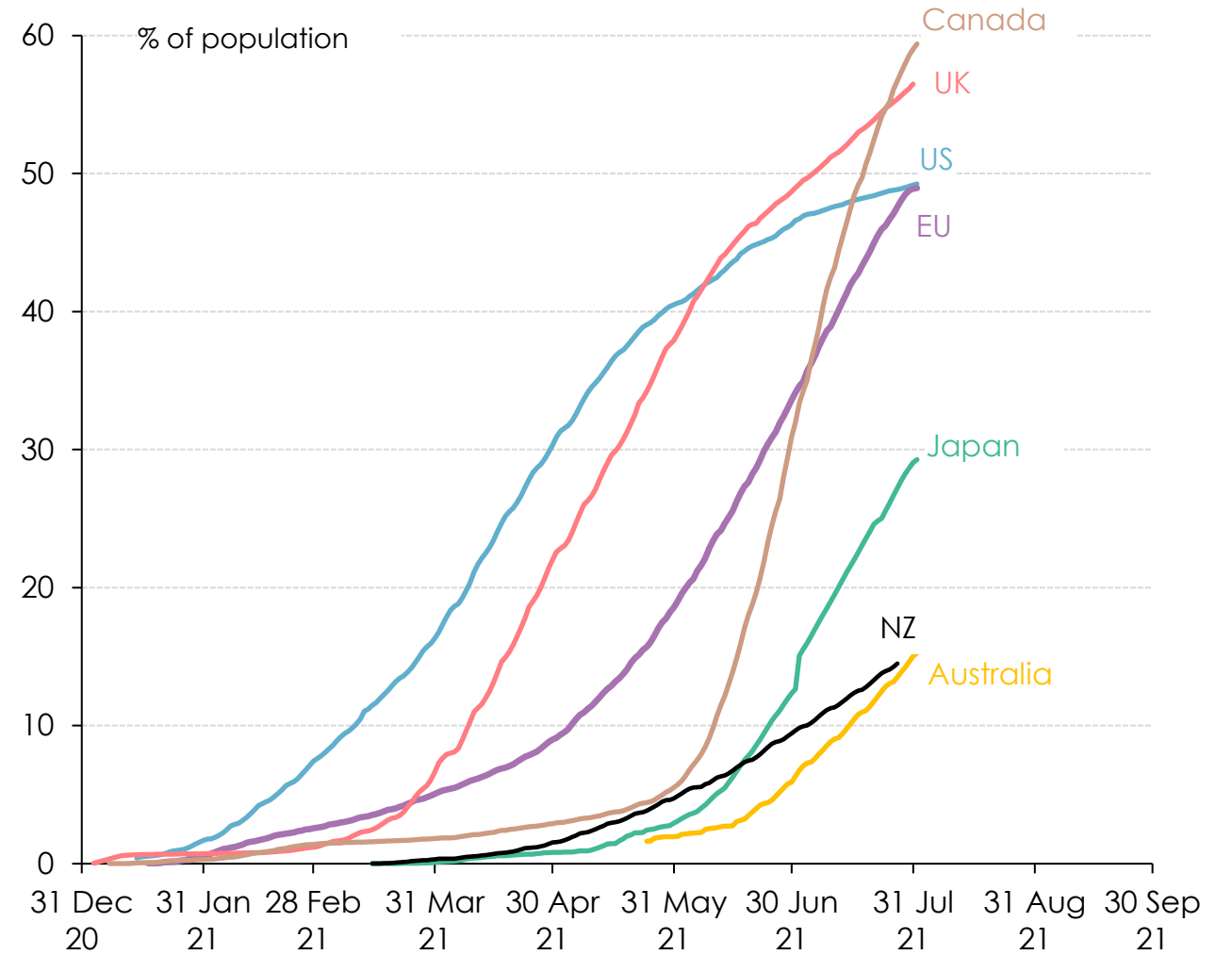
Sources: University of Oxford, [Our World in Data](#) (data up to 5th August); IMF, [Fiscal Monitor Database of Country Fiscal Measures in Response to the COVID-19 Pandemic](#), July 2021 (data up to 5th June: excludes loan guarantees and other 'below-the-line' measures); Corinna.

However, there is now another (more sustainable) 'strategy' for managing Covid-19 – and Australia hasn't done nearly as well at it

Percentage of major 'advanced' economies' populations who have had one vaccine shot



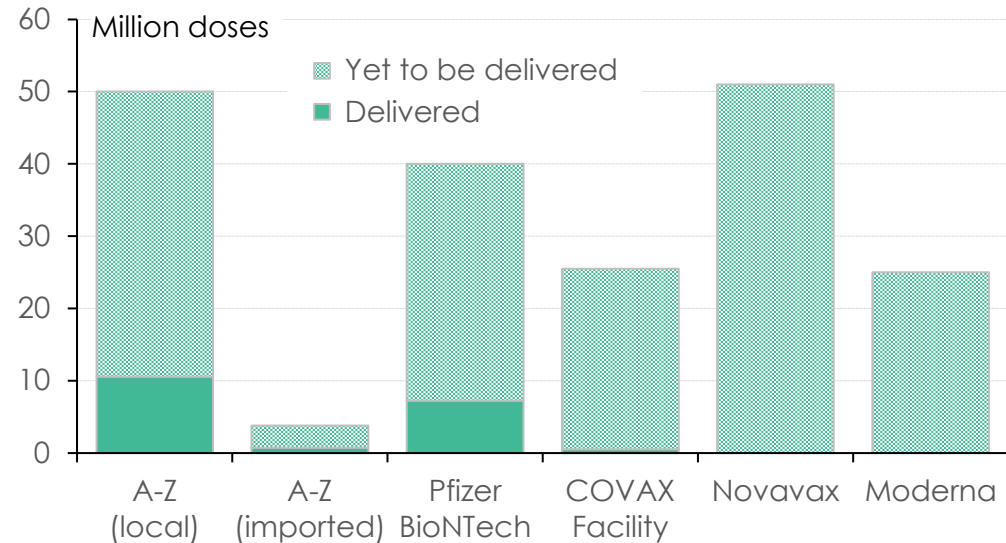
Percentage of major 'advanced' economies' populations who have had two vaccine shots



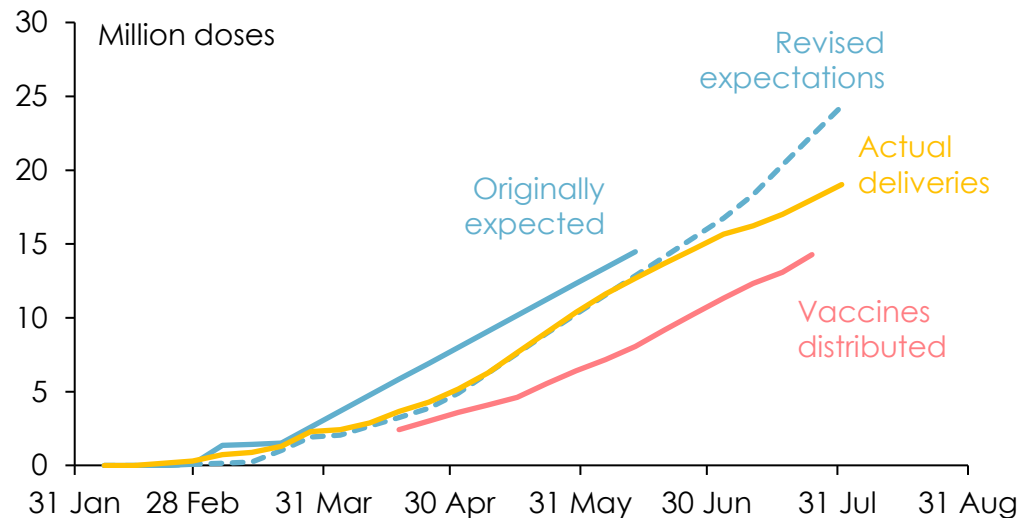
Note: Data up to 1st August (except New Zealand, 27th July). Source: [Our World in Data: Coronavirus \(COVID-19\) Vaccinations](#).

What's gone wrong with Australia's vaccine roll-out?

Australia's vaccine supplies



Original & revised expectations vs supplies



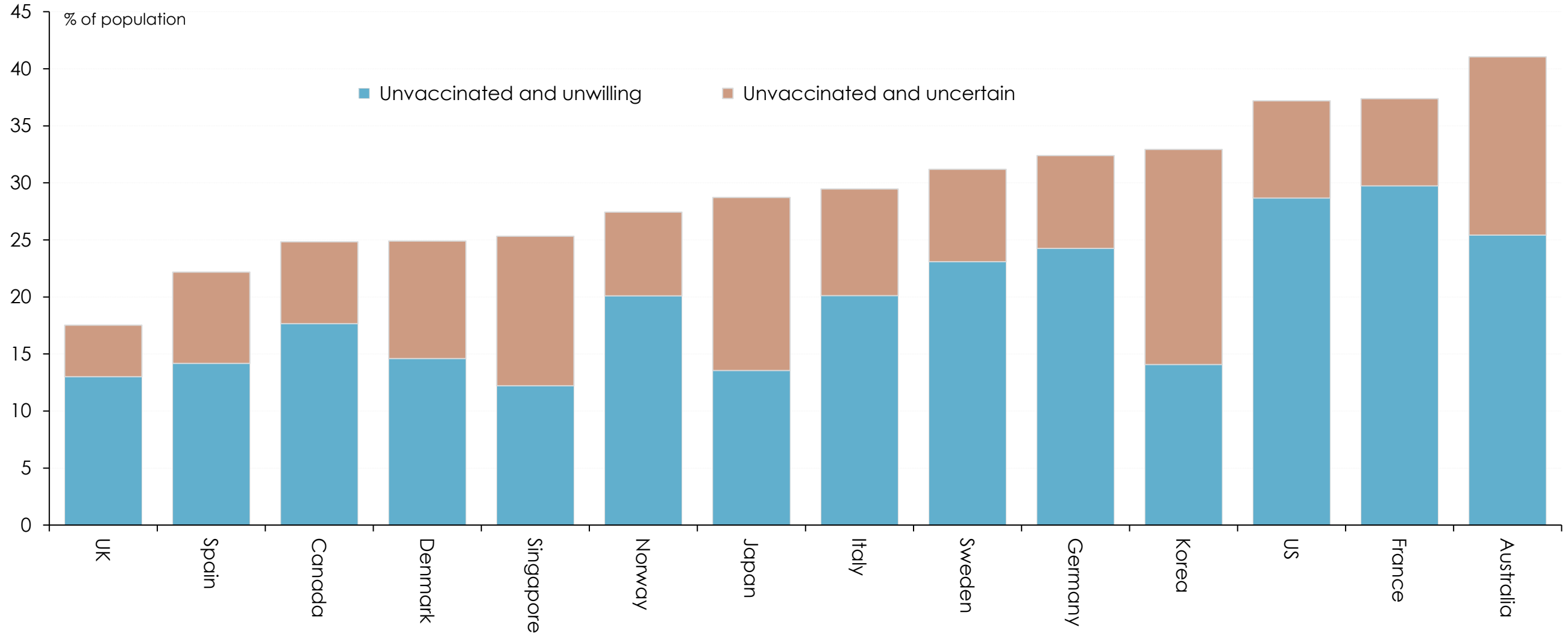
Note: Vaccine supplies are as at 30th July.

