

ECONOMIC IMPACT OF THE CORONAVIRUS PANDEMIC

25TH JULY 2020

SAUL ESLAKE
CORINNA ECONOMIC ADVISORY PTY LTD

What's new?

The world

- ❑ 1,690,369 new Covid-19 cases were confirmed this week, the highest so far, taking the cumulative total to almost 15½mn; while 43,410 people died (the highest number since the week ended 34th April) taking the total number of deaths to 633,122 (slide 3)
- ❑ Five countries which are still yet to 'flatten' their infection curves – the US, India, Colombia, Indonesia and the Philippines – accounted for half of last week's new cases; while a number of other large countries where cases had been rising rapidly appear now to have flattened their curves (slide 5)
- ❑ The European Union 'signed off' on a €750bn 'Next Generation EU' fund (equivalent to 4.7% of EU GDP) to assist countries to recover from the Covid recession – of which €390bn will be distributed as grants; it will be funded by borrowing (for the first time) by the European Commission on behalf of member states
- ❑ Meanwhile in the US, Congress has so far been unable to agree on a new fiscal stimulus package to avert a looming 'fiscal cliff', with Democrats wanting a US\$3.4trn boost (including \$1trn in aid to state and local governments) while Republicans want to limit measures to a total of about US\$1trn
- ❑ Partly reflecting these developments the US\$ slumped against the euro to its lowest level since September 2018 (slide 26)
- ❑ Korea's economy contracted by 3.3% in Q2, the largest decline since the Asian crisis of 1998, after a 1.3% decline in Q1 (slide 36)
- ❑ At least three Asian central banks (those of Korea, the Philippines and Indonesia) are undertaking forms of 'QE' (slides 39-40)

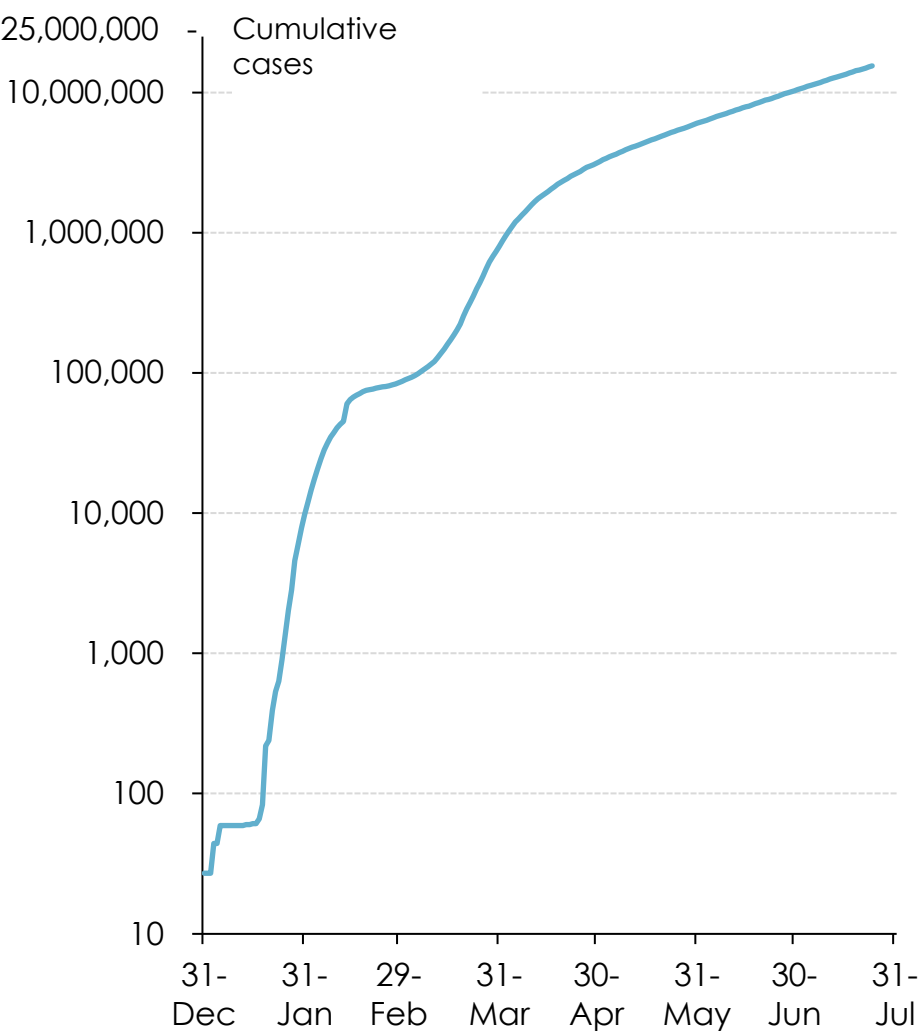
Australia

- ❑ Australia recorded 2,532 new Covid-19 cases this week, exceeding the previous peak in the week ended 27th March, while 24 people died, the highest number in any week since that ended 10th April; there were 3,889 active cases on Friday (including 211 in hospital), the highest number since 4th April (slide 7)
- ❑ Victoria accounted for 2,240 (80%) of the new cases reported this week, bringing its total to 7,405 – more than double NSW's, even though NSW's population is 1½ mn (22%) larger than Victoria's (slide 8); all of the deaths from Covid-19 this week were also in Victoria
- ❑ The Federal Treasurer presented an 'Economic and Fiscal Update' this week, confirming that a budget deficit of \$86bn (4.3% of GDP) was likely to have been recorded in FY 2019-20 (cf. a \$5bn surplus expected at December last year's Mid-Year Economic & Fiscal Outlook), while a deficit of \$185bn (9.7% of GDP) is forecast for 2020-21 (slide 78) – although on current policy settings fiscal policy will effectively tighten from Q4 onwards (slides 82-83)
- ❑ The Federal Government's net debt is forecast to rise to \$677bn (36% of GDP) by 30th June next year, and gross debt to \$852bn (45% of GDP) – but thanks to record-low interest rates, interest payments as a pc of GDP will be lower than in any year between 2013-14 and 2018-19 (slides 79-81)
- ❑ Federal Treasury forecast a 2½% decline in real GDP in FY 2020-21, after a ¼% decline in 2019-20 (slide 93), largely driven by an expected 7% decline in Q2
- ❑ RBA Governor Phillip Lowe again downplayed the prospect of negative interest rates in Australia, or of Australia experimenting with 'modern monetary theory' (slide 87)

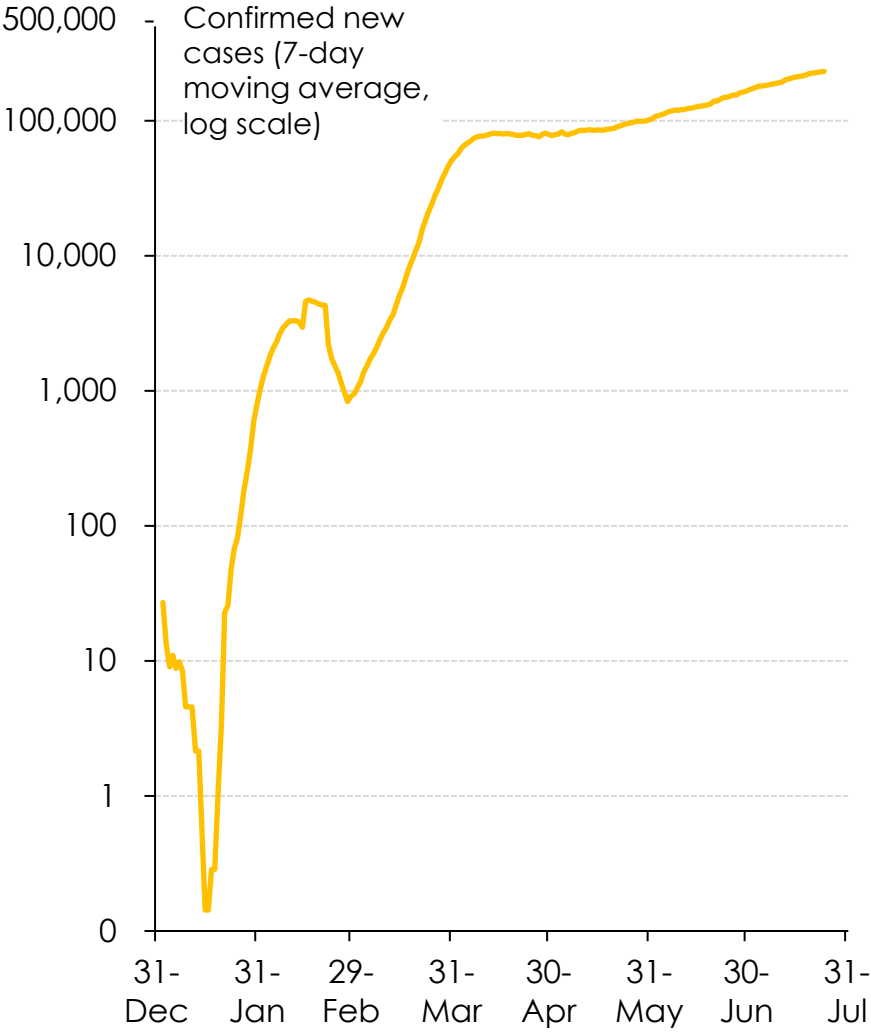
The virus

There have been 1.7 mn new cases world-wide over the past 7 days, taking the global total to almost 15½mn, while the death toll now exceeds 633,000

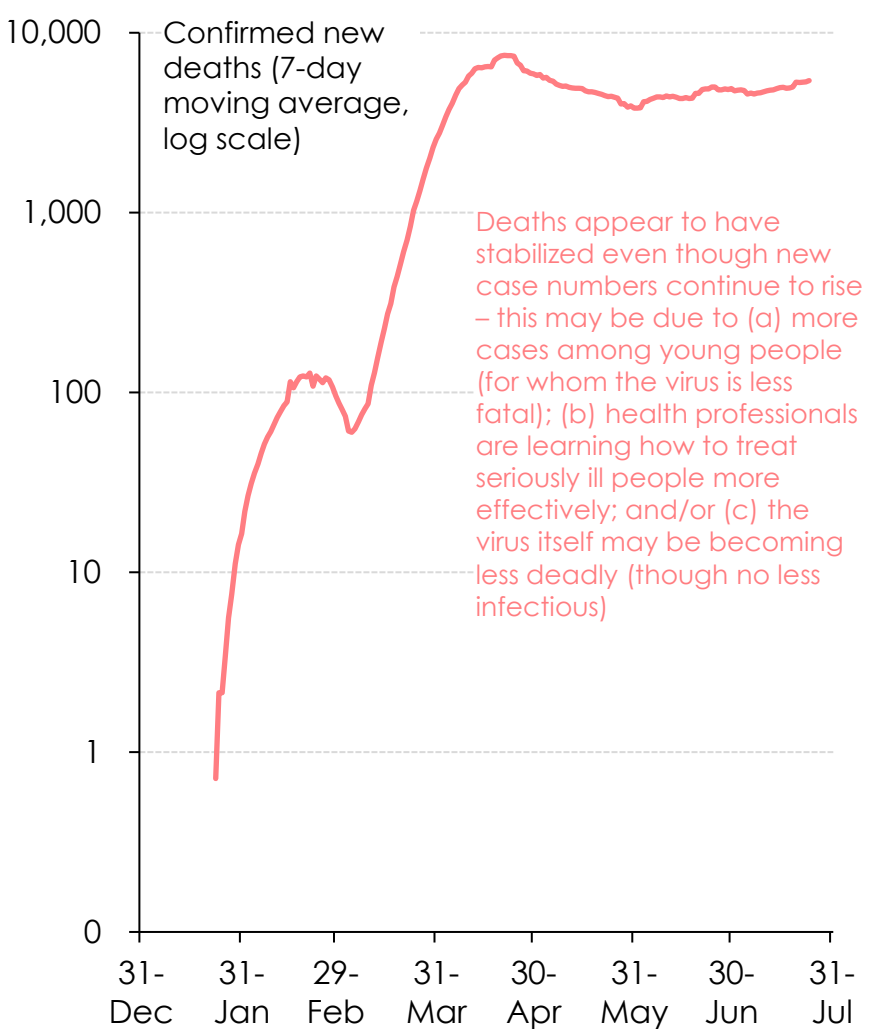
Cumulative confirmed cases – global total



New confirmed cases – global total



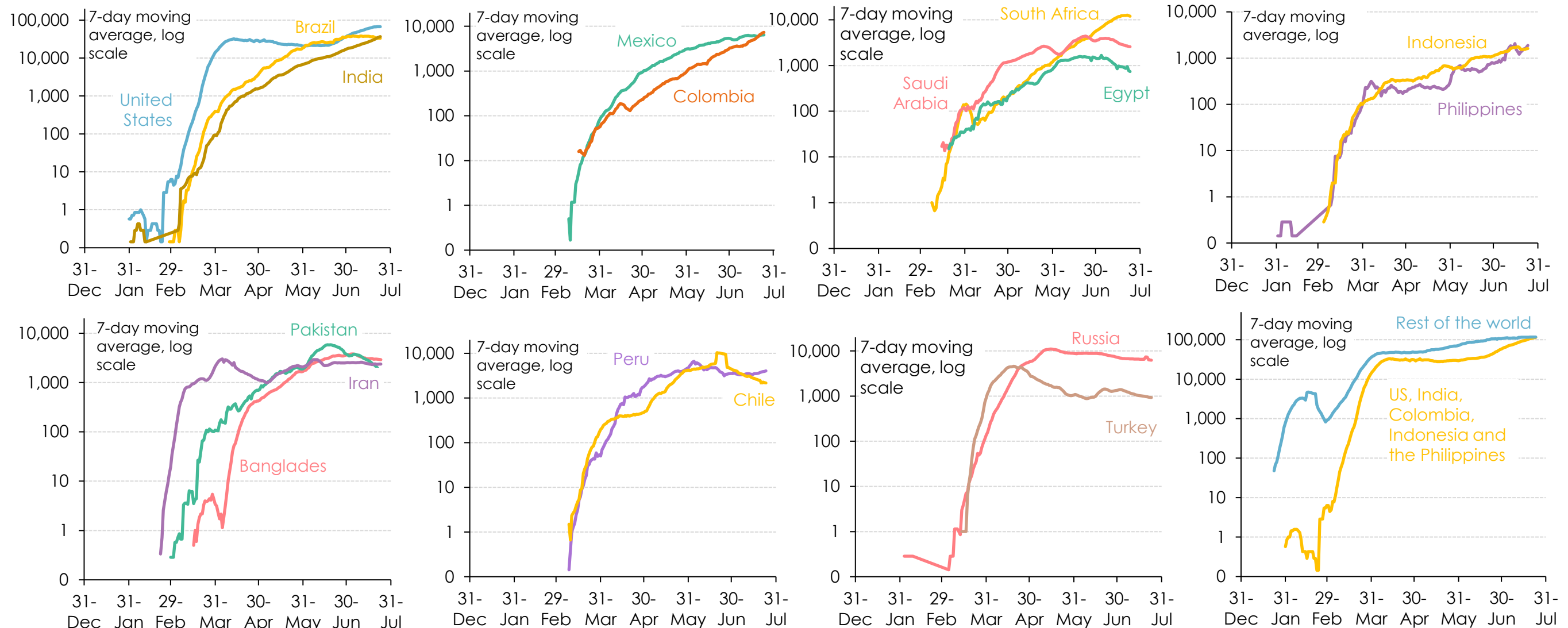
New deaths – global total



Note: Data up to 24th July. Source: University of Oxford, Our World in Data.

The US, India, Colombia, Indonesia and the Philippines are yet to 'flatten' their curves – but most other large countries now seem to have

Daily new cases – 19 countries with large populations

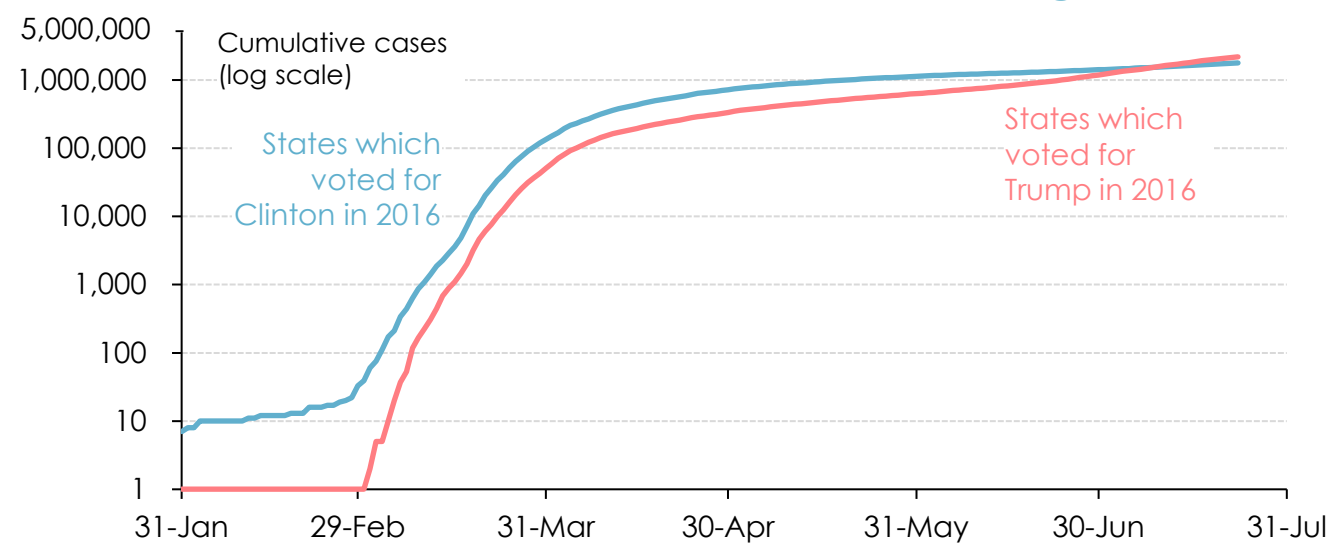


Note: Data up to 24th July. For data suggestive of the 'credibility' of selected countries' testing regimes see slide 11.

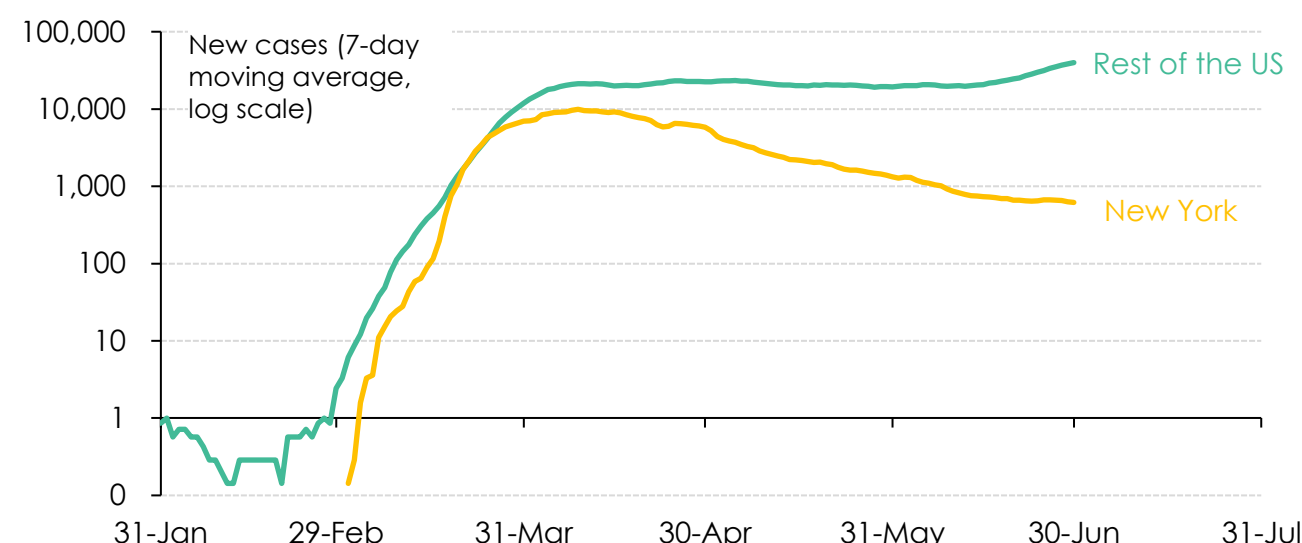
Source: University of Oxford, Our World in Data; Corinna.

