

ECONOMIC IMPACT OF THE CORONAVIRUS PANDEMIC

20th JUNE 2020

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What's new?

The world

- ❑ 931,742 new Covid-19 cases were confirmed this week, the highest so far, taking the cumulative total to almost 8½ mn; while 32,290 people died, also the highest weekly total thus far, taking the total number of deaths to 455,761
- ❑ Nonetheless most countries are continuing to ease social distancing restrictions – including India and Indonesia where the number of new cases is still accelerating – although China imposed a fresh lockdown on Beijing after 183 new cases were confirmed there this week
- ❑ Voter approval of governments' handling of the Covid-19 pandemic has declined significantly in the US, the UK, Sweden and (from an initially much higher level) India, but remains high in Australia, Canada, Germany and Italy (see slide 11)
- ❑ US retail sales rebounded strongly in May, but the increase in industrial production was only tepid (slide 32)
- ❑ Joe Biden widened his lead over Donald Trump in US presidential election polling to 8.8 pc points
- ❑ New Zealand's economy contracted by 1.6% in Q1, the largest decline in 29 years, the start of what the RBNZ expects will be the deepest recession in NZ history (see slides 88-89)
- ❑ Financial markets did not very much this week, apart from a brief flurry at the beginning of the week when the Fed indicated it would buy corporate debt outright as part of its 'QE'

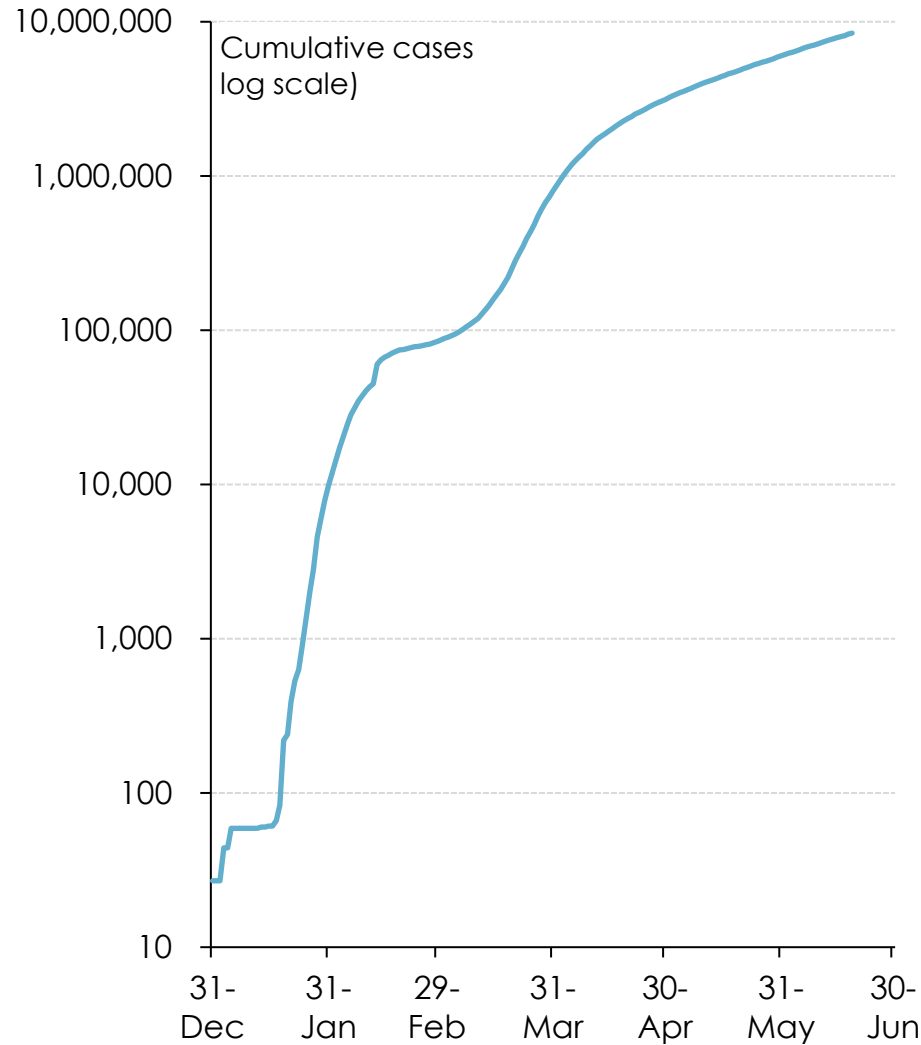
Australia

- ❑ Australia recorded 120 new Covid-19 cases this week, the highest number since the week ended 8th May – 81 of them in Victoria, prompting the Victorian Government to limit the number of visitors in a home to 5
- ❑ South Australia opened its borders to travellers from Qld, WA, the NT and Tas – but WA and Tas are giving no indication as to when they will open their borders
- ❑ Employment fell another 228K in May, bringing the total decline since March to 835K or 6.4%, and pushing the measured unemployment rate up to 7.1% (it would have been 11.1% had the participation rate not fallen 3.1 pc pts since March (see slides 46-47)
- ❑ The ABS' weekly payroll jobs series suggests that employment has been gradually recovering since the last week of April (see slides 50-52), while retail sales rose a record 16.3% in May – back to pre-pandemic levels (slide 53)
- ❑ It seems increasingly likely that the contraction in the Australian economy has been rather less than initially feared
- ❑ But there are increasing concerns about a setback in Q4 if the government doesn't 'taper' the termination of its support measures, all of which are currently scheduled to be 'switched off' at the end of September

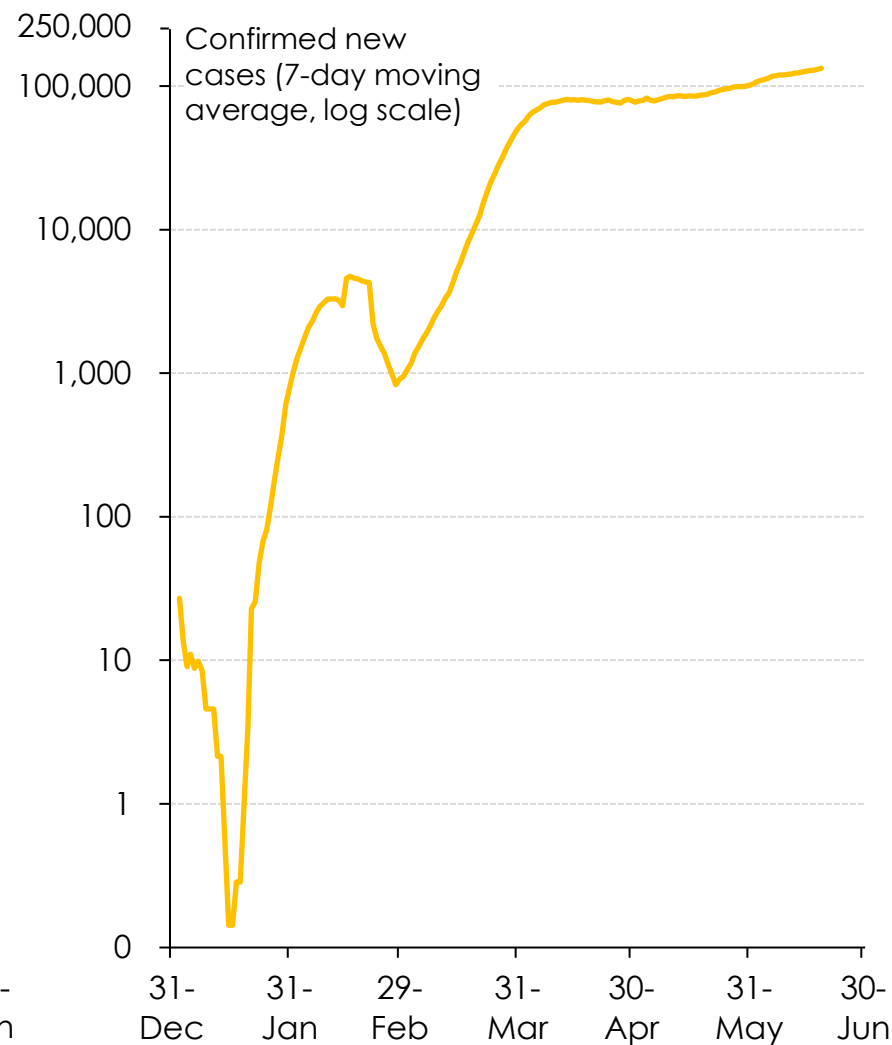
The virus

There have now been almost 8½ mn cases of Covid-19 worldwide, and more than 455,000 deaths – and neither curve has been flattened, yet

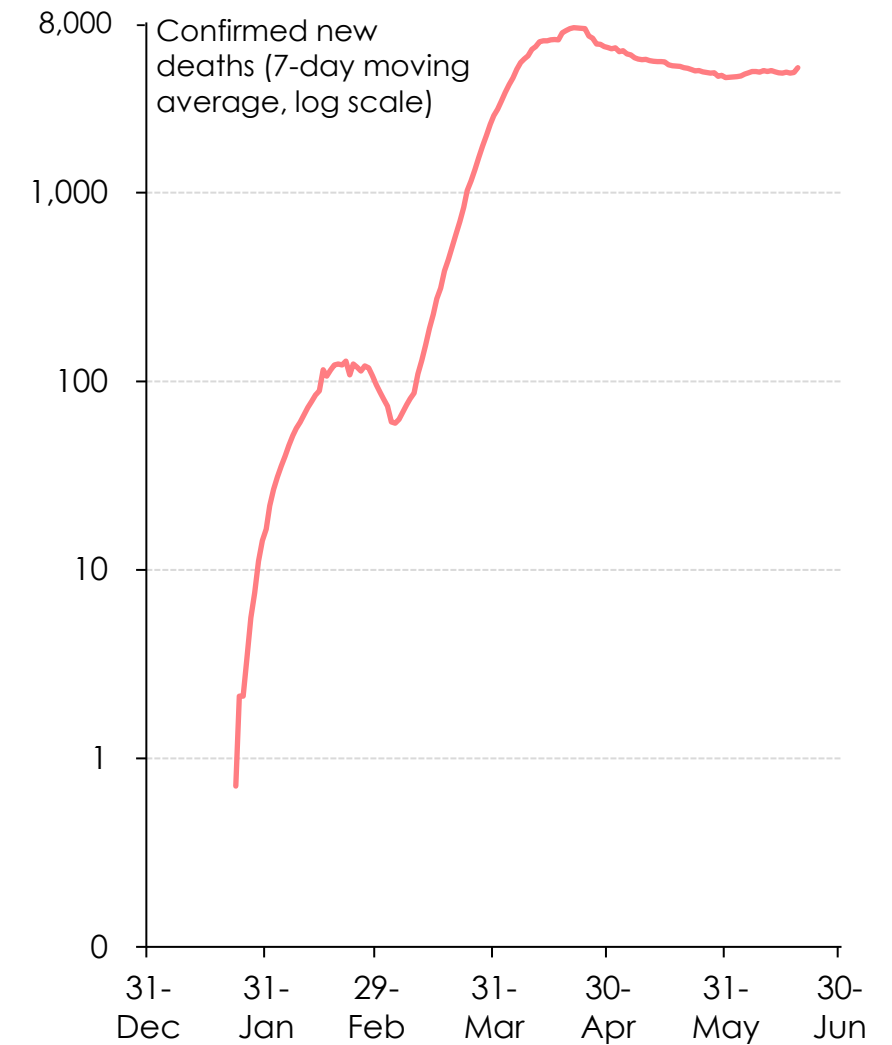
Cumulative confirmed cases – global total



New confirmed cases – global total



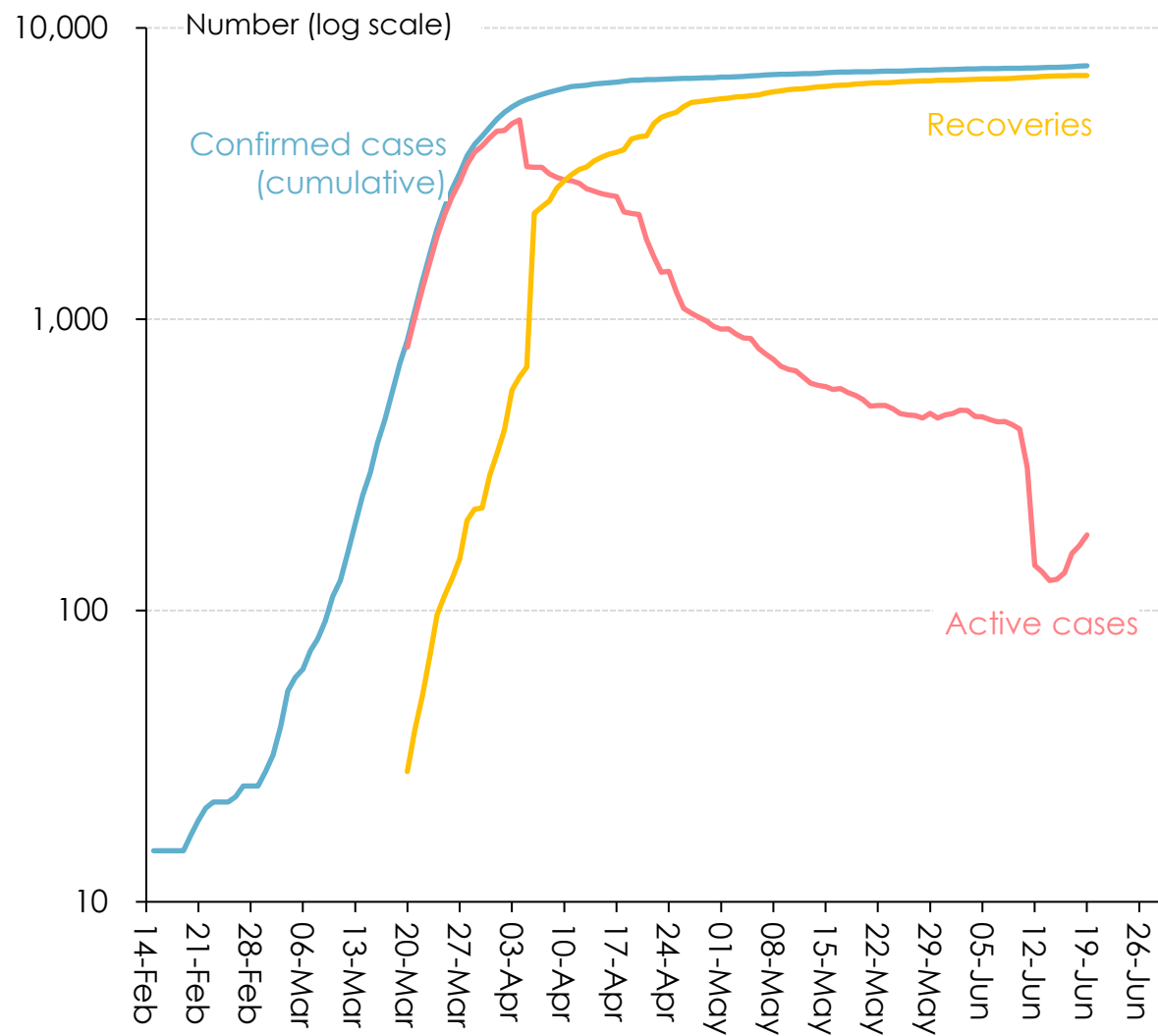
New deaths – global total



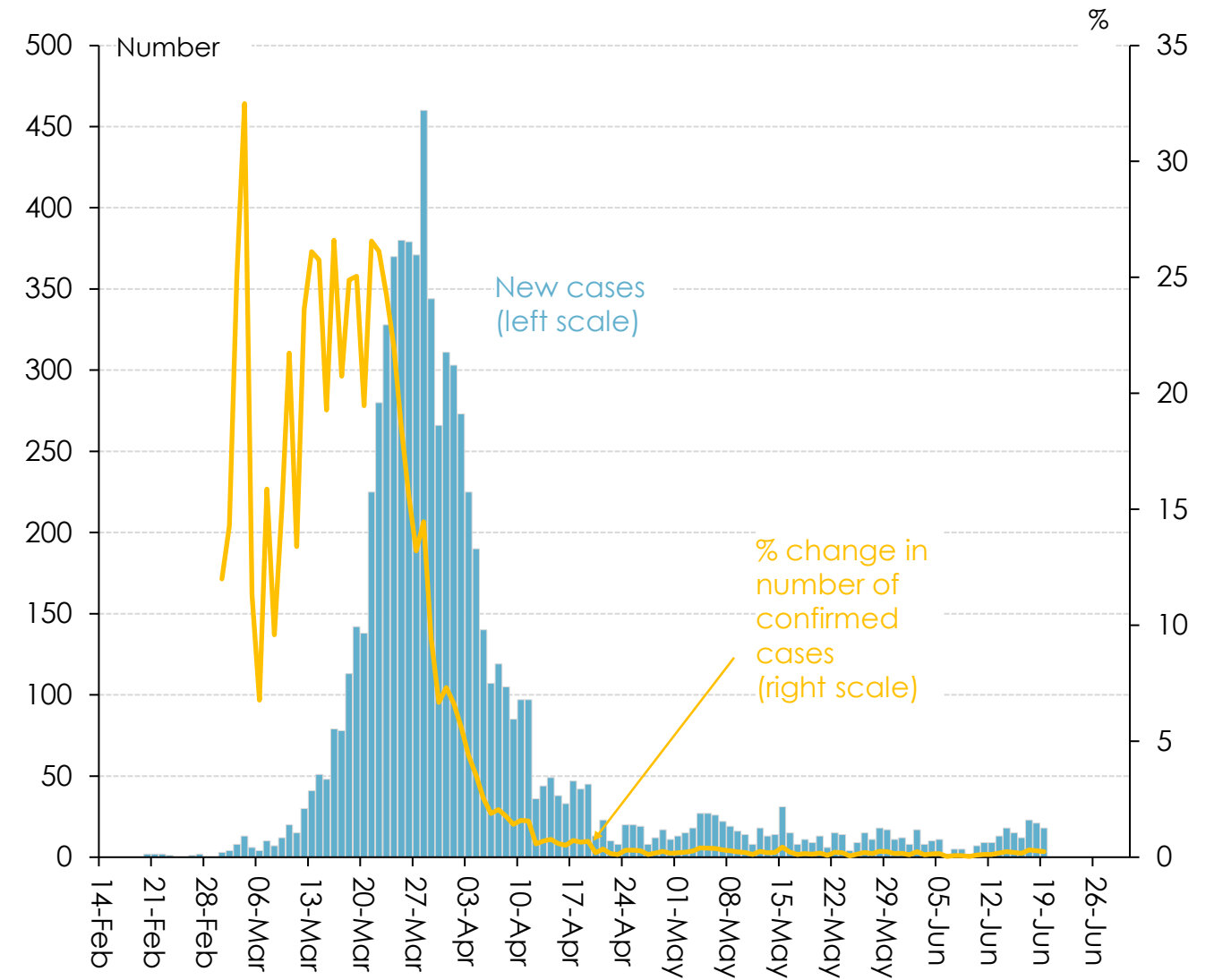
Note: Data up to 19th June. Source: University of Oxford, *Our World in Data*.

The number of new cases in Australia has picked up slightly in the past two weeks as restrictions have been eased

Confirmed cases



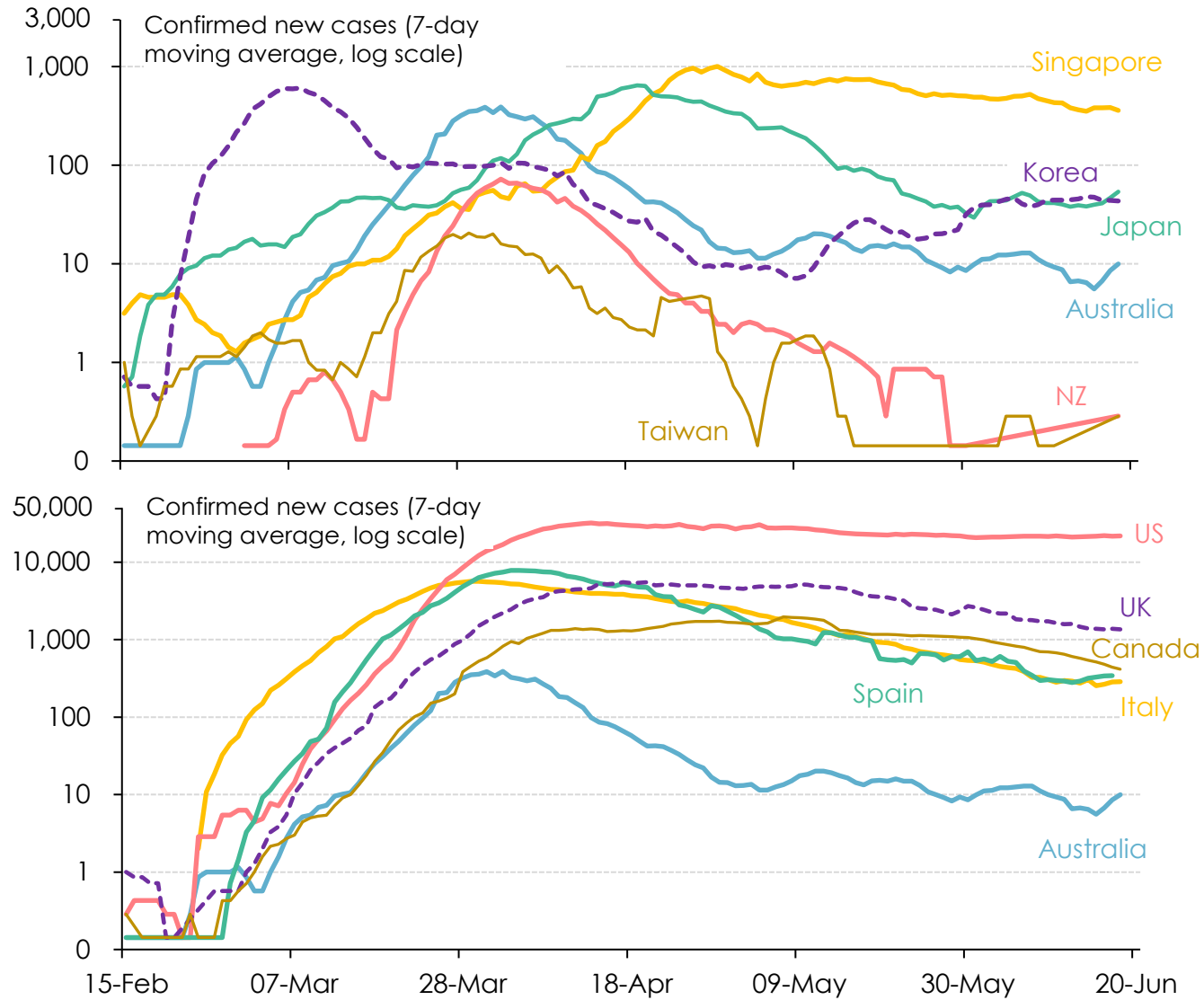
New cases



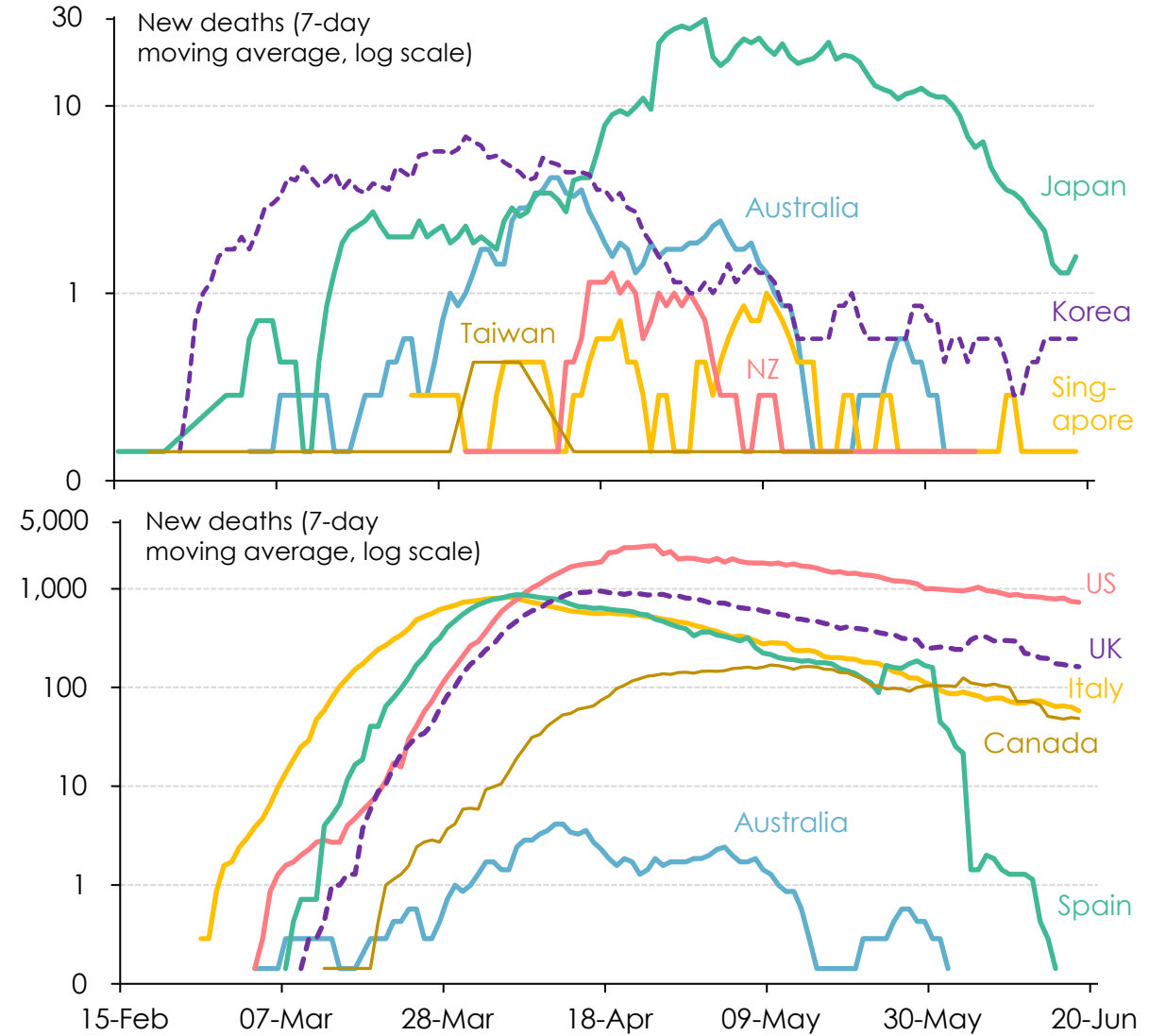
Note: Data up to 19^h June. Source: covid19data.com.au

Australia, New Zealand and a number of Asian nations have had greater success in containing the virus than North America or Europe

Daily new cases



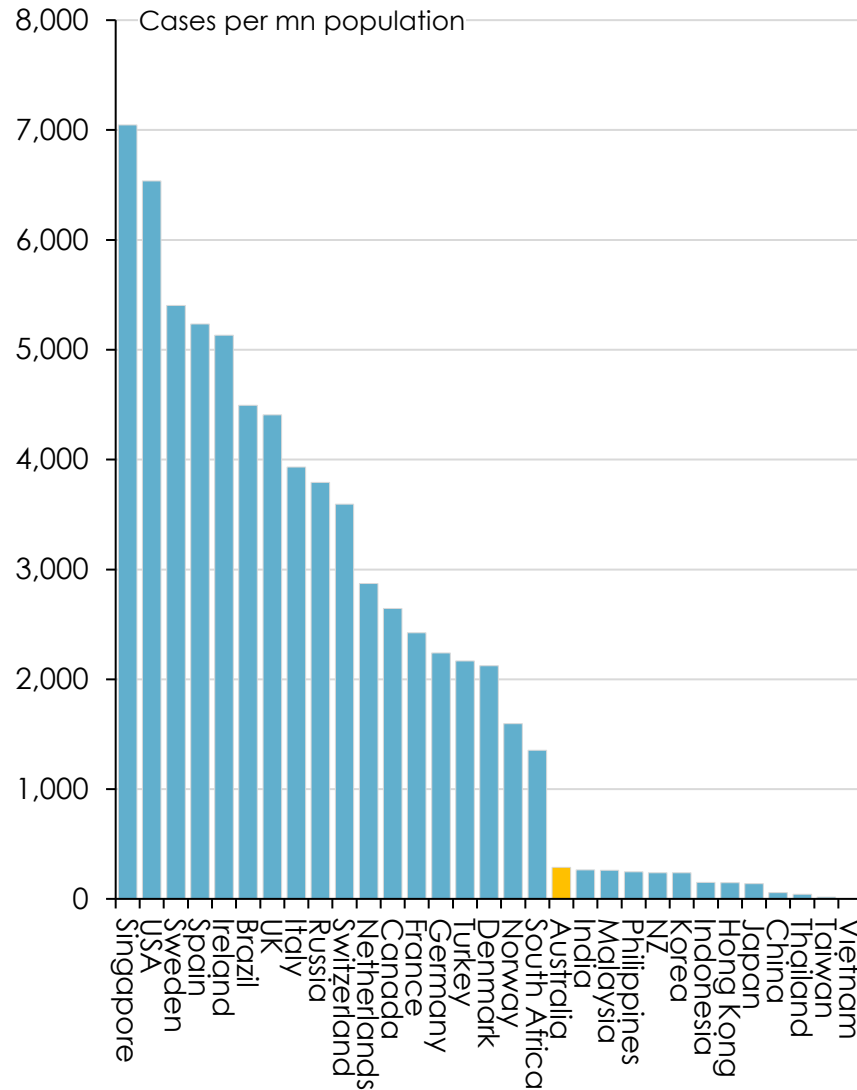
Daily new deaths



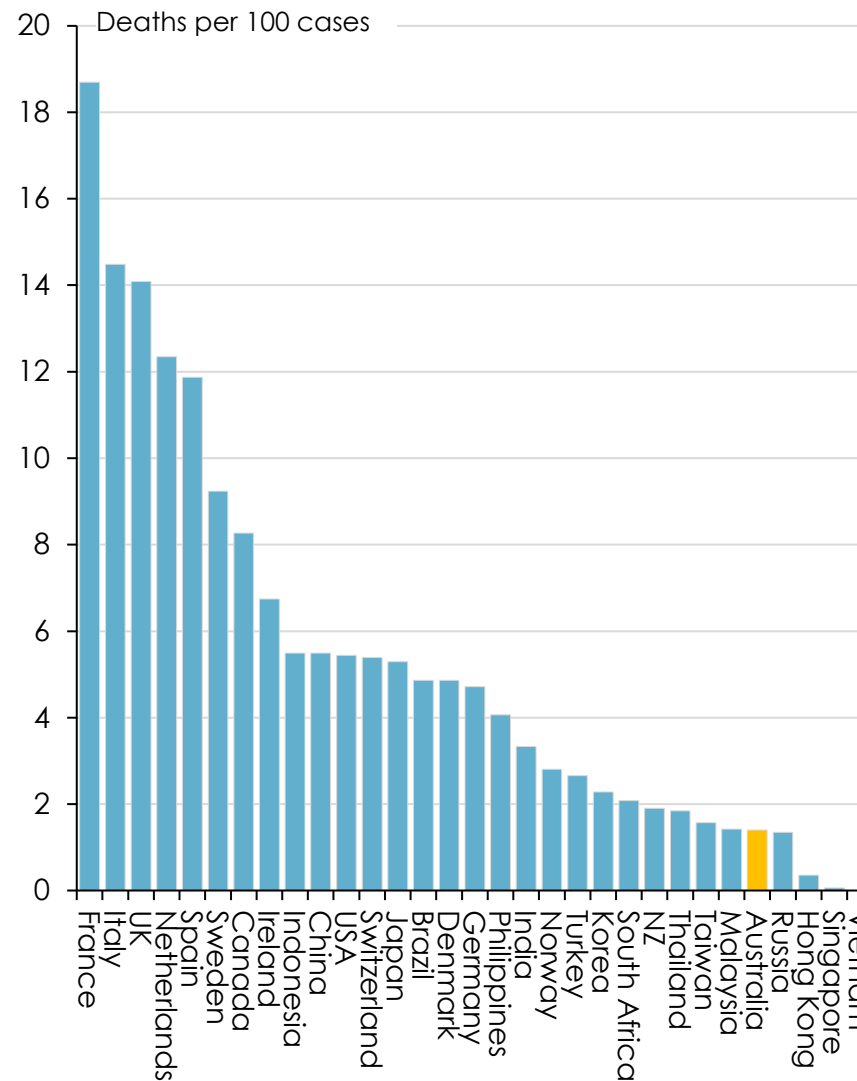
Note: Data up to 18th June (except for Spain, 17th June). Source: University of Oxford, Our World in Data; Corinna.

The virus appears (so far) to have been less infectious, and less lethal, in Australia than in most other countries

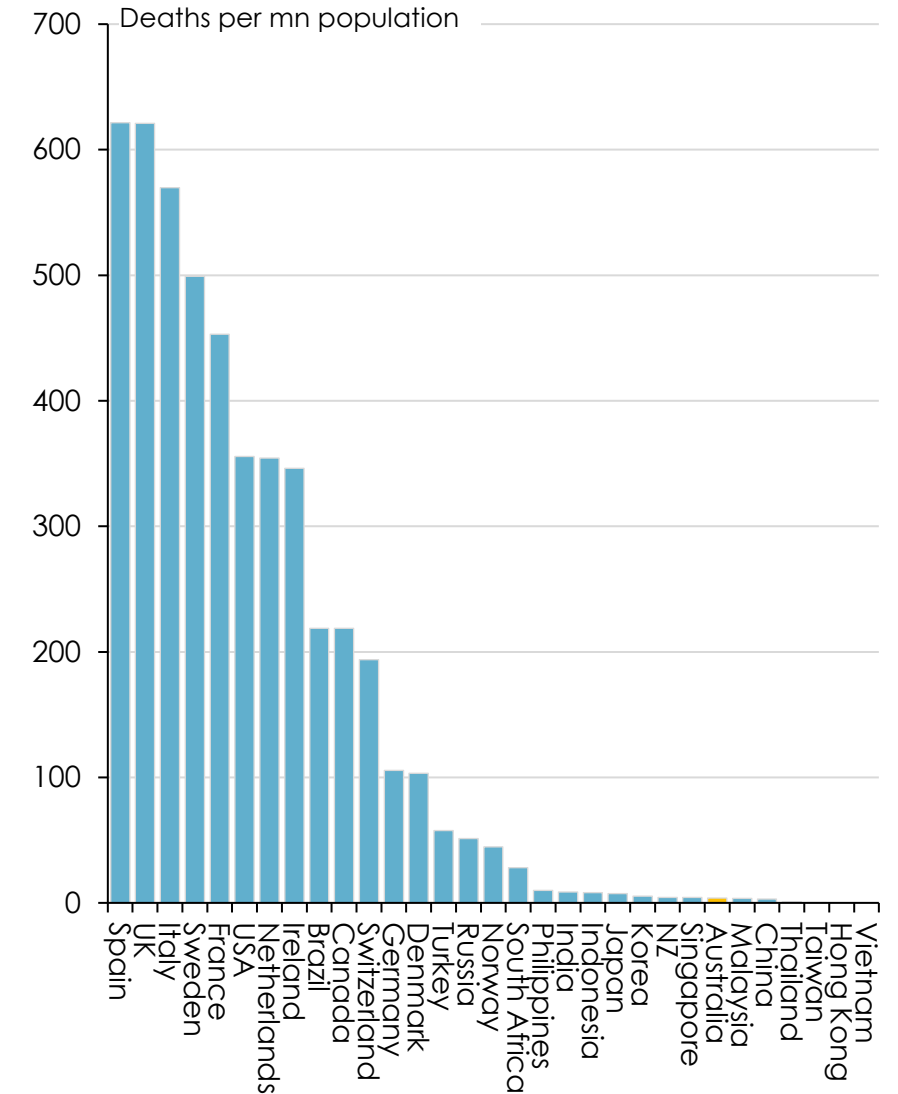
Apparent infection rate



Apparent death rate



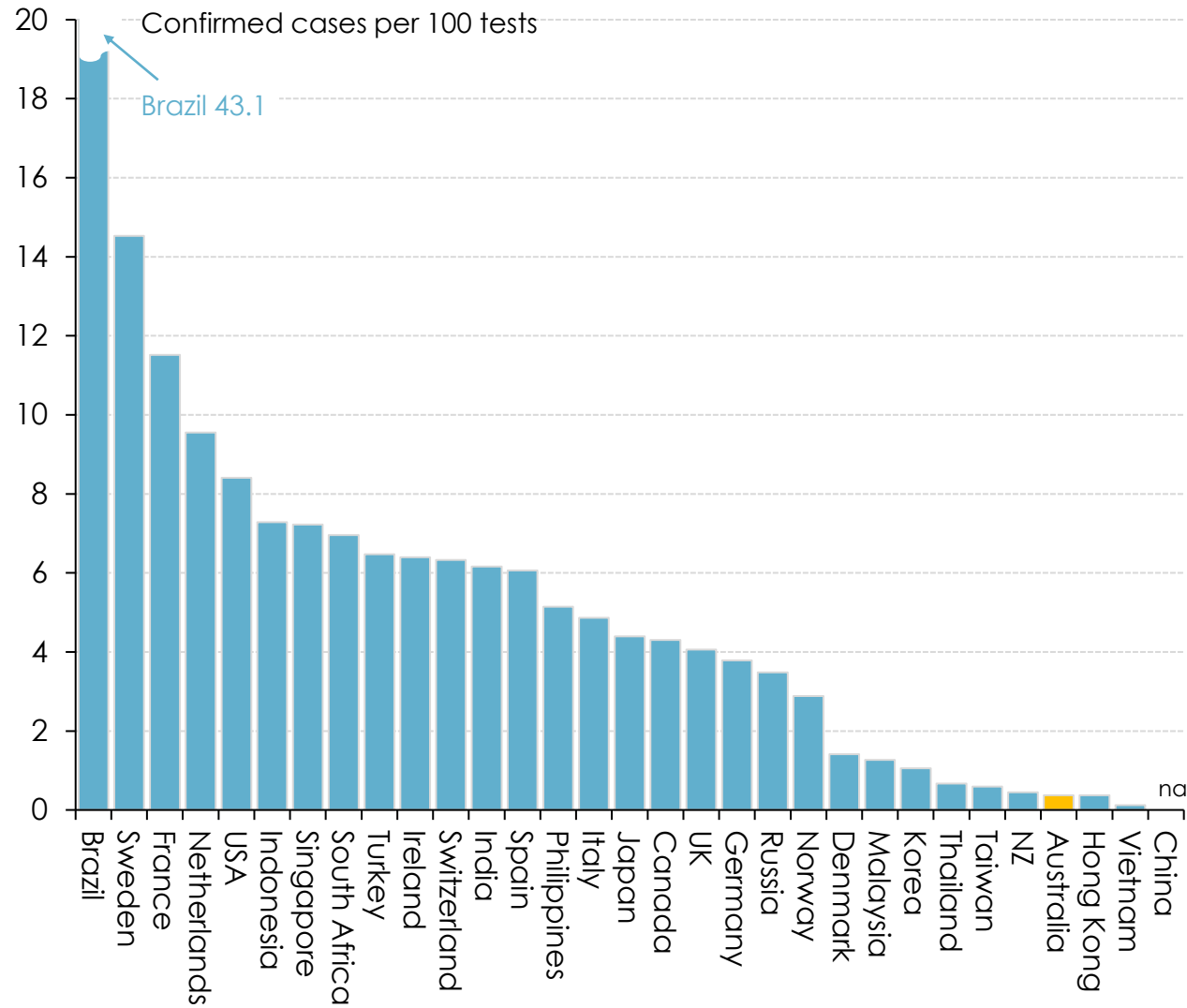
Deaths per mn population



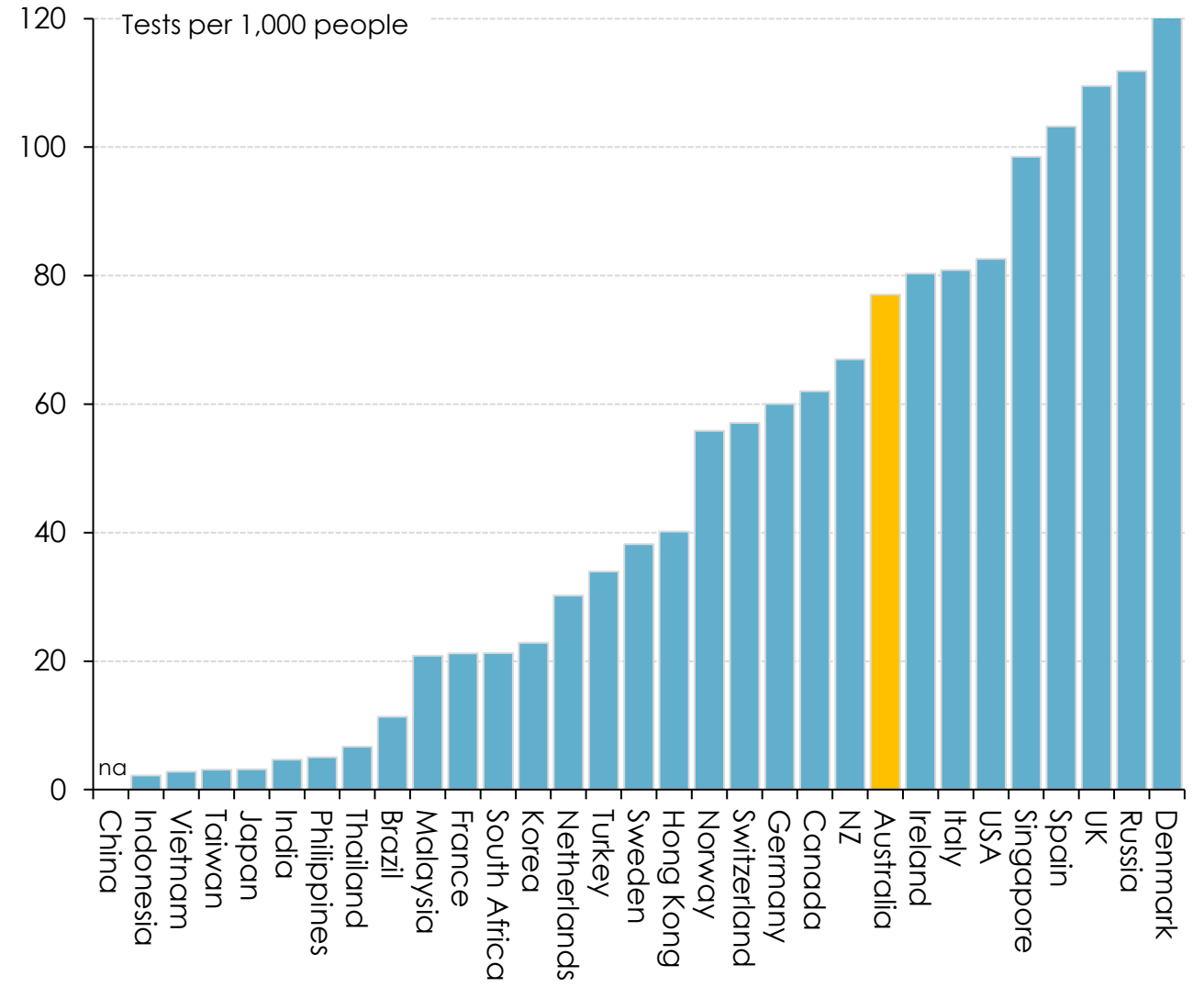
Note: Data up to 18th June (except for Spain, 17th June). Source: University of Oxford, Our World in Data; Corinna.

Australia's testing regime appears sufficiently broad for the low infection and death rates to be seen as 'credible' (ie not due to low testing)

Confirmed cases per 100 tests



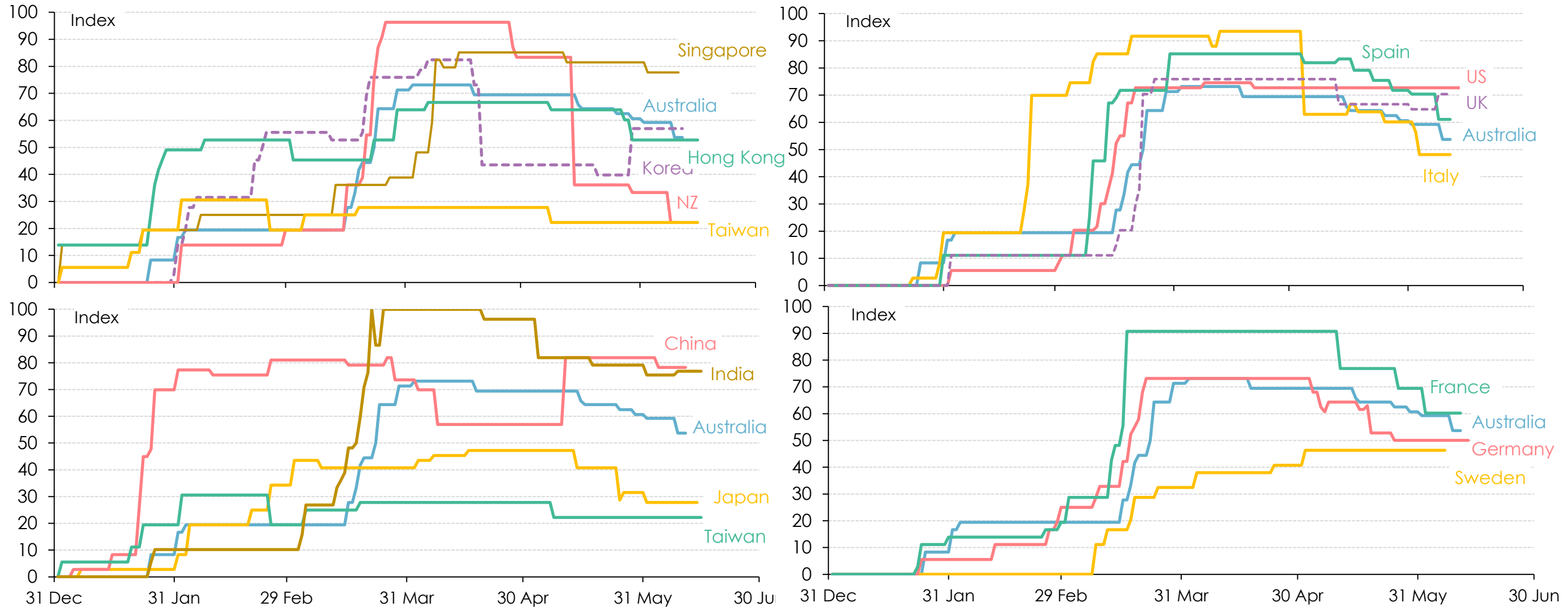
Tests per thousand of population



Note: Data up to 19th June. No data on number of tests conducted in China. A high number of confirmed cases per 100 tests combined with a low number of tests per 000 population is *prima facie* evidence of an inadequate testing regime. Source: Worldometers; Corinna.

Comparative isolation and early shutdowns have helped Australia (and New Zealand) contain the spread of Covid-19

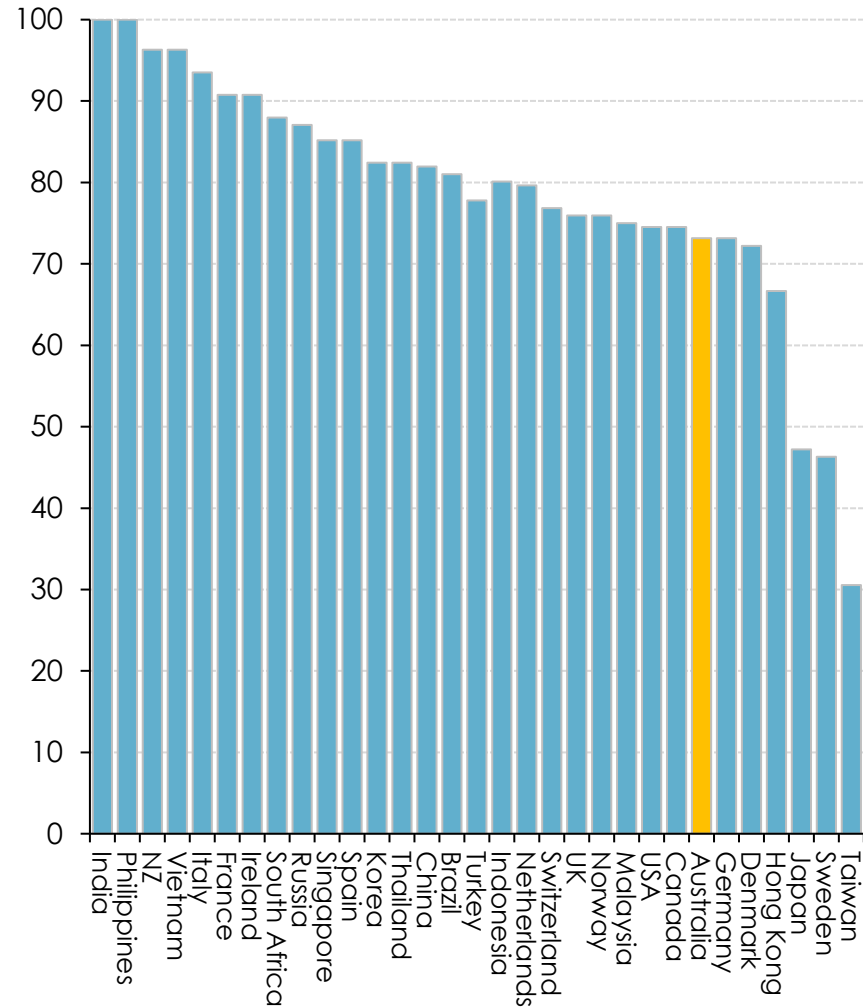
Timing and severity of government restrictions on movement and gathering of people



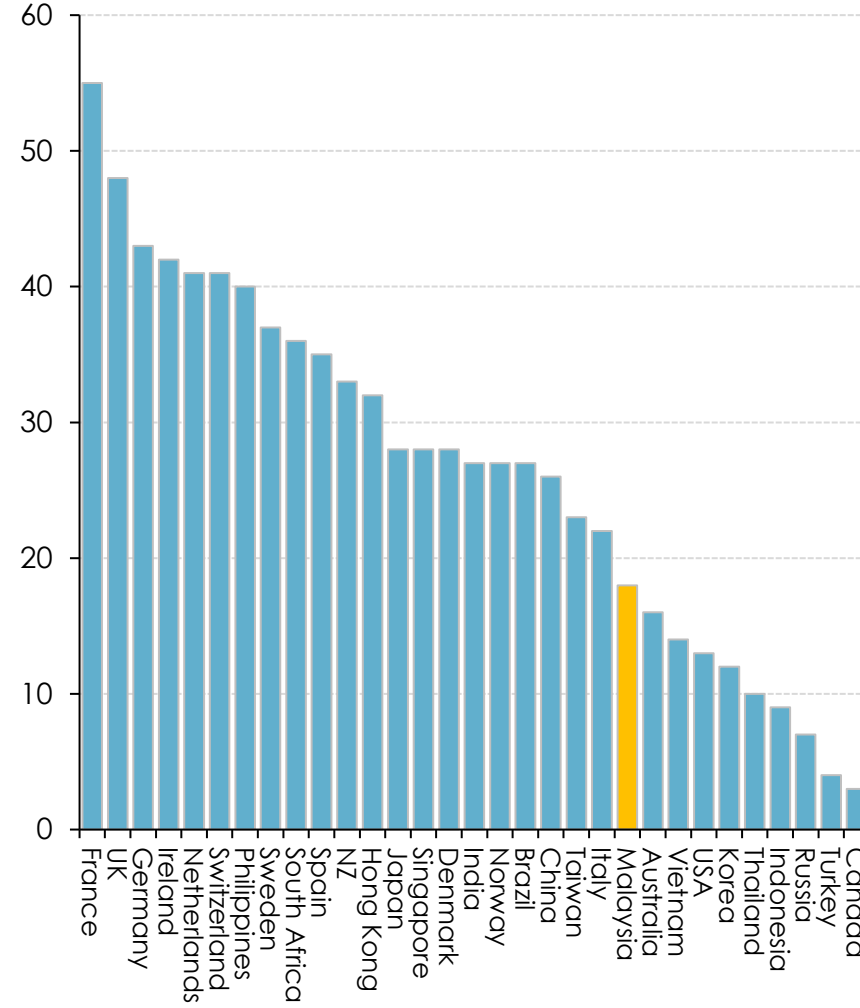
The Oxford COVID-19 Government Response Tracker collects publicly available information on 11 indicators of government response including school and workplace closures, public events cancellations, restrictions on public gatherings, stay at home requirements, public transport closures, domestic and international travel restrictions, public information campaigns, testing and contact tracing. Source: Blavatnik School of Government, Oxford University. Data up to 7th – 17th June.

Australia's restrictions were, on average, less stringent than in most other 'advanced' economies, or other economies in our region

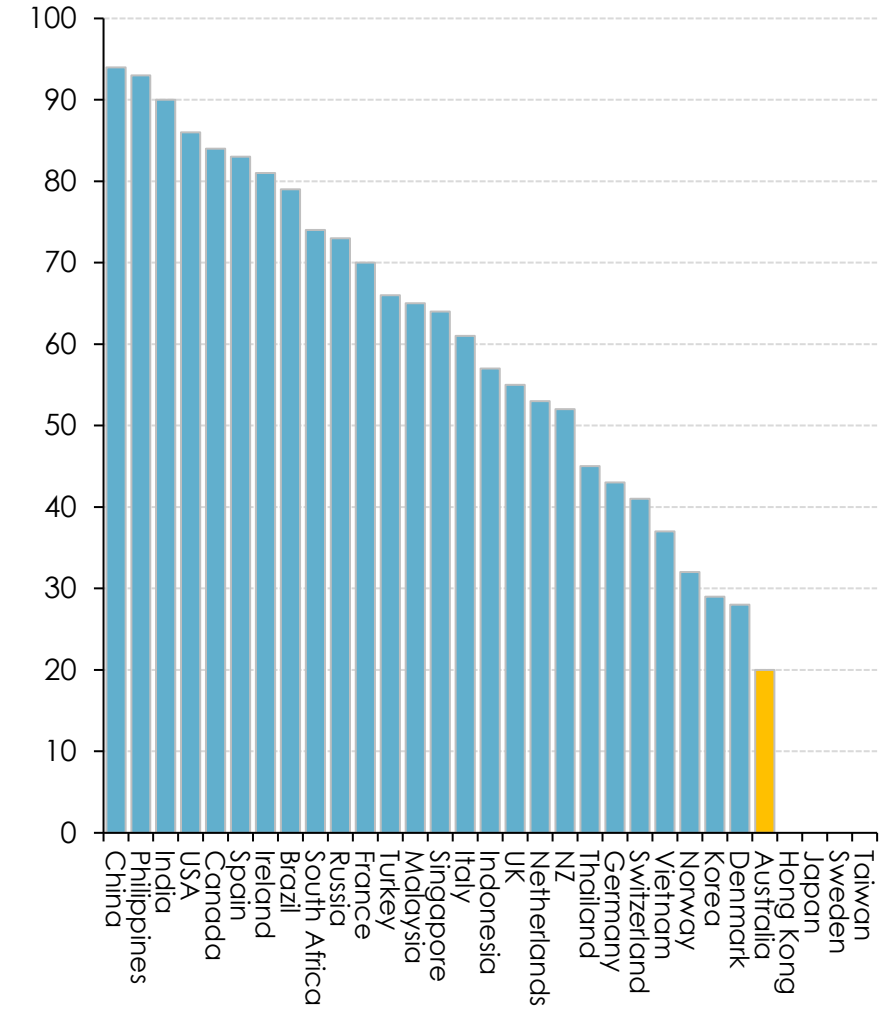
Highest level of restrictions imposed



Number of days restrictions at highest level



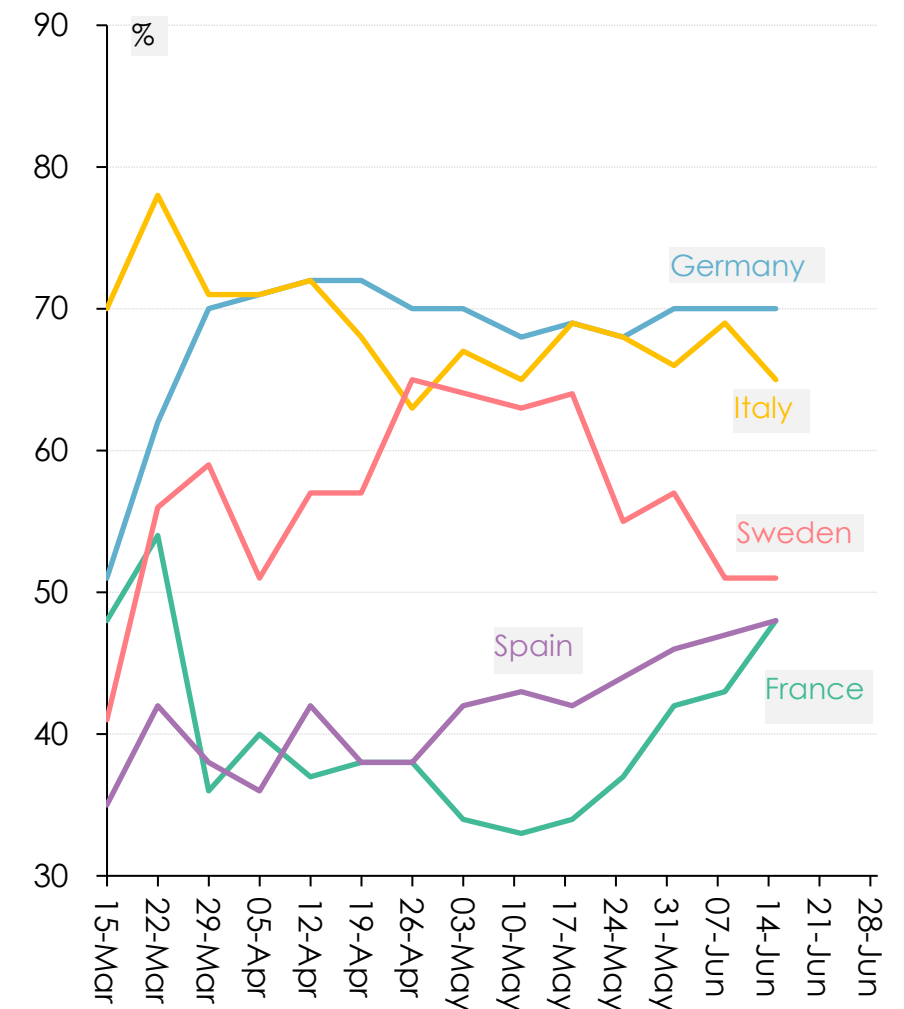
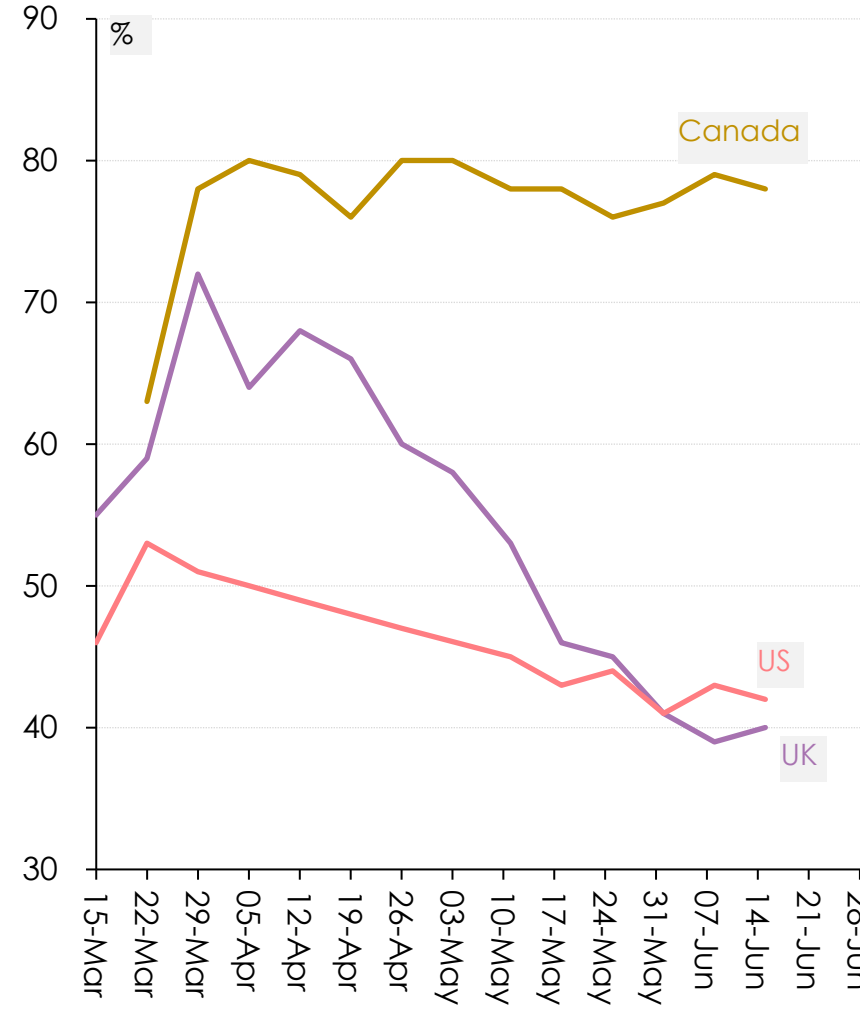
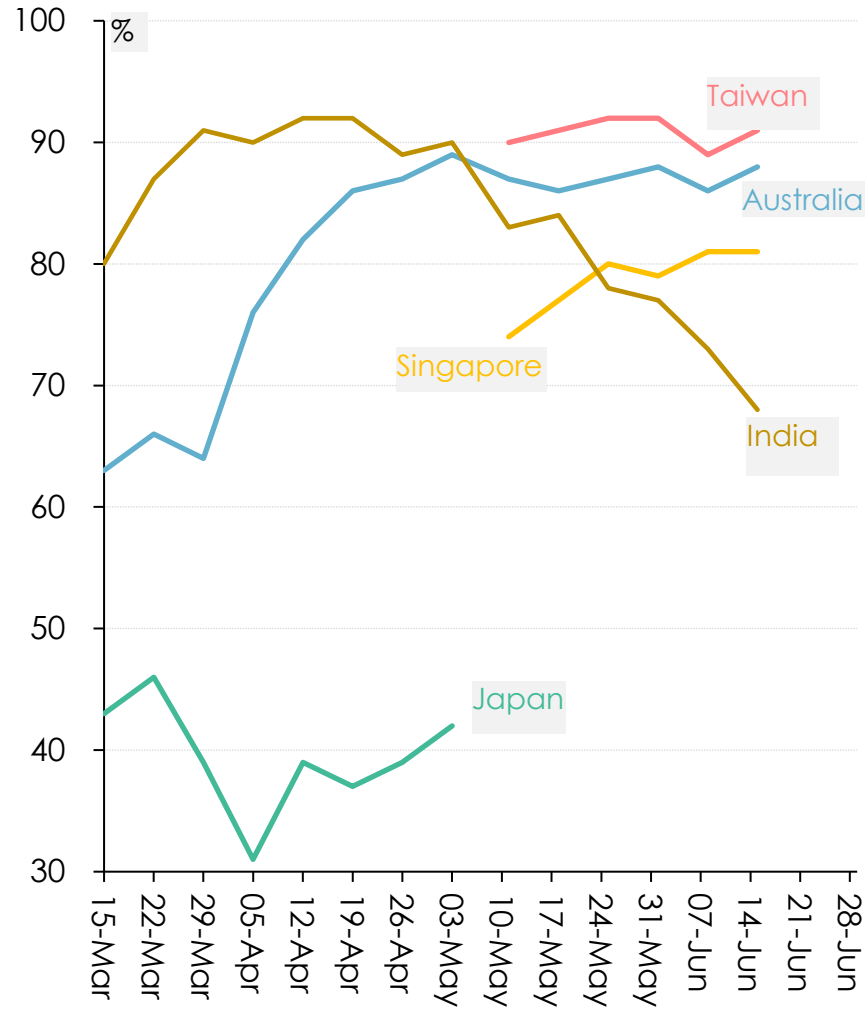
Number of days restrictions above 70 on Oxford index



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 7th-17th June.

Americans, Brits and Swedes increasingly dissatisfied with how their governments have handled the crisis – Australians have been well pleased

Percentage of opinion poll respondents who think their government has handled the coronavirus outbreak 'well' or 'very well'

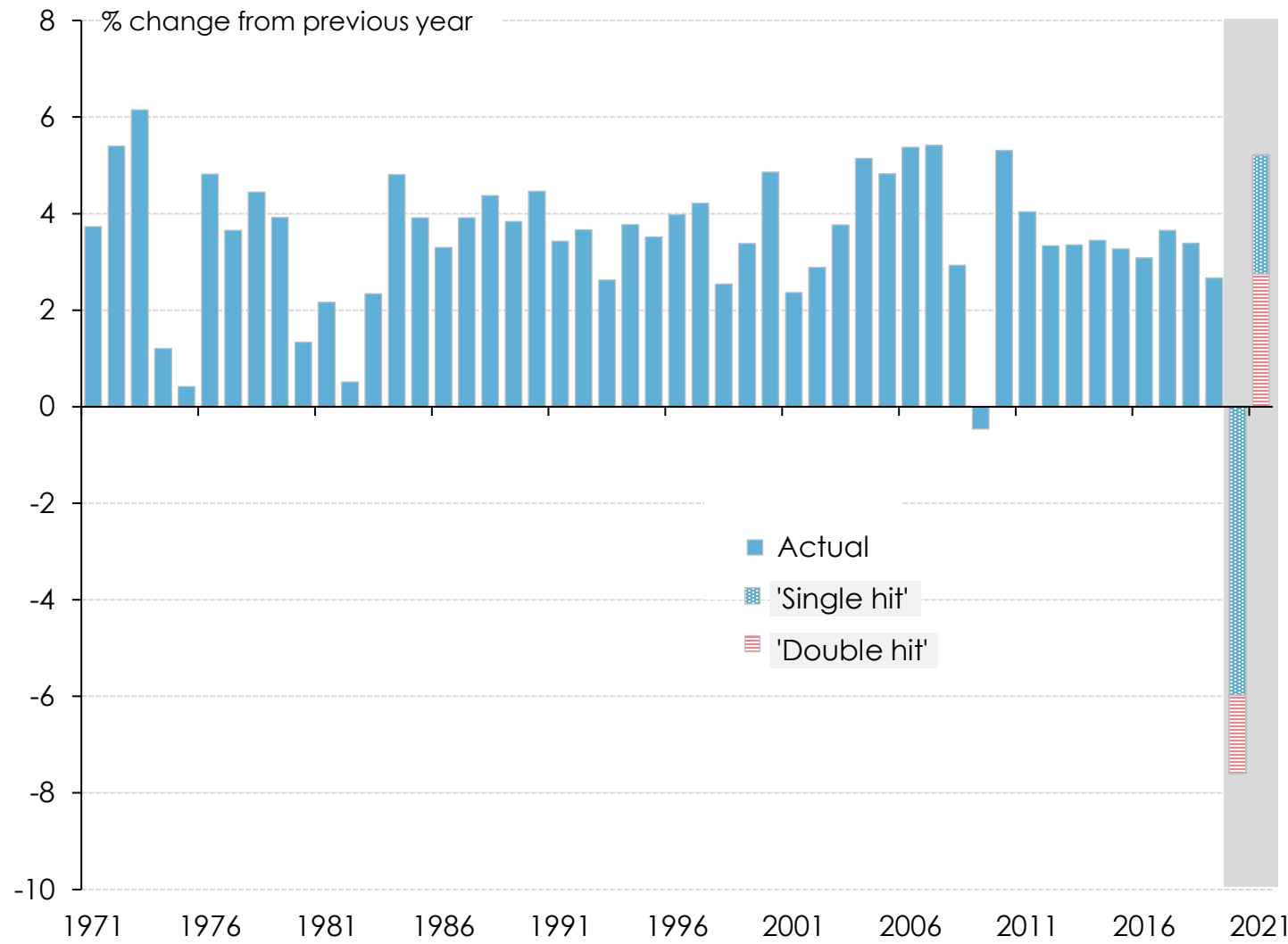


Source: YouGov.

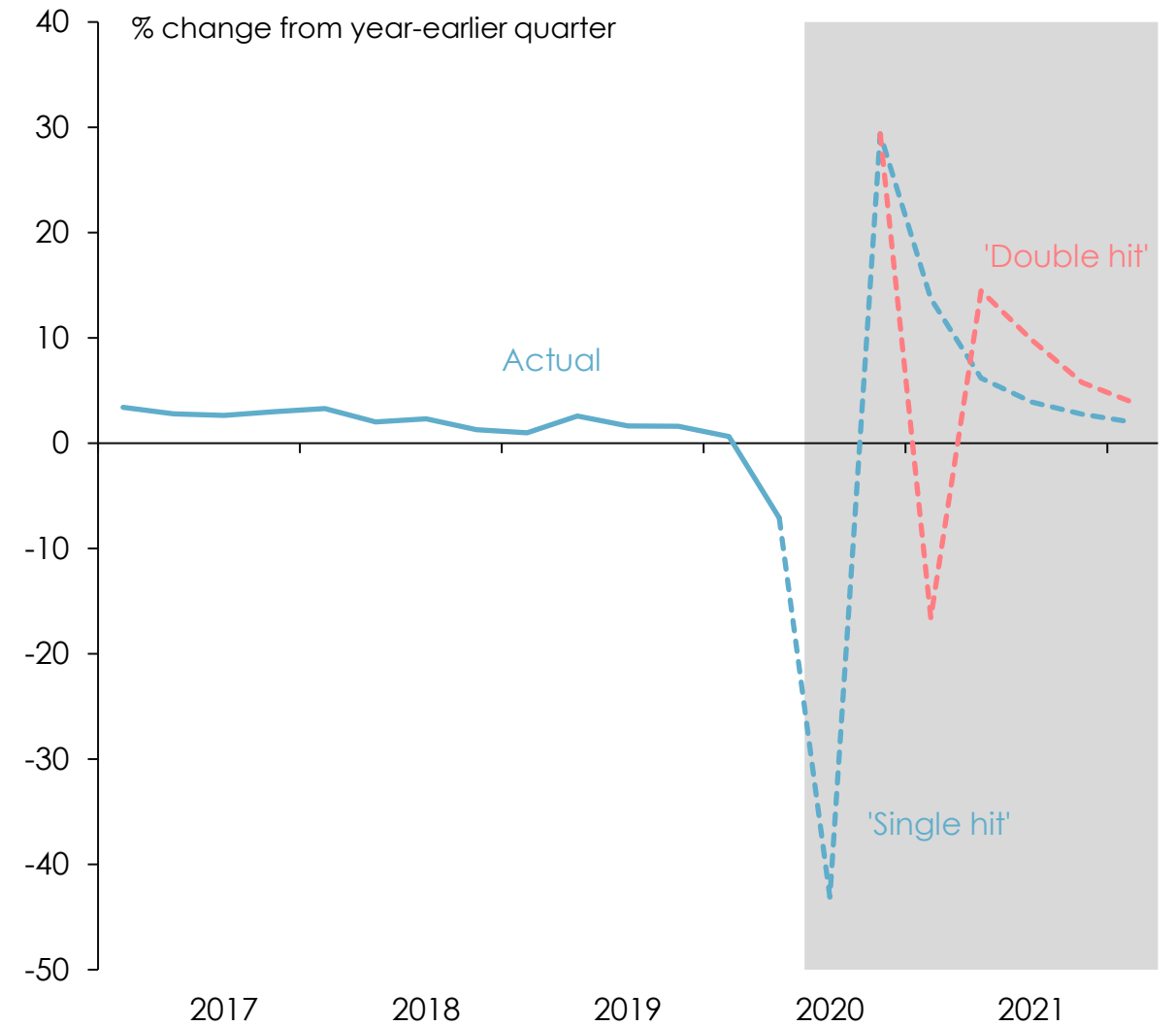
The world

The OECD forecasts a 6% decline in world GDP this year, followed by a 5.2% rebound in 2021 – or -7.2% followed by +2.8% if there's a 'second wave'

Annual growth in global real GDP, 1961-2021



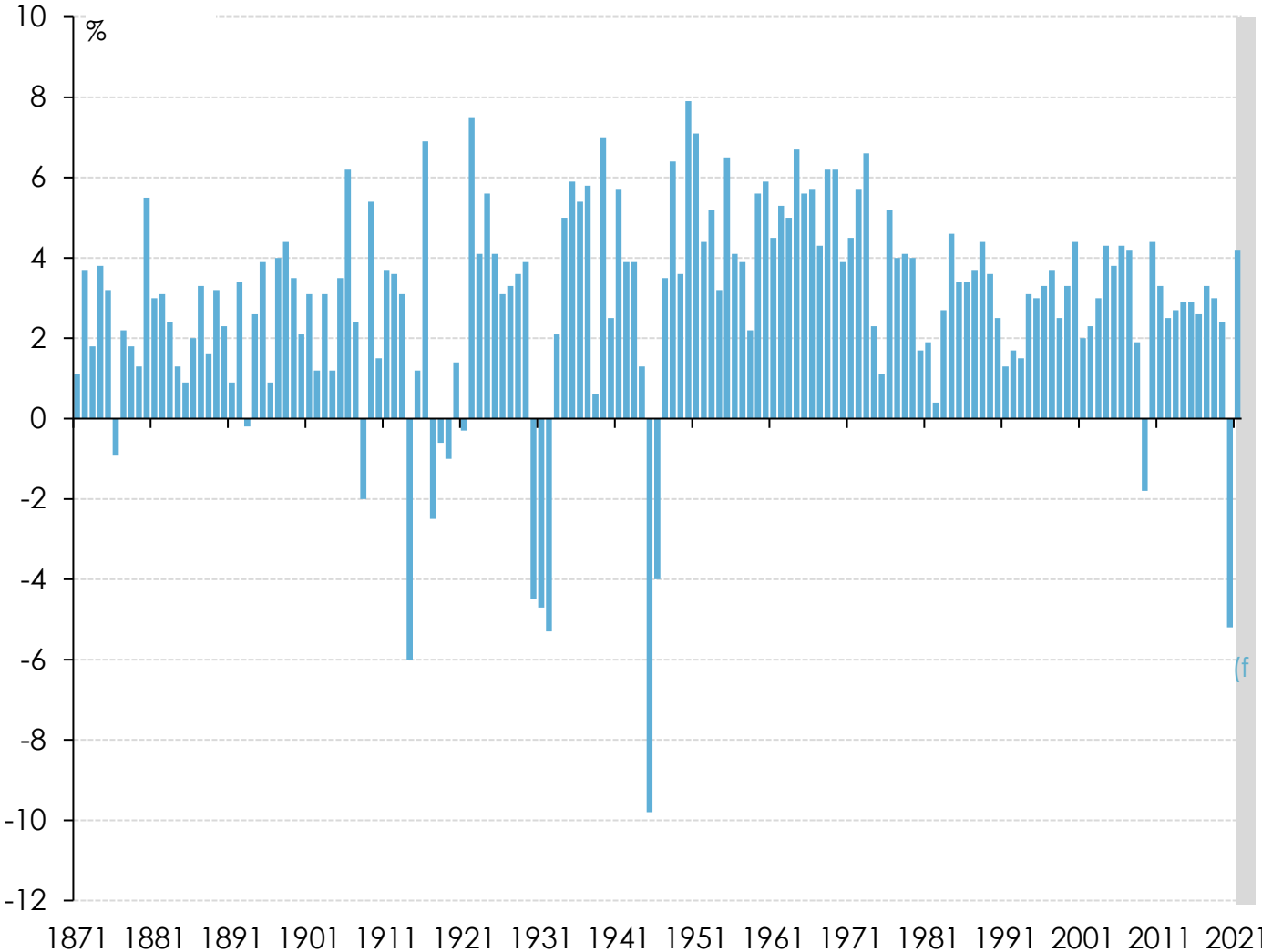
Quarterly growth and forecasts, 2017-2021



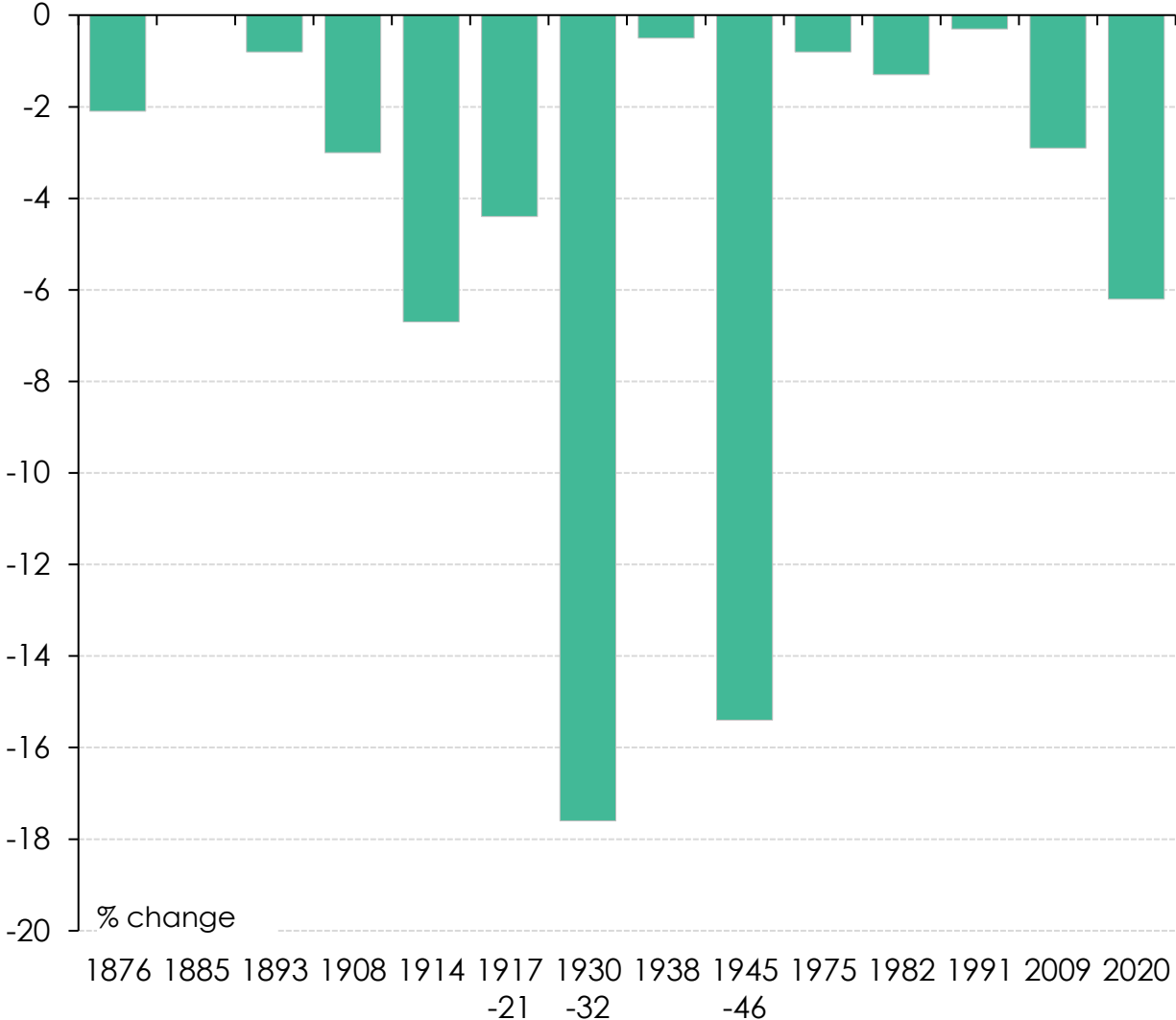
Note: The 'double hit' scenario assumes a 'second wave' of Covid-19 infections and deaths "in all economies towards the end of this year", while the 'single hit' scenario assumes this 'second wave is avoided'. The OECD regards each scenario as "equally likely". Source: OECD, *Economic Outlook*, No. 107, Volume 2020 Issue 1, 10th June 2020.