Source: <https://www.covid19data.com.au/vaccines>

- ❑ Australia originally put too many of its vaccine 'eggs' in the Astra-Zeneca 'basket' – in marked contrast to (in particular) Canada
 - partly because the Astra-Zeneca vaccine was easier to store, and considerably cheaper, than the Pfizer vaccine
 - and partly out of a (misplaced, with the benefit of hindsight) concern over 'sovereignty' (ie the Astra-Zeneca vaccine could be manufactured in Australia, whereas mRNA vaccines like Pfizer and Moderna can't be)
- ❑ Deliveries of the Astra-Zeneca vaccine were slower than expected
 - partly because the EU, at Italy's behest, blocked the delivery of up to 3.1mn doses to Australia (although the EU denies that)
 - local production of the Astra-Zeneca vaccine has taken longer to 'ramp up' than expected – as of end-May, only 2/3 of the originally expected number of doses had been produced; as of this weekend, the number of locally-produced A-Z doses is more than 5mn behind the revised expectations
- ❑ Australia's success in suppressing the virus probably bred complacency on the part of the population about getting vaccinated
- ❑ Concerns about the risk of potentially fatal blood-clots as a side-effect of the Astra-Zeneca vaccine prompted the Government's medical advisors to warn against giving A-Z to people under 60
 - advice that was also (ironically) coloured by the much lower infection rates in Australia (which thus meant a different 'balance of risks' against side effects than in countries with much higher infection rates)
- ❑ Australia has a very high rate of 'vaccine hesitancy' (see next slide) which concerns about A-Z side effects 'played into'

'Vaccine hesitancy' is a barrier to returning to 'normal' – and Australia has the highest vaccine hesitancy out of 14 'advanced' economies

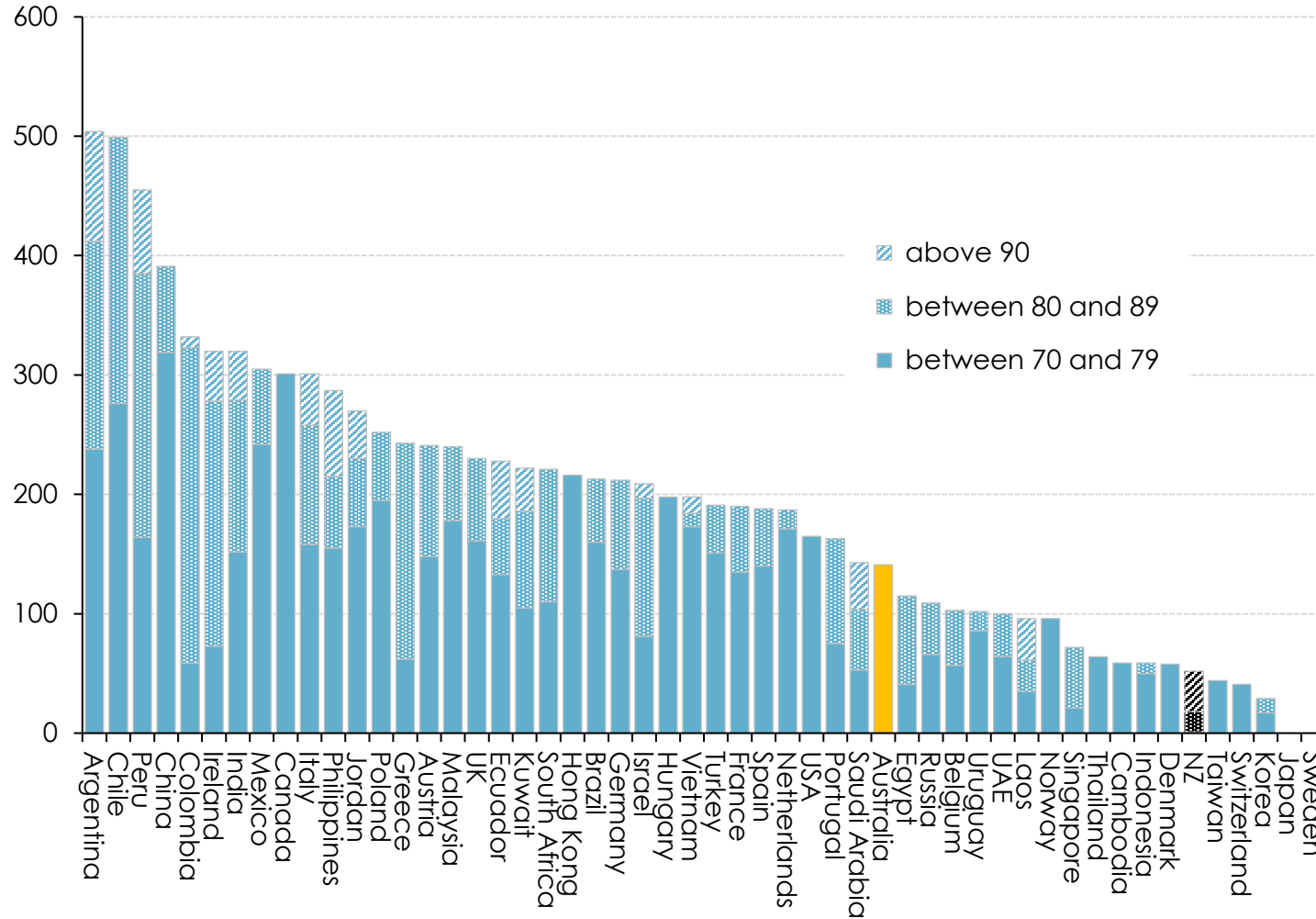
Covid-19 vaccine hesitancy, selected 'advanced' economies, July 2021



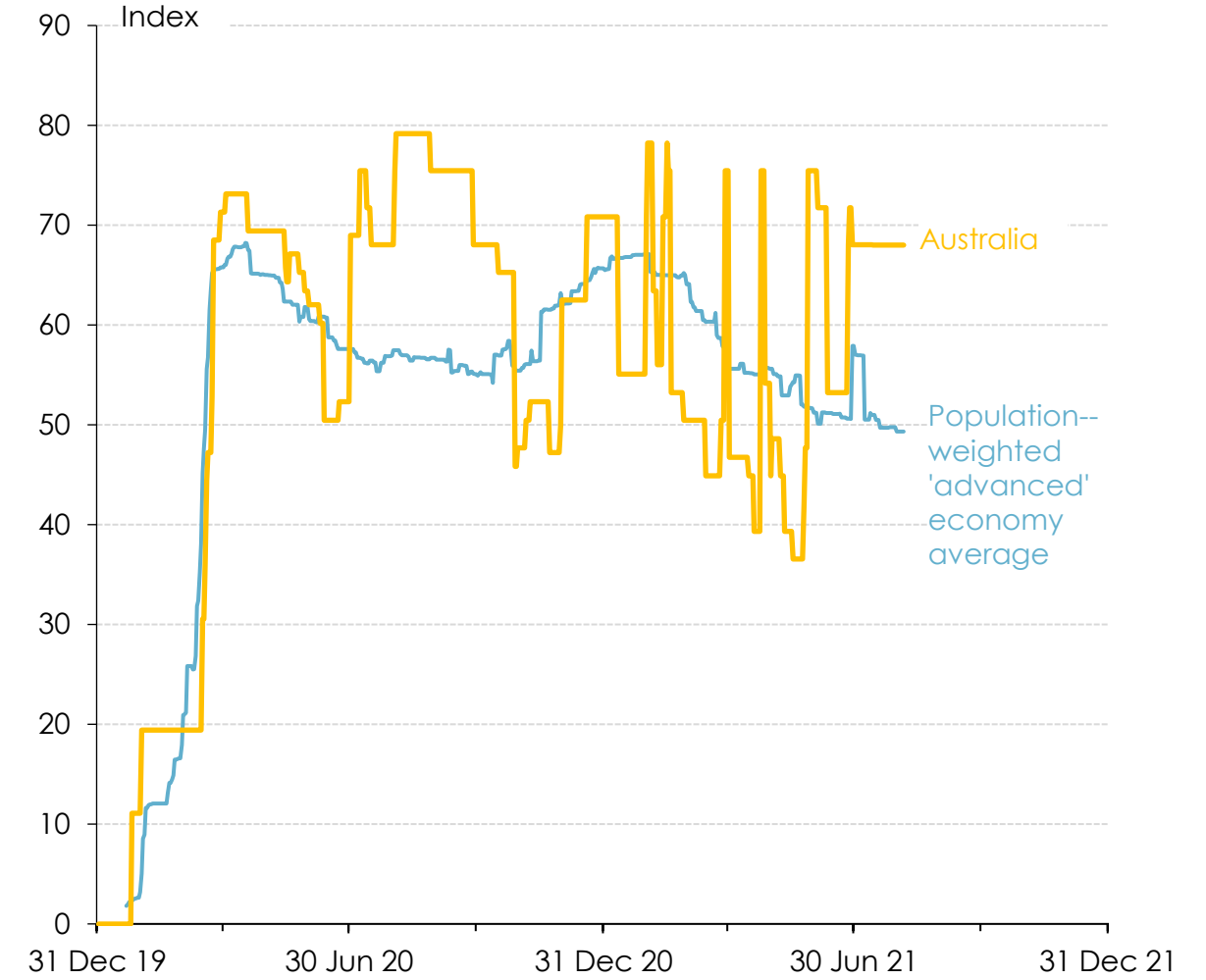
Note: Results for UK are for May; for Canada, Denmark and Singapore are for June.
Sources: Imperial College London and YouGov, [Covid 19 Behaviour Tracker Data Hub](#).

Australia's health restrictions are now significantly more onerous than in other 'advanced' economies, on average

Number of days for which the stringency of restrictions has been above 70 on the Oxford Index



Stringency of Australia's restrictions compared with an average of other 'advanced' economies



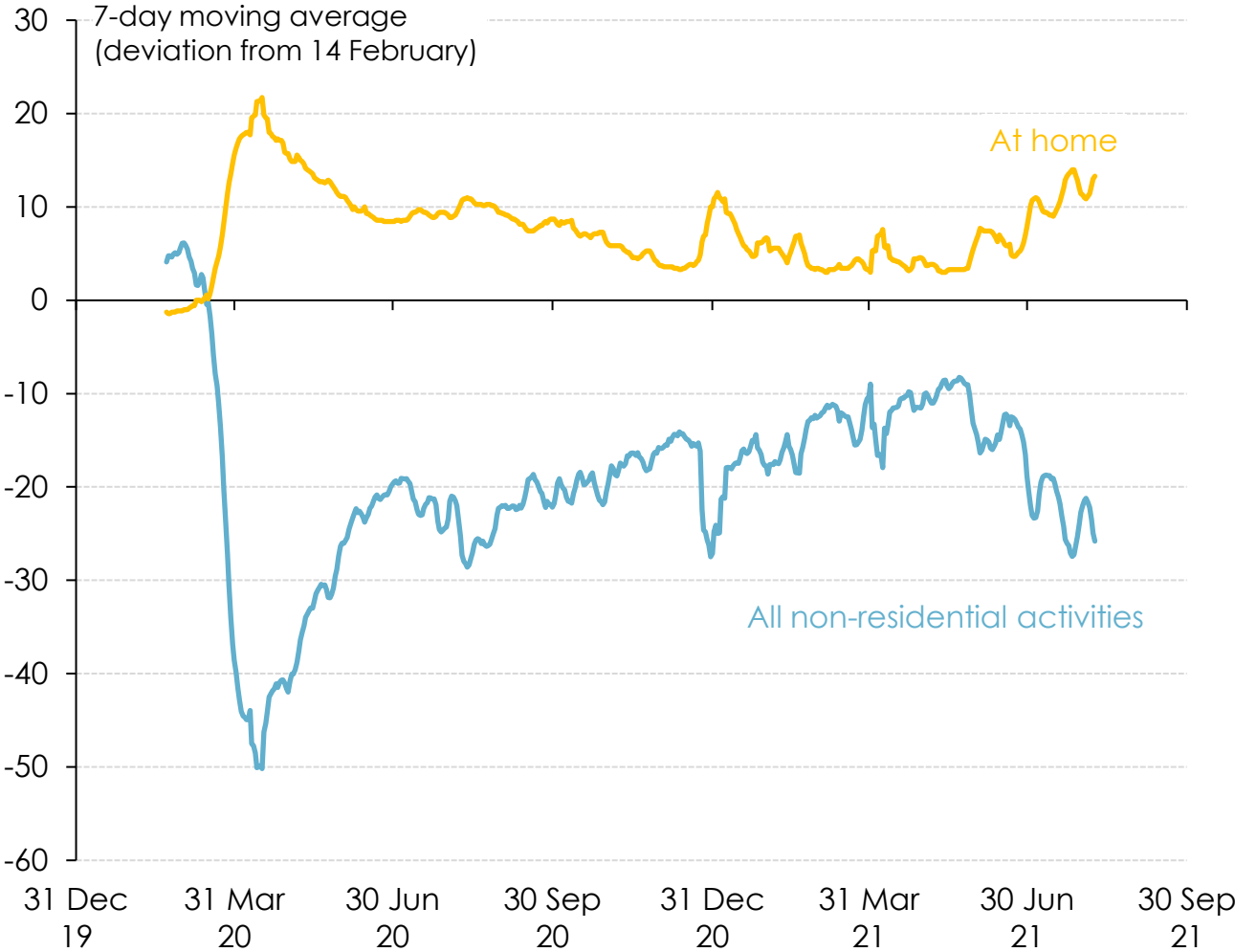
The Oxford COVID-19 Government Response Tracker collects publicly available information on 11 indicators of government response including school and workplace closures, public events cancellations, restrictions on public gatherings, stay at home requirements, public transport closures, domestic and international travel restrictions, public information campaigns, testing and contact tracing. Source: [Blavatnik School of Government, Oxford University](#). Data up to 5th August.