In the United States, new Covid-19 cases in 'red states' now outnumber those in 'blue states'

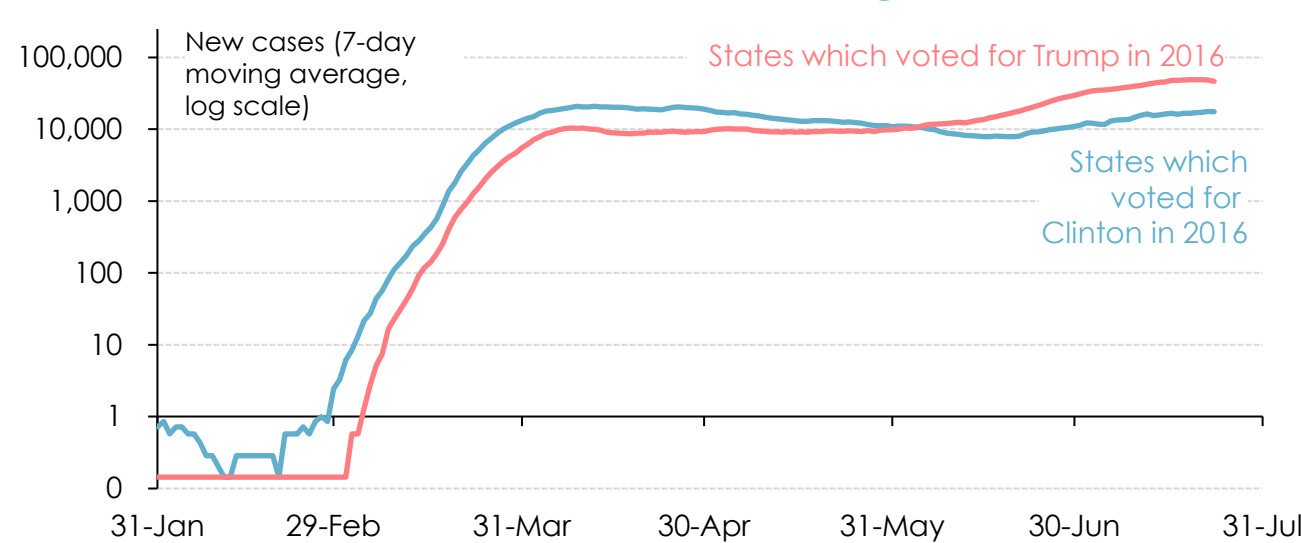
Cumulative cases, by 2016 Electoral College vote



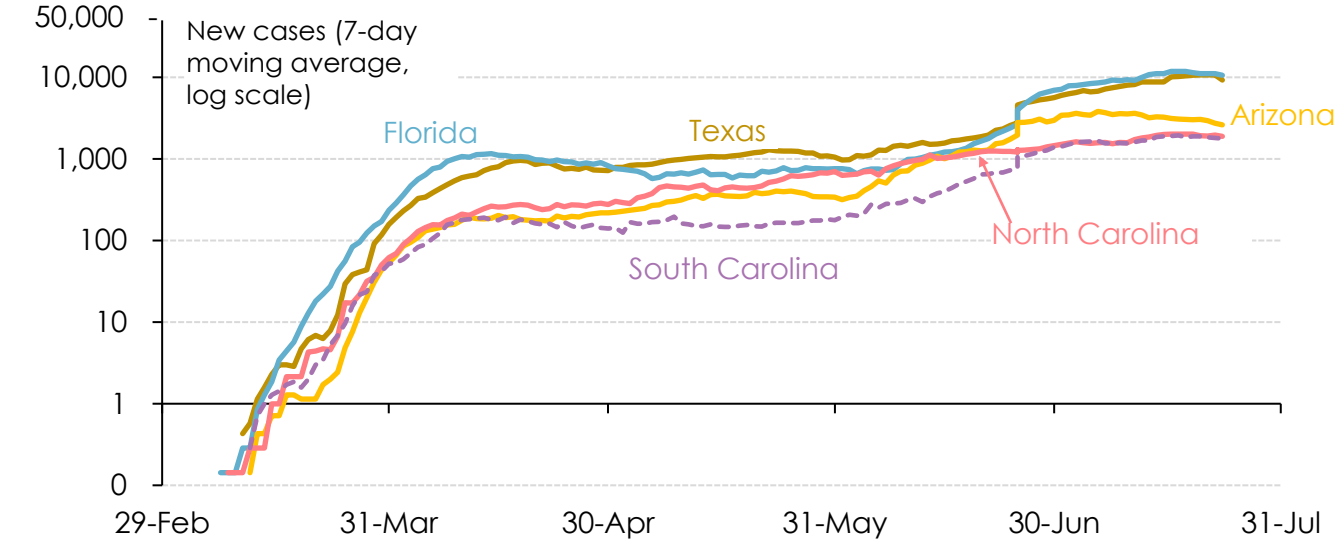
New cases, New York vs rest of the United States



New cases, by 2016 Electoral College vote



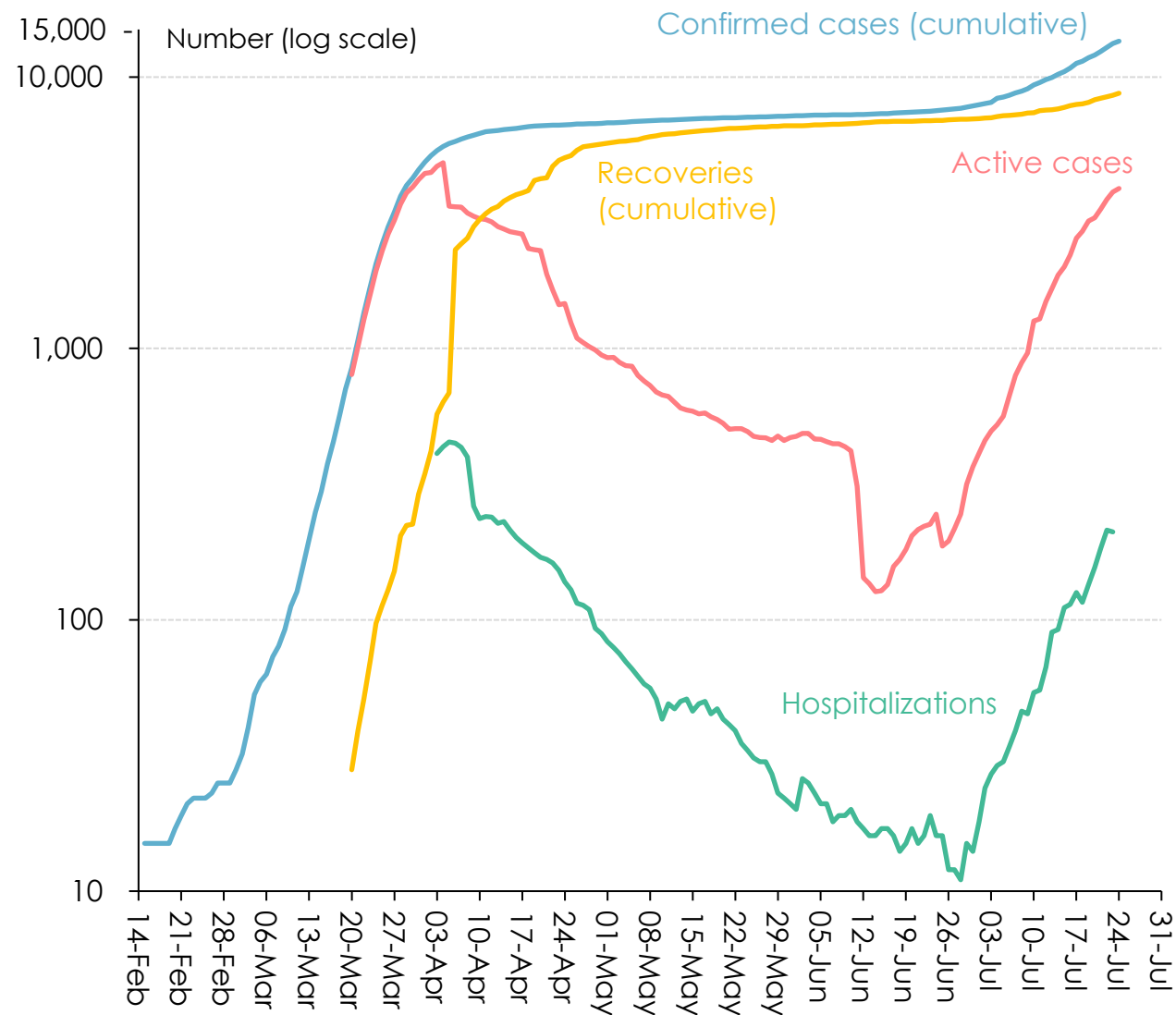
States with fastest recent increases in new cases



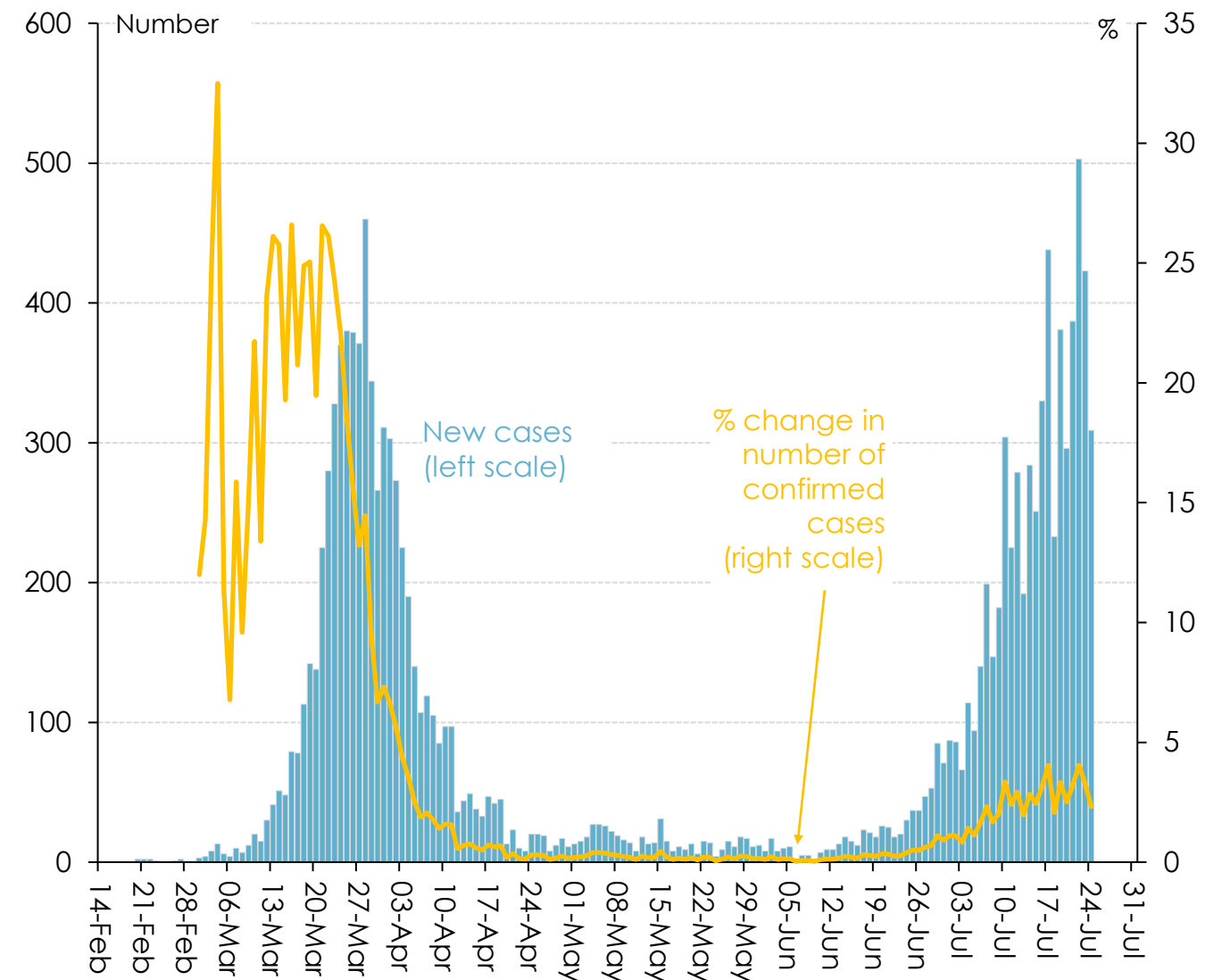
Note: Cases for Maine (whose Electoral College votes are awarded separately by each of its two Congressional districts) are split by how each of its 16 counties voted in 2016. Sources: USAFacts.org; Centers for Disease Control and Prevention; Corinna. Latest data are for 23rd July.

The number of new cases in Australia has risen rapidly since the end of June, when restrictions began to be eased in most states

Cases, recoveries and hospitalizations



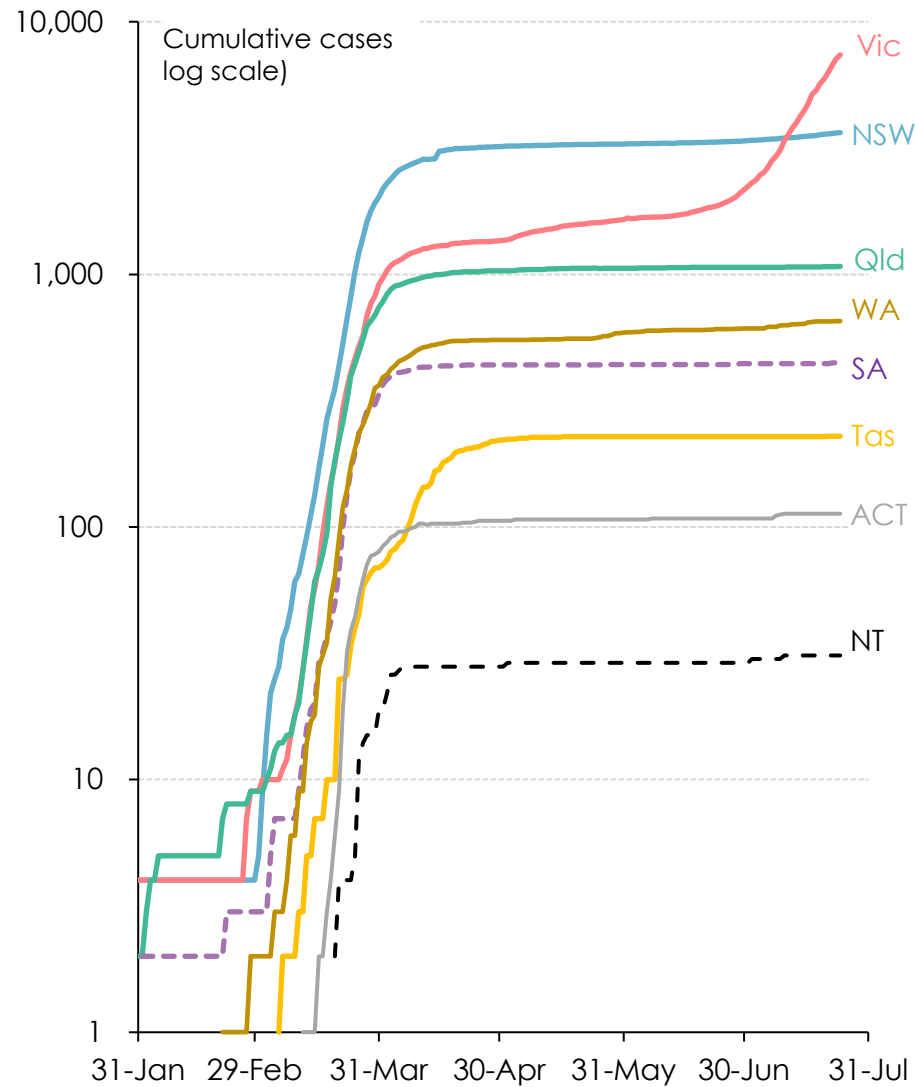
New cases



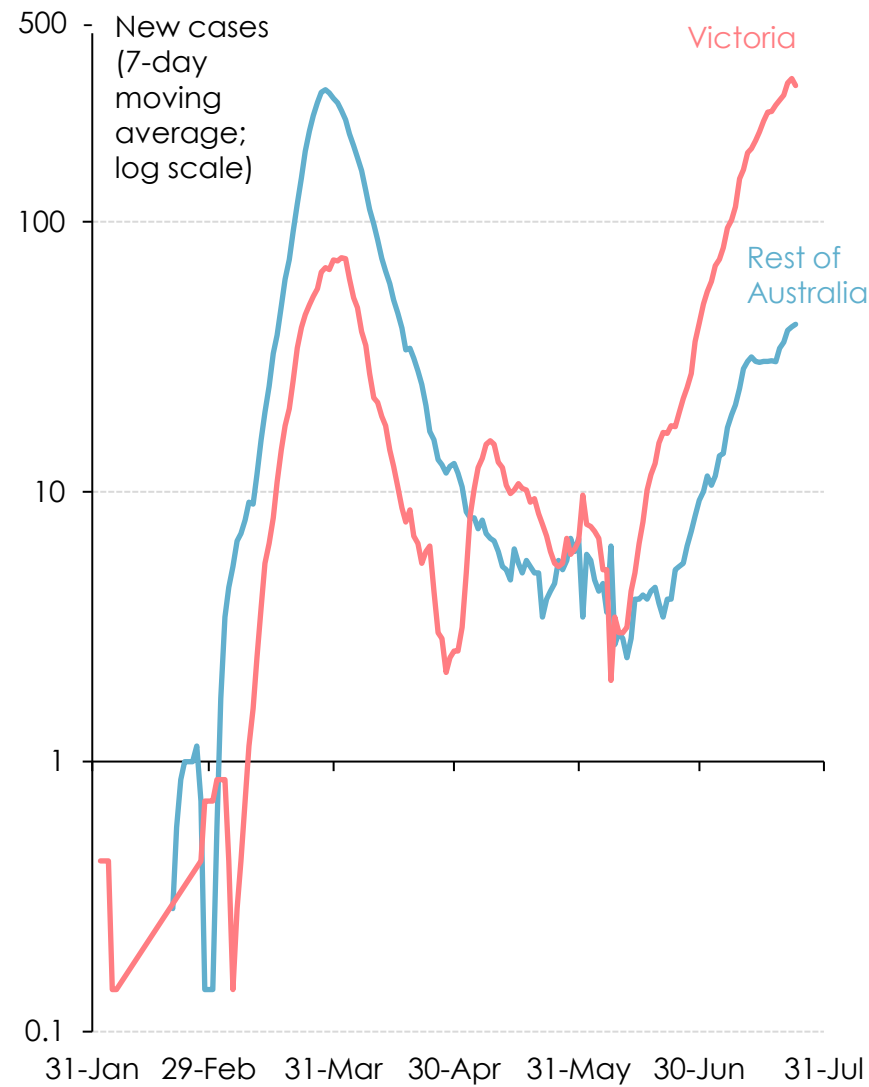
Note: Data up to 24th July. Source: covid19data.com.au

94% of the new cases in Australia over the past three weeks have been in Victoria (and almost all of the rest in New South Wales)