The World Bank forecasts a 5.2% decline in world GDP this year, with a 4.2% increase in 2021 - the 4th worst global downturn in 150 years

Growth in global real GDP, 1871-2001



Cumulative decline in real per capita GDP during global recessions



Source: The World Bank, *Global Economic Prospects*, 8th June 2020.

The World Bank and the OECD are more bearish than the IMF on the global economic outlook, on the Euro area for this year, and on China for next year

Major global institutions' growth forecasts for 2020 and 2021 compared

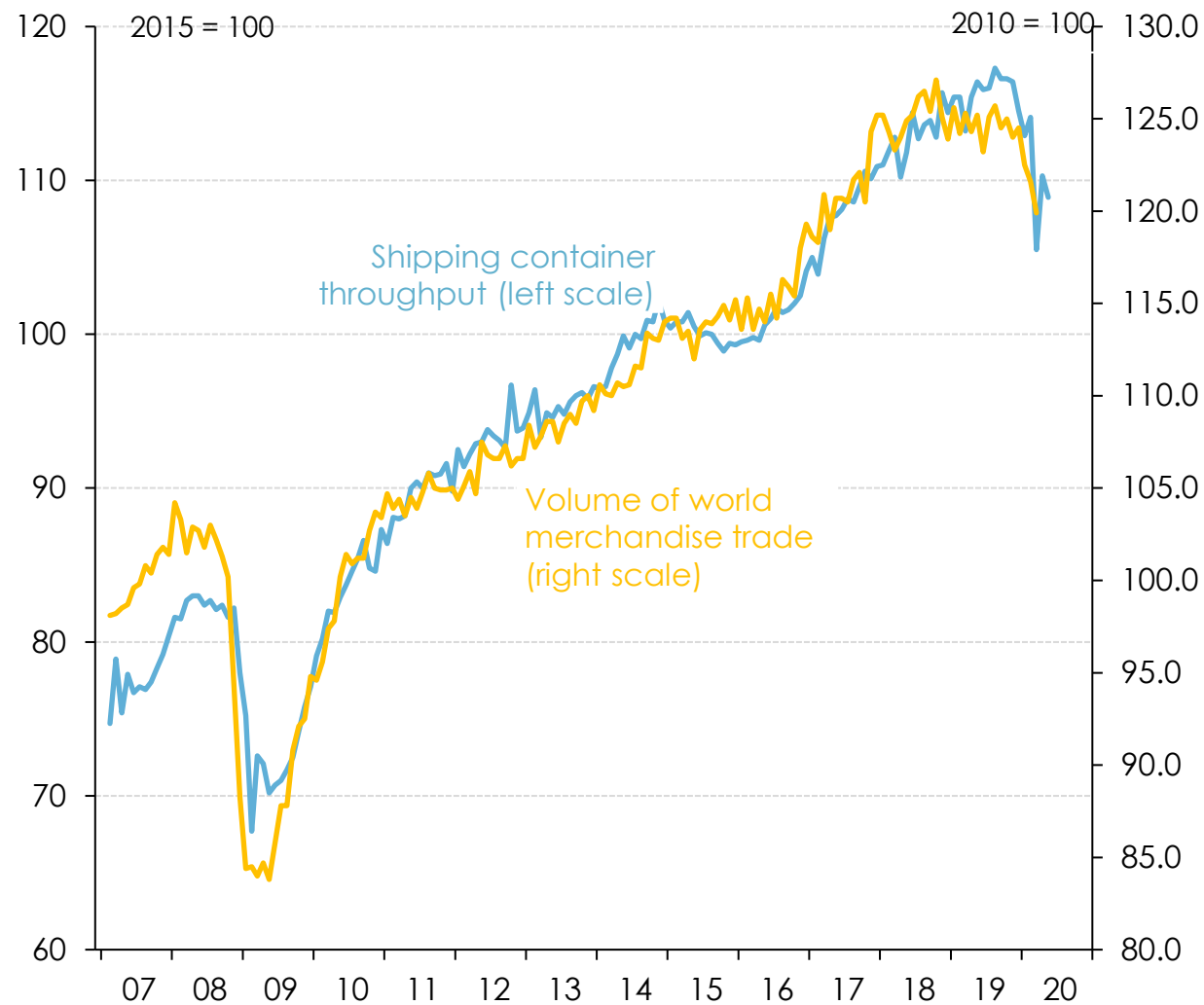
	<i>Actual</i>	<i>IMF</i>		<i>World Bank</i>		<i>OECD*</i>	
	2019	2020	2021	2020	2021	2020	2021
US	2.3	-6.1	4.5	-6.1	4.0	-7.3	4.1
China	6.1	1.2	9.2	1.0	6.9	-2.6	6.8
Euro area	1.2	-7.5	4.7	-9.1	4.5	-9.1	6.5
India	4.2	1.9	7.4	-3.2	3.1	-3.7	7.9
Japan	0.7	-5.2	3.0	-6.1	2.5	-6.0	2.1
UK	1.4	-6.5	4.0	na	na	-11.5	9.0
Australia	1.8	-6.7	7.1	na	na	-5.0	4.1
New Zealand	2.2	-7.2	5.9	na	na	-8.9	6.6
World	2.9	-3.0	5.8	-5.2	4.2	-6.0	5.2
World trade	0.9	-11.0	8.4	-13.4	5.3	-9.5	6.0

IMF forecasts to be updated
this Wednesday (US time)

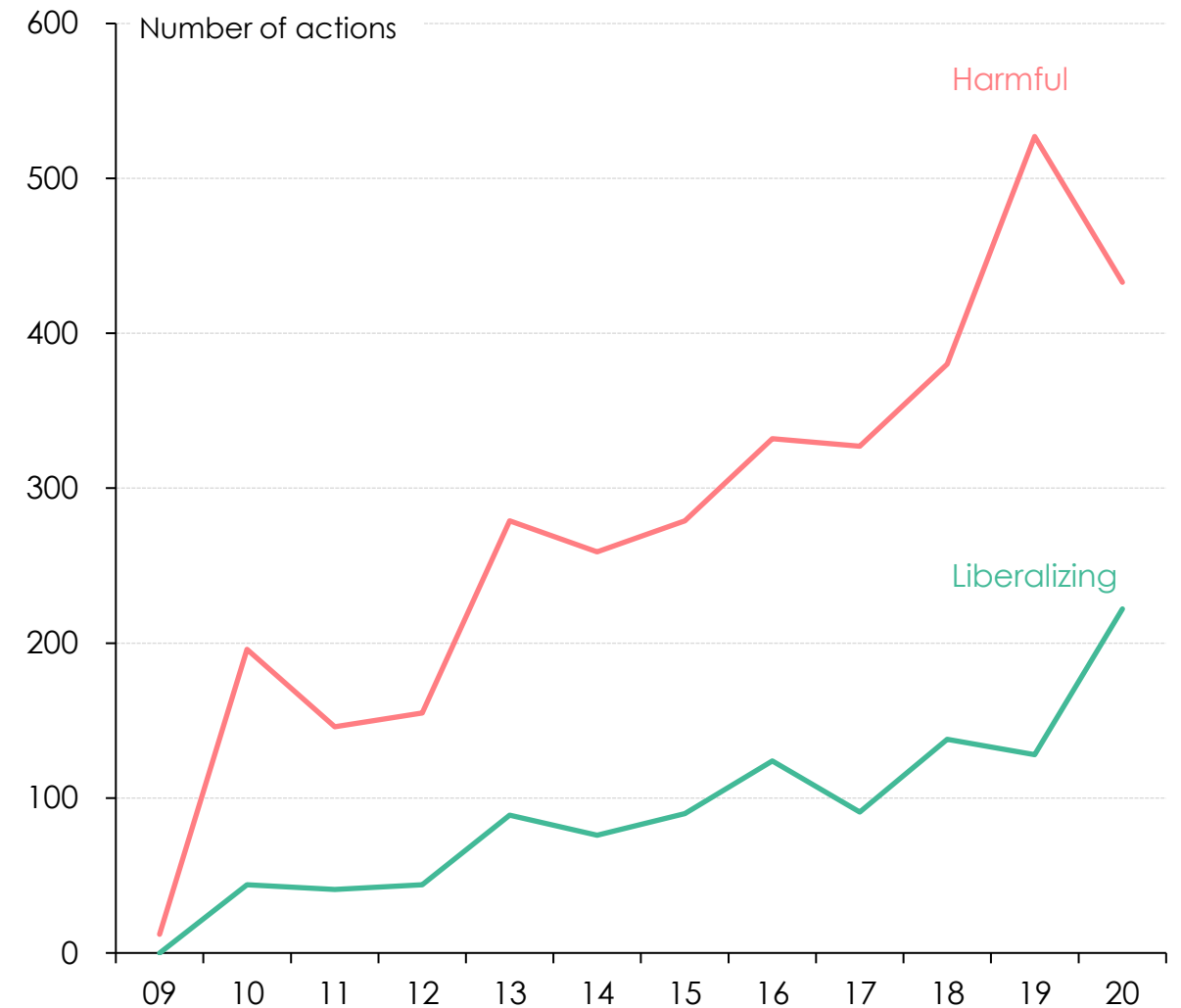
* OECD forecasts are their 'single hit' scenario to be consistent with the assumptions of the other institutions. Note that the IMF forecasts were published 8 weeks before the World Bank and OECD forecasts, and will be updated this coming Wednesday (24th June). Source : International Monetary Fund (IMF), *World Economic Outlook*, 14th April 2020; The World Bank, *Global Economic Prospects*, 8th June 2020; Organization for Economic Co-operation & Development (OECD), *Economic Outlook*, Volume 2020 Issue 1, 10th June 2020.

World merchandise trade volumes have fallen, though so far not as much as during the GFC – despite a less amenable trade policy environment

World trade volumes and container throughput



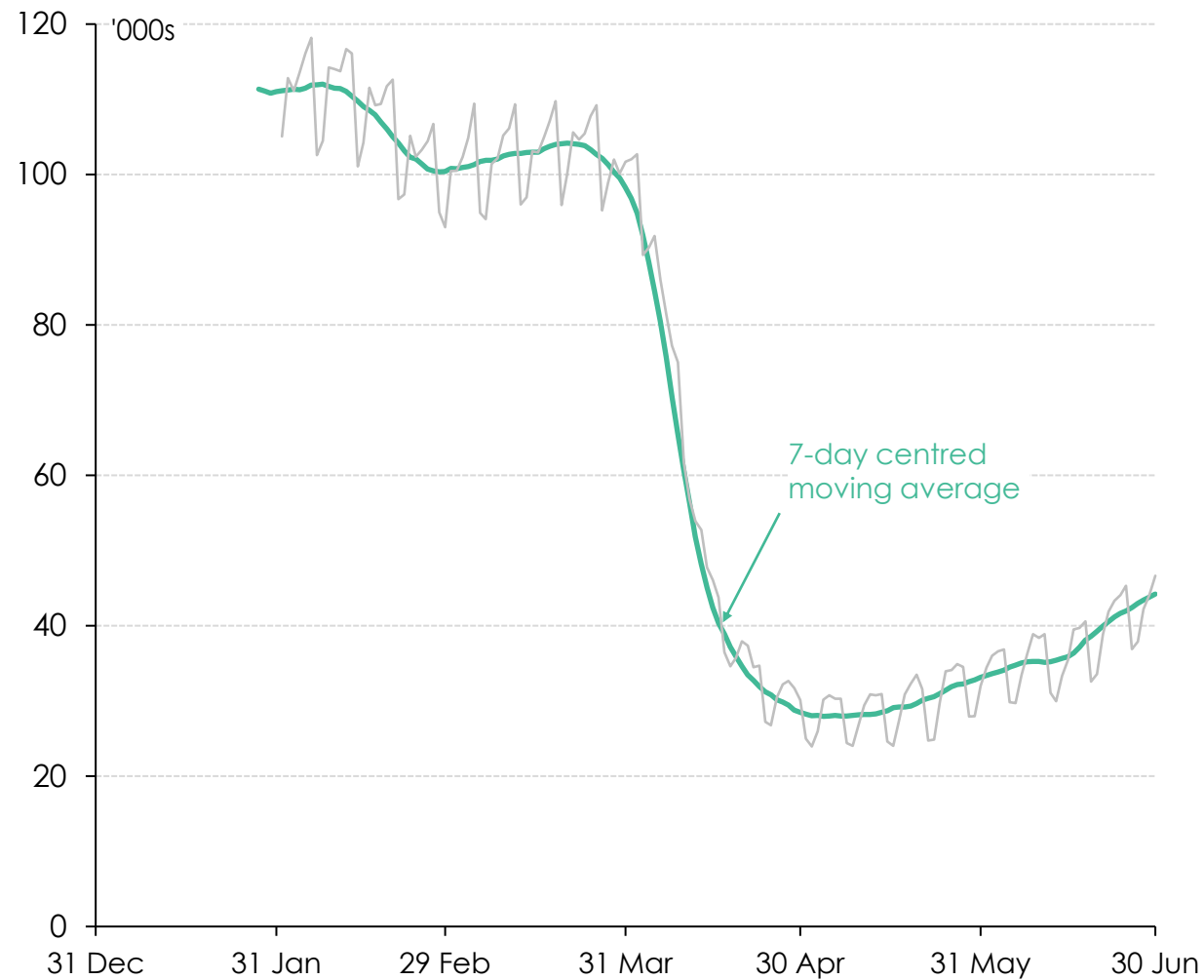
Pro- and anti-trade policy interventions



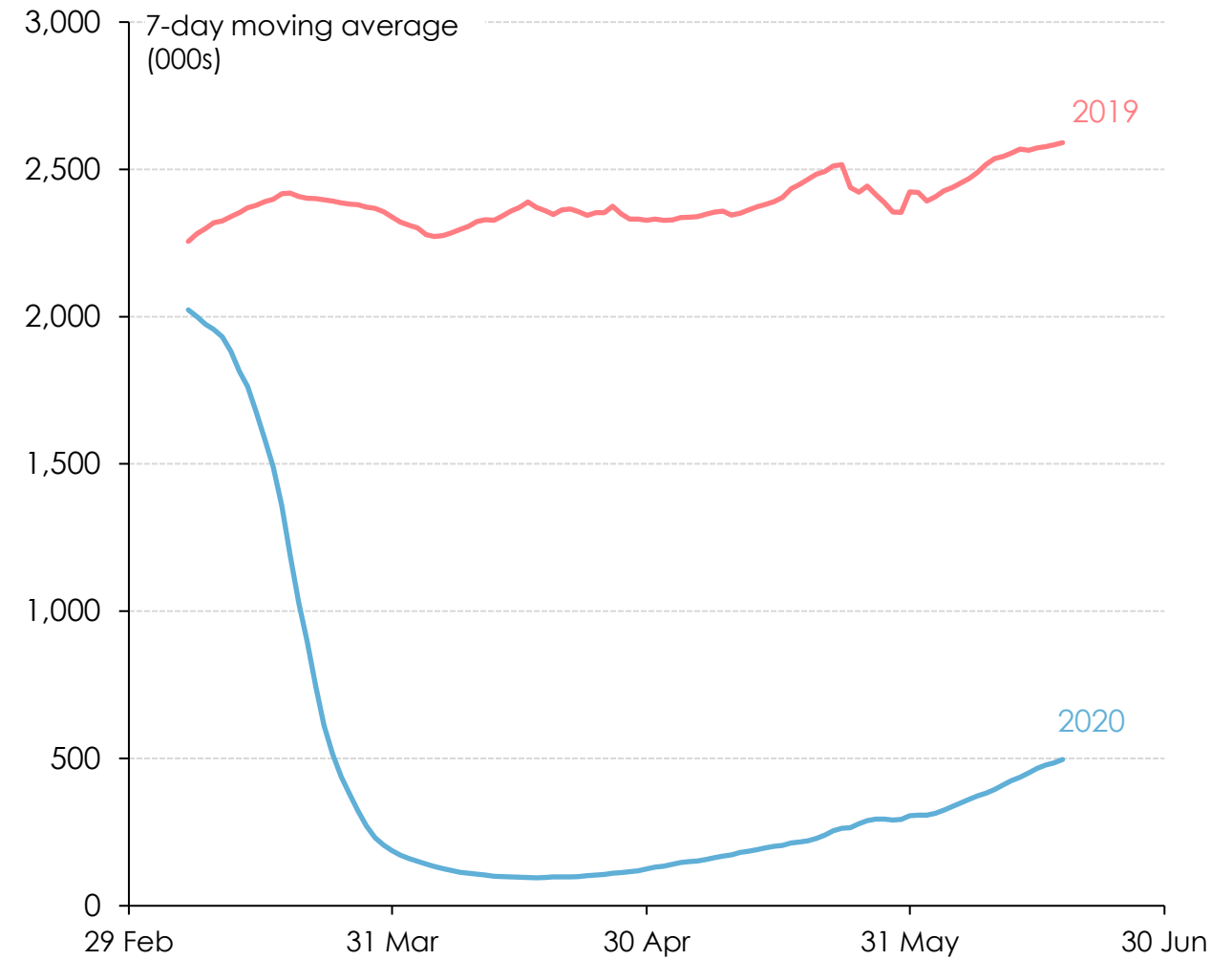
Note: The shipping container throughput index is based on reports from 91 ports around the world handling over 60% of global container shipping.
Sources: CPB Netherlands Economic Planning Bureau, *World Trade Monitor*; Institute of Shipping Economics & Logistics (ISL) and RWI Leibniz-Institut für Wirtschaftsforschung (RWI) *Container Throughput Index*; Global Trade Alert *Global Dynamics*.

Air travel has 'bottomed out' but remains at very low levels globally (still awaiting 'take off')

Daily commercial flights worldwide



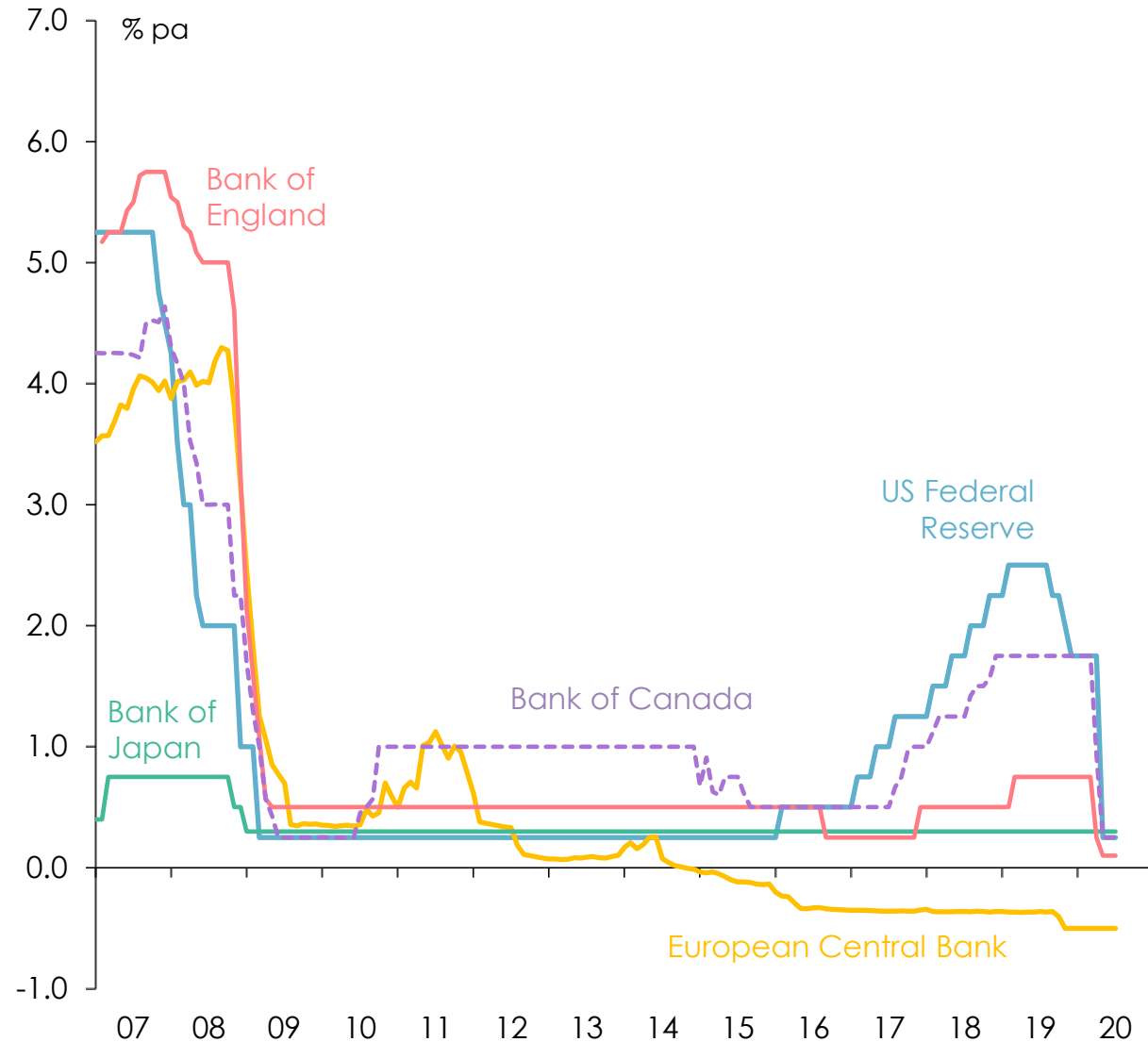
Daily US TSA security checks



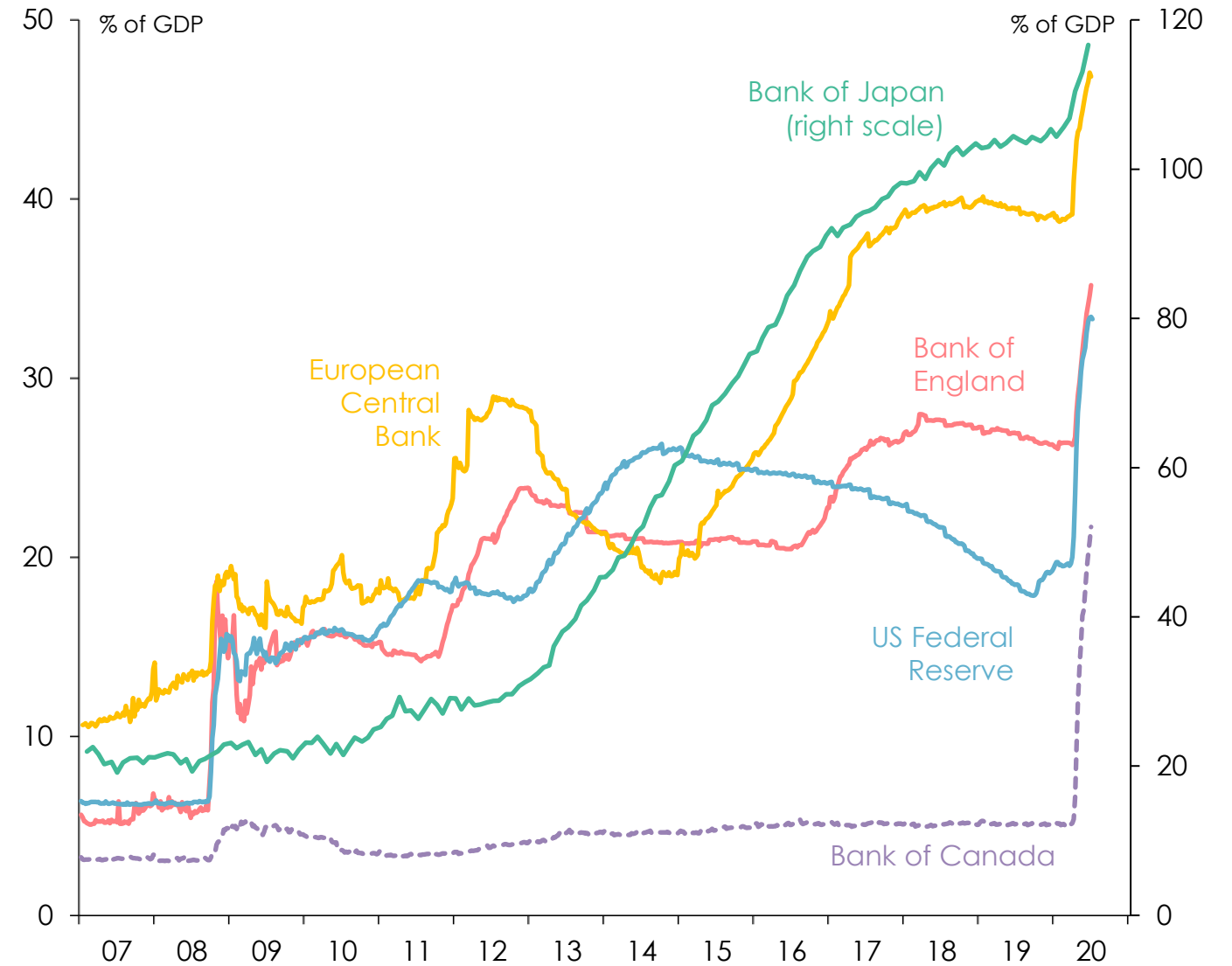
Note: Commercial flights include commercial passenger flights, cargo flights, charter flights, and some business jet flights. Data up to 19th June.
Sources: Flightradar24.com; US Transport Safety Administration (at last, something useful produced by aviation 'security'!!!)

Major central banks have cut interest rates to record lows, and done more 'quantitative easing' than during the global financial crisis

Major central bank policy interest rates



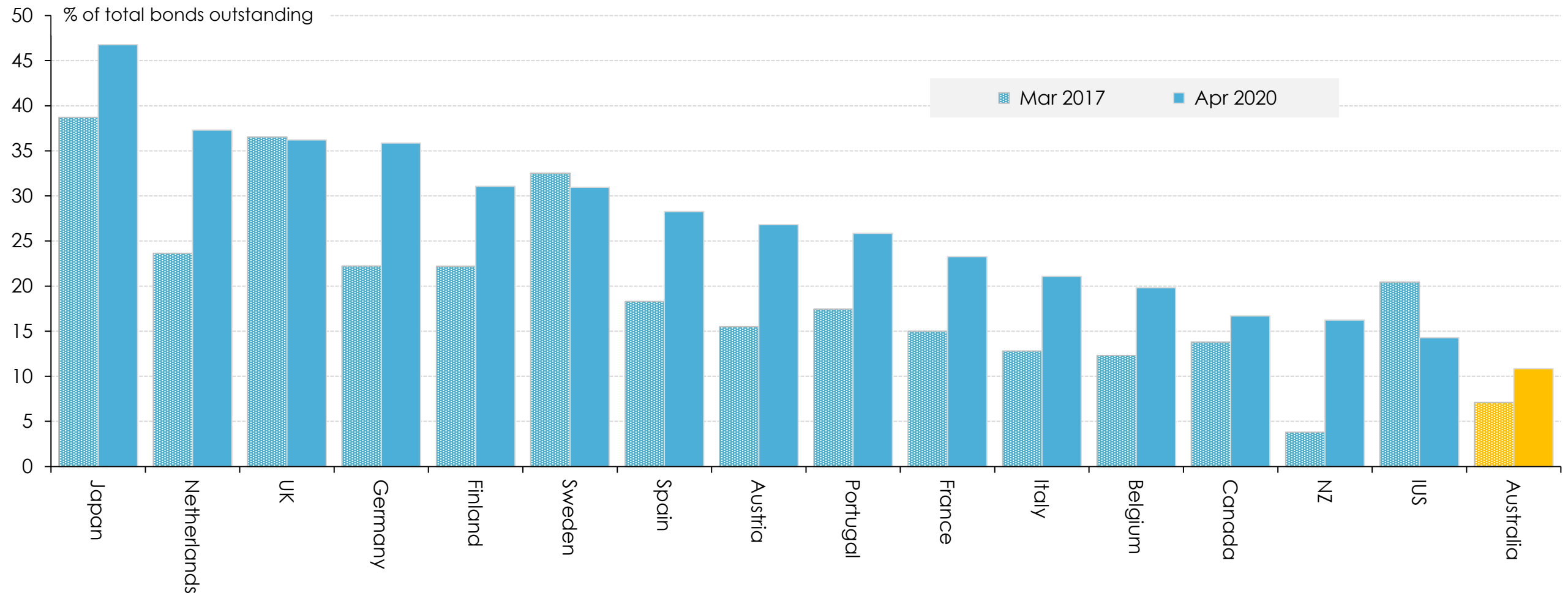
Major central bank balance sheets



Sources: US Federal Reserve; European Central Bank; Bank of Japan; Bank of England; Bank of Canada.

Central banks now hold significant proportions of total government debt in a growing number of countries

Central bank holdings of central government bonds



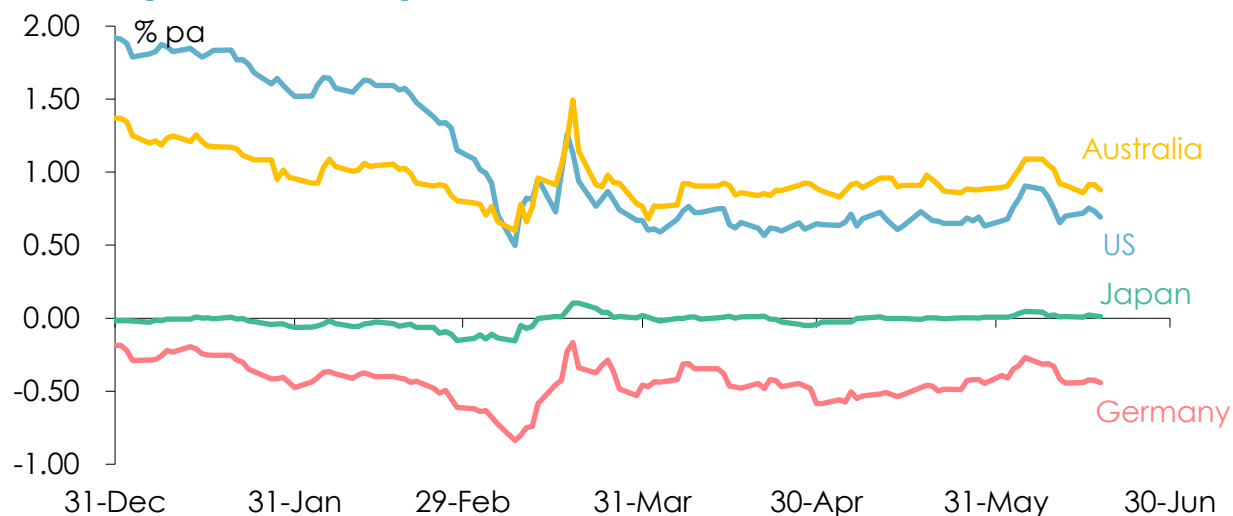
Sources: Surprisingly, the RBA does not disclose its holdings of Australian Government bonds in its weekly balance sheet statement (see RBA Statistical Table A1. Hence the figure shown here for Australia at March 2017 was derived from ABS *Finance and Wealth*, and that for April 2020 by adding to RBA holdings as per the December 2019 issue of *Finance and Wealth*, disclosed RBA purchases of Australian Government bonds up to end-April, divided by the amount of Australian Government securities outstanding disclosed in the Government's *Monthly Financial Statement*. The figures for RBNZ holdings of NZ government securities are published in Table r1 on the RBNZ's website while figures for total NZ government securities outstanding are in Table D30. All other are from OECD, *Economic Outlook* No. 107 (June 2020) and No. 104 (June 2017).

Markets recovered some of last week's slump after the Fed announced it had started buying corporate debt

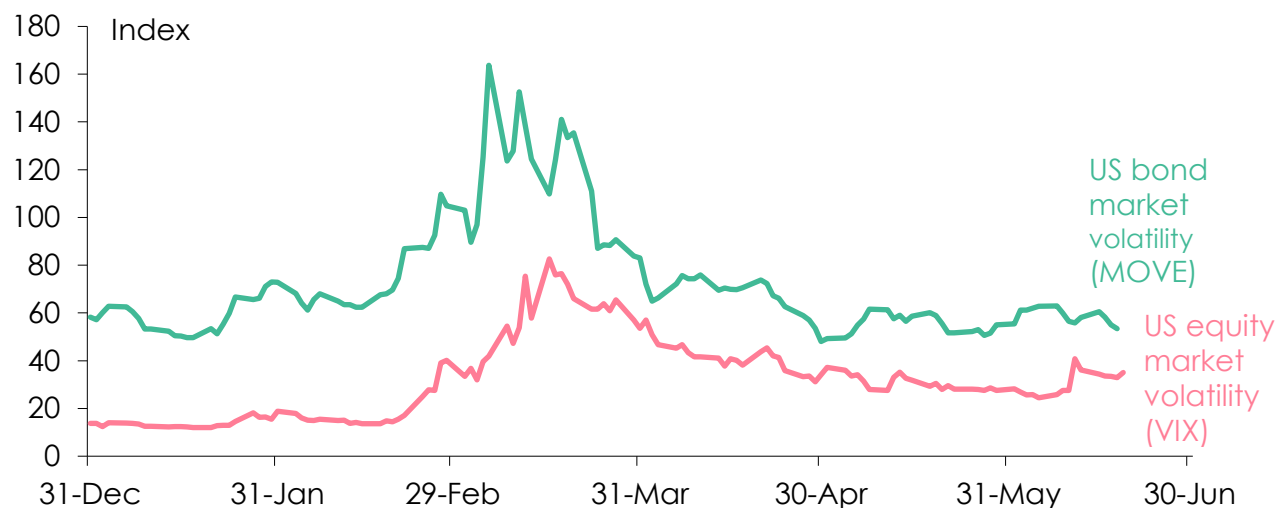
Stock markets



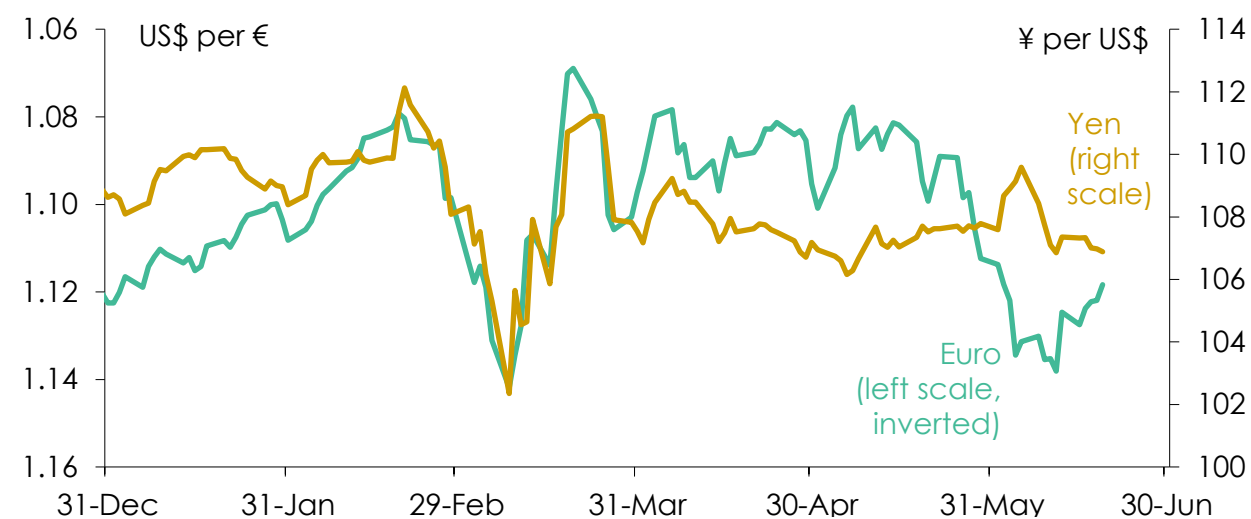
10-year bond yields



Measures of market volatility

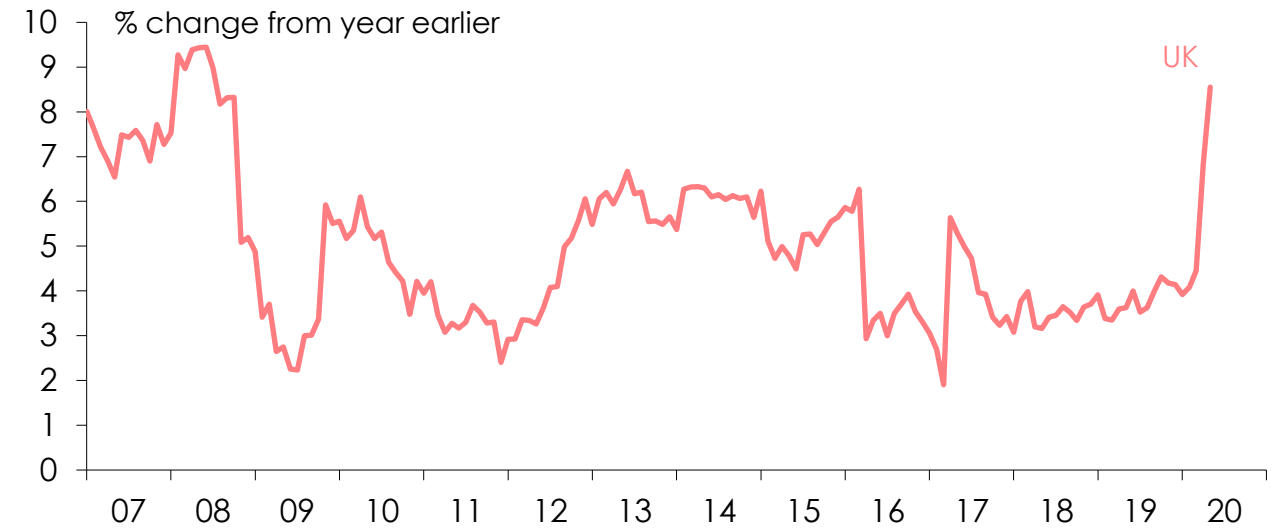
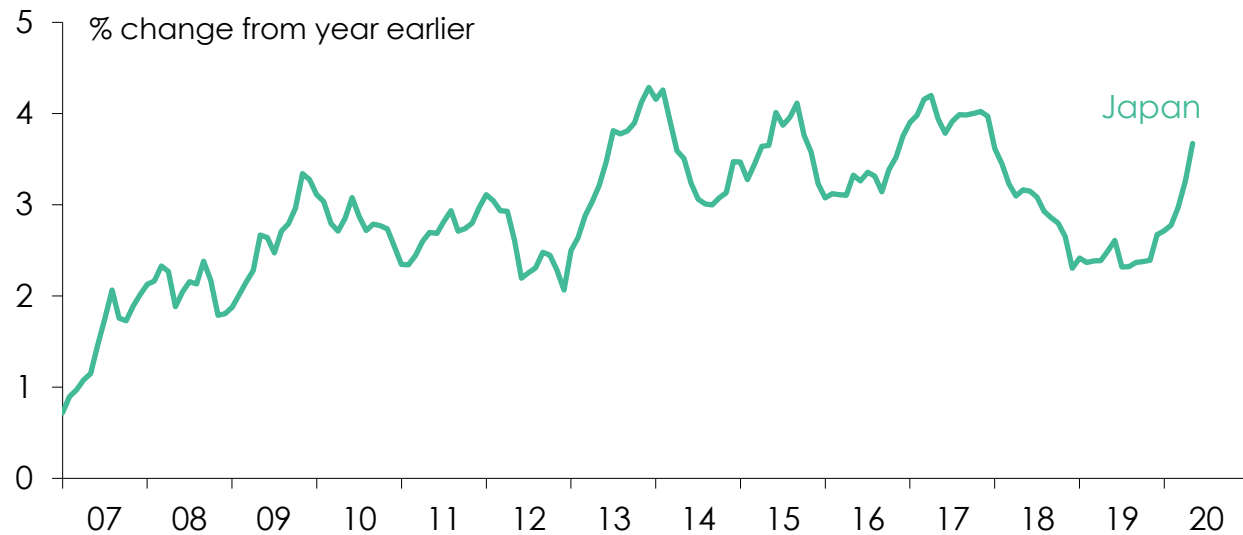
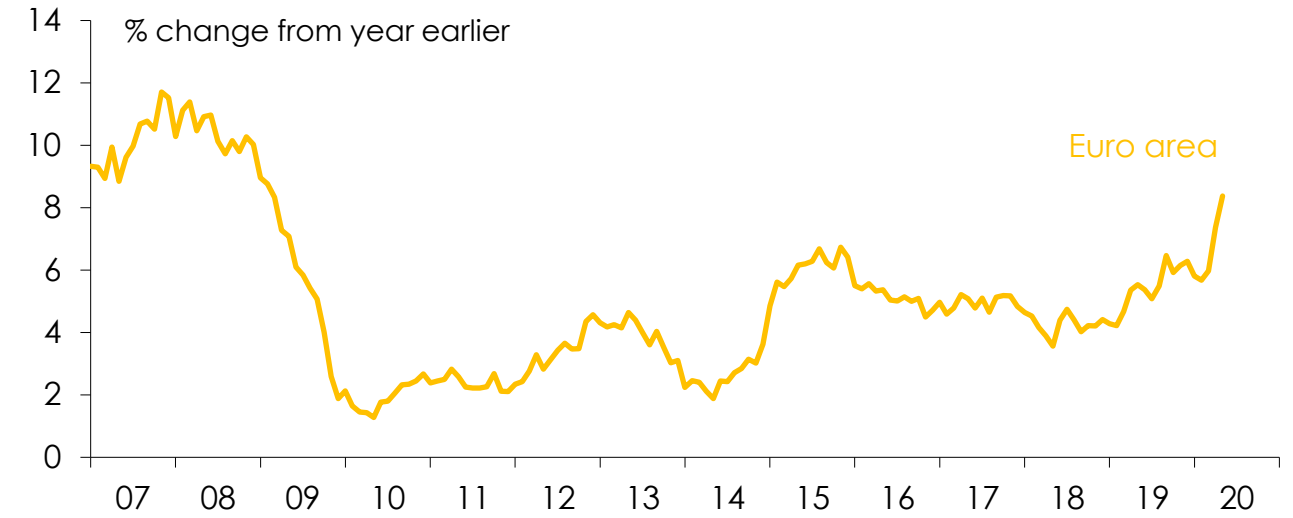
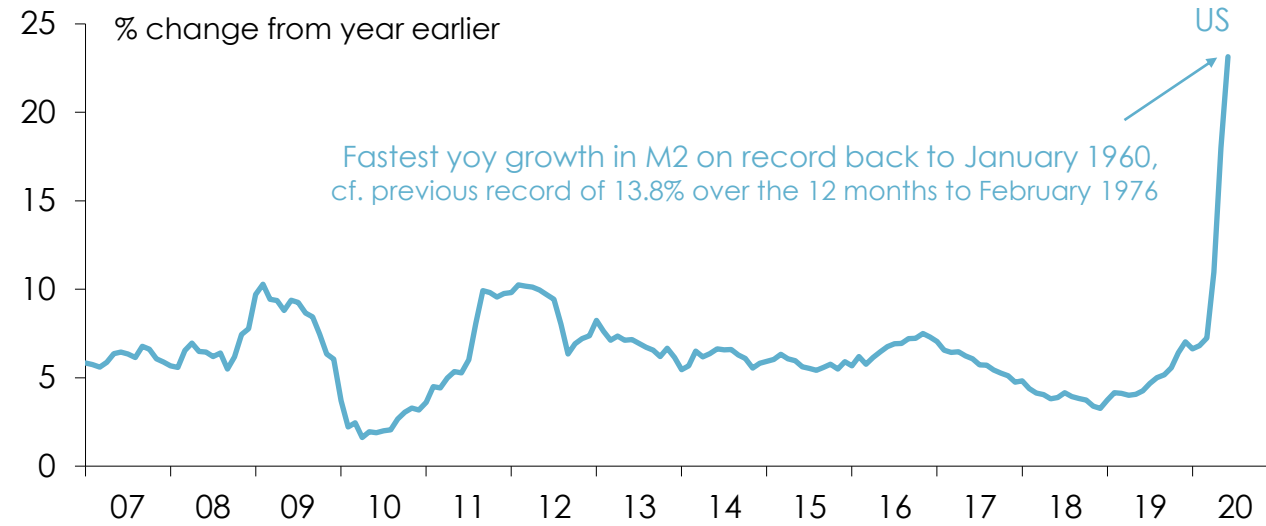


US dollar vs euro and yen



'Quantitative easing' has prompted a more rapid acceleration in money supply growth than it did during the global financial crisis ...

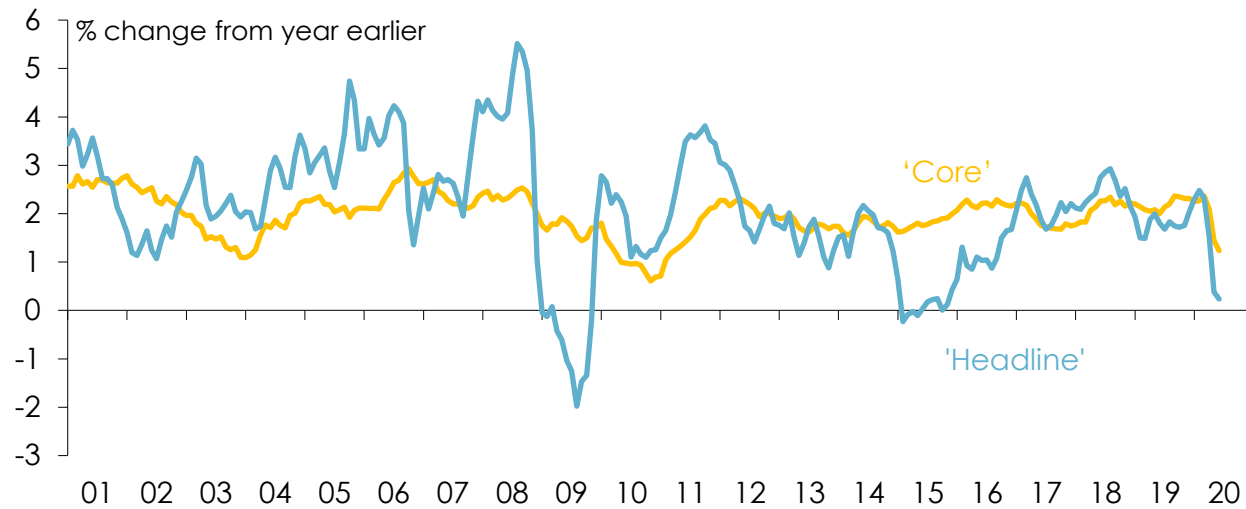
M2 money supply growth



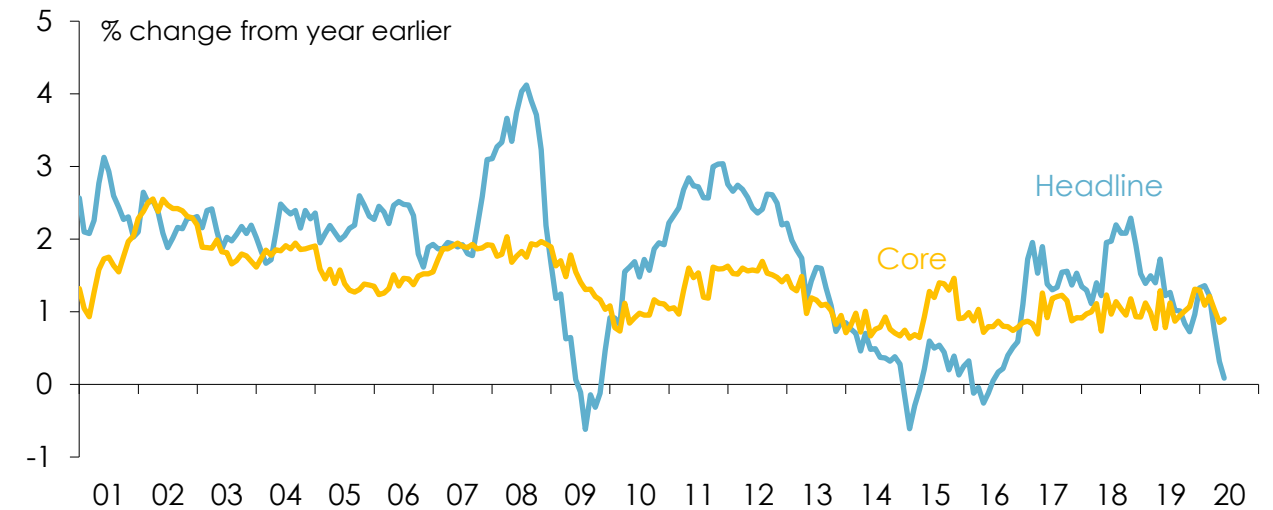
Note: Japan is M2+CDs; UK is M4. Sources: US Federal Reserve; European Central Bank; Bank of Japan; Bank of England.

...but so far at least, inflation has been falling rather than rising, even discounting the impact of lower oil prices

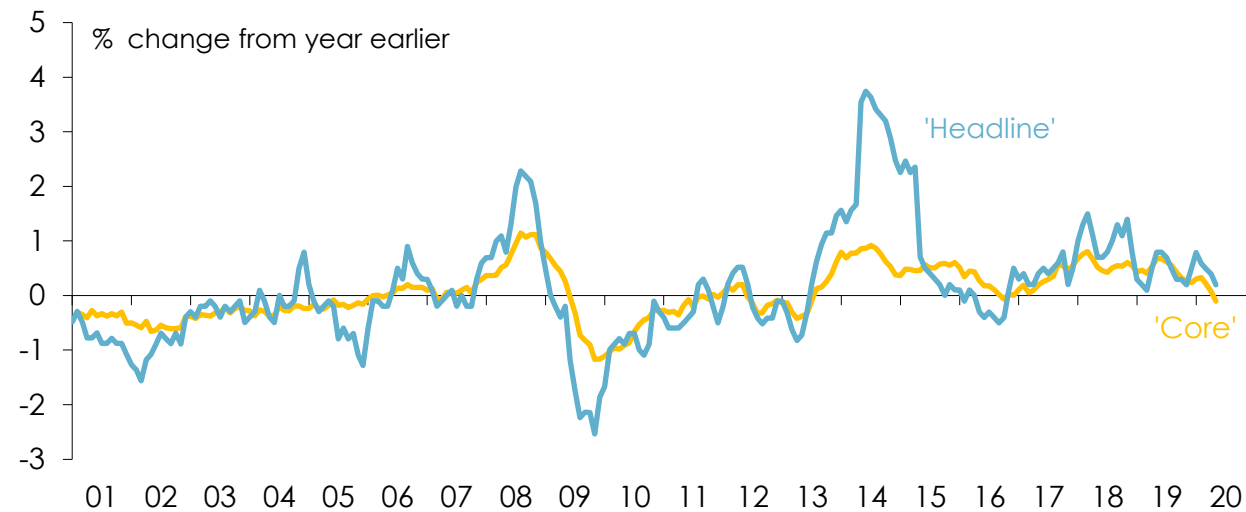
'Headline' and 'core' inflation - US



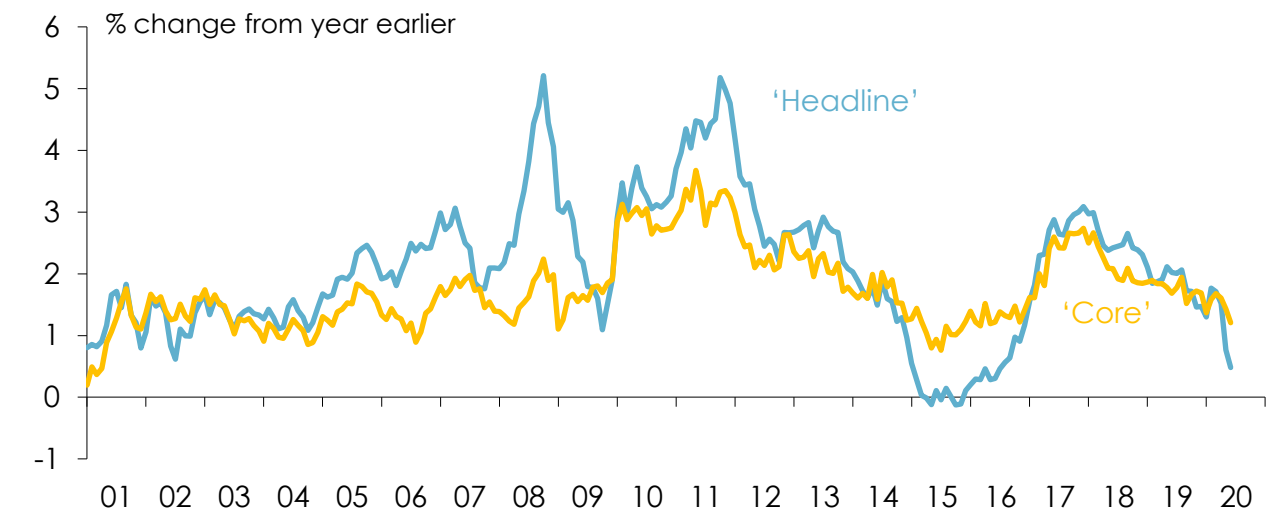
'Headline' and 'core' inflation – Euro area



'Headline' and 'core' inflation - Japan



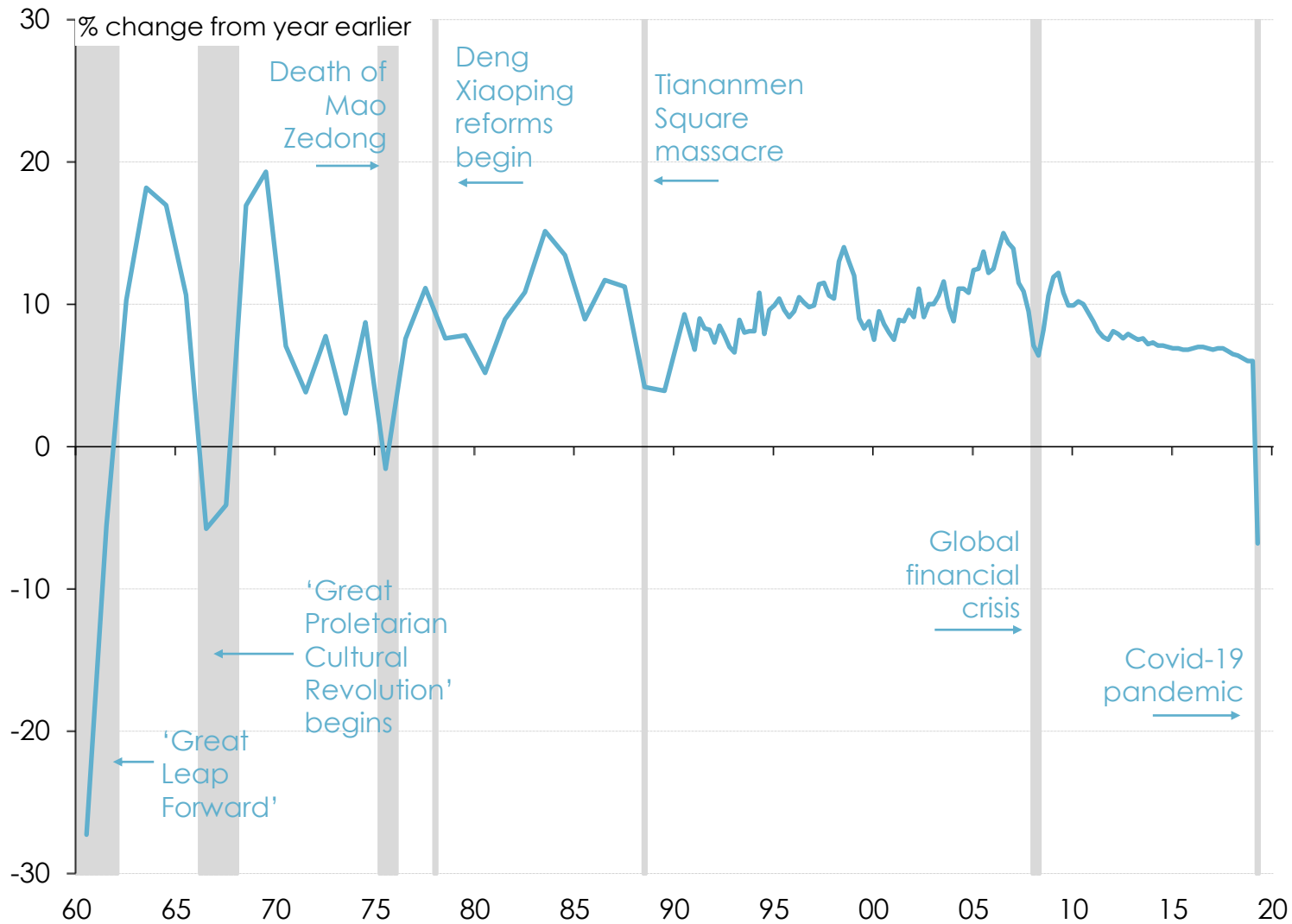
'Headline' and 'core' inflation – UK



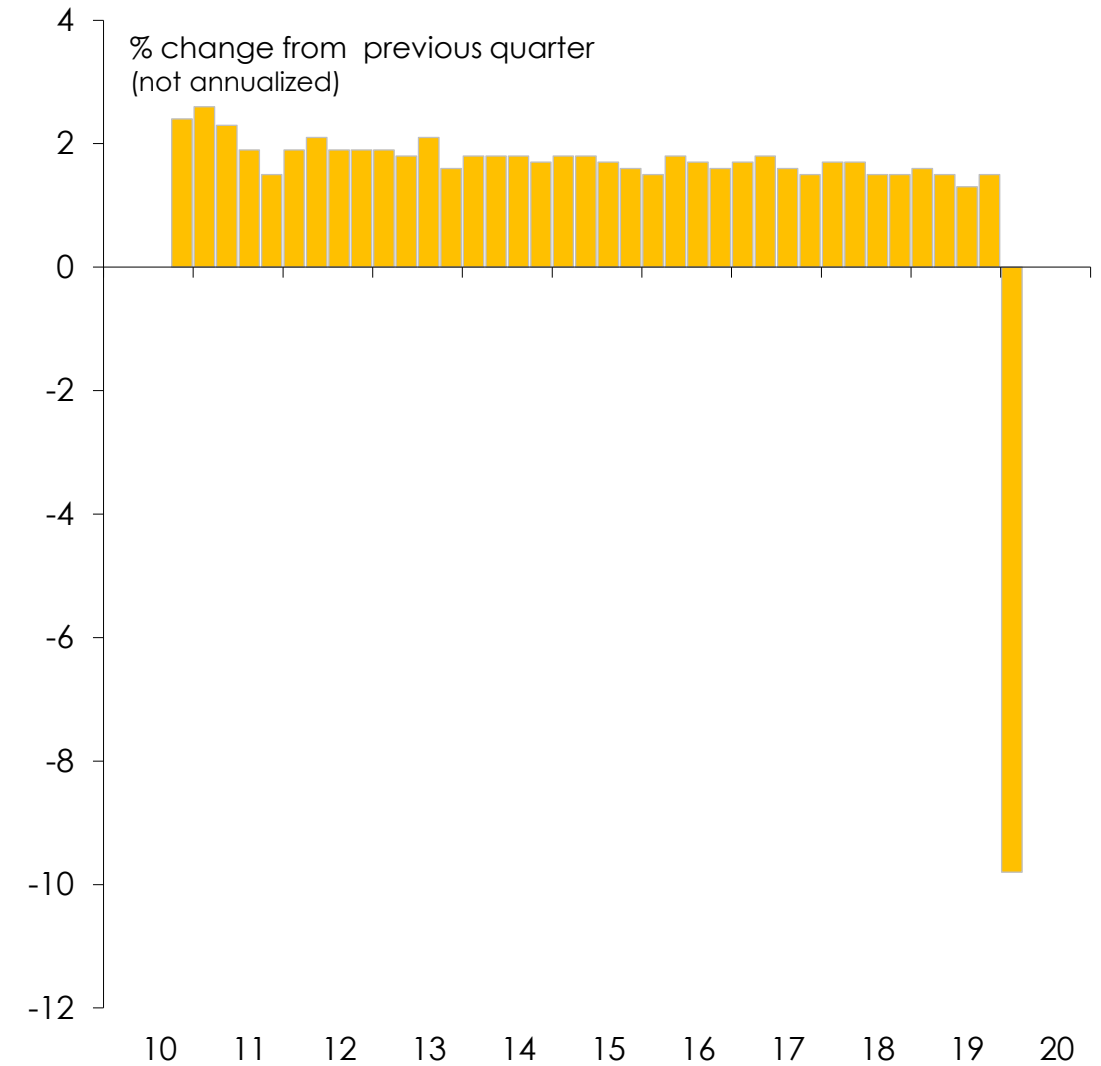
Note: 'Core' inflation is the CPI excluding food & energy in the US; excluding food, energy, alcohol & tobacco in the euro area; and excluding energy & seasonal foods in the UK. The 'core' inflation measure for Japan is the weighted median CPI calculated by the Bank of Japan. Sources: US Bureau of Labor Statistics; Eurostat; Statistics Bureau of Japan; Bank of Japan; UK Office for National Statistics.

China experienced its sharpest economic downturn in the first quarter of this year since the beginning of the 'Cultural Revolution'

Real GDP growth, from year earlier, 1961-2020



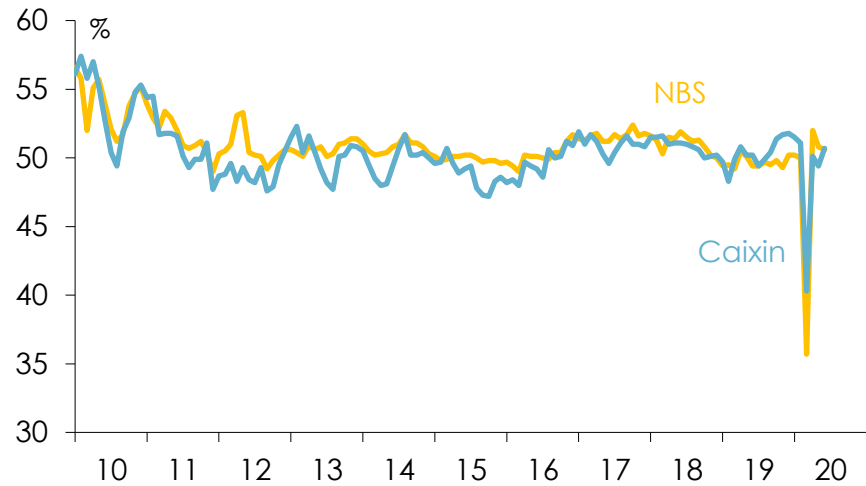
Quarterly real GDP growth, 2010-2020



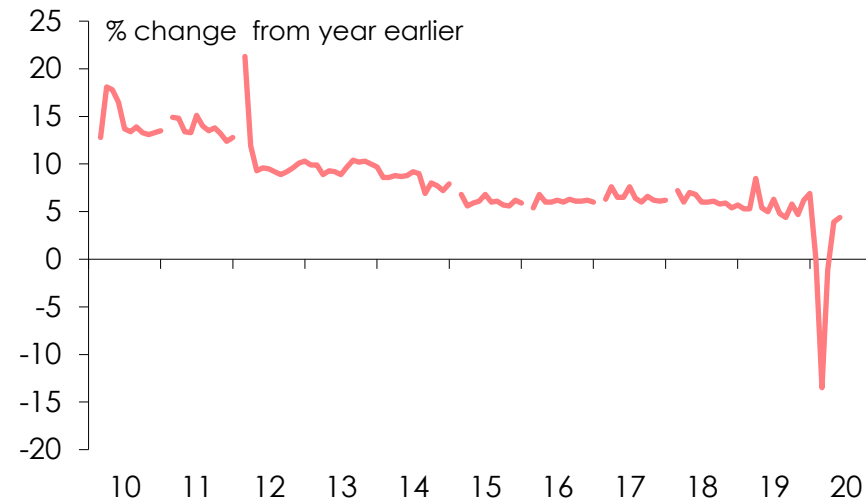
Note: In the left hand chart, GDP growth rates are annual averages up to the December quarter of 1991, and then quarter-on-corresponding-quarter-of-previous-year thereafter. Sources: China National Bureau of Statistics.

Production has rebounded in the current quarter, although not yet to pre-pandemic levels

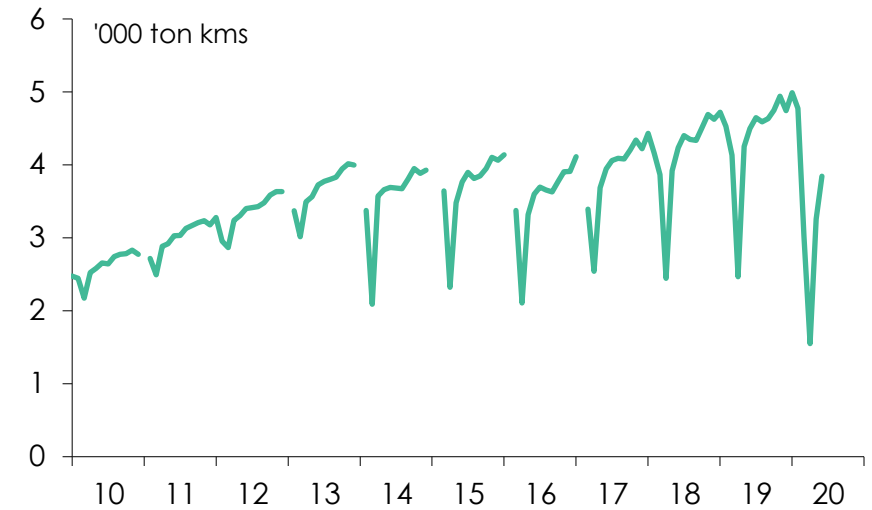
Manufacturing PMIs



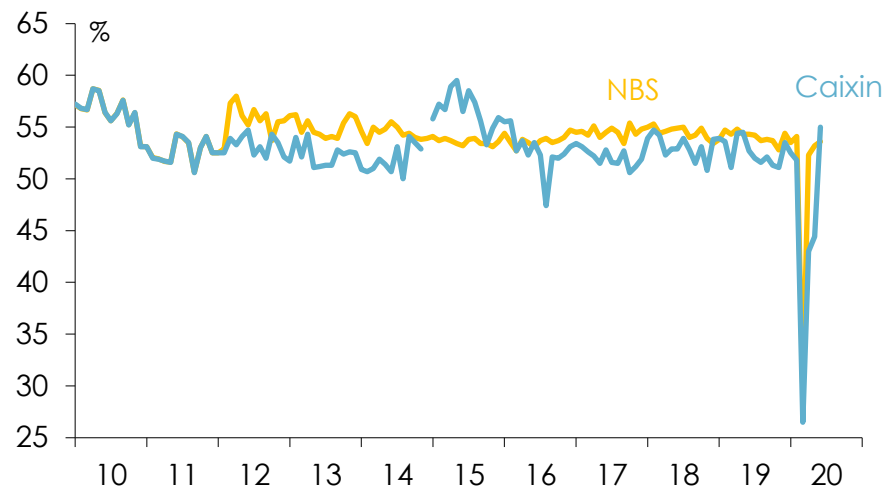
Industrial production



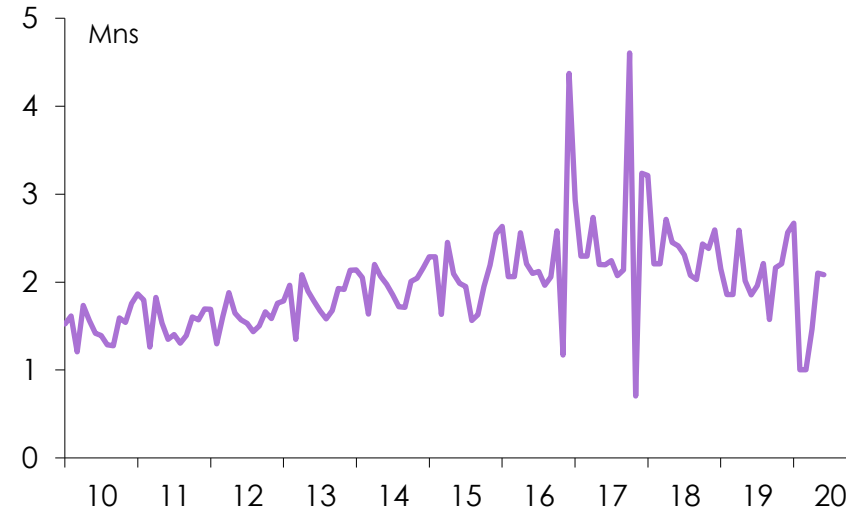
Freight traffic



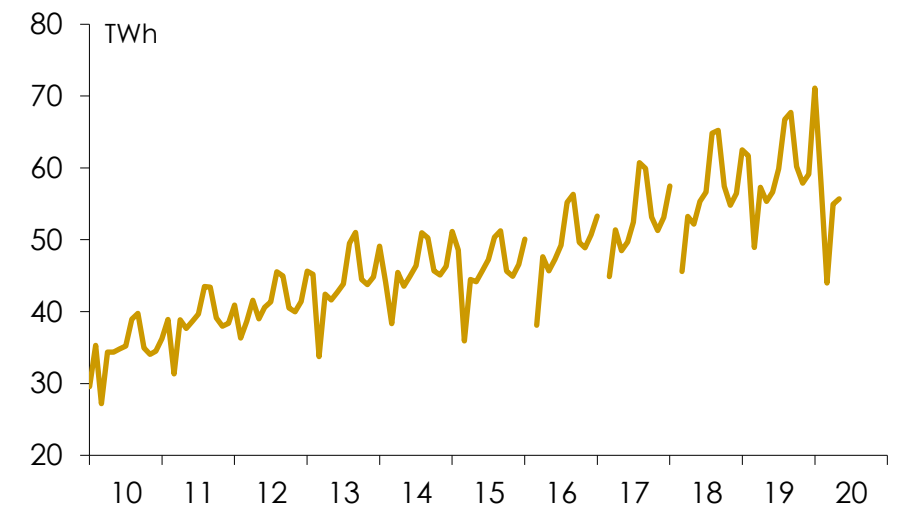
Non-manufacturing PMIs



Motor vehicle production



Primary electricity production



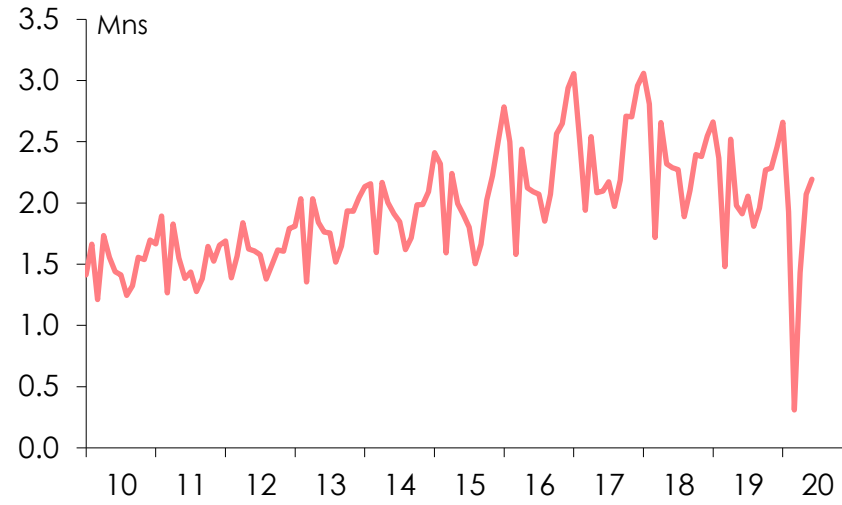
Sources: China National Bureau of Statistics; Caixin; China Association of Automobile Manufacturers.