During Covid-19 mobility indicators have been very useful for tracking the impact of public health restrictions 'in real time'

Apple mobility indicator



Google mobility indicators

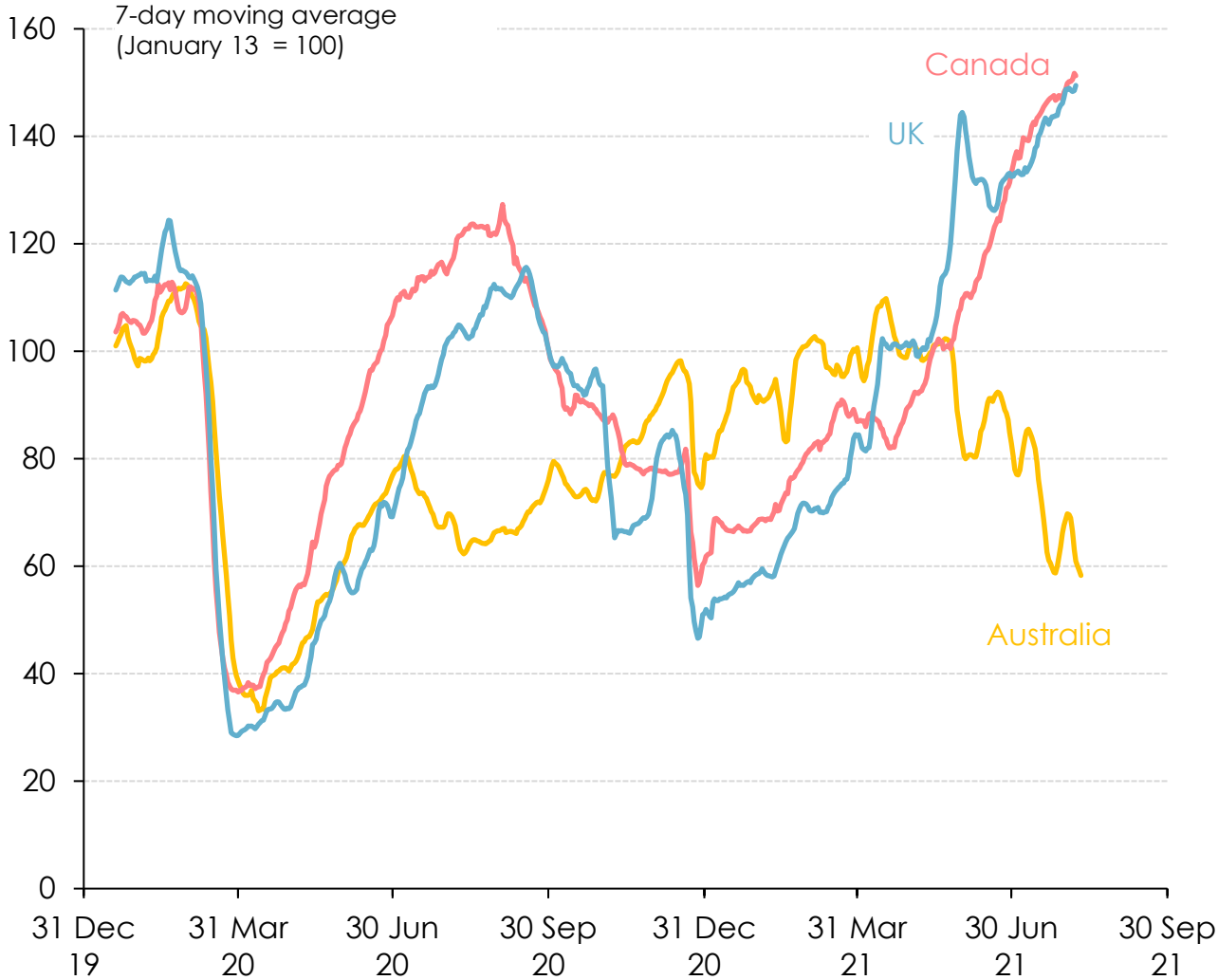


Note: 'Apple mobility indicator' is the average of three separate indicators for driving, use of transit and walking. Google 'non-residential activities' indicator is the average of separate indicators for workplaces, retail and recreation, groceries and pharmaceuticals, transit and parks.

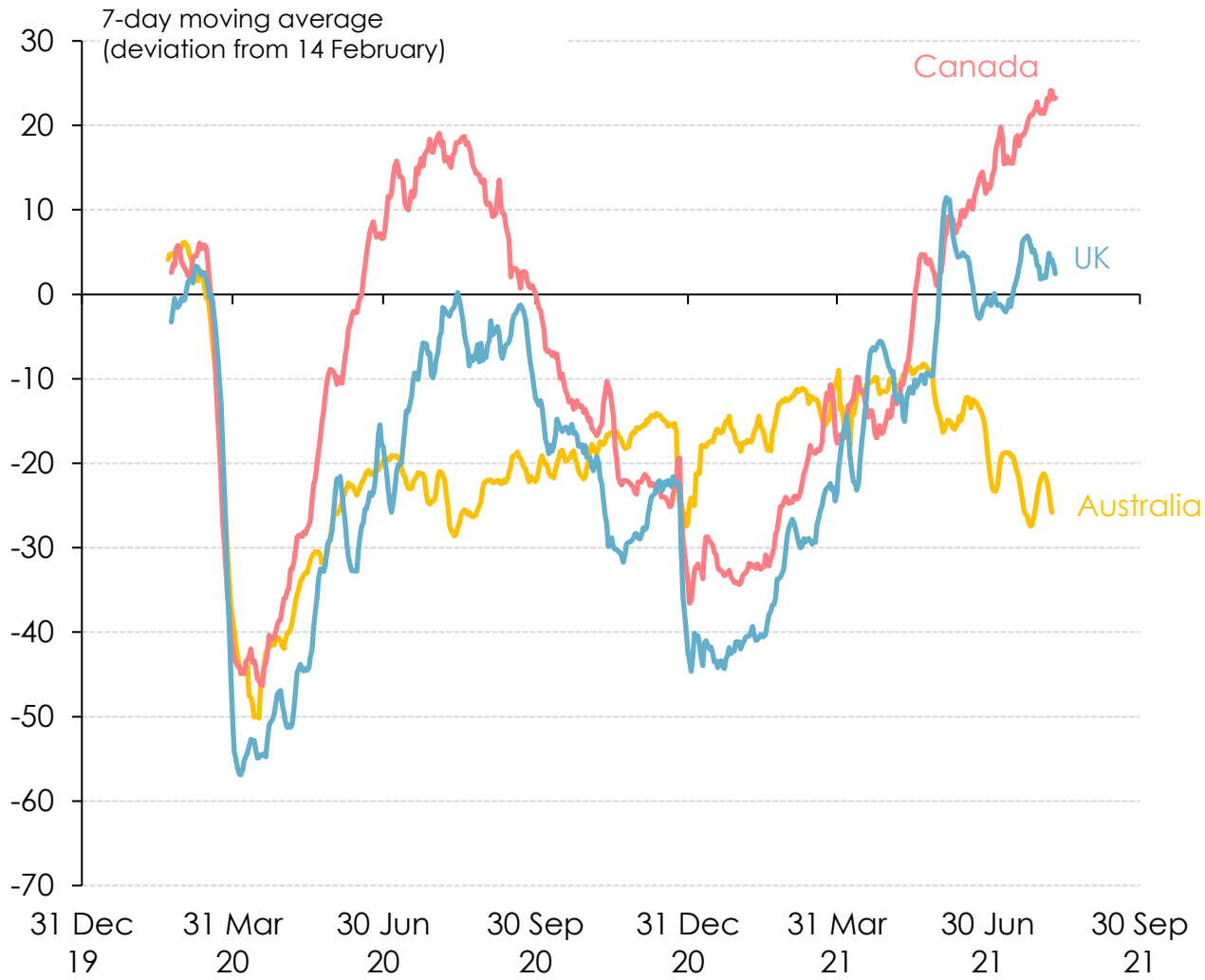
Sources: Apple, [Mobility Trends Reports](#); Google, [Covid-19 Community Mobility Reports](#); Corinna Economic Advisory.

The mobility indicators highlight the differences between Australia's and (for example) Canada's or Britain's lockdown experiences

Apple mobility indicators



Google non-residential activity mobility indicators



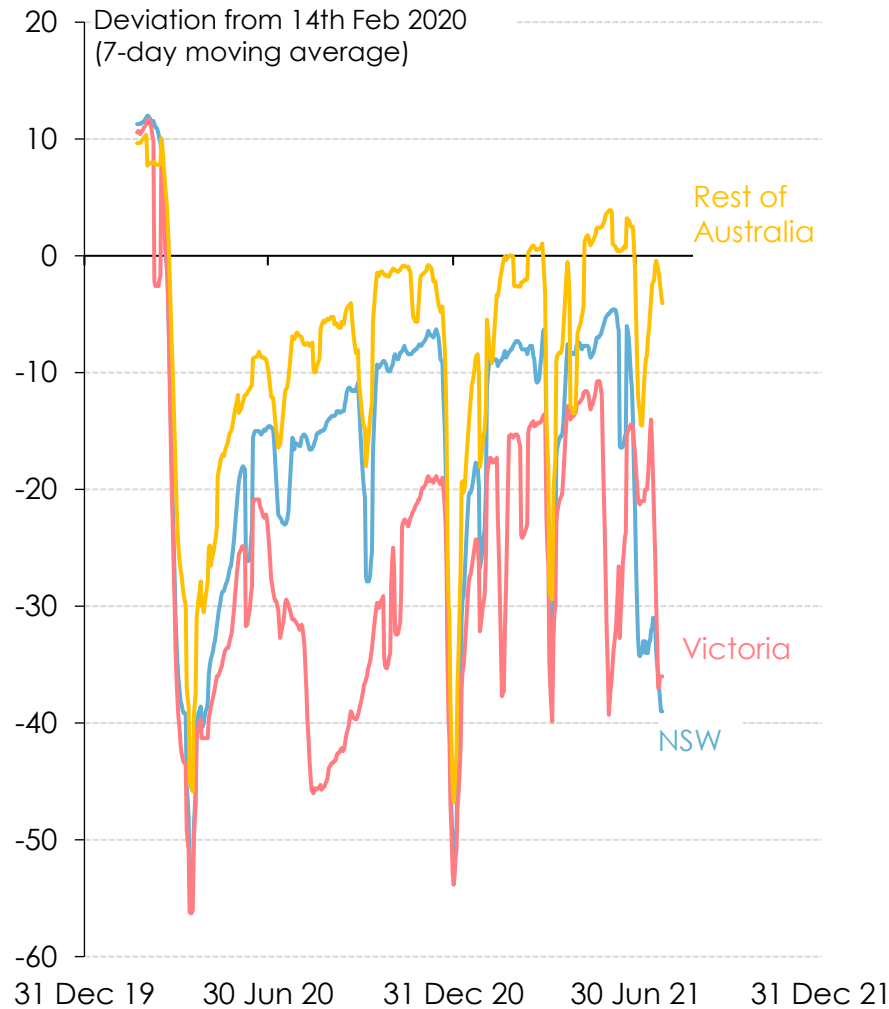
Note: 'Apple mobility indicator' is the average of three separate indicators for driving, use of transit and walking. Google 'non-residential activities' indicator is the average of separate indicators for workplaces, retail and recreation, groceries and pharmaceuticals, transit and parks.

Sources: Apple, [Mobility Trends Reports](#); Google, [Covid-19 Community Mobility Reports](#); Corinna Economic Advisory.