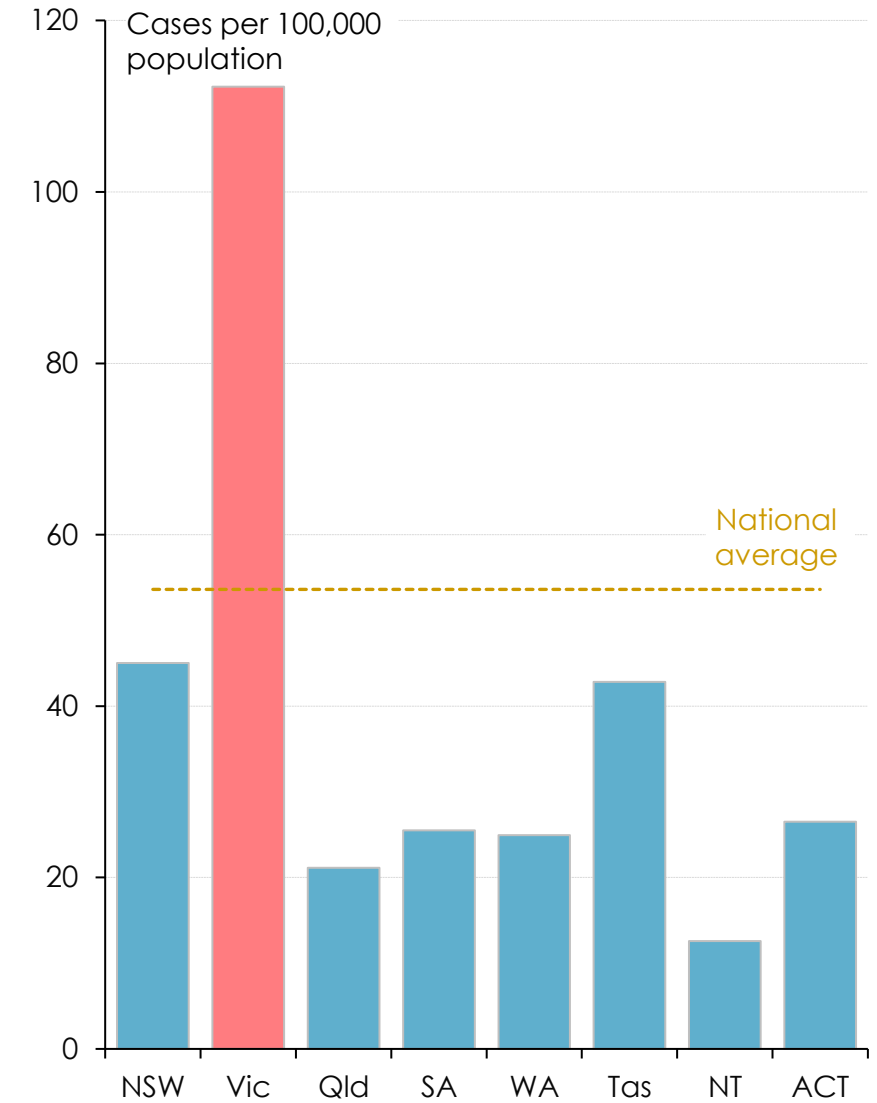
Cumulative cases, by State



New cases

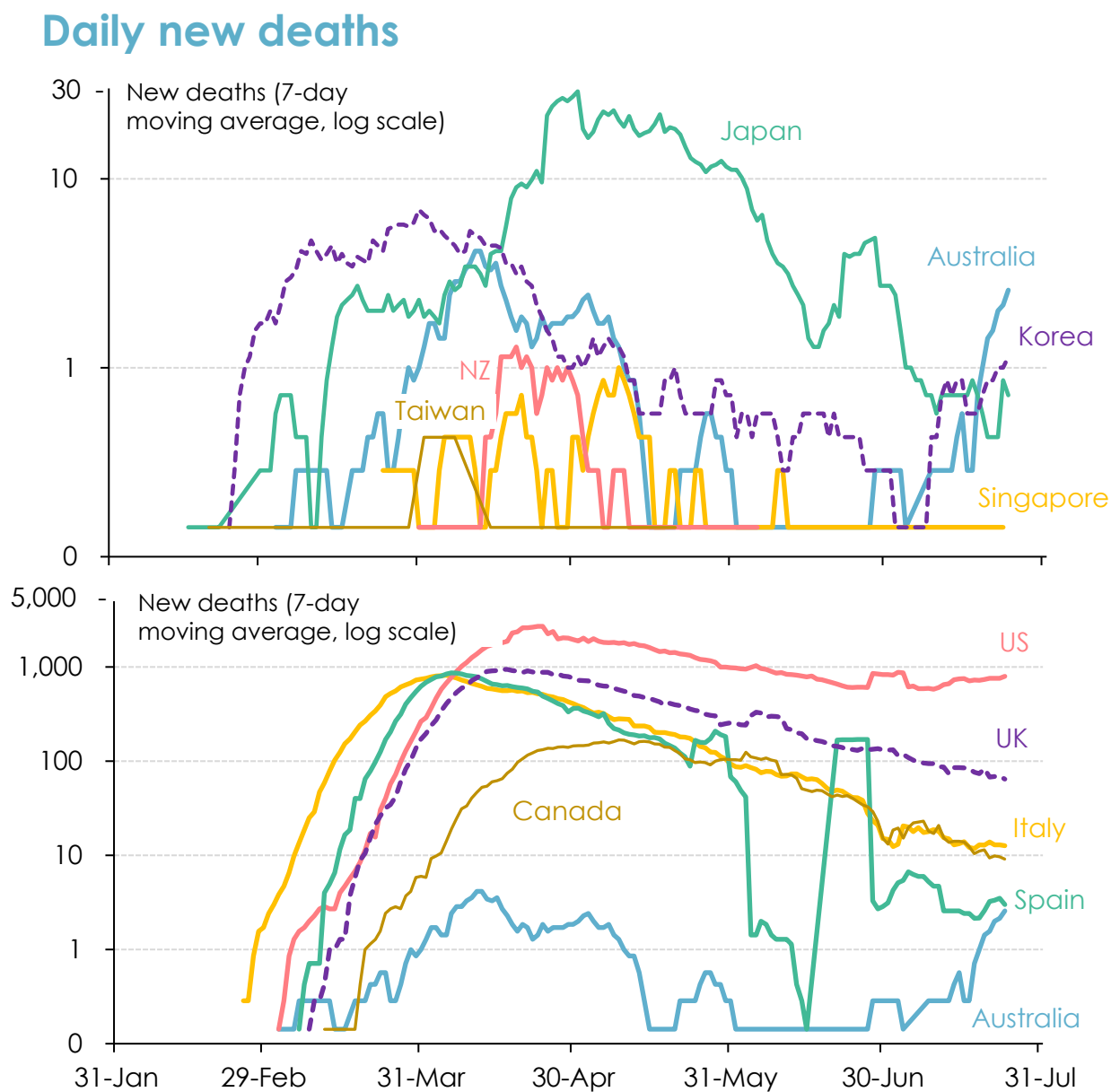
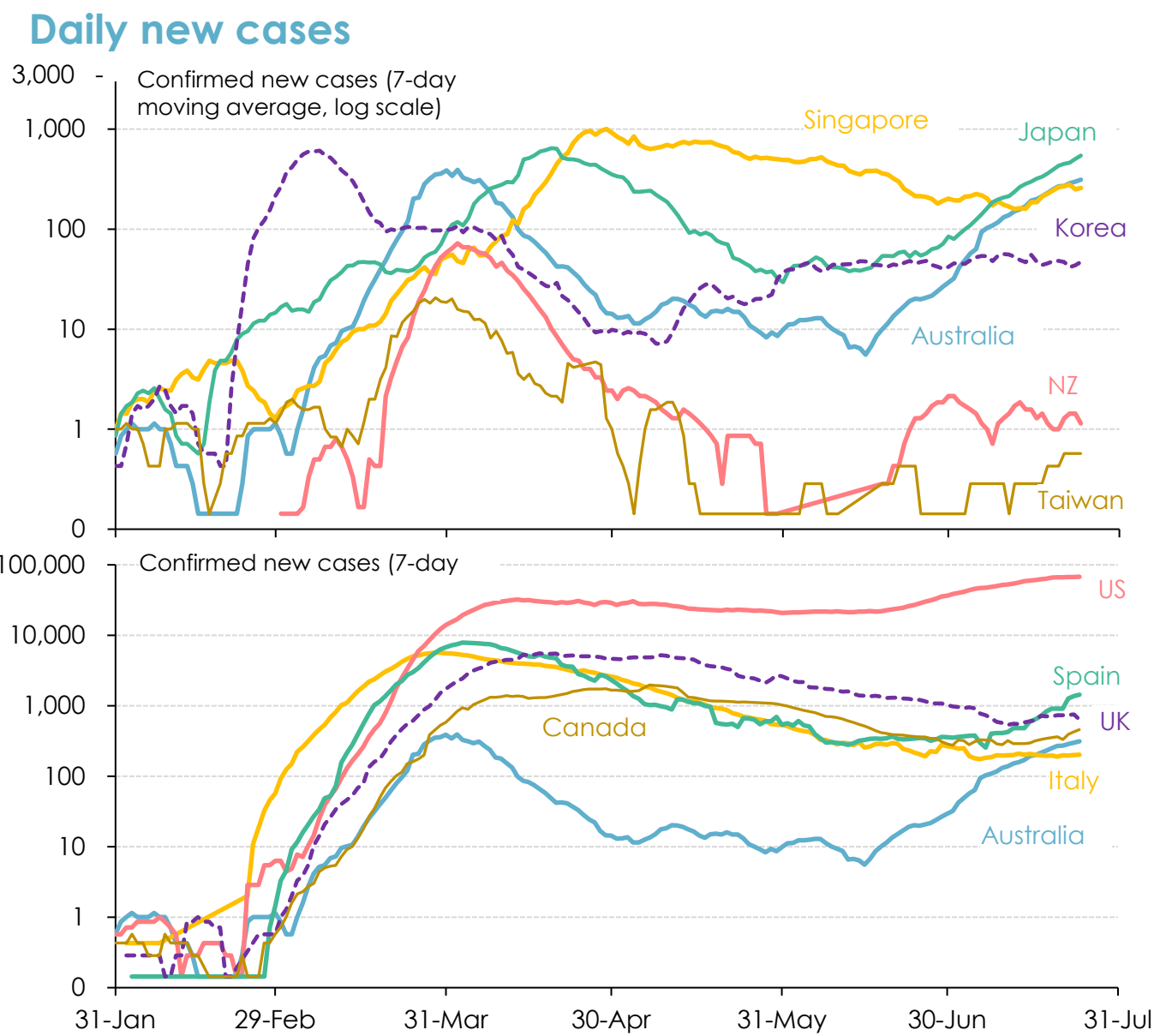


Cases per 100,000 population



Note: Data up to 24th July. Source: covid19data.com.au

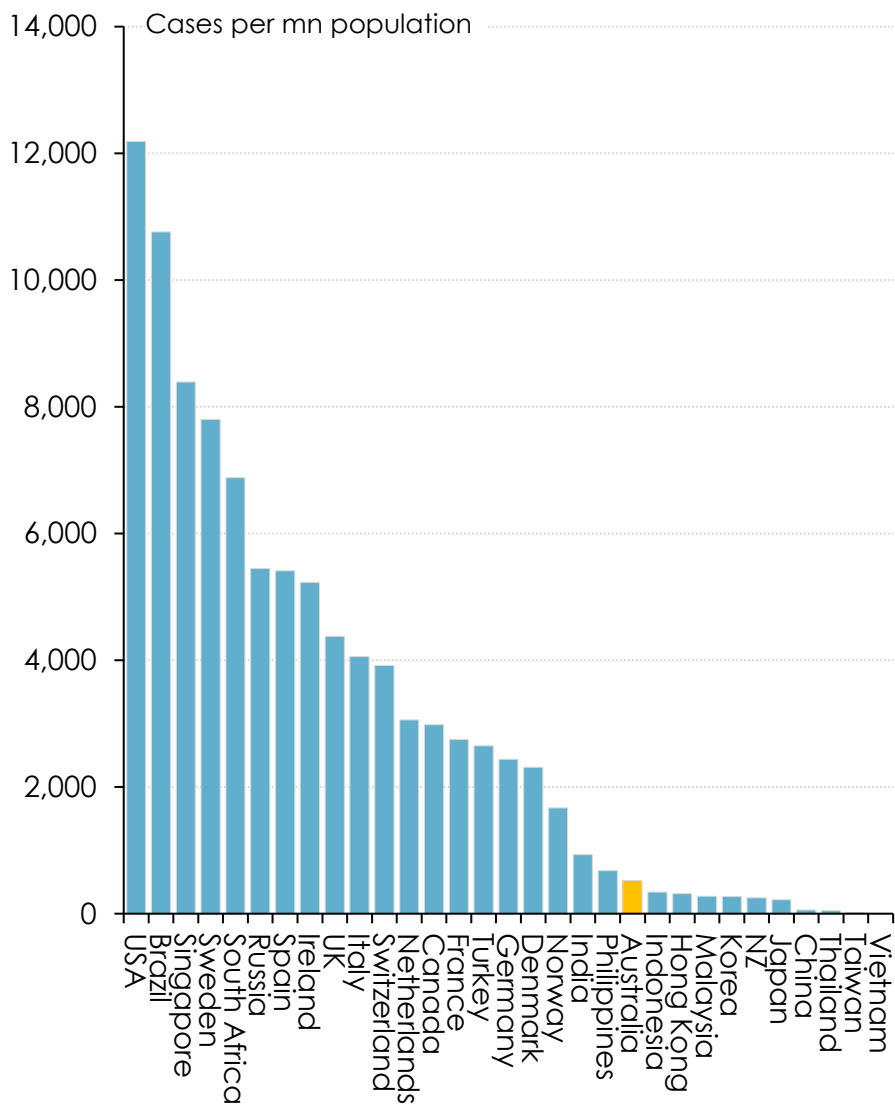
Several 'advanced' nations, including Australia, are recording a renewed acceleration in infections



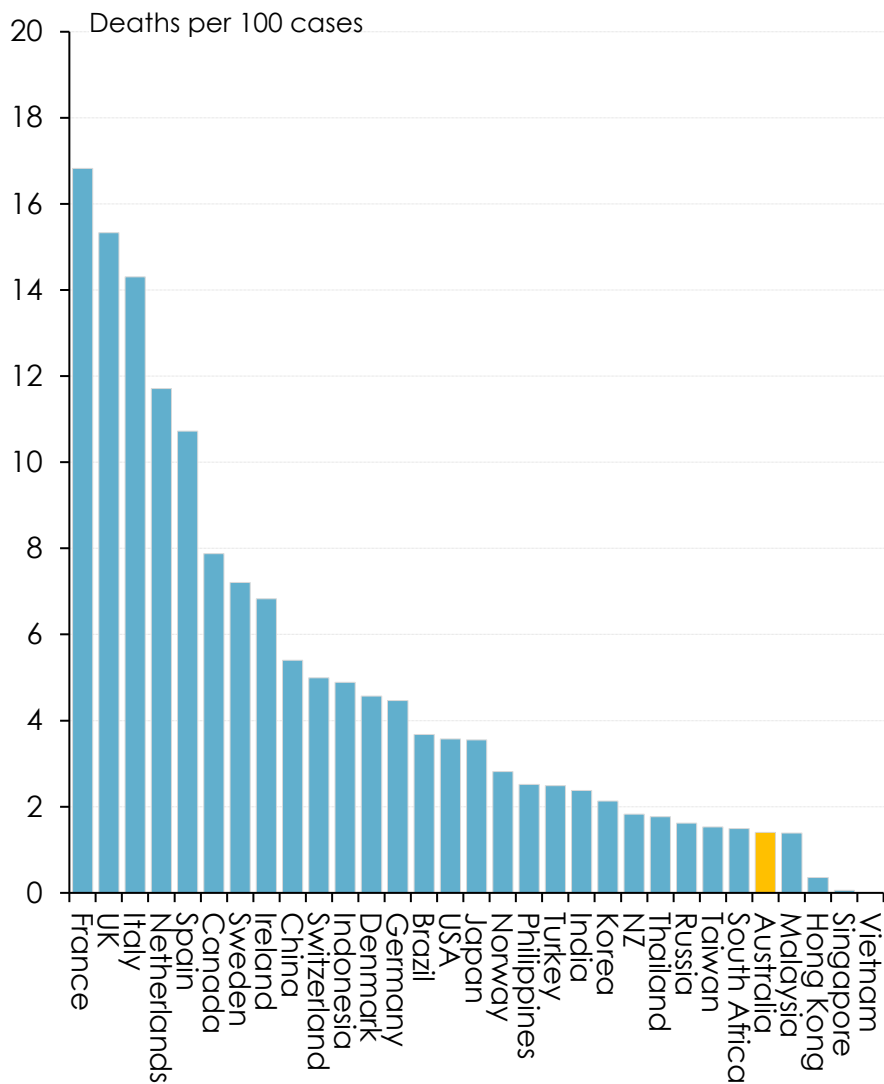
Note: Data up to 24th July. Source: University of Oxford, Our World in Data; Corinna.

Even so, Australia's infection and fatality rates remain, along with NZ's and most East Asian countries', low by international standards