However the 'demand' side of the Chinese economy – both household and business – is recovering rather more gradually

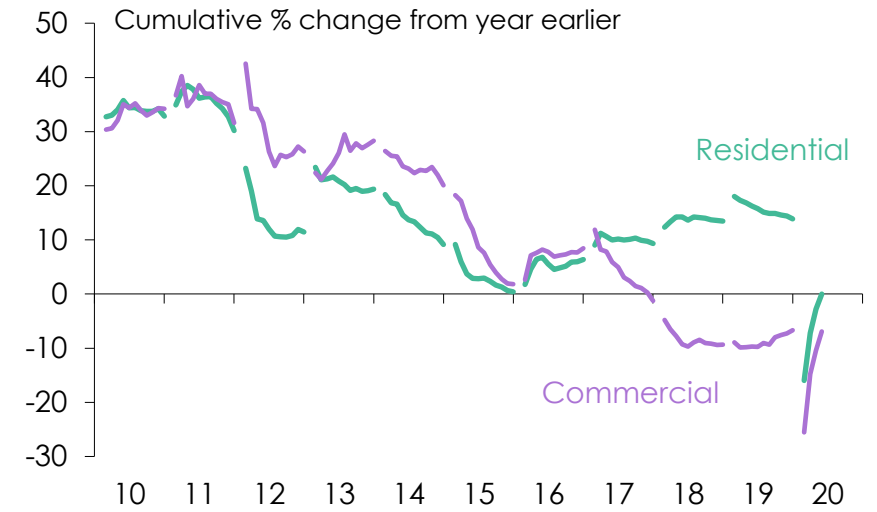
Consumer sentiment



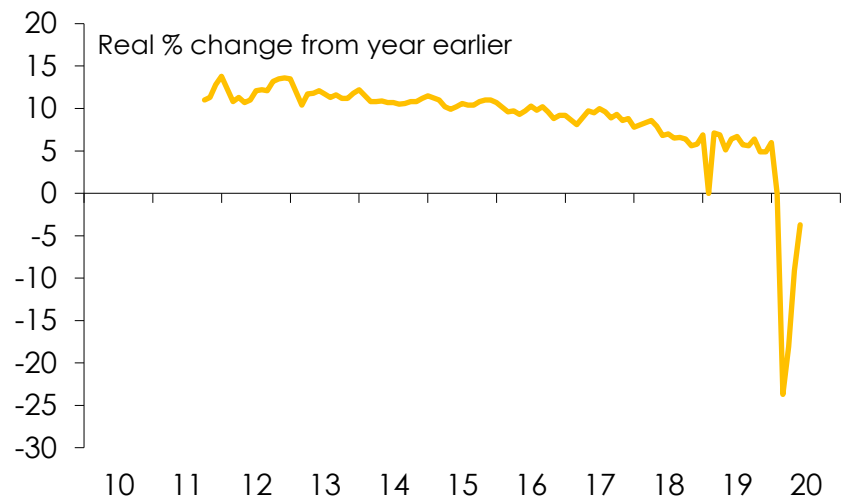
Motor vehicle sales



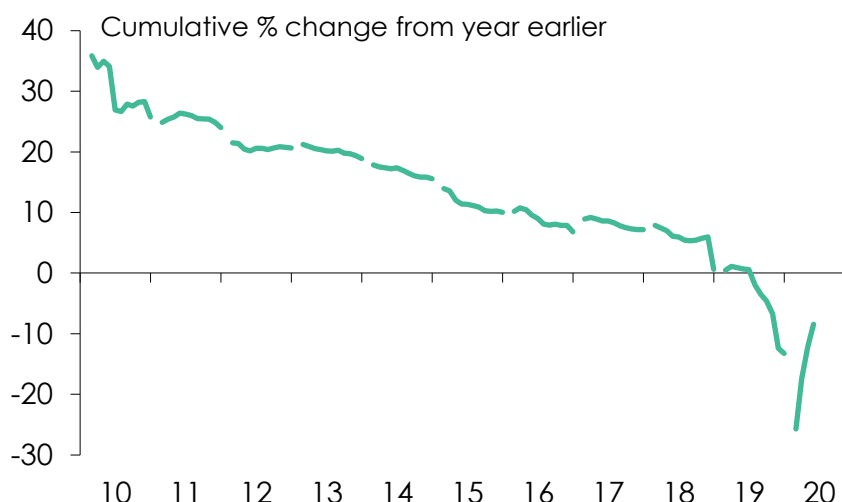
Real estate investment



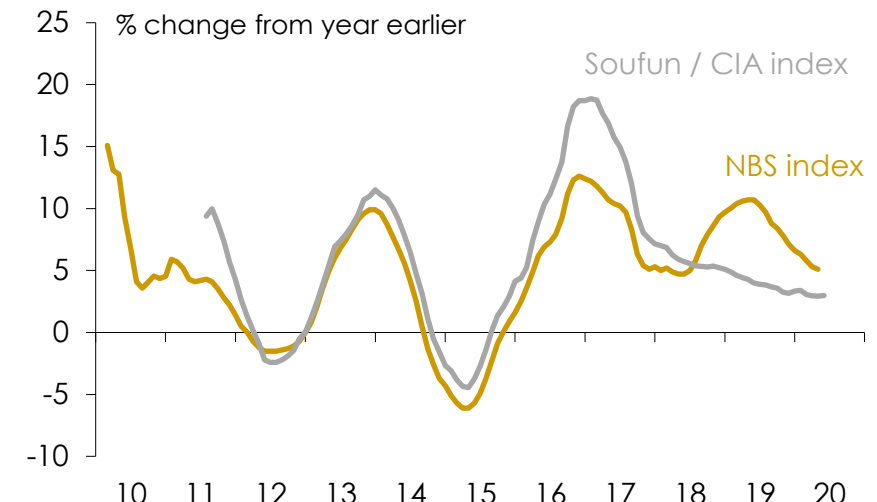
Retail sales volume



Fixed asset investment



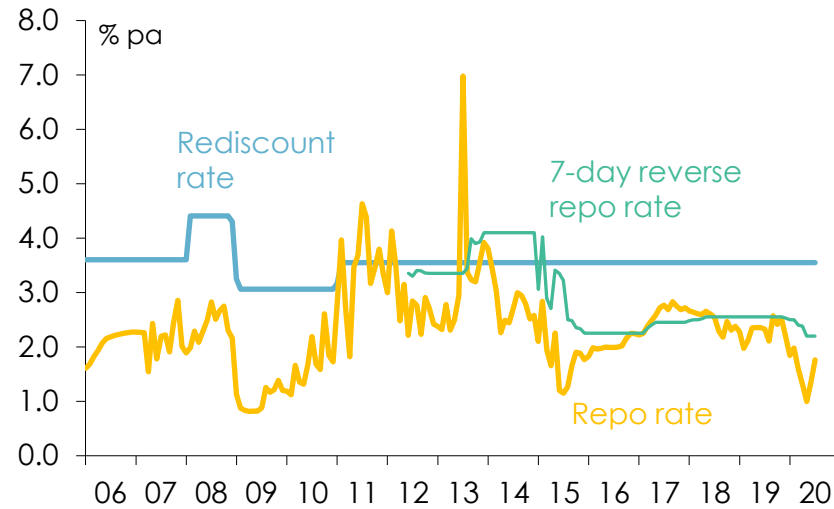
Residential real estate prices



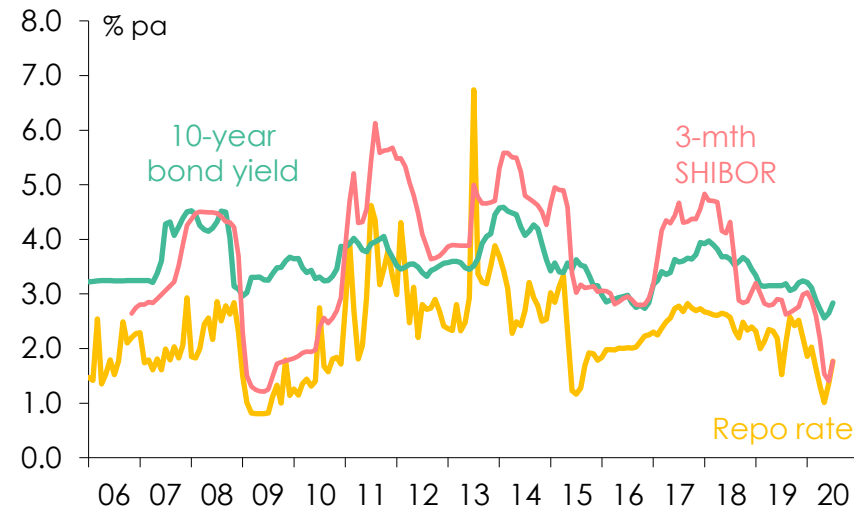
Sources: China National Bureau of Statistics; China Association of Automobile Manufacturers; China Index Academy.

The PBoC has been more cautious about stimulus than it was in 2008-09 or 2015-16, perhaps because it's still concerned about financial stability

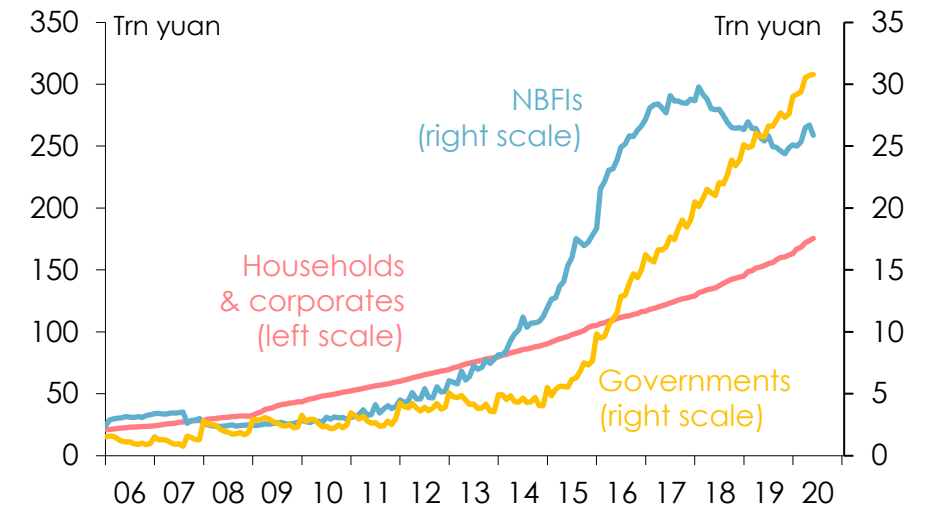
PBoC policy interest rates



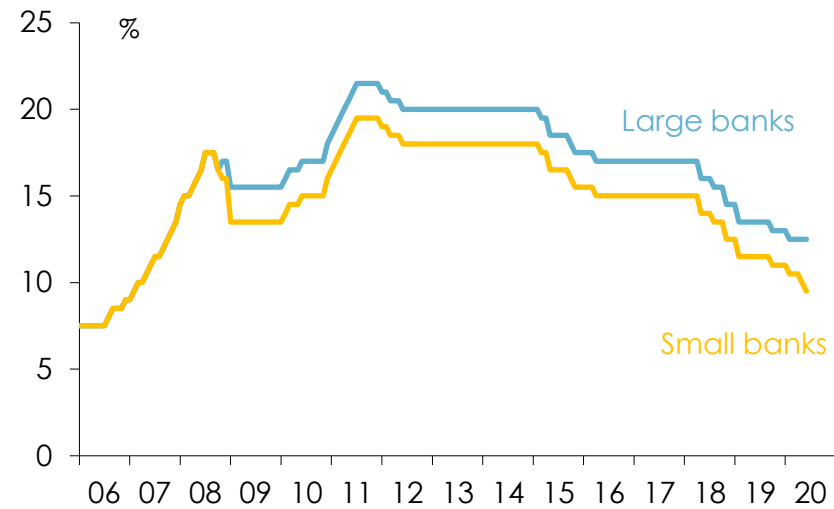
Market interest rates



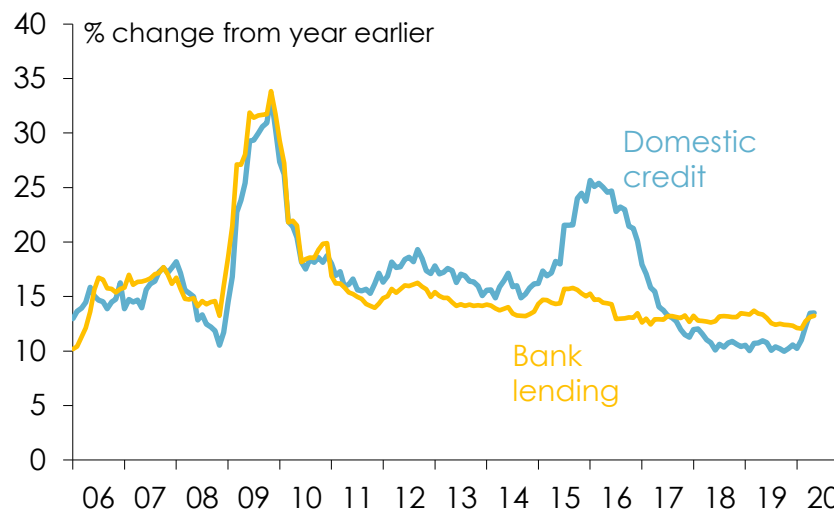
Depository corporation assets



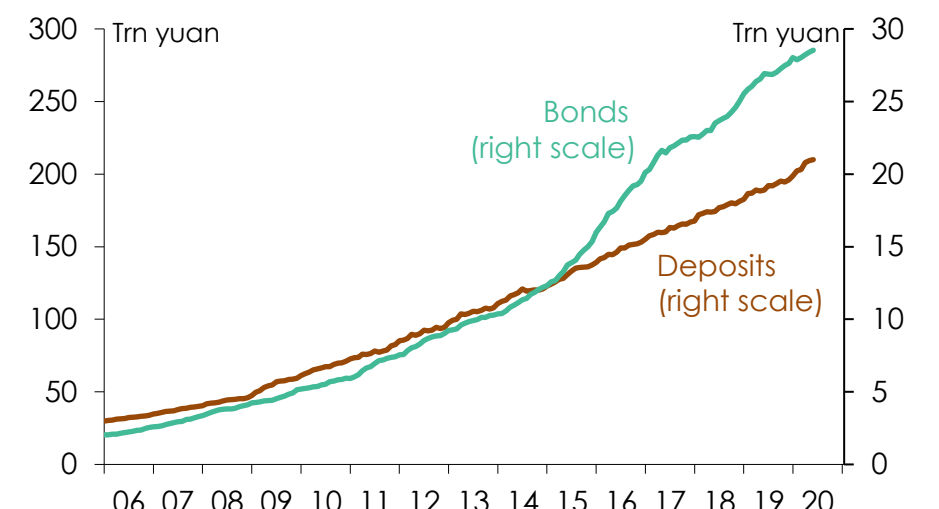
Bank reserve requirement ratios



Credit growth



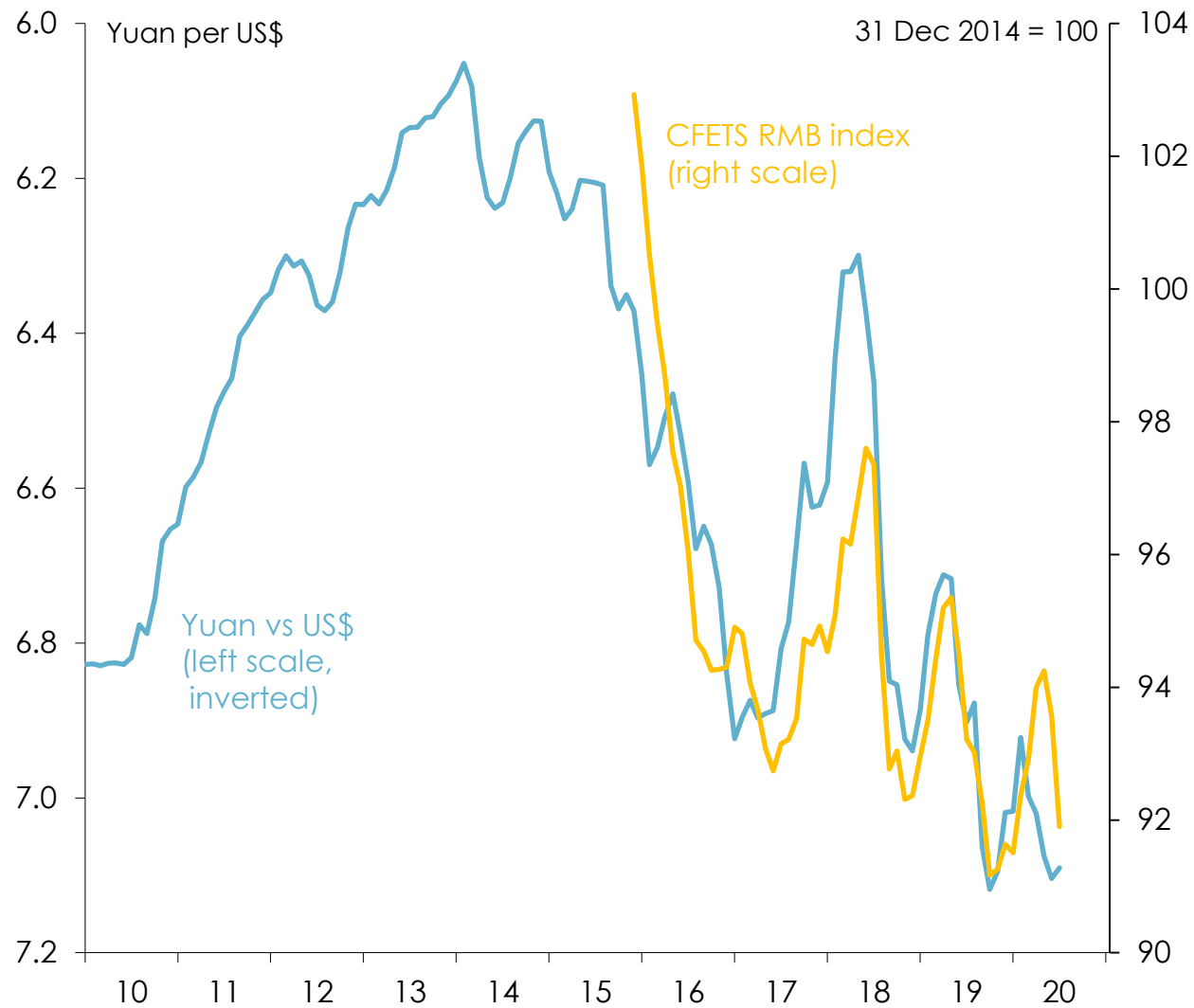
Depository corporation liabilities



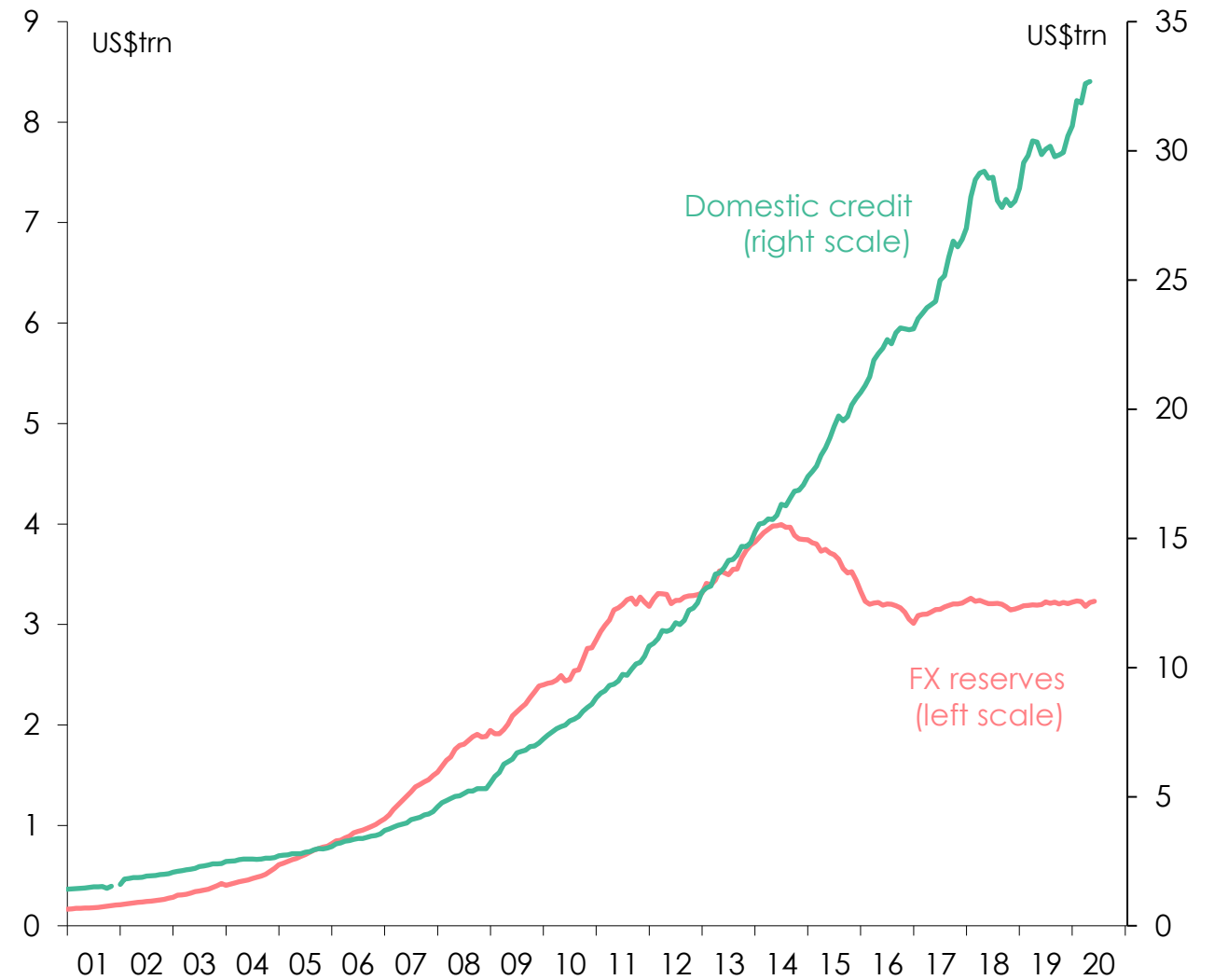
Sources: Refintiv Datastream; People's Bank of China.

China has allowed the yuan to depreciate against the US\$ and in trade-weighted terms – but is the FX regime sustainable in the long term?

Chinese yuan vs US\$ and trade-weighted index



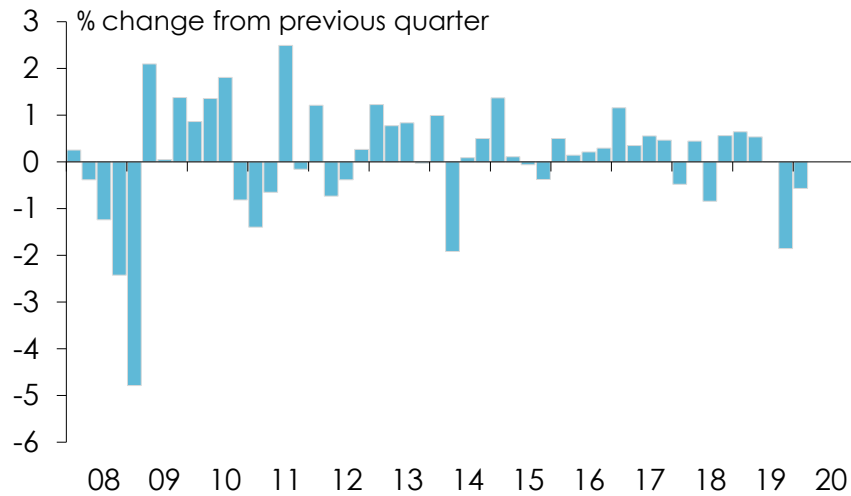
FX reserves and domestic credit



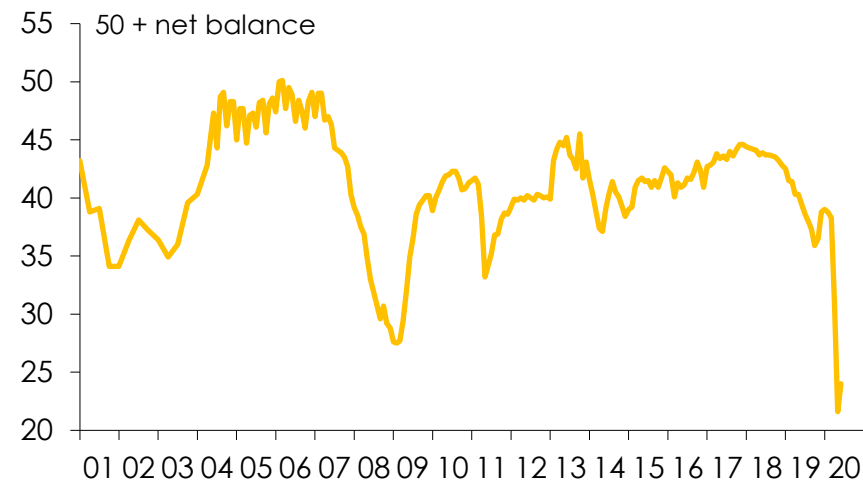
Sources: Refinitiv Datastream; China Foreign Exchange Trading System; People's Bank of China.

Japan entered its fourth recession since 2000 after hiking its GST rate last October, and the pandemic has worsened it

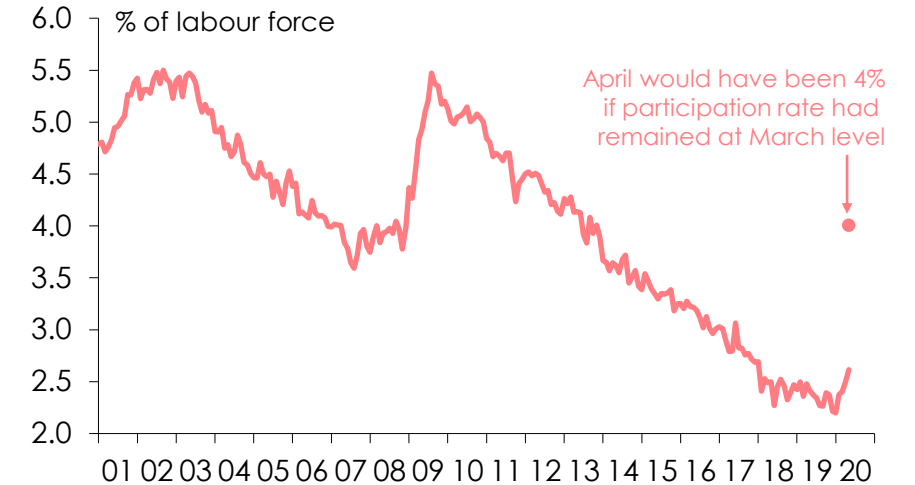
Real GDP



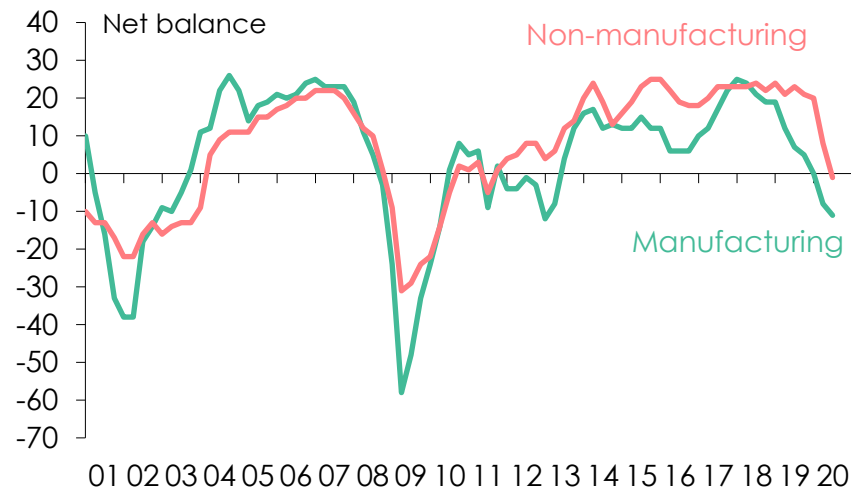
Consumer confidence



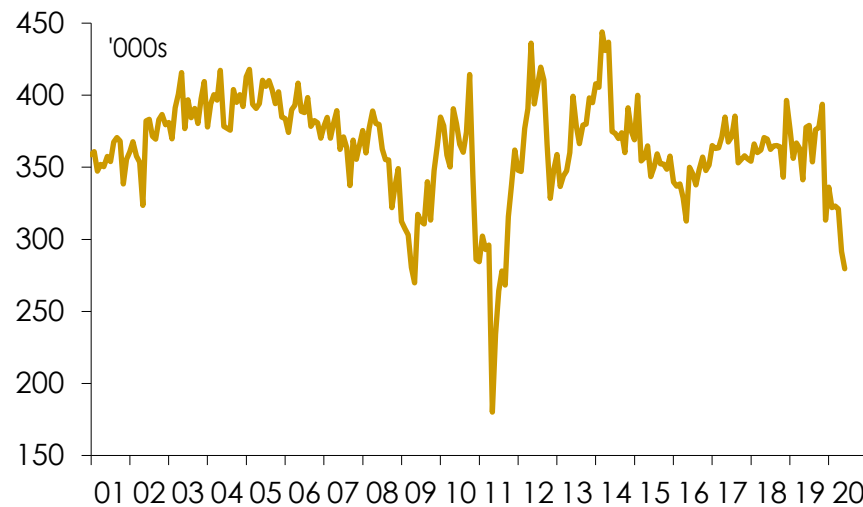
Unemployment



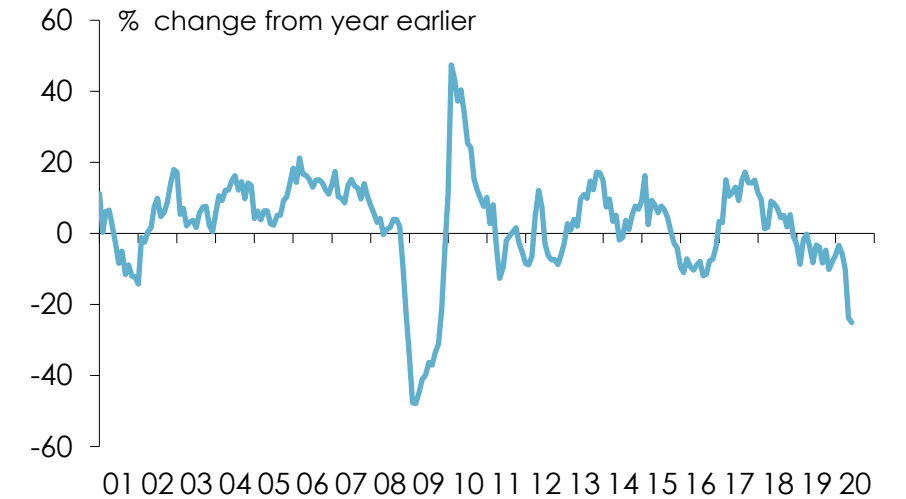
Business sentiment



Passenger vehicle sales



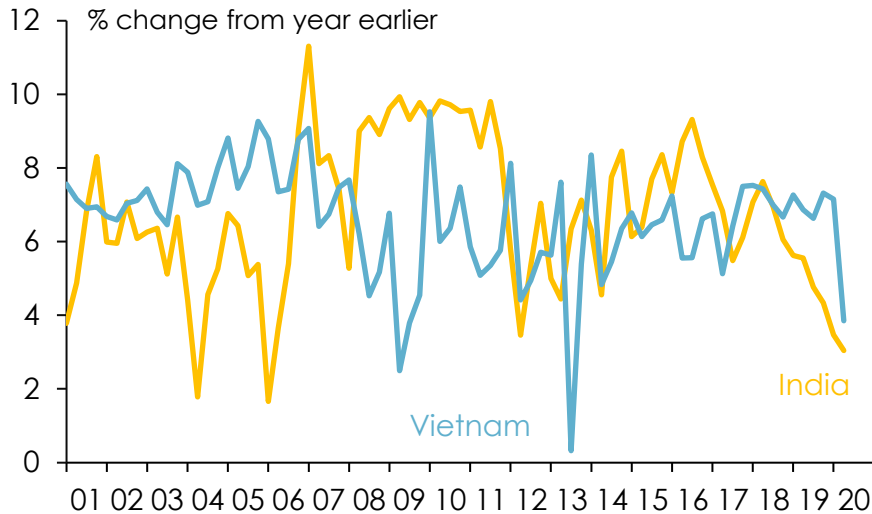
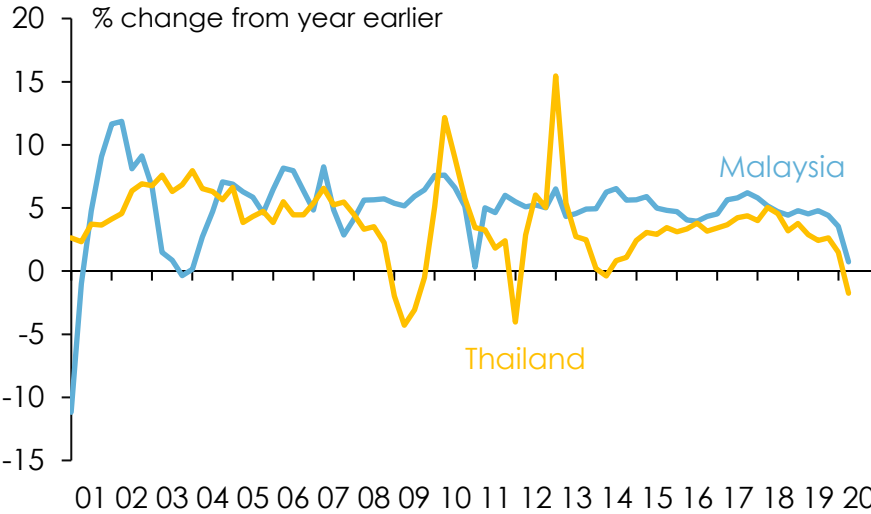
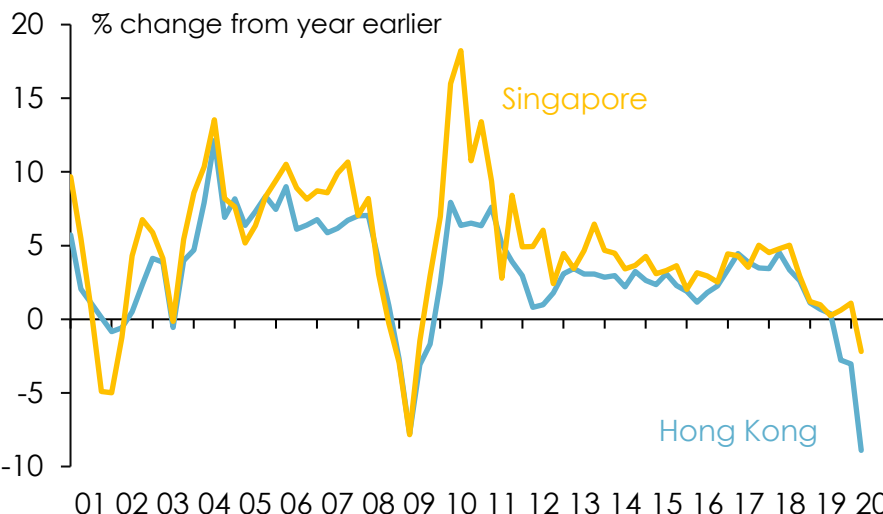
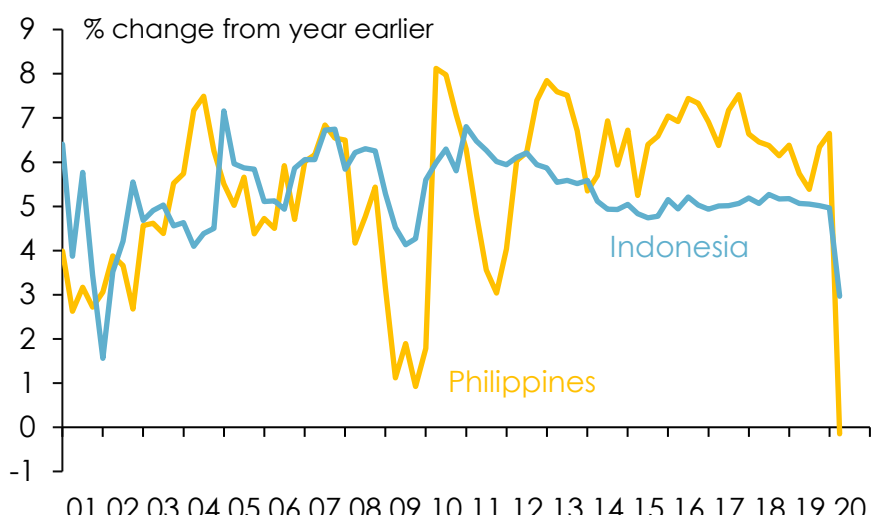
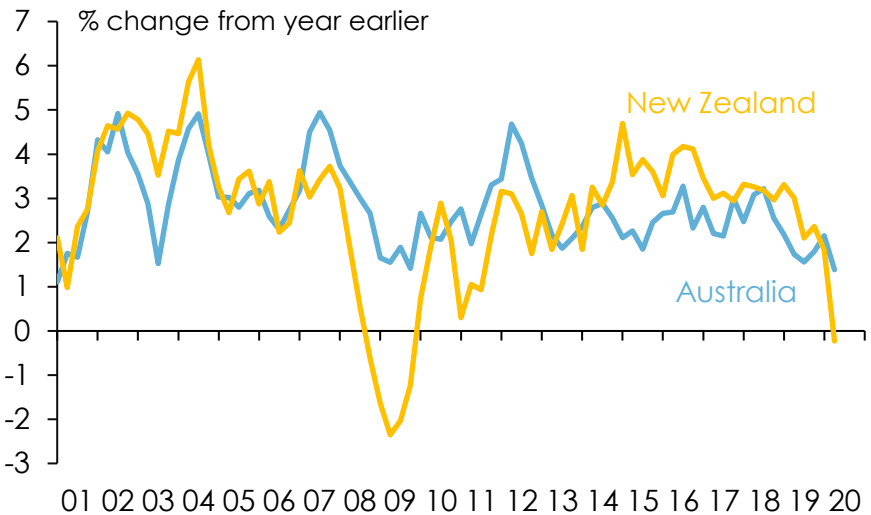
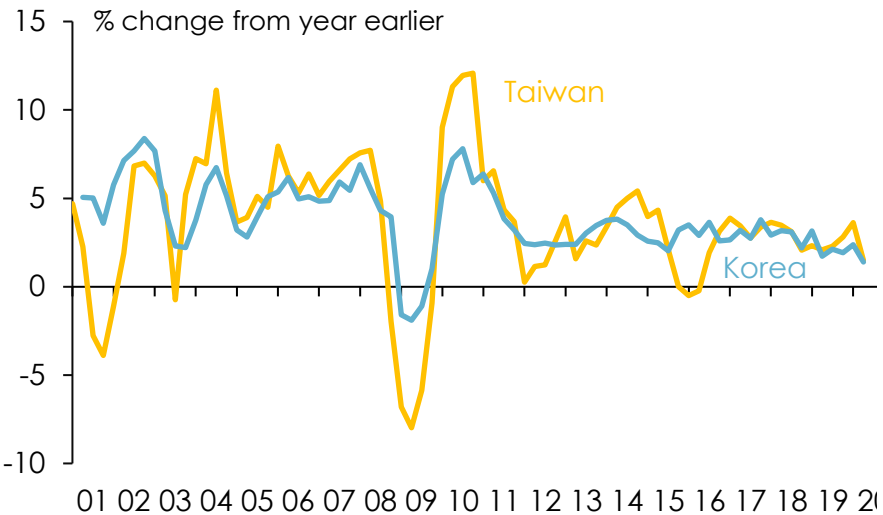
Merchandise exports



Sources: Japan Cabinet Office; Bank of Japan; Japan Automobile Dealers' Association; Ministry of Health, Labour & Welfare.

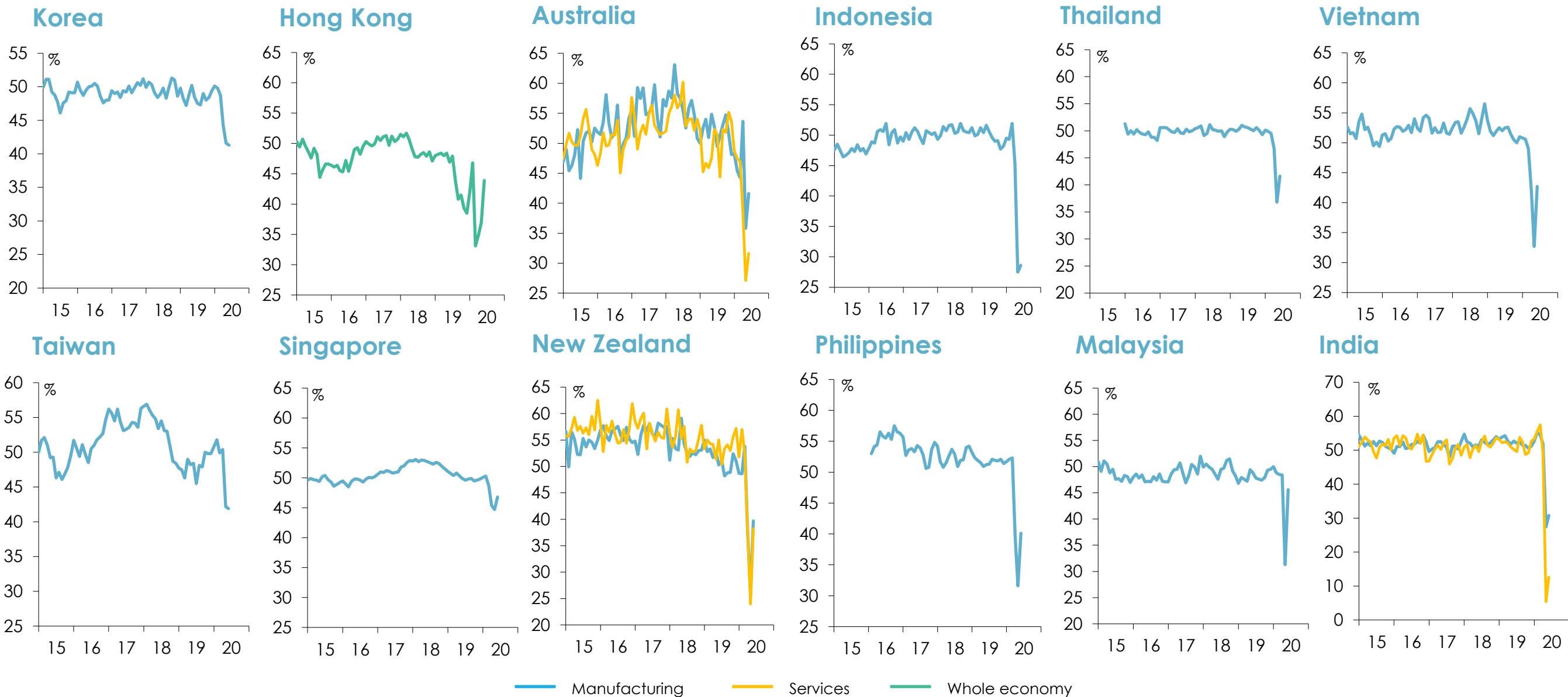
Most other Asian economies experience a slowdown during the first quarter of 2020, with worse to come in the second quarter

Real GDP growth



Note: New Zealand is the slowest 'advanced' economy in the world to produce national accounts estimates: its Q1 GDP data won't be released until 18th June.
 Sources: Bank of Korea; Taiwan Directorate-General of Budget, Accounting & Statistics; Hong Kong Census & Statistics Department; Singapore Department of Statistics; Australian Bureau of Statistics; Statistics New Zealand; Department of Statistics Malaysia; Office of the National Economic & Social Development Council of Thailand; Statistics Indonesia; Philippine Statistics Authority; General Statistics Office of Viet Nam; India Ministry of Statistics & Programme Implementation.

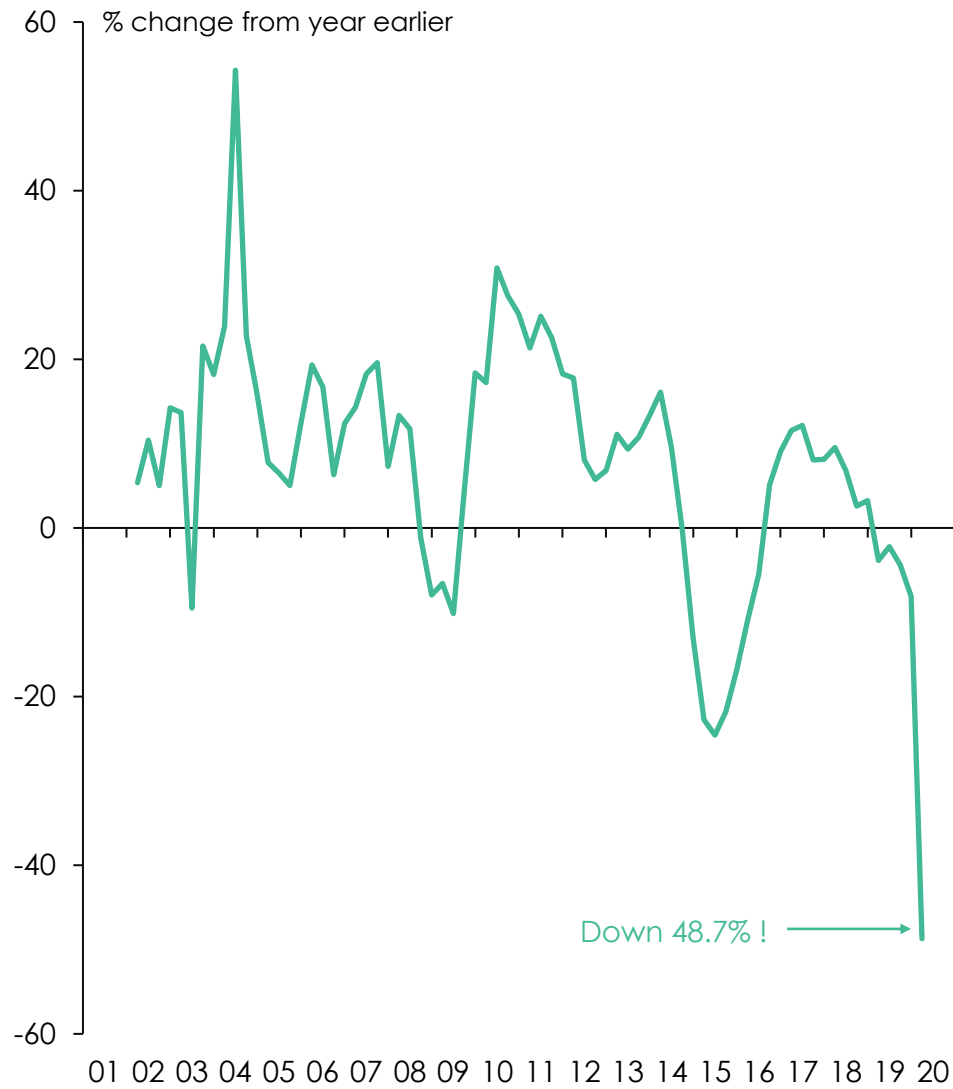
Purchasing managers' indices indicate activity bottomed in April, after sharper declines in SE Asia, India, Australia & NZ than Korea or Taiwan



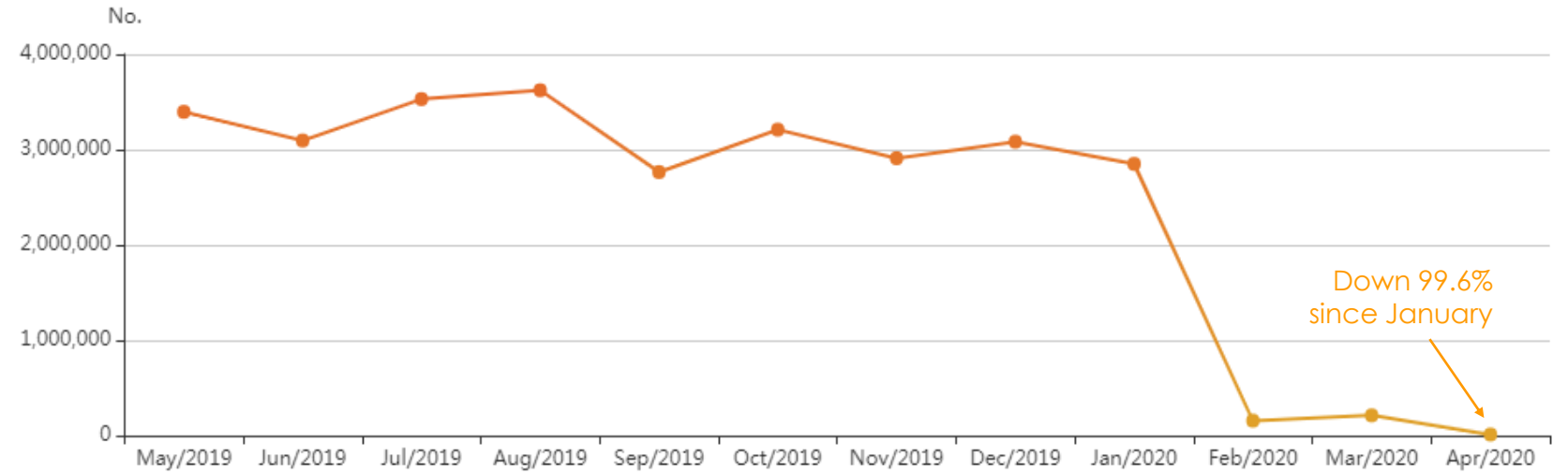
Note: Purchasing Managers' Indexes (PMIs) are derived from surveys of senior executives, who are asked to report whether various dimensions of business activity recorded an increase, decrease or no change compared with the previous month. A reading of 50 indicates an overall increase cf. the previous month, and a reading of less than 50 indicates a decrease. Latest data are for May. Sources: IHS Markit; Singapore Institute of Purchasing & Materials Management; Australian Industry Group; Business NZ; Refinitiv Datastream.

The world's worst recession is probably in Macau

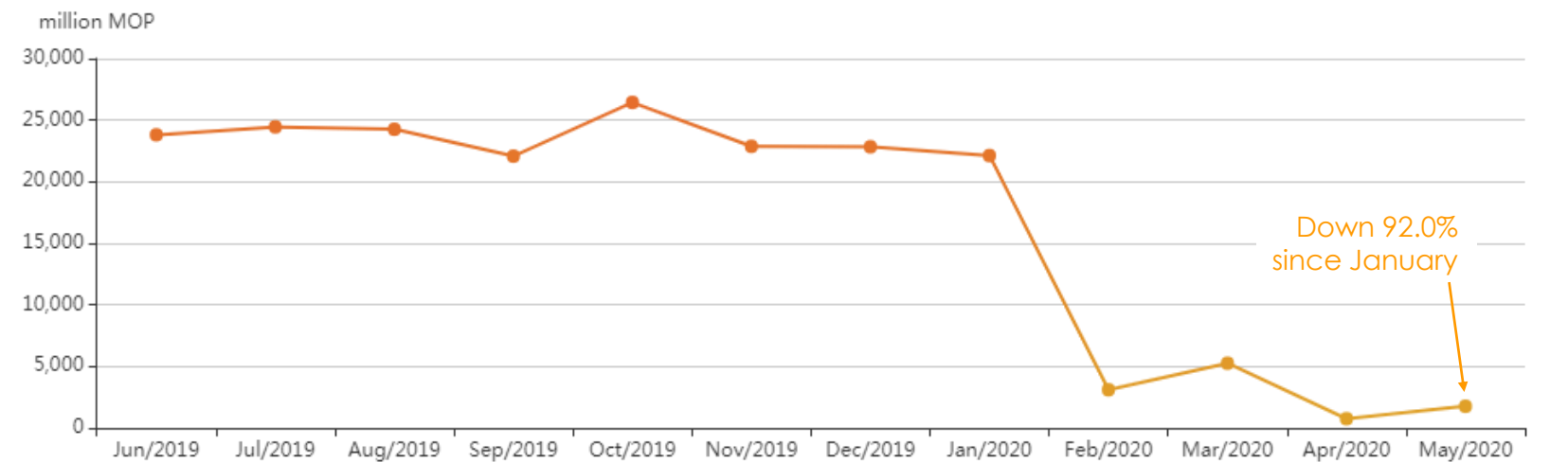
Macau – real GDP



Visitor arrivals



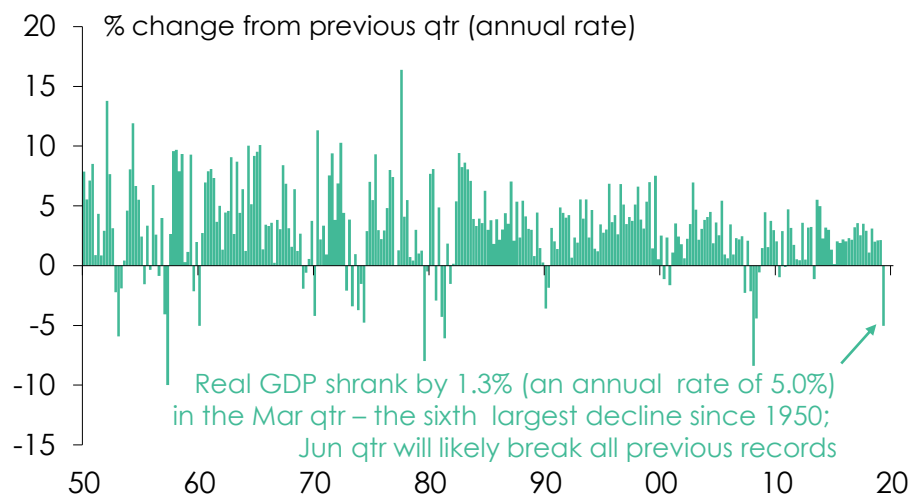
Gambling revenue



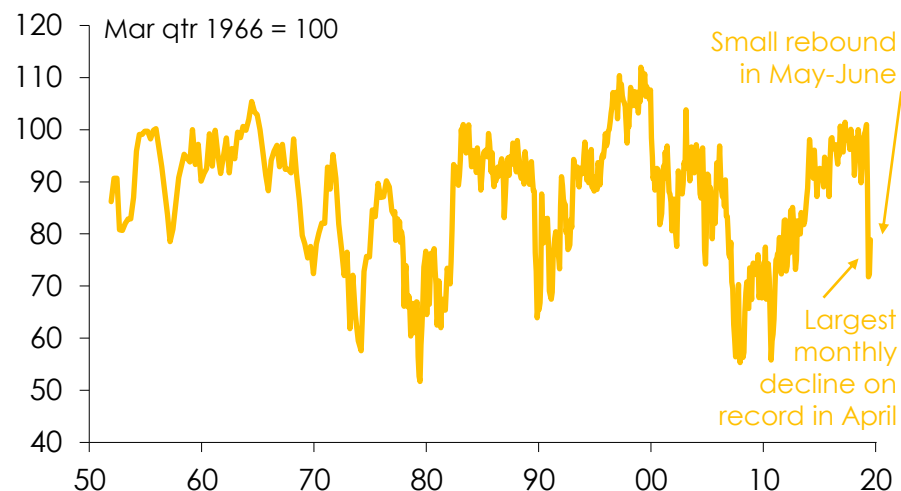
Source: Macau Statistics and Census Service.

The US economy has experienced its sharpest contraction since the 1930s, but there are increasing signs that a rebound began in May

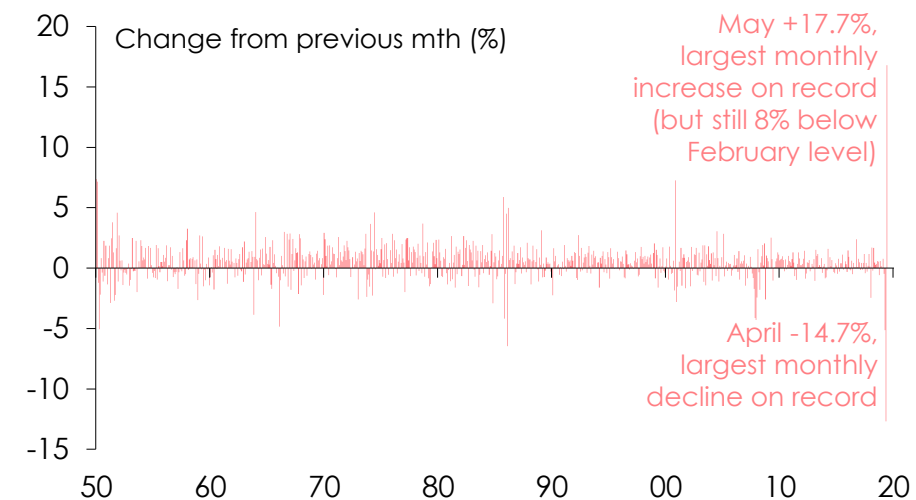
Real GDP



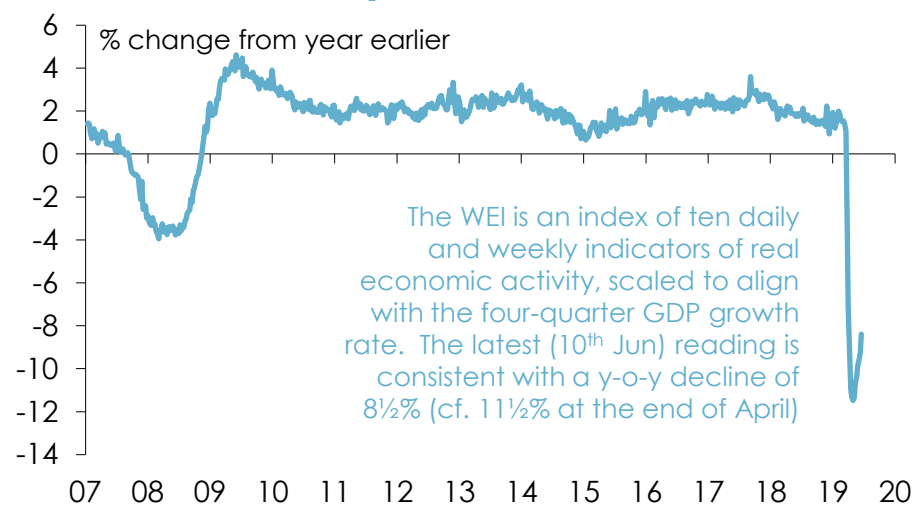
Consumer sentiment



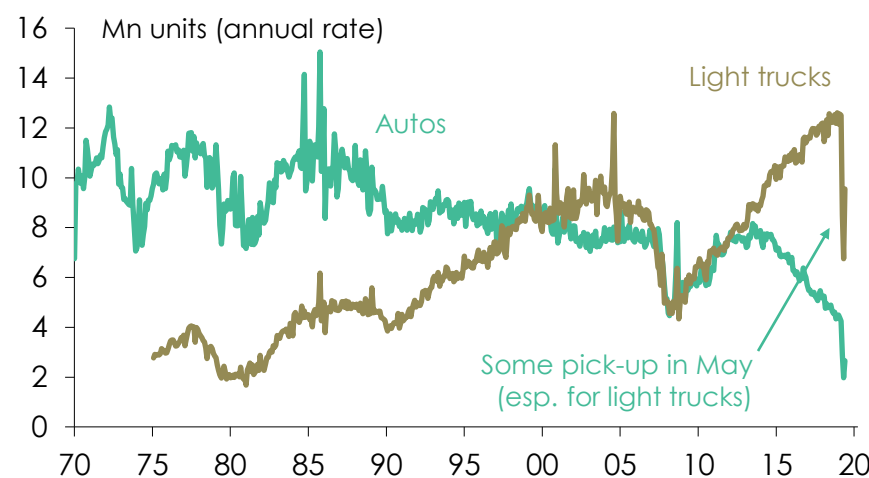
Retail sales



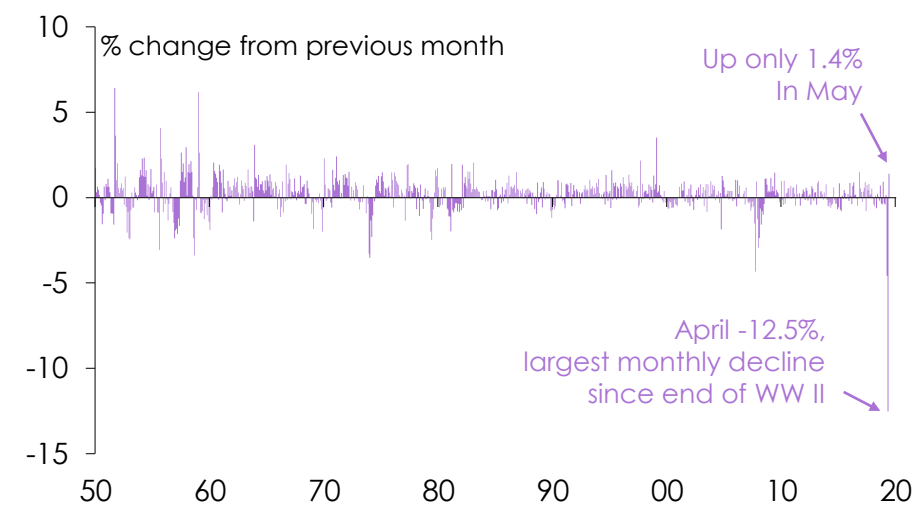
NY Fed weekly economic index



Auto and light truck sales



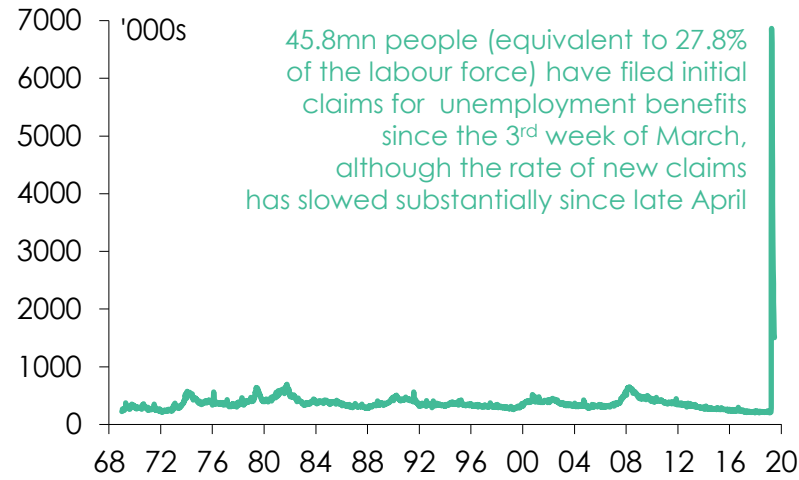
Industrial production



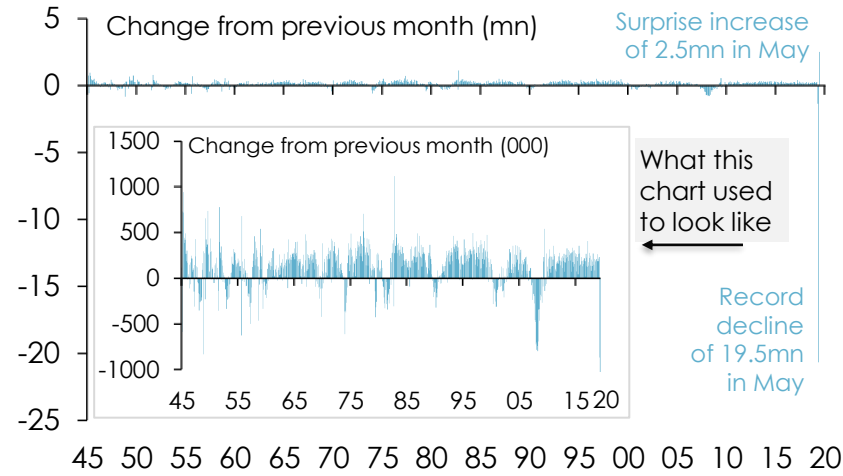
Sources: US Bureau of Economic Analysis; Federal Reserve Bank of New York; Michigan University Survey Research Center; US Commerce Department; Board of Governors of the Federal Reserve System.

The impact on the US labour market has been particularly severe – although employment rose, and unemployment fell, in May

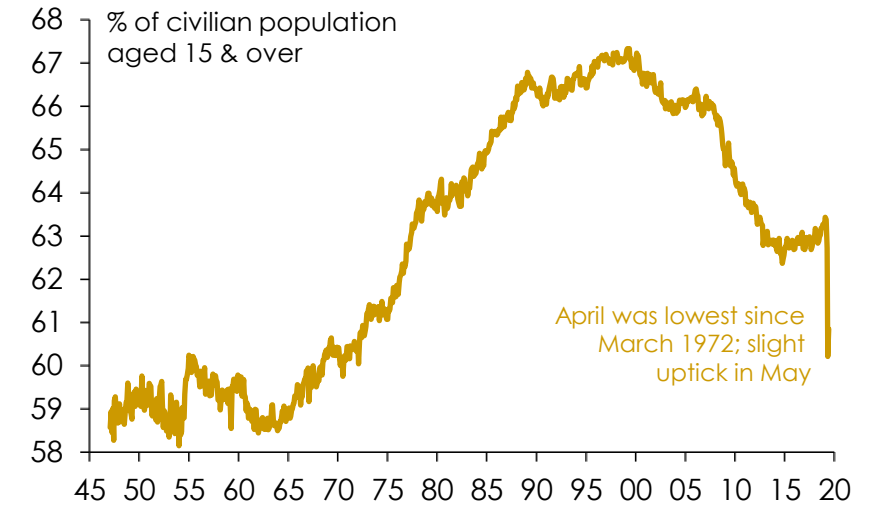
Unemployment benefit claims



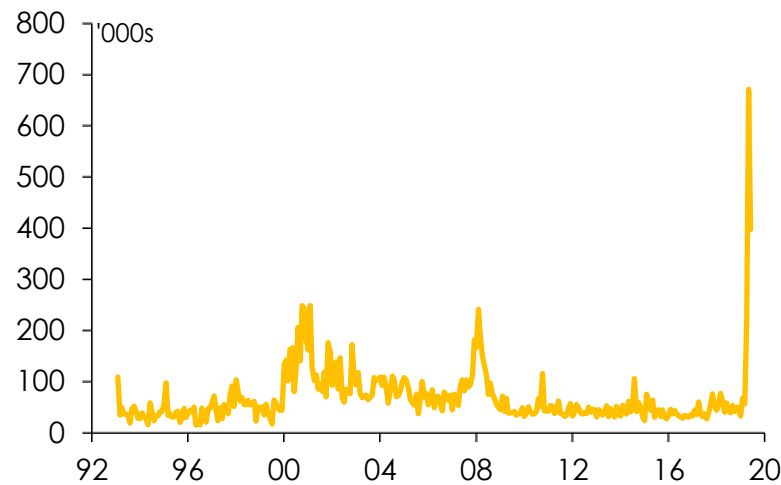
Non-farm payroll employment



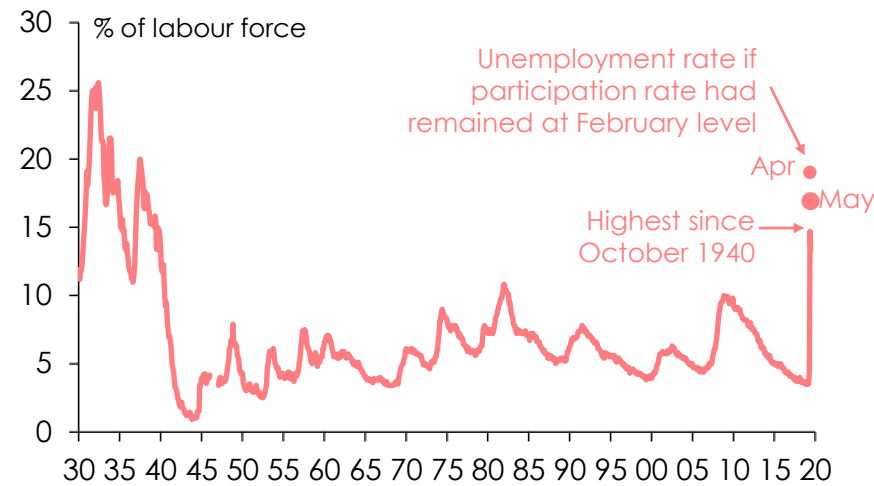
Labour force participation rate



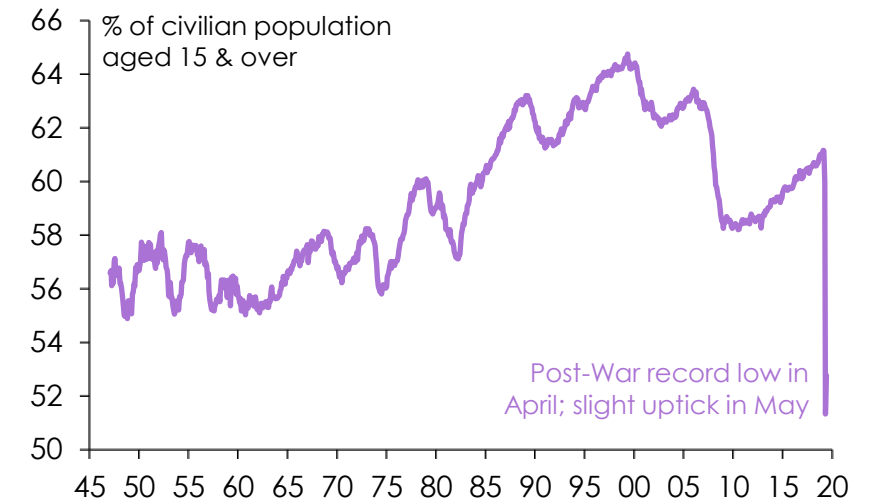
Layoff announcements



Unemployment rate



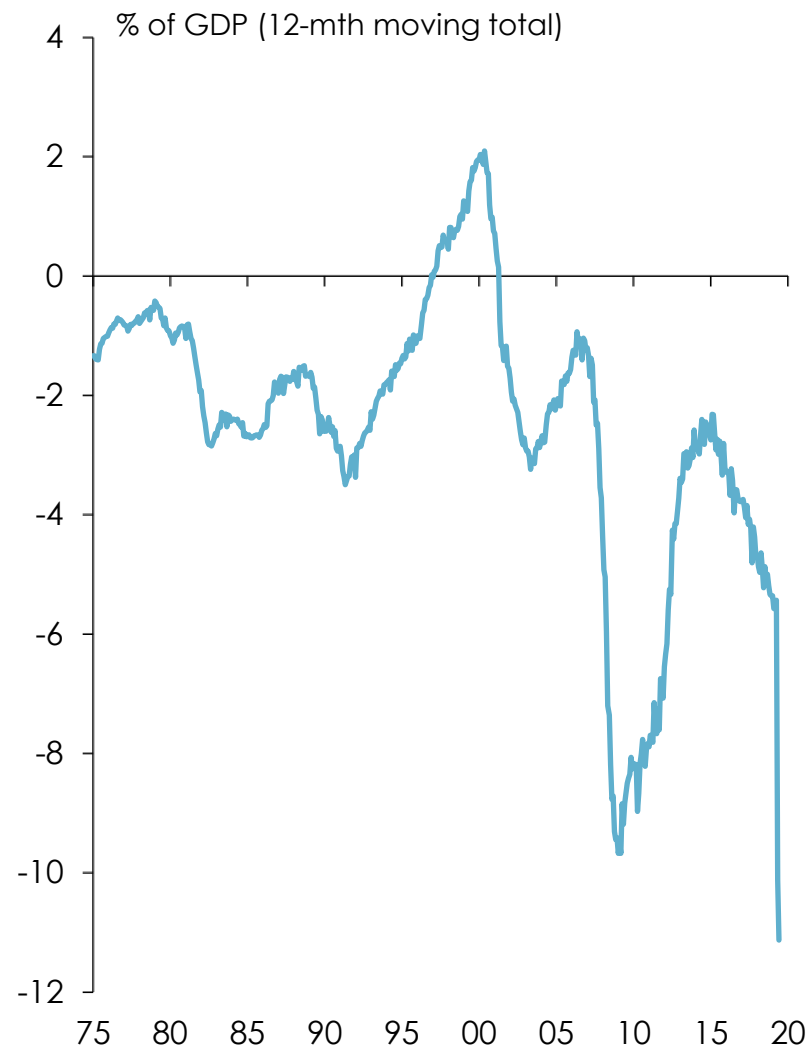
Employment to population ratio



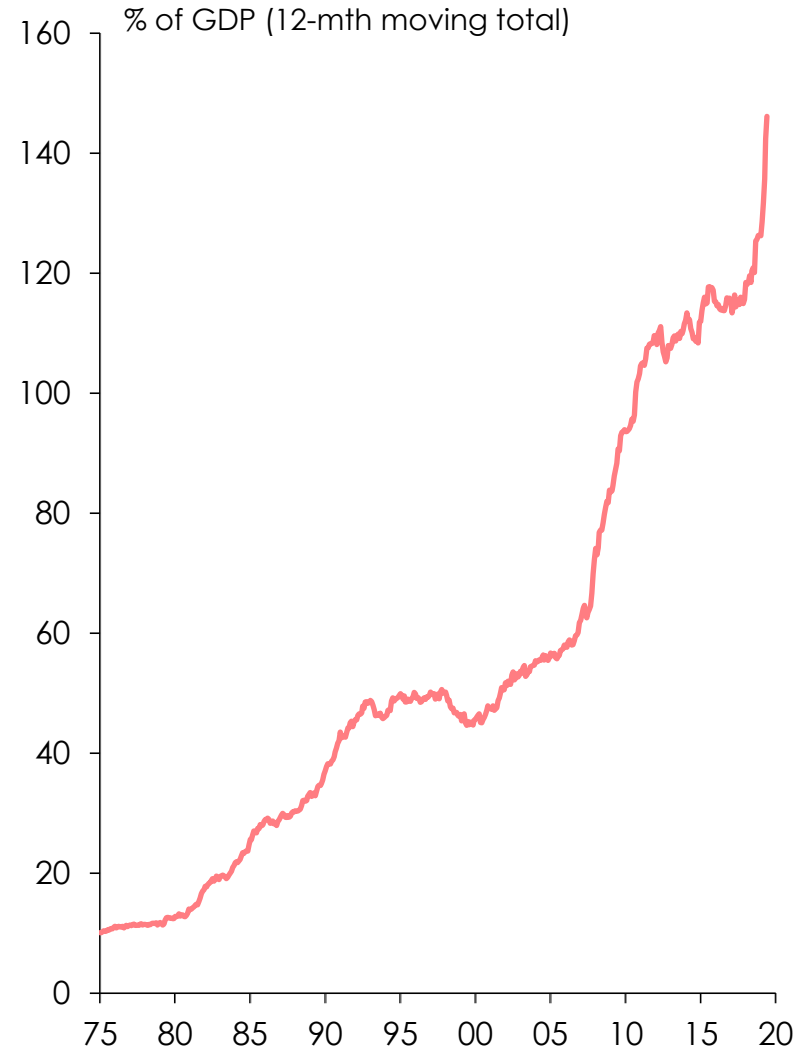
Sources: US Department of Labor; Challenger, Gray & Christmas; US Bureau of Labor Statistics; National Bureau of Economic Research Macro History database.