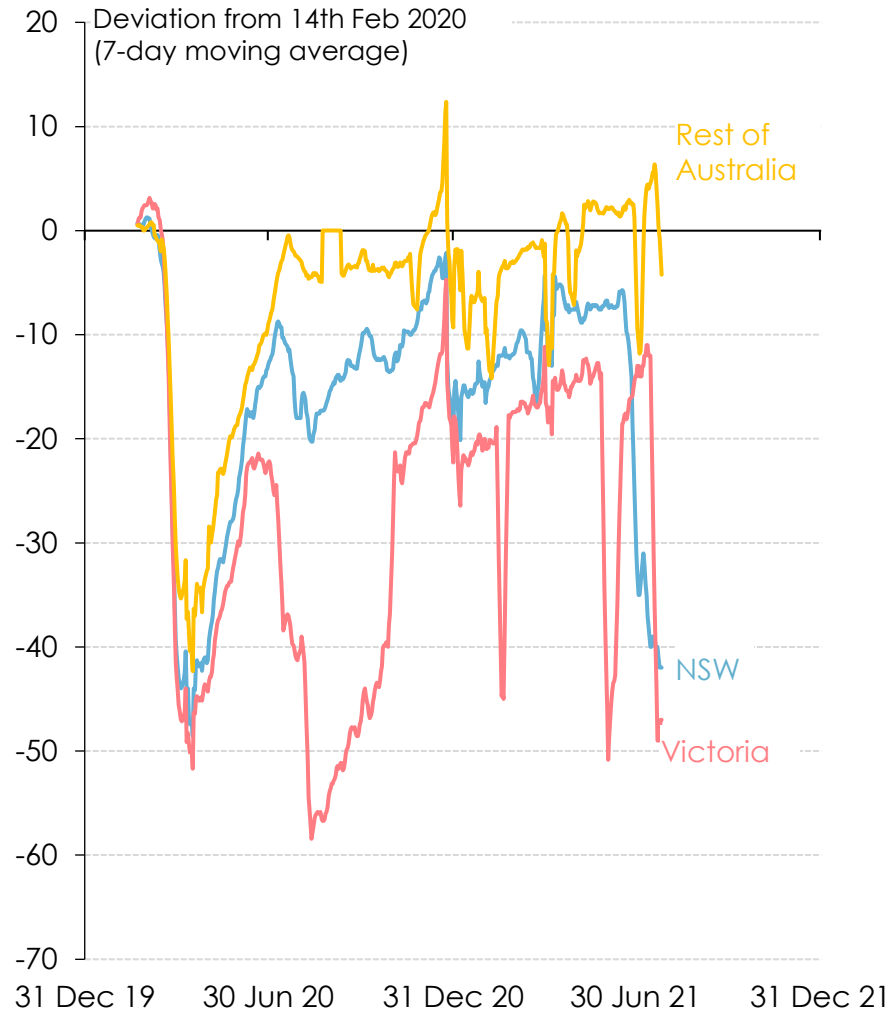
'Mobility indicators' provide a clear indication that the lockdowns in NSW, Victoria, SA and now SE Queensland will have an economic impact

Google mobility indicators

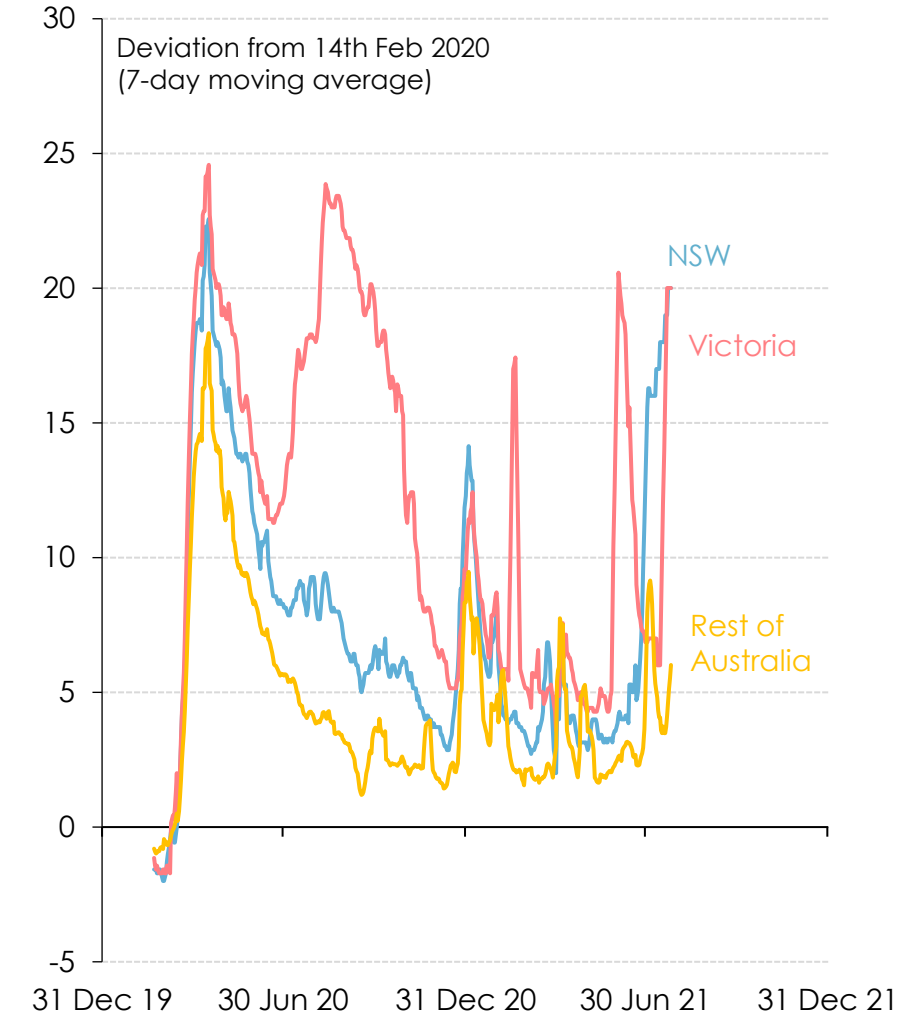
Workplaces



Retail and recreation



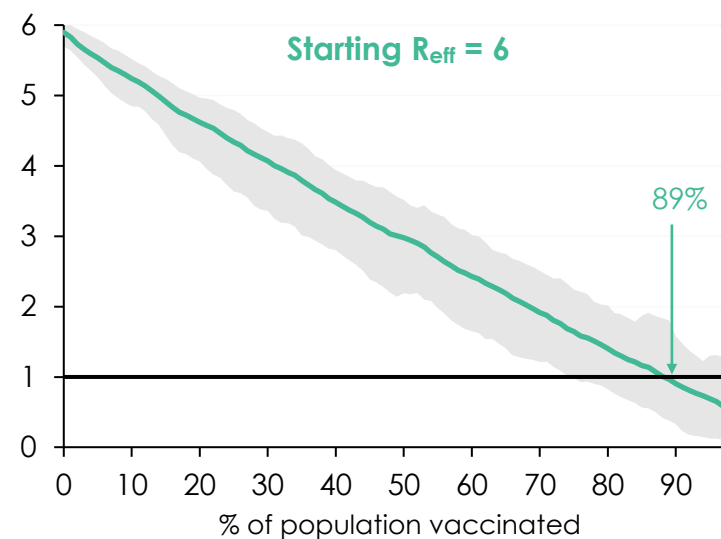
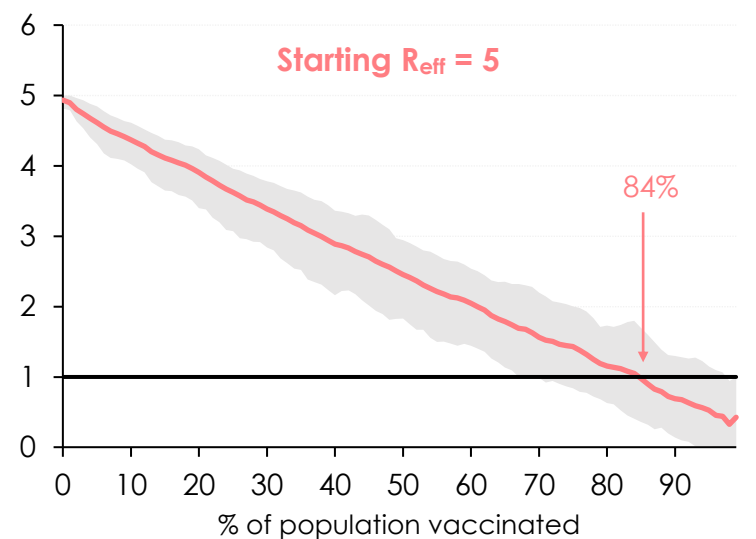
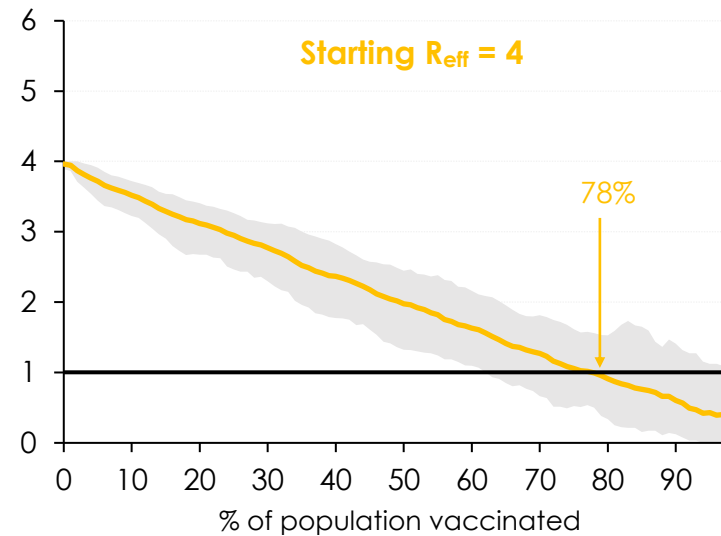
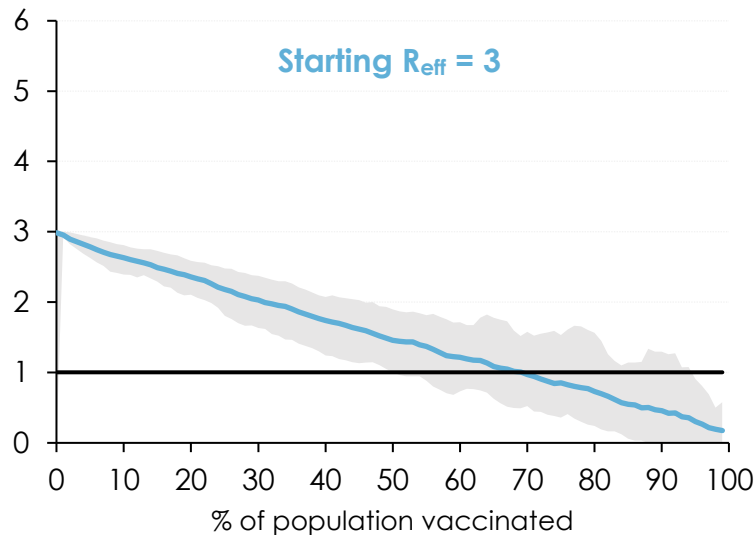
Residences



Note: data up to 26th July. Sources: [Google Community Mobility Reports](#); Corinna.