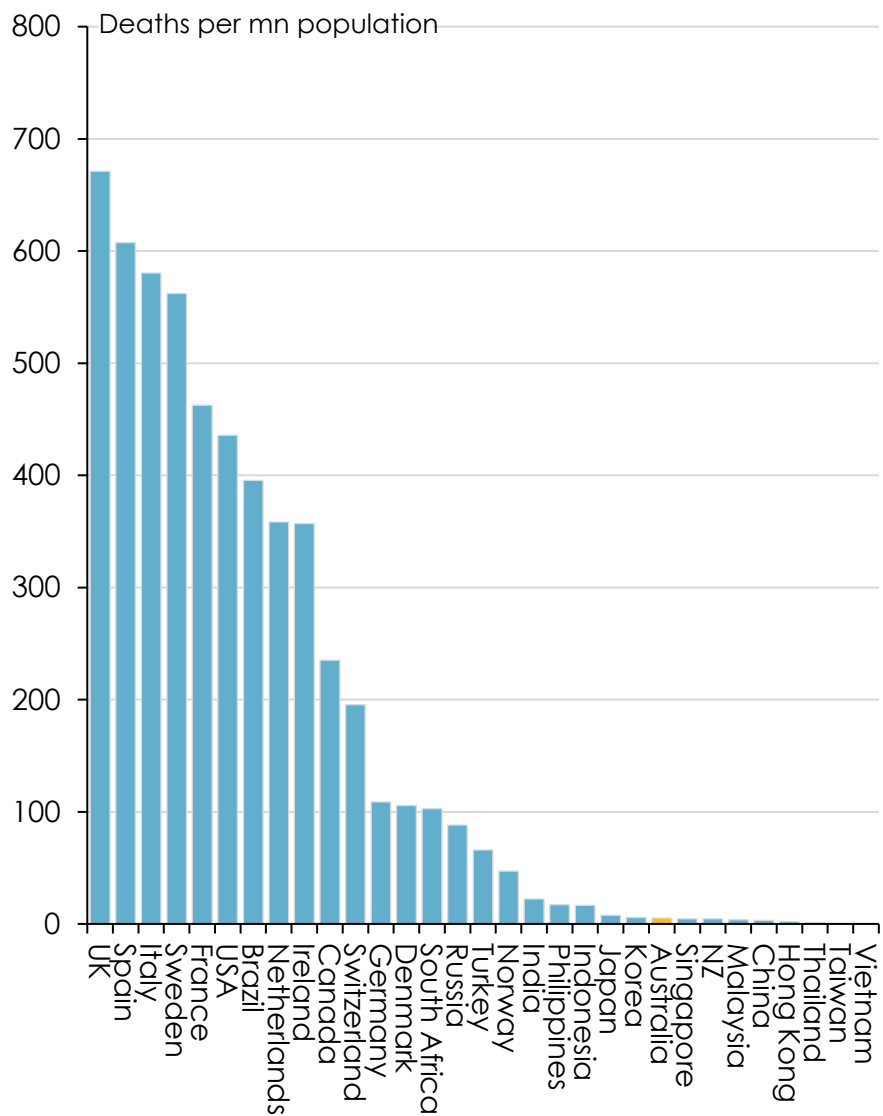
Apparent infection rate



Apparent death rate



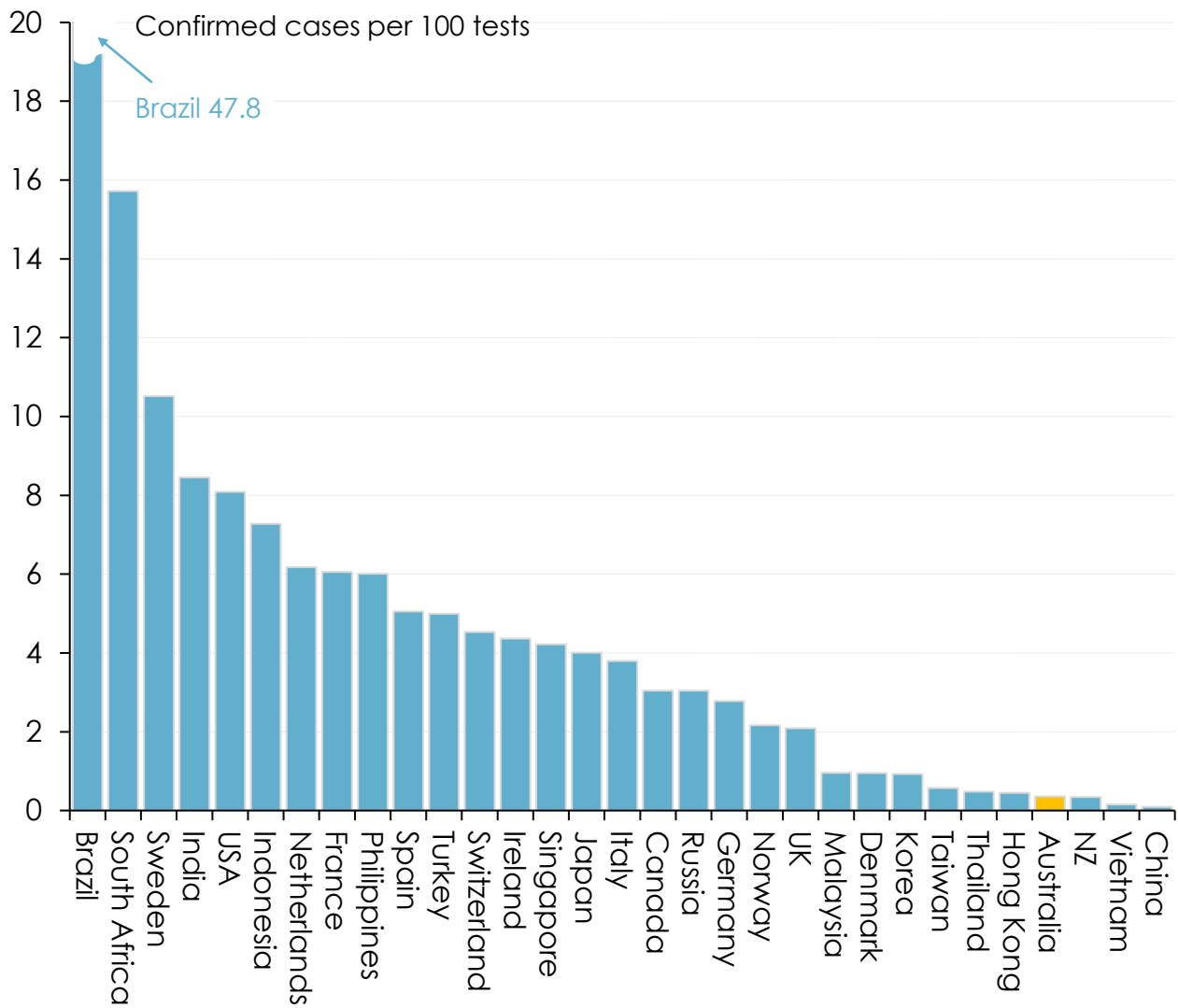
Deaths per mn population



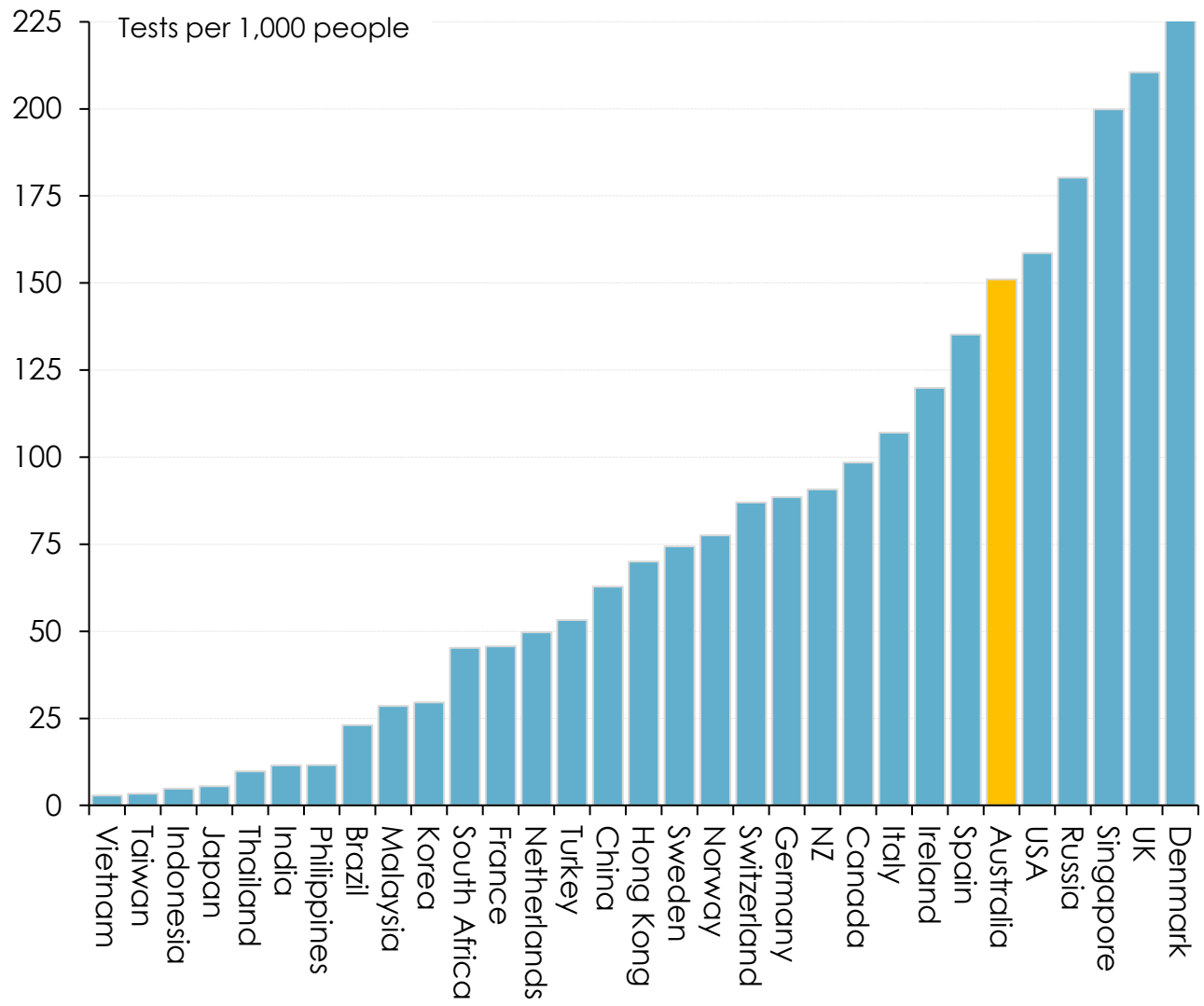
Note: Data up 24th July (except for Spain, 23rd July). Source: University of Oxford, Our World in Data; Corinna.

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



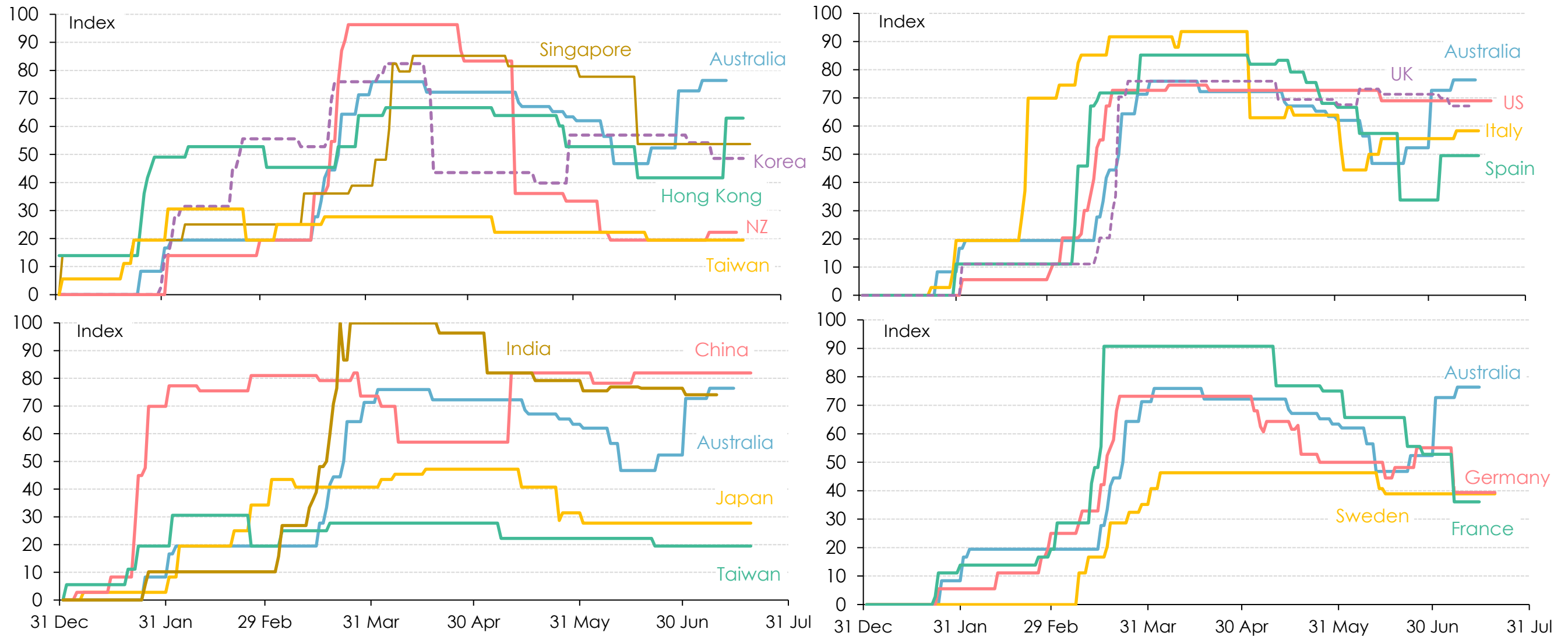
Tests per thousand of population



Note: Data up to 24th July. 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.

Restrictions continue to be eased in most countries, though some countries (including Australia) have re-imposed restrictions in local 'hot spots'

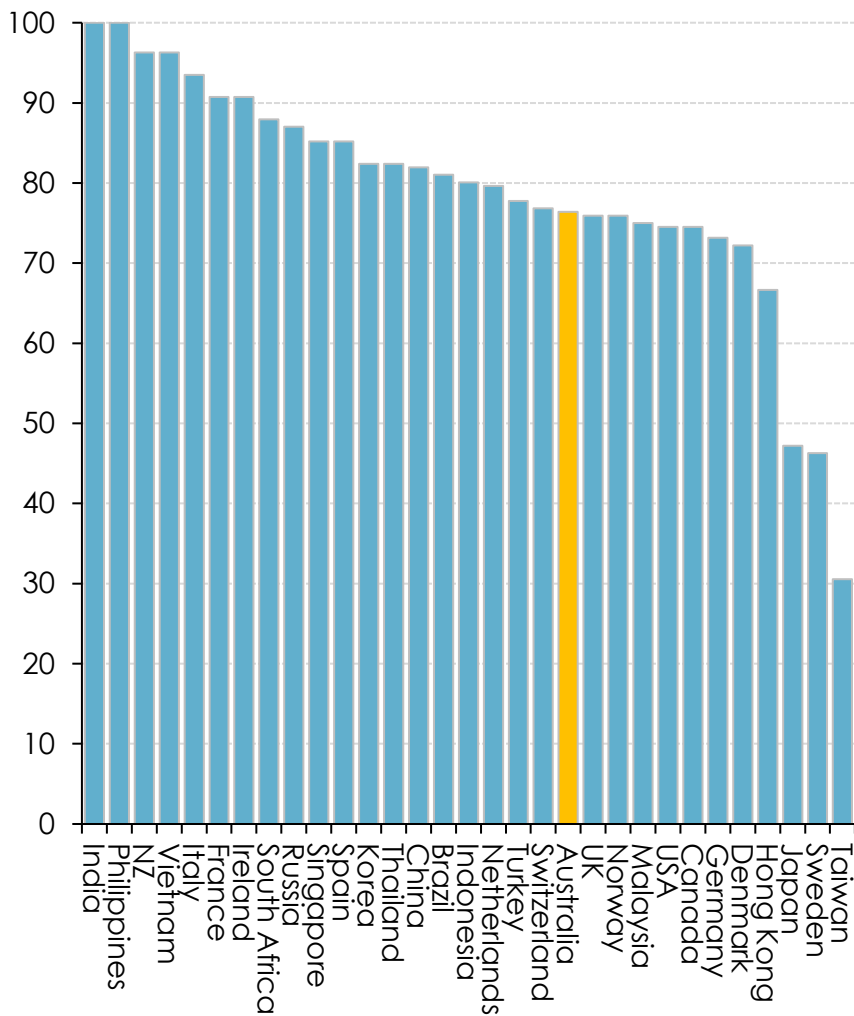
Timing and severity of government restrictions on movement and gathering of people



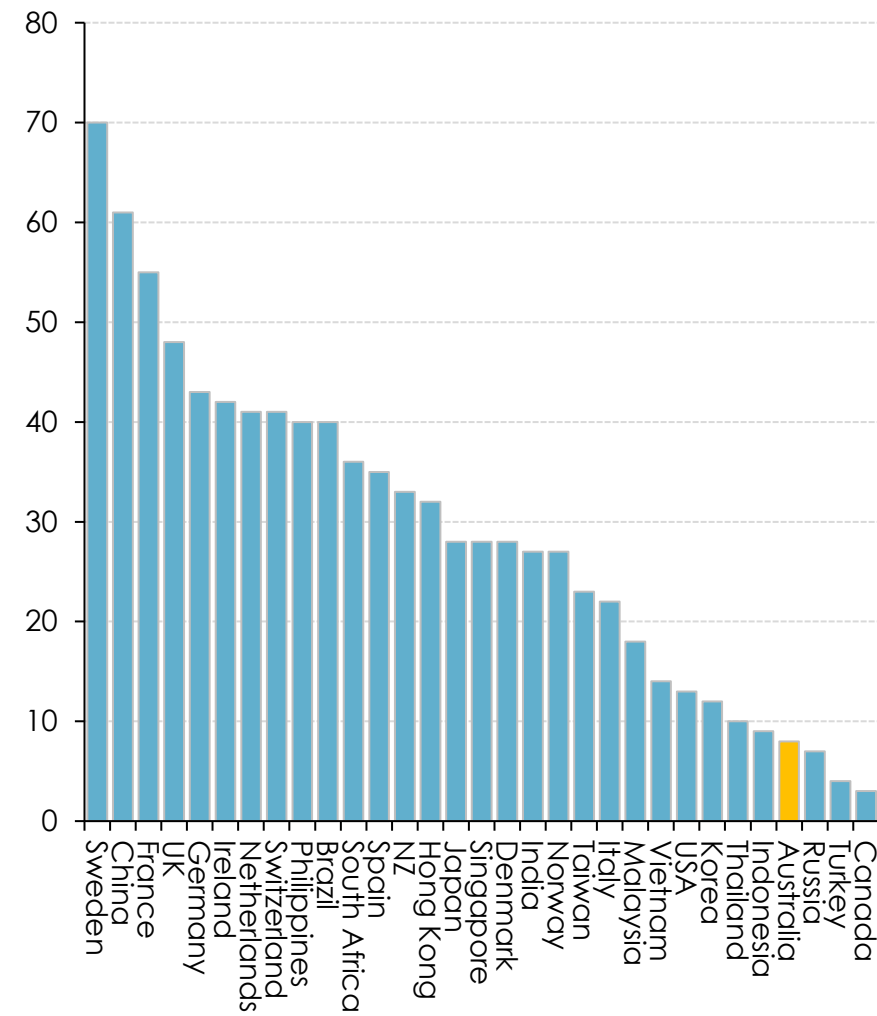
The Oxford COVID-19 Government Response Tracker collects publicly available information on 11 indicators of government response including school and workplace closures, public events cancellations, restrictions on public gatherings, stay at home requirements, public transport closures, domestic and international travel restrictions, public information campaigns, testing and contact tracing. The increase in the index for Australia since 1 July reflects the lockdown imposed on 36 Melbourne suburbs in response to outbreaks there. Source: Blavatnik School of Government, Oxford University. Data up to 16th-22nd July.

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

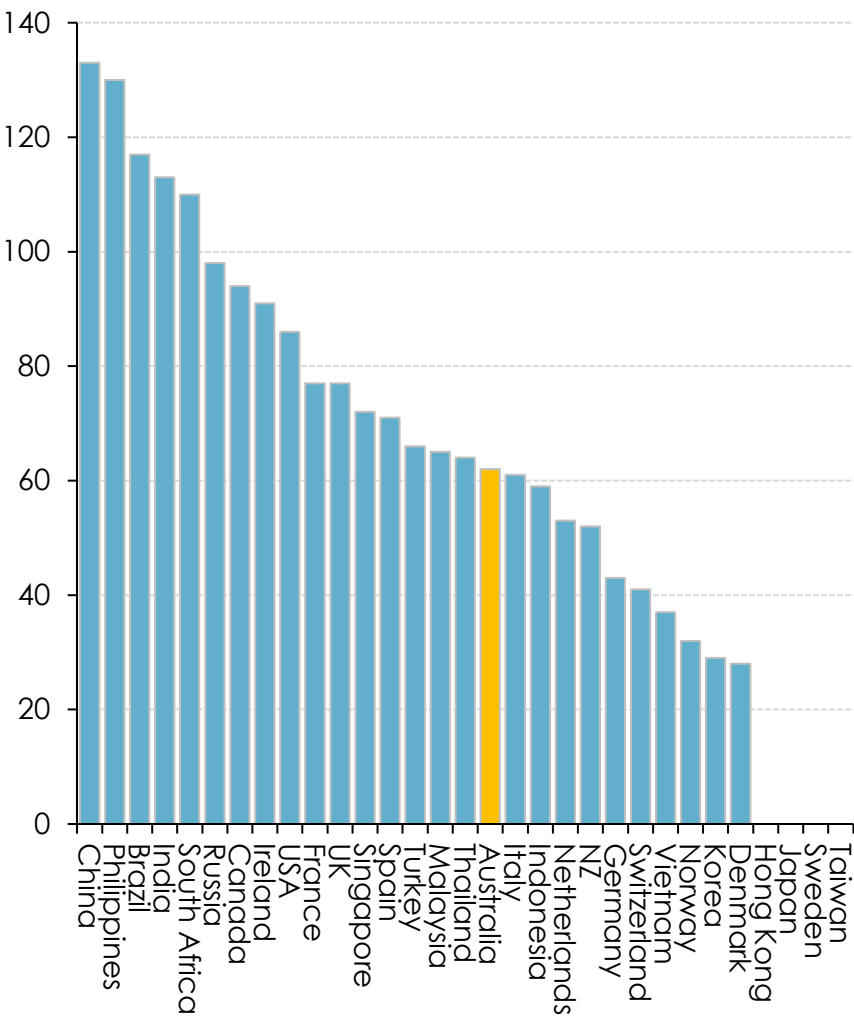
Highest level of restrictions imposed



Number of days restrictions at highest level



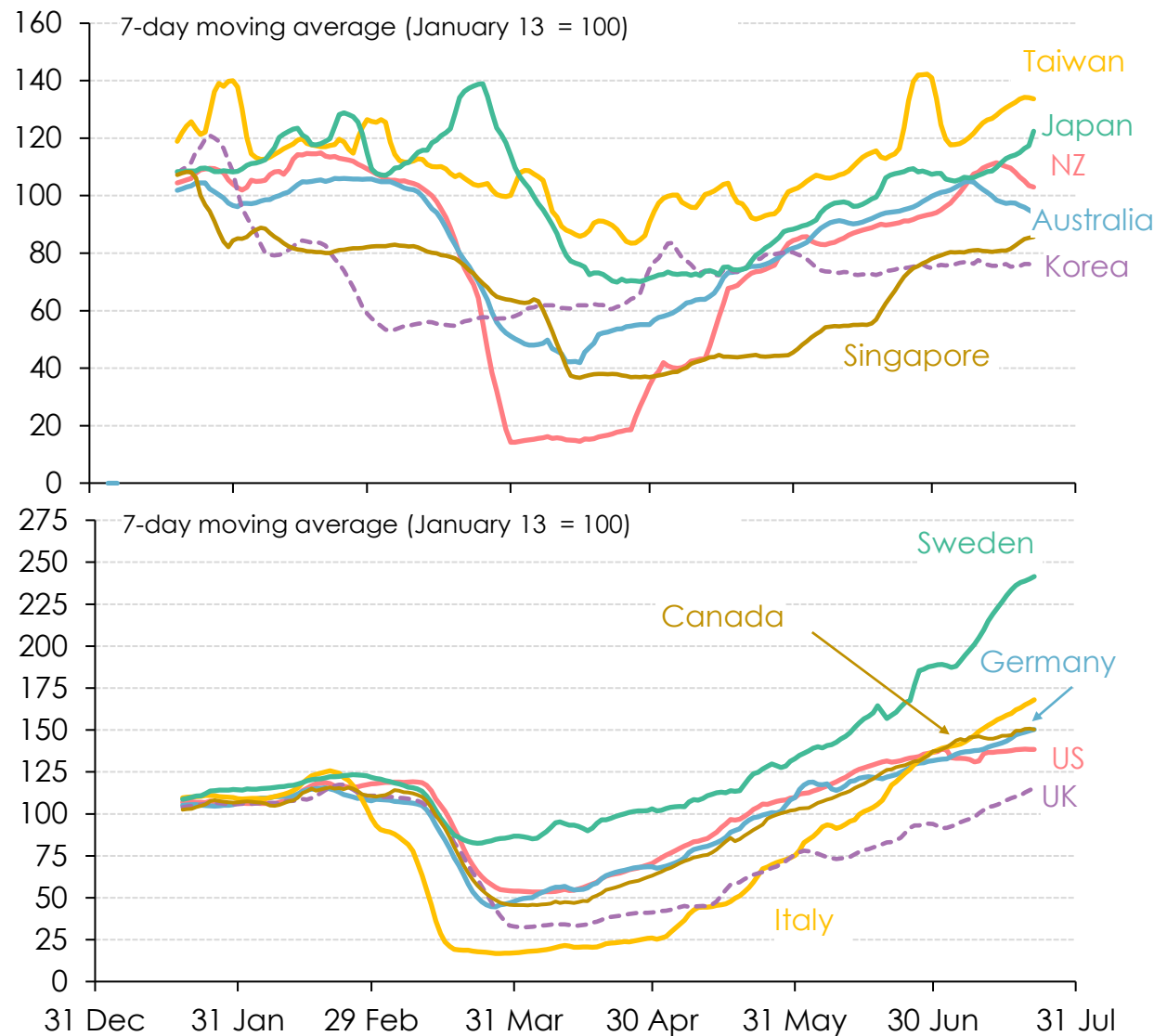
Number of days restrictions above 70 on Oxford index