The US budget deficit has blown out dramatically since the end of March, and now exceeds 11% of GDP

US Federal budget deficit



US gross Federal debt

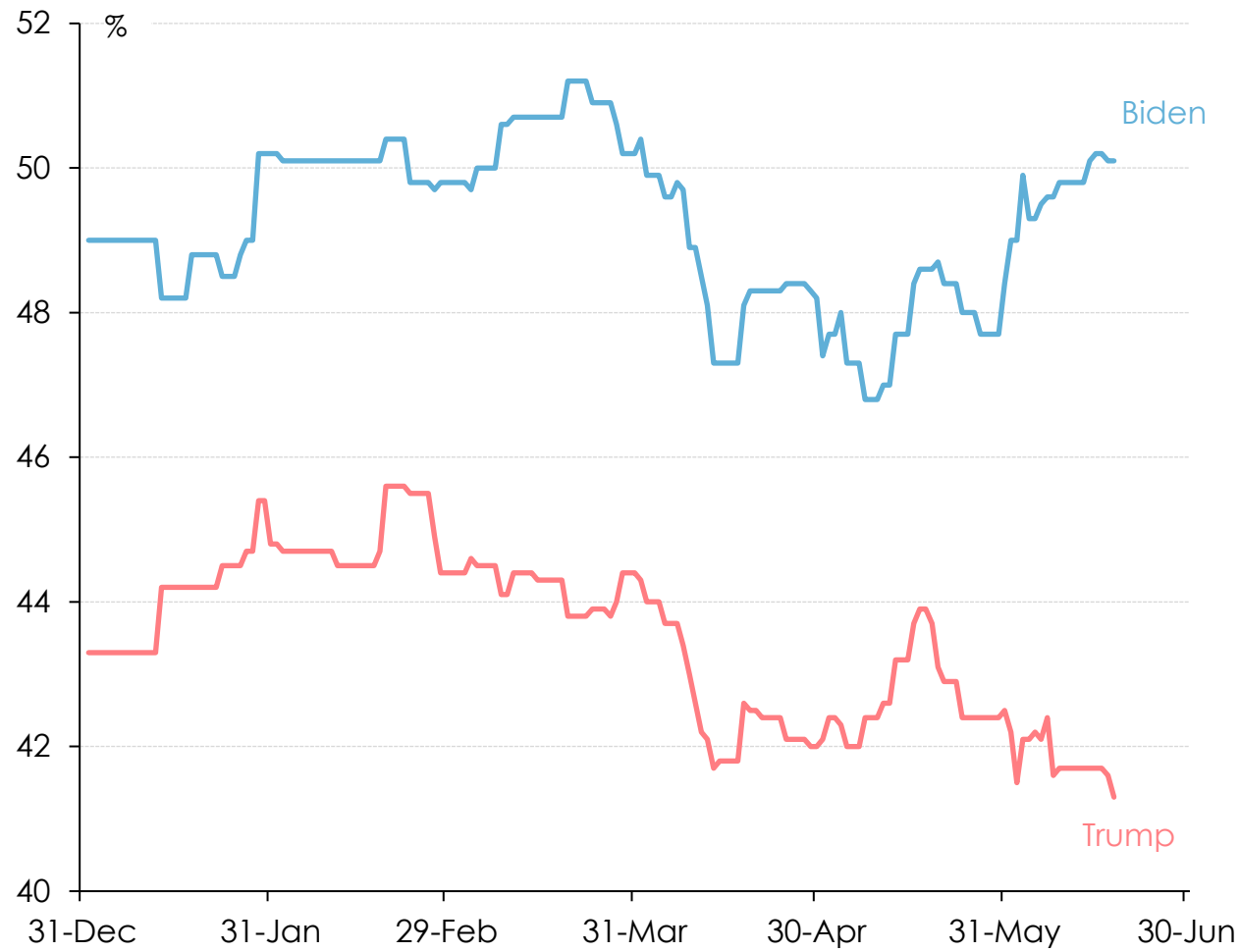


- ❑ The US federal budget deficit widened from US\$582bn (3.3% of GDP) in 2016 (Obama's last year in office) to US\$1 trn (5.4% of GDP) in 2019, while gross federal debt rose from US\$20.4 trn (115% of GDP) to \$24.1trn (126% of GDP)
- ❑ In March, the Congressional Budget Office forecast the deficit would remain above US\$1trn every year over the next decade, reaching US\$1.7 trn (5.6% of GDP) by 2030
- ❑ The budget deficit for the months of April and May combined amounted to US\$1.1trn (reflecting the impact of Covid-19 related measures), bringing the 12-month moving total to US\$2.1 trn (11.1% of GDP), cf. a peak of 9.7% of GDP during the GFC, and pushing Federal debt to US\$27.9 trn (146% of GDP) at end-May

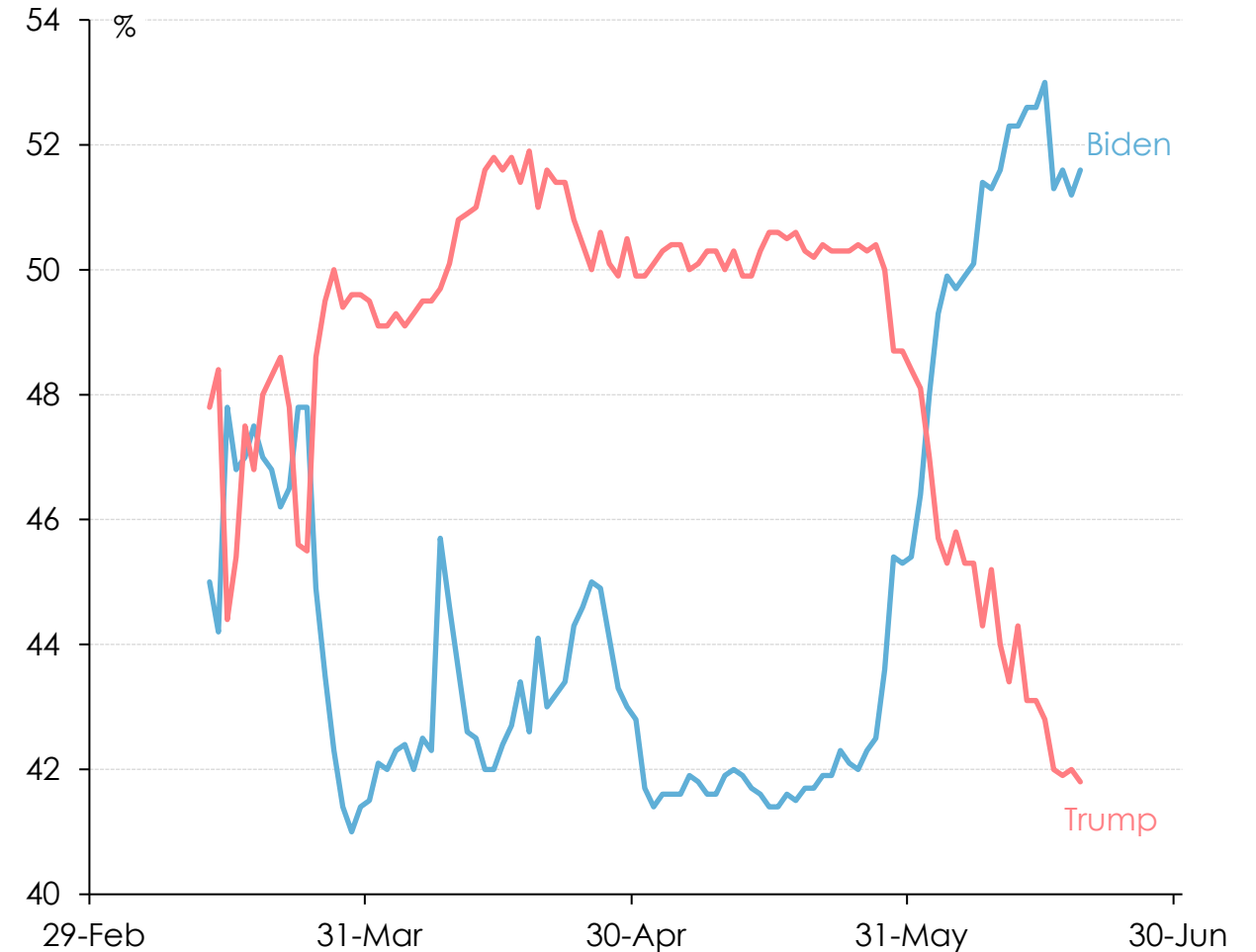
Sources: US Treasury Department; US Bureau of Economic Analysis; US Congressional Budget Office; Corinna;

Both opinion polls and, now, betting odds are pointing to Joe Biden clearly defeating Donald Trump in the November US Presidential election

Winner of November US Presidential election
– average of all opinion polls



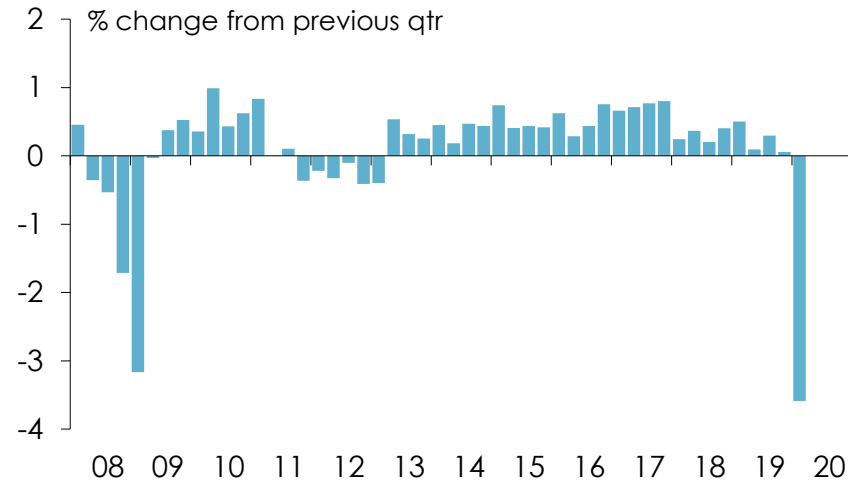
Winner of November US Presidential election
– betting odds



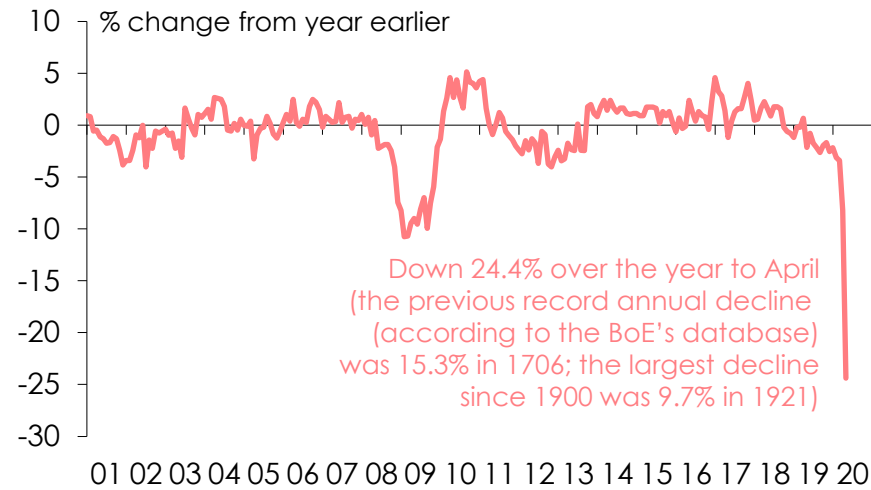
Note: The opinion poll average is based on 9 different polls; the betting odds average is based on 6 different markets. Latest data is 19th June.
Source: RealClearPolitics.

Europe is also experiencing a sharp downturn although unemployment probably won't rise as much as it has in the US

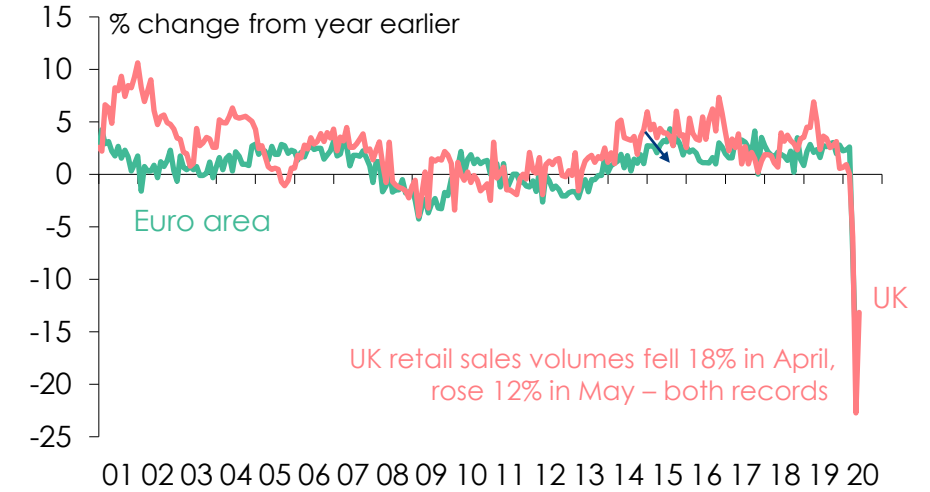
Euro area real GDP



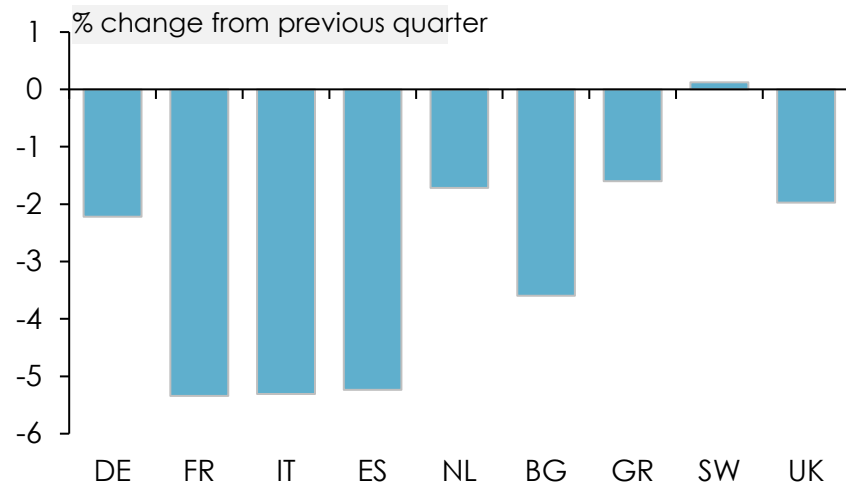
UK monthly GDP



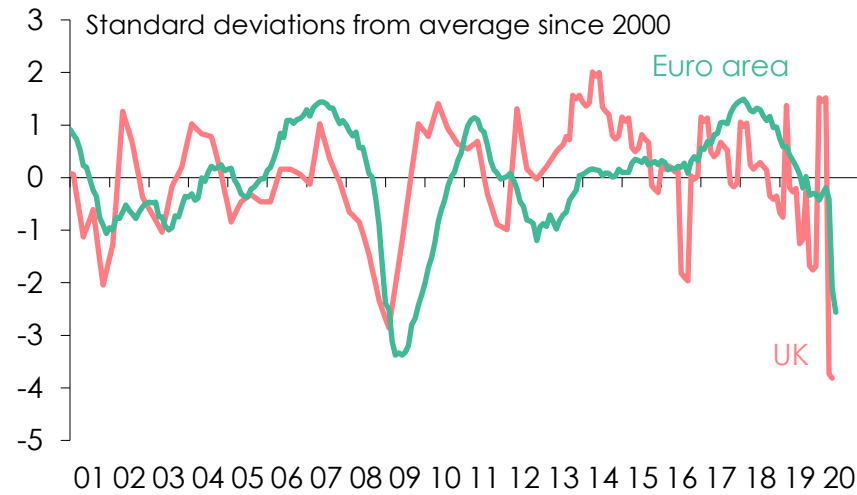
Retail sales volume



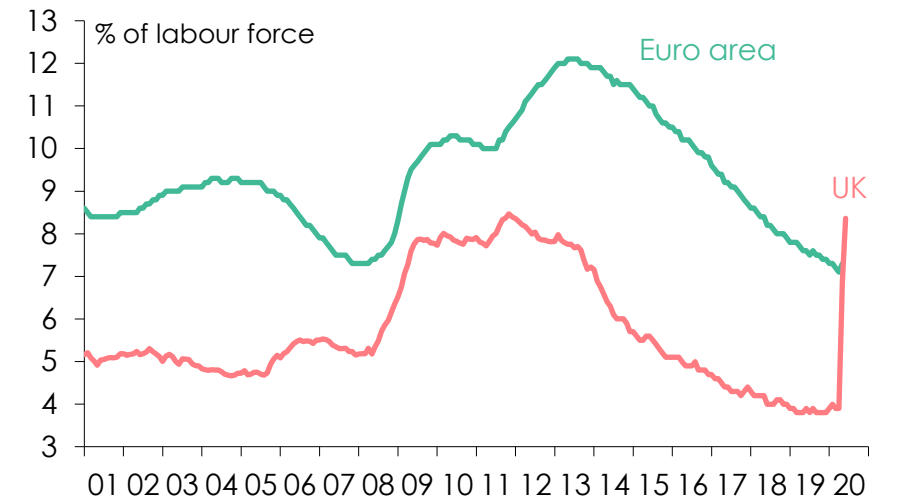
March quarter GDP by country



Business confidence



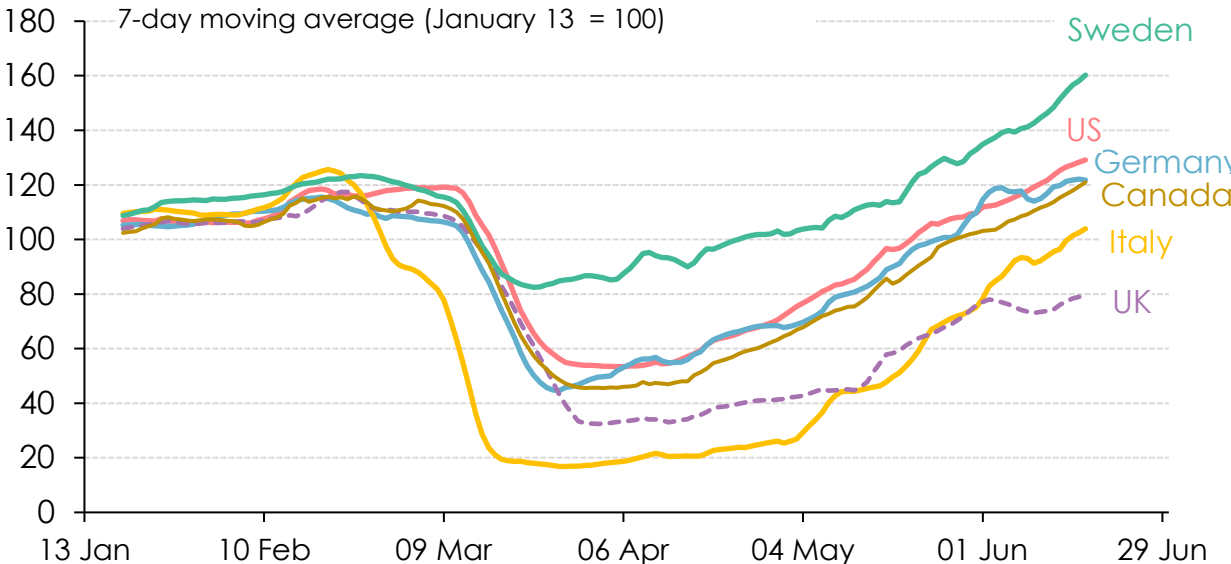
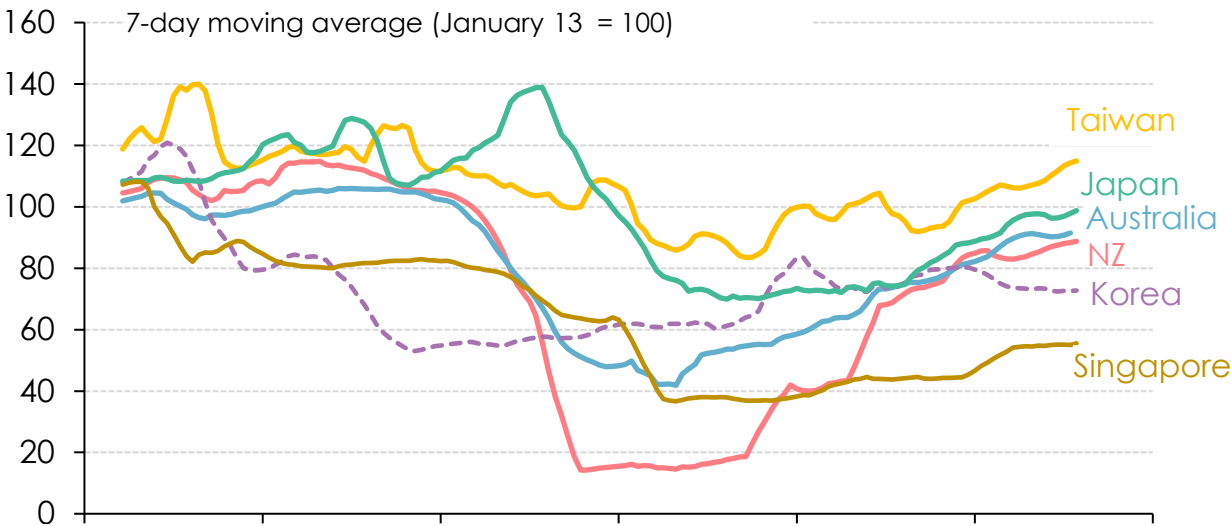
Unemployment



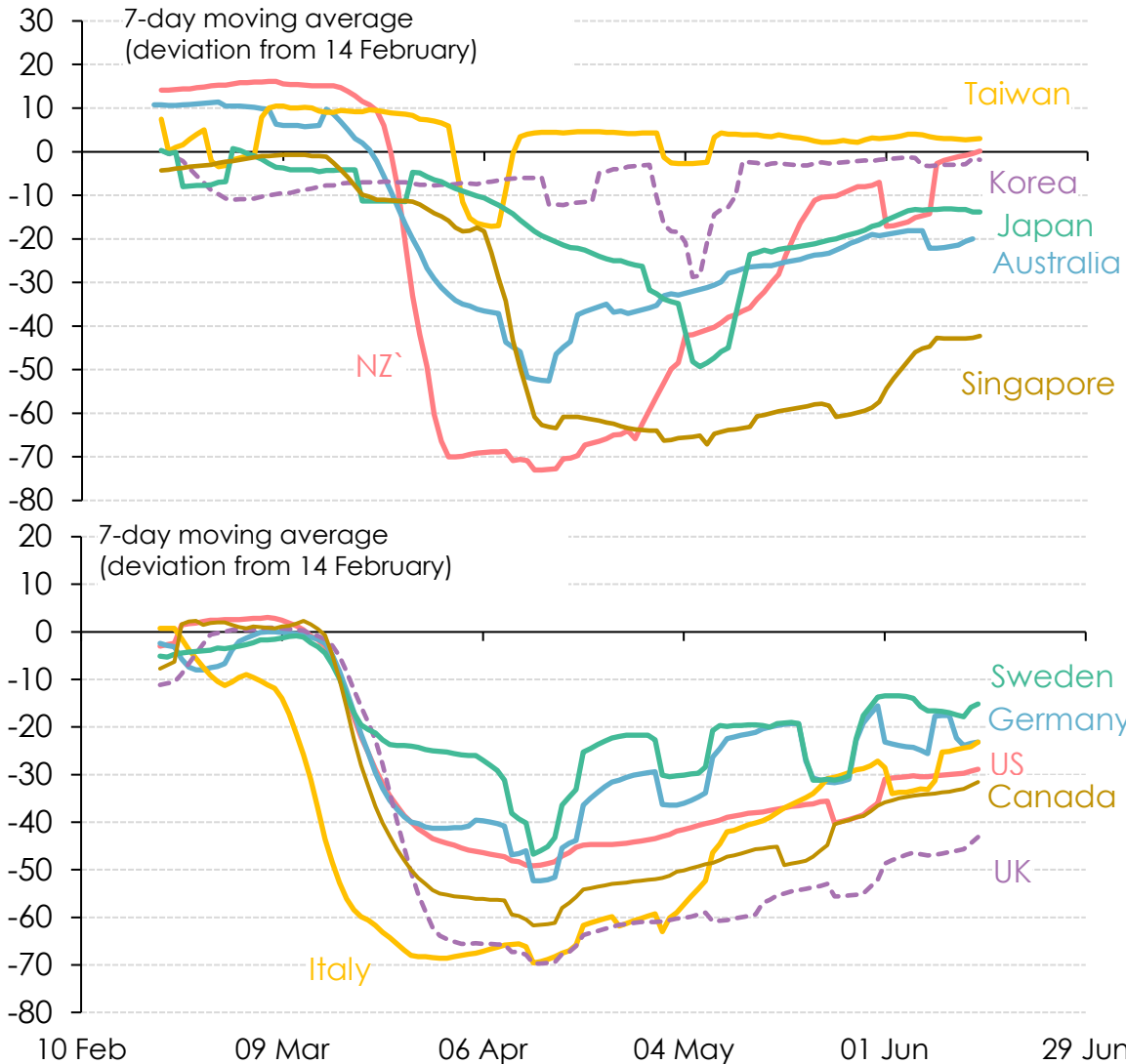
Sources: Eurostat; UK Office for National Statistics; Confederation of British Industry. The UK unemployment rate is published as a 3-month moving average; the most recent observation (for May) is derived by adding to the 'claimant count' unemployment rate the average margin between that rate and the conventionally defined unemployment rate over the preceding 12 months.

Mobility data suggest that people around the world are emerging from lockdown and gradually starting to go back to work

Time spent driving



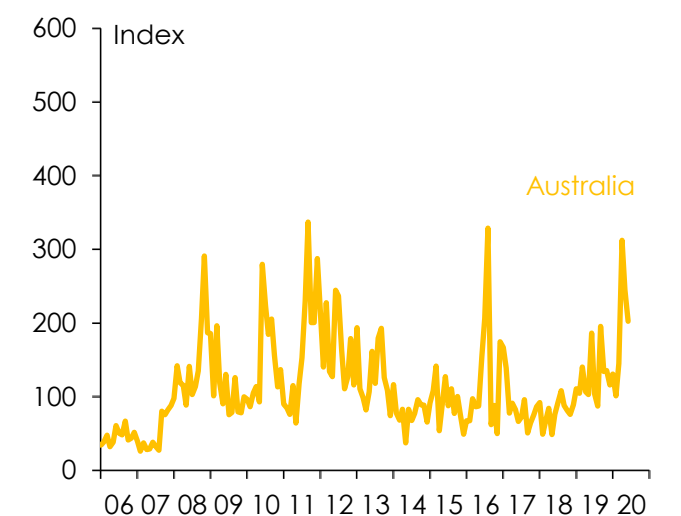
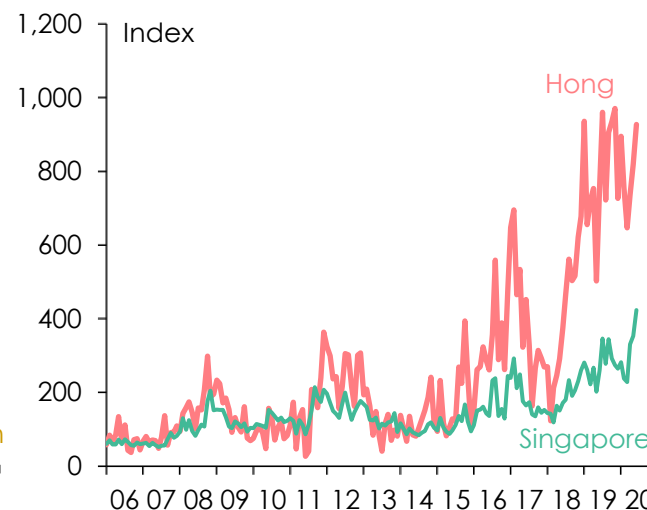
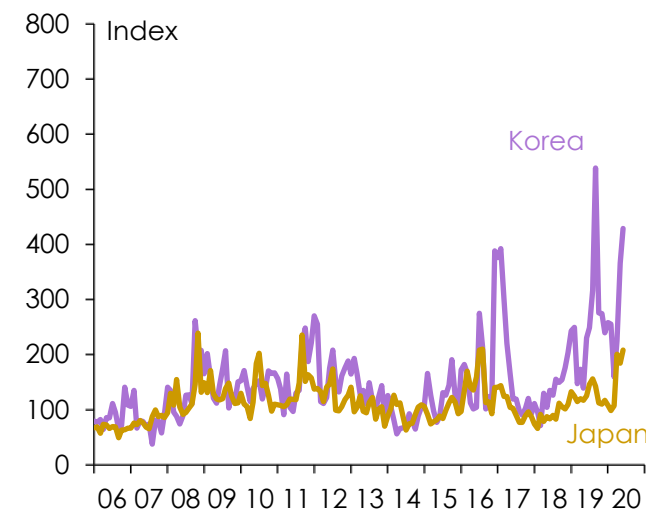
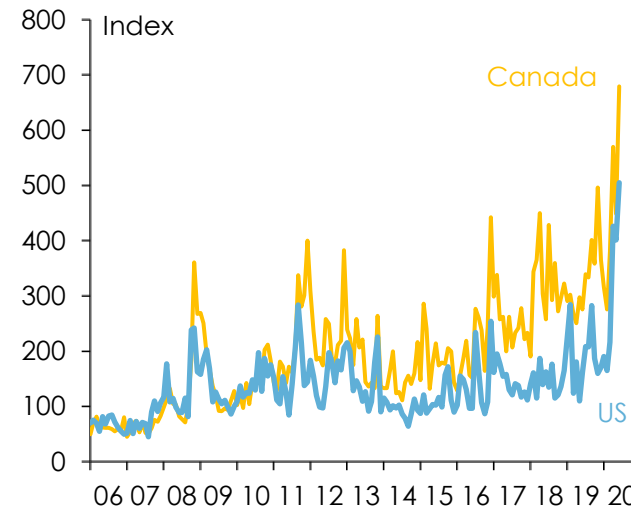
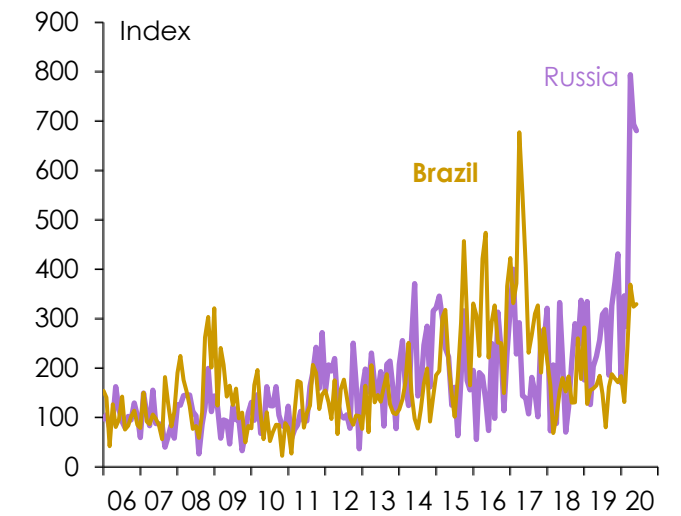
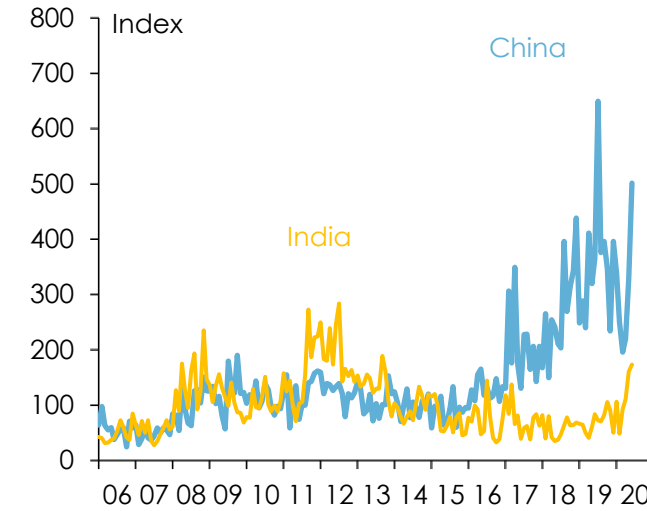
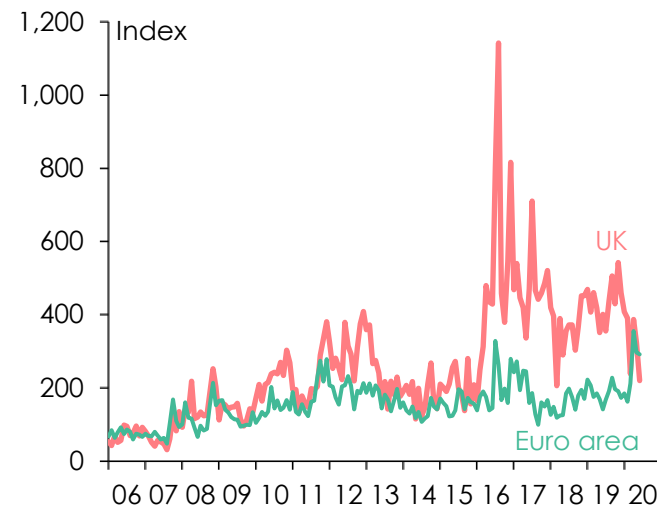
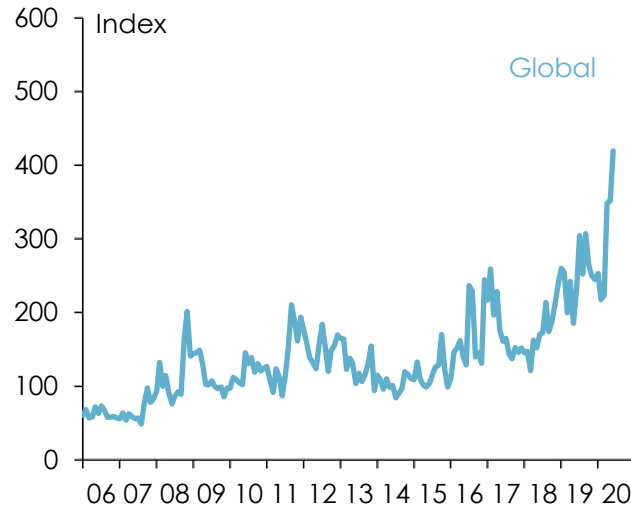
Time spent in work places



Sources: Apple Mobility Trends Reports (data up to 17th June); Google Covid-19 Community Mobility Reports (data up to 14th June).

Uncertainty about economic policy is at very high levels in countries where elections are imminent, and in Hong Kong – but not in Australia

Economic policy uncertainty indices

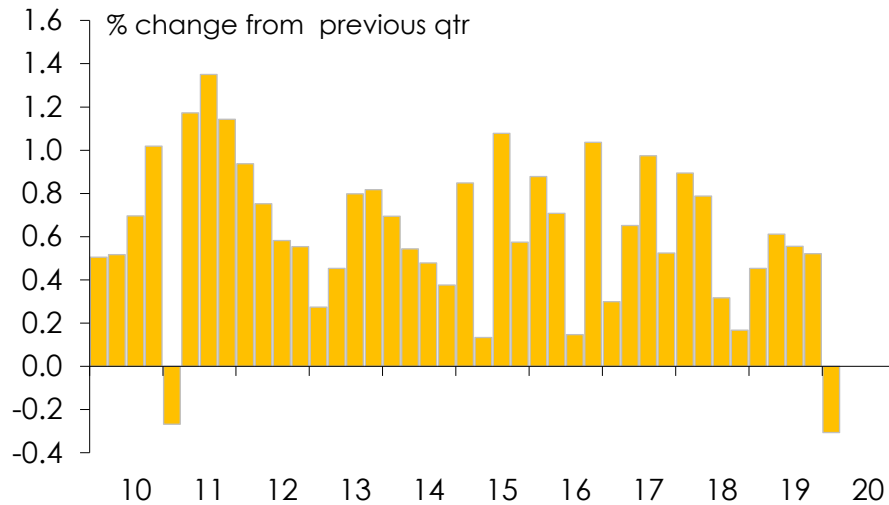


Note: The Economic Policy Uncertainty Index is derived from a count of newspaper articles containing the words “uncertain” or “uncertainty”, “economy” or “economic”, and policy-relevant terms pertaining to regulation, monetary or fiscal policy, central bank, taxation, tariffs, deficit, budget, etc. The index for the euro area is a GDP-weighted average of indices for Germany, France, Italy, Spain, the Netherlands and Ireland constructed by Corinna. Source: PolicyUncertainty.com; Scott Banker, Nick Bloom & Steven Davis, ‘Measuring Economic Policy Uncertainty’, *Quarterly Journal of Economics*, 131, no. 4 (November 2016), pp. 1593-1636.

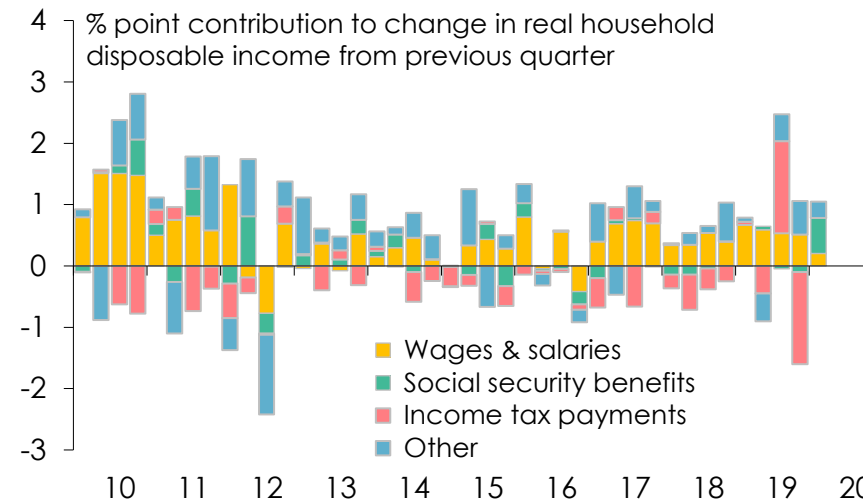
Australia

In Australia GDP declined in Q1 for the first time in 9 years, reflecting the impact of bushfires and 'social distancing' restrictions on private demand

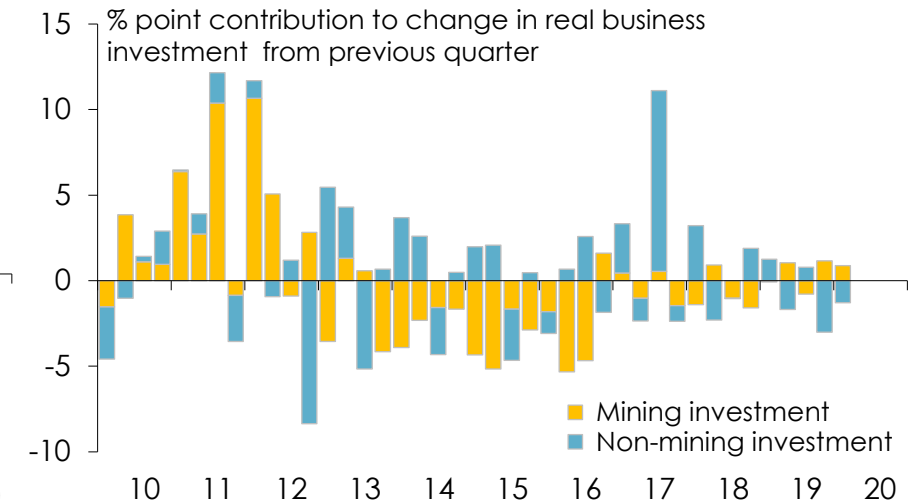
Quarterly change in real GDP



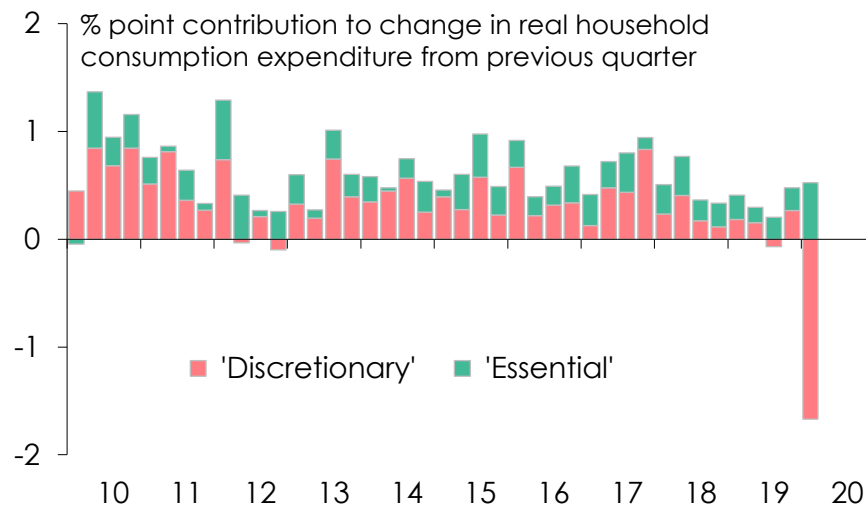
Household disposable income



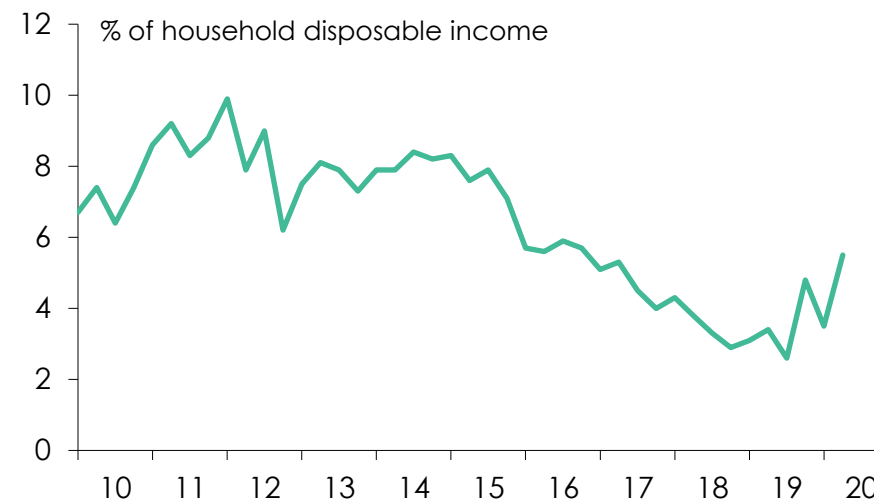
Business investment expenditure



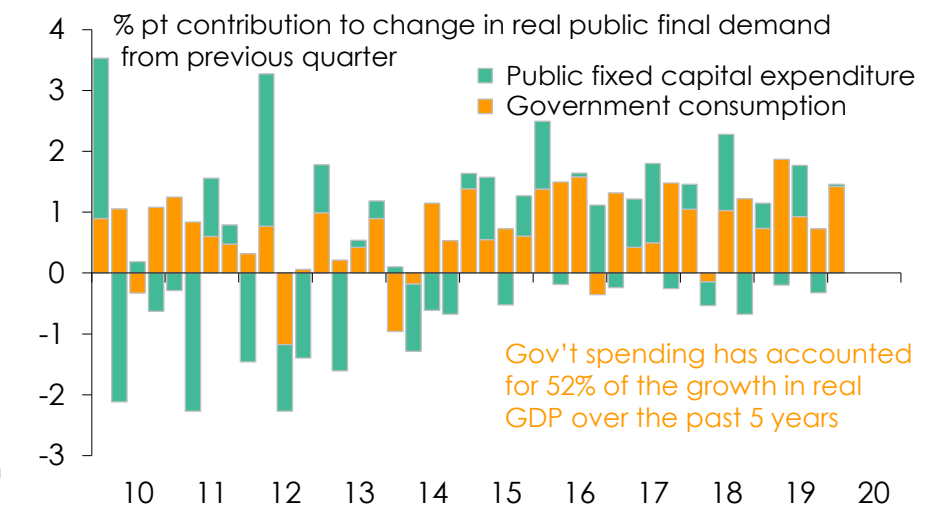
Household consumption expenditure



Household saving rate



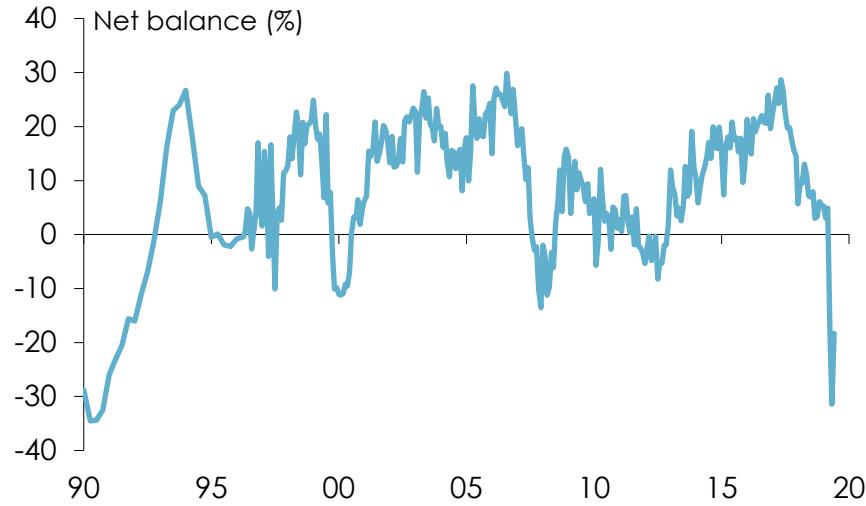
Public expenditure



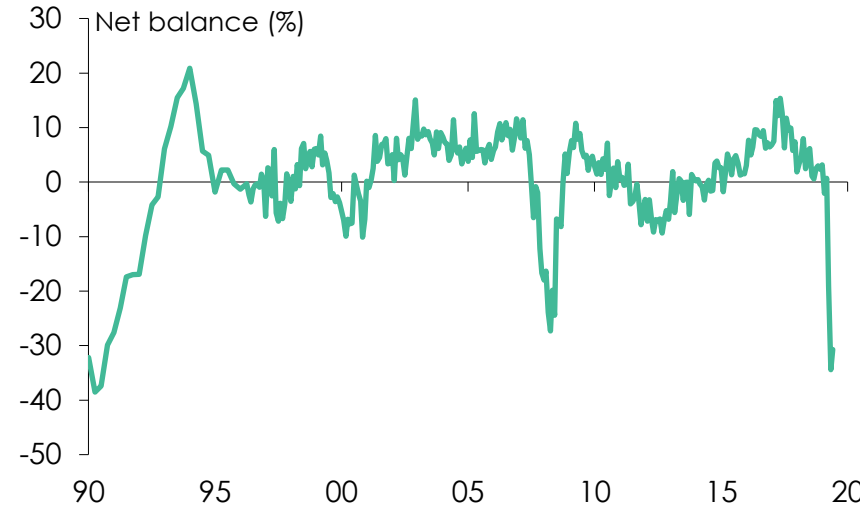
Note: 'Essential' household consumption comprises rent & other dwelling services; food; electricity, gas & other fuel; and health. Components of household disposable income are deflated by the implicit price deflator of household final consumption expenditure. Source: ABS.

Trading conditions & profitability have improved since March but forward orders remain very weak, while hiring and capex intentions remain low

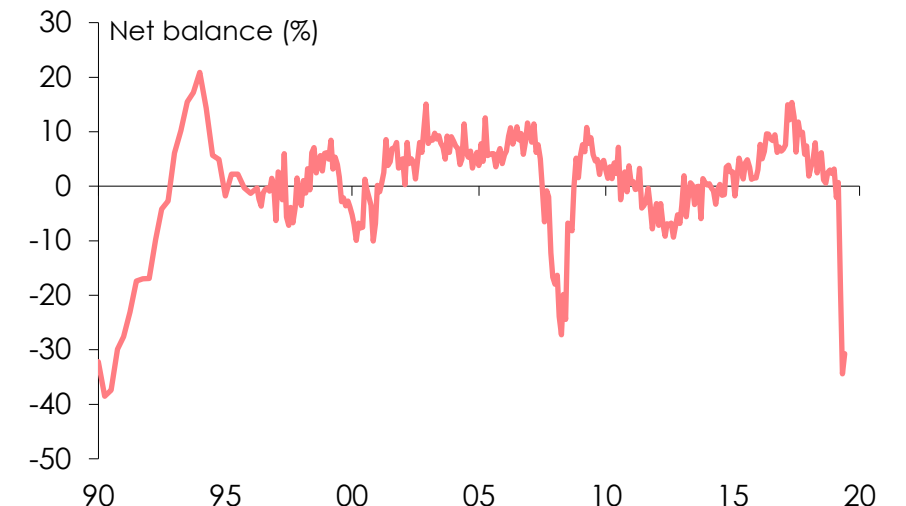
Trading conditions



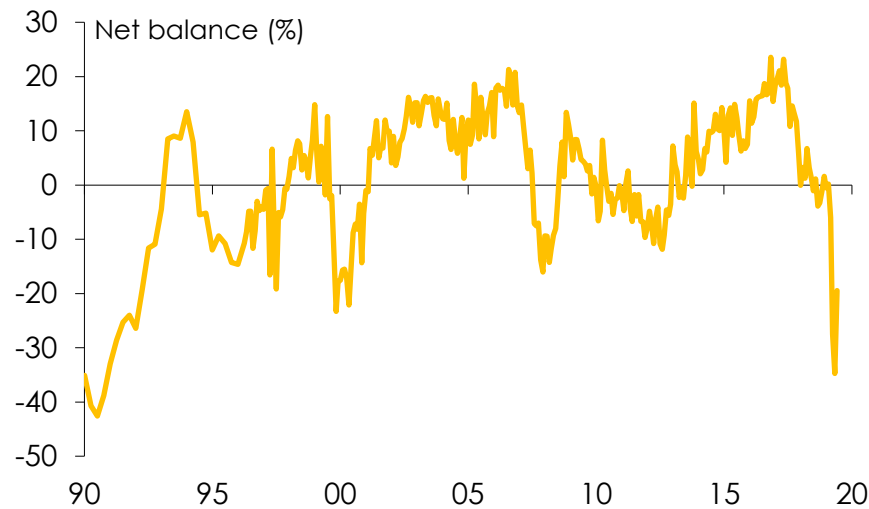
Forward orders



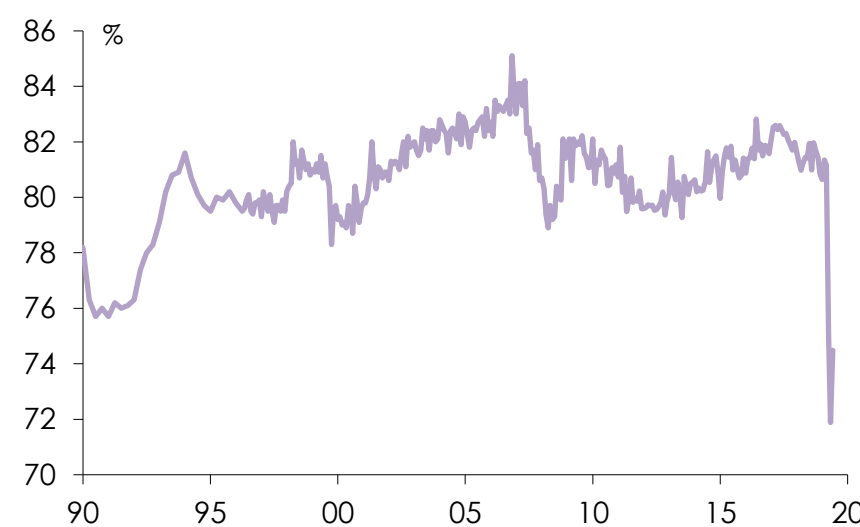
Employee hiring intentions



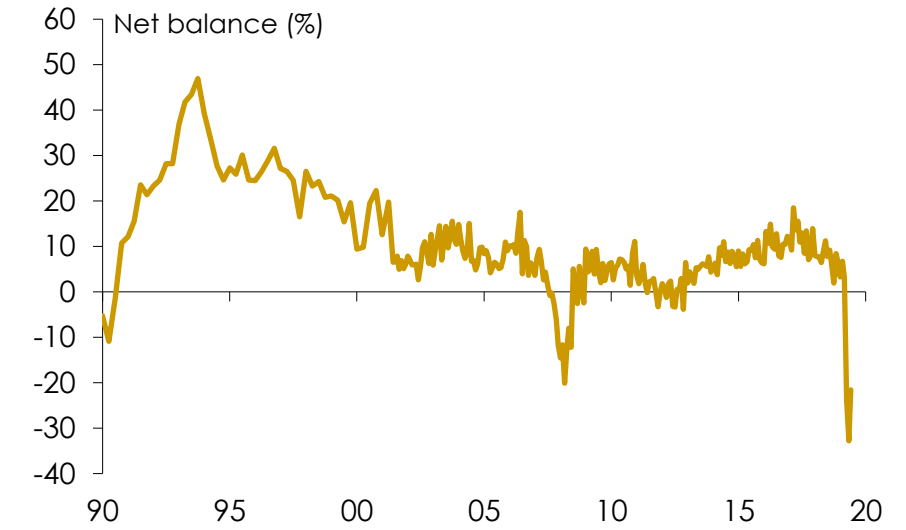
Profitability



Capacity utilization



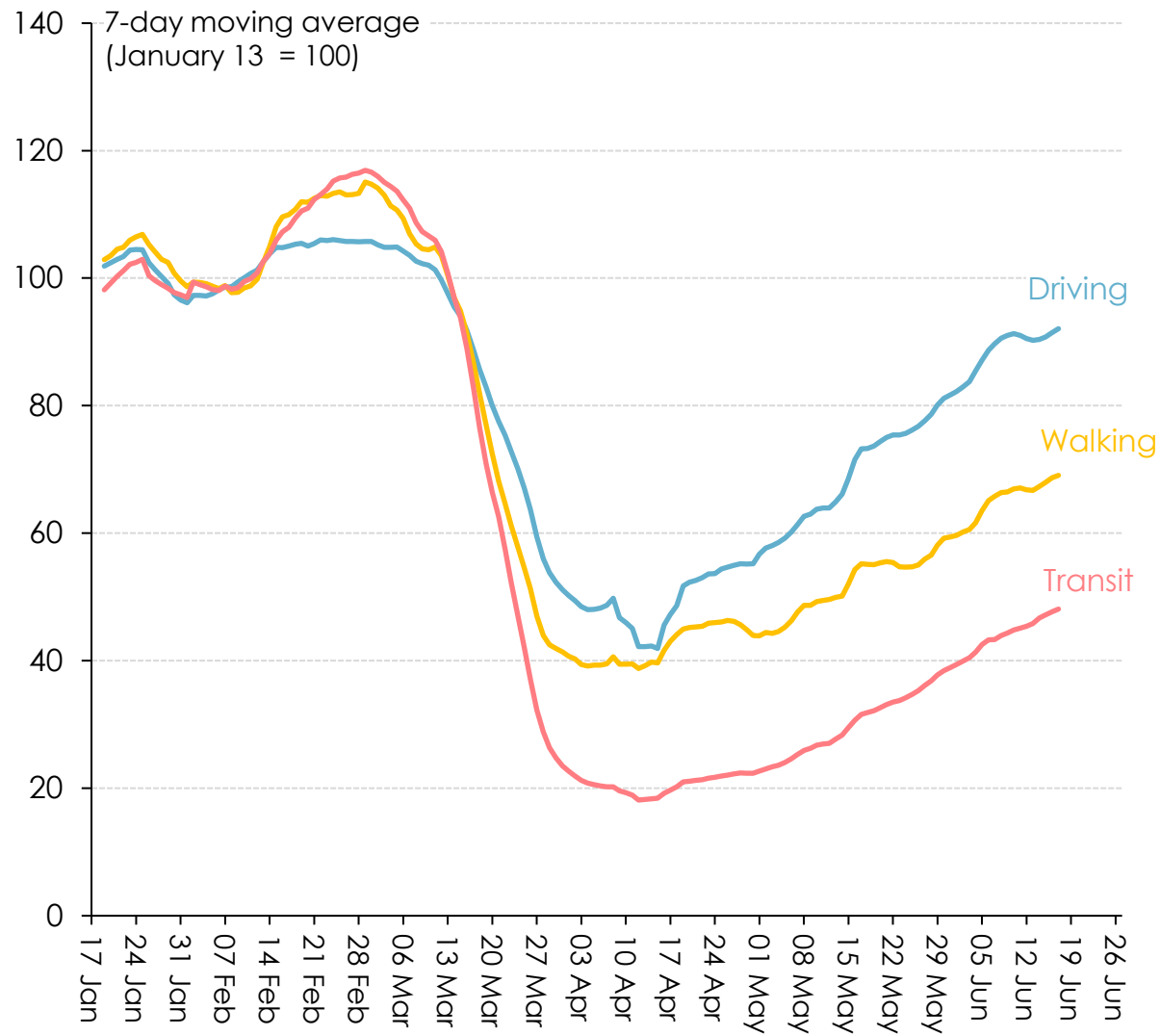
Capital expenditure intentions



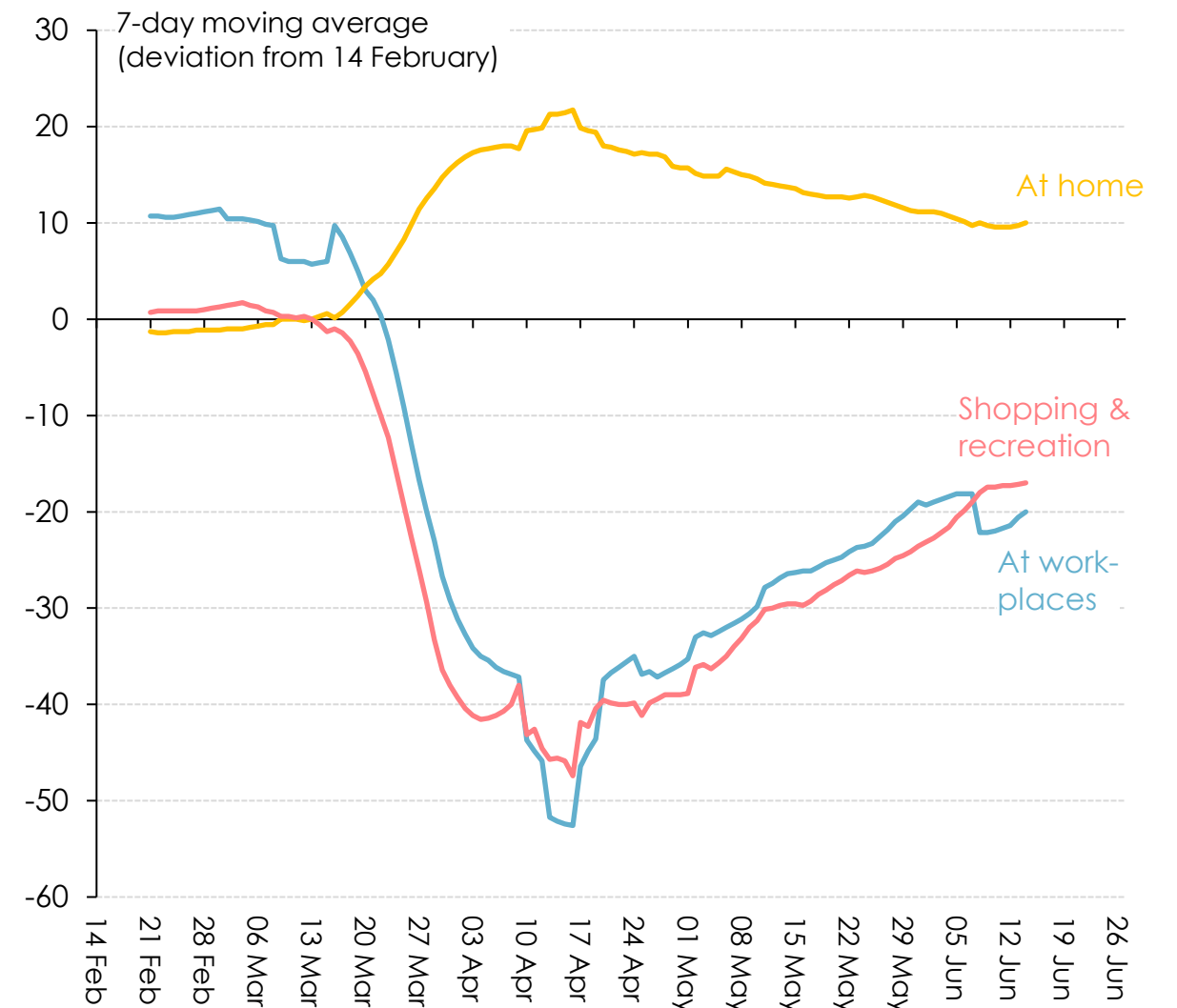
Note: Quarterly data up to March 1987 (May 2002 for capex intentions), monthly thereafter (latest data June 2020). Source: National Australia Bank.

Australians stayed home while restrictions were in force, but are now starting to get out and about again

Time spent driving, walking and in transit



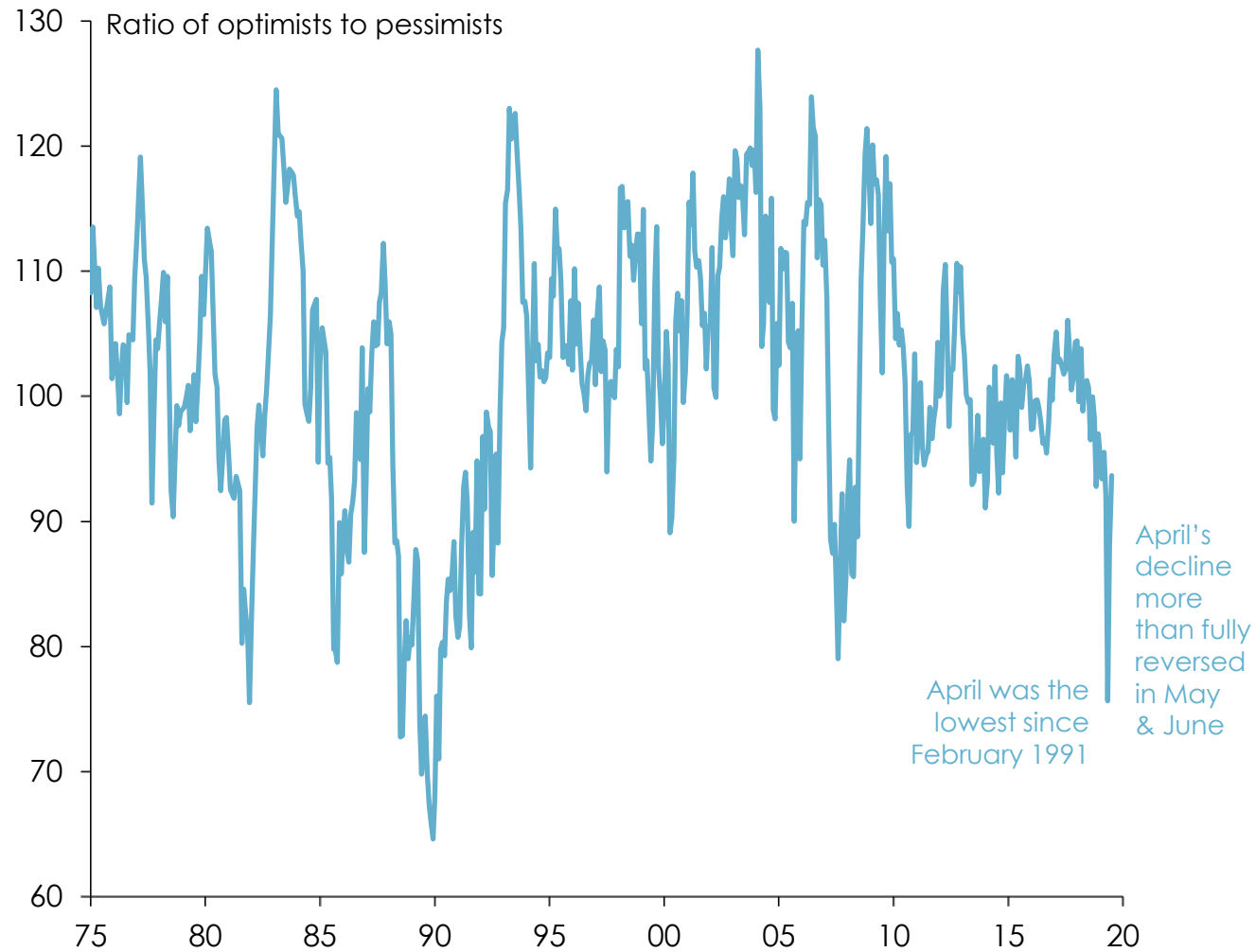
Time spent working, at home, shopping & playing



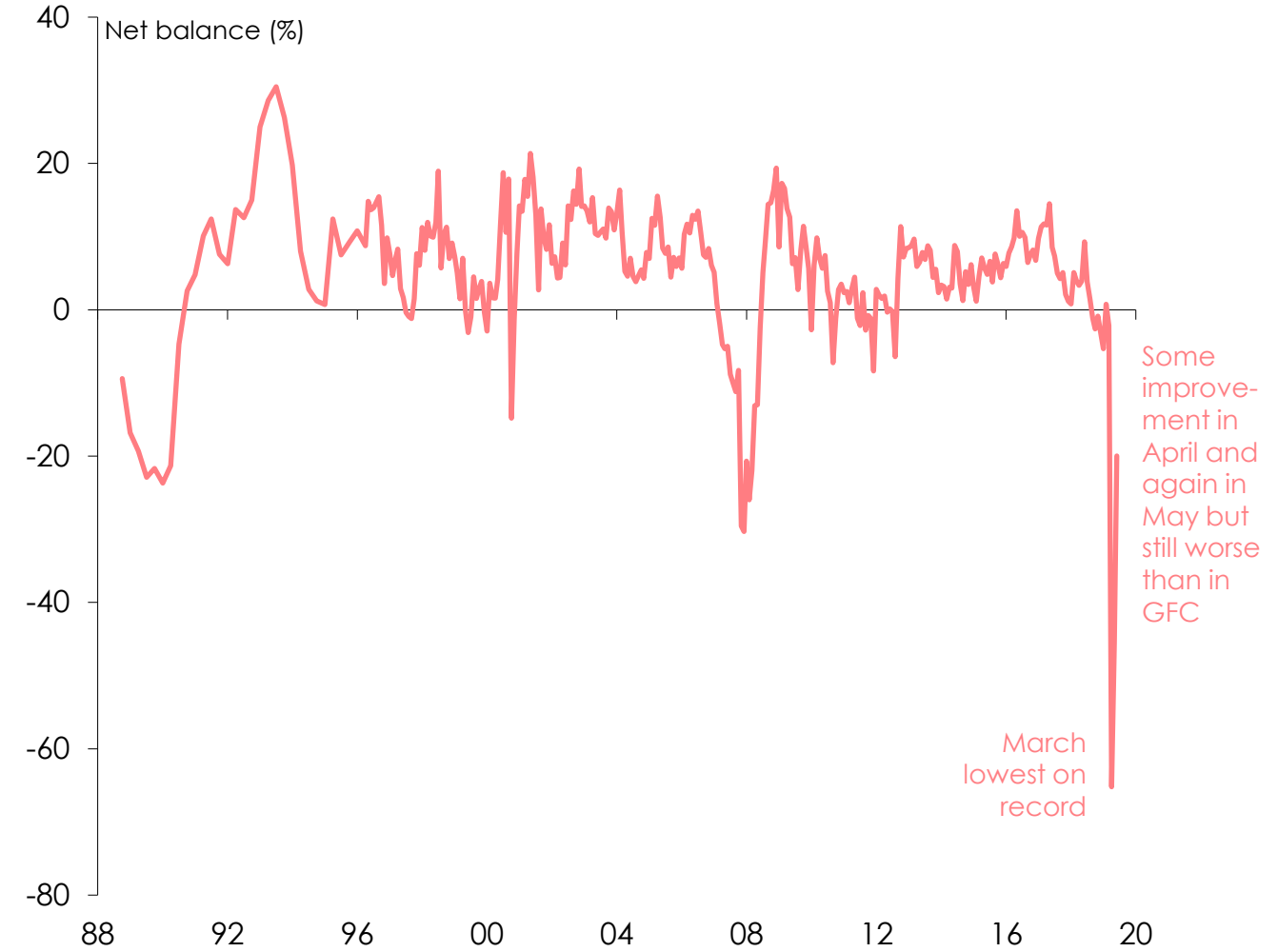
Note: 'transit' means using public transport. Sources: Apple Mobility Trends Reports (data up to 17th June); Google Covid-19 Community Mobility Reports (data up to 14th June).

Consumer confidence is now (June) back to pre-pandemic levels, though business confidence was still quite weak as of May

Consumer confidence



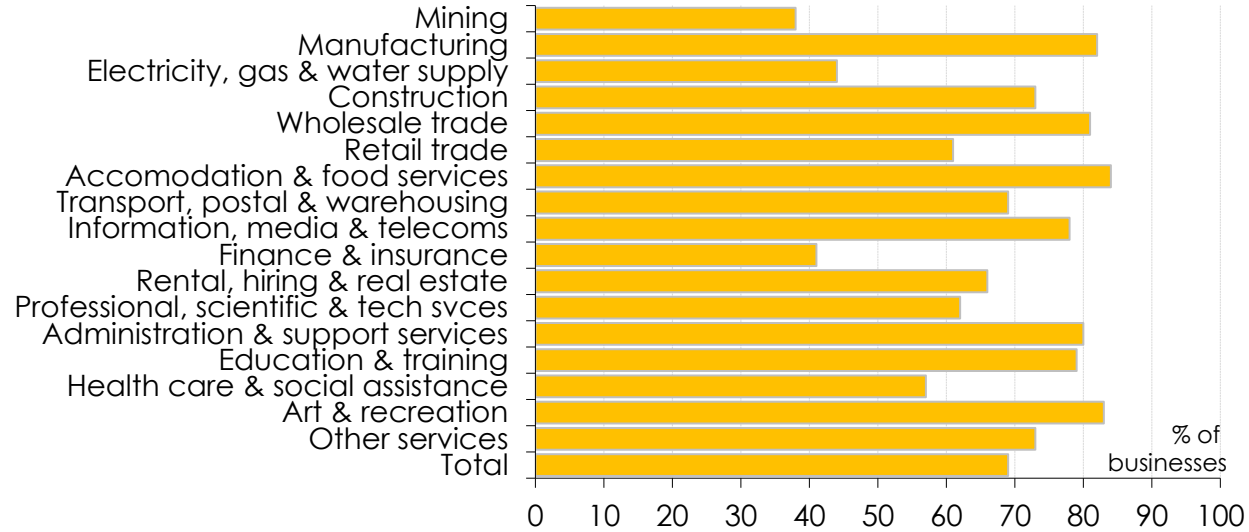
Business confidence



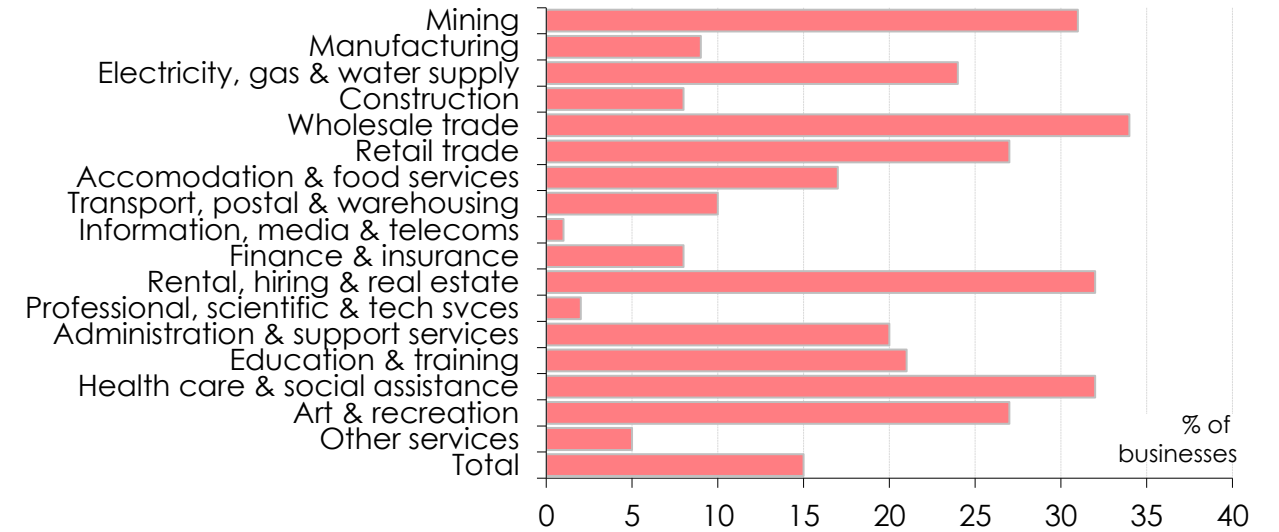
Sources: Westpac-Melbourne Institute; National Australia Bank.