Modelling released by the Grattan Institute suggests that a vaccination rate of at least 80% will be required in order to 'open up' safely

Alternative scenarios for effective reproduction number (R_{eff}) and vaccination rates



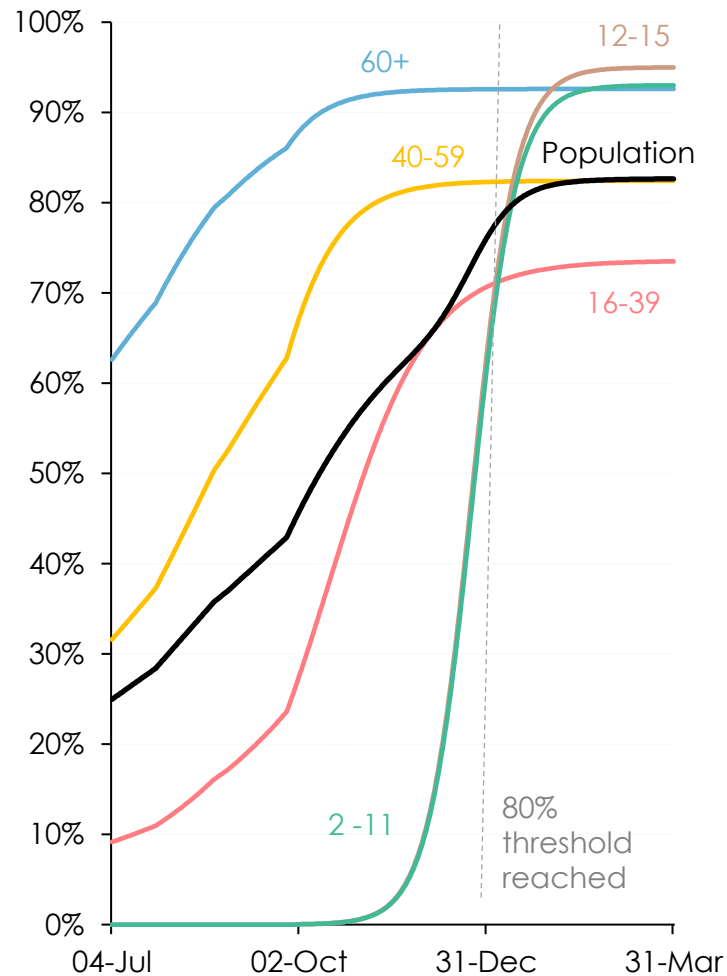
- Modelling released this week by the Grattan Institute (a Melbourne-based non-aligned policy 'think tank') suggests that, on the assumption that the starting ' R_{eff} ' (the number of people likely to be infected by each unvaccinated person) for the 'delta variant' of Covid-19 is at least 4, at least 80% of the population would need to be vaccinated in order to get the ' R_{eff} ' down to less than 1 (at which point the virus doesn't spread)
- The modelling suggests that 'opening up' (removing international border restrictions) with vaccination rates of less than 70% and assuming an initial ' R_{eff} ' of 4 or more would likely result in daily infections peaking at more than 70,000, ICU cases peaking at over 8,000 (more than the hospital system's capacity) and between 8,000 and 120,000 deaths
- Grattan thinks it is possible to reach the 80% target by the end of this year – if sufficient Australians are willing to be vaccinated, and if vaccines for children under 12 are approved

Note: Solid lines show the mean outcomes of the model simulations, while shaded areas show the 10th and 90th percentiles of the simulations. Source: Stephen Duckett, Danielle Wood, Brendan Coates et al, [Race to 80: Our best shot at living with Covid](#). Grattan Institute, 27th July 2021.

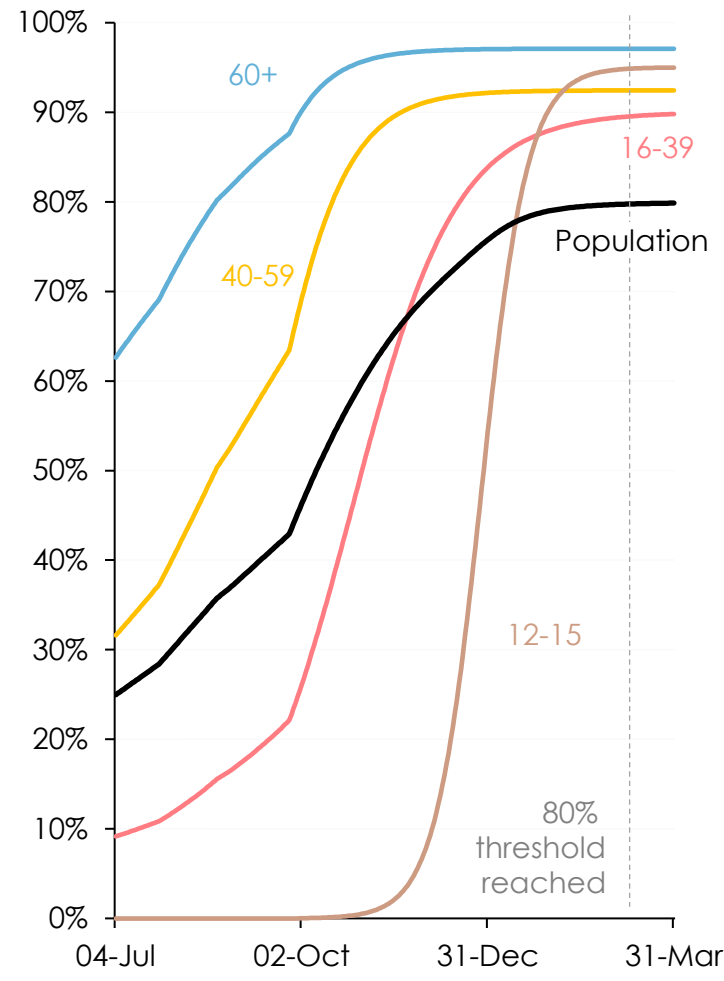
The 80%-of-the-population threshold could be achieved by the end of this year given sufficient commitment by the Federal Government

Plausible vaccination rates by age group

Assuming children aged 2-11 can be vaccinated



Assuming children aged 2-11 can't be vaccinated



- ❑ Grattan's analysis suggests that, assuming a similar but slightly slower trajectory than in the UK, the '80% of the population' threshold could be attained by the end of the year with currently forecast vaccine supplies – provided that vaccines can be given to children aged 2-11
- ❑ If it's not possible to vaccinate children aged under 12, then the 80% threshold wouldn't be reached until mid-March next year
- ❑ Reaching either of these targets would require a significant acceleration from the current pace of vaccinations – Grattan suggests a variety of 'carrot and (if necessary) stick' strategies for achieving that, all of which would require a greater commitment on the part of the Federal Government
- ❑ In practice, it seems likely that vaccinations alone won't be sufficient to allow 'safe' opening up – other actions, including mask mandates, contact tracing etc. will probably still be required for some time

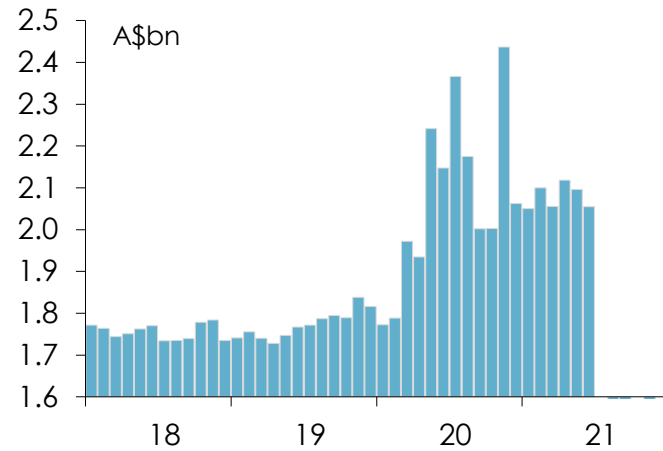
Source: Stephen Duckett, Danielle Wood, Brendan Coates et al, [Race to 80: Our best shot at living with Covid](#), Grattan Institute, 27th July 2021.

Australia's border measures have been stricter than almost any other country (and certainly any democracy)

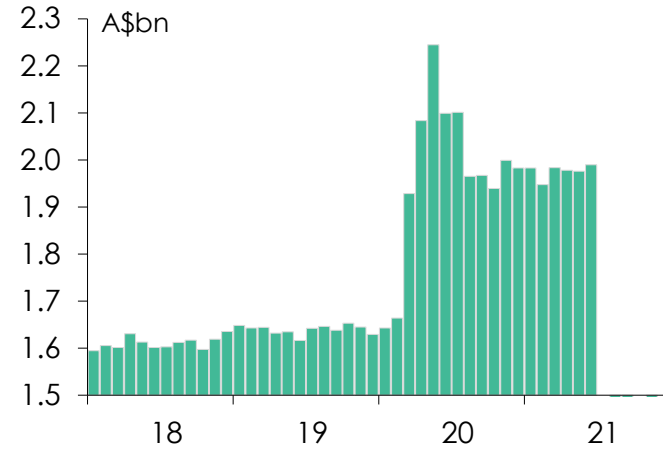
- ❑ Article 12 of the United Nations [International Covenant on Civil and Political Rights](#) (which Australia signed in 1972, and which it ratified in 1980) says
 - “everyone shall be free to leave any country, including his [sic] own” and “no-one shall be arbitrarily deprived of the right to enter his [sic] own country”
- ❑ Australia is [the only democracy in the world](#) not to have enacted this Convention into domestic law
- ❑ The ICCPR does include a couple of ‘get out’ clauses
 - Article 4 provides that “In time of public emergency which threatens the life of the nation and the existence of which is officially proclaimed [parties to this Convention] may take measures derogating from their obligations under [it] to the extent strictly required by the exigencies of the situation”, and
 - Article 12 provides that the rights to leave a country (or to move within it) “shall not be subject to any restrictions except those which are provided by law, are necessary to protect national security, public order, public health or morals or the rights and freedoms of others” – although this exclusion doesn’t apply to the above-mentioned right to enter one’s own country
- ❑ No other democracy appears to have availed itself of these ‘get-out’ clauses to the extent that Australia has
 - The Federal Court [decided](#) in May this year that the Federal *BioSecurity Act* over-rode any “rights of entry” into Australia that the ‘common law’ may otherwise confer on Australian citizens
- ❑ The widely-cited Oxford University index of the stringency of government Covid-related restrictions does not include outward travel bans or restrictions on citizens returning
 - according to [Toby Phillips](#), the Executive Director of the Oxford Government Response Tracker project, “we assumed countries would always let their own citizens return” and “we even wrote this into our training for data collectors, telling them to only focus on restrictions for non-citizens”
- ❑ Despite being highly unusual, Australia’s travel bans have been highly popular with voters
 - a [Newspoll](#) survey taken just after the Budget found that 73% of respondents agreed that “international borders should remain largely closed until at least mid-2022”

The >\$50bn per annum that Australians would have spent overseas if they'd been allowed to has instead been spent at home

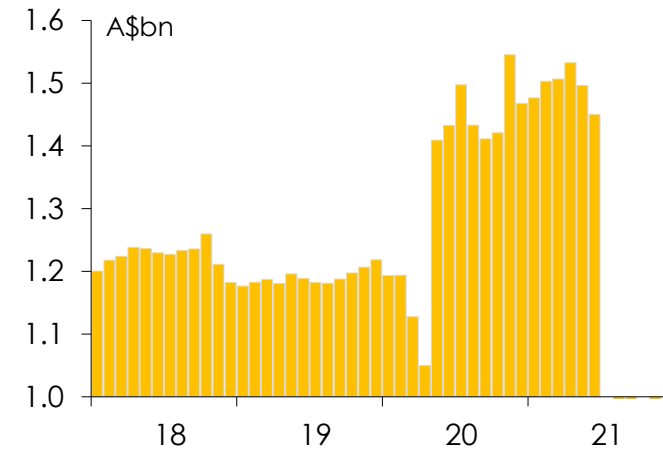
Electronic & electrical goods



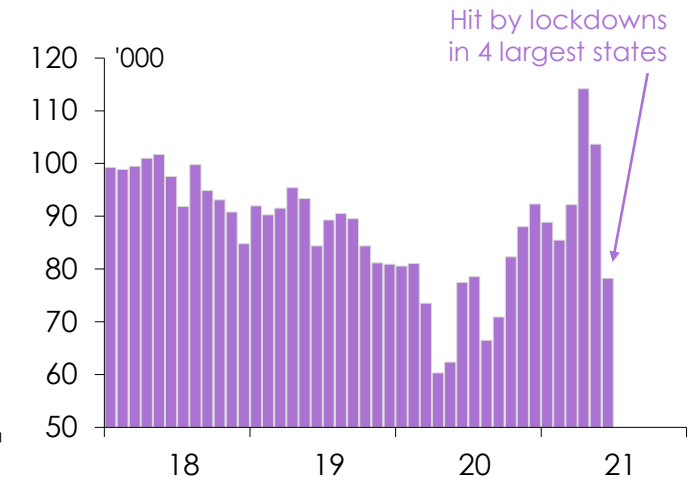
Hardware, building & garden supplies



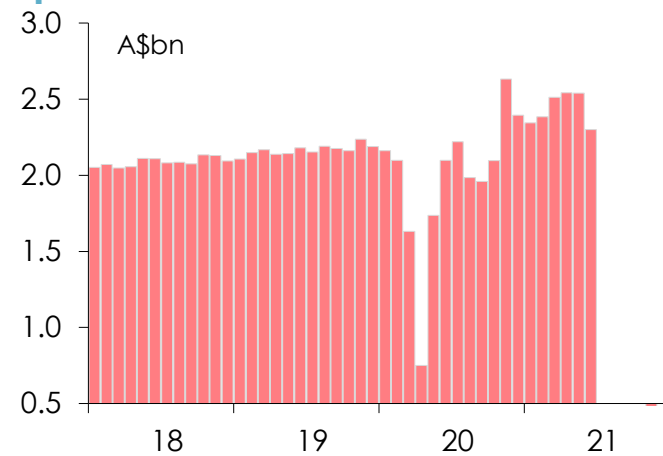
Floor coverings, furniture, housewares etc