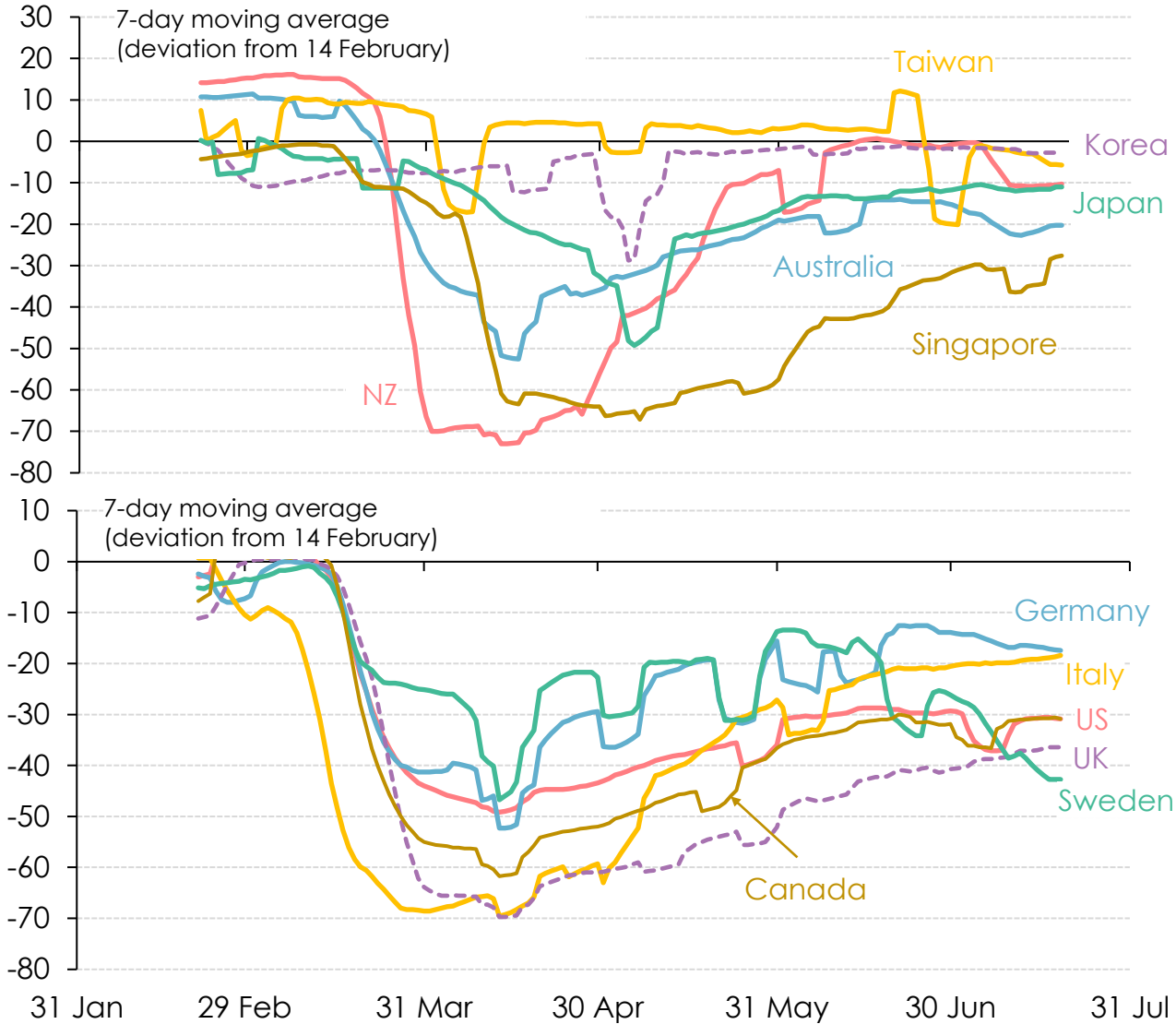
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Mobility data suggest that much of Asia is continuing to return toward more normal levels of activity, but people in the US are becoming more cautious

Time spent driving



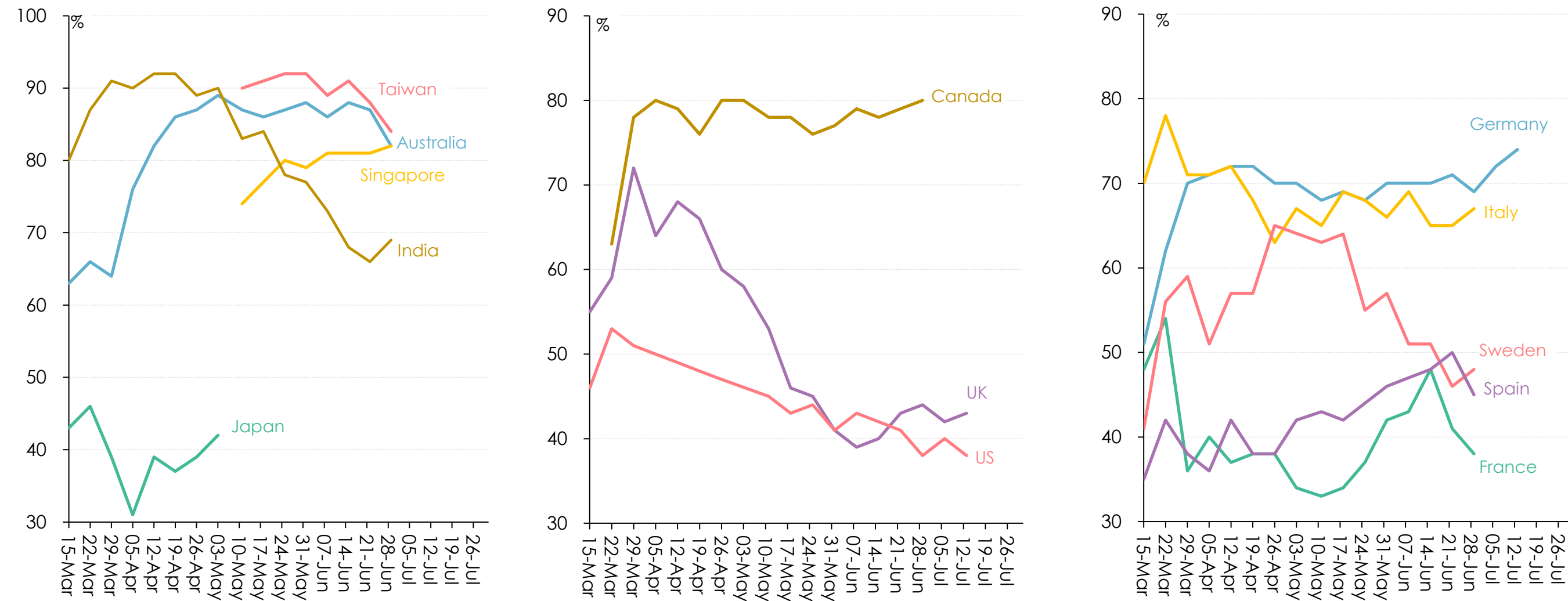
Time spent in work places



Sources: Apple Mobility Trends Reports (data up to 22nd July); Google Covid-19 Community Mobility Reports (data up to 19th July).

Satisfaction with governments' handling of the pandemic has declined in the US, Sweden, France and (from a higher base) Australia in recent weeks

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

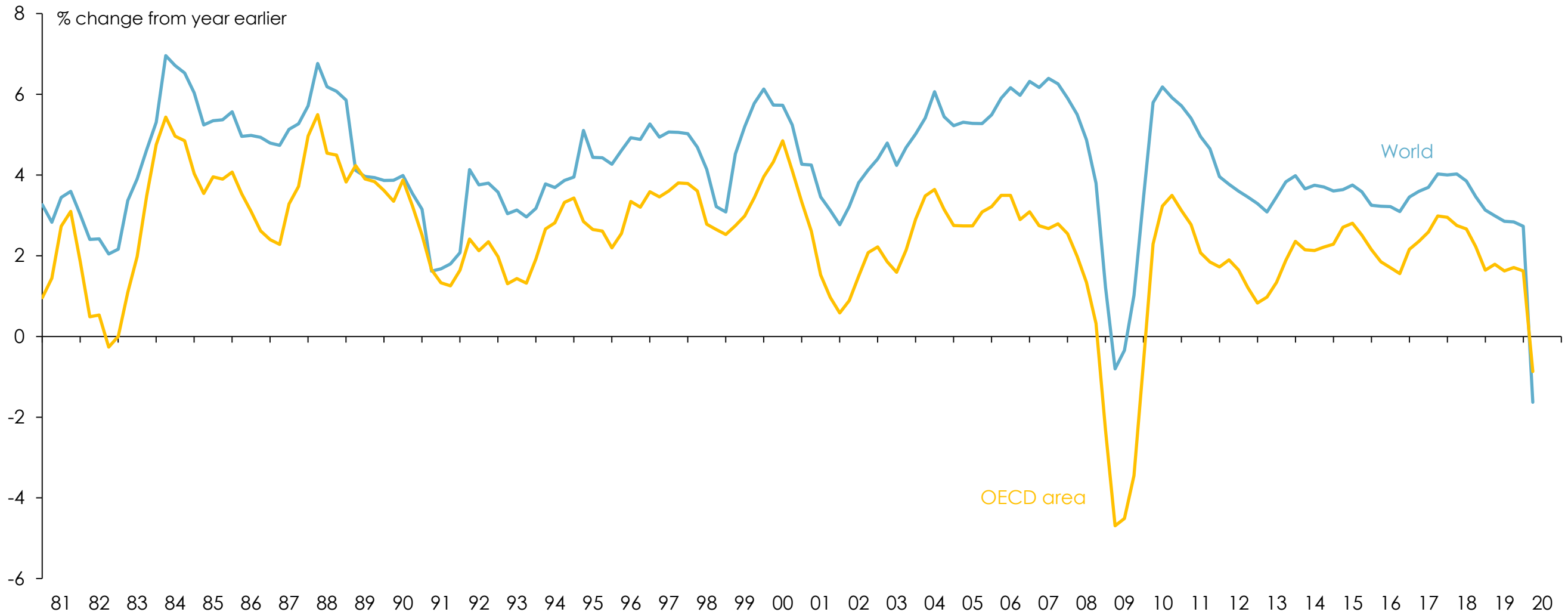


Source: YouGov. Latest data are for 13th July for the US, UK and Germany; 29th June for all other countries shown.

The world

The world economy experienced its sharpest year-on-year contraction for at least 40 years in Q1 this year – with worse to come in Q2

World and OECD area real GDP growth



Note: Estimates of global GDP growth compiled by Corinna using data for 95 countries accounting for 90% of 2018 world GDP as measured by the IMF; excludes constituents of the former USSR before 1993, the former Czechoslovakia before 1995, and the former Yugoslavia before 1998.
Sources: national statistical agencies and central banks; Eurostat; OECD; IMF.

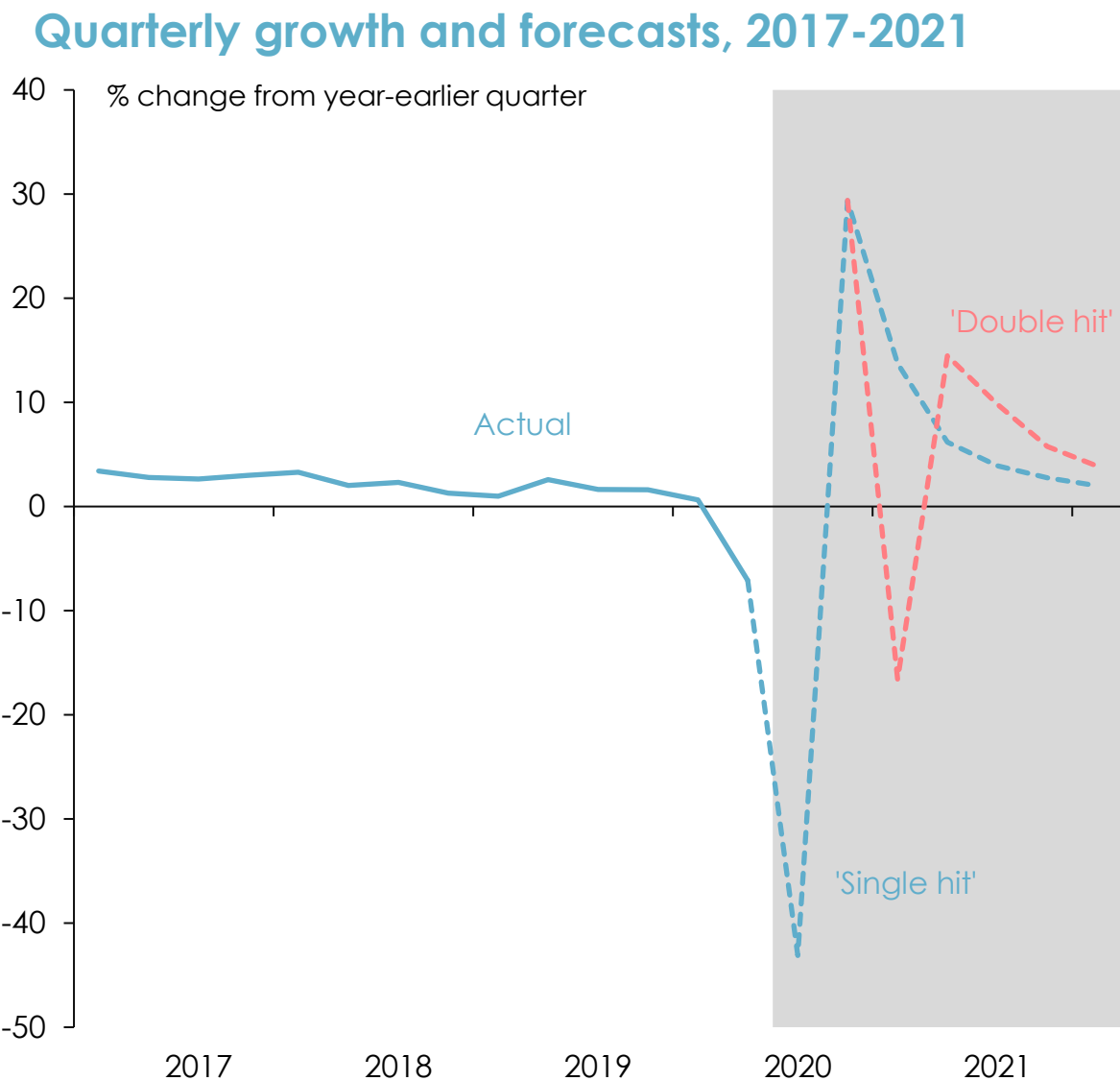
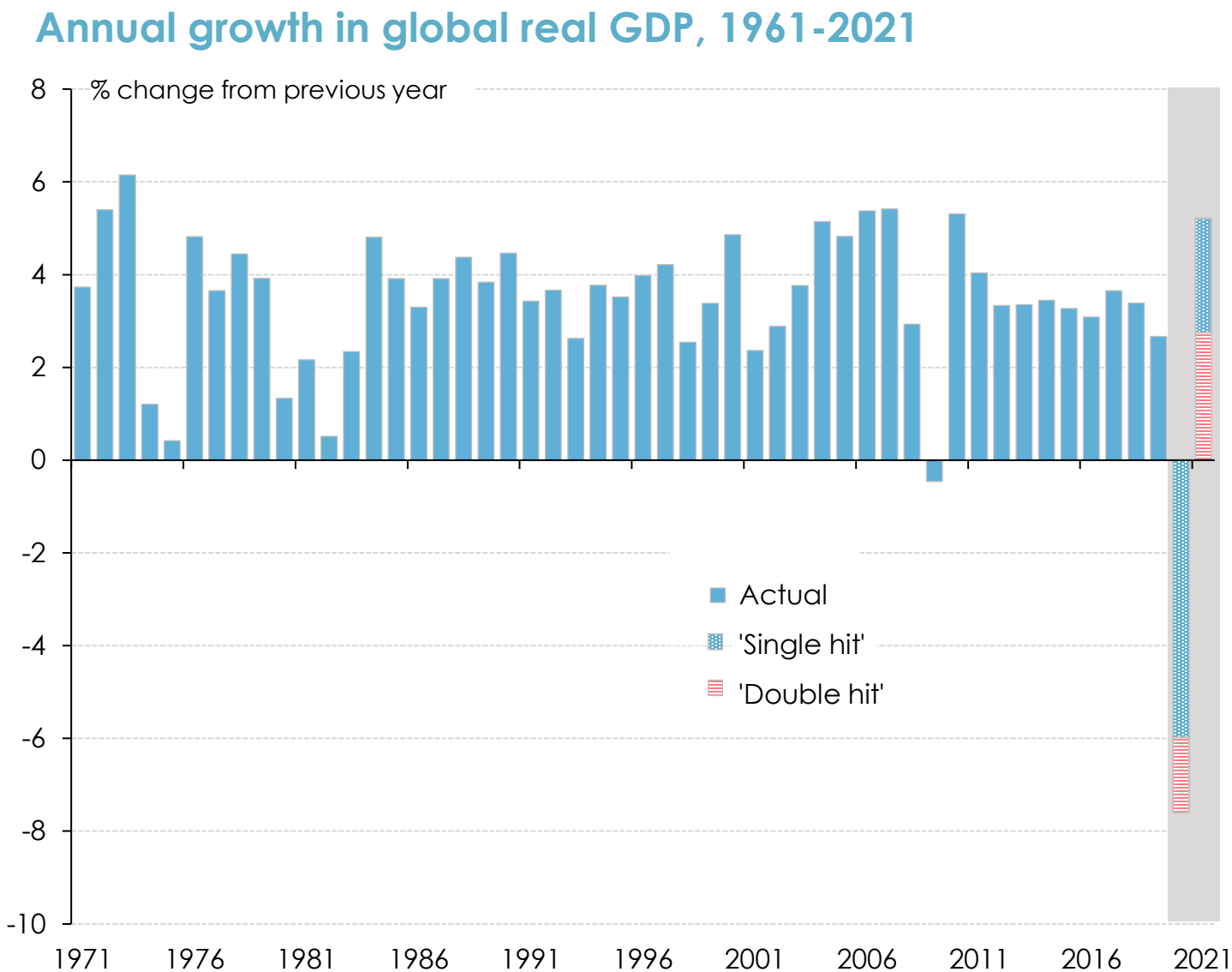
All of the major international economic forecasting institutions expect 2020 to be the worst year for global growth since the 1930s