A wide range of businesses have been (or expect to be) affected by government-mandated 'social distancing' measures

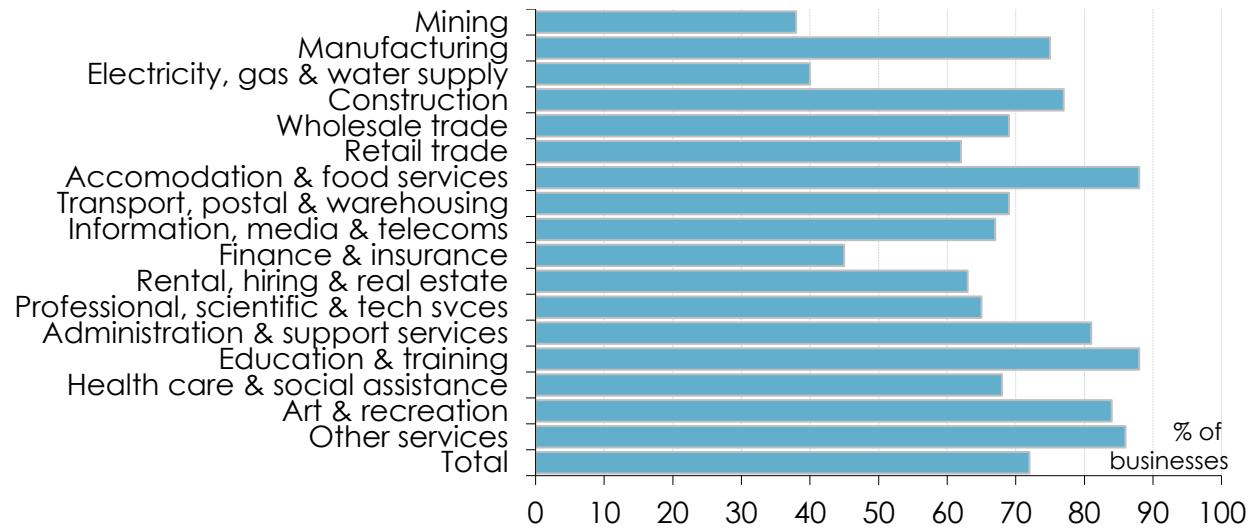
Reduced demand



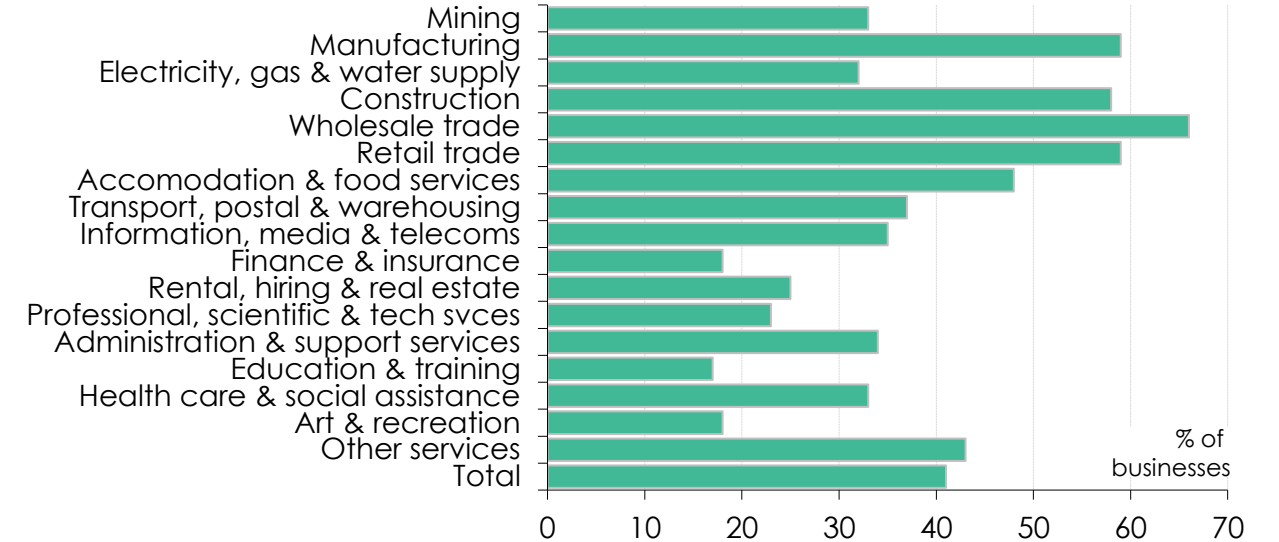
Staff shortages



Reduced cashflow



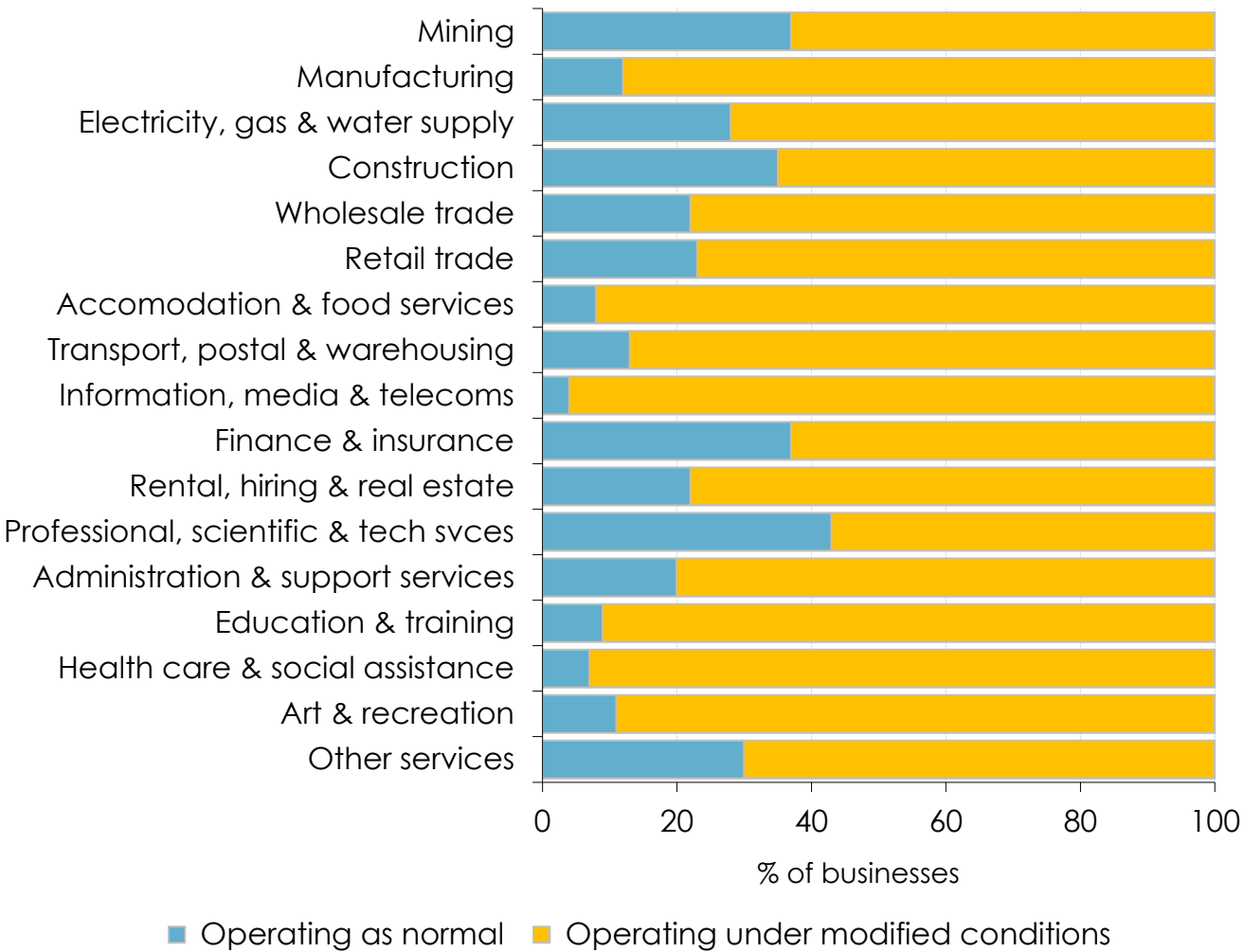
Supply chain uncertainties



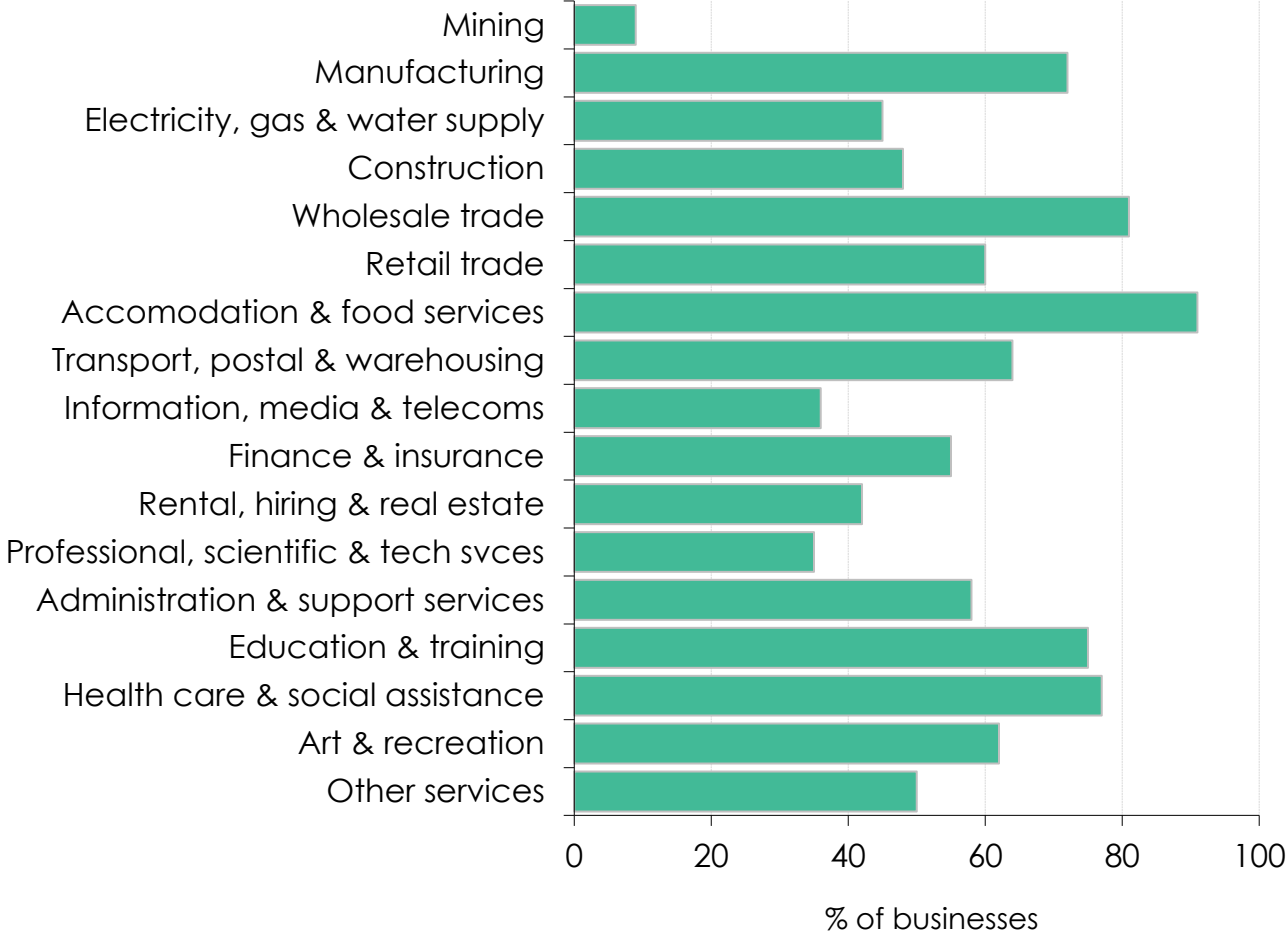
Source: ABS Business Indicators, Business Impacts of COVID-19, April 2020 (based on survey conducted between 22nd and 28th April).

Most businesses are operating under 'modified conditions', and around half have made changes to employment arrangements

How businesses say they have been affected by government-imposed restrictions



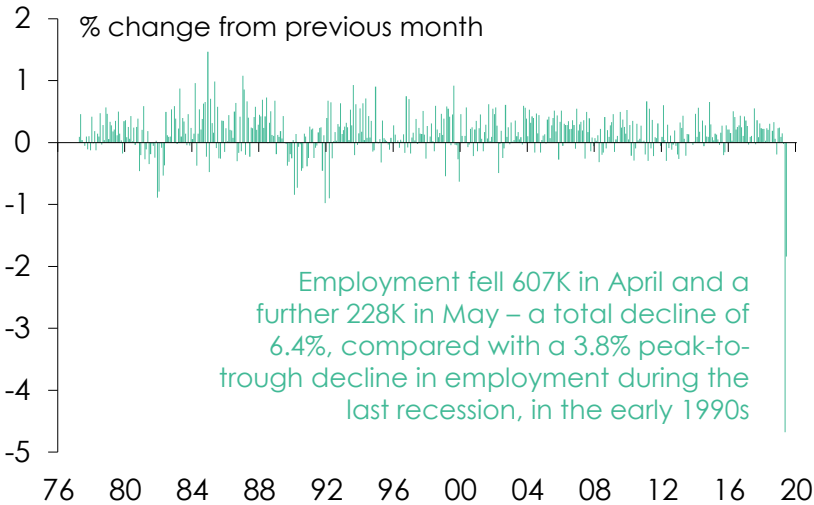
Businesses which have made changes to employment arrangements



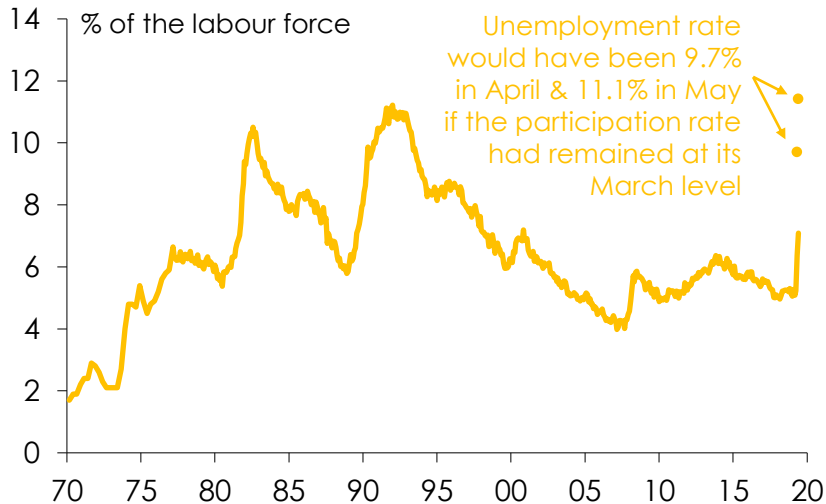
Source: ABS Business Indicators, Business Impacts of COVID-19, May 2020 (based on survey conducted between 13th and 22nd May).

835,000 jobs have been lost since March, although 75% of job-losers have left the labour force, limiting the rise in (measured) unemployment

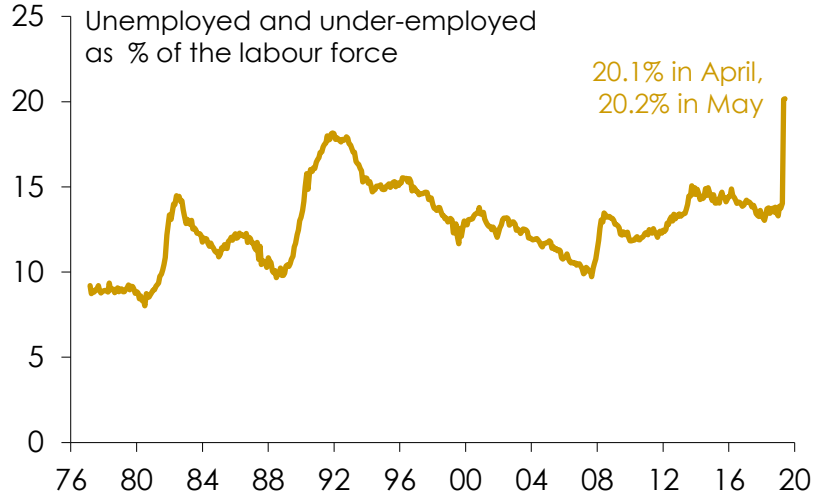
Employment



Unemployment rate



'Under-utilization' rate



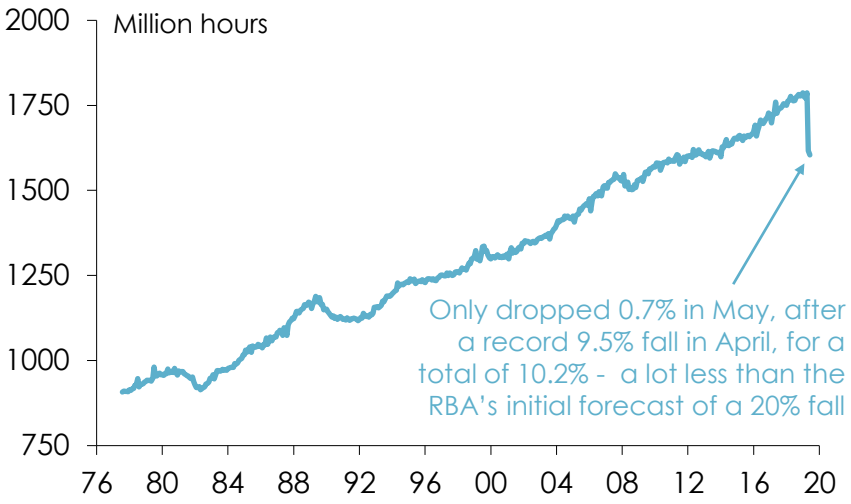
Labour force participation rate



Under-employment ratio



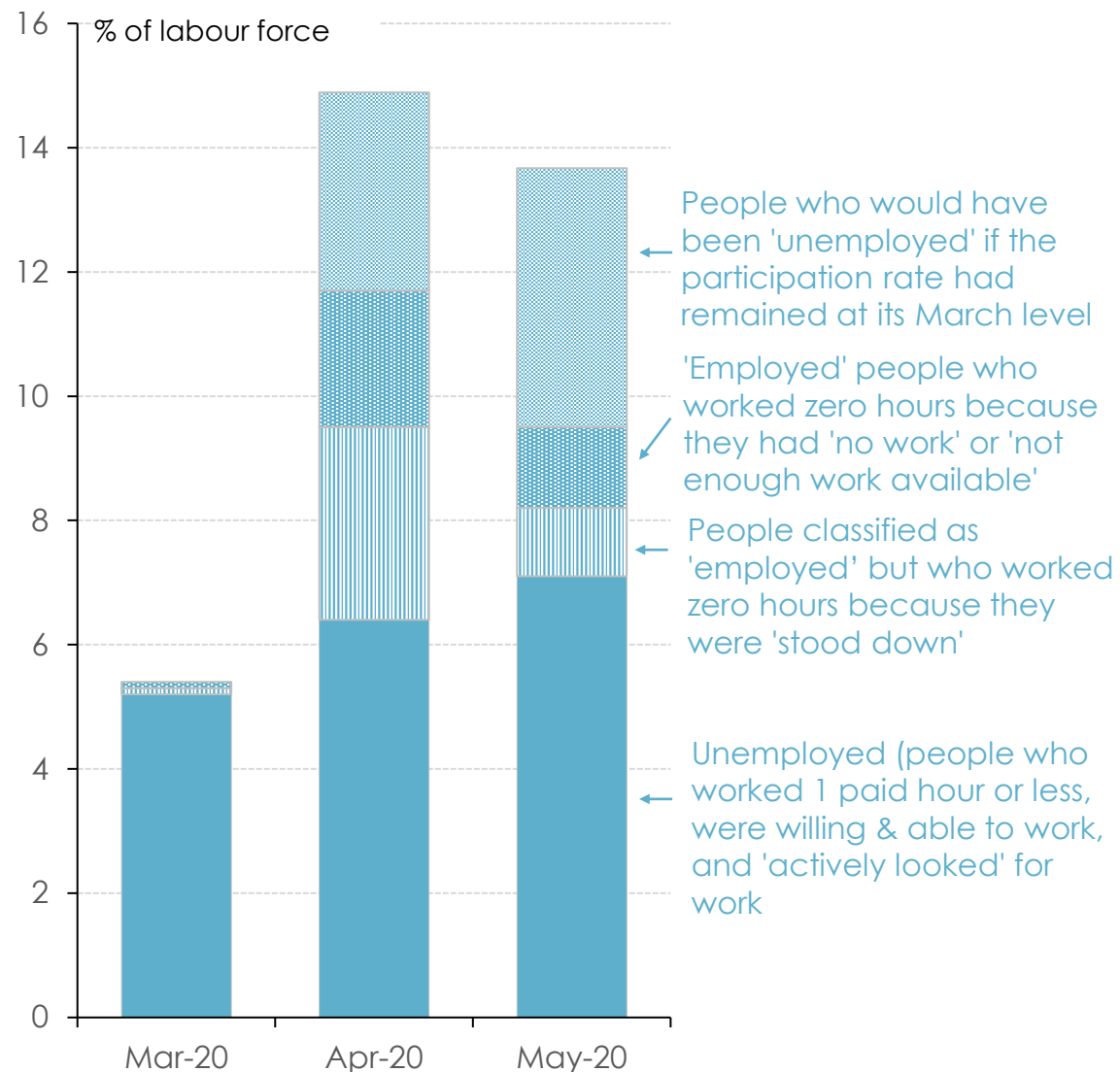
Total hours worked



Note: The ABS classifies people on JobKeeper who worked zero hours in the survey week as 'employed'. Had it not done so, the unemployment rate in May would have been 9.5% (down from 11.7% in April). The 'under-employment ratio' is the percentage of employed persons who are working fewer hours than they are willing and able to work. The 'under-utilization rate' is the proportion of the labour force who are unemployed or underemployed. Source: ABS.

How the Government's JobKeeper program has helped to reduce measured unemployment

Alternative measures of unemployment

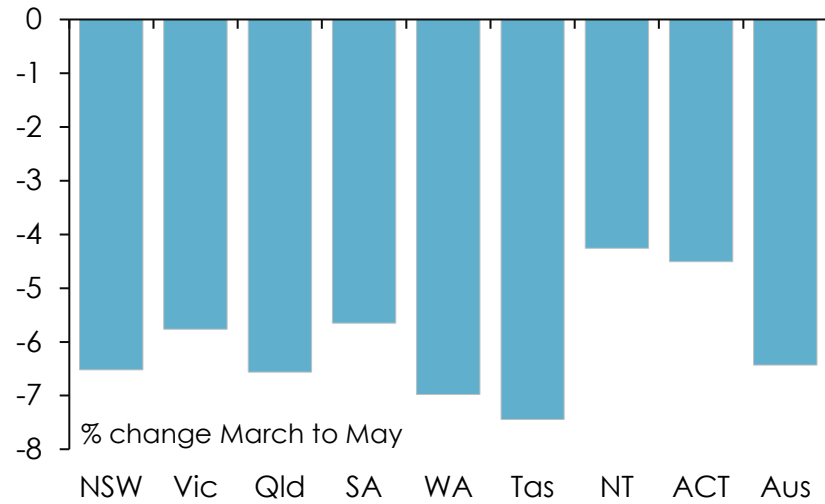


Source: ABS; Corinna.

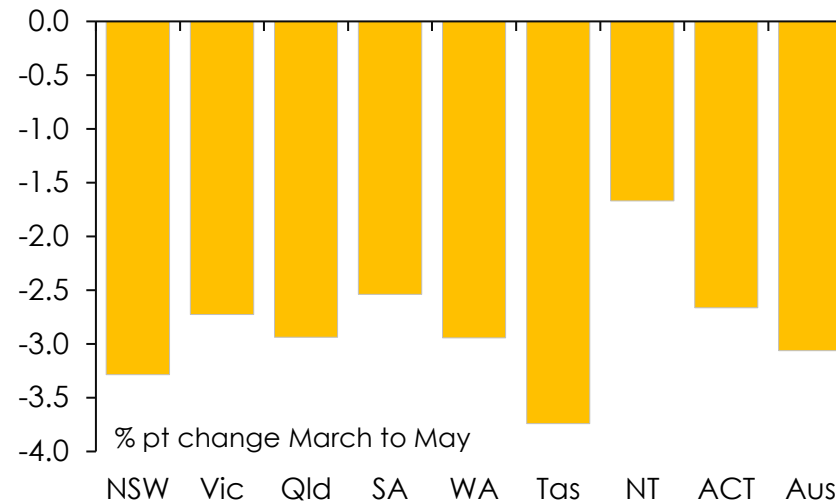
- ❑ The Government's JobKeeper program pays eligible employers a subsidy of \$1500 per fortnight for each eligible employee kept on the payroll between 30 March and 27 September
- ❑ Eligible employers are those with
 - annual turnover of <\$1bn whose turnover has fallen by >30%
 - annual turnover of >\$1bn (other than major banks) whose turnover has fallen by >\$1bn
 - Registered charities whose turnover has fallen by >15%
- ❑ Eligible employees are Australian citizens who are (or were at 1 March) permanent full- or part-time employees, or casuals who had at least 12 months 'regular employment'
- ❑ For labour force survey purposes the ABS classifies people being paid through JobKeeper as 'employed' – even if they have been stood down, or worked no hours during the survey week
 - in the US and Canada, such people are classified as unemployed
- ❑ The Government now estimates about 3¼mn employees are receiving subsidized wages through JobKeeper (down from 6mn initially forecast)

Tasmania and Western Australia have experienced the greatest loss of jobs and decline in hours worked since March

Employment



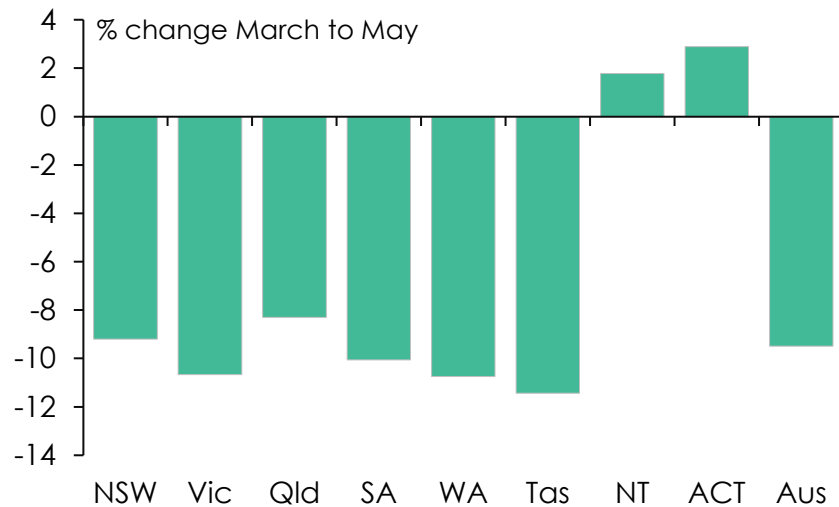
Labour force participation rate



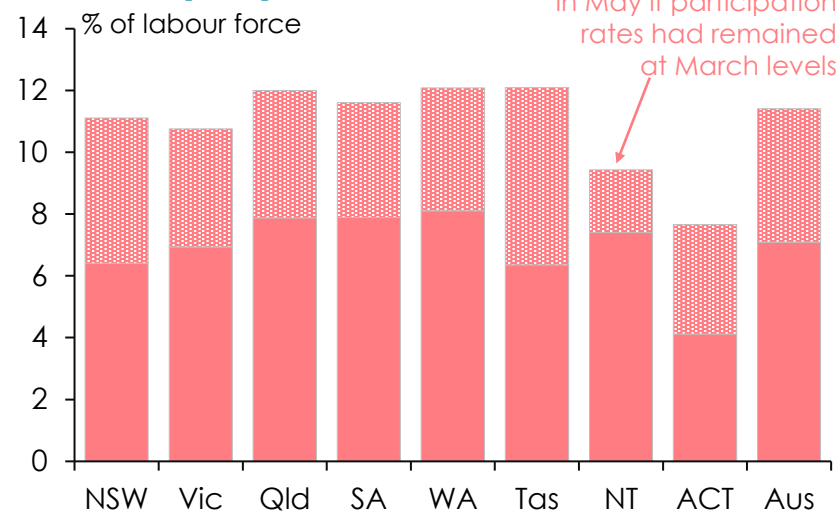
Under-employment ratio



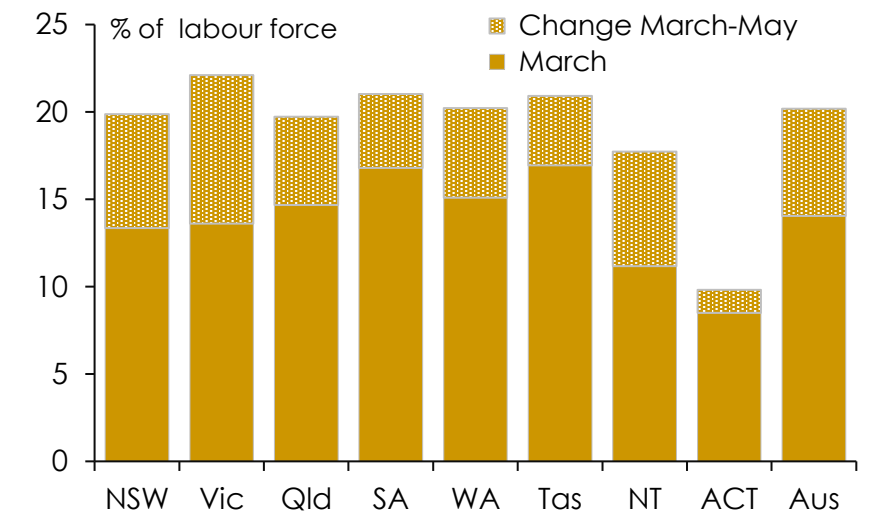
Total hours worked



Unemployment rate



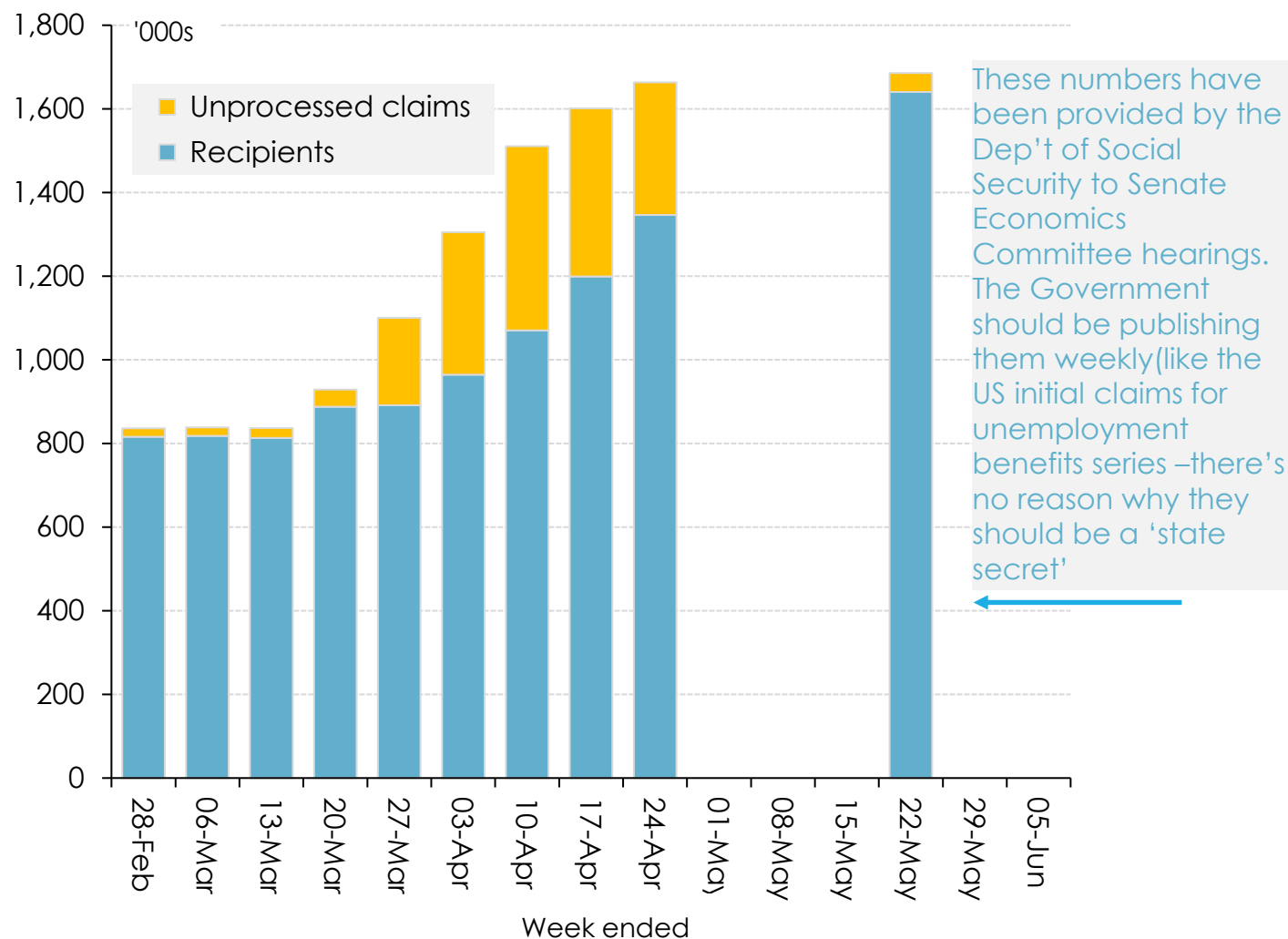
'Under-utilization' rate



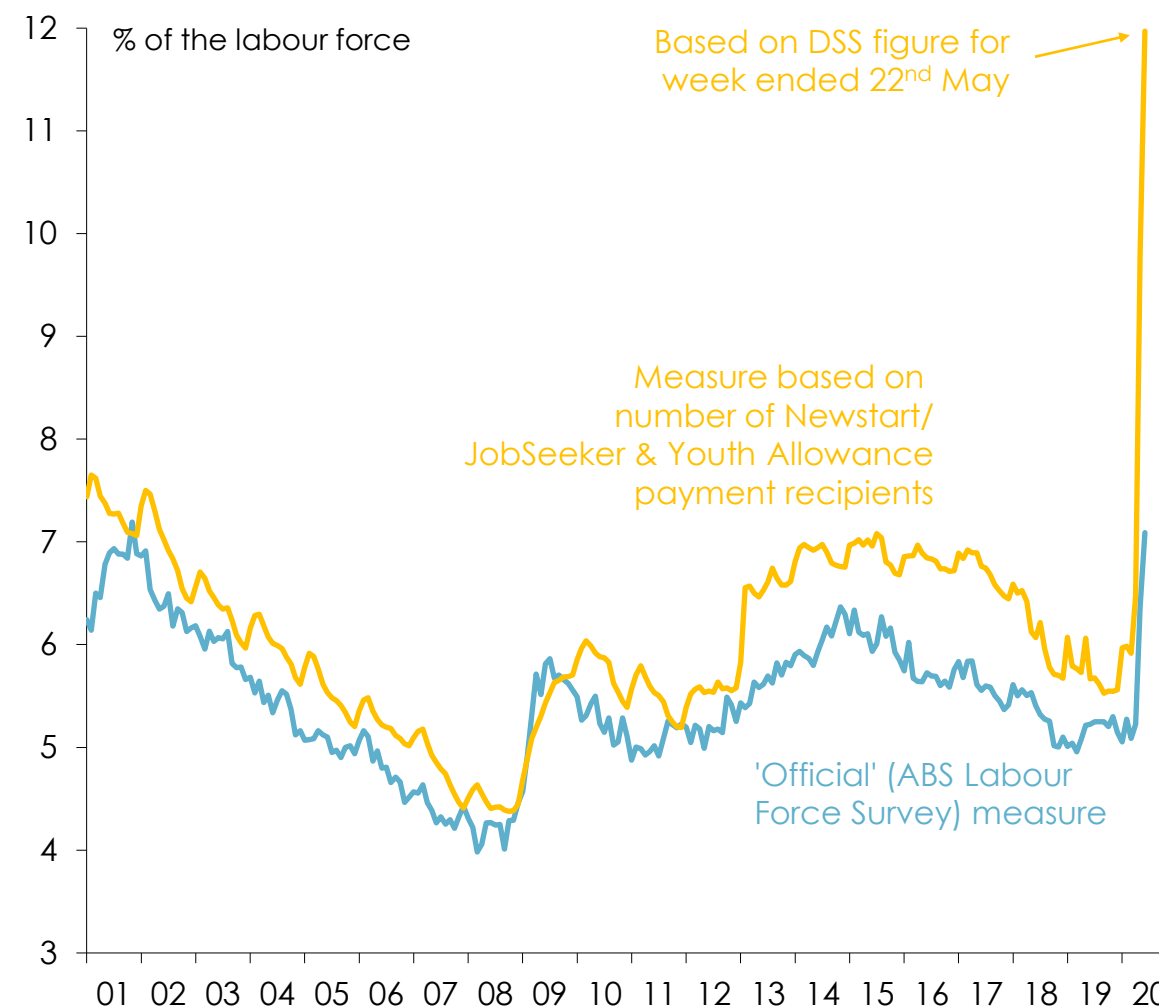
Note: The 'under-employment ratio' is the percentage of employed persons who are working fewer hours than they are willing and able to work. The 'under-utilization rate' is the proportion of the labour force who are unemployed or underemployed. Source: ABS.

The measured unemployment rate is understating the 'true' extent of job losses

Number of people receiving or seeking Newstart/ JobSeeker or Youth Allowance payments



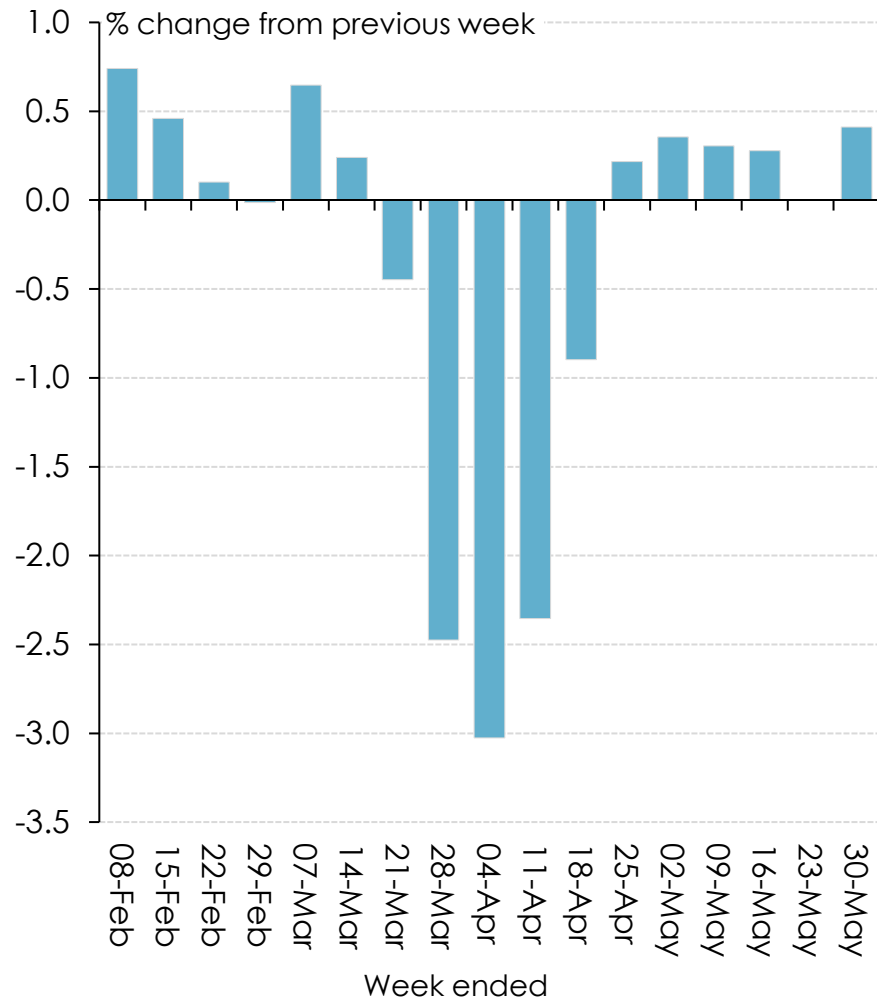
Alternative measures of the 'unemployment rate'



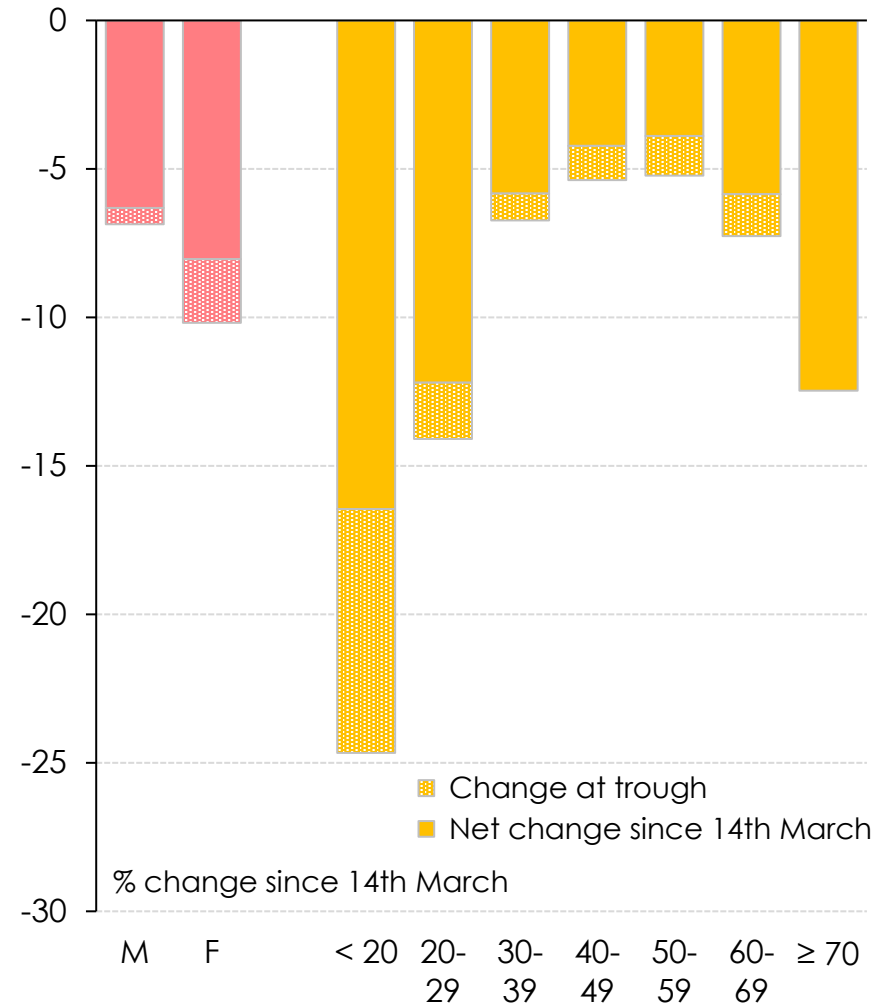
Sources: Department of Social Security; ABS. Note: Youth Allowance recipients excludes full-time students. Number of Newstart/JobSeeker and Youth Allowance recipients is not seasonally adjusted.

Payroll employment dropped by 8.9% between mid-March and mid-April, but by the last week of May had recovered by 1.6%

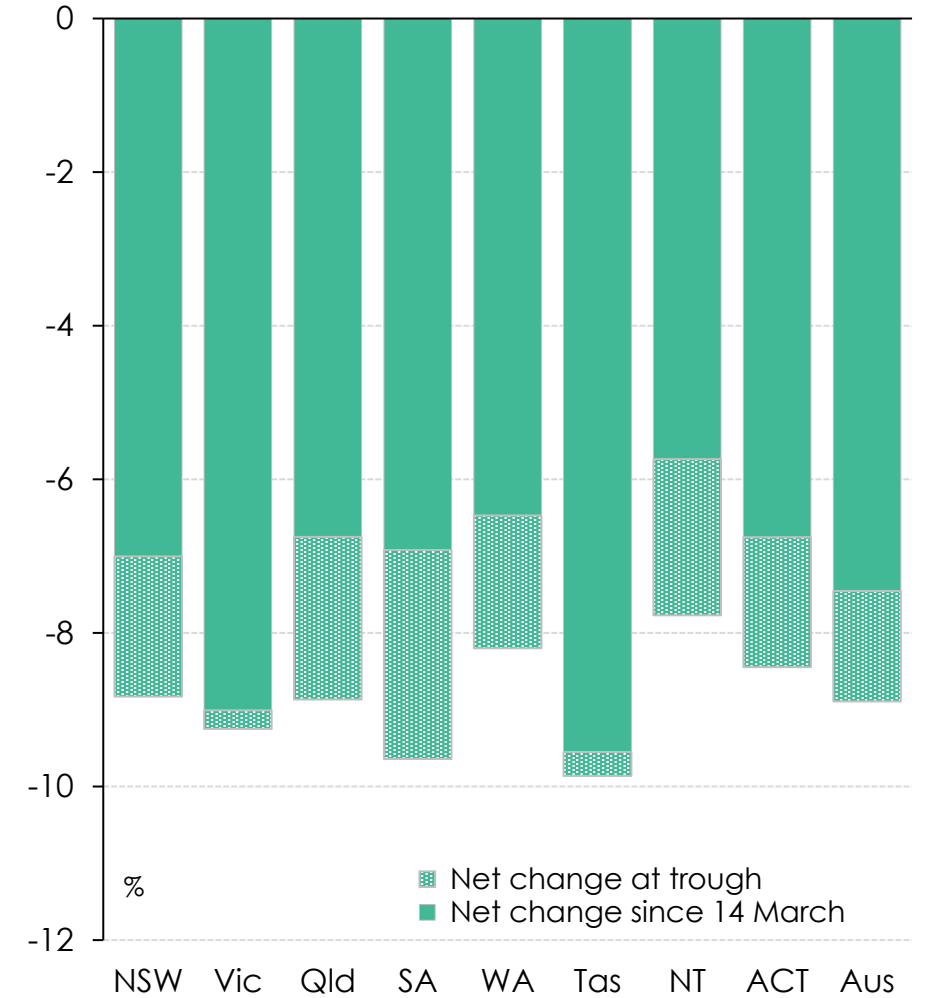
Weekly change in number of payroll jobs



Change in payroll jobs by age & gender



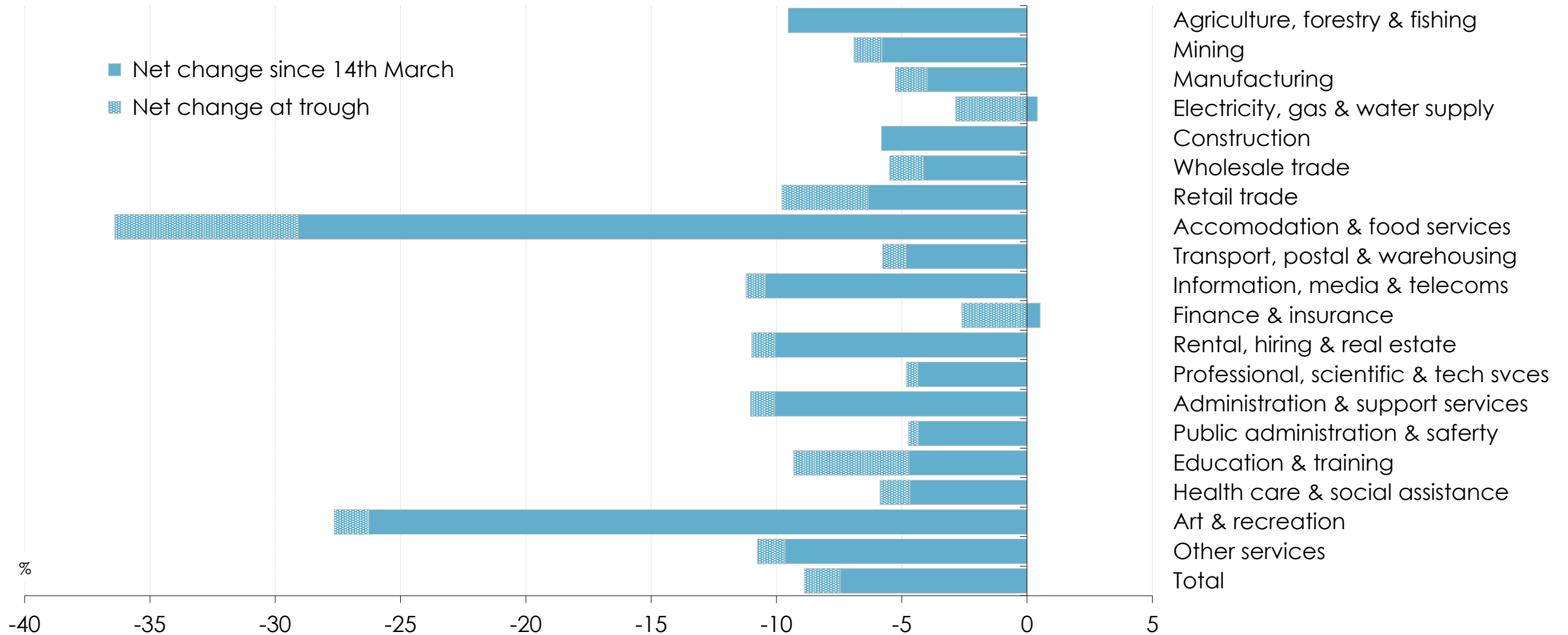
Change in payroll jobs by State & Territory



Source: ABS. Data refers to the number of payroll jobs at businesses participating in the Australian Taxation Office's Single Touch Payroll system, which covers 99% of employers with 20 or more employees and about 71% of smaller employees. People with two or more jobs (about 6% of the total) are counted more than once. Data are not seasonally adjusted.

Employment has fallen much more sharply in services sectors than in sectors producing or distributing goods

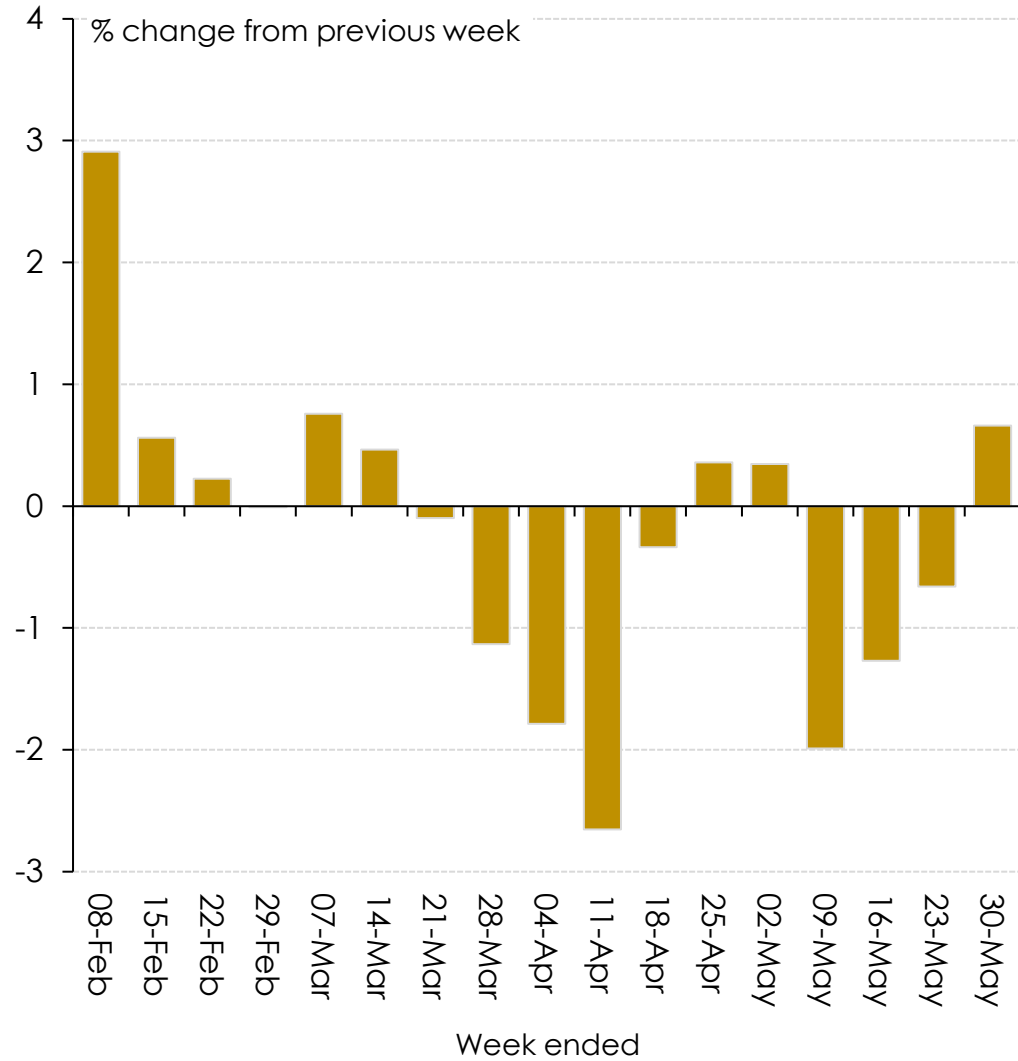
Change in number of payroll jobs between 14th March and 30th May, by industry



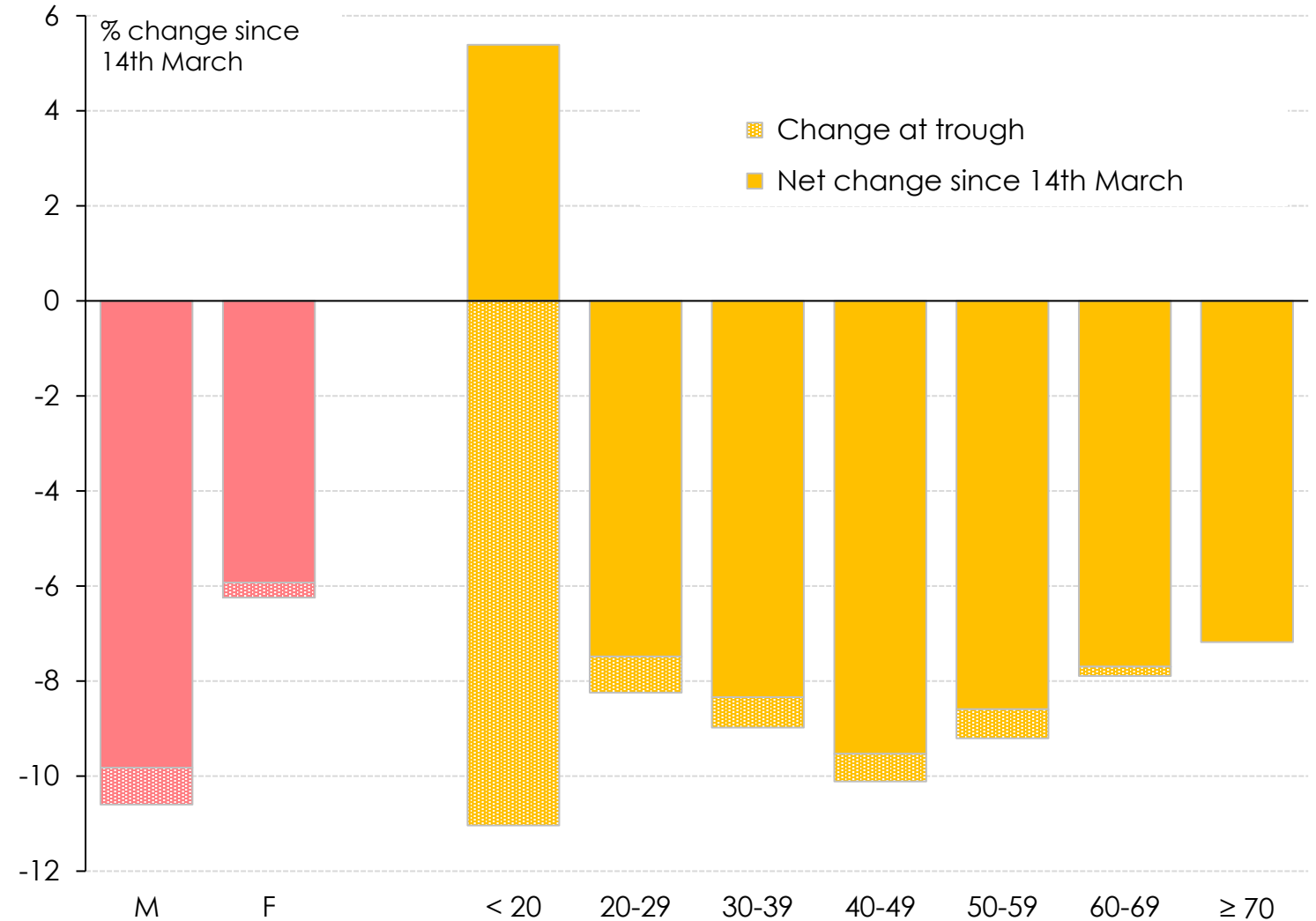
Source: ABS. Data refers to the number of payroll jobs at businesses participating in the Australian Taxation Office's Single Touch Payroll system, which covers 99% of employers with 20 or more employees and about 71% of smaller employees. People with two or more jobs (about 6% of the total) are counted more than once. Data are not seasonally adjusted.

Wages have risen since the Government's JobKeeper program started, and teenagers are getting paid more than they were before the shutdown

Weekly change in total wages paid



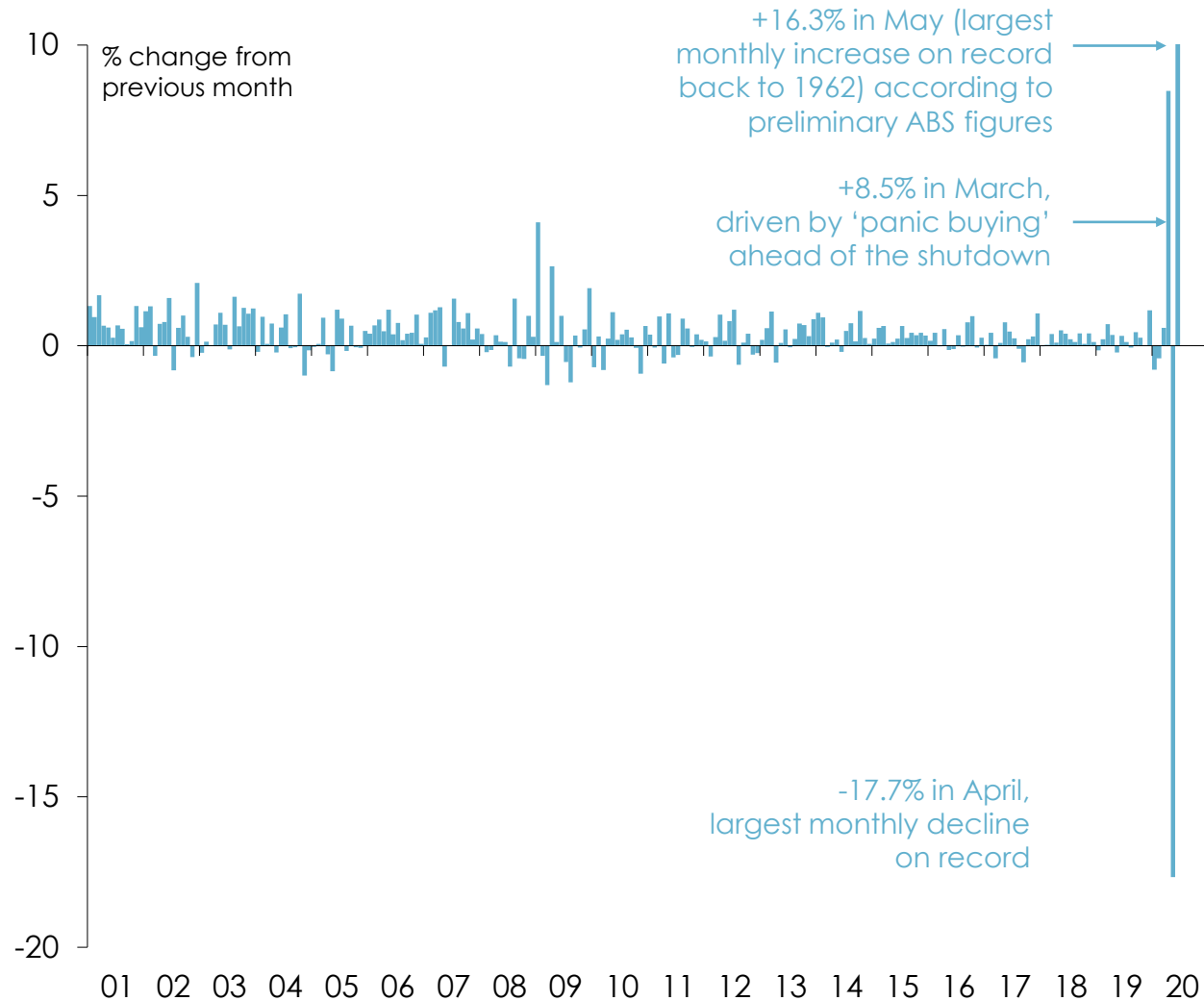
Change in total wages paid by gender and age group



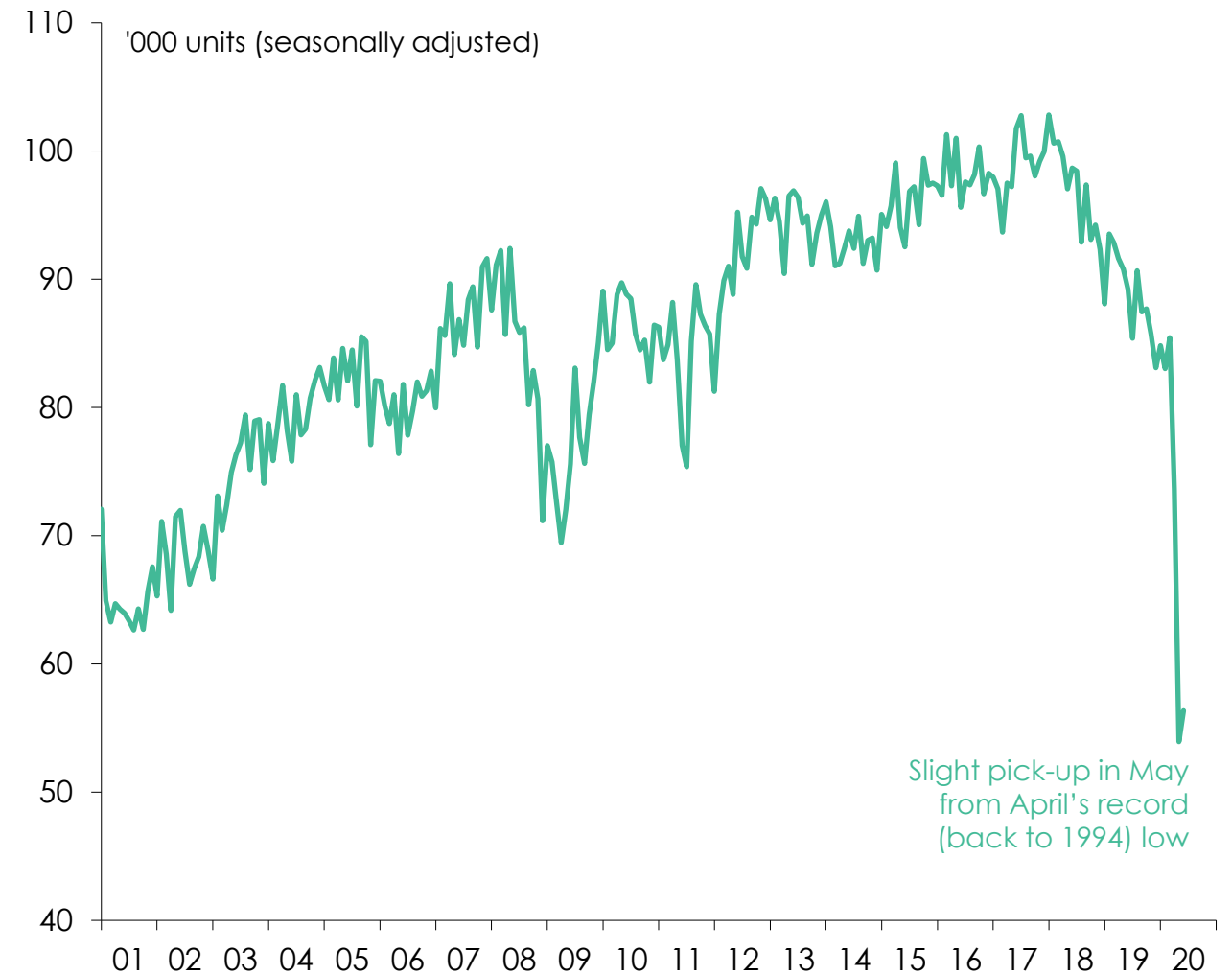
Note: The smaller fall in women's wages than men's likely reflects the fact that JobKeeper payments (at a flat rate of \$1500 per employee per fortnight) represent a higher proportion of women's (lower) average earnings than men's. Ditto for teenagers (most of whom work part-time). Source: ABS. Data refers to the number of payroll jobs at businesses participating in the Australian Taxation Office's Single Touch Payroll system, which covers 99% of employers with 20 or more employees and about 71% of smaller employees. People with two or more jobs (about 6% of the total) are counted more than once. Data are not seasonally adjusted.

Retail sales rebounded 16.3% in May after a 17.7% decline in April; but car sales rose much more modestly and are still close to record lows

Retail sales



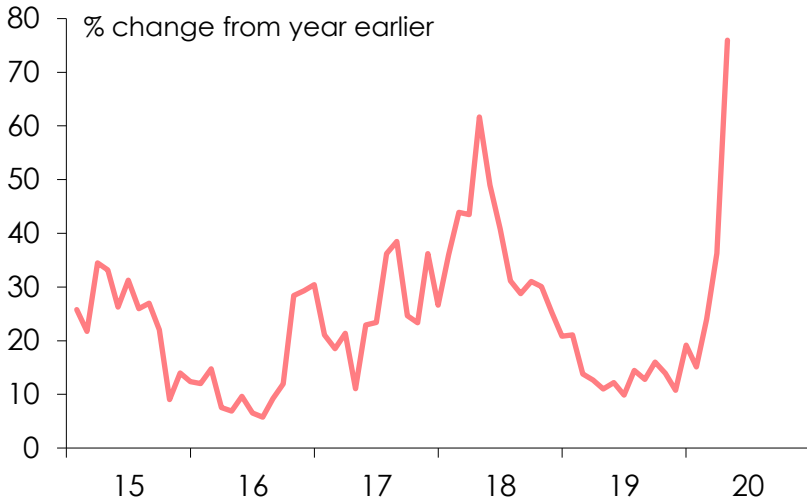
Motor vehicle sales



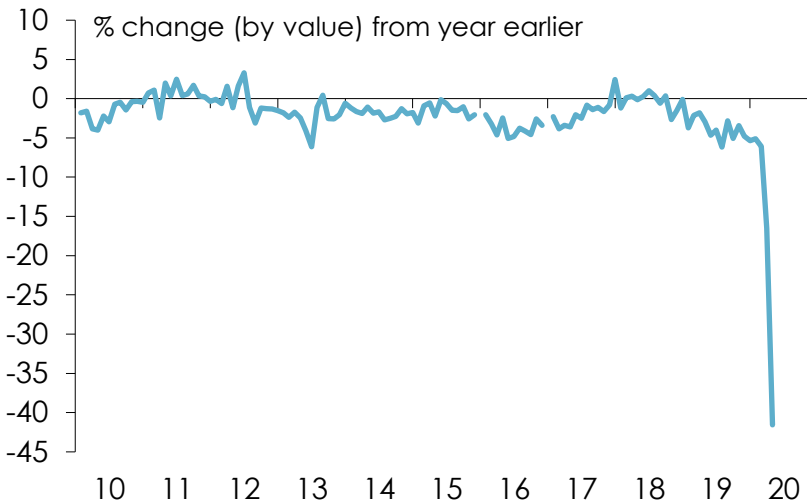
Sources: ABS; Federal Chamber of Automotive Industries VFACTS (seasonal adjustment of FCAI data by Corinna)

The pandemic and lockdown has accelerated changes in the way Australians shop, and make payments

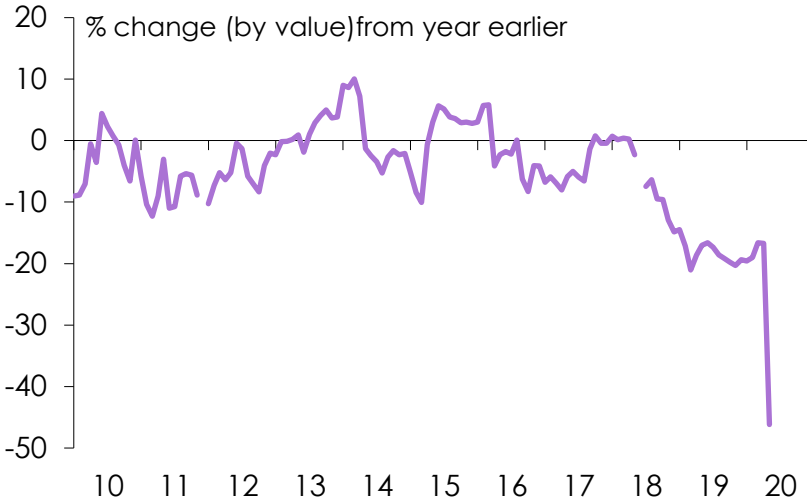
Growth in online retail sales



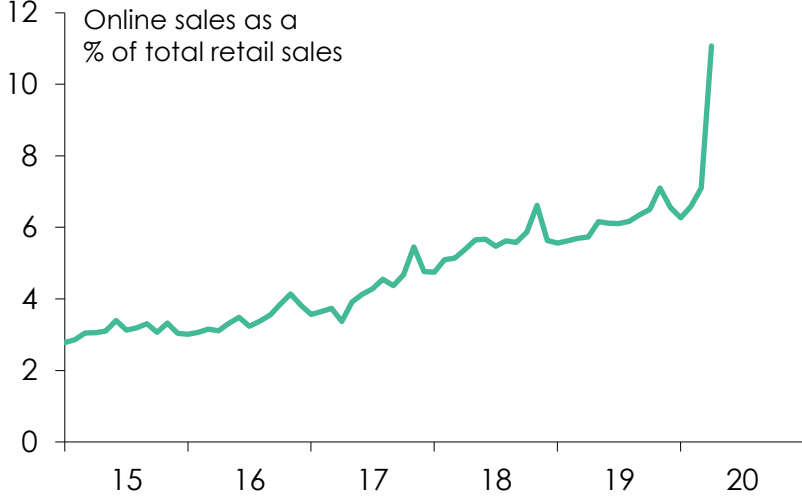
ATM cash withdrawals



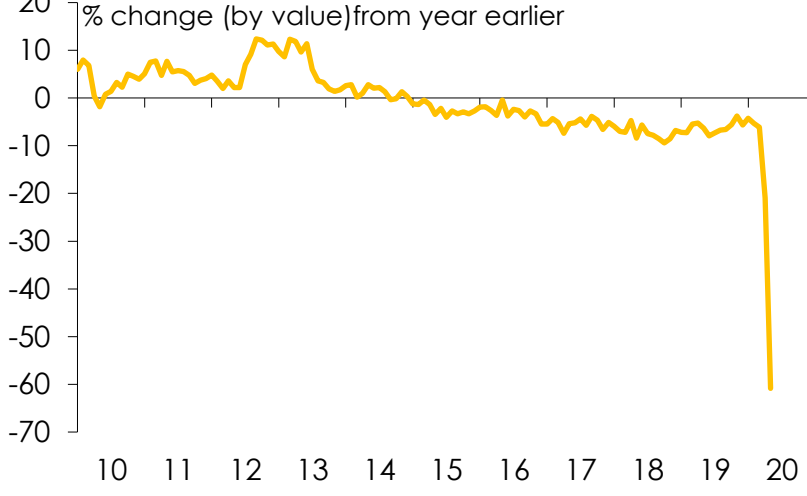
Credit card cash advances



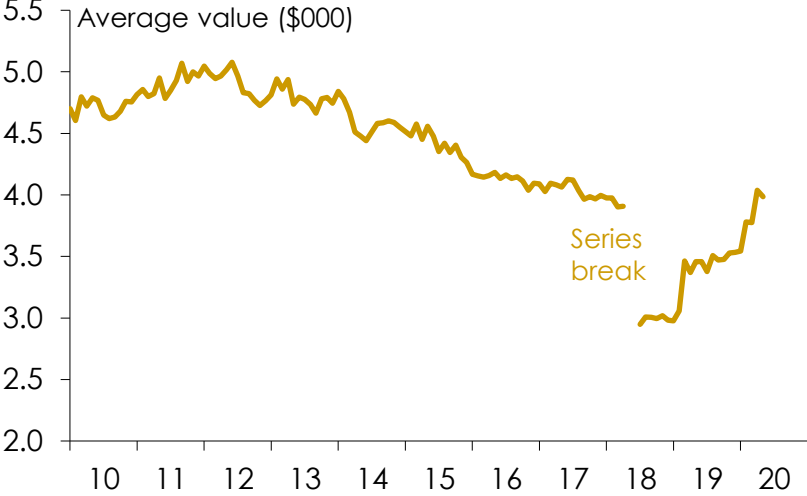
Online retail 'market share'



Debit card cash-outs



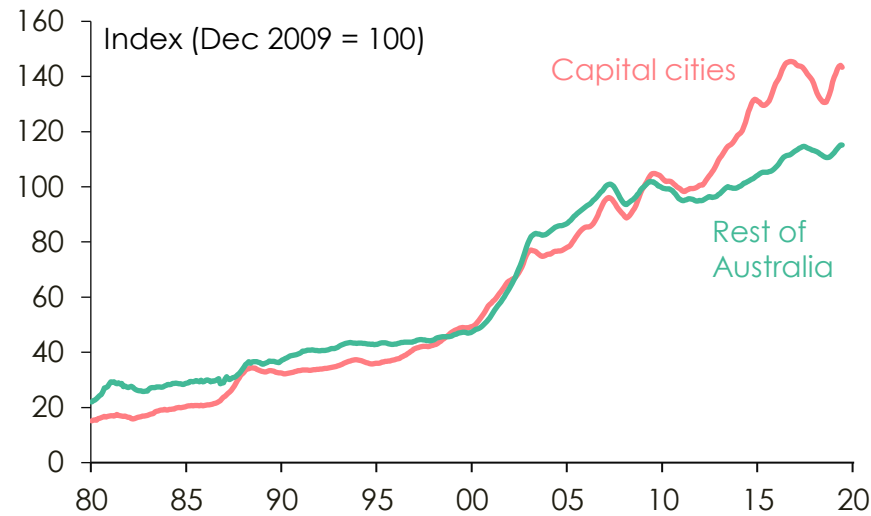
Direct entry payments



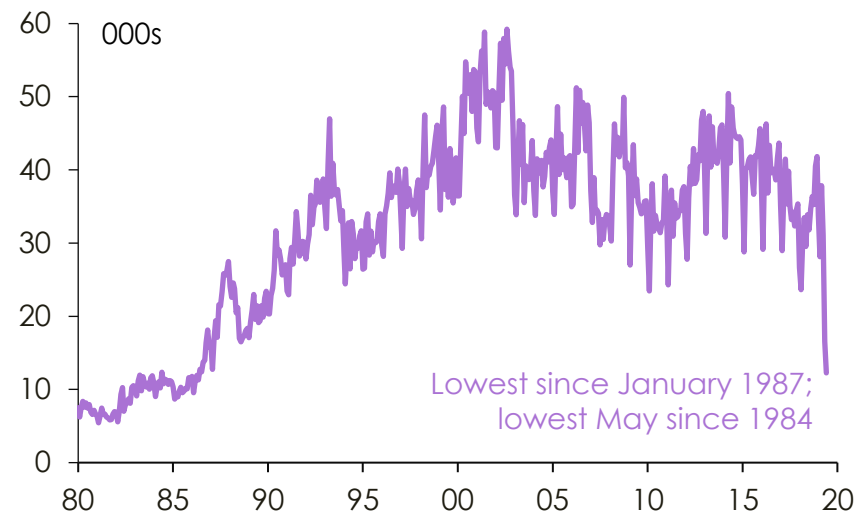
Sources: ABS; RBA.