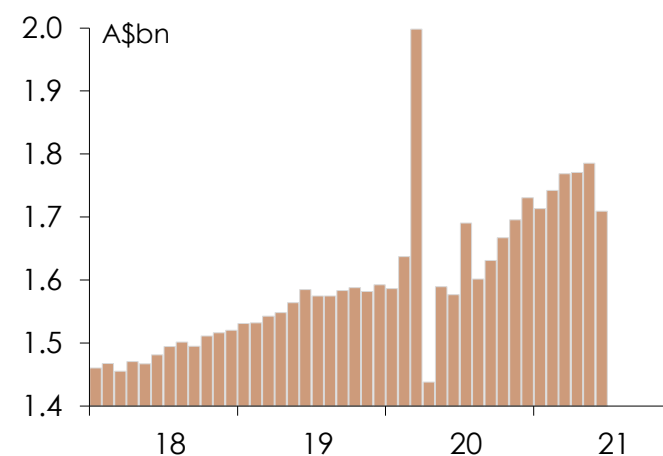
New motor vehicles



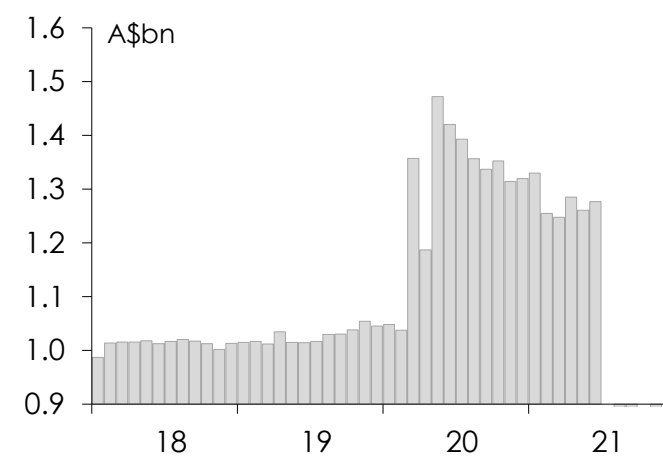
Clothing, footwear & personal accessories



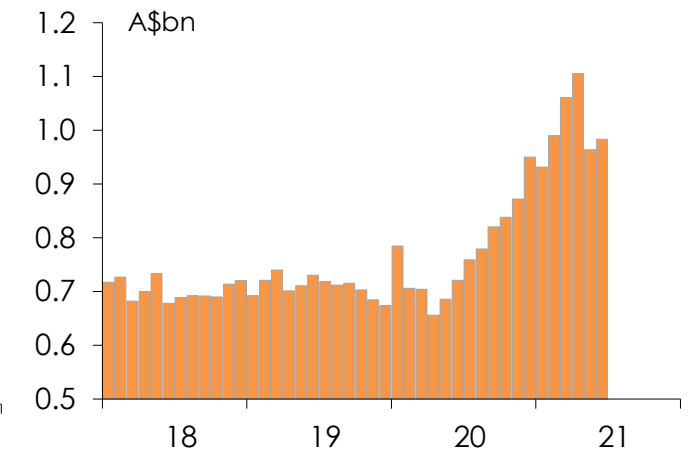
Pharmaceuticals, cosmetics & toiletries



Alcoholic beverages



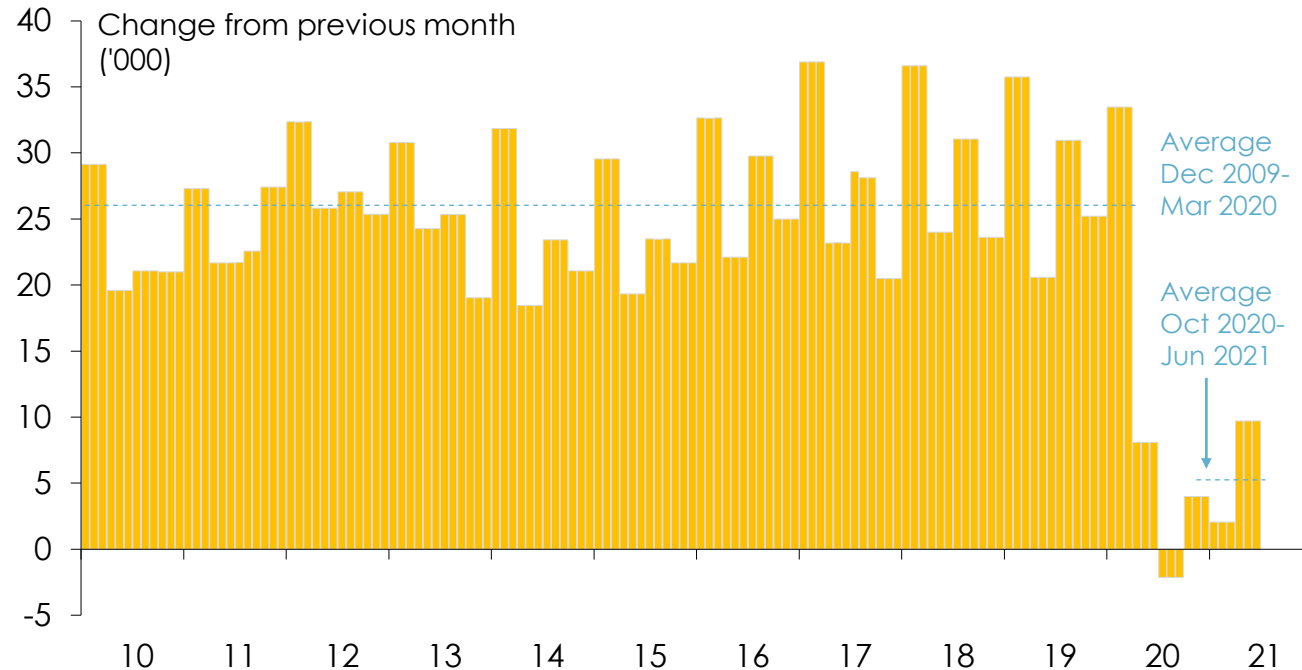
Renovations



Note: First six charts (from left) are retail sales; new motor vehicles are numbers of vehicles sold; renovations are the value of alterations and additions to residential dwellings approved by local governments. Sources: ABS, [Retail Trade, Australia](#), June 2021; [Building Approvals, Australia](#), June 2021; Federal Chamber of Automotive Industries [VFACTS](#) (seasonal adjustment of Vfacts data by Corinna).

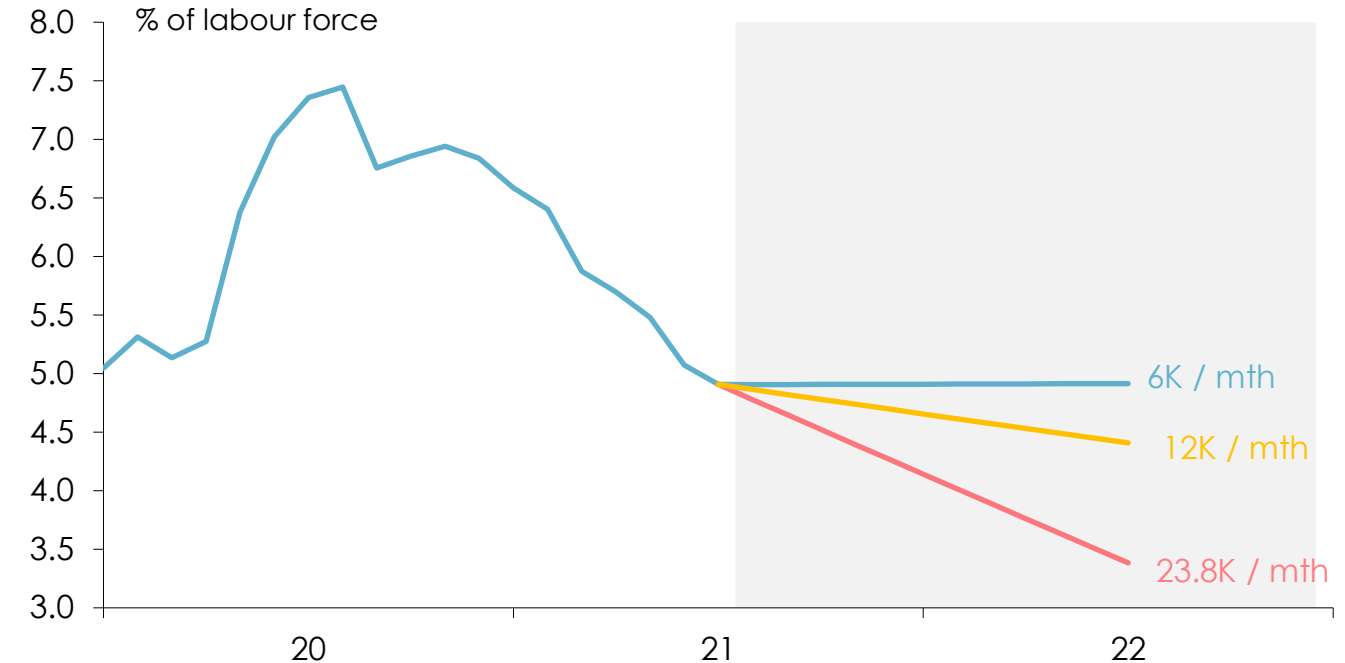
The closure of Australia's borders means that it's much easier to reduce unemployment for any given rate of jobs growth

Monthly growth in civilian working-age population



- ❑ Over the decade prior to the onset of Covid-19, the civilian working-age population (people aged 15 and over) grew by an average of 26K a month – meaning that 16½K new jobs a month, on average, were required to keep the unemployment rate constant (assuming an unchanged participation rate)
- ❑ But since last October, the working-age population has risen by an average of just over 5K a month – which means that anything more than 3K new jobs a month will result in a fall in the unemployment rate, all else being equal