Major global institutions' growth forecasts for 2020 and 2021 compared

	<i>Actual</i>	<i>IMF</i>		<i>World Bank</i>		<i>OECD*</i>		<i>Australian Treasury</i>	
	2019	2020	2021	2020	2021	2020	2021	2020	2021
US	2.3	-6.1	4.5	-6.1	4.0	-7.3	4.1	-8.0	4.8
China	6.1	1.2	9.2	1.0	6.9	-2.6	6.8	1.8	8.3
Euro area	1.2	-7.5	4.7	-9.1	4.5	-9.1	6.5	-8.8	5.0
India	4.2	1.9	7.4	-3.2	3.1	-3.7	7.9	-4.0	4.3
Japan	0.7	-5.2	3.0	-6.1	2.5	-6.0	2.1	-6.3	2.8
UK	1.4	-6.5	4.0	na	na	-11.5	9.0	na	na
Australia	1.8	-6.7	7.1	na	na	-5.0	4.1	-3.8	2.5
New Zealand	2.2	-7.2 [†]	5.9 [†]	na	na	-8.9	6.6	na	na
World	2.9	-3.0	5.8	-5.2	4.2	-6.0	5.2	-4.8	5.0
World trade	0.9	-11.0	8.4	-13.4	5.3	-9.5	6.0	na	na

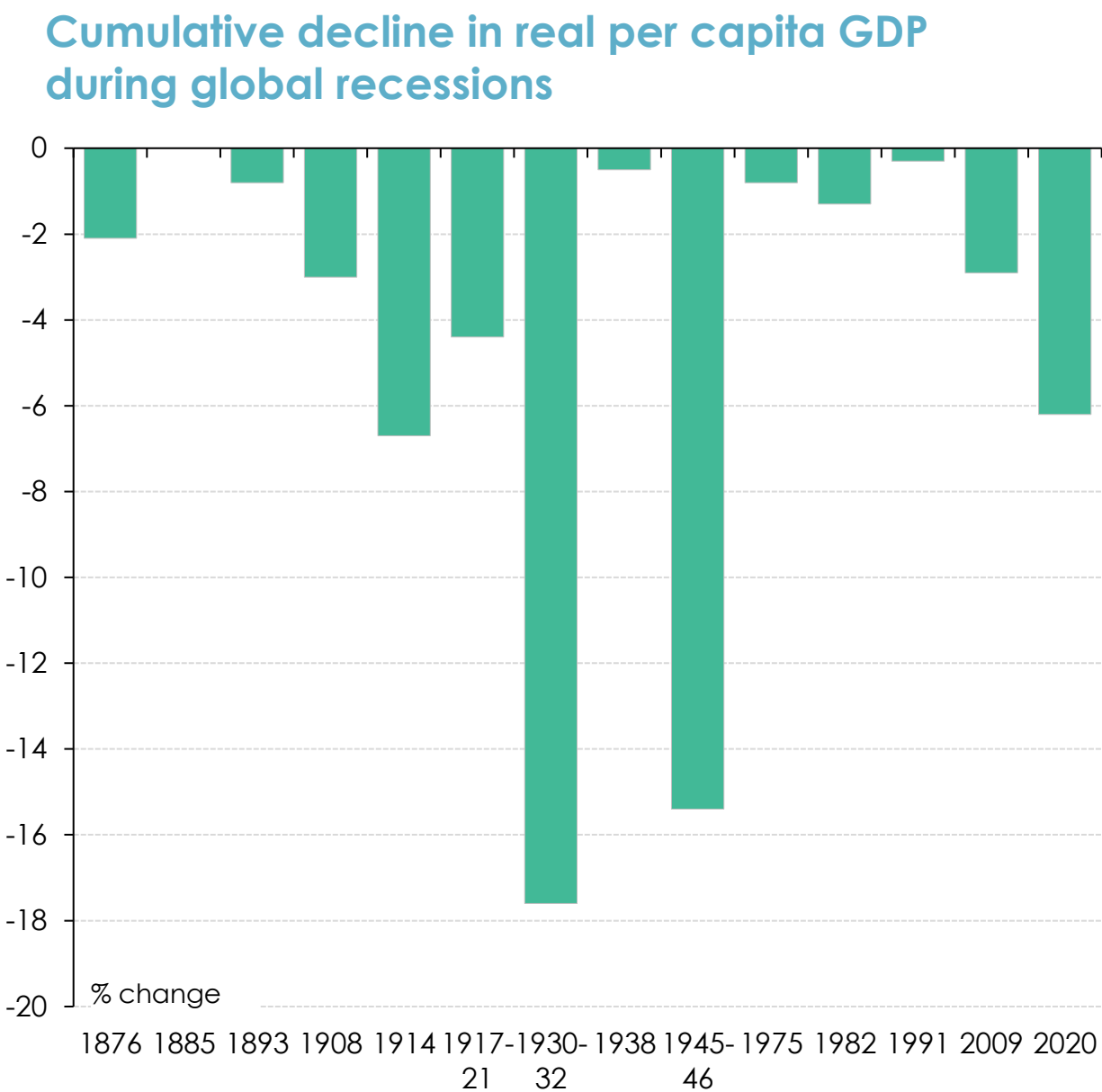
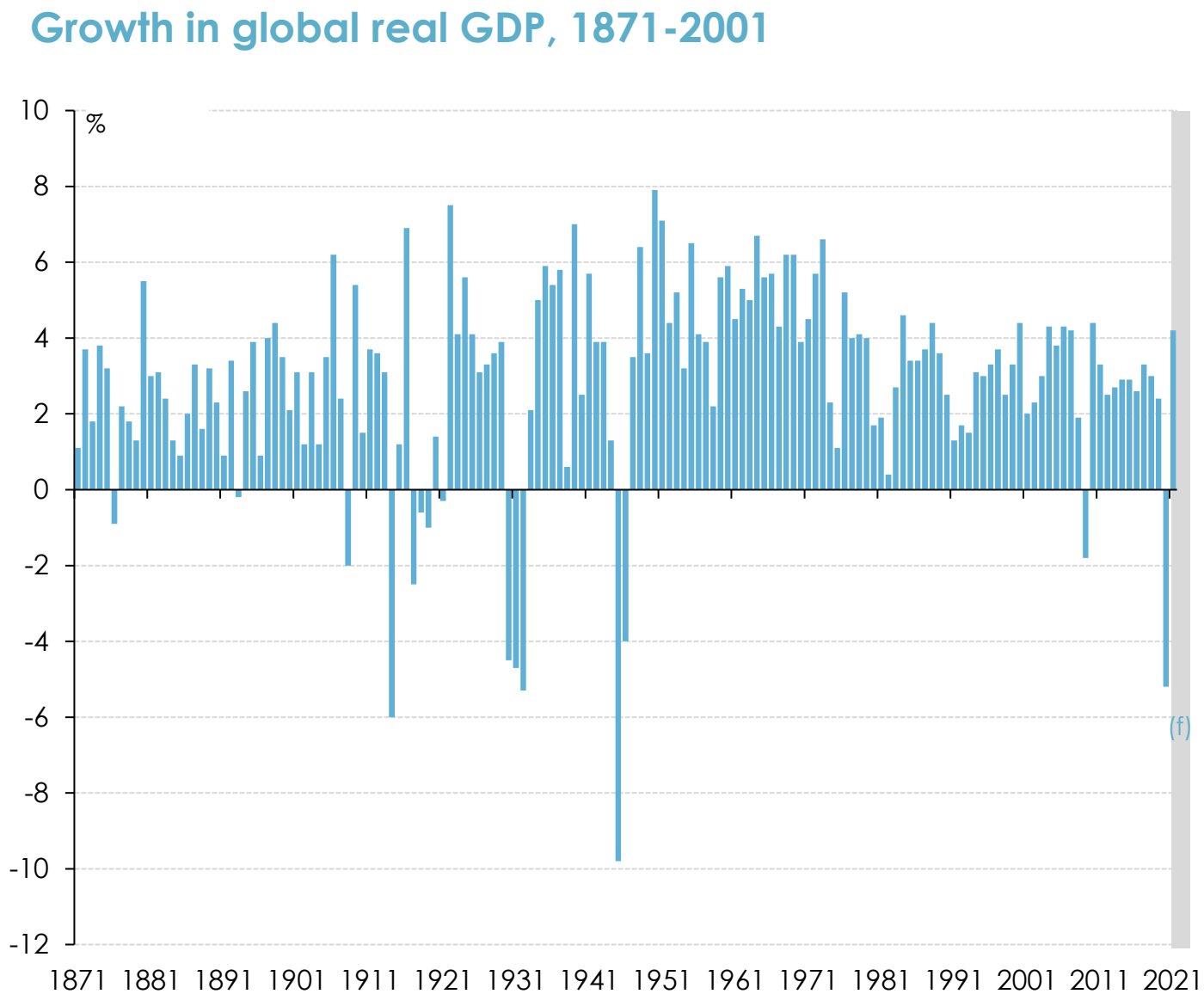
* OECD forecasts are their 'single hit' scenario to be consistent with the assumptions of the other institutions. [†] The IMF did not publish revised forecasts for New Zealand in its latest WEO publication. Sources : International Monetary Fund (IMF), *World Economic Outlook*, 24th June 2020; The World Bank, *Global Economic Prospects*, 8th June 2020; Organization for Economic Co-operation & Development (OECD), *Economic Outlook*, Volume 2020 Issue 1, 10th June 2020; Australian Treasury, *Economic and Fiscal Update*, 23rd July 2020.

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'



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.

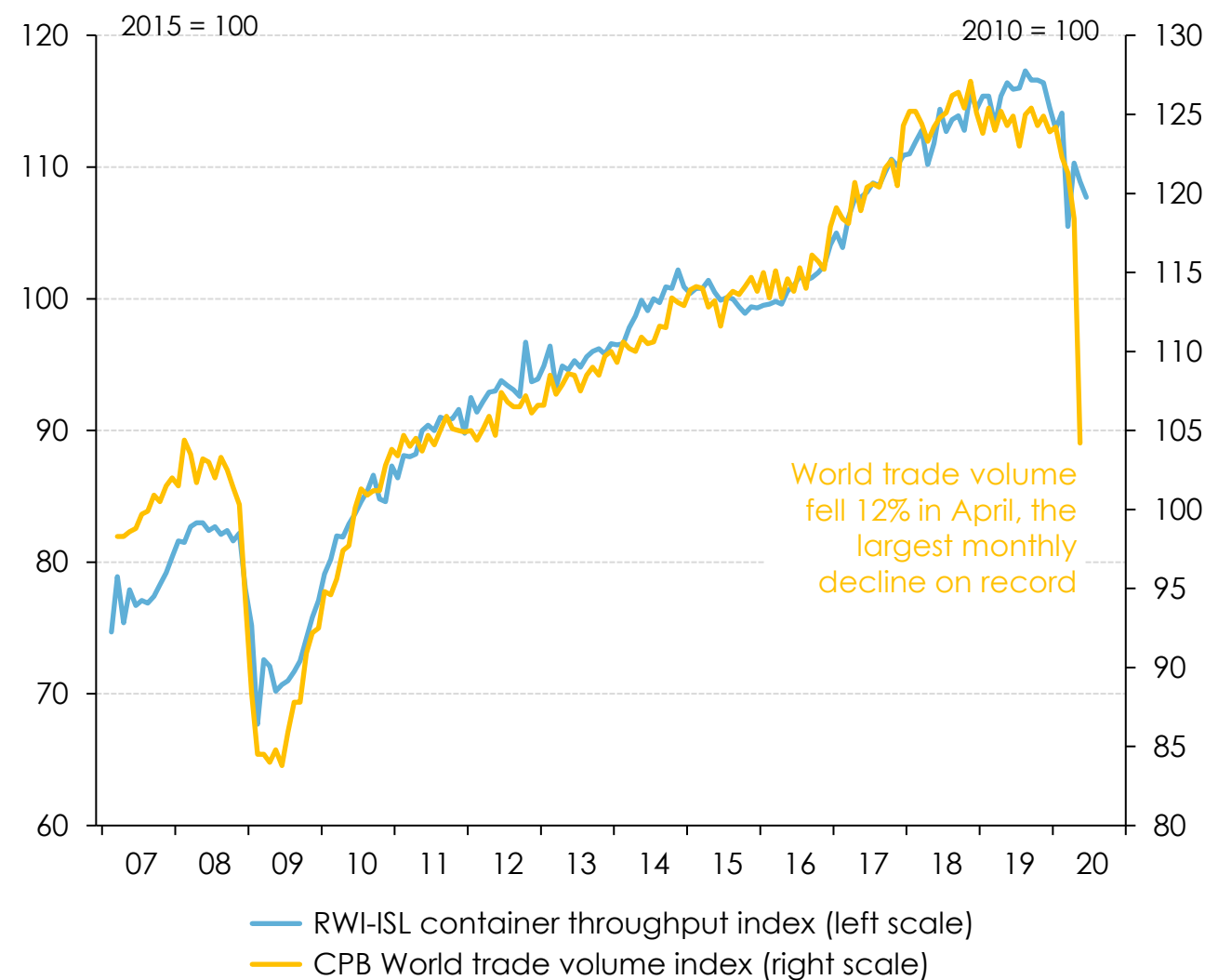
The World Bank forecasts a 5.2% decline in world GDP this year, with a 4.2% increase in 2021- the 4th worst global downturn in 150 years



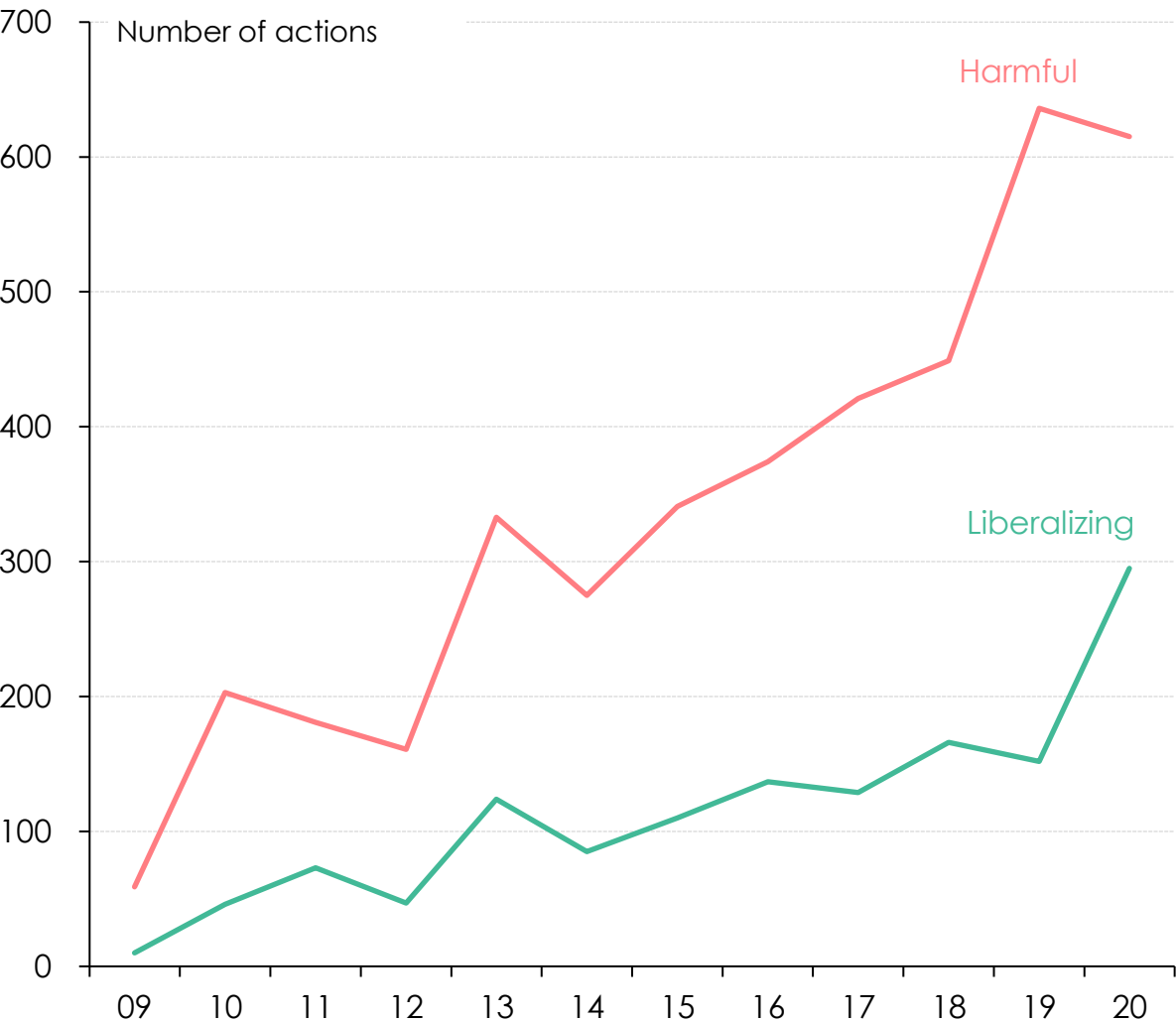
Source: The World Bank, *Global Economic Prospects*, 8th June 2020.