Property prices have held up thus far (despite a small fall in May), but sales volumes have fallen to their lowest level in more than 30 years

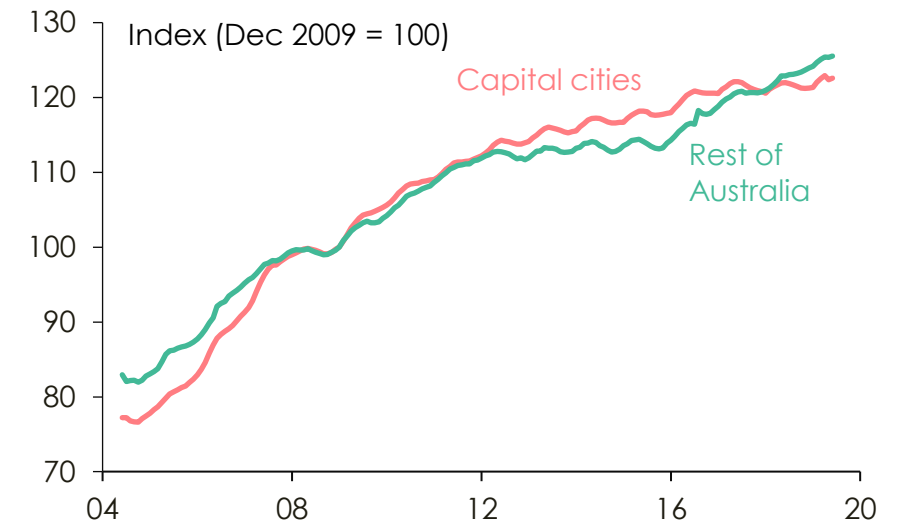
Residential property prices



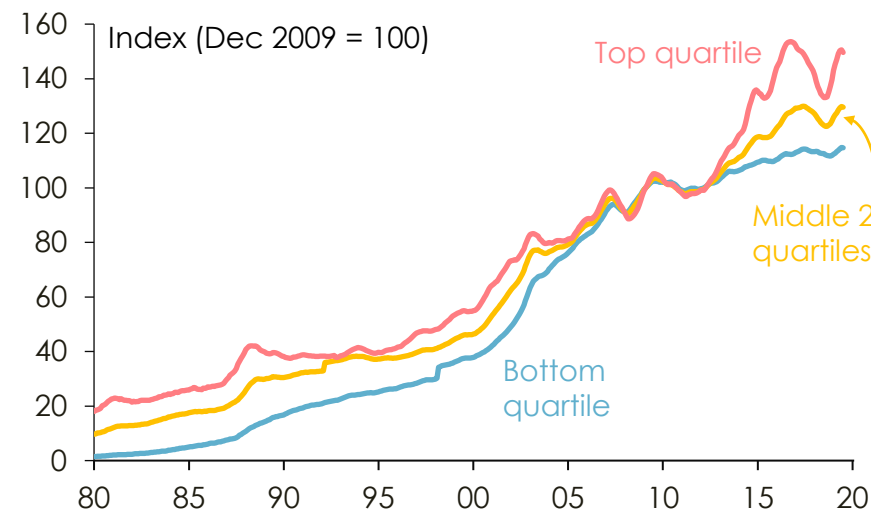
Residential property sales volumes



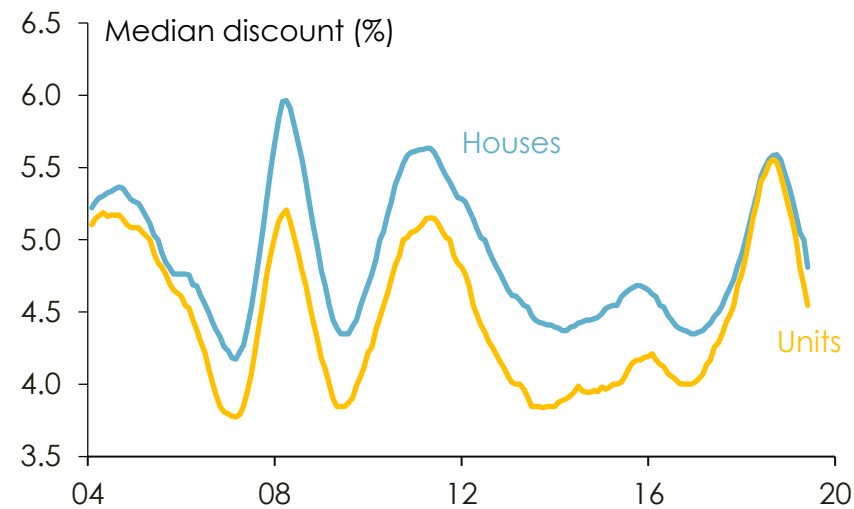
Residential rents



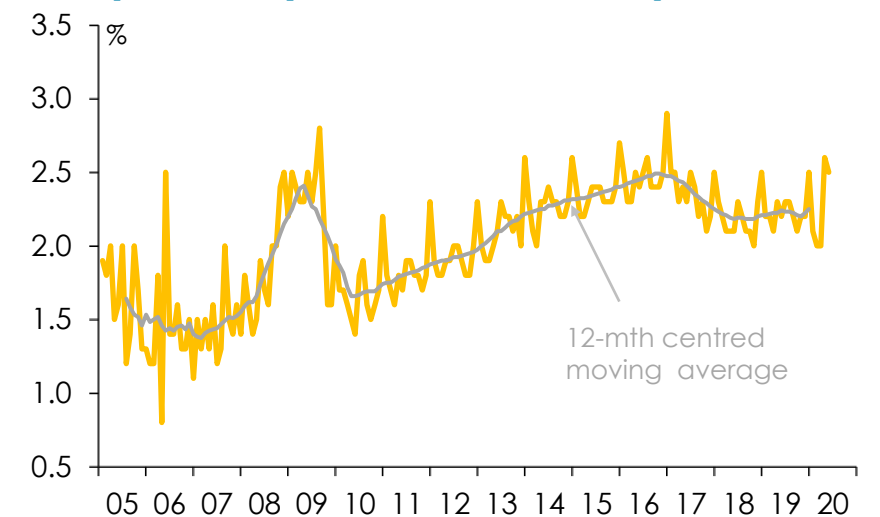
Property prices by tier



Vendor discounting



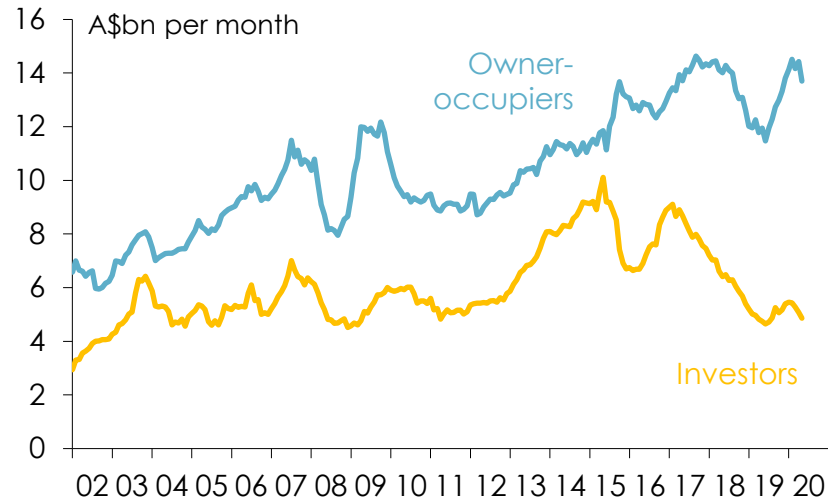
Capital city rental vacancy rates



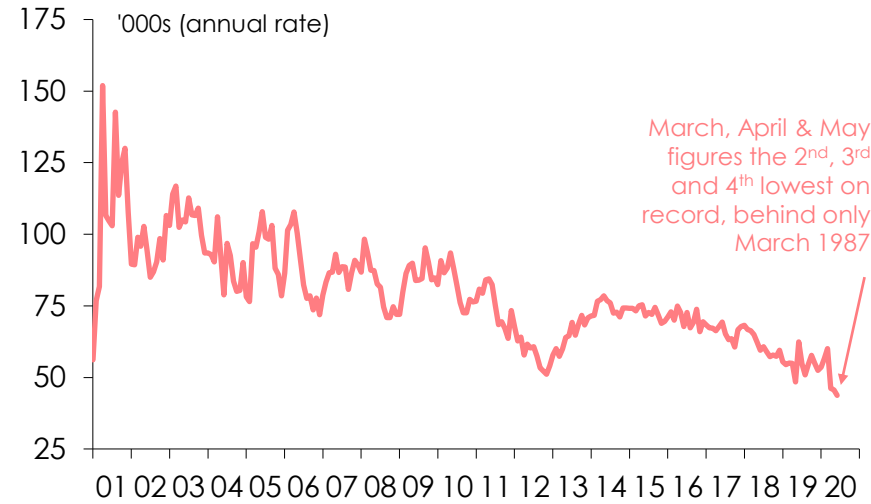
Note: The index of property prices measures the 'organic' change in underlying sales values by using a hedonic regression methodology that takes account of changes in the characteristics of properties being sold from month to month. The index of residential rents uses a similar methodology to measure the 'organic' change in underlying rents. Latest data are for May 2020. Sources: CoreLogic; SQM Research.

Residential building activity will turn down over the next few months and longer-term will be adversely affected by sharply lower immigration

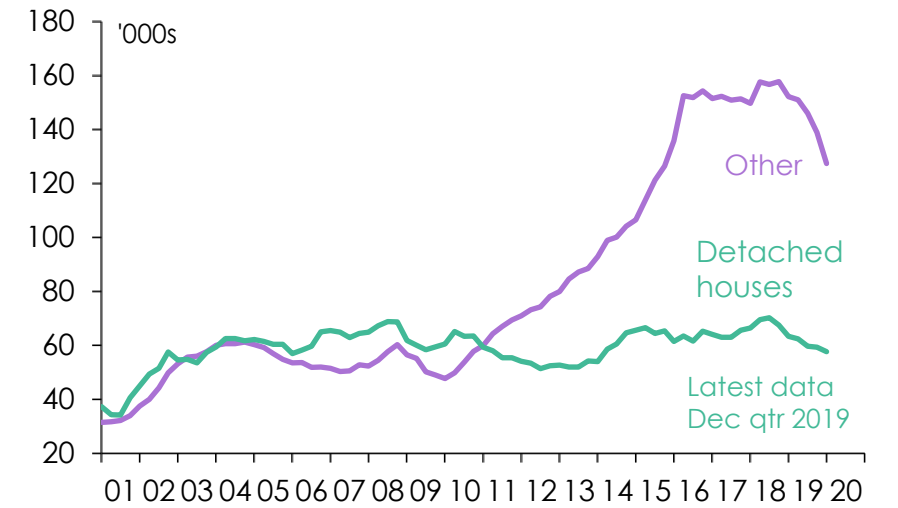
Housing finance commitments



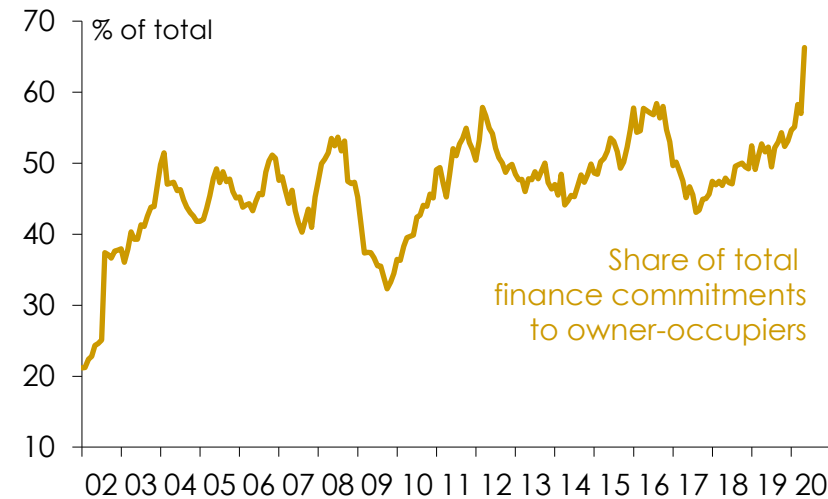
Large builders' new home sales



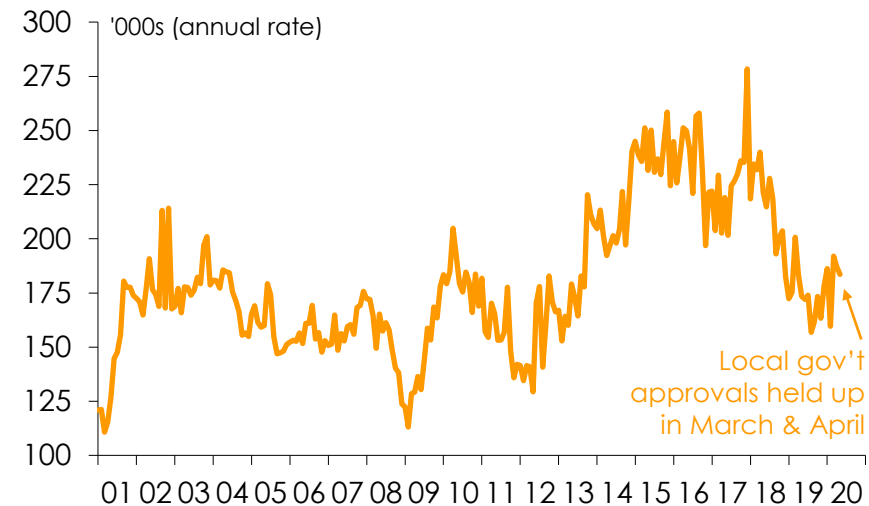
Dwellings under construction



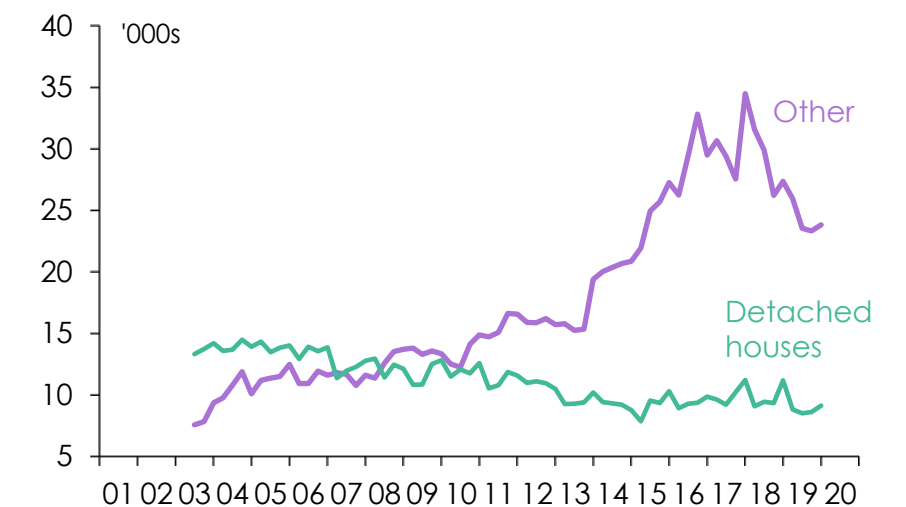
Refinancings as pc of total



Residential building approvals



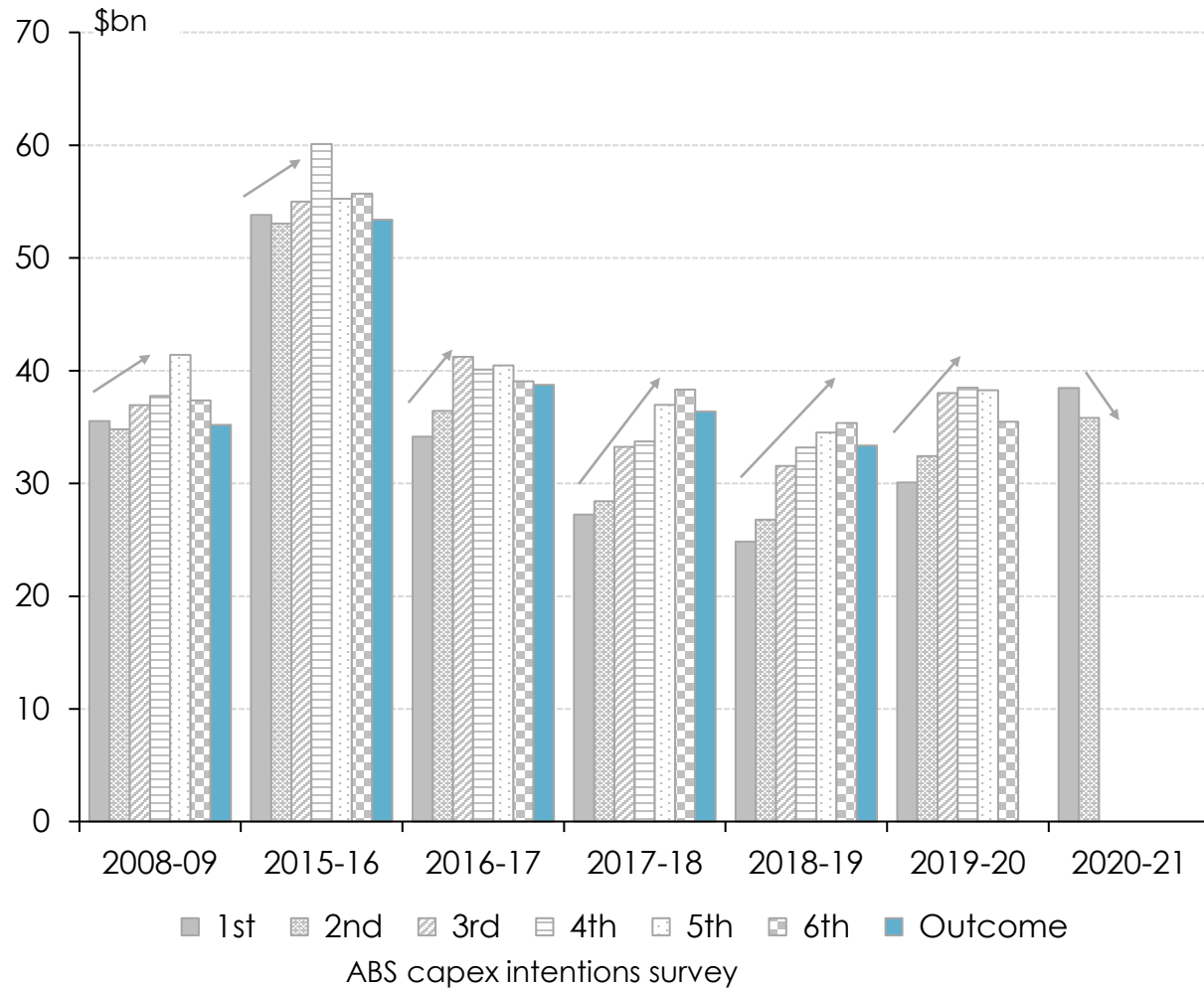
'Pipeline' of work yet to be done



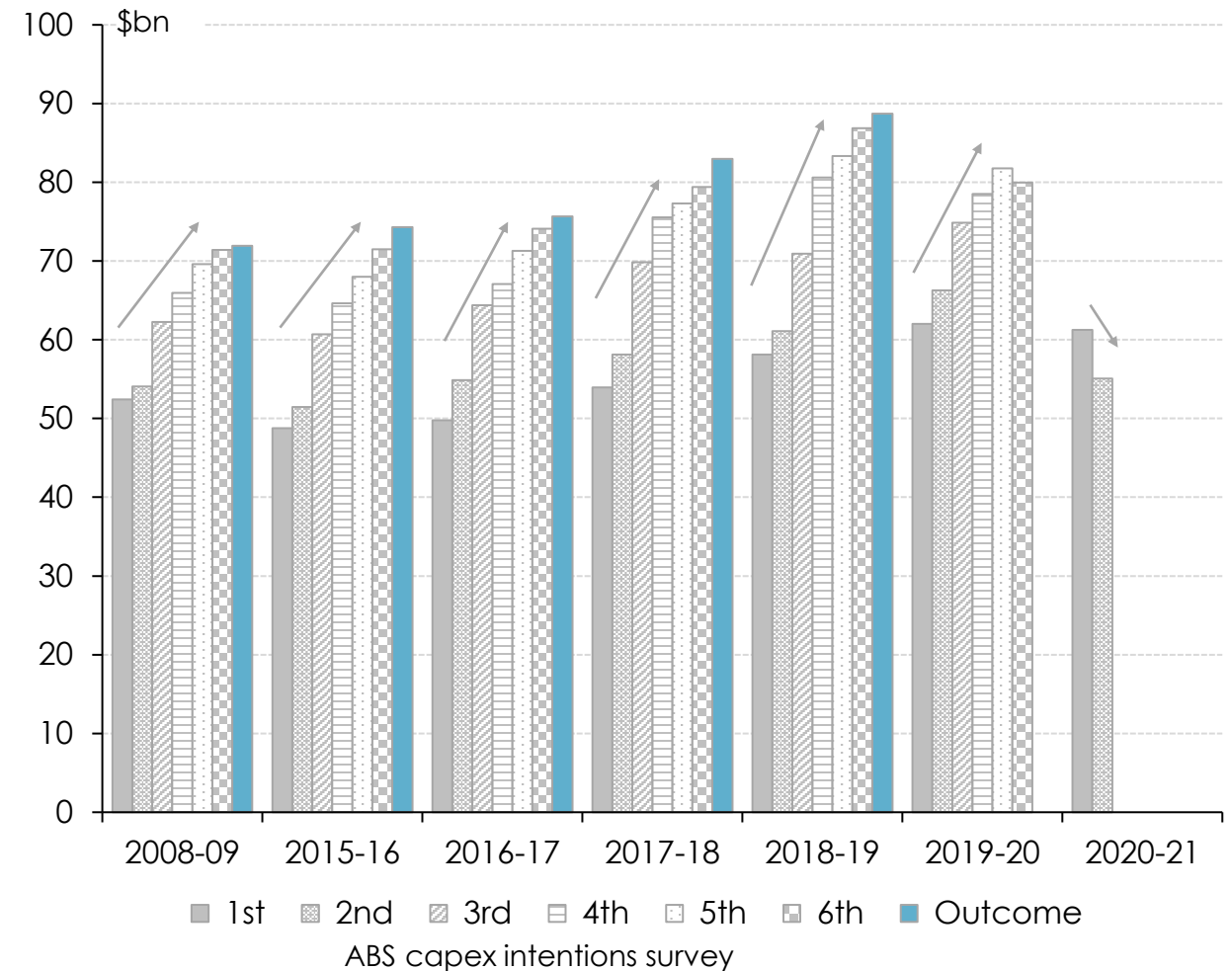
Note: 'New home sales' are of detached dwellings only and exclude small-scale builders. Sources: ABS; Housing Industry Association.

Businesses have cut back their capital expenditure intentions for 2020-21, which is unusual for this time of year

Capital expenditure intentions - mining

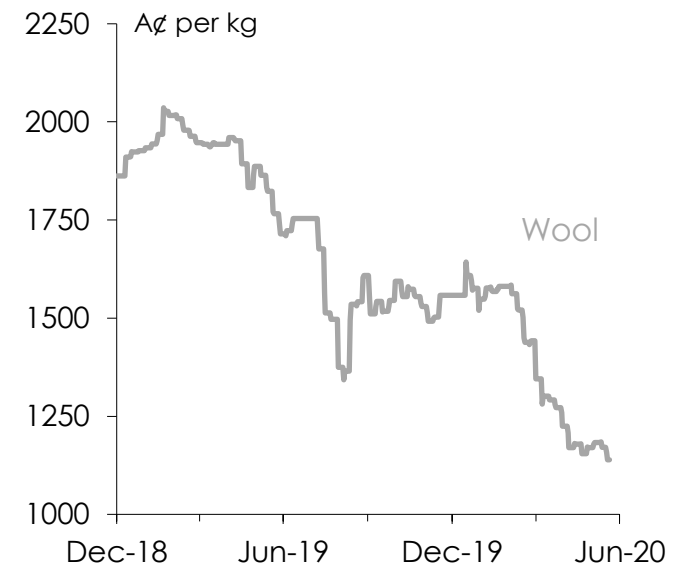
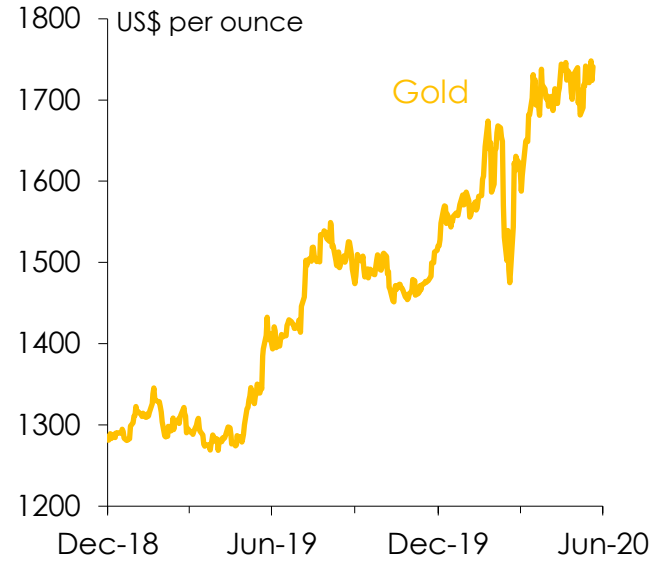
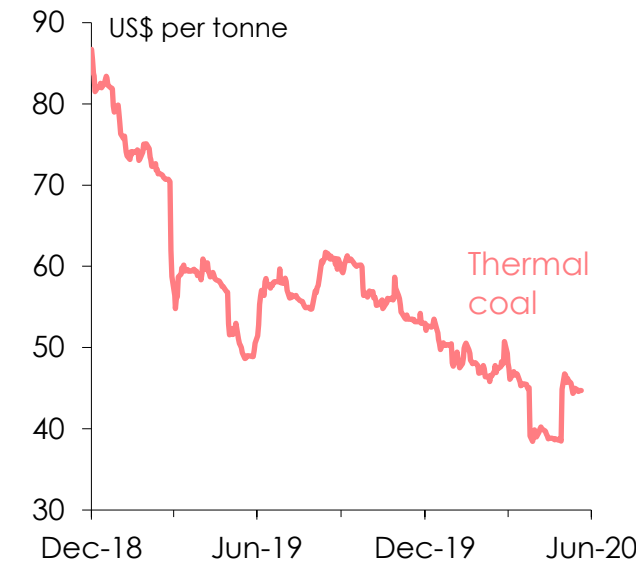
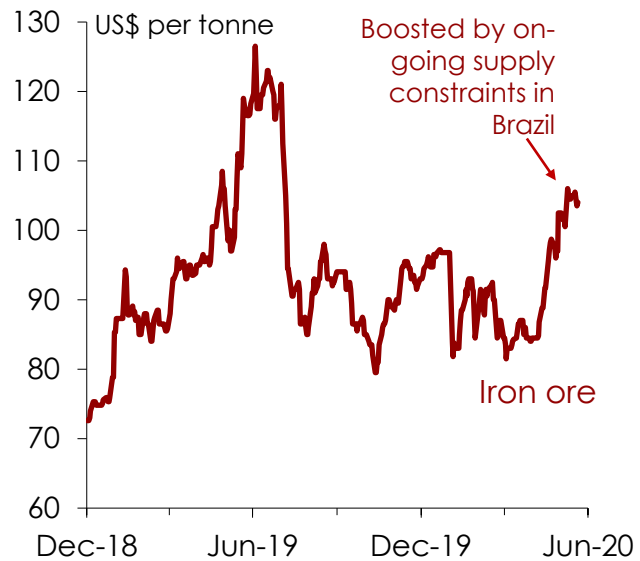
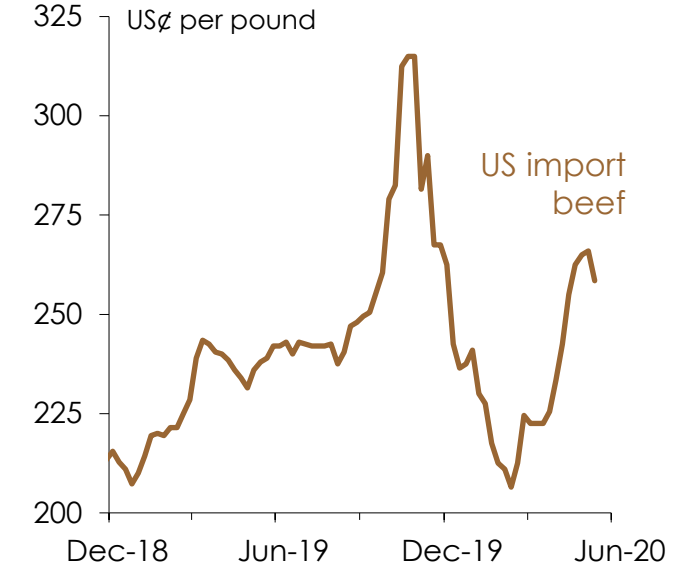
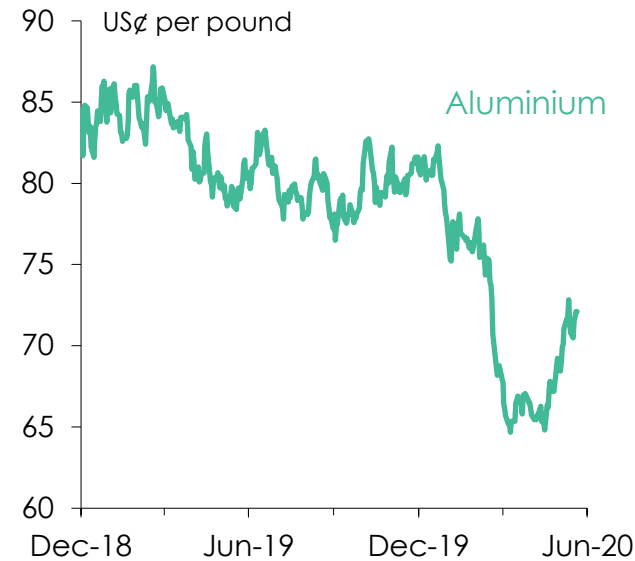
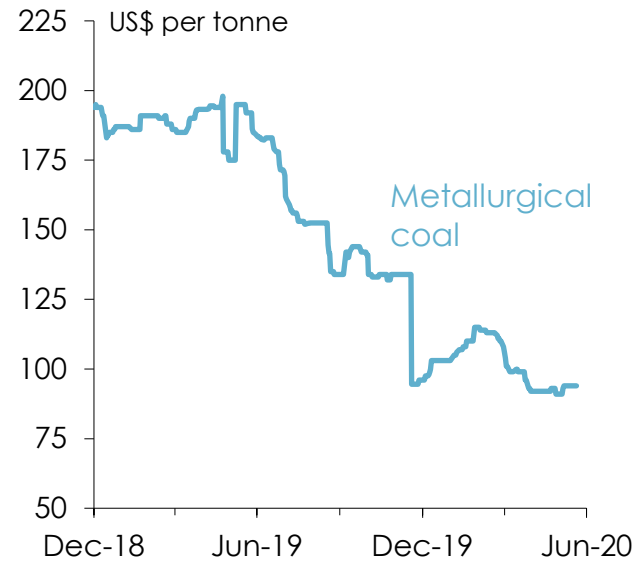
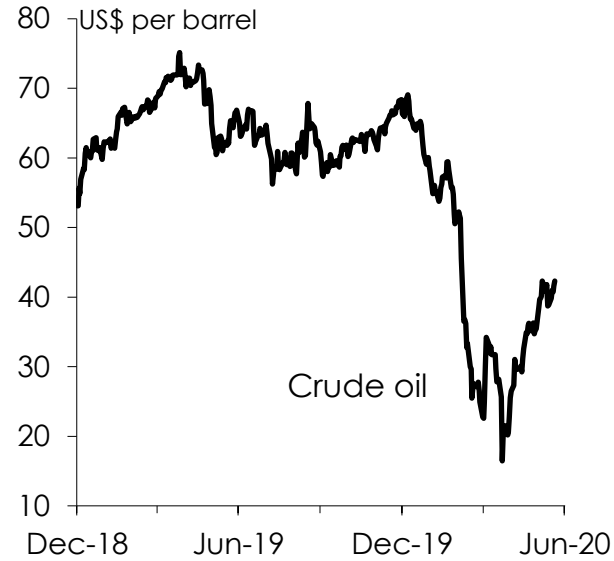


Capital expenditure intentions – non-mining



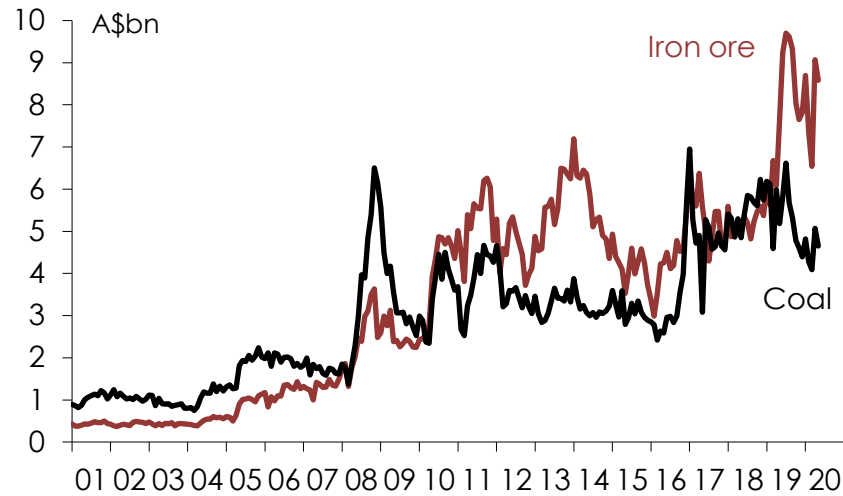
Note: The ABS conducts six surveys of business' capital expenditure intentions in respect of each financial year. The first is conducted in January & February prior to the commencement of the financial year, the second in May & June, the third in July & August of the financial year, the fourth in October & November, the fifth in January & February of the financial year, and the sixth in May & June. The outcome (actual capital expenditure in the financial year) is determined from the survey taken in July & August after the end of the financial year. The survey excludes businesses in the agriculture, forestry & fishing; and public administration and safety sectors, and also superannuation funds. The education & training, and health care & social assistance sectors have been included in the surveys since December 2019 but are not included in the above charts (to assist in comparisons). Source: ABS.

Despite a sharp fall in oil prices, most Australian export commodity prices have proved relatively resilient (unlike during the GFC)

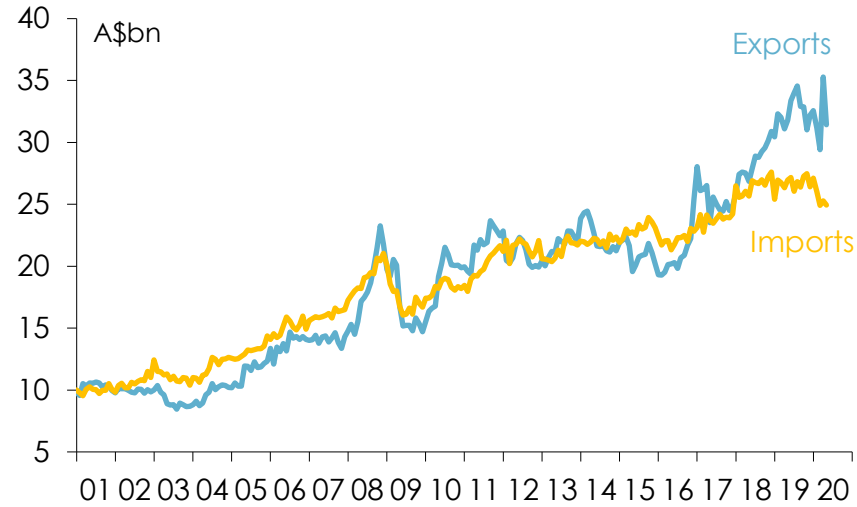


Australian exports have held up remarkably well, while even the tourism trade balance has improved

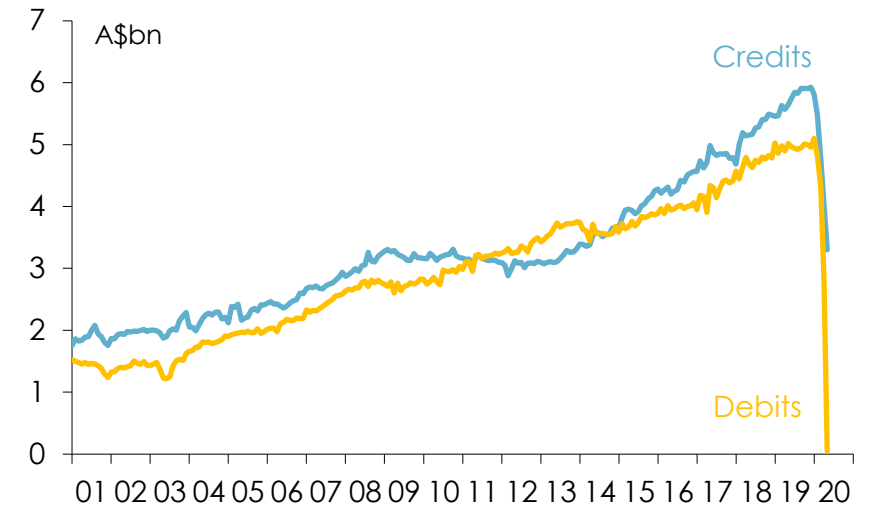
Iron ore and coal exports



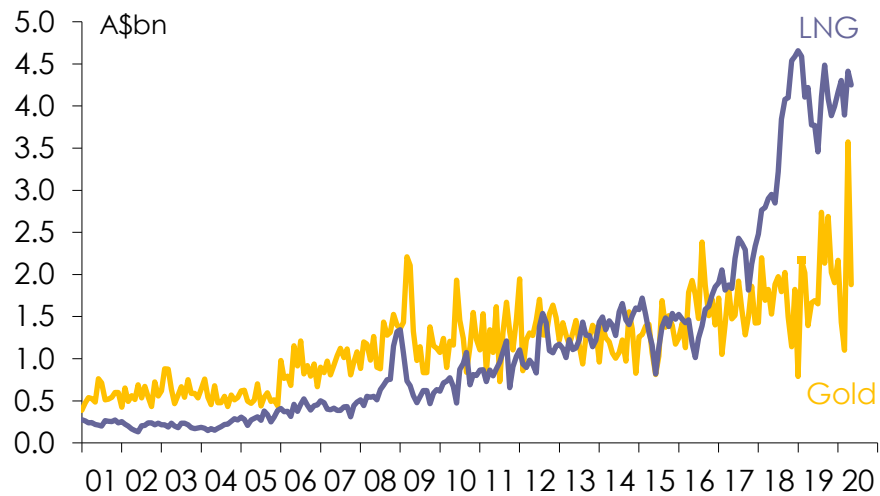
Merchandise exports and imports



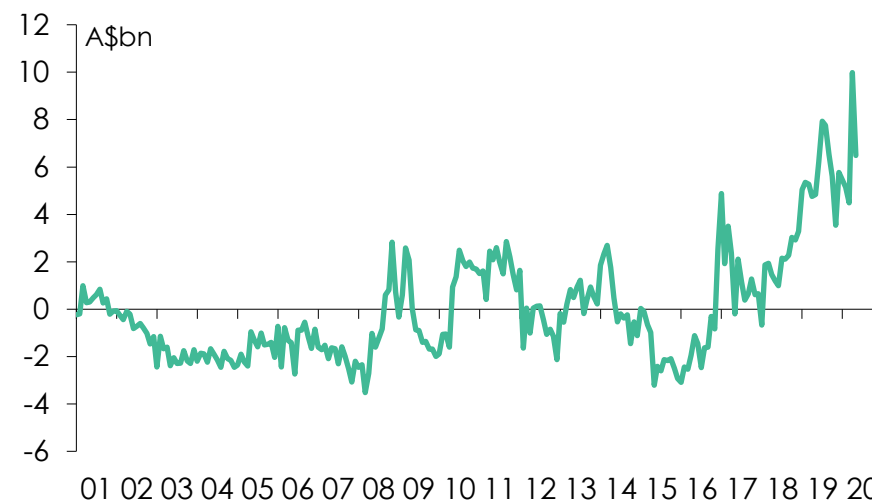
Tourism-related services trade



LNG and gold exports



Merchandise trade balance



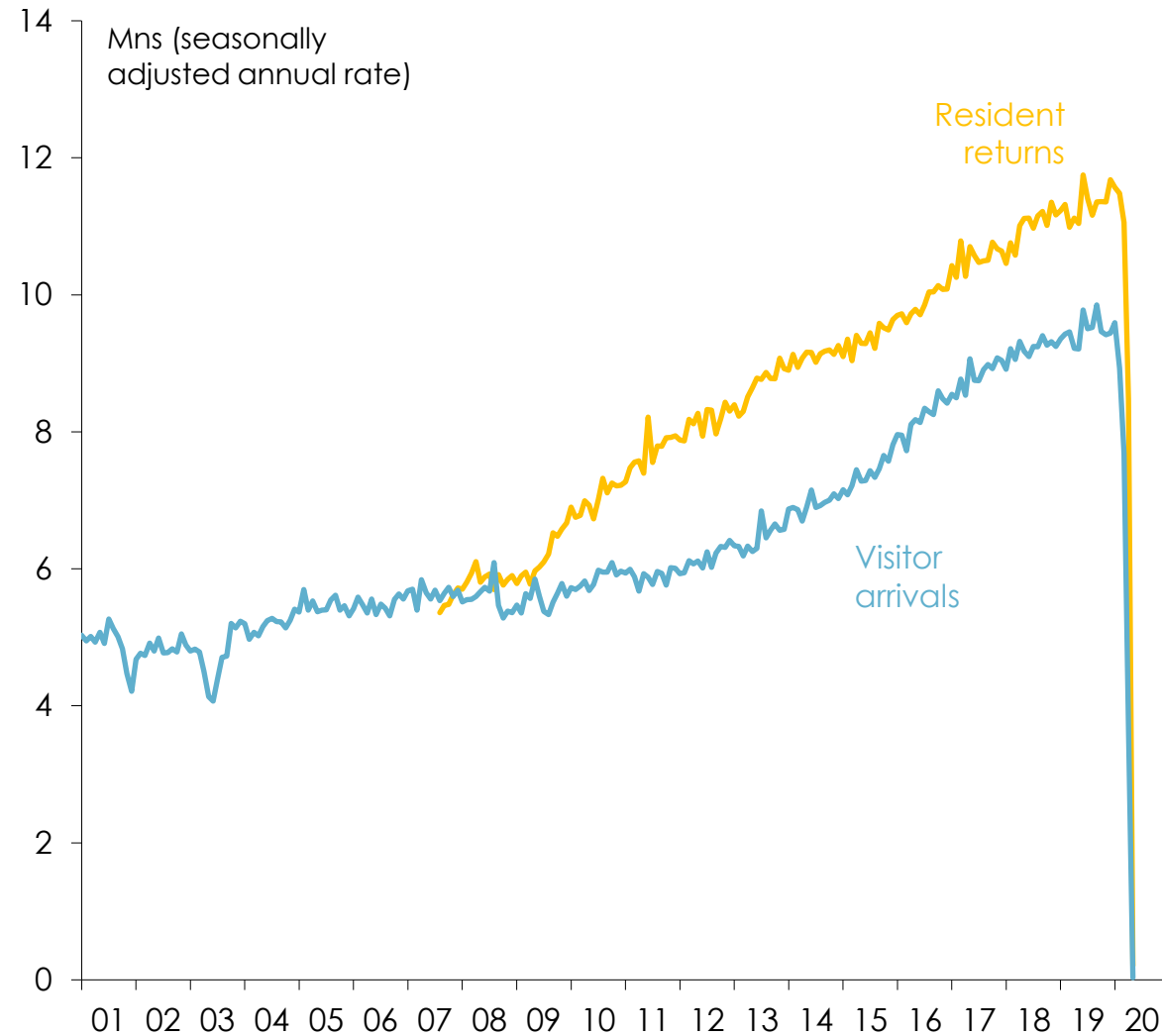
Tourism services trade balance



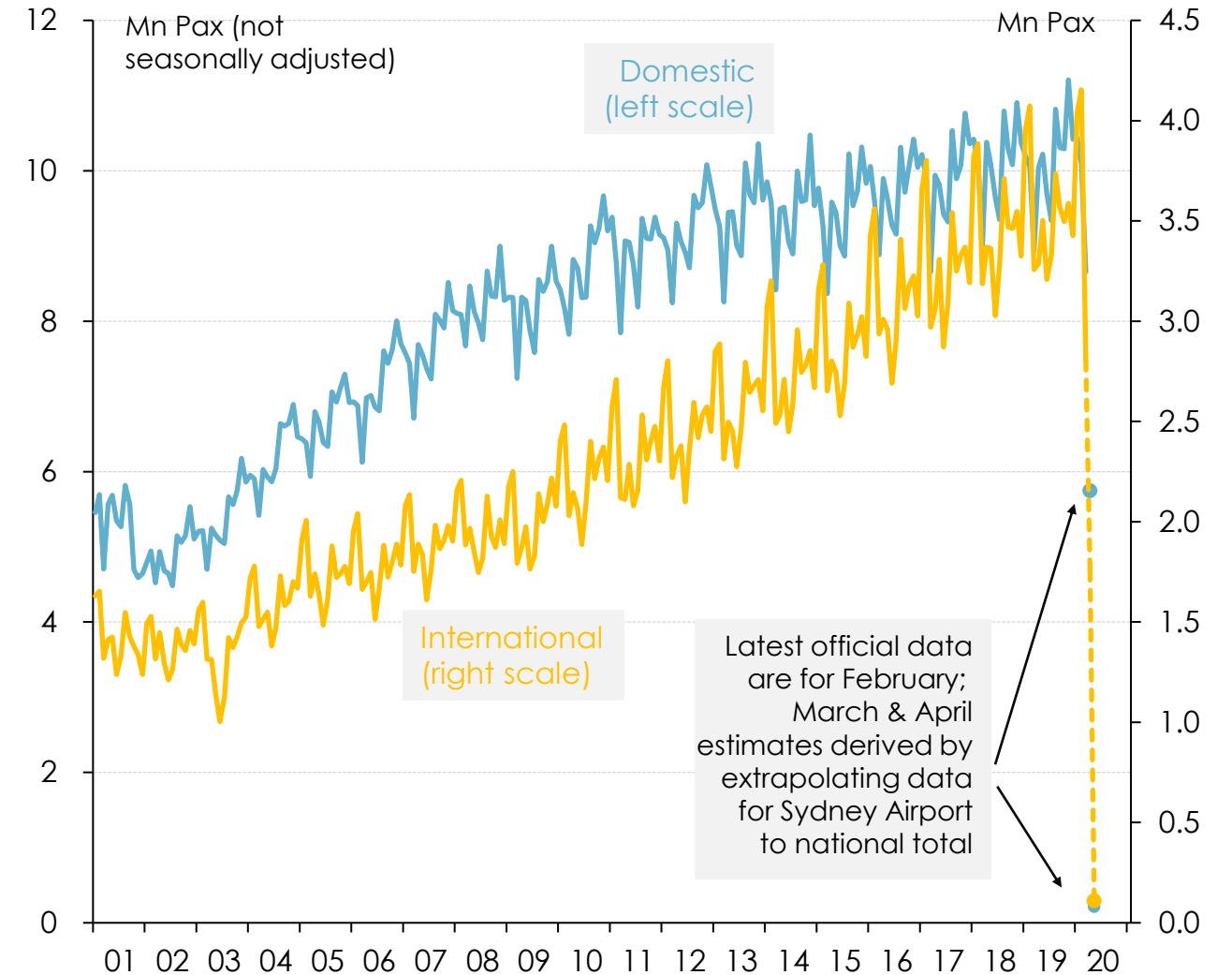
Source: ABS. Data for merchandise trade include preliminary data for April 2020.

Tourism and aviation have been severely impacted by the closure of international and most state borders

Short-term visitor arrivals and resident returns



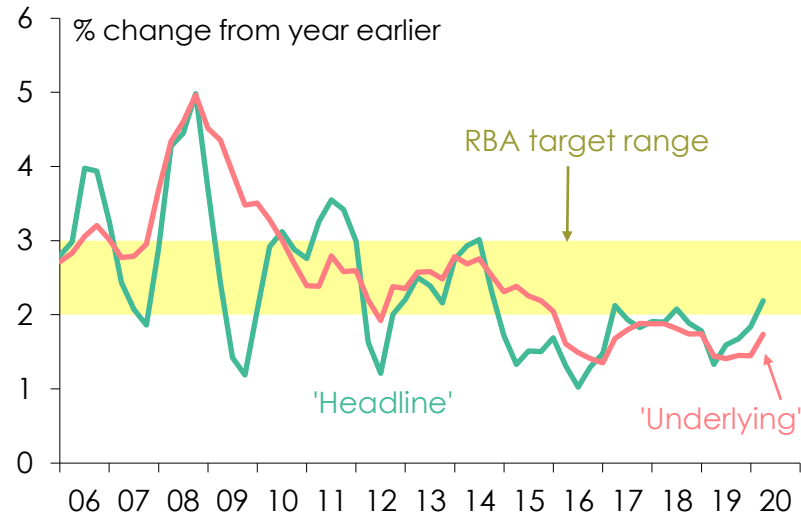
Airport passenger movements



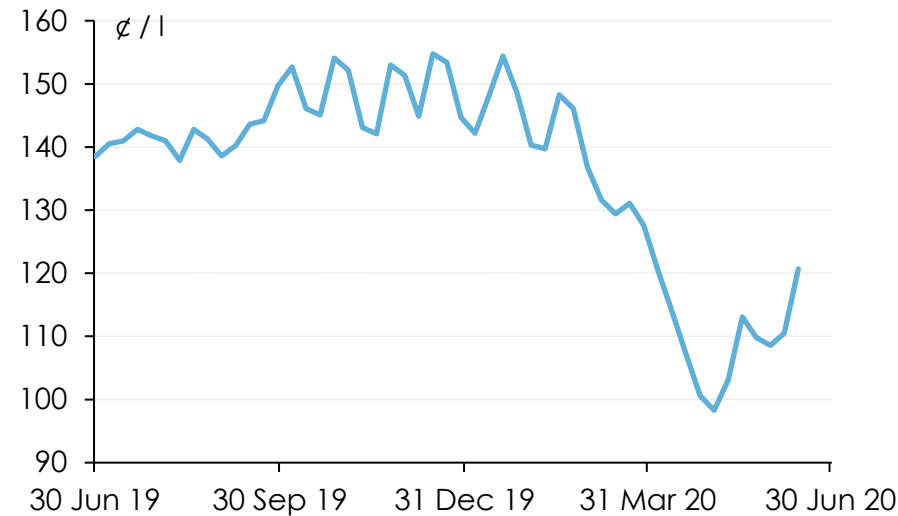
Note: The ABS has suspended publication of seasonally adjusted estimates of short-term visitor arrivals and resident returns, so published original estimates for April 2020 (and beyond) have been seasonally adjusted by Corinna using the same seasonal factors as for the corresponding month of 2019. Sources: ABS; Bureau of Industry, Transport and Resources Economics.

Inflation will turn negative, temporarily, in Q2 and likely remain below the RBA's target until at least the second half of 2021

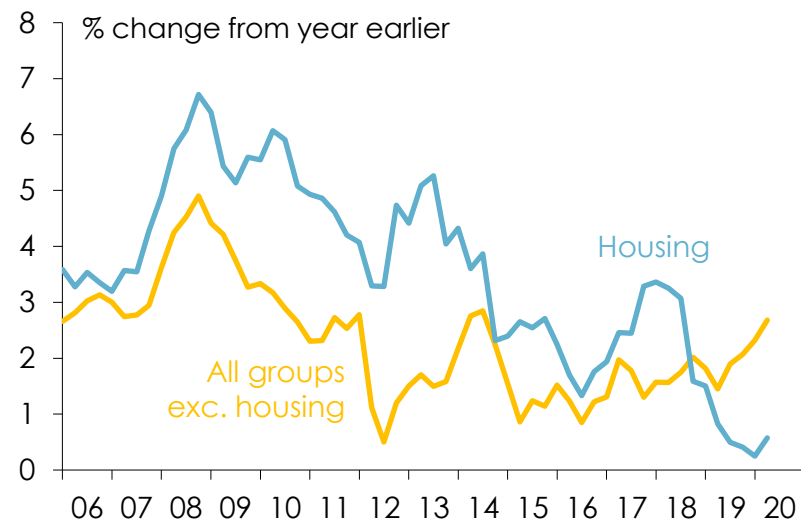
Consumer prices



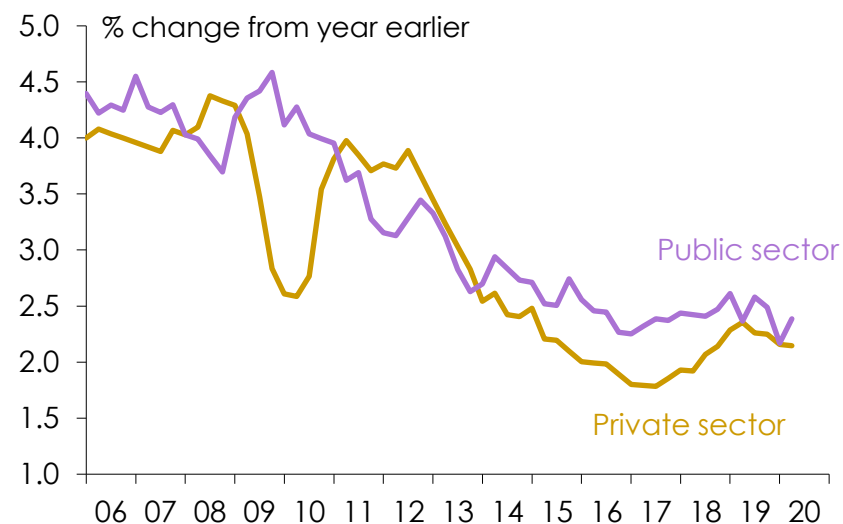
Retail petrol prices



Housing costs in the CPI



Wage price index

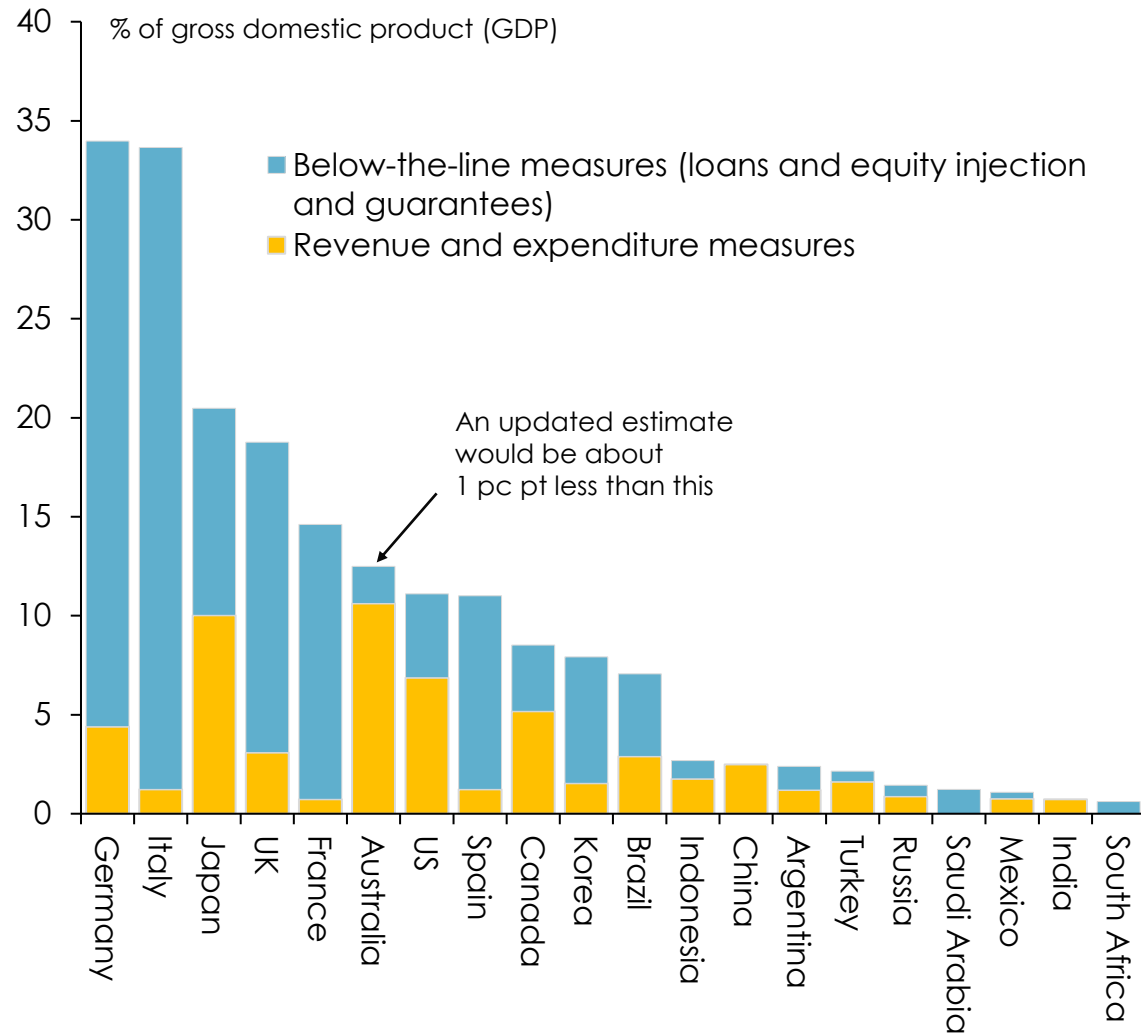


- ❑ The RBA has undershot its 2-3% target for 'underlying' inflation for four years in a row
- ❑ Q2 inflation will likely be negative (both qoq and yoy) as a result of lower petrol prices (down more than 20% on average in the quarter) and the Government's provision of free child care during the shutdown
- ❑ Conversely the removal of free child care from 12th July and the rebound in petrol prices will boost the CPI in Q3
- ❑ Freezes on utilities charges in some states will detract from inflation in Q3
- ❑ House prices and rents will continue to exert downward pressure on inflation over at least the next 6-12 months
- ❑ Wages haven't been a source of price pressure for the past six years, and are unlikely to be in the next 1-2 years either

Note: 'Underlying' inflation is the average of the weighted median and trimmed mean CPIs. Wage price indices exclude houses.
Sources: ABS; Australian Institute of Petroleum.

The Australian Government's policy measures have been very large by historical and international standards

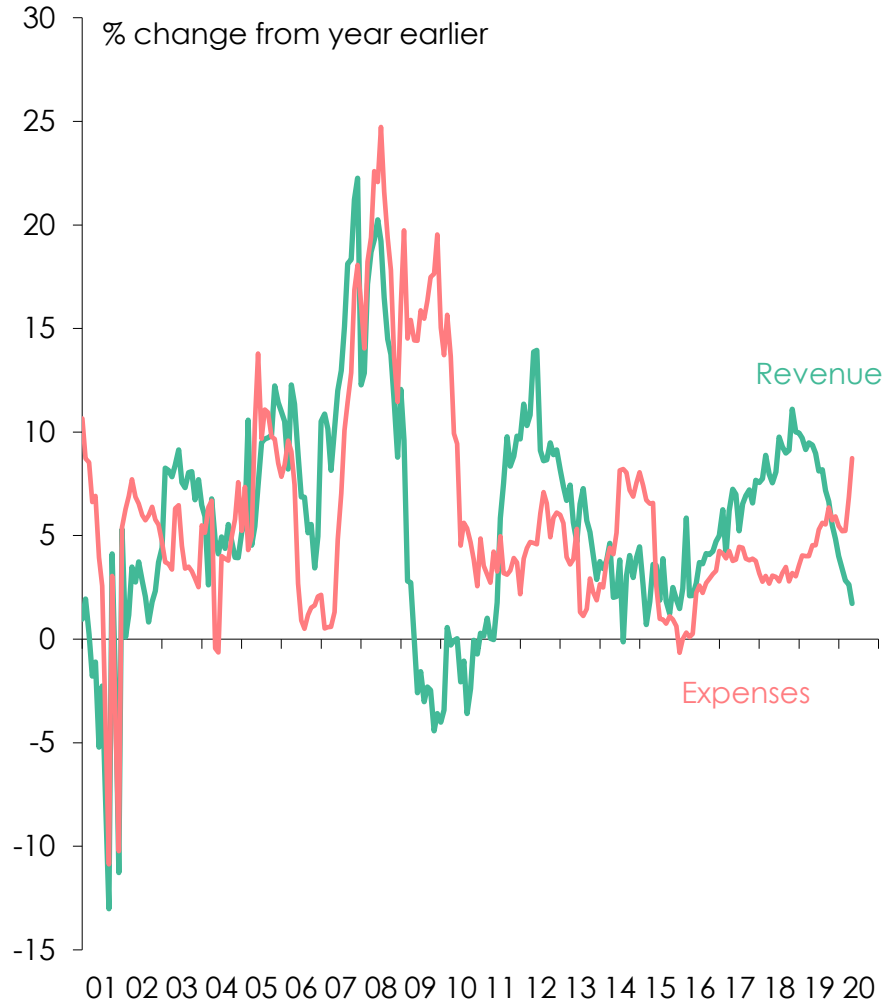
Policy responses to Covid-19 – G20 countries



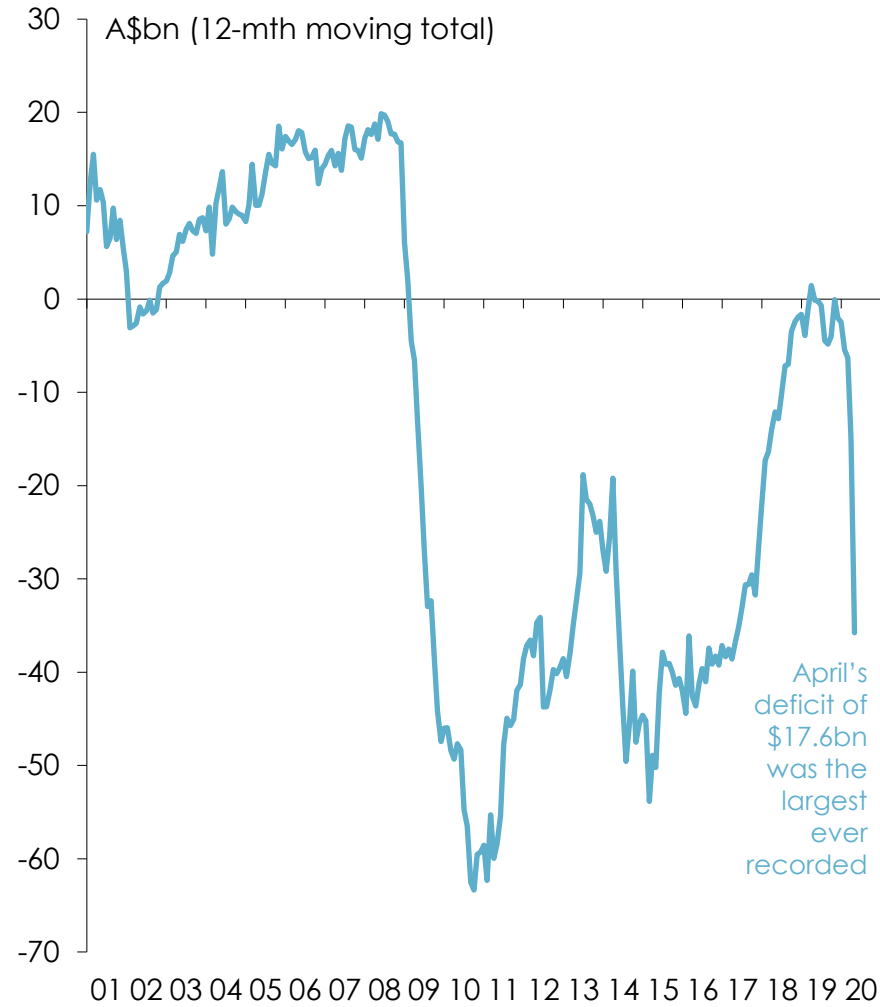
- ❑ Policy measures announced thus far by the Australian Government total \$180bn (allowing for the downward revision to the cost of JobKeeper), or about 9% of GDP – which is large by international standards (and double what was done during the GFC)
- ❑ Principal objectives of policy measures have been to –
 - maximize the ‘survival prospects’ of businesses affected by the shutdown
 - minimize the impact of the shutdown on employment
 - provide additional income support to those who lose their jobs
 - strengthen the capacity of the health care system to cope with increased demand
- ❑ Policy measures have been designed to be ‘simple’ to administer, and to make greatest use of existing systems rather than having to create new mechanisms
 - which has resulted in some anomalies
- ❑ Policy measures also designed to be readily ‘switched off’ once the need for them has passed
 - most of them scheduled to terminate at the end of September
 - which poses the risk of a ‘setback’ at that time unless the Government ‘tapers’ some programs

The Australian Government's 'bottom line' has begun to deteriorate sharply, and ...

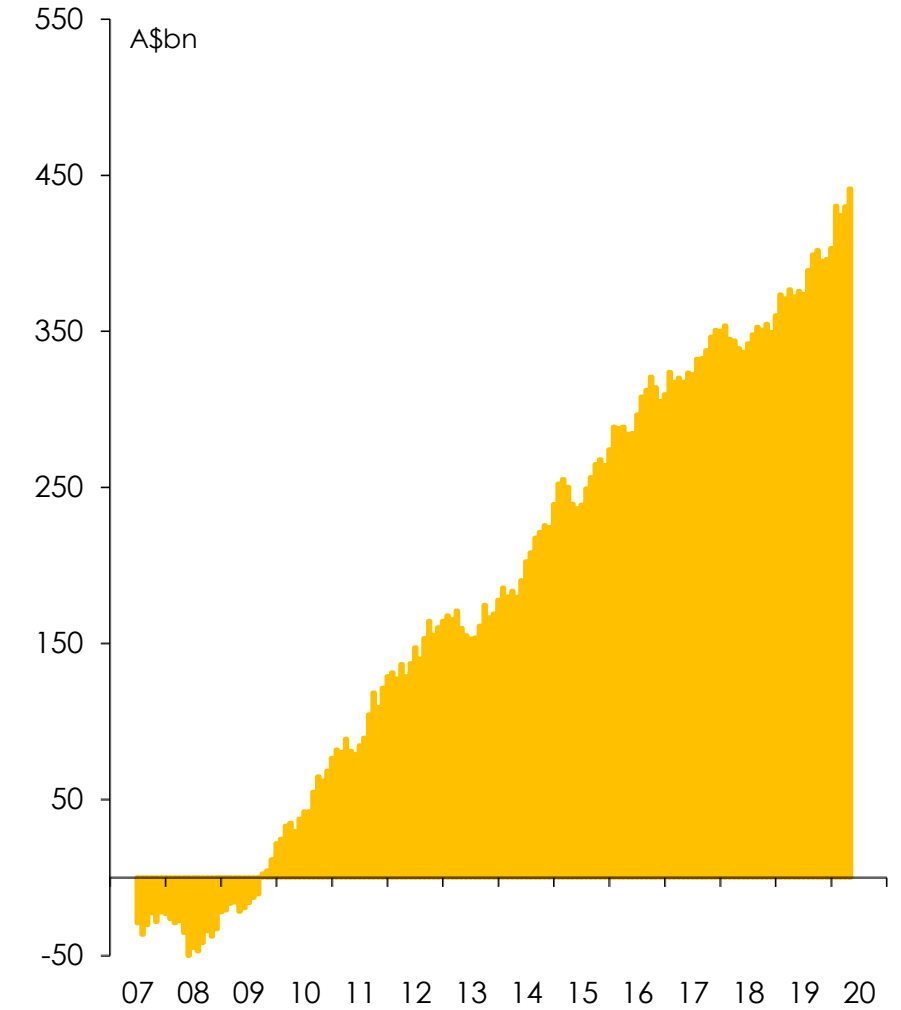
Australian Government revenue and expenses



Australian Government 'underlying' cash balance



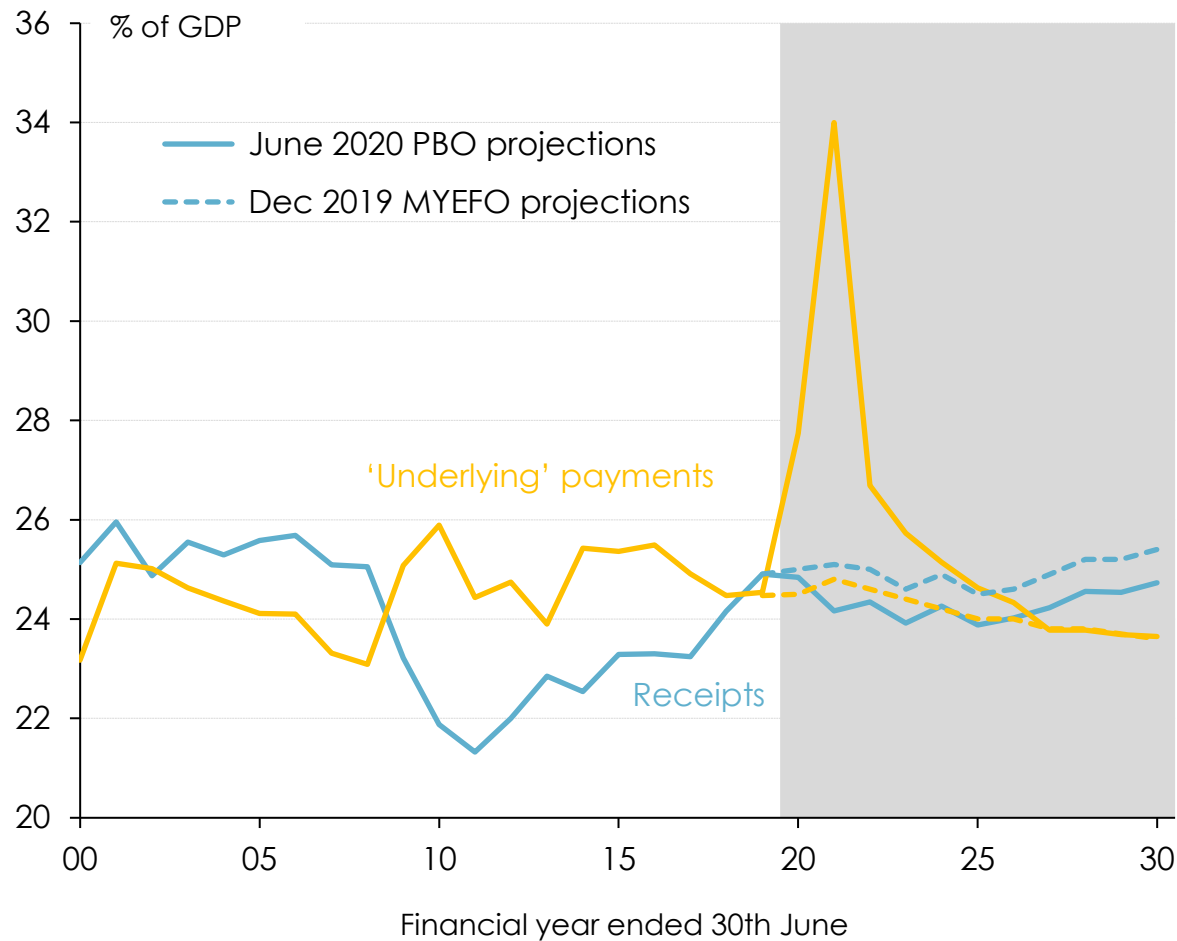
Australian Government net debt



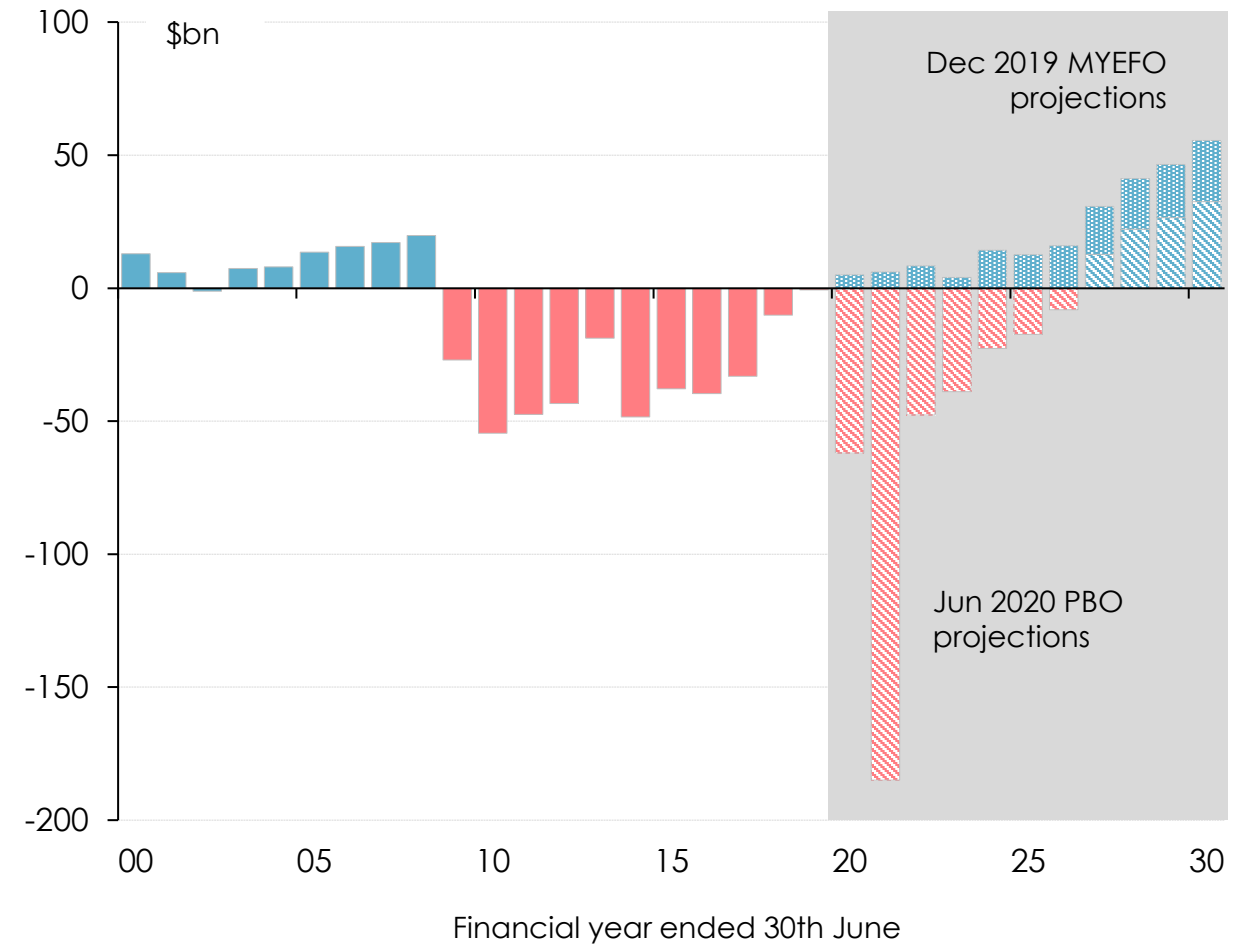
Note: Revenue and expenses are accrual accounting items. The 'underlying' cash balance is (cash) receipts minus payments, excluding transactions in financial assets for policy purposes and net earnings of the Future Fund. Net debt is total interest-bearing liabilities (government securities, deposits, loans and other borrowing) minus cash and deposits, advances paid, and (interest-bearing) loans, placements and investments. Source: Department of Finance.

... will blow out to over \$60bn in 2019-20, around \$185bn in 2020-21, and won't return to surplus (on unchanged policies) until 2026-27 – but ...

Australian Government receipts and 'underlying' payments



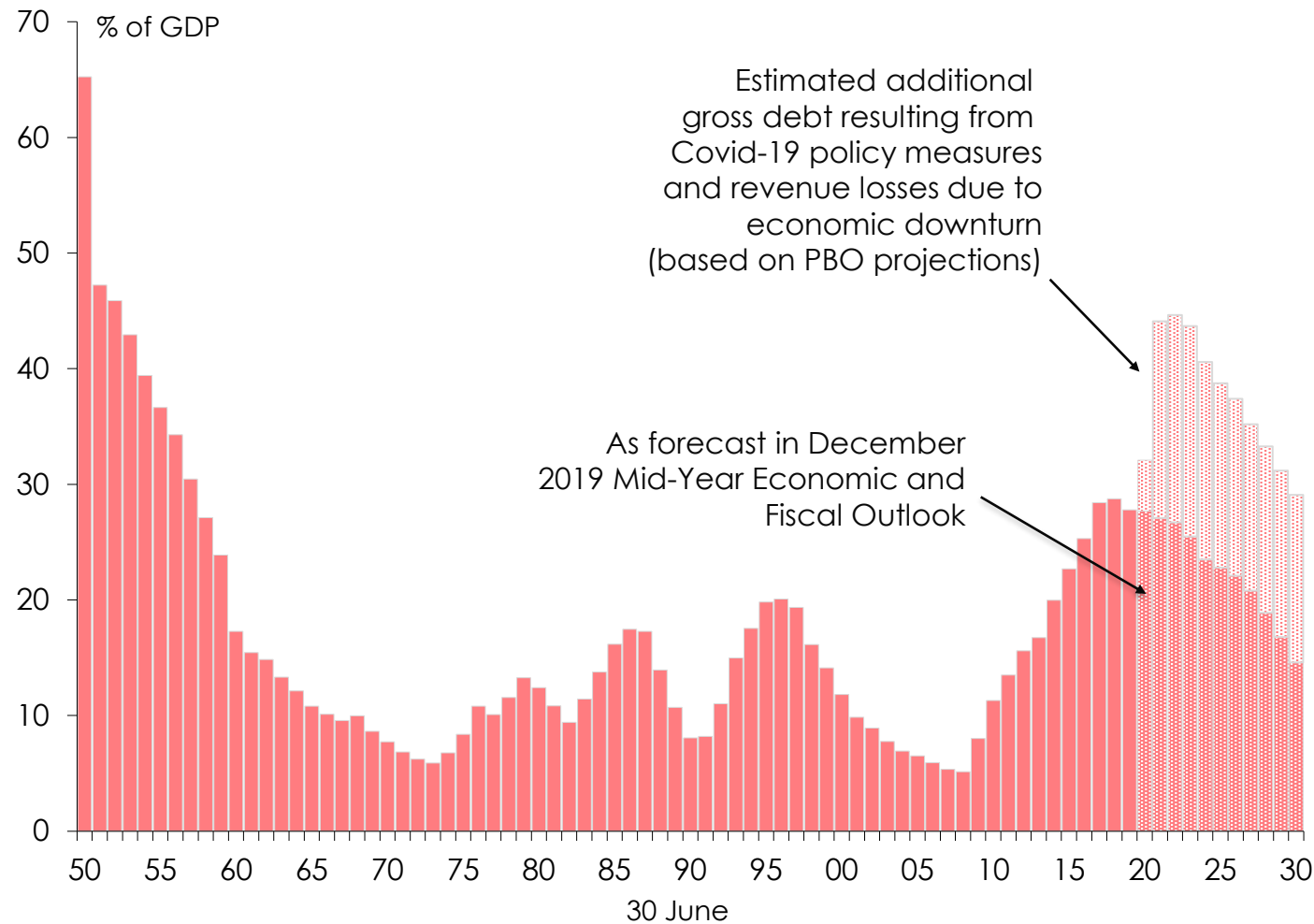
Australian Government 'underlying' cash balance



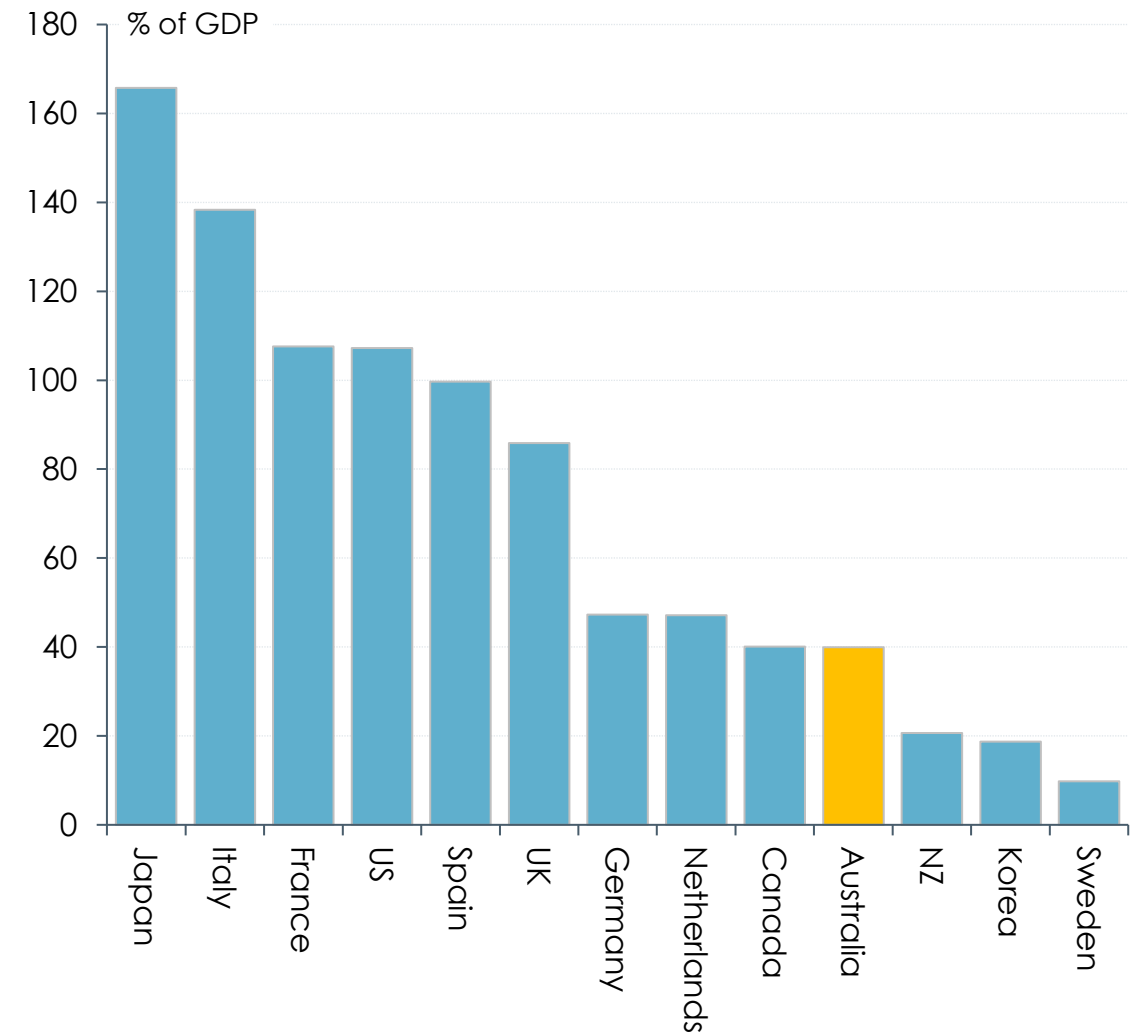
Note: 'Underlying' payments excludes net investment in financial assets for policy purposes. The 'underlying' cash balance also excludes net earnings of the Future Fund prior to 2020-21. Sources: Australian Government, *Mid-Year Economic and Fiscal Outlook (MYEFO)*, December 2019; Parliamentary Budget Office (PBO), *Medium-term fiscal projections: impact of Covid-19 pandemic and response* (5th June 2020). The PBO projections were compiled using the RBA's 'baseline' scenario outlined in its May 8th *Statement on Monetary Policy* for economic parameters. The Treasurer will give an update of fiscal and economic forecasts on 23rd July.