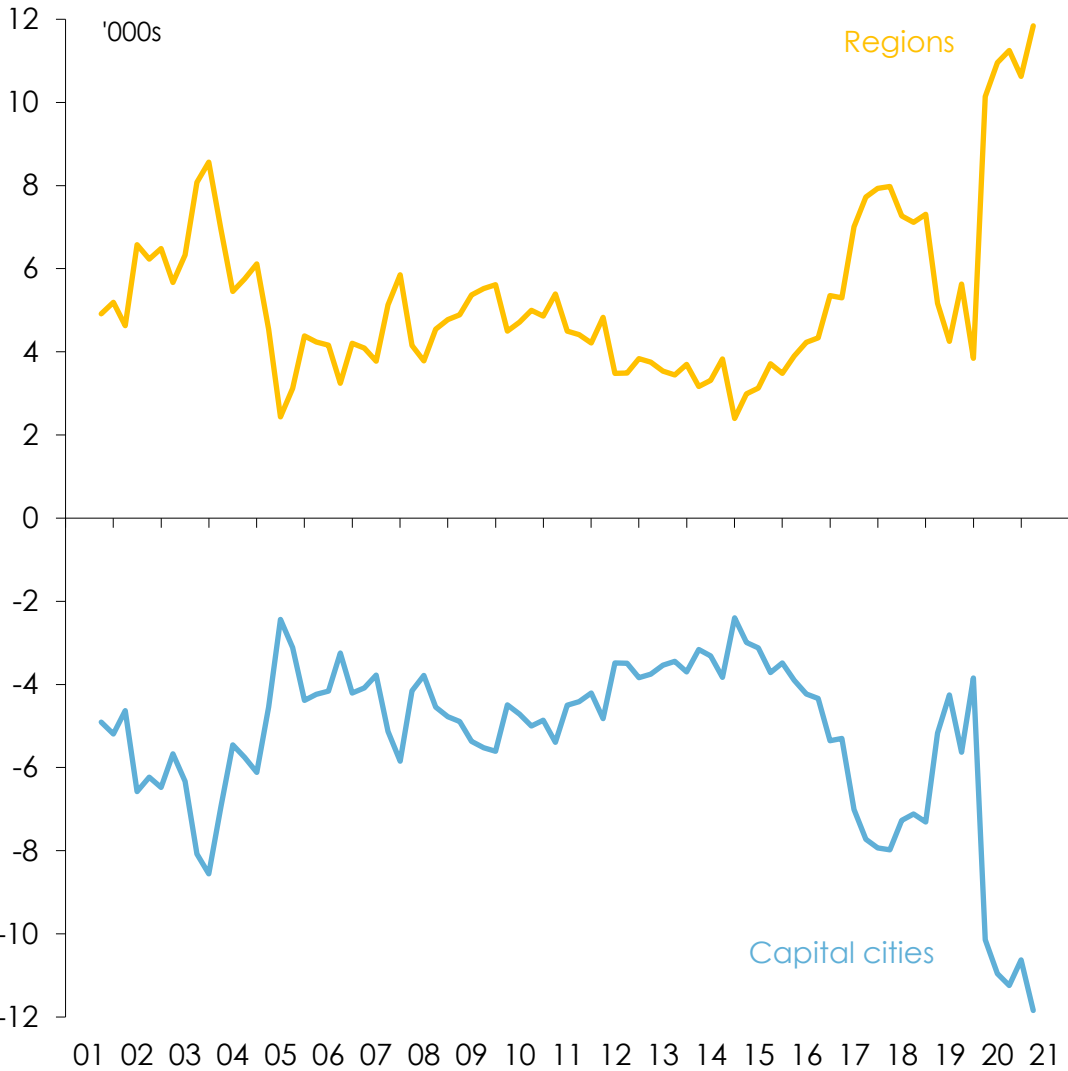
Unemployment rates for alternative rate of jobs growth



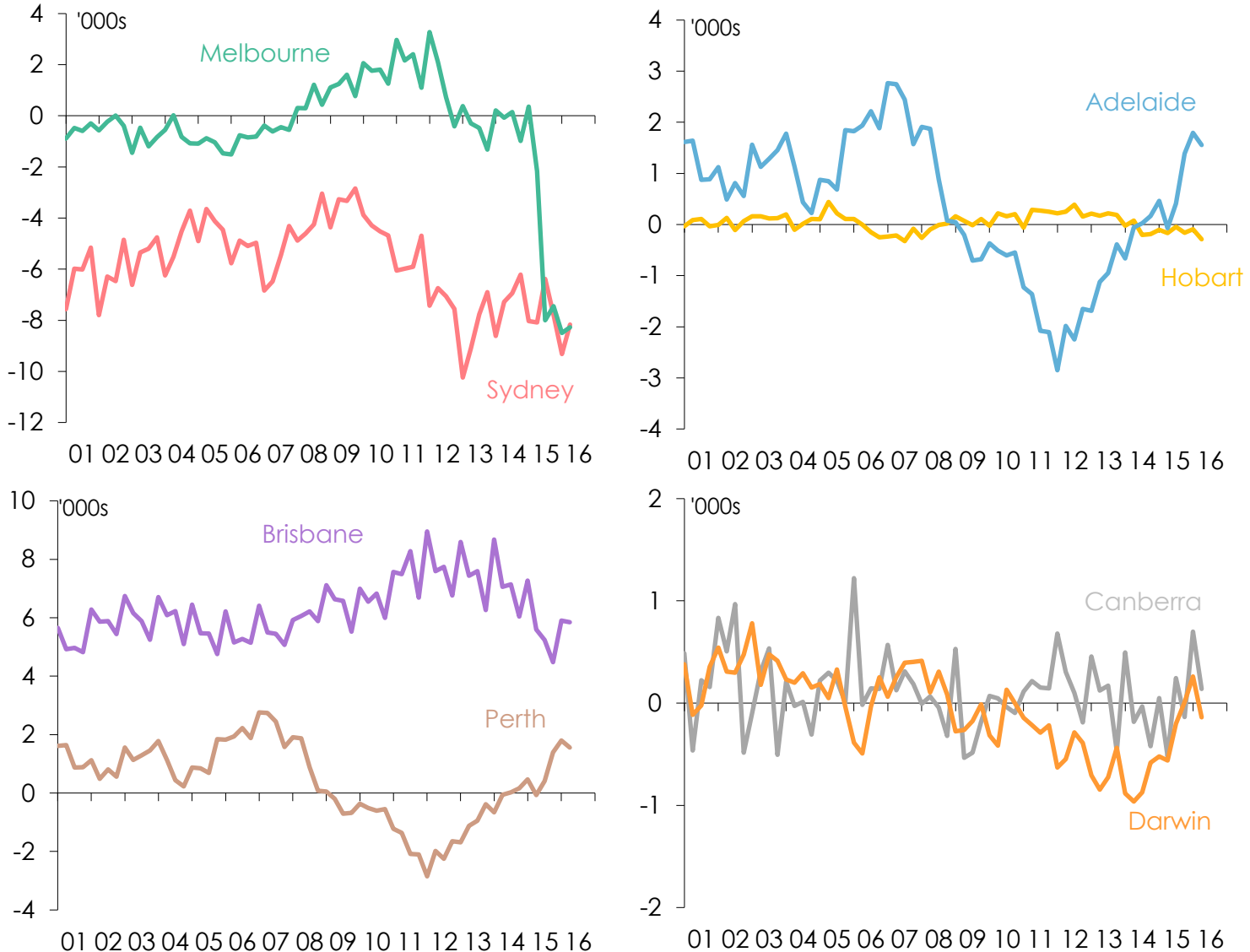
- ❑ Assuming the working-age population grows at the same rate as during the current quarter (ie 9.7K a month) and no change in the participation rate, employment growth of more than just 6K a month is sufficient to ensure further falls in the unemployment rate
- ❑ If employment continued to grow at half the pace so far this year unemployment would be down to 3¼% by June next year – a quarter of that pace (12K a month) is all that's required to get below 4½% by next June

Another 'mobility' impact of Covid-19 seems to have been a heightened 'Escape to the Country'

Internal migration flows



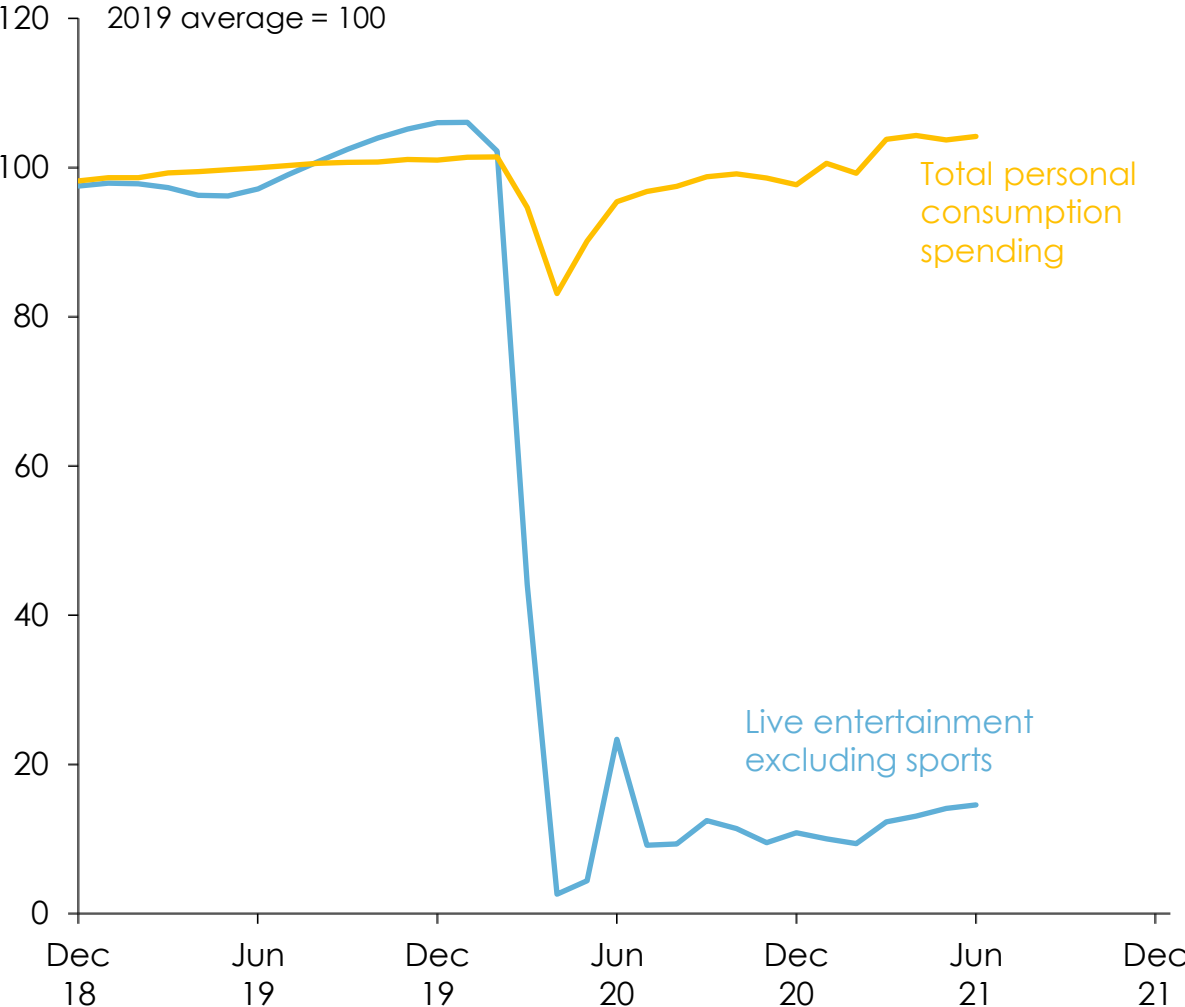
Net internal migration to or from Australia's capital cities