World merchandise trade volumes fell sharply in April

World trade volumes and container throughput



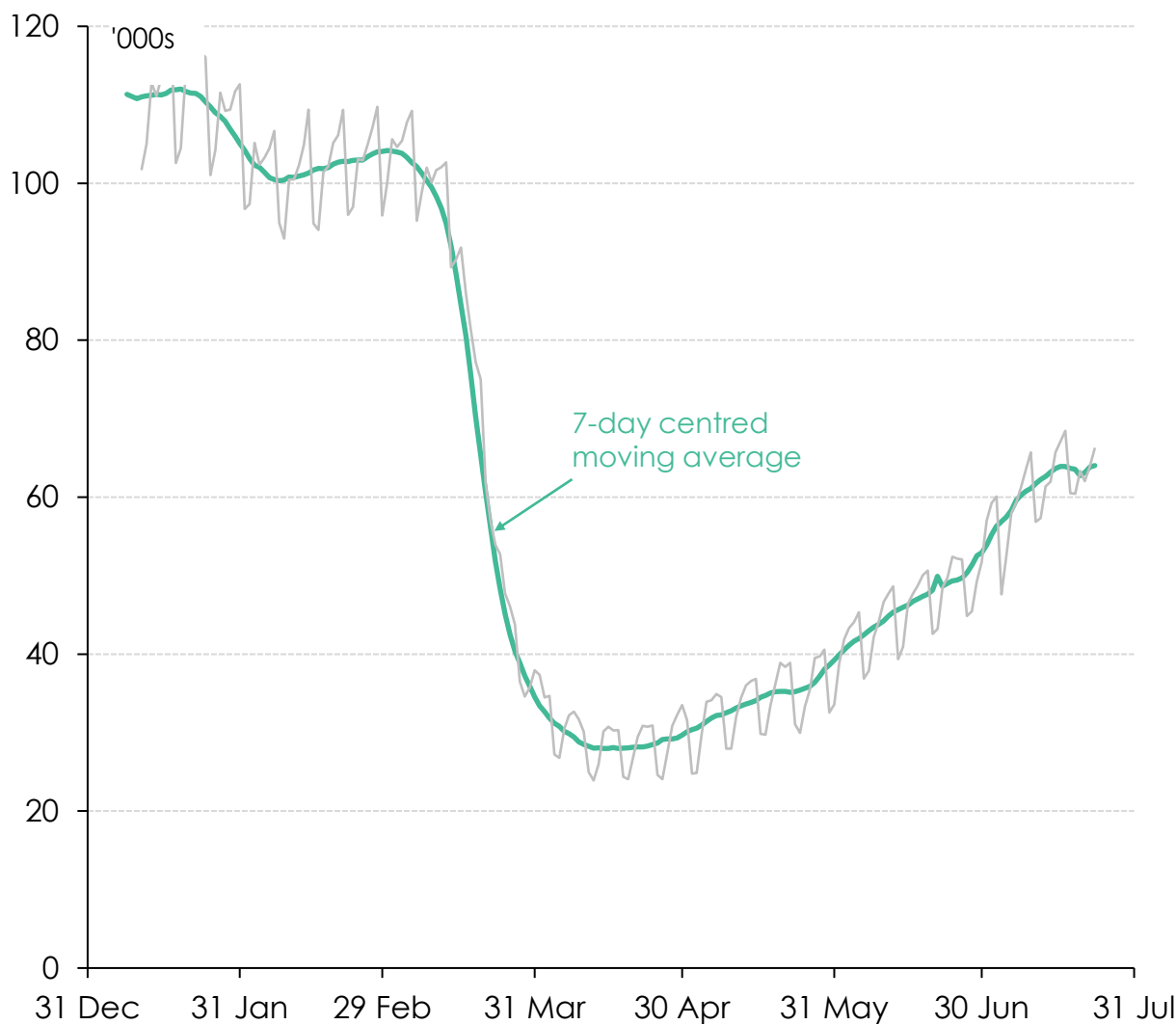
Pro- and anti-trade policy interventions



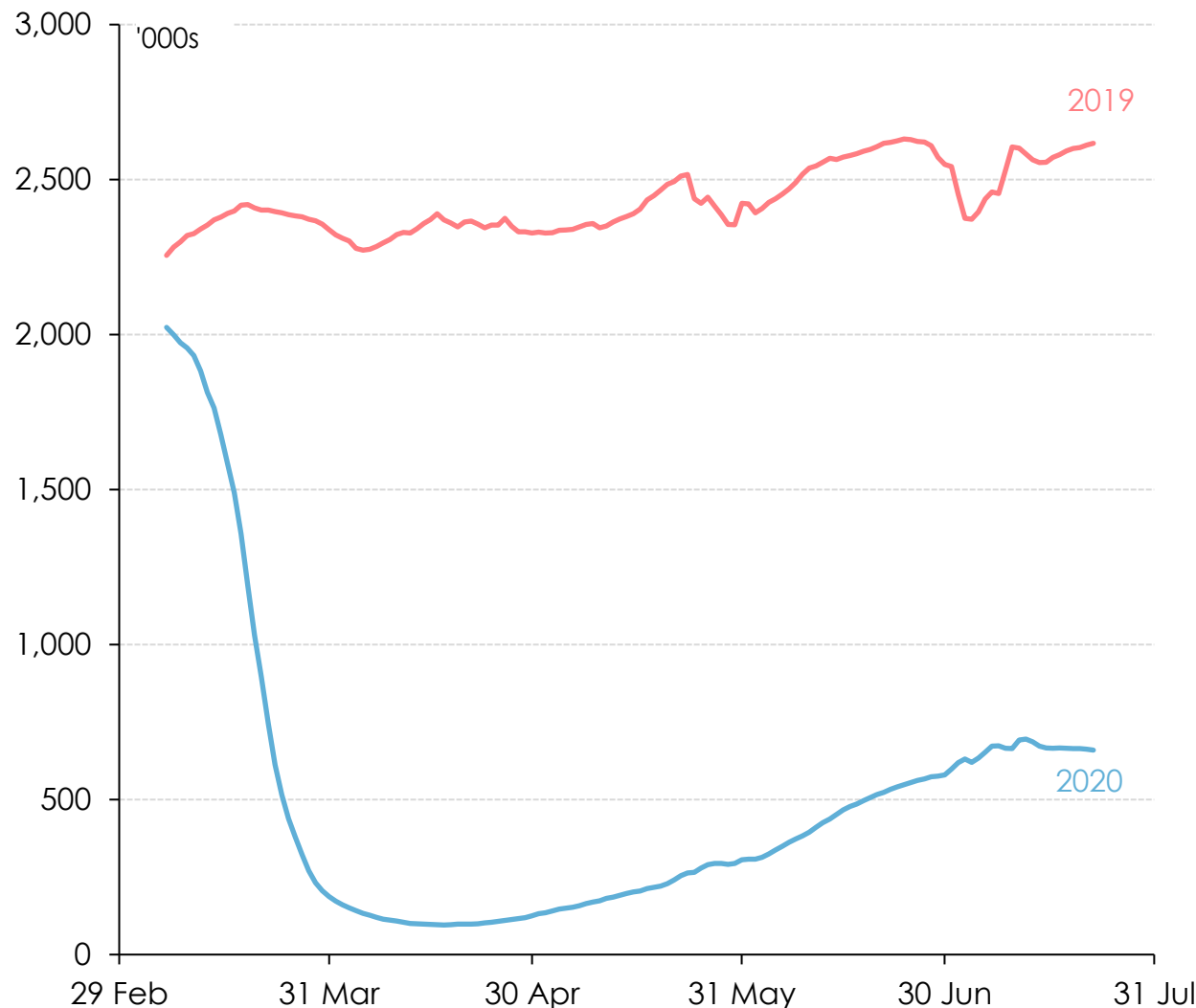
Note: The shipping container throughput index is based on reports from 91 ports around the world handling over 60% of global container shipping.
Sources: CPB Netherlands Economic Planning Bureau, *World Trade Monitor*; Institute of Shipping Economics & Logistics (ISL) and RWI Leibniz-Institut für Wirtschaftsforschung (RWI) *Container Throughput Index*; Global Trade Alert *Global Dynamics* (latest report 16th July).

The slow upturn in aviation seems to have levelled out – at 38% below pre-pandemic levels globally, and 75% below year-earlier levels in the US

Daily commercial flights worldwide

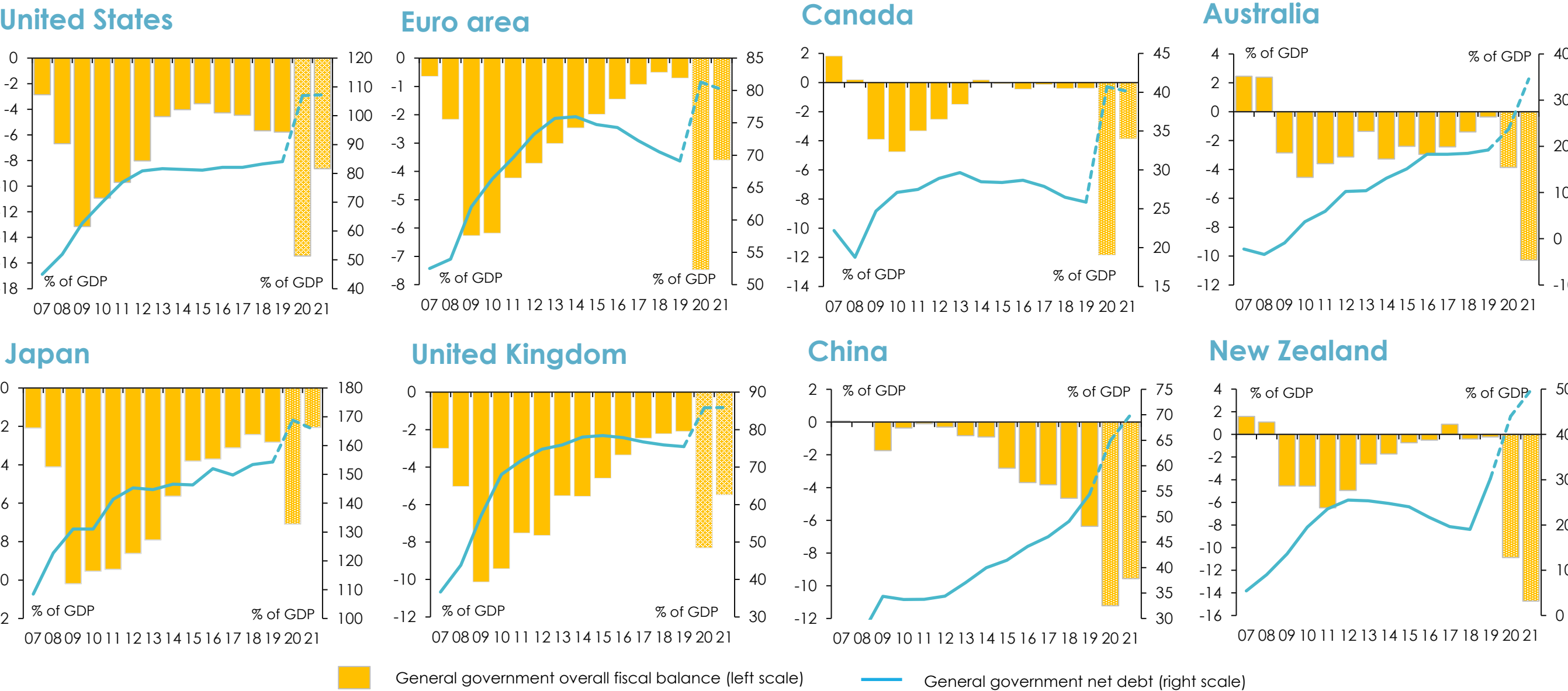


Daily US TSA security checks



Note: Commercial flights include commercial passenger flights, cargo flights, charter flights, and some business jet flights. Data up to 23rd July.
Sources: Flightradar24.com; US Transport Safety Administration (at last, something useful produced by aviation 'security'!!!)

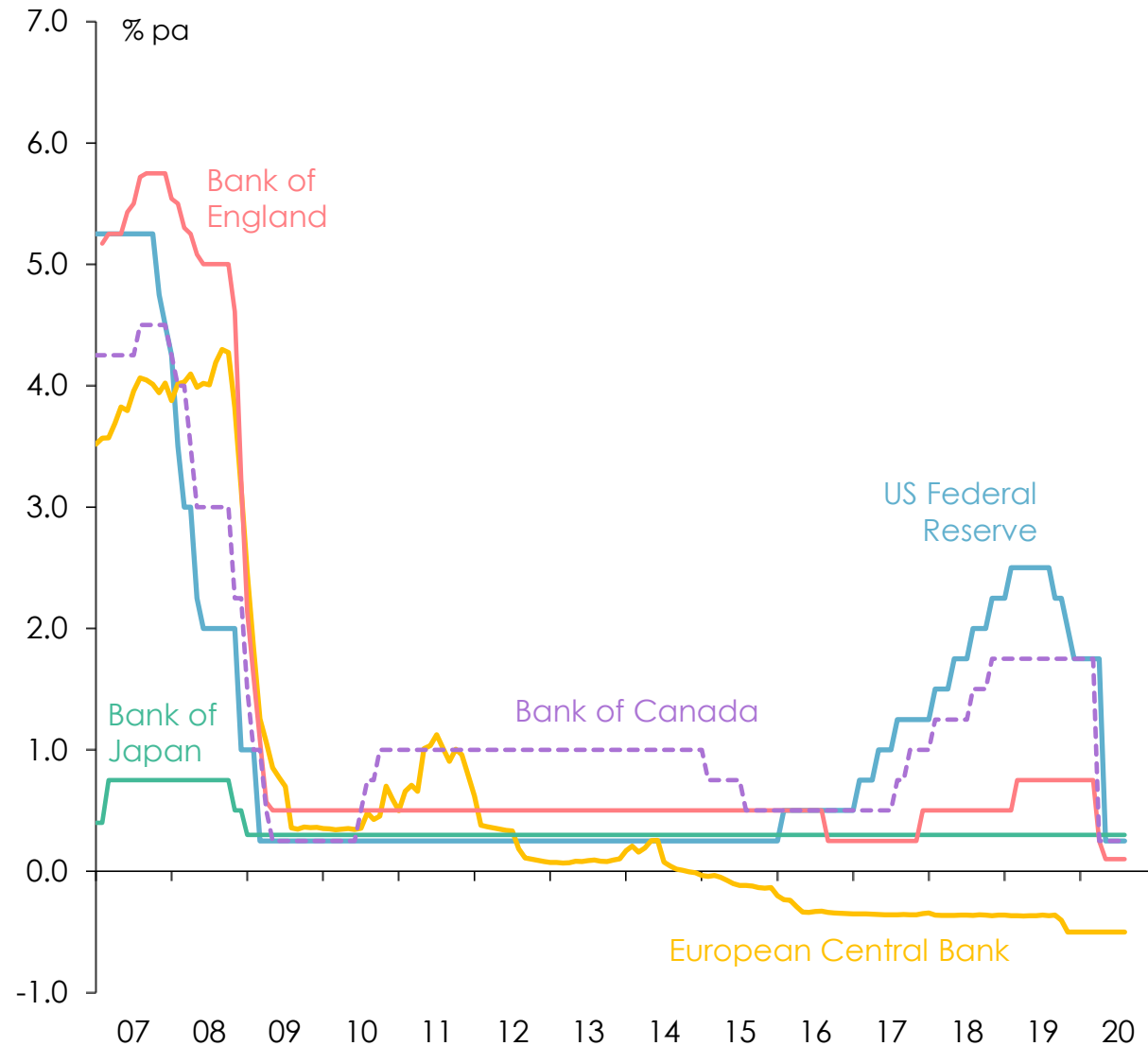
Governments around the world are doing more by way of fiscal stimulus than they did during the global financial crisis



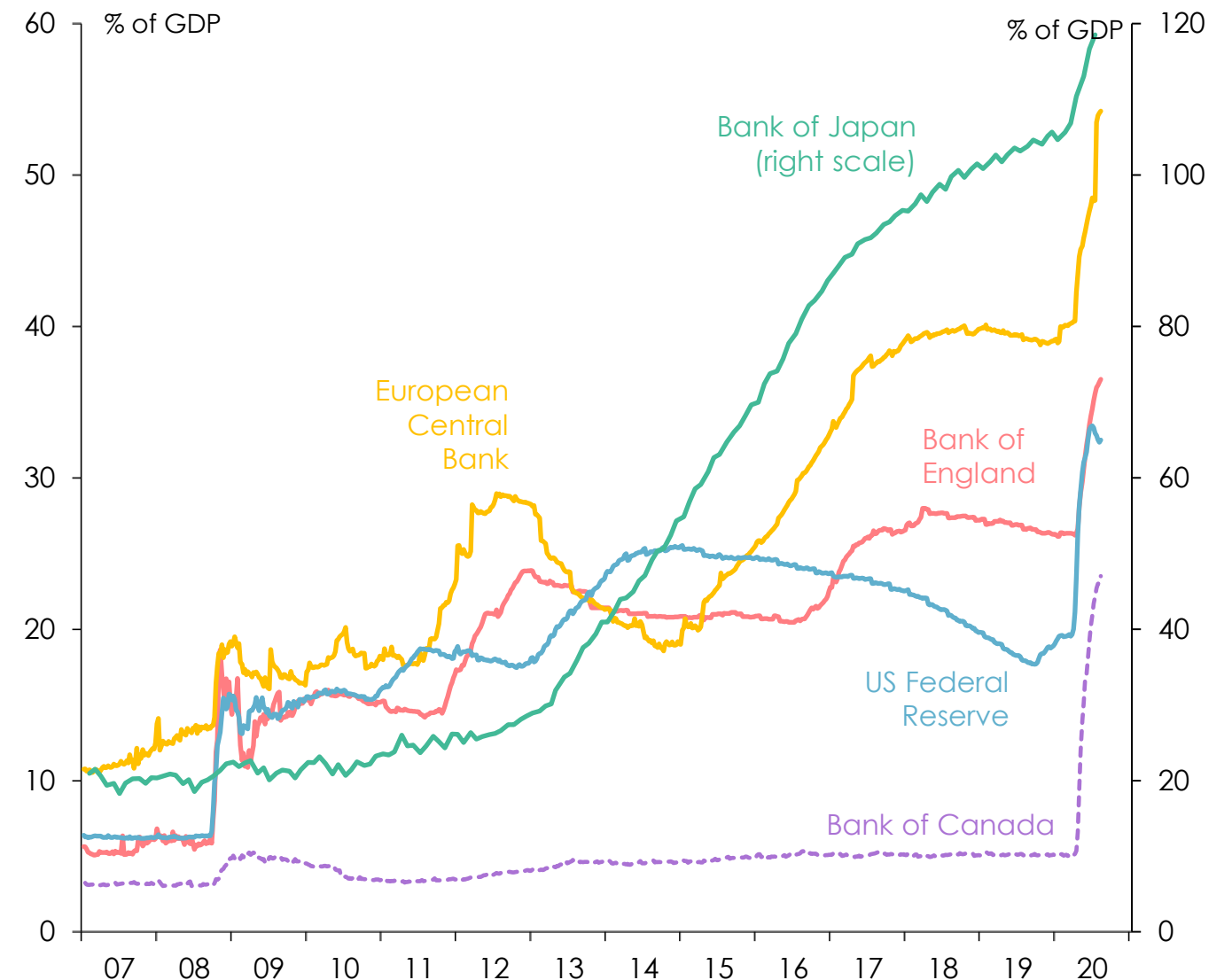
Note: UK data does not include the measures announced by the Chancellor on 8th July; China debt is gross debt, not net; Australian data are for the federal government only and are for fiscal years ended 30th June; NZ data are for fiscal years ended 31st March. Sources: International Monetary Fund, *Fiscal Monitor*, April 2020, and *World Economic Outlook*, June 2020; Australian Government, *Economic and Fiscal Update*, July 2020; New Zealand Treasury, *Budget Economic & Fiscal Update*, May 2020.