... there's no need for undue alarm at the level of debt which will be incurred by the Australian Government

Australian Government gross public debt



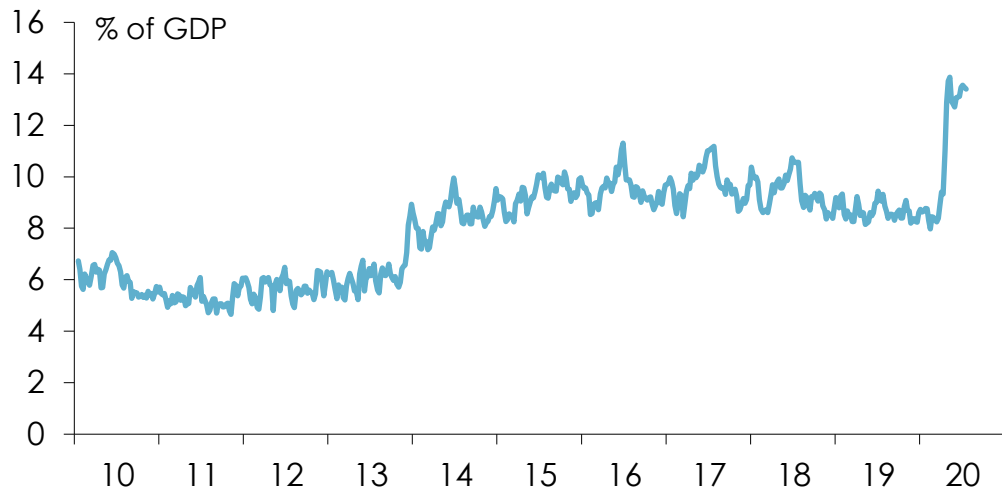
General government net debt, 2021



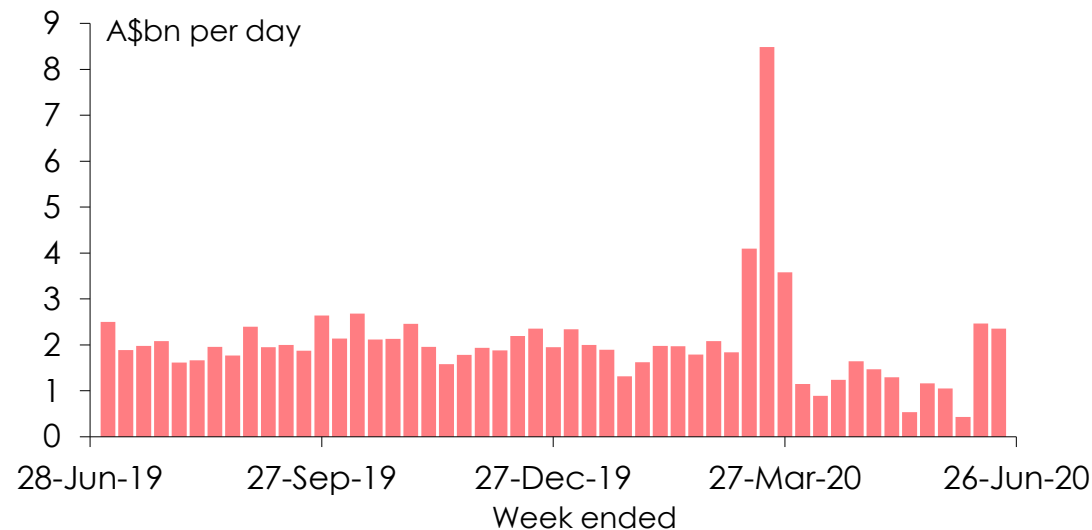
Note: Estimates of additional gross debt from 2019-20 onwards are derived by assuming that gross debt rises by the same dollar amount as net debt projected by the Parliamentary Budget Office in its 'baseline' scenario. Sources: Katrina Di Marco, Mitchell Pirie and Wilson Au-Yeung, *A History of Public Debt in Australia* (Australian Treasury, 2011); Australian Government, *Mid-Year Economic and Fiscal Outlook* (MYEFO), December 2019; Parliamentary Budget Office (PBO), *Medium-term fiscal projections: impact of Covid-19 pandemic and response* (5th June 2020); International Monetary Fund, *Fiscal Monitor*, April 2020.

With official interest rates as low as they can go, the RBA has implemented a range of 'quantitative' monetary policy measures

Reserve Bank assets as a pc of GDP



Reserve Bank daily repo transactions

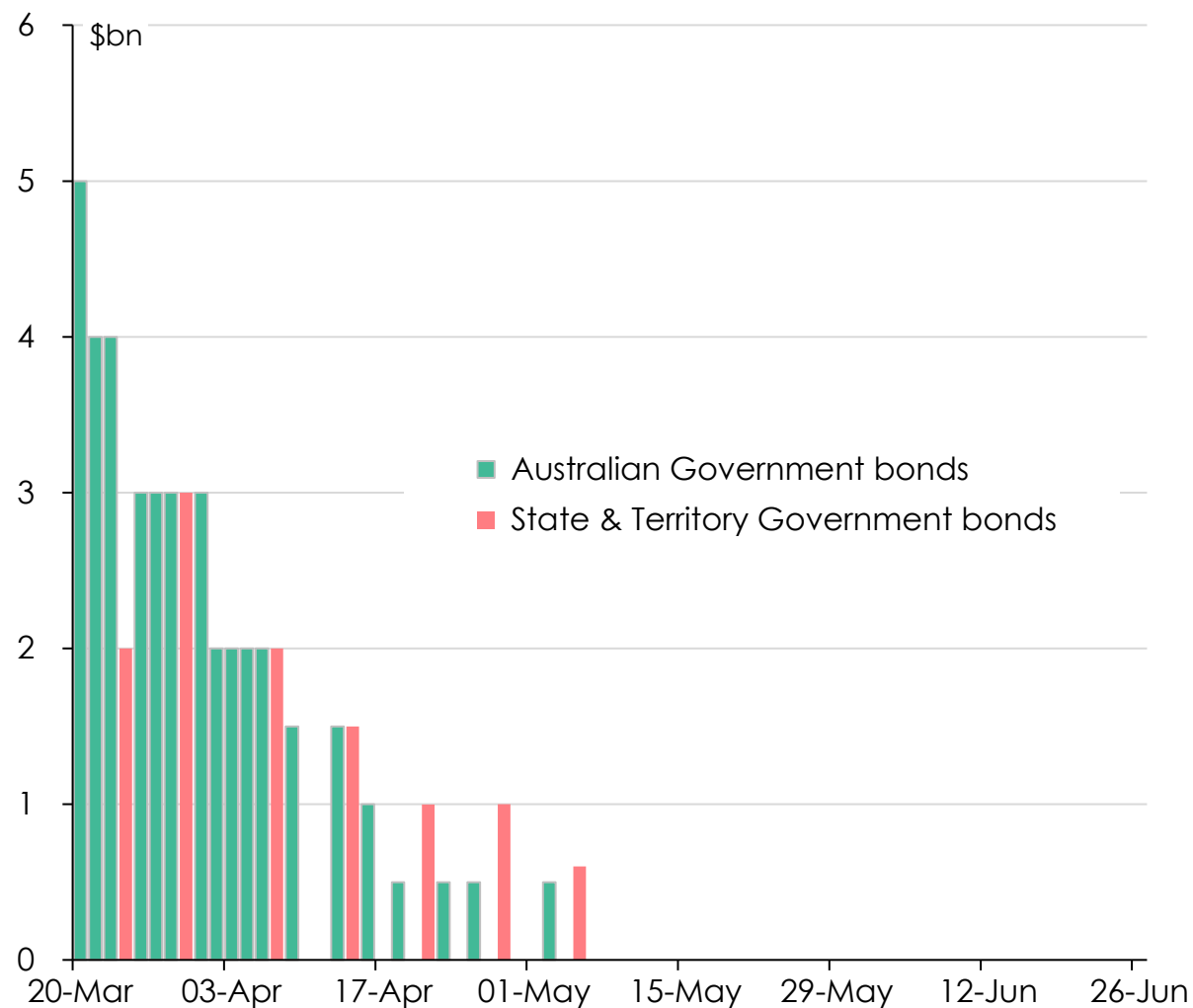


- ❑ **Cash rate cut to 0.25% in March**
 - the RBA has committed to keeping it at this level 'until progress is made towards full employment' and 'it is confident inflation will be sustainably within the 2-3% target band'
 - RBA has 'no appetite' for negative rates
- ❑ **RBA has committed to purchase bonds in the secondary market with a view to keeping the 3-year yield at 0.25%**
 - to date RBA bond purchases amount to \$50bn (~ 2½% of GDP)
 - the RBA hasn't purchased any bonds since 6th May (but is prepared to 'scale up' these purchases again 'if necessary')
 - RBA assets are now equivalent to 13½% of GDP (cf. BoC 20%, US Fed 33%, BoE 35%, ECB 47%, BoJ 117% - see slide 18) and RBNZ 15%
- ❑ **RBA provided additional liquidity through 'open market operations' to prevent disruption of credit markets in March**
 - RBA repo transactions averaged just over \$1 bn a day in April and May, down from peak of almost \$8½ bn a day in 3rd week of March
 - but increased to an average of almost \$2½ bn a day in the past 2 weeks
- ❑ **'Term Funding Facility' to provide up to \$90 bn at 0.25% pa to lending institutions for increased lending, especially to businesses with annual turnover of less than \$50 mn**
 - to date \$11½ bn has been provided through this facility
 - of which \$5¼ bn was drawn in the past 2 weeks

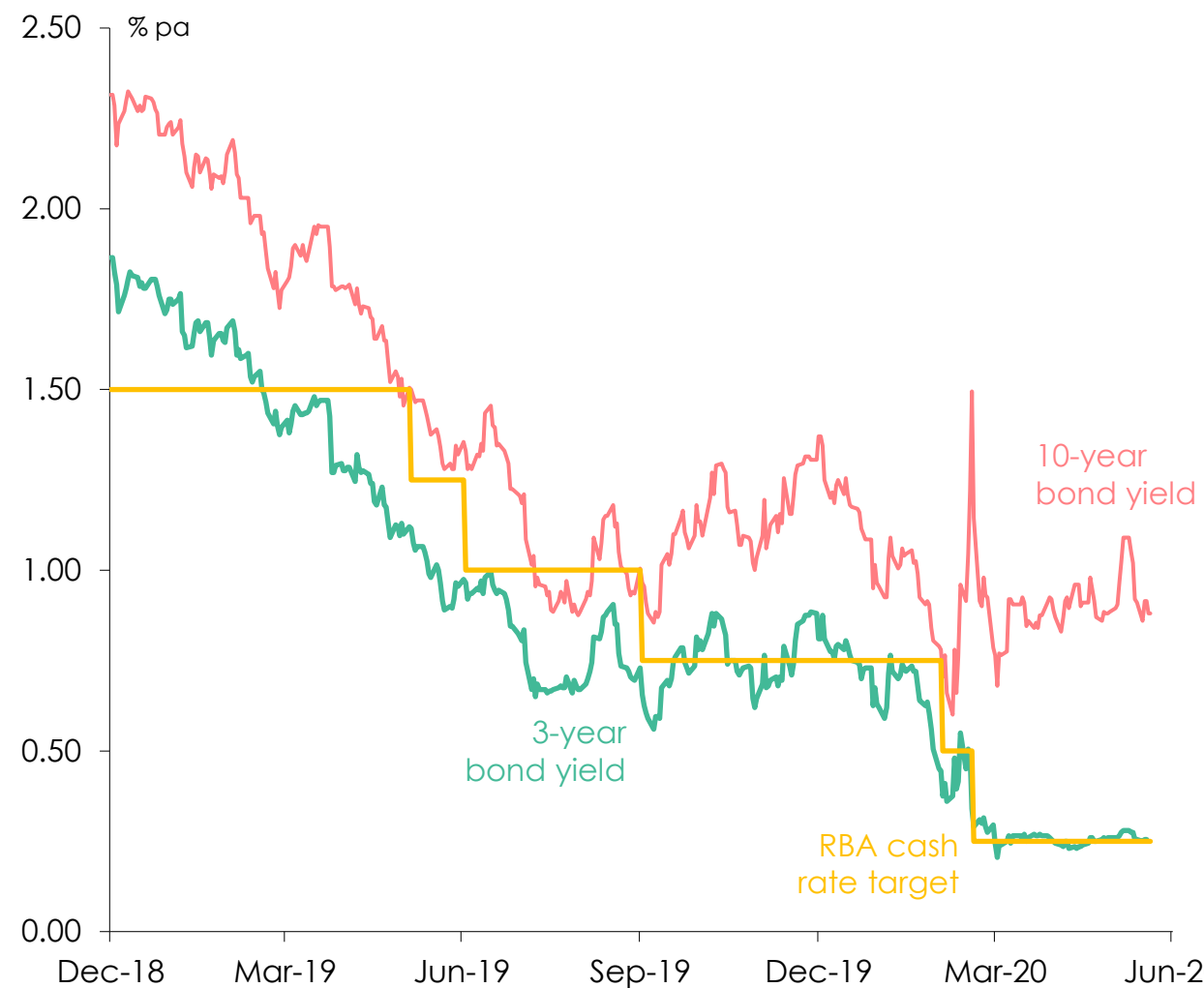
Source: Reserve Bank of Australia.

RBA's bond purchases are targeted at keeping the 3-year bond yield at 0.25% pa

RBA open market bond purchases



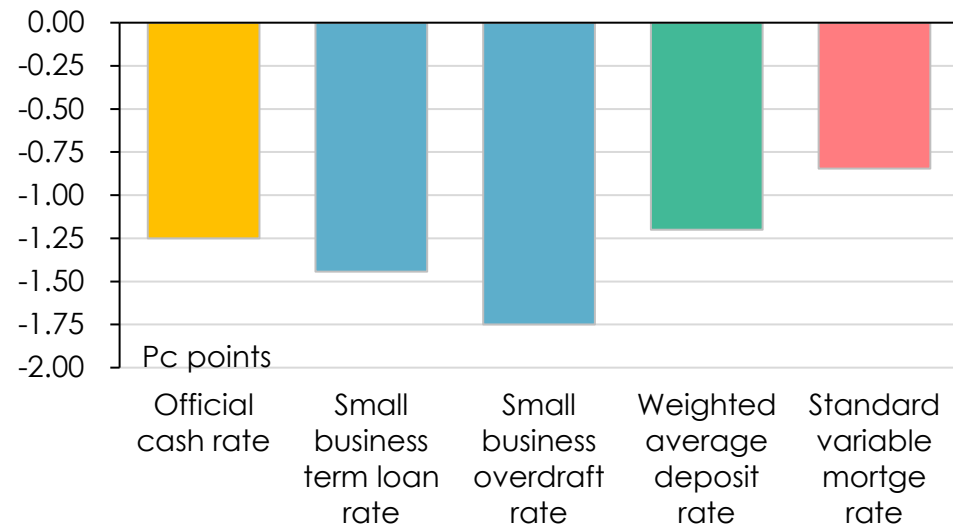
Interest rates



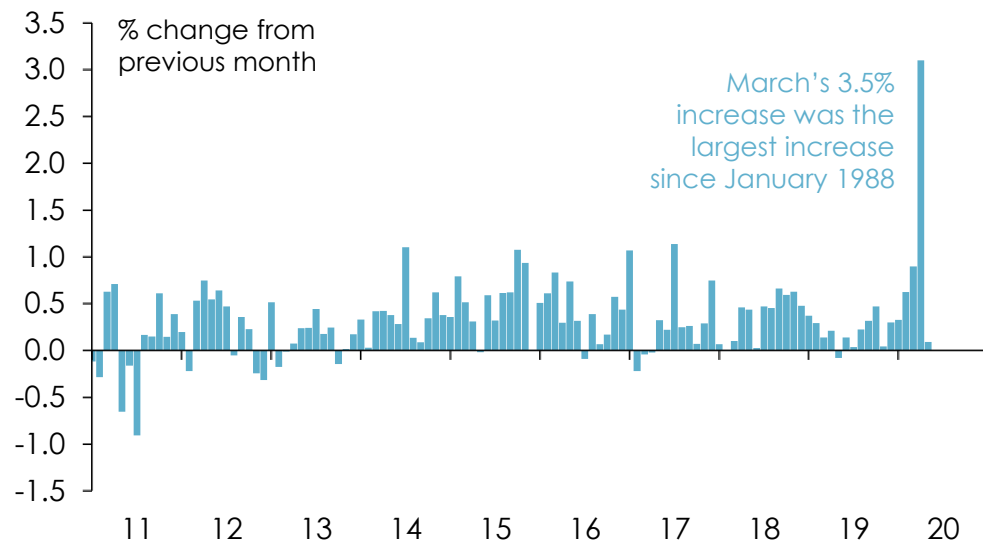
Source: Reserve Bank of Australia. Data up to 19th June.

For now at least, banks are ‘part of the solution’, not ‘part of the problem’

Changes in interest rates since June 2019



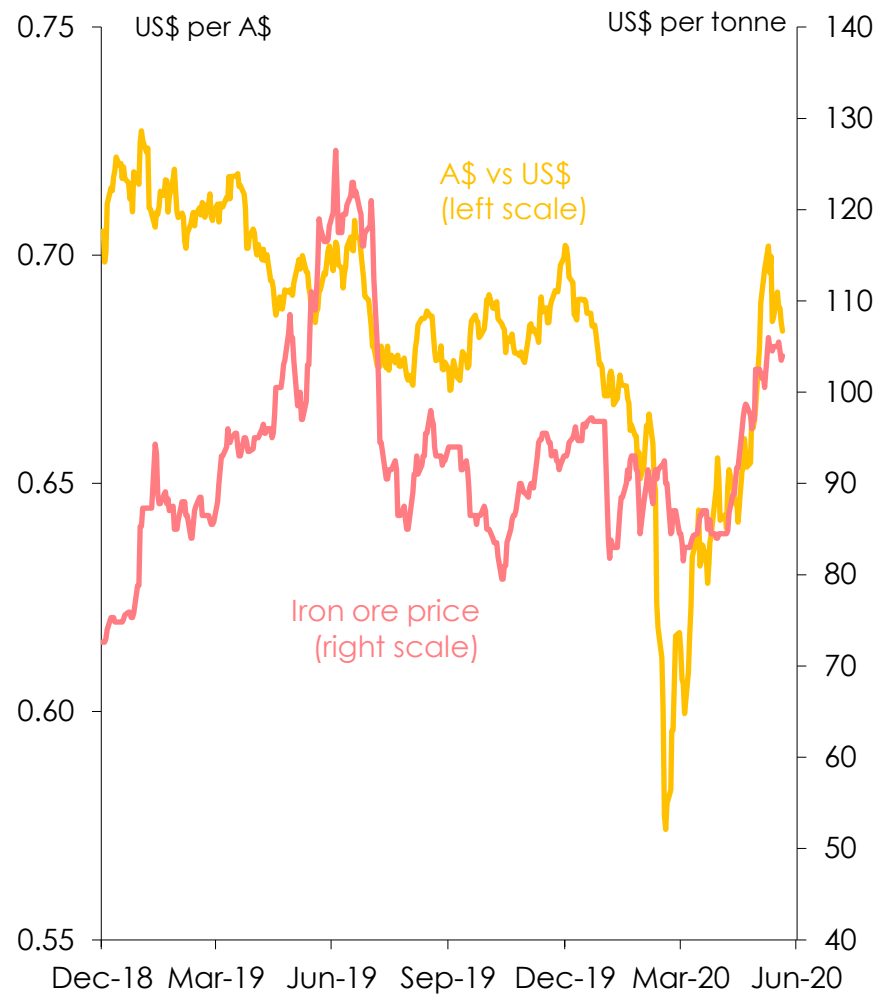
Business credit outstanding



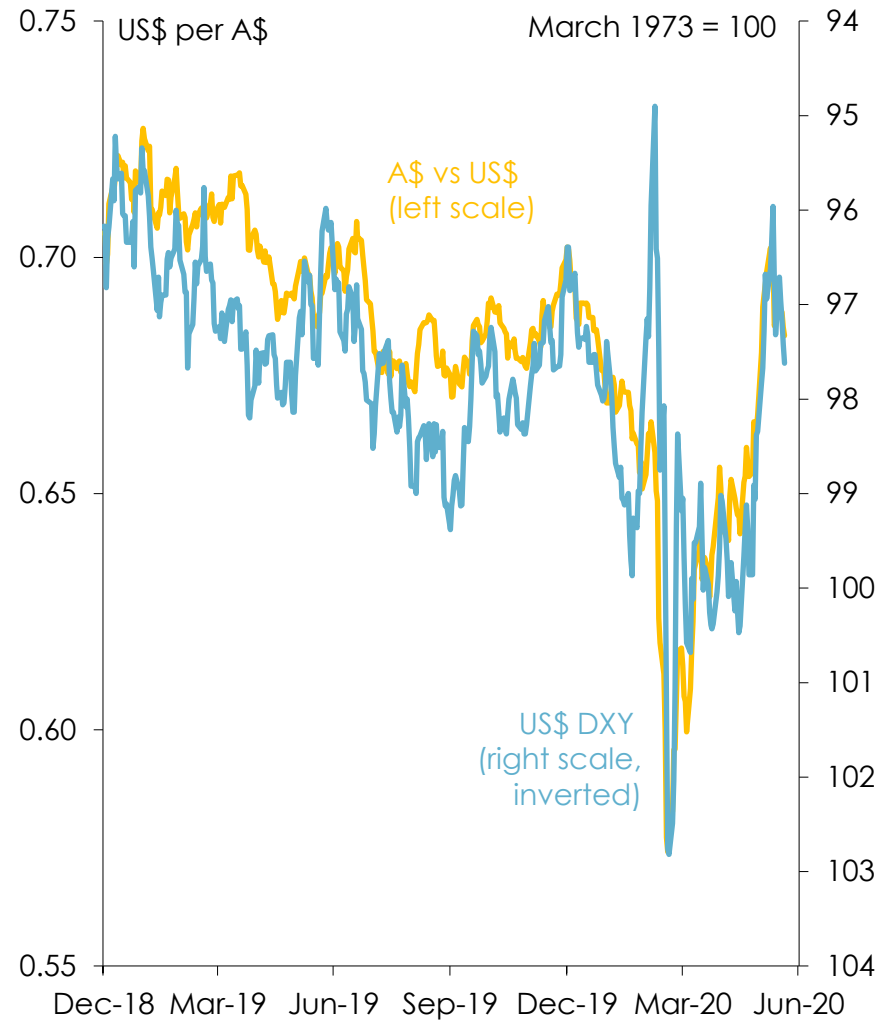
- ❑ Banks have cut interest rates on small business loans by more than the official cash rate since June last year (when the RBA started cutting rates again)
- ❑ Supported by the RBA's Term Lending Facility, lending to business rose by more in March this year than in any month in the past 32 years – but
- ❑ In addition banks have extended ‘repayment holidays’ of up to six months to business and home mortgage borrowers who request it (about 10% of mortgages and 20% of SME loans)
 - although it is important to note that under these arrangements interest payments are deferred and capitalized, not foregone
- ❑ Major banks have cut or deferred dividends
- ❑ At end-2019, the Australian banking system had a Common Equity Tier 1 capital ratio of 11.3% of risk-weighted assets - well above the 10.5% required for major banks since 2017
 - APRA will allow banks CET1 ratios to drop below the 2017 requirements during the Covid-19 period provided they remain above other minimum prudential capital requirements
- ❑ Banks may be hit by increased loan impairment charges after 30th September

The A\$ traded more narrowly in a US68-69¢ range this week reflecting softer iron ore prices, a stronger US\$ and lower investor risk appetite

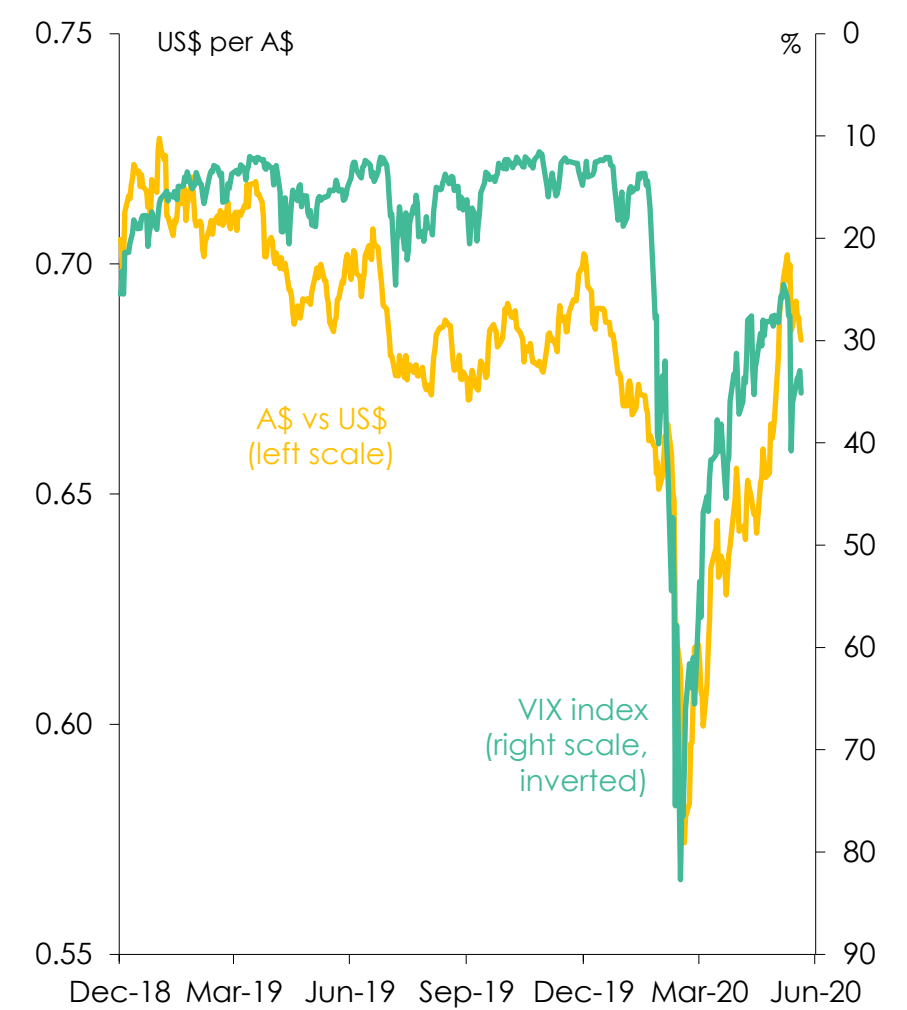
A\$-US\$ and iron ore prices



A\$-US\$ and US\$ trade-weighted index



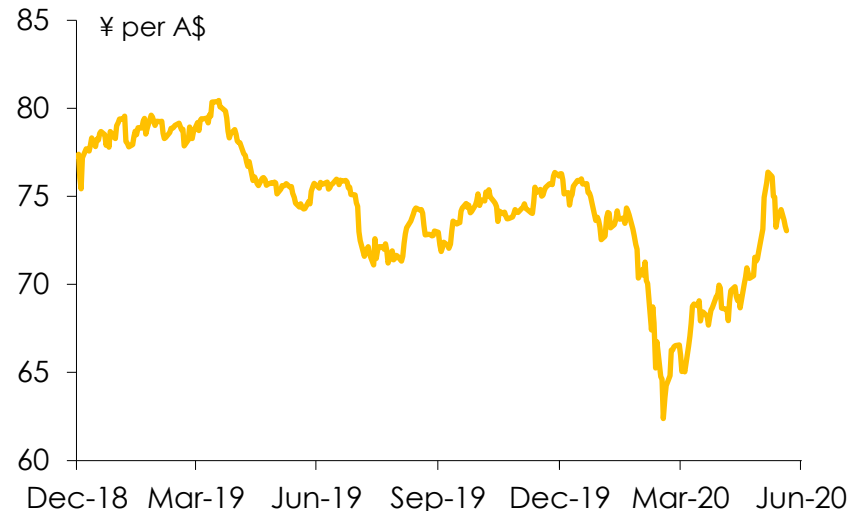
A\$-US\$ and US equity market volatility



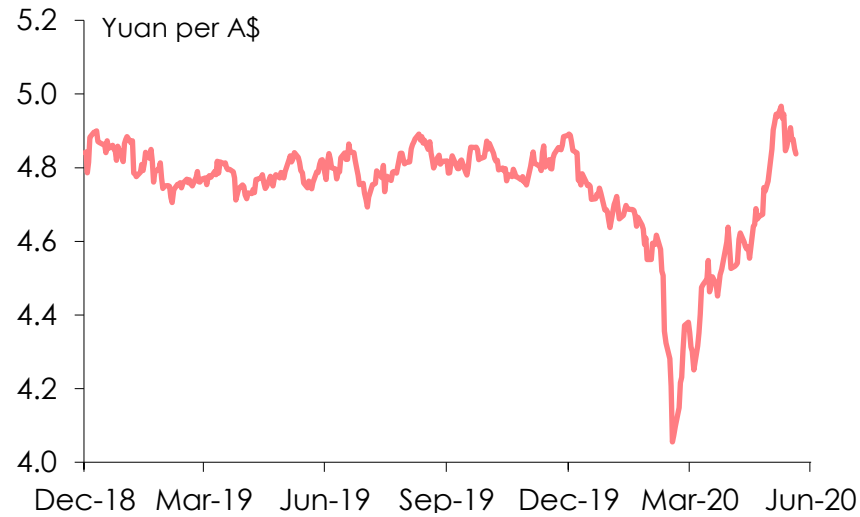
Note: The VIX index is a measure of the implied volatility of S&P500 options and is widely interpreted as an indicator of investor risk appetite or aversion.
 Source: Refinitiv Datastream. Data up to 19th June.

The A\$ fell a little more against third currencies this week, but remains well above its late March lows

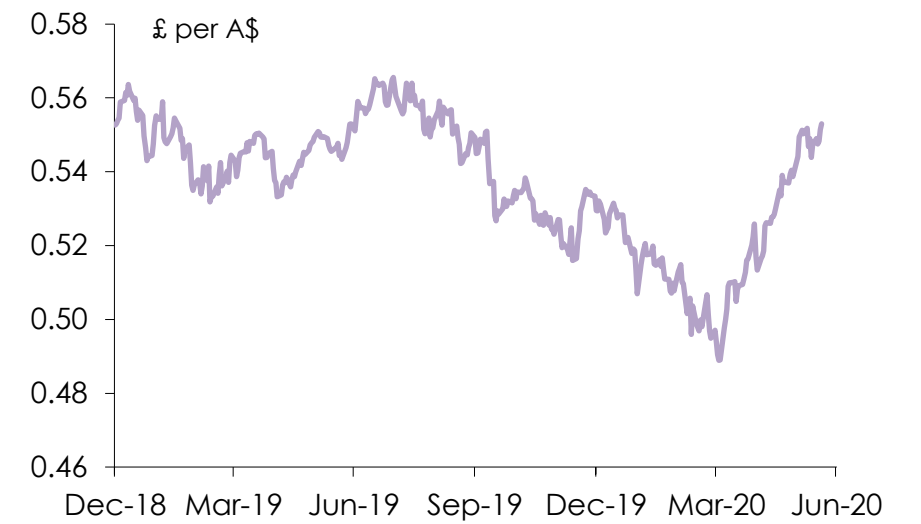
A\$ vs Japanese yen



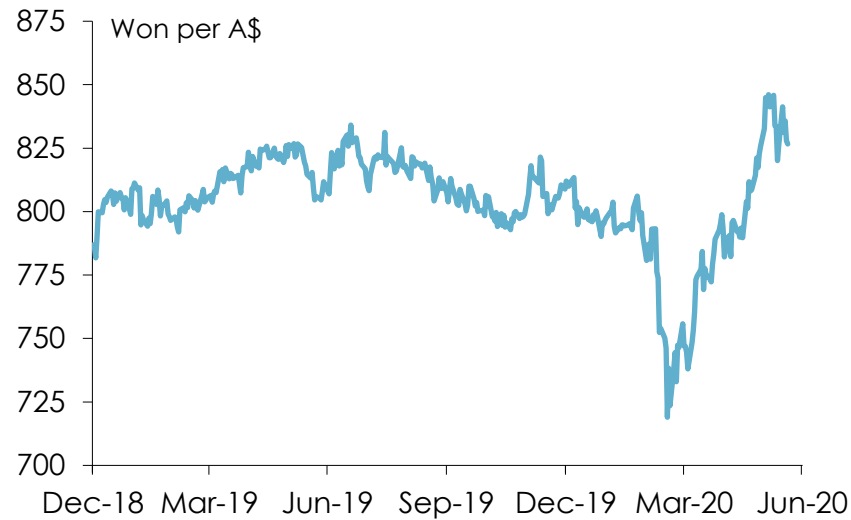
A\$ vs Chinese yuan



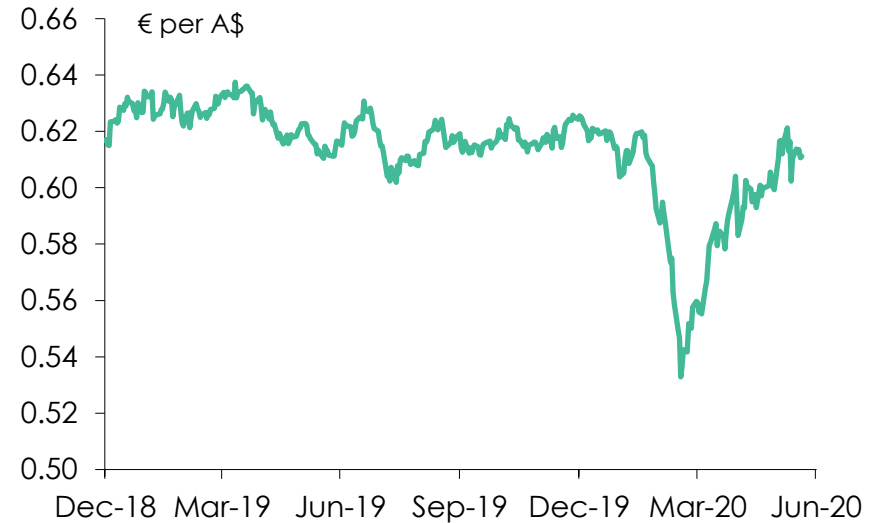
A\$ vs British pound



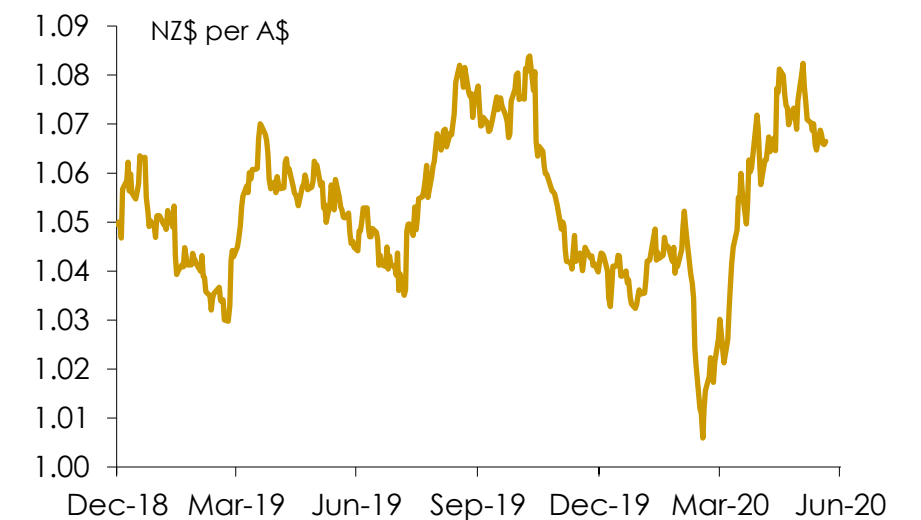
A\$ vs Korean won



A\$ vs Euro



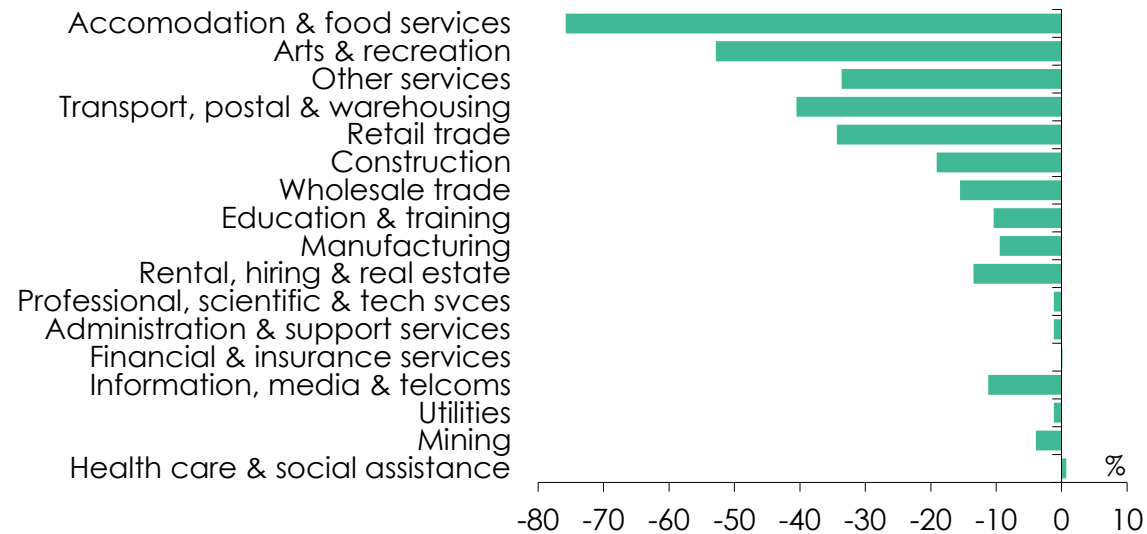
A\$ vs NZ\$



Source: Refinitiv Datastream. Data up to 19th June.

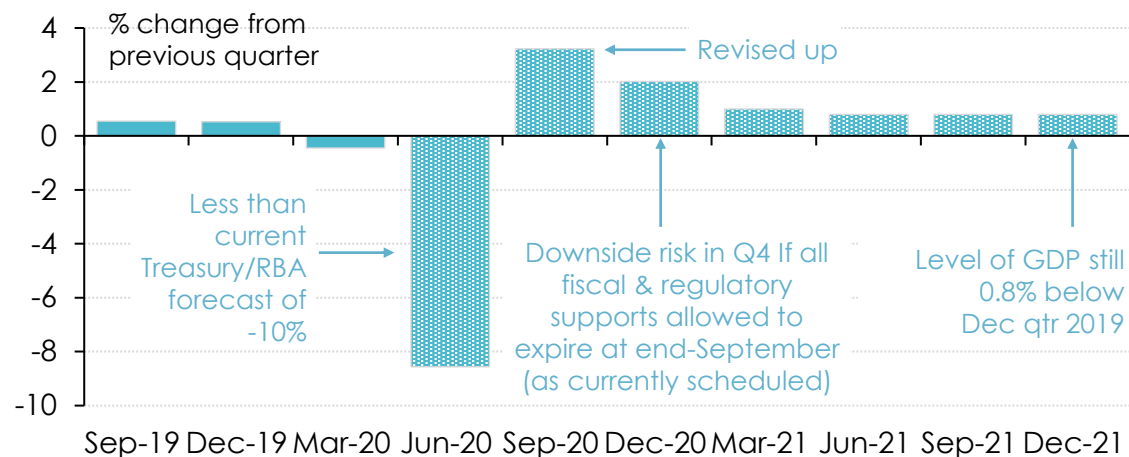
With 'social distancing' restrictions gradually eased from mid-May on, GDP could fall by about 9% and unemployment peak around 8%

Projected peak-to-trough decline in output, by sector



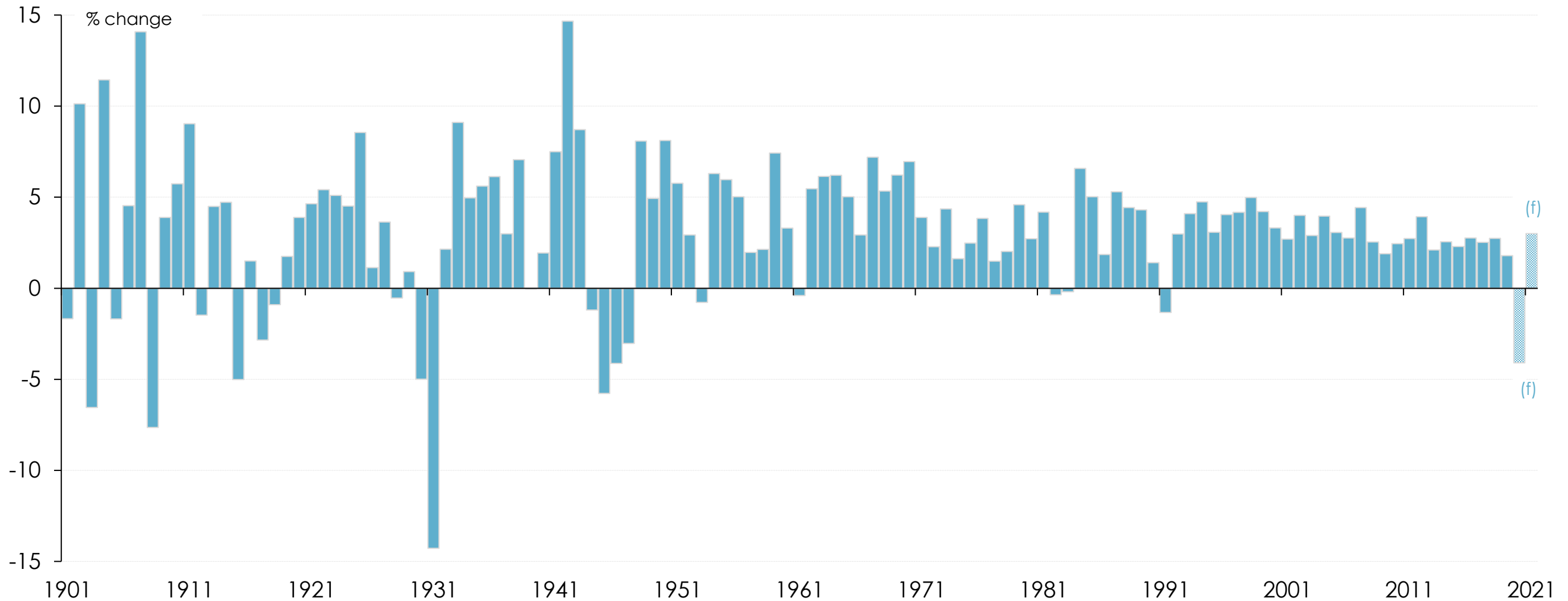
- ❑ GDP forecasts have been constructed using estimates of notional monthly changes in gross value added by industry, rather than the conventional approach of quarterly changes in the major expenditure components of GDP (consumption, housing & business investment, government spending, net exports etc)
- ❑ When the lock-down began, governments were indicating that restrictions would likely remain in force until the end of September
- ❑ On that basis, real GDP seemed likely to decline by at least 12 % between Dec qtr 2019 and the probable trough in Sep qtr 2020
- ❑ However with restrictions being eased (gradually) from mid-May onwards, the peak-to-trough decline in GDP may be 9% or less, with positive growth resuming in the Sep qtr
- ❑ That would imply year-average growth of about -¾ for FY 2019-20 and -1½% for FY 2020-21; or -4% for CY2020 and +3% for CY 2021
- ❑ Even with an earlier easing of restrictions, a 'V-shaped' recovery looks unlikely (see slide 76) – and some additional fiscal stimulus is likely to be required to support the recovery that will occur
- ❑ Unemployment now seems likely to peak at around 8% rather than 10% as feared initially – although how far unemployment rises in practice is very sensitive to whether people who have lost jobs remain 'in the labour force'

Projected quarterly real GDP profile



The contraction in real GDP in 2020 will still be the largest since the Great Depression

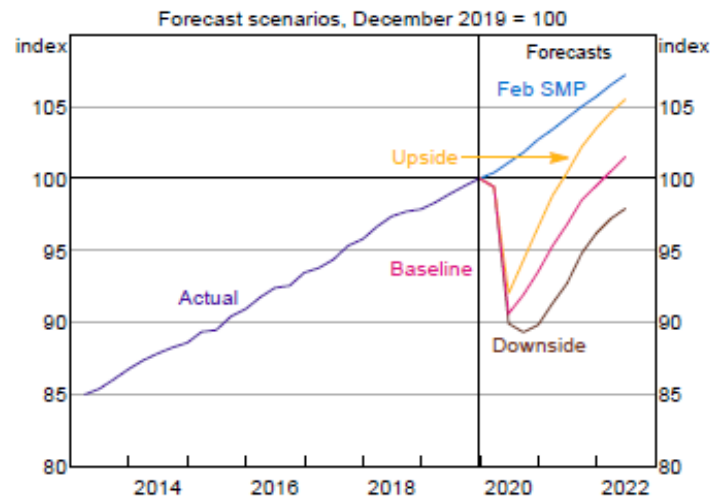
Australian real GDP growth since 1901



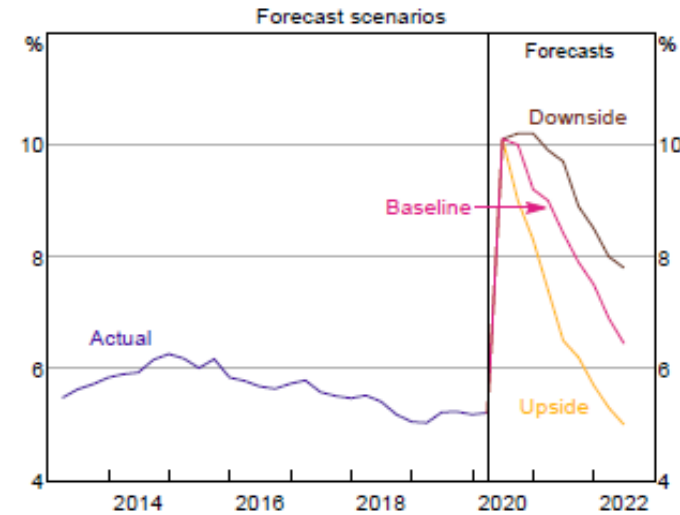
Note: From 1901 to 1960 data are for years ended 30th June; from 1961 onwards data are for years ended 31st December. Sources: ANU Source Papers in Economic History; ABS; Corinna.

The RBA's most recent Monetary Policy Statement presented three alternative scenarios

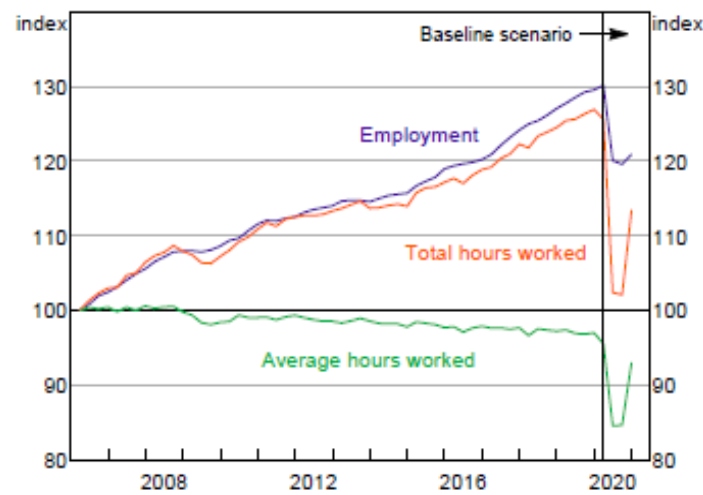
GDP



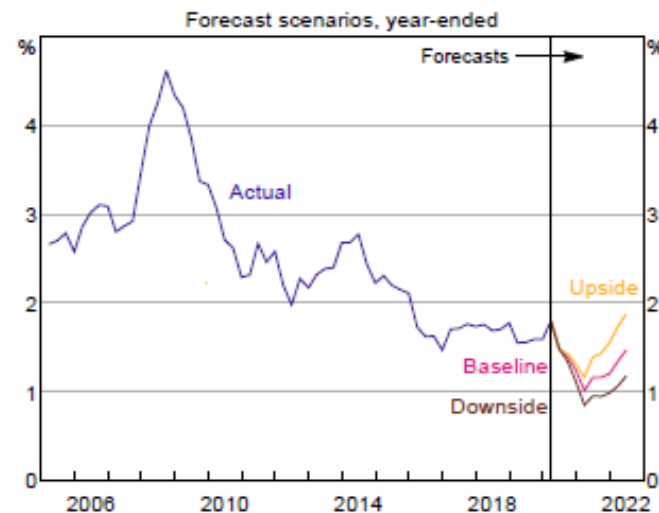
Unemployment



Employment



'Underlying' inflation



- ❑ The RBA's 'baseline' scenario assumes that most 'social distancing' restrictions are lifted by the end of the September quarter, apart from those on large public gatherings and events, and international borders (which aren't opened until early 2021)
- ❑ In this scenario real GDP declines by 5% in 2020 but rebounds by 4% in 2021, while unemployment peaks at around 10% in the current (June quarter) and declines to 6½% by Dec qtr 2021
- ❑ The RBA's 'upside' scenario assumes most restrictions are phased out over coming months (which is more in line with the Government's "Three Step Plan" announced on 9th May)
- ❑ Under this scenario most of the initial decline in real GDP is reversed by mid-2021, while unemployment could be back to 5¼% by mid-2022
- ❑ The 'downside' scenario assumes restrictions are retained for longer or need to be reimposed
- ❑ In this scenario GDP would remain close to its trough through end-2020, and unemployment would remain close to 10% until 'well into 2021'

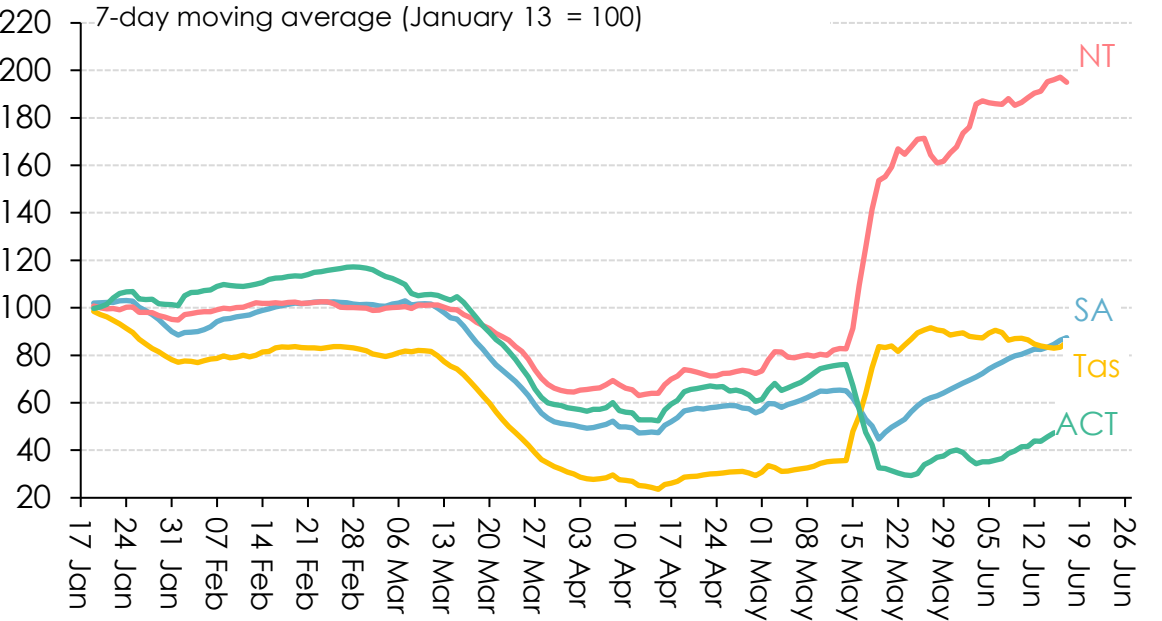
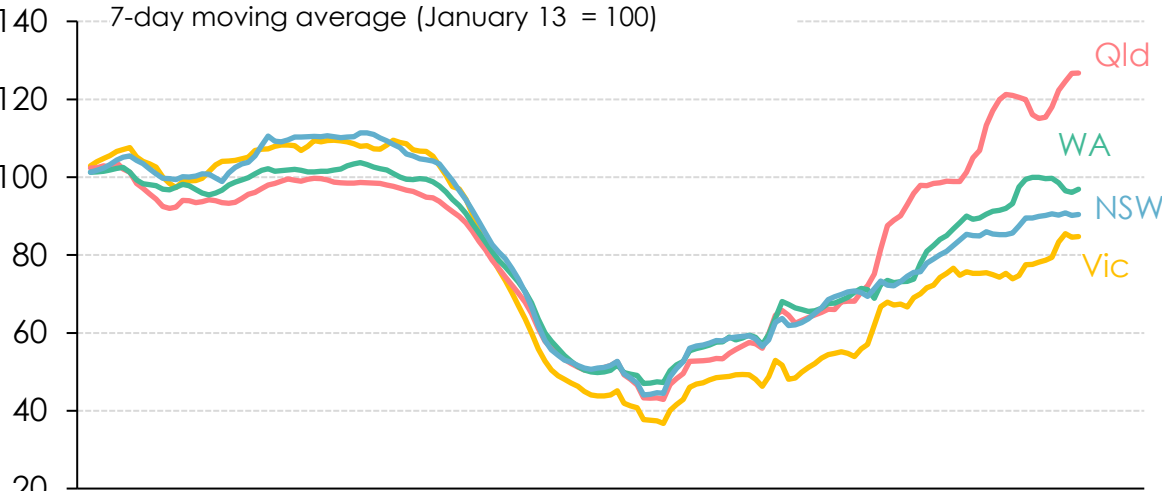
The Government's "3-Step Framework" for the easing of restrictions doesn't amount to a complete recovery

	GATHERINGS & WORK	EDUCATION & CHILDCARE	RETAIL & SALES	CAFES & RESTAURANTS	ENTERTAINMENT & AMUSEMENT VENUES	SPORT & RECREATION	ACCOMMODATION	DOMESTIC TRAVEL
Step 1	<p>Non-work gatherings of up to 10</p> <p>Up to 5 visitors at home in addition to normal residents</p> <p>Work from home if it works for you and your employer</p> <p>Workplaces develop a COVIDSafe plan</p> <p>Avoid public transport in peak hour</p>	<p>Child care centres, primary and secondary schools open as per state and territory plans</p> <p>Universities/technical colleges to increase face-to-face where possible and prioritise hands-on, skills based learning</p>	<p>Retail stores open</p> <p>Retail stores and shopping centre managers must develop COVIDSafe plans</p> <p>Auctions/open homes can have gatherings of up to 10, recording contact details</p>	<p>May open and seat up to 10 patrons at one time</p> <p>Need to maintain an average density of 4m² per person</p> <p>Food courts are to remain closed to seated patrons</p>	<p>To remain closed: Indoor movie theatres, concert venues, stadiums, galleries, museums, zoos, pubs, registered and licensed clubs, nightclubs, gaming venues, strip clubs and brothels</p> <p>Exception: Restaurants or cafes in these venues may seat up to 10 patrons at one time</p>	<p>No indoor physical activity including gyms</p> <p>Community centres, outdoor gyms, playgrounds and skate parks allow up to 10 people</p> <p>Outdoor sport (up to 10 people) consistent with the AIS Framework for Rebooting Sport</p> <p>Pools open with restrictions</p>	<p>Continue current arrangements for caravan parks and camping grounds (closed to tourists in some states and territories)</p> <p>Hostels and hotels are open for accommodation</p>	<p>Allow local and regional travel for recreation</p> <p>Refer to state and territory governments for border restrictions and biosecurity conditions</p>
Step 2	<p>Non-work gatherings of up to 20</p> <p>States and territories may allow larger numbers in some circumstances</p> <p>Work from home if it works for you and your employer</p> <p>Workplaces develop a COVIDSafe plan</p> <p>Avoid public transport in peak hour</p>	<p>Child care centres, primary and secondary schools open as per state and territory plans</p> <p>Universities/technical colleges to increase face-to-face where possible and prioritise hands-on, skills based learning</p>	<p>Retail stores open</p> <p>Retail stores and shopping centre managers must develop COVIDSafe plans</p> <p>Auctions/open homes can have gatherings of up to 20, recording contact details</p>	<p>Cafes and restaurants can seat up to 20 patrons at one time</p> <p>Need to maintain an average density of 4m² per person</p> <p>Food courts are to remain closed to seated patrons</p>	<p>Indoor movie theatres, concert venues, stadiums, galleries, museums, zoos may have up to 20 patrons</p> <p>To remain closed: pubs, registered and licensed clubs, RSL clubs, casinos, nightclubs, strip clubs and brothels</p> <p>Exception: Restaurants or cafes in these venues may seat up to 20 patrons at one time</p>	<p>Up to 20 people allowed to participate in outdoor sports consistent with the AIS Framework for Rebooting Sport</p> <p>Up to 20 people allowed to participate in all indoor sports, including gyms</p> <p>Need to maintain an average density of 4m² per person</p> <p>Pools open with restrictions</p>	<p>Caravan parks and camping grounds fully open</p> <p>All accommodation areas open and allow gatherings of up to 20 people</p>	<p>Allow local and regional travel for recreation</p> <p>Consider allowing interstate recreational travel depending on the situation in each state and territory</p> <p>Refer to state and territory governments for biosecurity conditions</p>
Step 3	<p>Non-work gatherings of up to 100 people</p> <p>Larger gatherings to be considered</p> <p>Return to workplace</p> <p>Workplaces develop a COVIDSafe plan</p> <p>Avoid public transport in peak hour</p>	<p>Child care centres, primary and secondary schools open as per state and territory plans</p> <p>Universities/technical colleges to increase face-to-face where possible and prioritise hands-on, skills based learning</p> <p>Consider reopening residential colleges and international student travel</p>	<p>Retail stores open</p> <p>Retail stores and shopping centre managers must develop COVIDSafe plans</p> <p>Auctions/open homes can have gatherings of up to 100, recording contact details</p>	<p>Cafes, restaurants and food courts can seat up to 100 people</p> <p>Need to maintain an average density of 4m² per person</p>	<p>Venues open in Step 2 may have up to 100 patrons</p> <p>Consideration will be given to opening bar areas and gaming rooms</p> <p>Exception: Restaurants or cafes in these venues may seat up to 100 patrons at one time</p> <p>To remain closed: strip clubs and brothels</p>	<p>All venues allowed to operate with gatherings of up to 100 people</p> <p>Need to maintain an average density of 4m² per person</p> <p>Community sport expansion to be considered consistent with the AIS Framework for Rebooting Sport</p>	<p>All accommodation areas open and allow gatherings of up to 100 people</p>	<p>Allow interstate travel</p> <p>Refer to state and territory governments for biosecurity conditions</p>

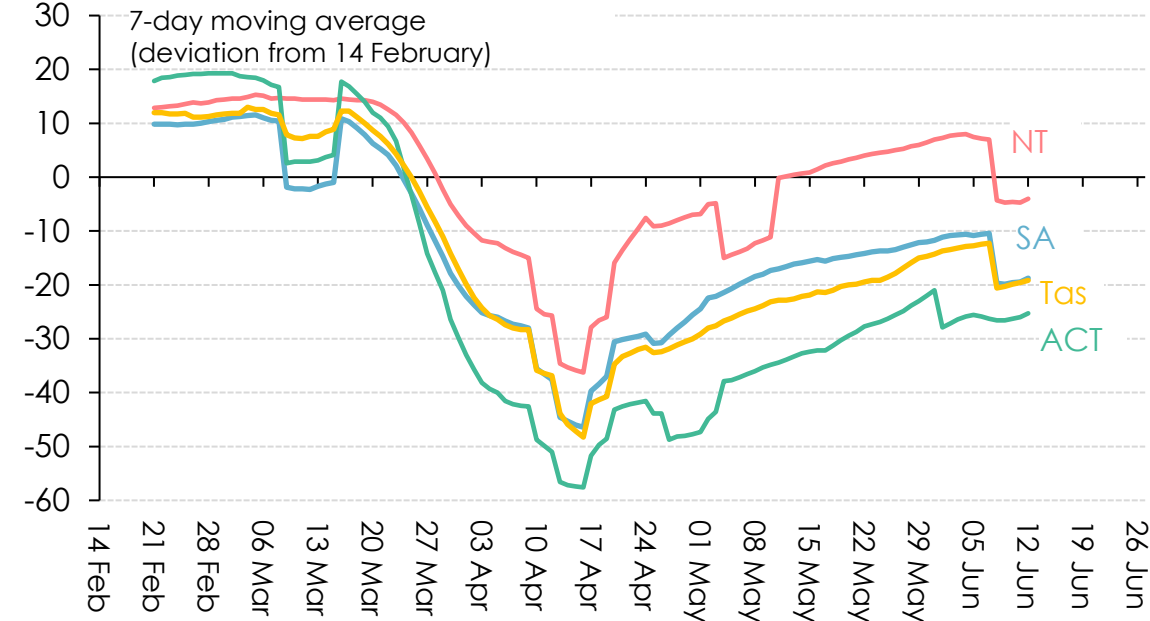
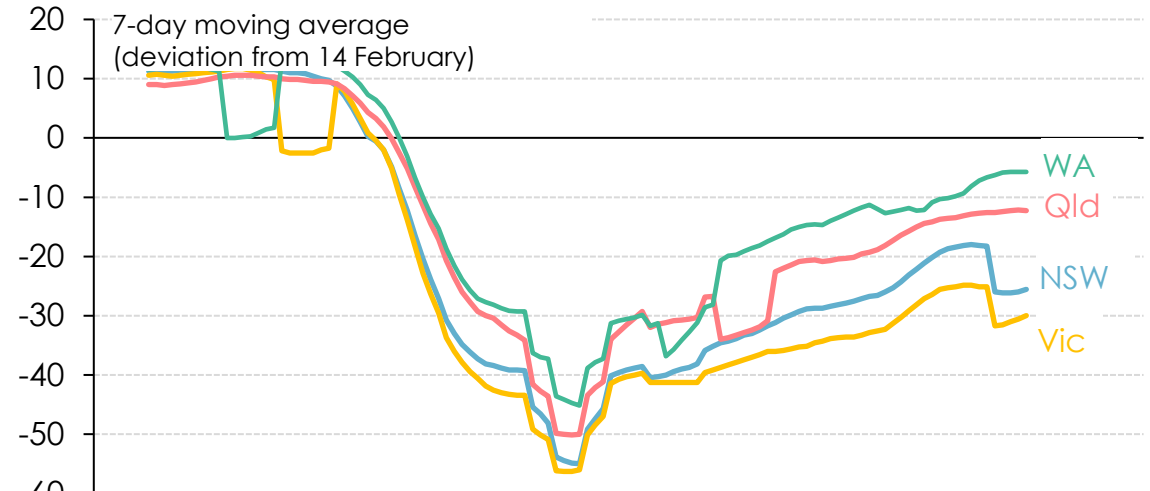
- ❑ Treasury expects 250,000 jobs to be regained, and \$3bn of GDP to be recouped, from 'Step 1'
- ❑ Full implementation of all 3 steps is expected to enable 850,000 people to return to work, and generate \$9.4bn per month of additional GDP
- ❑ These figures compare with job losses to date of around 975,000, and Treasury estimates of a \$50bn decline in GDP during the June quarter (about \$16bn per month)

Mobility data suggest Northern Territory, Queensland & Western Australia returning to 'normal' fastest, with New South Wales & Victoria lagging

Time spent driving, by State and Territory



Time spent working, by State and Territory



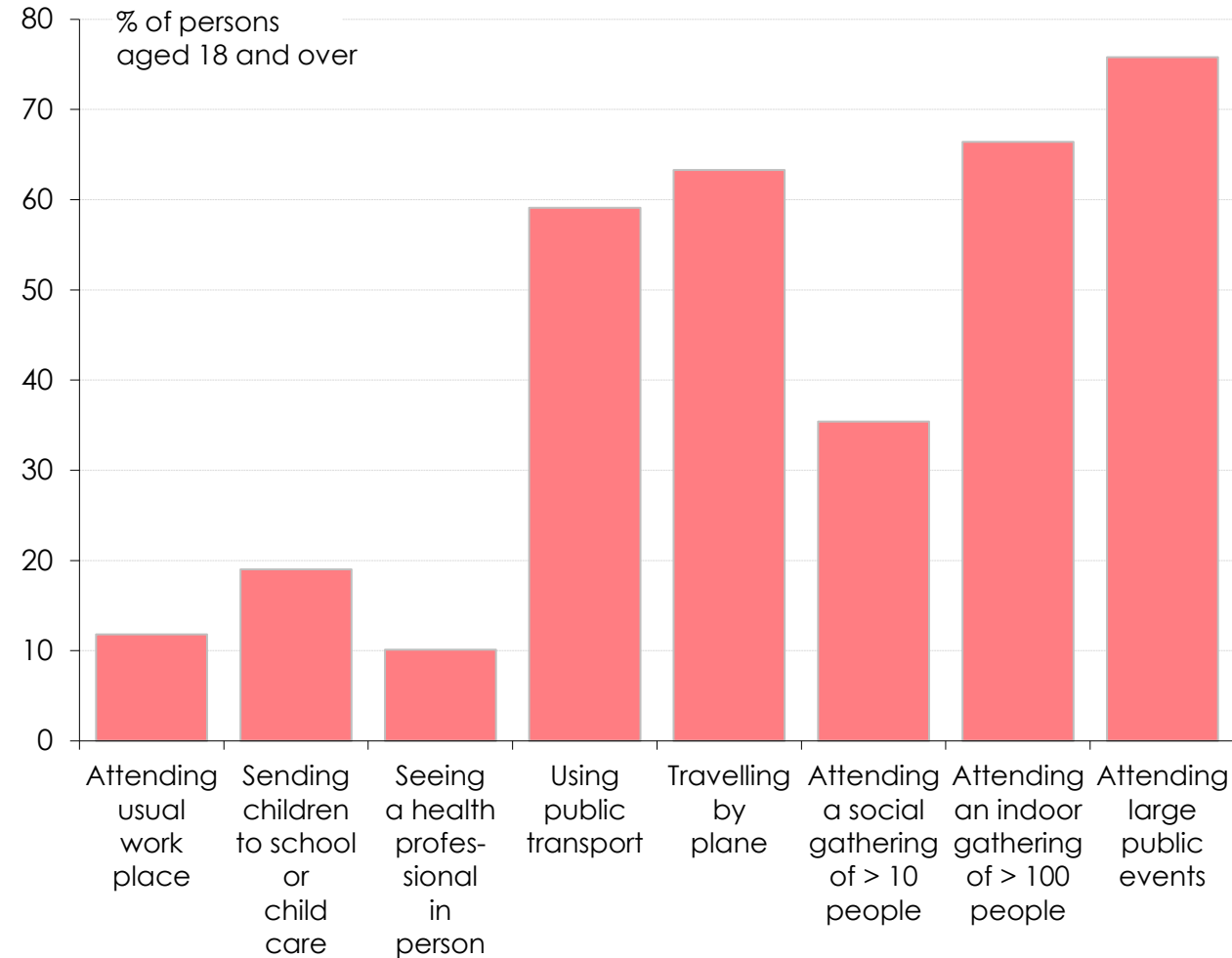
Sources: Apple Mobility Trends Reports (data up to 17th June); Google Covid-19 Community Mobility Reports (data up to 12th June).

The path out of the current downturn will be more gradual than the path into it was

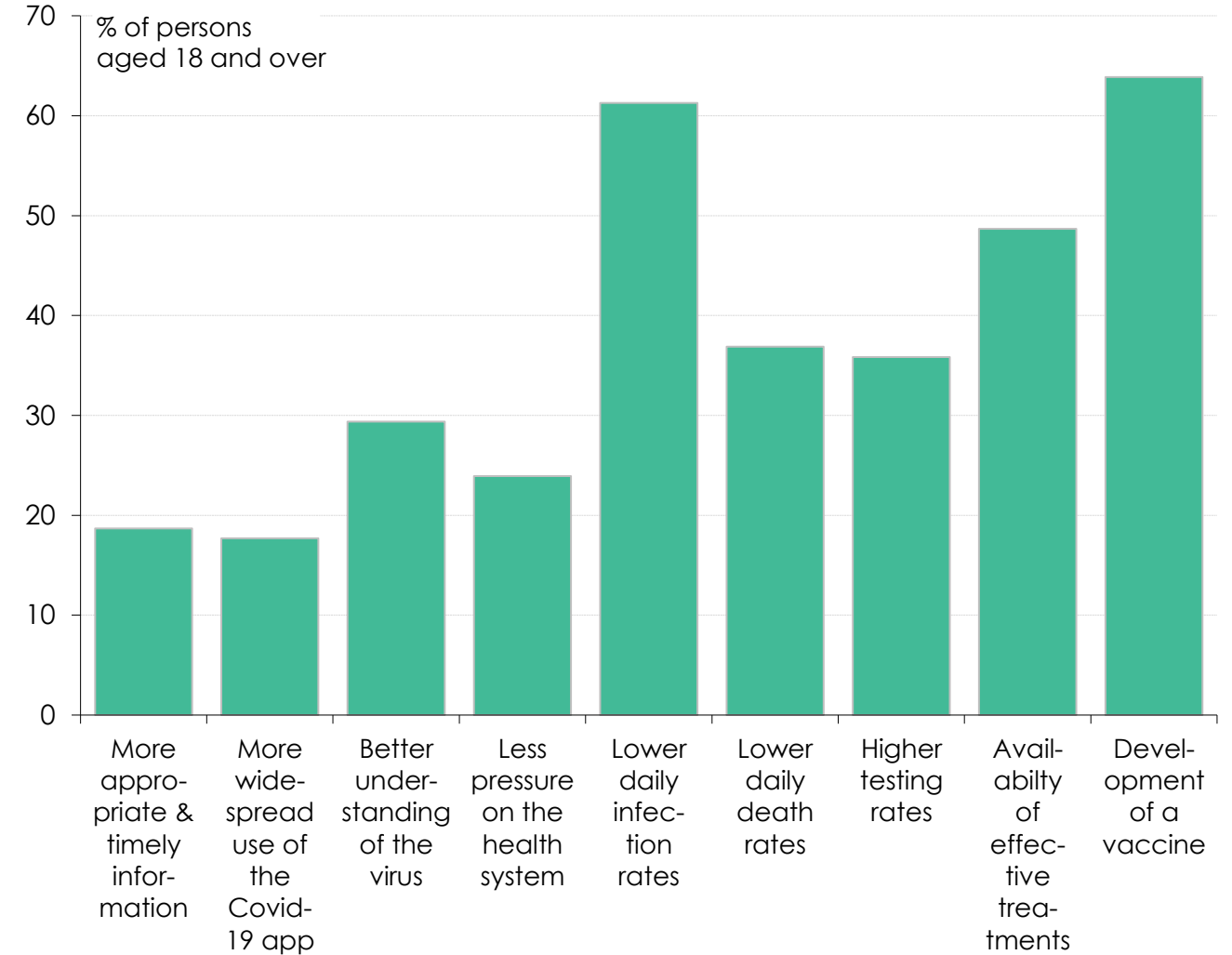
- ❑ **‘Social distancing’ requirements will be relaxed gradually rather than ‘all at once’**
 - and many people may remain wary of exercising all of their newly-regained ‘freedoms’ (see slide 78)
 - new health and safety regulations will likely limit the number of employees and customers who can be ‘on premises’ (which may make it uneconomic for some businesses to re-open until restrictions are relaxed)
- ❑ **At least some businesses won’t have survived the shutdown period, and many of those which do will not immediately return to pre-outbreak levels of employment**
 - so employment will remain below pre-outbreak levels for some time rather than ‘snapping back’ quickly
 - and those returning to work may work reduced hours (compared with pre-outbreak) for some time
- ❑ **The recovery in household spending is likely to be gradual, rather than rapid**
 - if the recovery in employment is only gradual, so too will be the recovery in household disposable income
 - most households will have run down discretionary savings to at least some extent, as well as having their superannuation balances depleted by market movements and/or withdrawals – and so will likely want to rebuild savings
 - households with mortgages who have deferred repayments will face higher or longer mortgage repayments, constraining their spending capacity to some extent
 - household spending may also be affected by ‘negative wealth effects’ from lower property prices
- ❑ **There is some risk of a ‘setback’ when government support programs come to an end (nearly all of them at the end of September), or if restrictions on the movement or gathering of people have to be re-imposed**
- ❑ **International borders (except with NZ) will likely remain closed until a vaccine is widely available – which is in turn likely to be at least 12 months away**
 - implying that there will be no near-term recovery in international tourism or international education
- ❑ **Businesses are likely to be very hesitant about investment spending for an extended period (with some exceptions)**

Australians seem likely to continue to be wary of travel and large gatherings, at least until a vaccine for Covid-19 is developed

Proportion of adults feeling 'uncomfortable' with selected activities as restrictions are eased



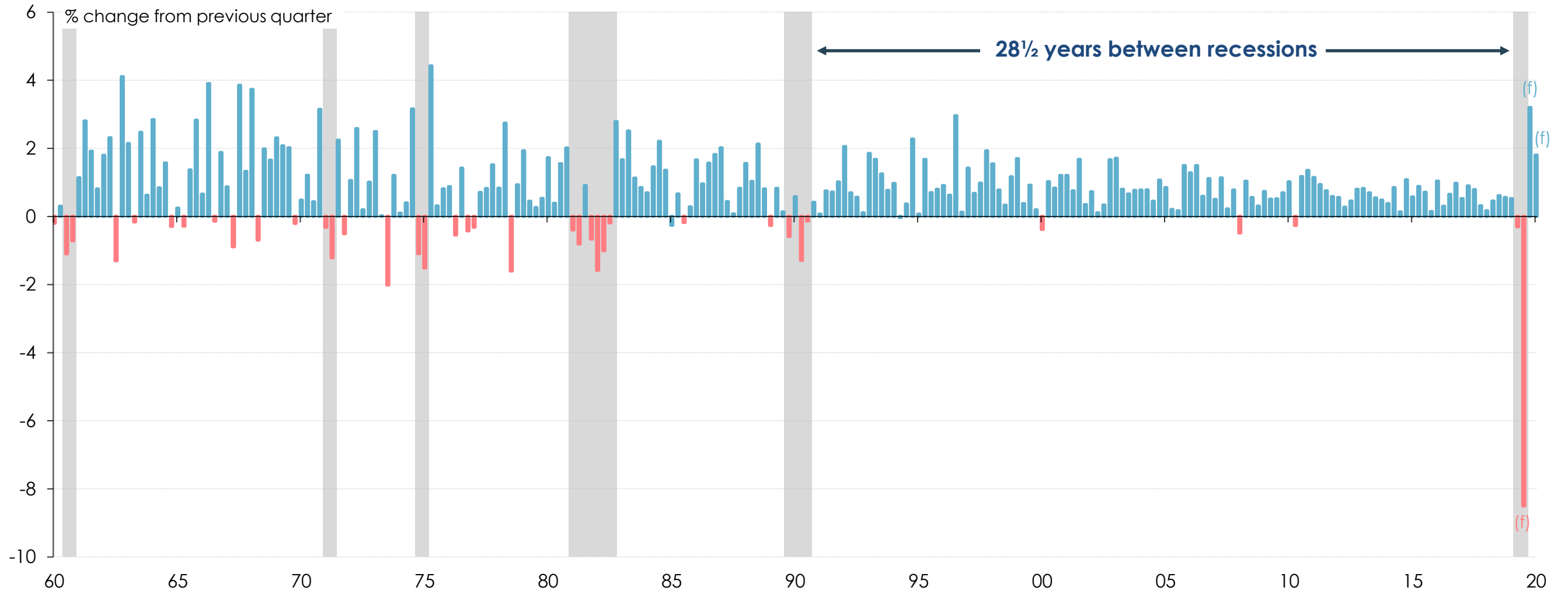
Actions that would improve people's comfort with activities as restrictions are eased



Source: ABS, Household Impacts of Covid-19 Survey, 26th-29th May (published 15th June).