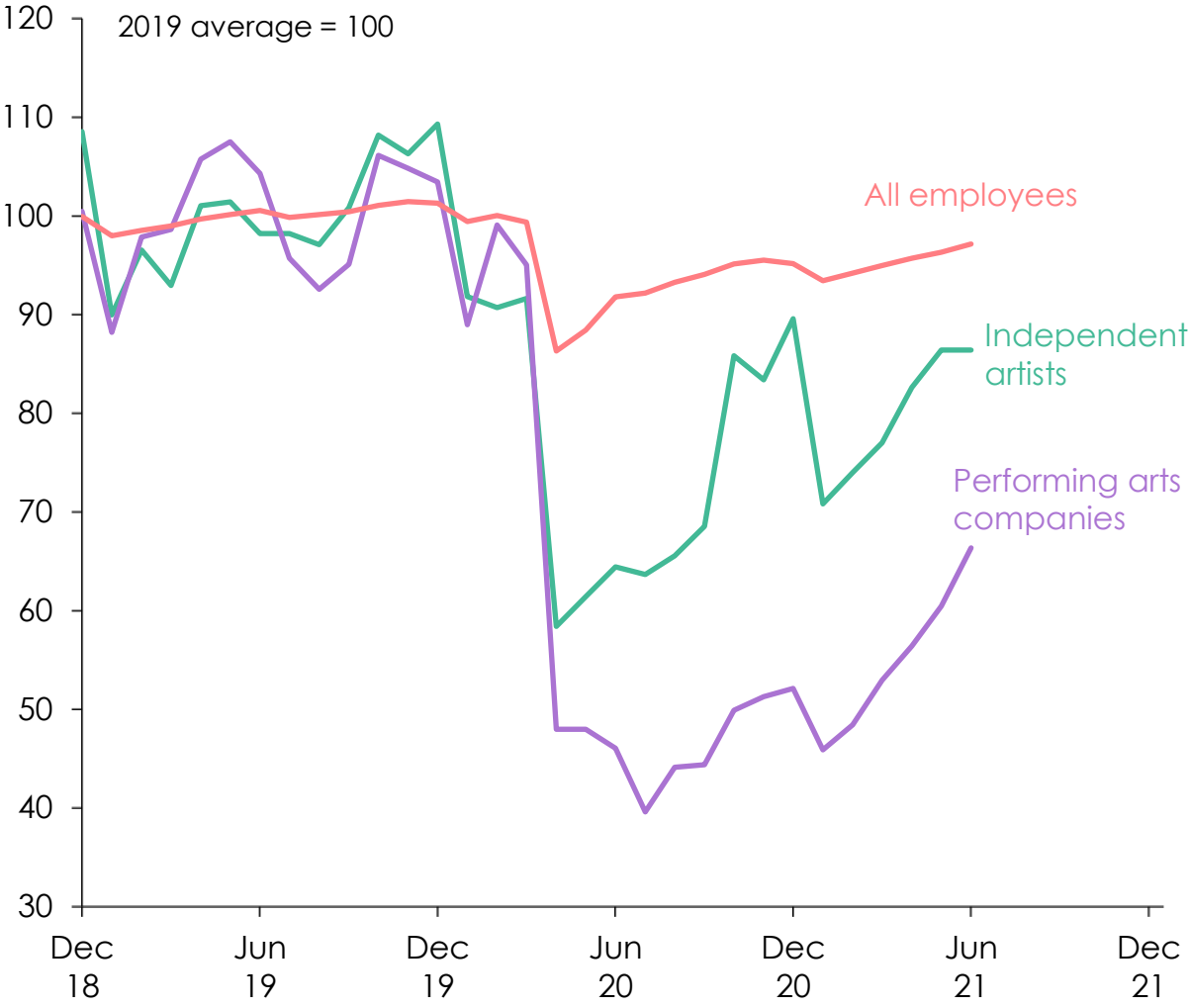
Note: 'internal migration' refers to the movement of people already resident in Australia across specified boundaries (in this case, between 'greater capital city' areas and 'rest of state'), estimated using data from Medicare and (for military personnel) the Department of Defence. It does not include movements of overseas immigrants (or Australian residents departing for overseas). Source: ABS, [Regional internal migration estimates, provisional](#), March 2021.

Detailed US personal spending and employment data show how severely the performing arts have been hit by Covid-19 in that country

US personal consumption spending



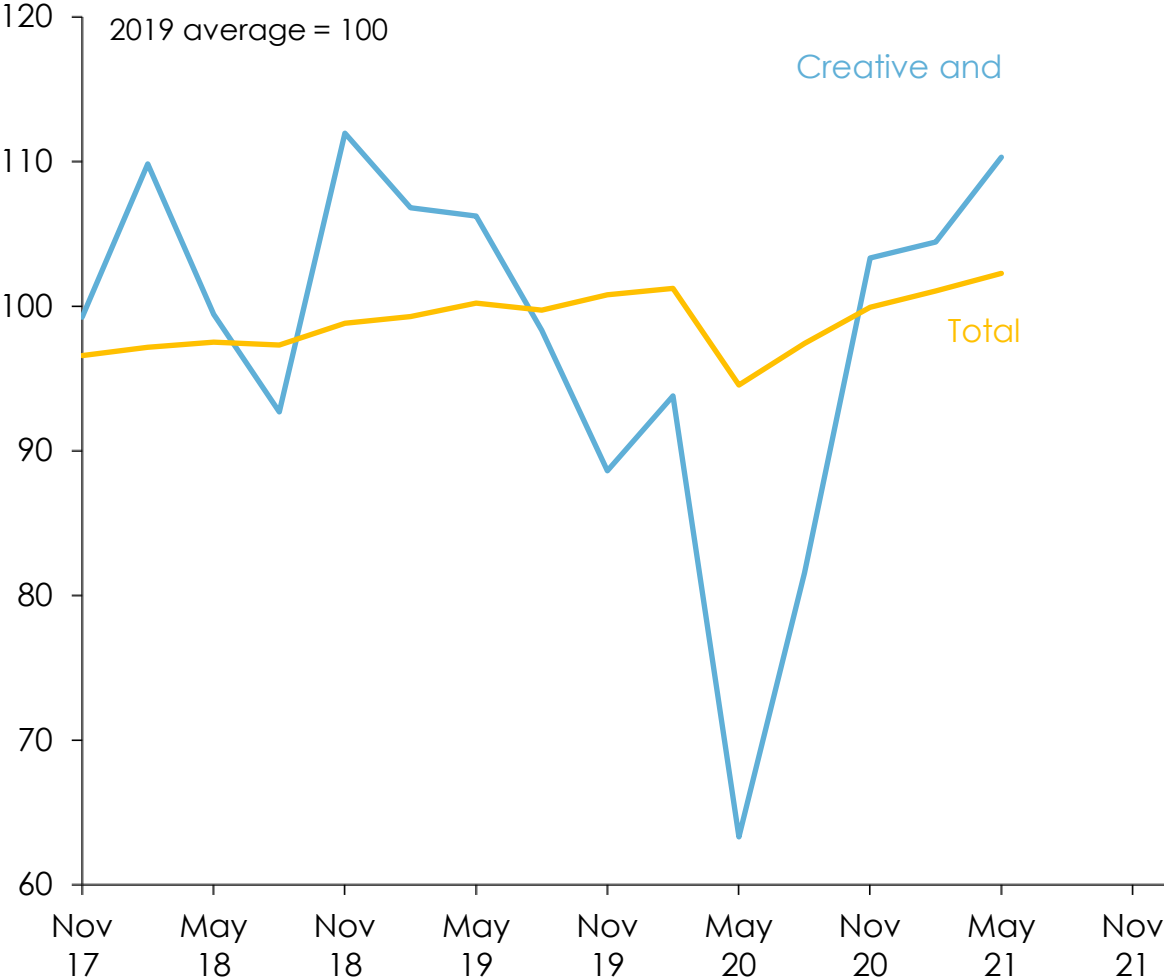
US employment



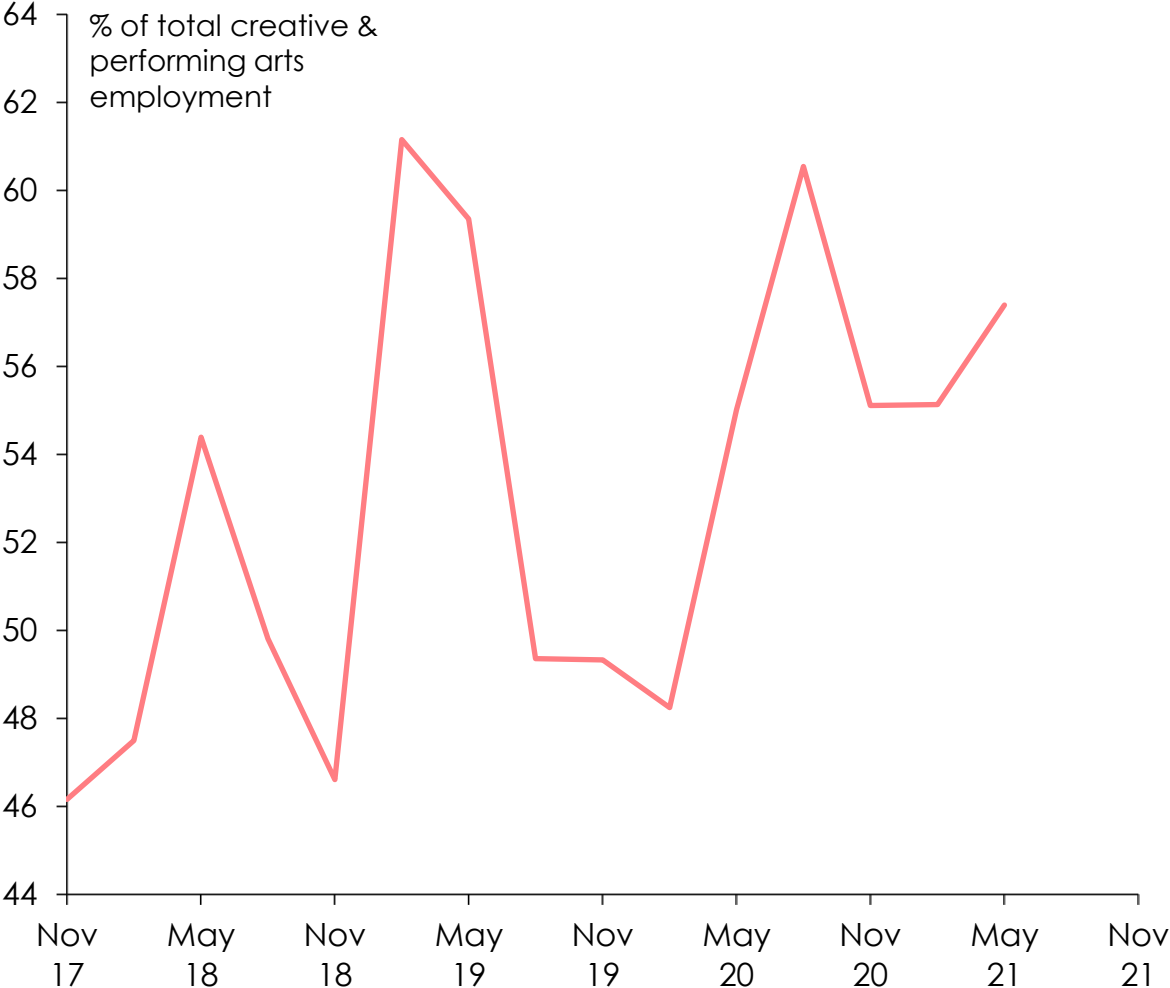
Note: Data on personal spending are in constant prices and adjusted for seasonal factors; employment data are not adjusted for seasonal factors.
 Sources: US Bureau of Economic Analysis, [Consumer Spending](#); US Bureau of Labor Statistics, [The Employment Situation: Table A-13. Employed and unemployed persons by occupation, not seasonally adjusted](#); Corinna Economic Advisory.

There isn't any official data on spending on performing arts in Australia – but employment has held up much better than in the US

Australian employment



Part-time employment in creative and performing arts as a percentage of total



Note: employment data are not adjusted for seasonal factors.
 Source: ABS, [Labour Force, Australia, Detailed](#), June 2021; Corinna Economic Advisory.

Some issues for the performing arts industry

❑ Australia's international borders

- the Government's 'working assumption' as set out in this year's Budget is that Australia's borders will remain closed until June next year
- whether they open sooner or later than that date depends on progress with vaccinations
- some people / occupations / industries appear to have found it easier than others to get exemptions from border controls (and except for some high-profile 'celebrities', the performing arts sector doesn't seem to have been one of them)
- maintenance of strict quarantine requirements (even after 'caps' on arrivals are lifted or abolished) will likely still act as a deterrent to international travel to and from Australia

❑ Other countries' international borders

- it's possible that some countries may not confer the same status on Astra-Zeneca vaccines as on mRNA vaccines, which could inhibit Australians' ability to enter some other countries

❑ Cost and availability of international travel

- capacity on international civil aviation routes into and out of Australia may take time to return to pre-Covid levels
- and international travel is likely to remain both more expensive and more unpleasant than it was pre-Covid
- both of which could make it more difficult and/or more expensive to stage international tours, or bring overseas performers to Australia

❑ Vaccination protocols

- 'vaccination passports' would appear to offer a path to an earlier opening of performance venues
- but the Government appears unwilling to go down that path (despite its willingness to make things compulsory, or restrict people's rights and liberties, in other areas)

❑ On-going 'Covid-safe' regulations and requirements

- limits on space occupancy, contact tracing requirements, ventilation rules etc will likely add to venue operating costs and fees

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.

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