Australia's record-breaking run of almost 30 years without a recession has come to an end

Quarterly growth in Australian real GDP, 1960-2020



Note: Shaded areas denote recessions. Source: ABS.

The factors which helped us achieve almost 30 years of continuous economic growth may not be so helpful in the post-Covid environment

Australia's record-breaking run of almost 30 years without two or more consecutive quarters of negative real GDP growth owed a lot to four factors -

❑ Population growth

- Australia's population grew at an average annual rate of 1.5% pa over the 19 years to 2019, compared with 0.6% pa for all 'advanced' economies
- net immigration accounted for 58% of this growth – ie, in the absence of immigration Australia's population would have grown by only 0.7% per annum, on average, and would have aged more rapidly

❑ Our unusual (for an 'advanced' economy) economic relationship with China

- China's rapid economic growth, industrialization and urbanization significantly boosted both the volumes and prices of many of our commodity exports, under-wrote the post-GFC mining investment boom, pushed down the prices of many of the things which we import, and contributed significantly to the growth of our tourism and education sectors
- By contrast, China's rapid economic growth undermined the competitiveness of manufacturing industries which account for a much larger share of most other 'advanced' economies, put downward pressure on the prices of their exports and put upward pressure on the prices of commodities which they import

❑ The 'housing boom'

- Australia's 'housing boom' started earlier (mid-1990s) and ended later (2017, rather than 2007-08) than in most other 'advanced' economies (some – such as Japan, Italy and France – didn't have a housing boom at all)
- the two-way interaction between rising house prices and rising household debt underwrote stronger growth in household consumption spending, for longer, than would have occurred otherwise

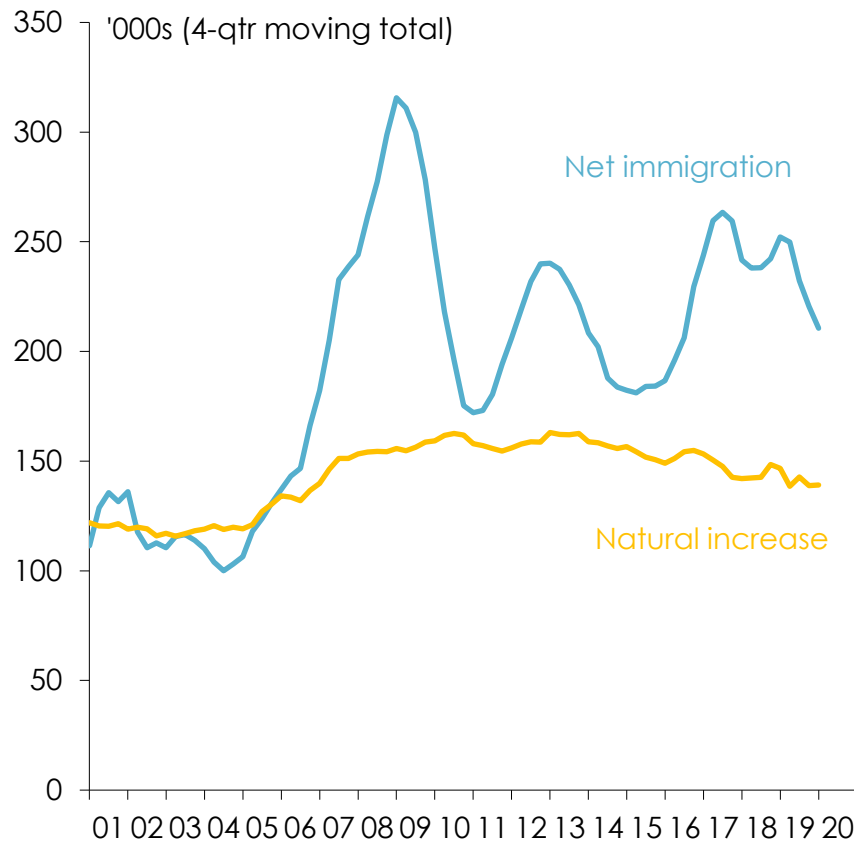
❑ (Mostly) good macro-economic policy – especially by comparison with other 'advanced' economies

- although we haven't done nearly as well as we once did on the micro-economic front (especially with regard to productivity)

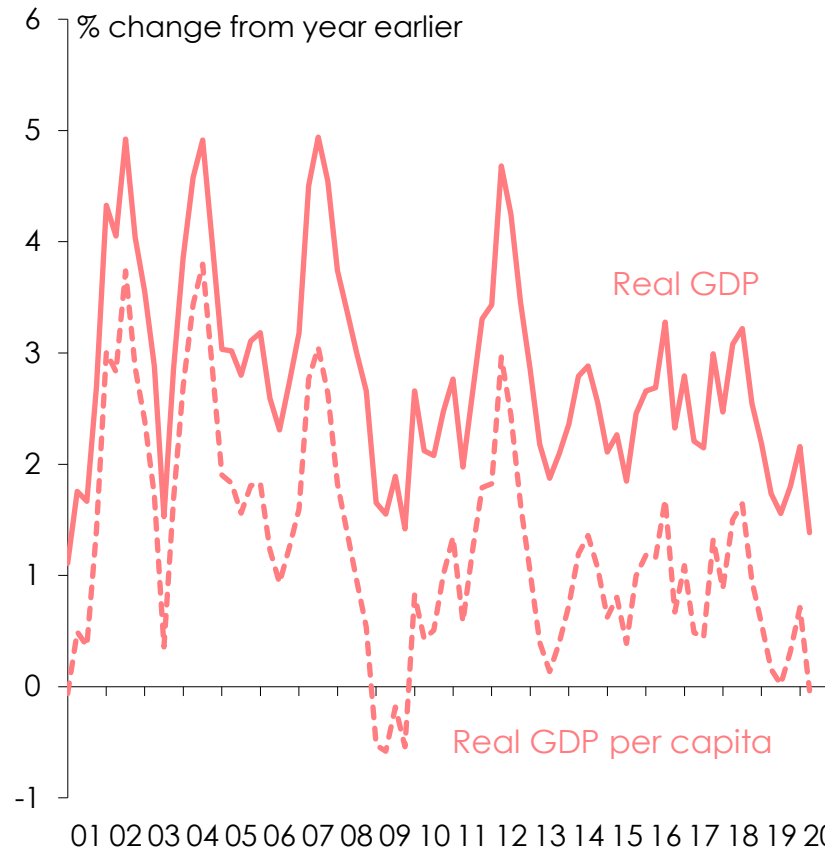
The first three of these are likely to be of less assistance from now on

A sharply lower immigration intake will detract significantly from Australian economic growth

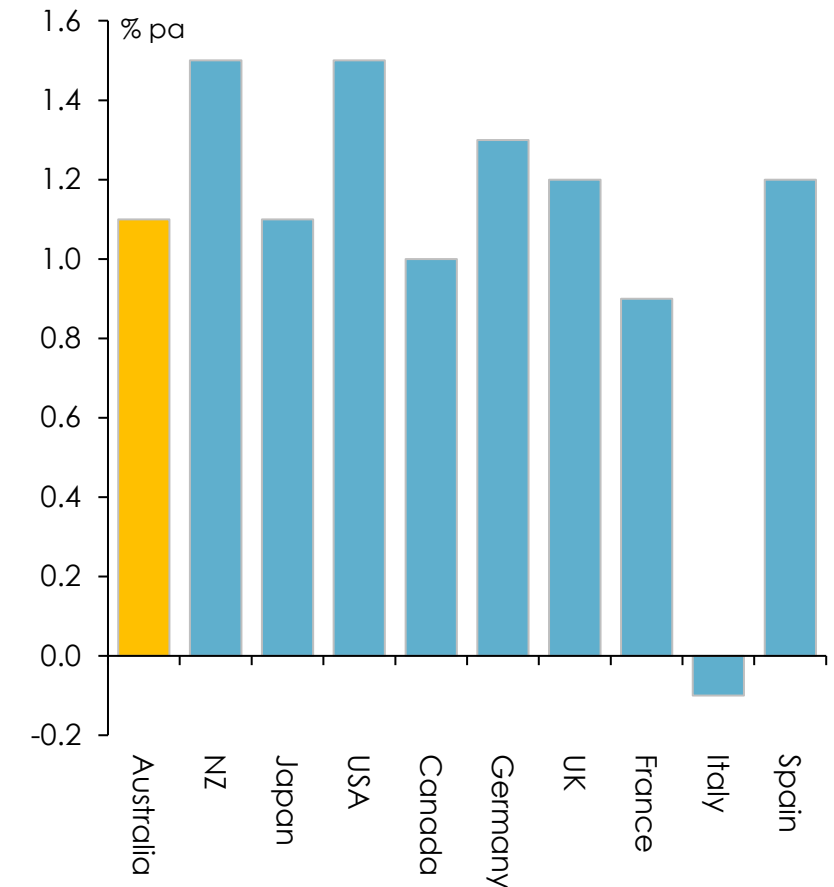
Sources of Australia's population growth



Australian GDP and per capita GDP growth



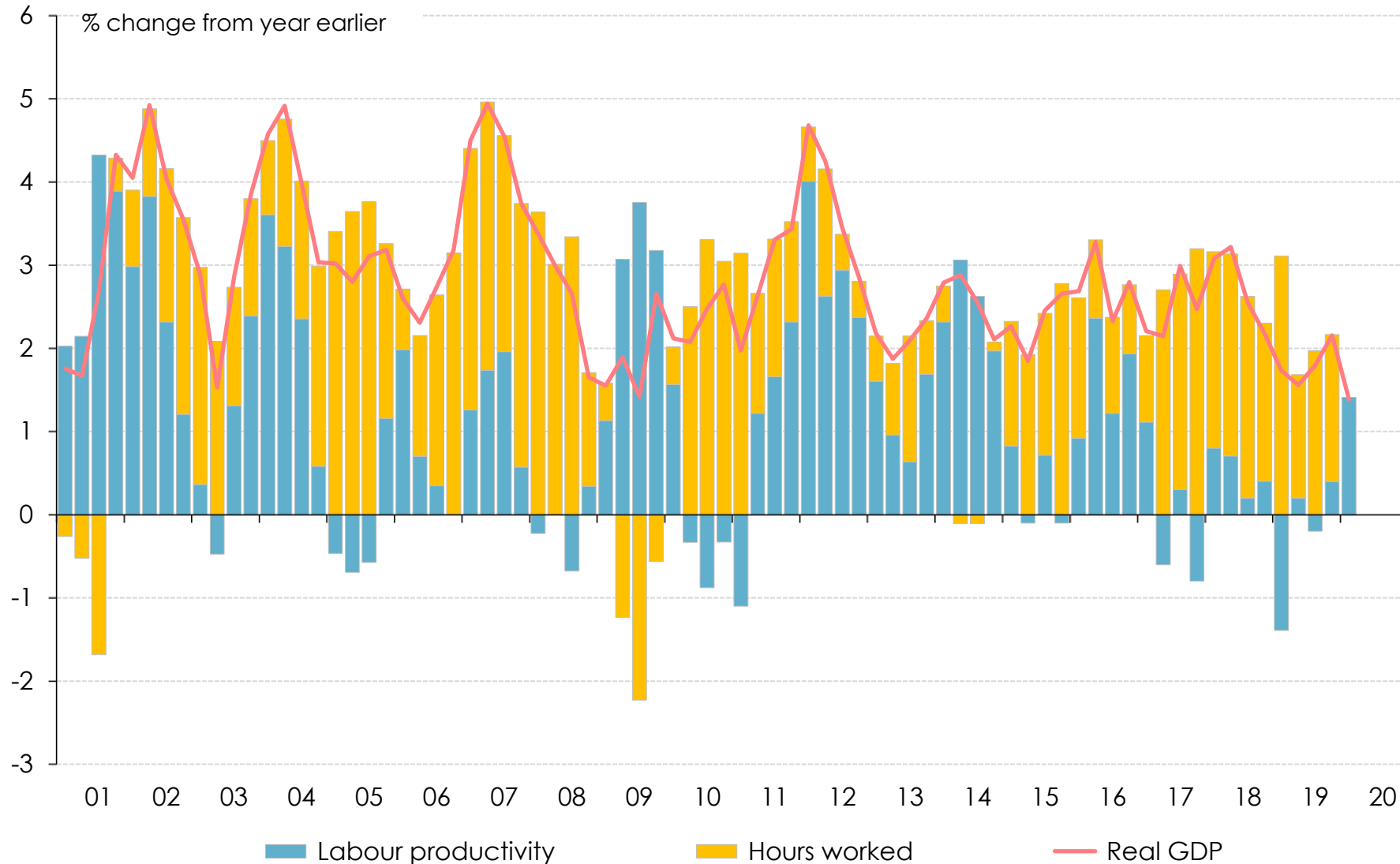
Real per capita GDP growth, 2010-2019



□ Treasury reportedly expects net overseas migration to fall by 30% in 2019-20 (ie to about 168,000) and by a further ~ 80% in 2020-21 (ie to about 36,000)

Australia has come to rely much more heavily on increased labour input to drive economic growth in recent years

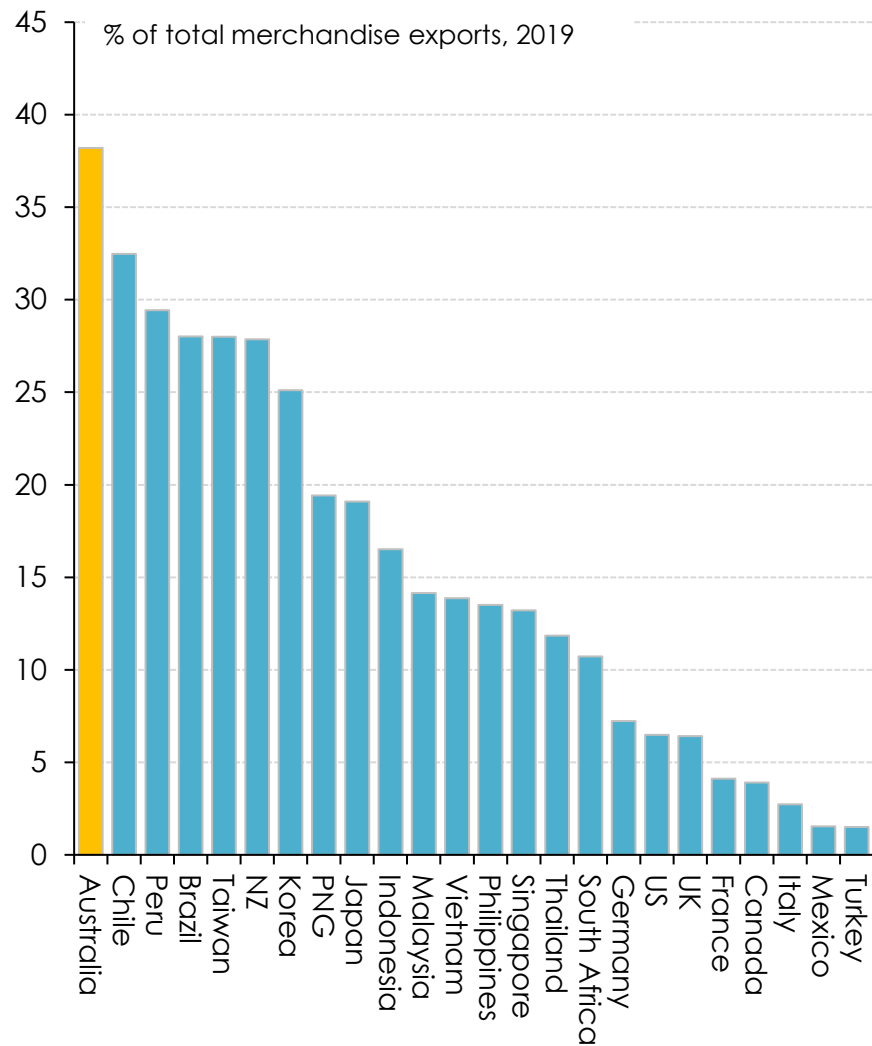
Labour input and labour productivity contributions to Australian real GDP growth



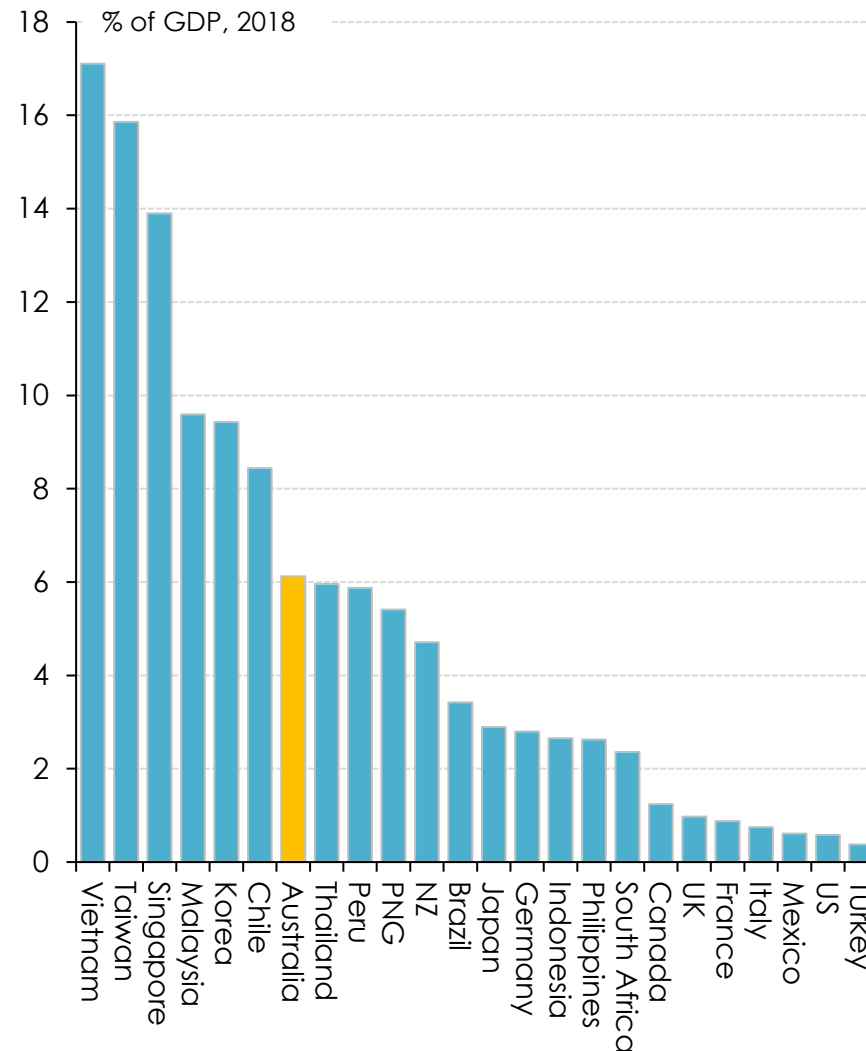
- ❑ Over the past five years, 72% of Australia's real GDP growth has come from increased labour input, and only 28% from labour productivity growth
- ❑ By contrast, between the end of the early 1990s recession and the onset of the global financial crisis, 46% of Australia's real GDP growth came from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

Australia has benefited enormously from its economic relationship with China over the past 25 years, but will that continue to be the case?

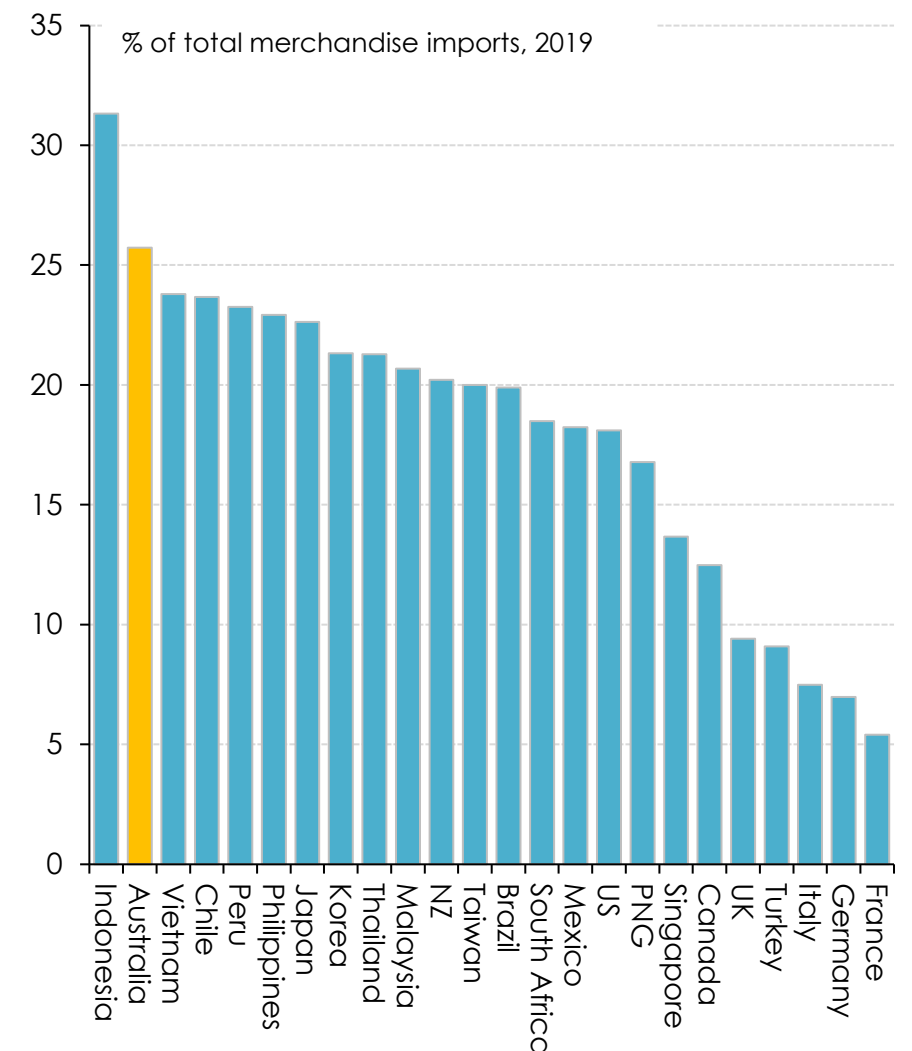
Merchandise exports to China as a pc of total



Merchandise exports to China as a pc of GDP



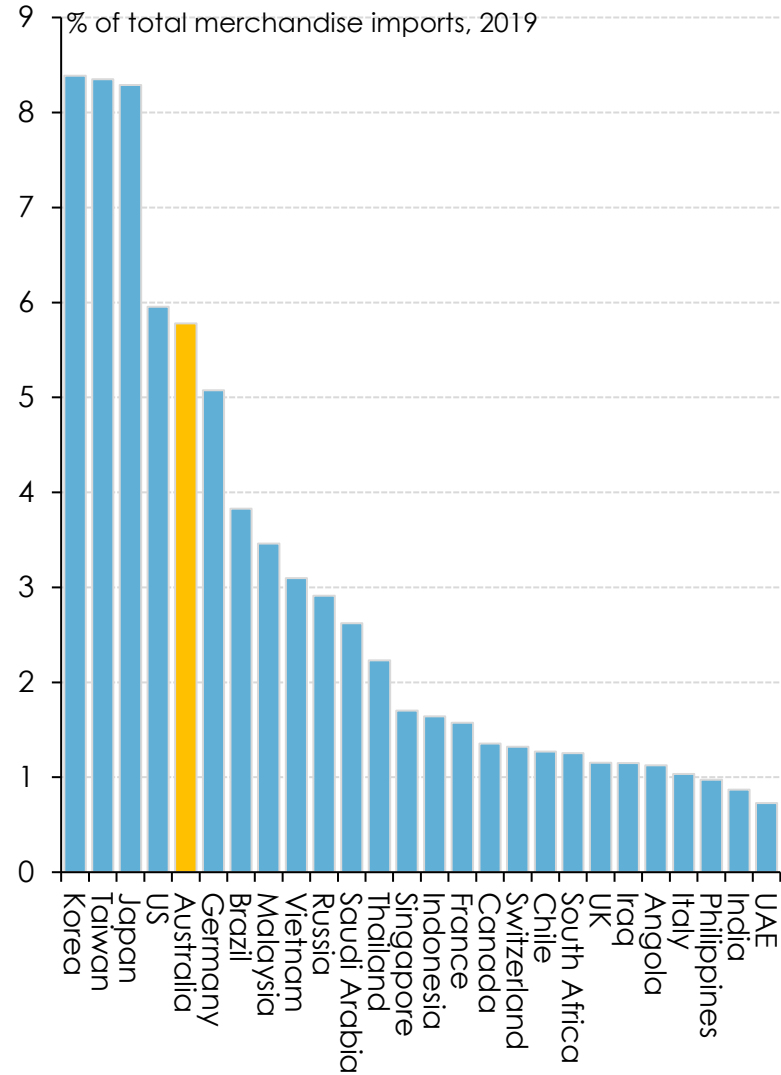
Merchandise imports from China as a pc of total



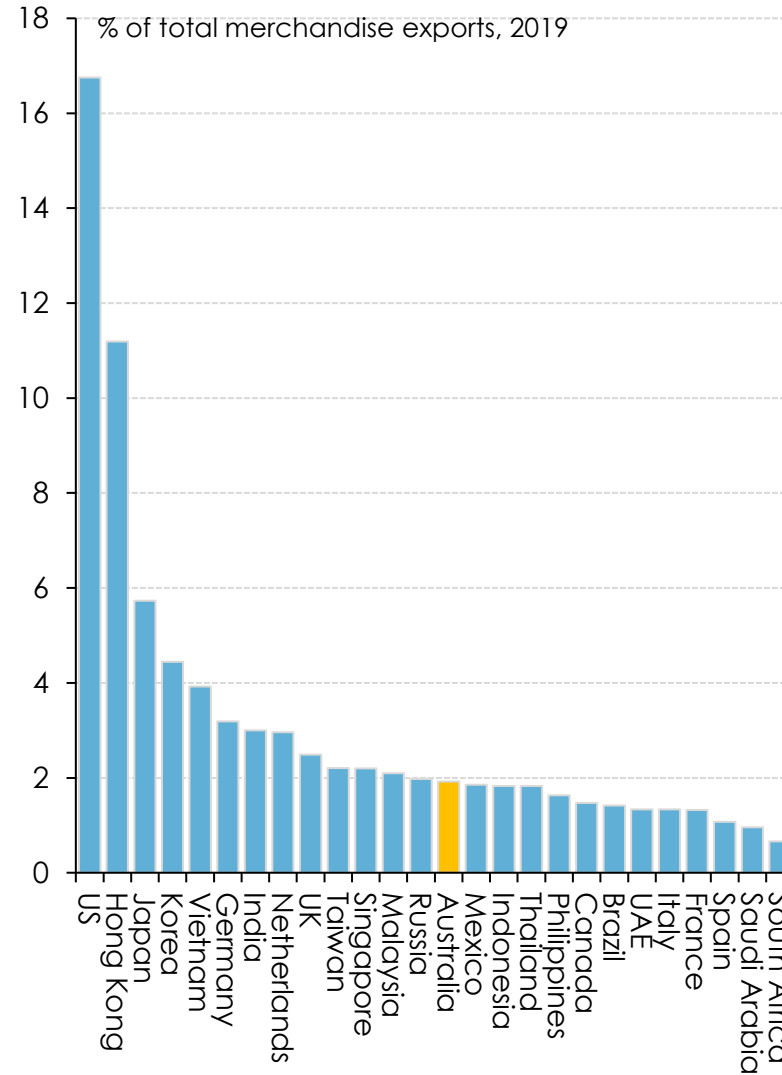
Sources: IMF, Direction of Trade Statistics; Taiwan Ministry of Economic Affairs, Bureau of Foreign Trade.

Australia is China's 5th biggest source of imports (of goods), 14th biggest export market, and has the 2nd-largest bilateral trade surplus with China

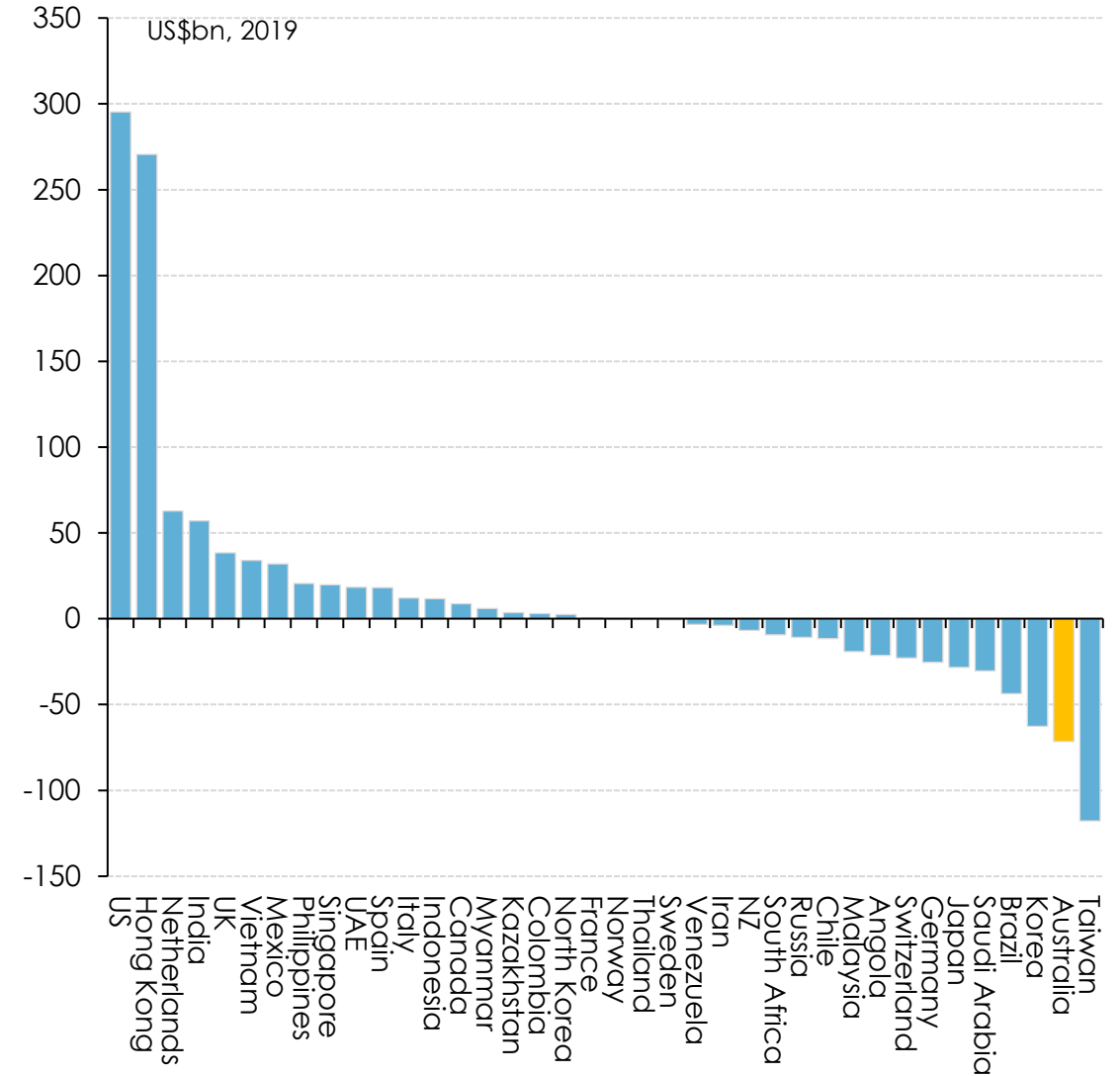
China's sources of imports



China's export destinations



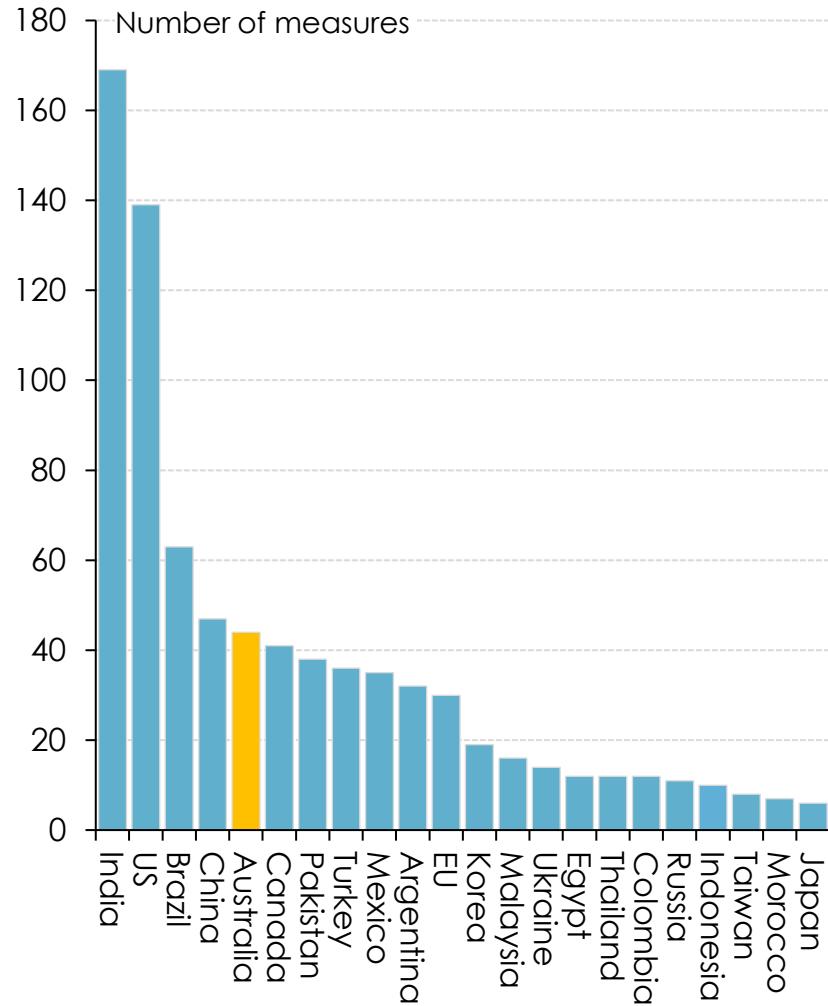
China's bilateral merchandise trade balances



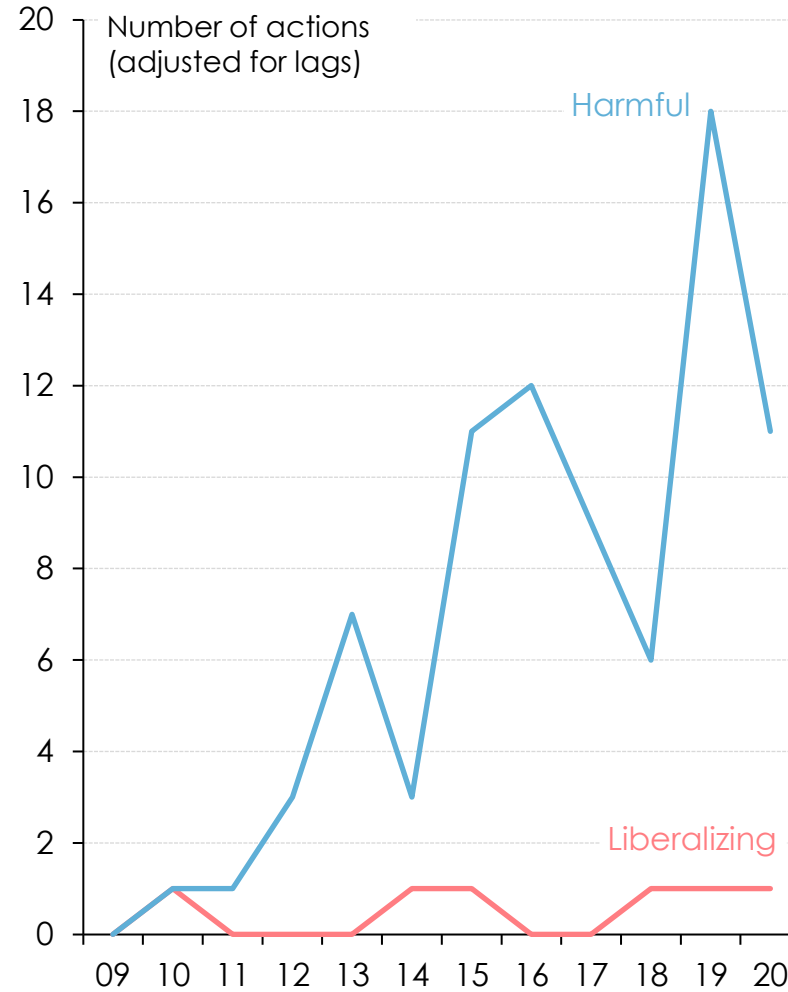
Source: International Monetary Fund, *Direction of Trade Statistics*.

China's threats against Australian exports of barley, beef, coal, tourism and education aren't justified, but we aren't complete innocents either

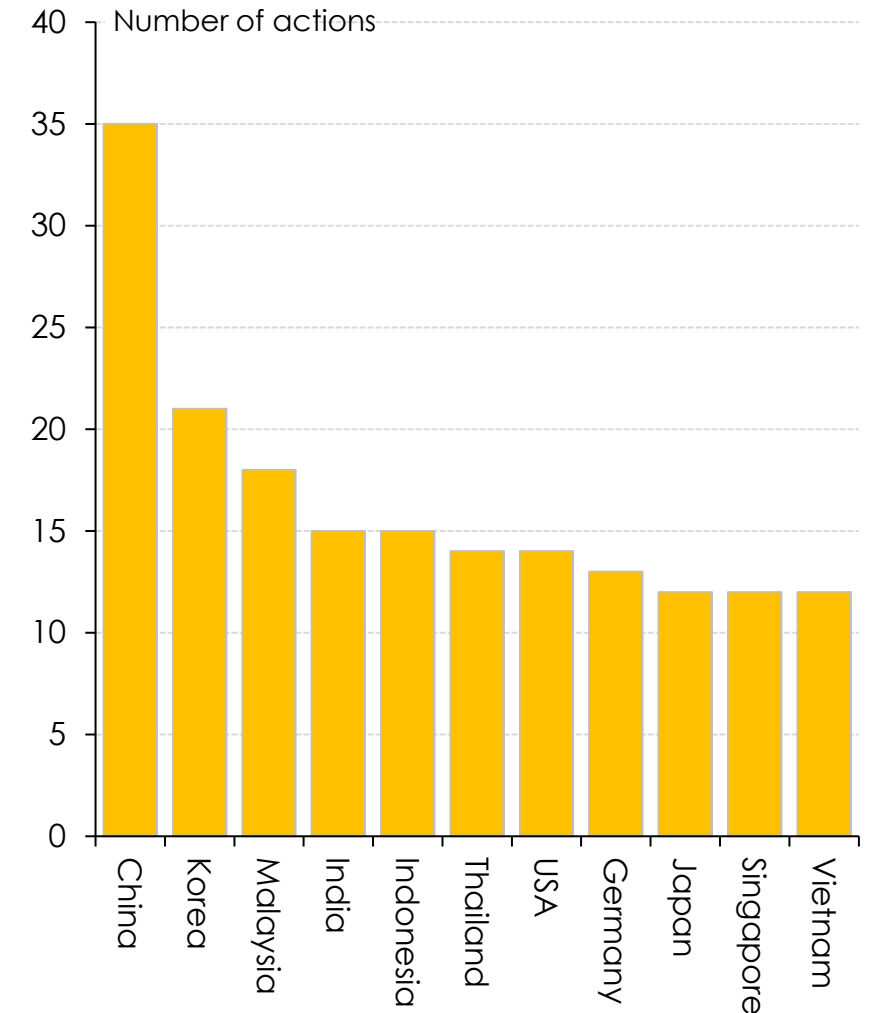
Number of anti-dumping measures imposed, 2015-19



Australian trade policy measures since 2009



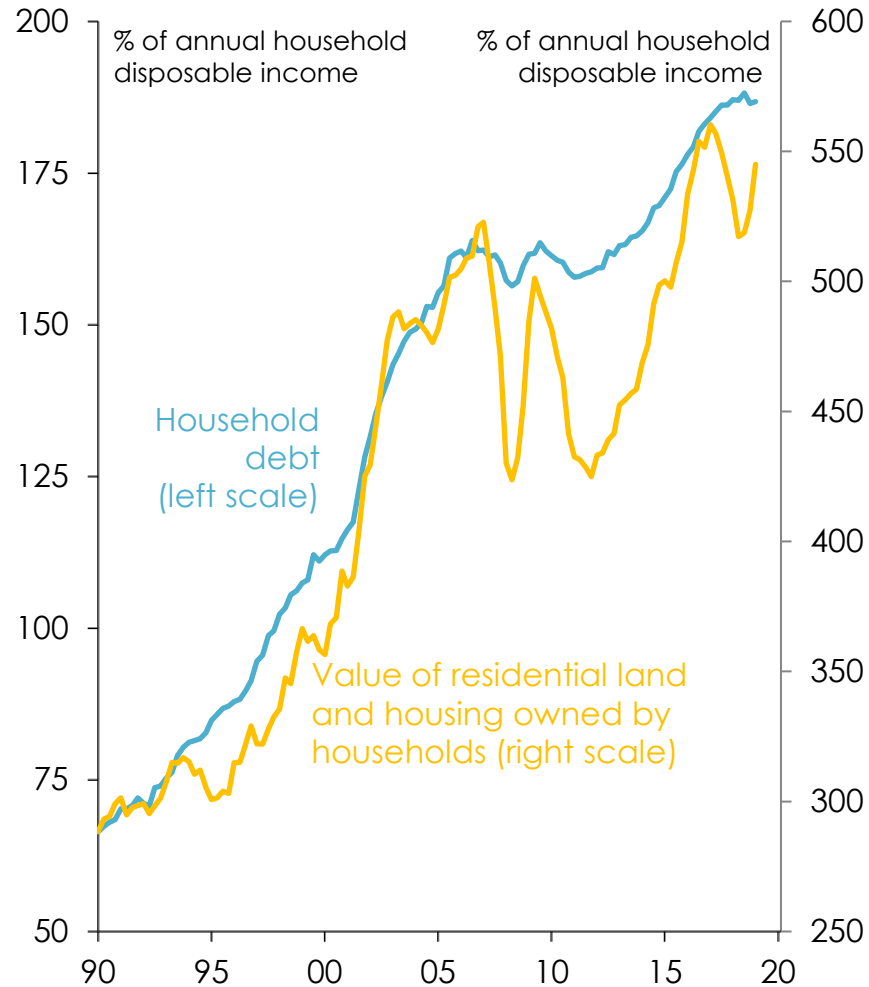
Countries adversely affected by 'harmful' Australian trade actions



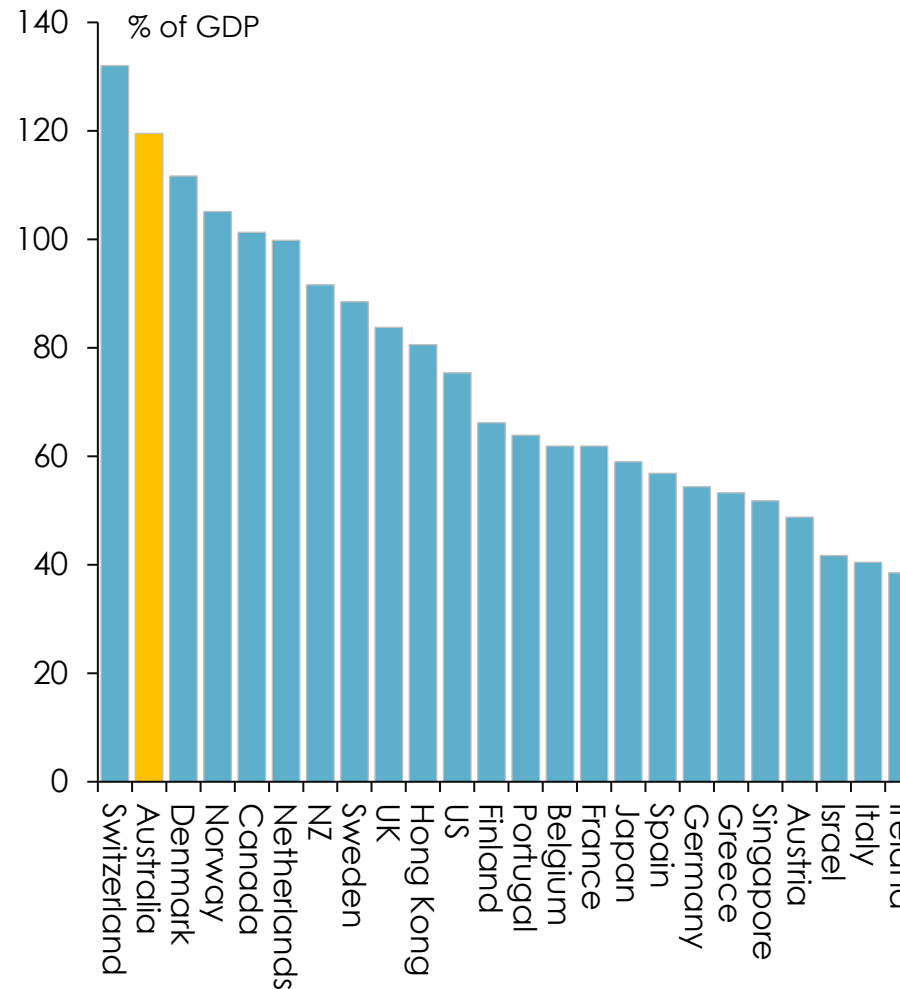
Sources: World Trade Organization; Global Trade Alert

Rising property prices and household debt are unlikely to underpin Australian economic growth as they have done for most of the past 30 years

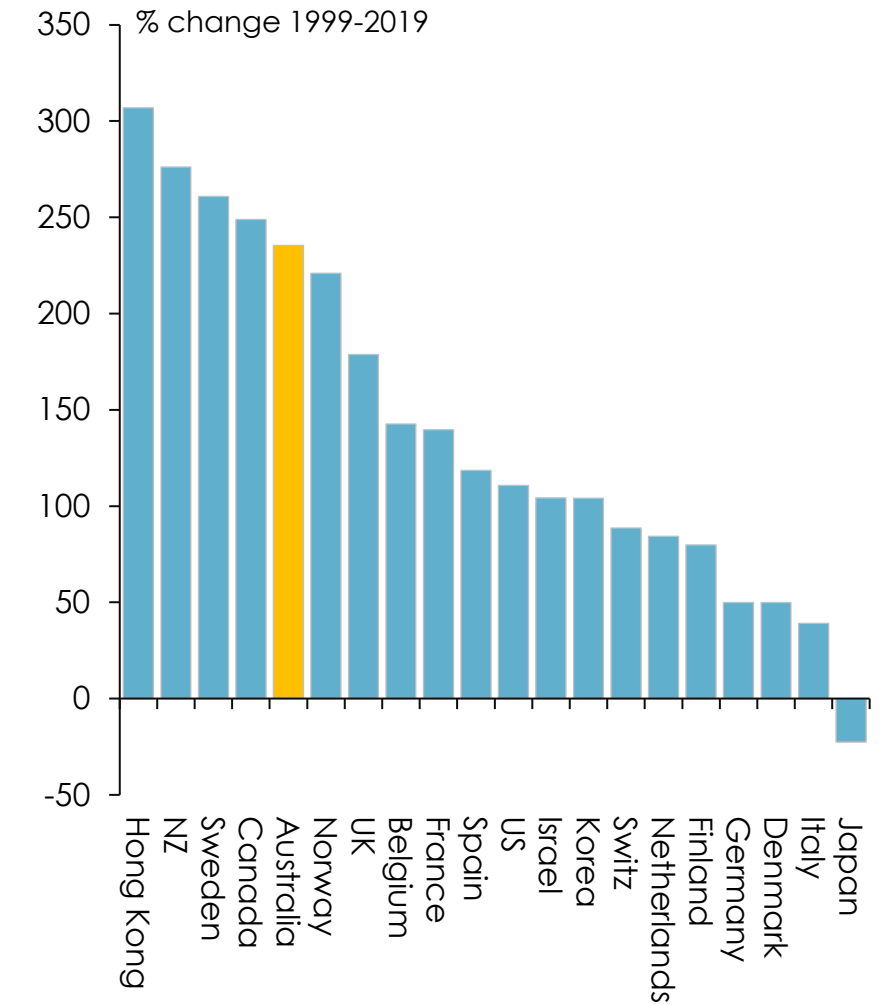
Australian housing wealth and household debt



Household debt as a pc of GDP, December 2019



Increase in residential property prices, 1999-2019



Sources: ABS; Bank for International Settlements.

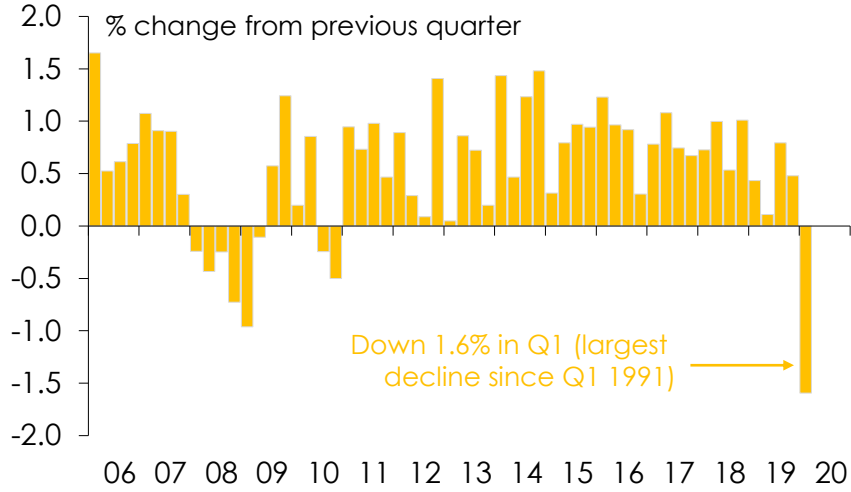
Some other possible longer-term consequences of the pandemic

- ❑ **An accelerated retreat from ‘globalization’**
 - prompted by mistrust of international supply chains and desire for greater self-sufficiency in ‘essential’ products
 - greater government control over movement of people and capital across international borders likely to persist
- ❑ **Greater expectations of government**
 - having done things previously considered ‘unthinkable’ during this downturn, governments may be expected to do more during future downturns
 - there may be heightened demand for hitherto unprecedented government intervention to address other issues (for example climate change)
- ❑ **Interest rates likely to be (much) lower for (much) longer**
 - not least in order to make servicing of elevated government debt burdens more tolerable
 - reduced role for conventional monetary policy in managing economic cycles
- ❑ **Changes in ways of working**
 - at least some employers and employees are likely to maintain the option of (or preference for) ‘working from home’
 - possible implications for demand for commercial office space
- ❑ **Diminished use of mass transit**
- ❑ **Accelerated decline in the use of cash for transactions**
- ❑ **Re-think of relationships with China**
 - especially challenging for Australia given our unusual (for an ‘advanced’ economy) economic relationship with China
- ❑ **Erosion of respect for US leadership and competence**
 - unless Trump loses the November election and Biden can reverse the damage done to perceptions of US credibility, competence and commitment

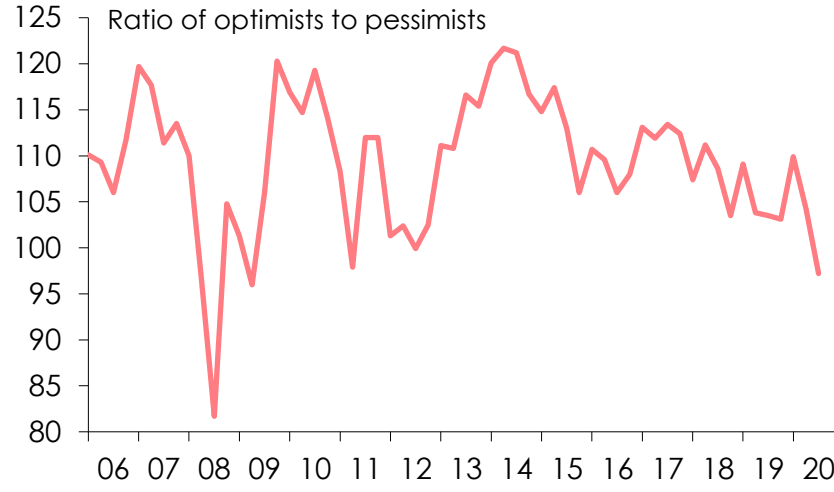
New Zealand

New Zealand has paid a high economic price for its success in eliminating the Covid-19 virus

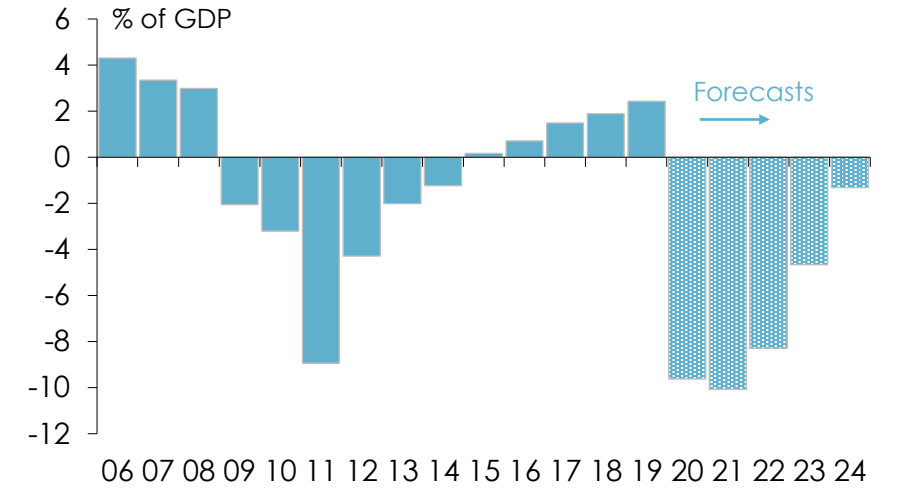
Real GDP



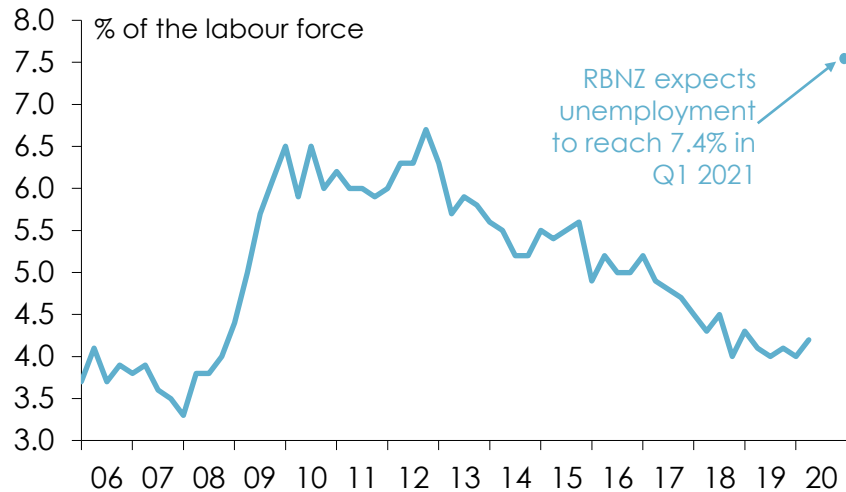
Consumer confidence



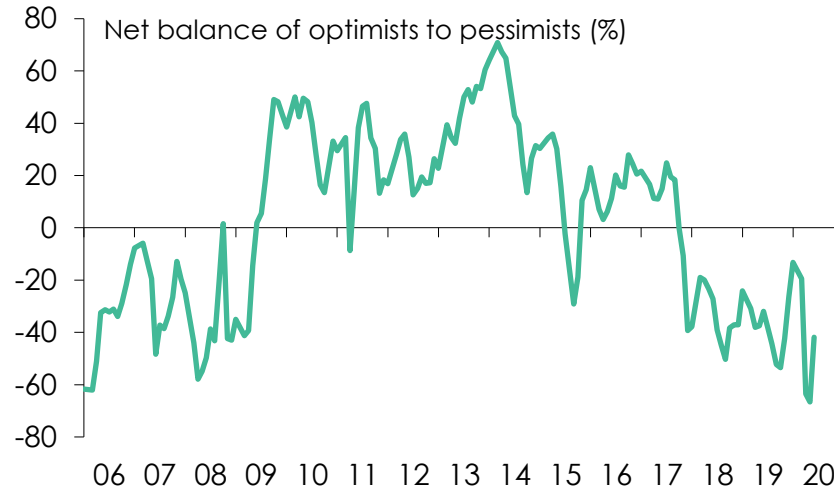
NZ government budget balance



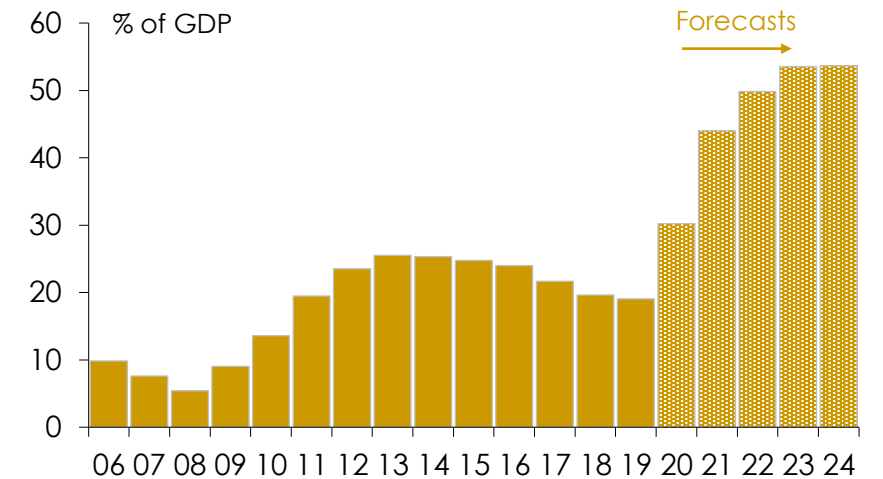
Unemployment rate



Business confidence



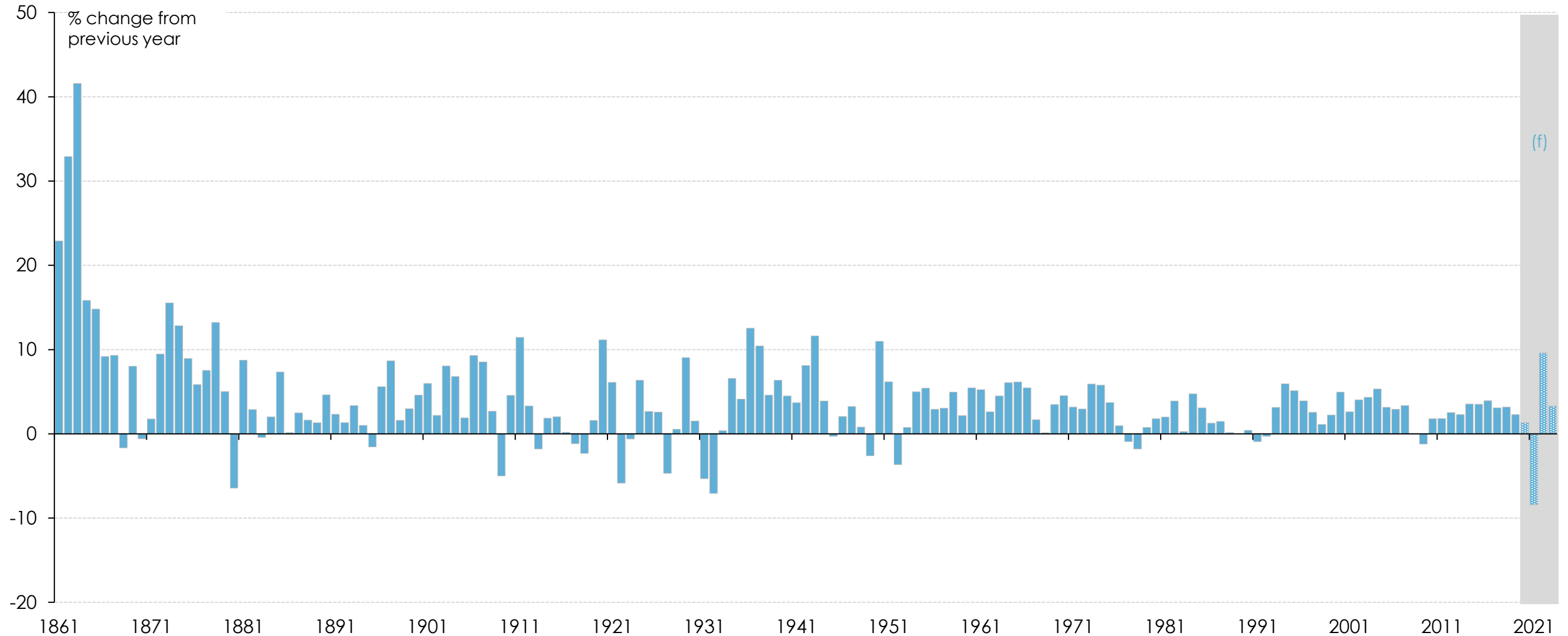
NZ 'core Crown debt'



Note: New Zealand uses GDP(P) as its preferred measure of GDP. Unemployment rates are quarterly. The measure of the NZ Government budget balance is 'OBEGAL', operating balance excluding gains and losses (an accrual accounting measure). Net 'core Crown debt' excludes assets of the NZ Super Fund, student loans and other advances, and financial assets held for public policy purposes. Fiscal data (the two right-hand charts) are for fiscal years ended 30th June.
Sources: Statistics NZ; Westpac-McDermott Miller; ANZ Bank; NZ Treasury *Budget Economic and Fiscal Update 2020*.

The Reserve Bank of New Zealand is expecting the fall in real GDP in the year ended March 2021 to be the biggest in recorded NZ history

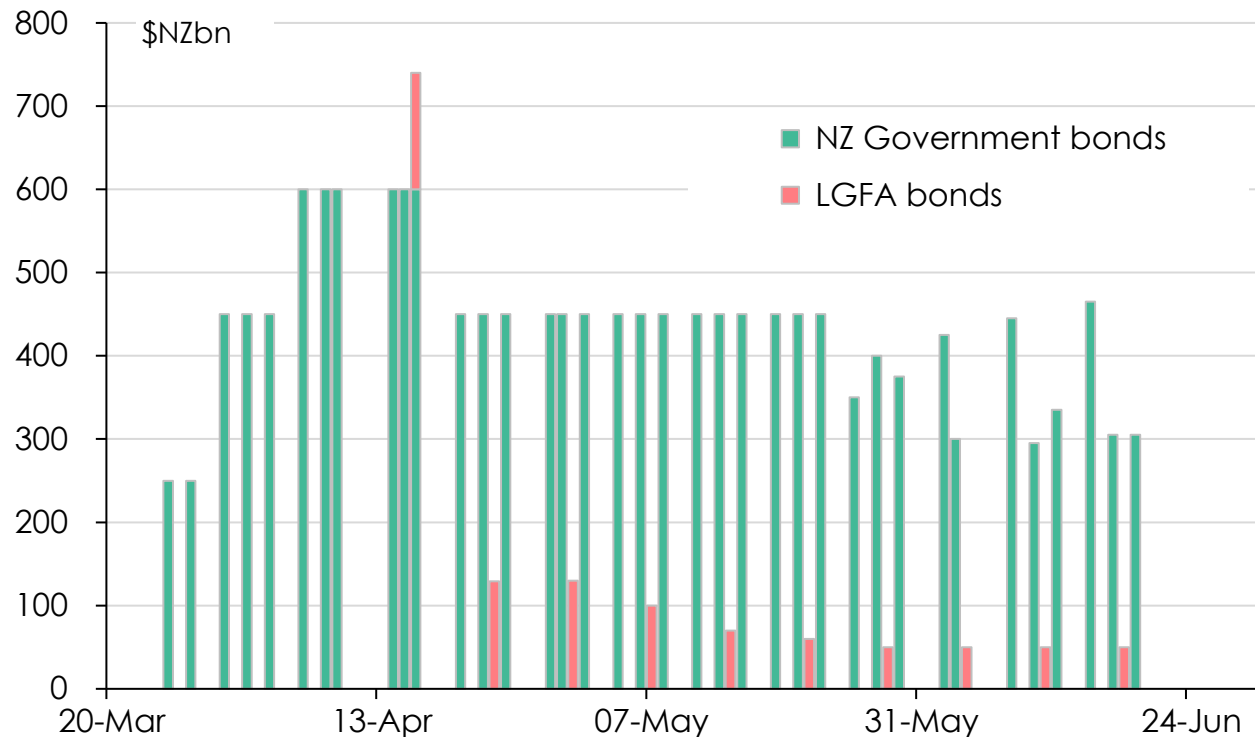
Annual growth in New Zealand real GDP, 1861-2023



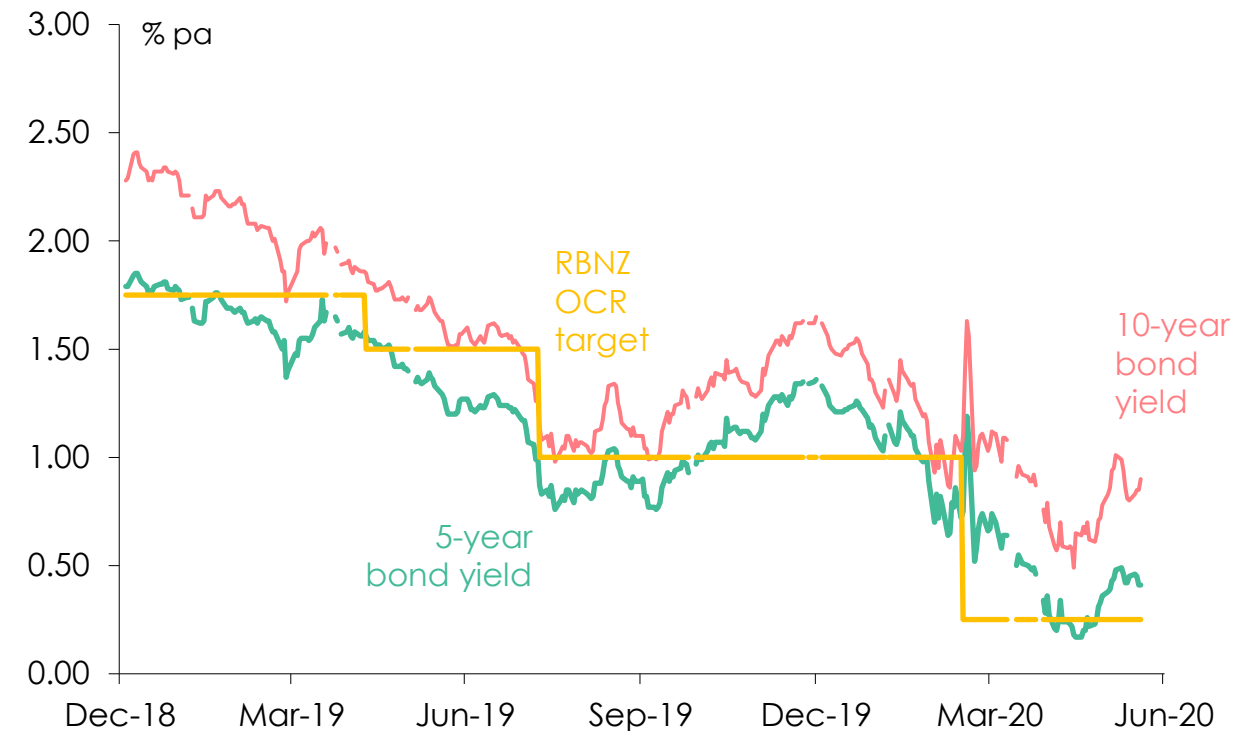
Note: Forecasts are for years ended 31 March. Source: RBNZ, Monetary Policy Statement, May 2020.

The RBNZ's 'QE' program has been larger than the RBA's, but less successful in stabilizing bond yields

RBNZ open market bond purchases



New Zealand interest rates

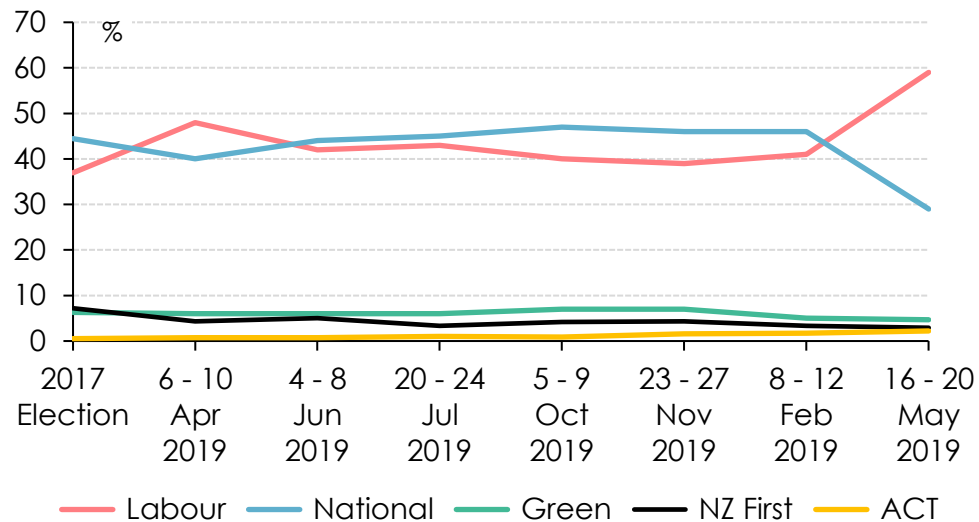


- ❑ RBNZ has adopted an ECB-style QE program, establishing a Large Scale Asset Program initially set at \$NZ33bn (10½% of GDP), since increased to \$60bn (19% of GDP)
- ❑ Since 25th March RBNZ bond purchases have amounted to \$NZ17.3 bn (5.6% of GDP) – but have been less successful than the RBA's in stabilizing medium-term bond yields
- ❑ The RBNZ has asked banks to prepare operationally for the possibility of negative interest rates

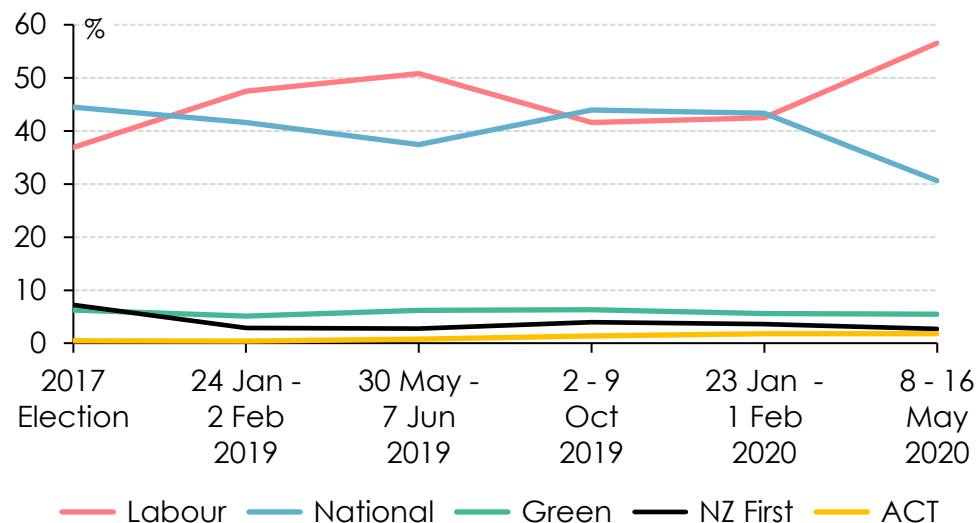
Note: LGFA = Local Government Financing Authority. Source: Reserve Bank of New Zealand. Data up to 19th June.

PM Jacinda Ardern's Labour Party seems likely to win a large majority in its own right at the elections to be held on 19th September

Colmar-Brunton 1-News poll



Reid Research TV3 poll



- ❑ **New Zealand uses a 'mixed member proportional' (MMP) system to determine the composition of its 120-seat Parliament**
 - 71 members are elected from constituencies (of which 7 are reserved for Māori) on a 'first past the post' basis (as used for the British House of Commons)
 - the other 49 are chosen from party lists so as to ensure that each party has the same share of seats in the Parliament as its share of the national vote, provided that it has won at least 5% of the national vote or one constituency seat (similar to the system used for the German Bundestag)
 - each elector has 2 votes, one for his or her constituency and one for a party list

- ❑ **At the 2017 election, the then incumbent centre-right National Party won 56 seats with 44.6% of the vote, but Labour which won 46 seats with 36.9% of the vote was able to form government in coalition with the conservative-populist NZ First (9 seats with 7.2% of the vote) and the Greens (8 seats with 6.3% of the vote)**

- ❑ **Opinion polls conducted since the election date was announced indicate that Labour is headed for a landslide win, with 75-79 seats – enough to form government in its own right**
 - NZ First looks unlikely to meet the 5% threshold for list seats, and the Greens may also fall short

Note: 'ACT' is the Association of Consumers and Taxpayers, a libertarian party which currently holds one constituency seat in the NZ Parliament.
Sources: New Zealand Electoral Commission; Colmar Brunton; Reid Research.

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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