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



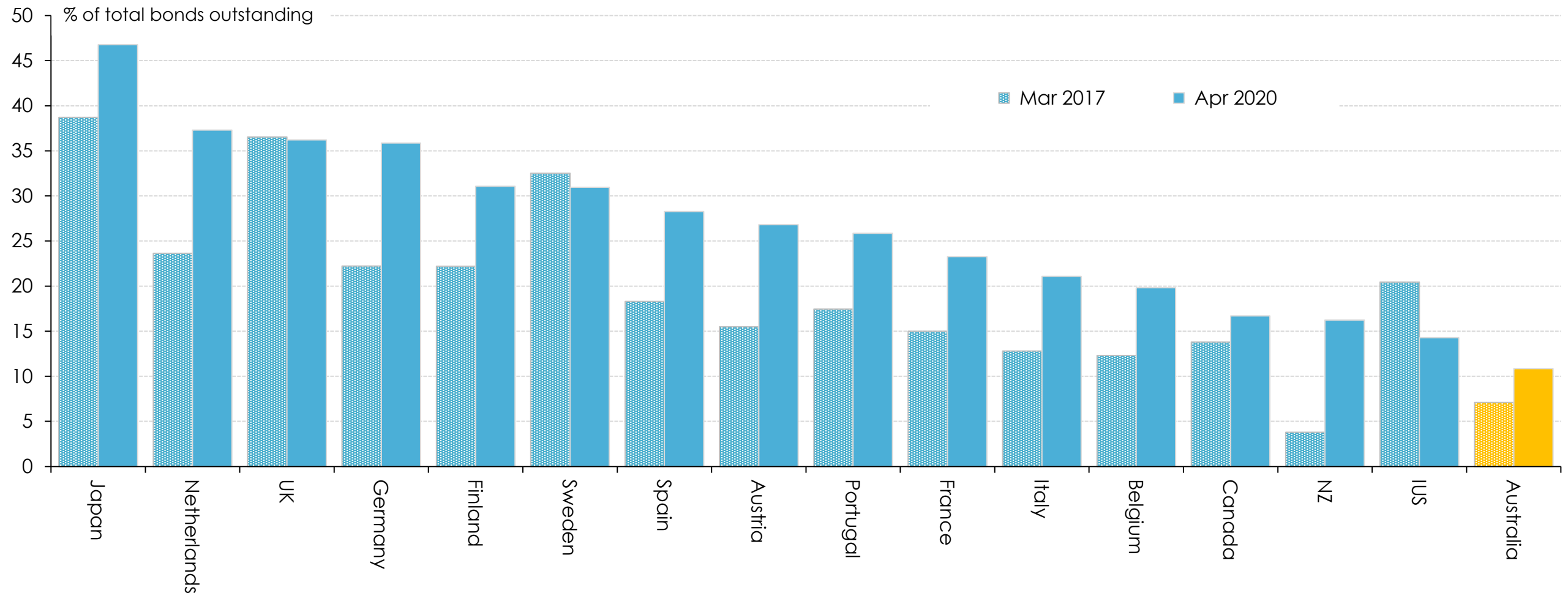
Major central bank balance sheets



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

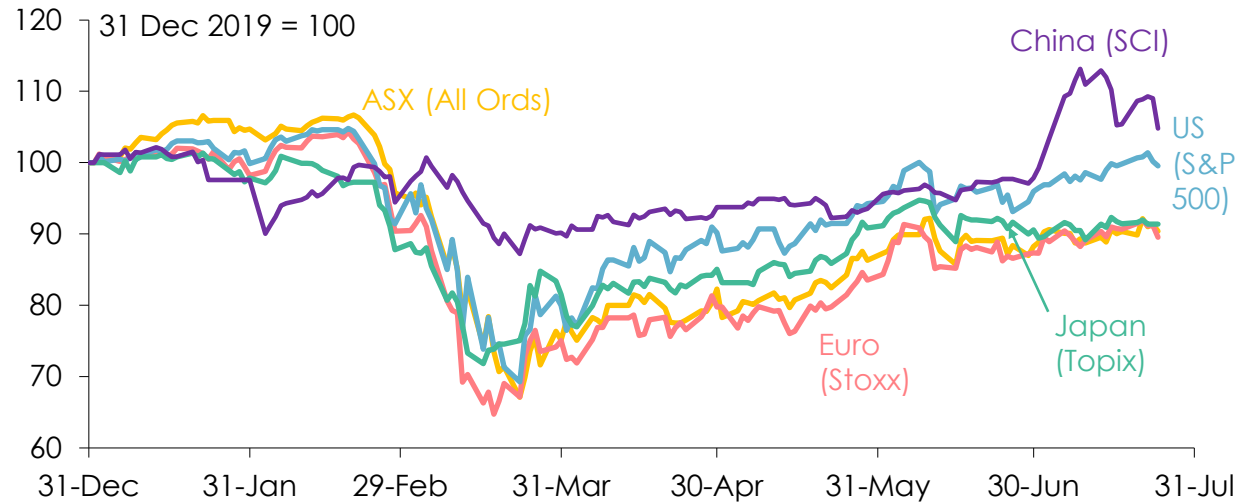
Central bank holdings of central government bonds



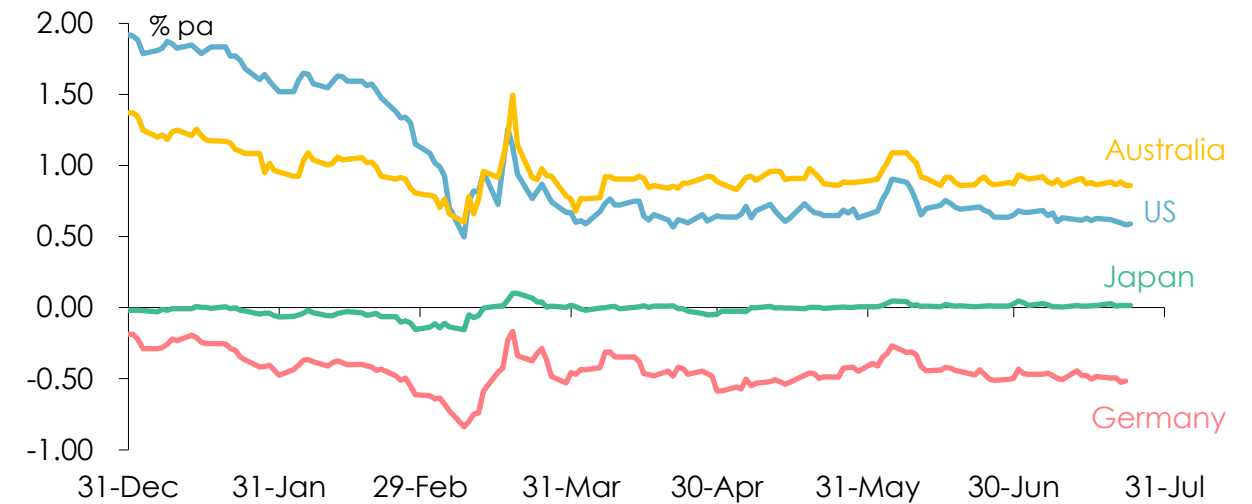
Sources: Surprisingly, the RBA does not disclose its holdings of Australian Government bonds in its weekly balance sheet statement (see RBA Statistical Table A1. Hence the figure shown here for Australia at March 2017 was derived from ABS *Finance and Wealth*, and that for April 2020 by adding to RBA 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 others are from OECD, *Economic Outlook* No. 107 (June 2020) and No. 104 (June 2017).

Most sharemarkets fell last week, bond yields edged marginally lower, and the US\$ declined further (or, rather, the euro surged)

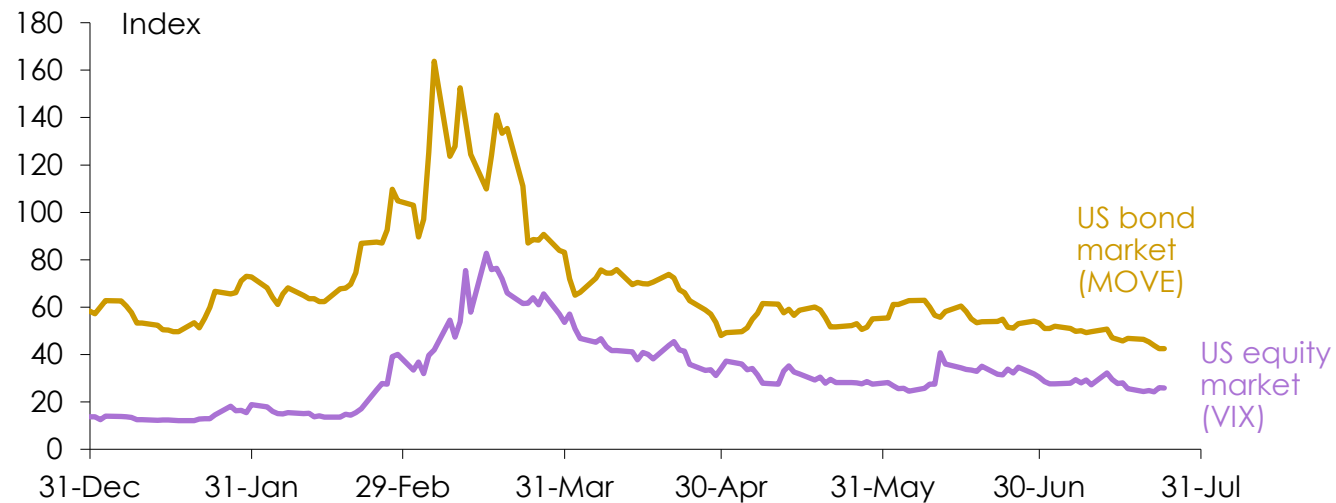
Stock markets



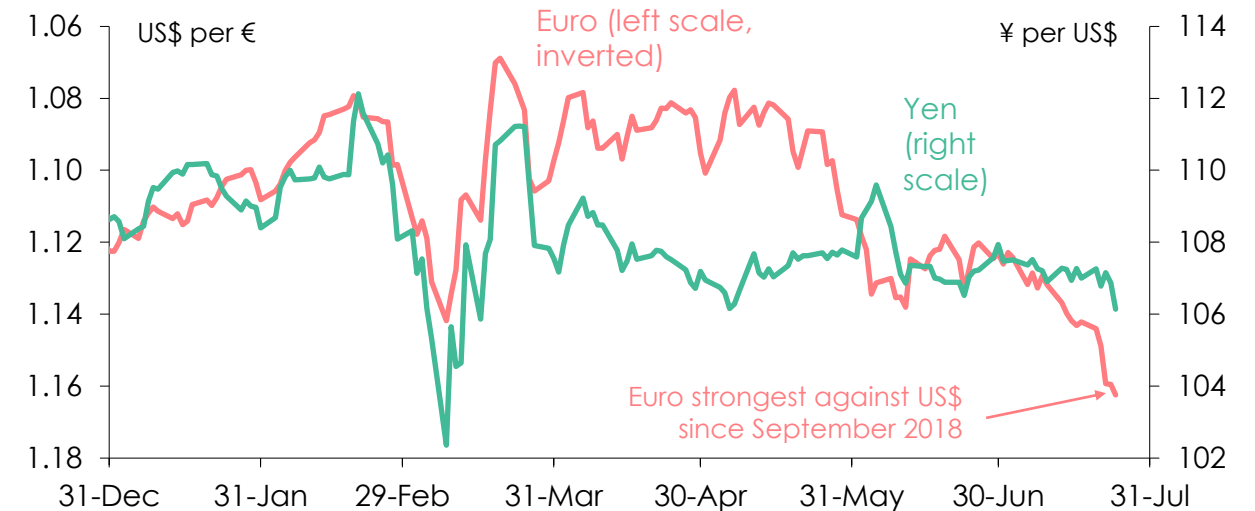
10-year bond yields



Measures of market volatility

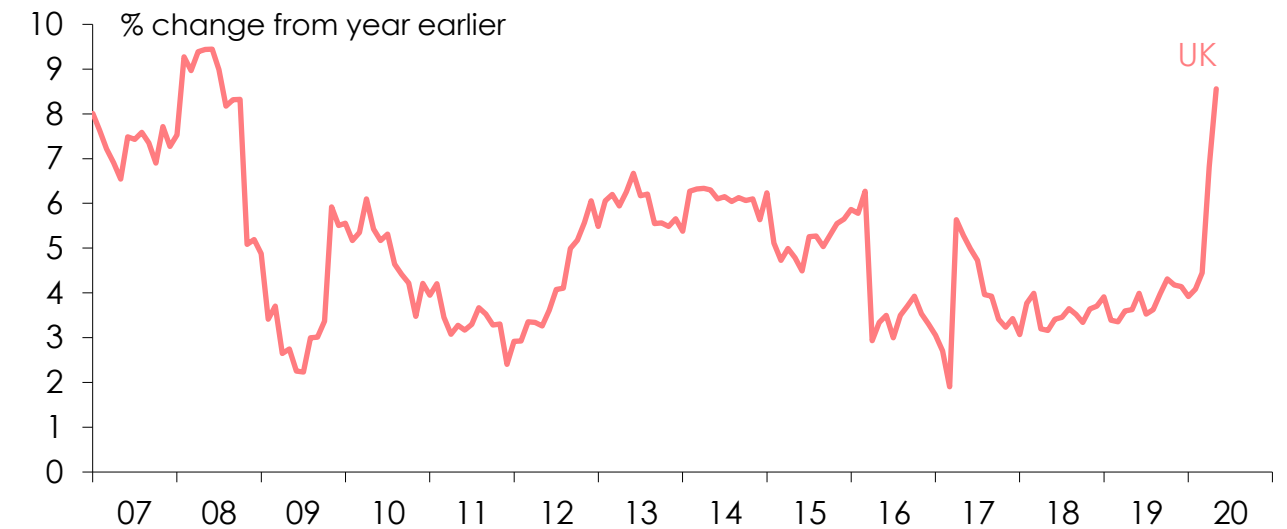
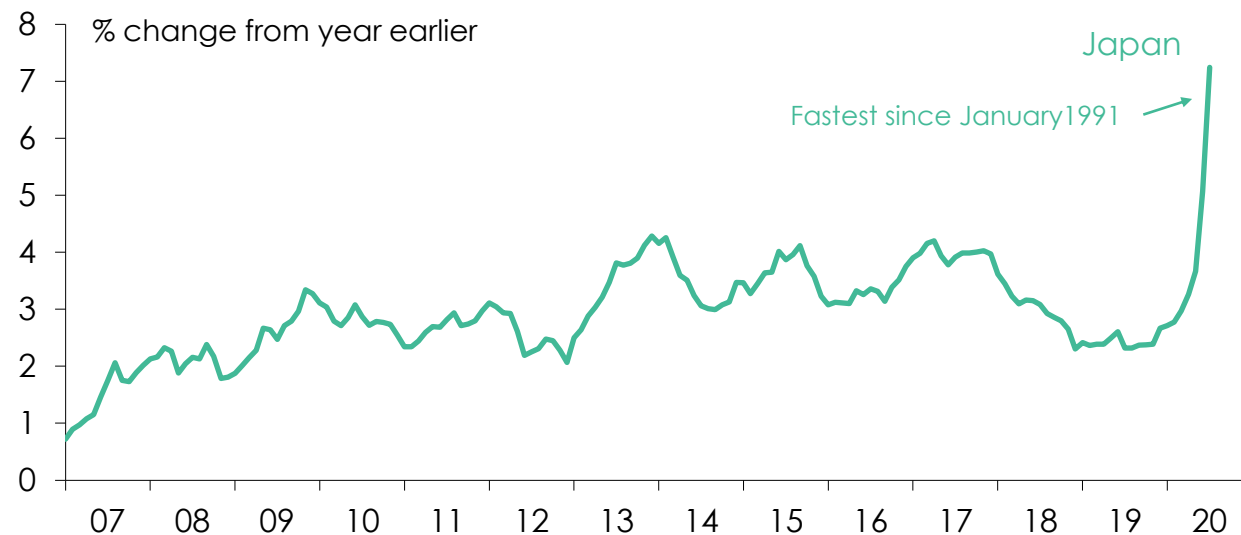
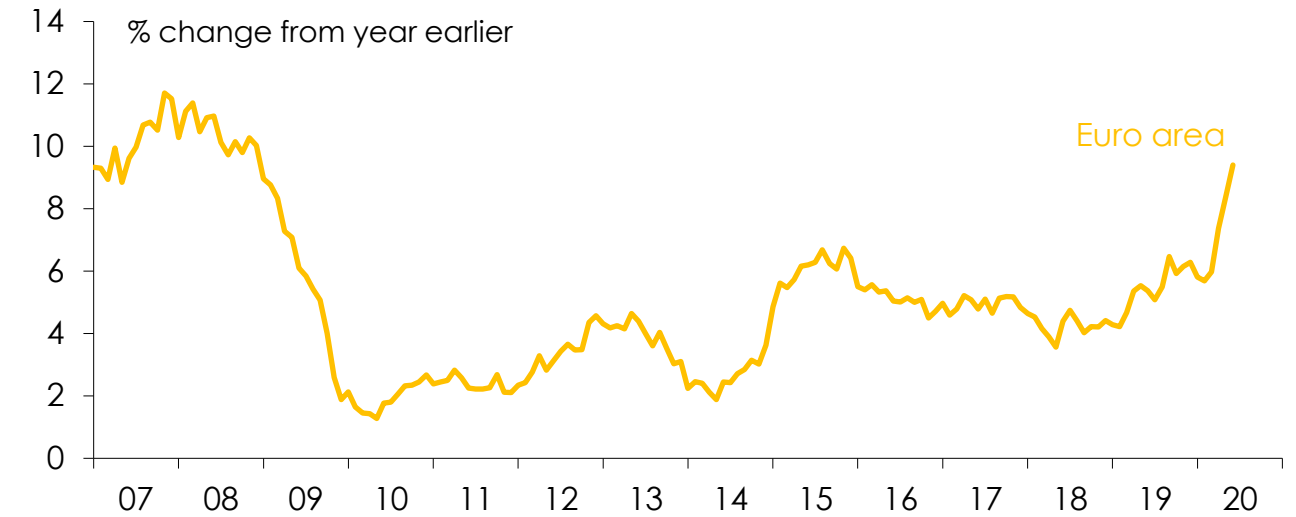
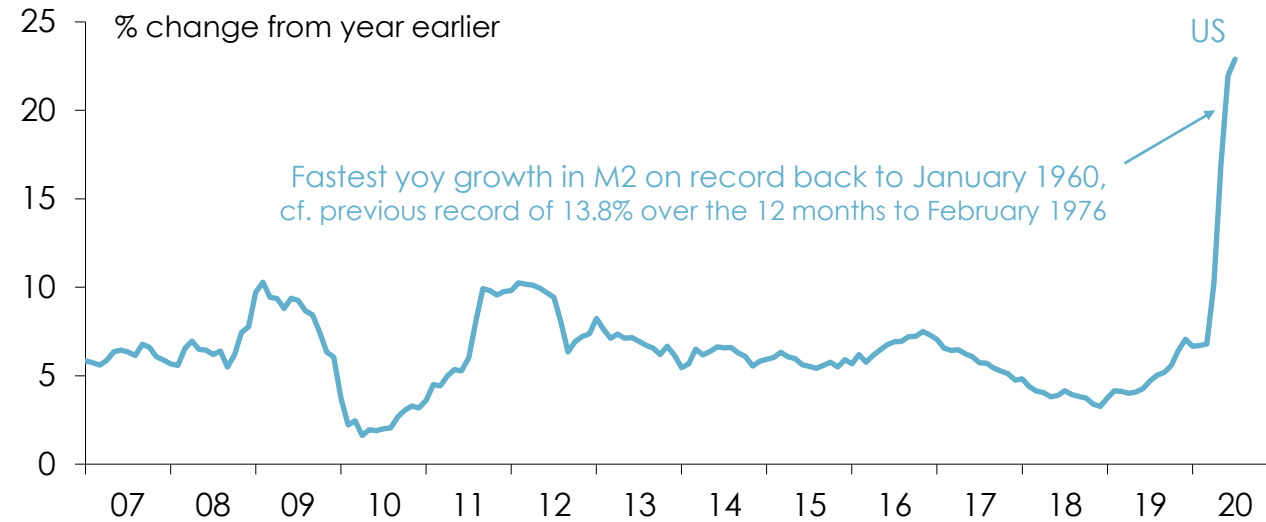


US dollar vs euro and yen



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

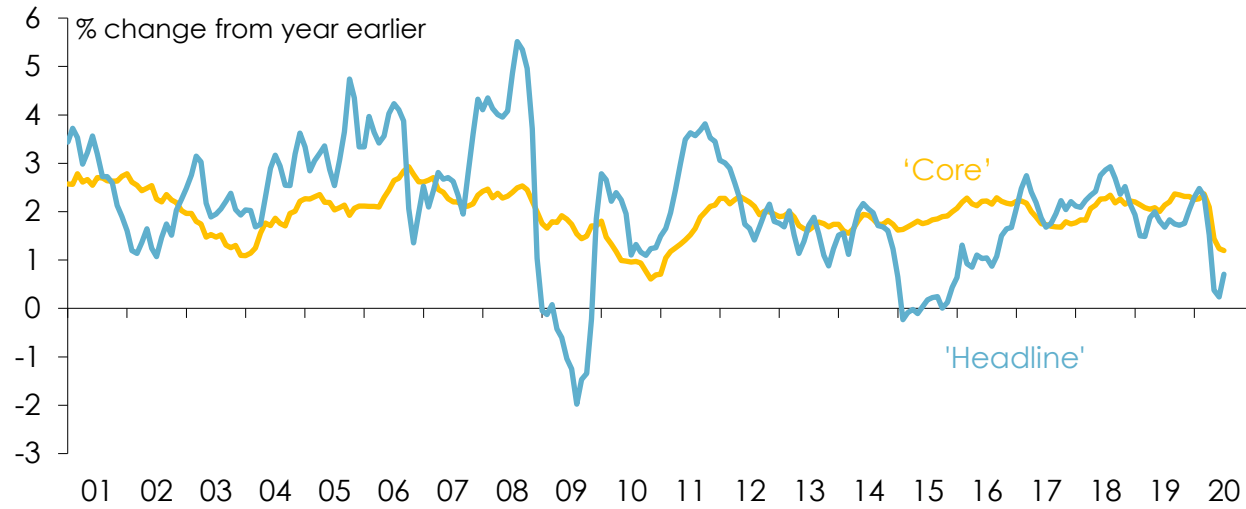
M2 money supply growth



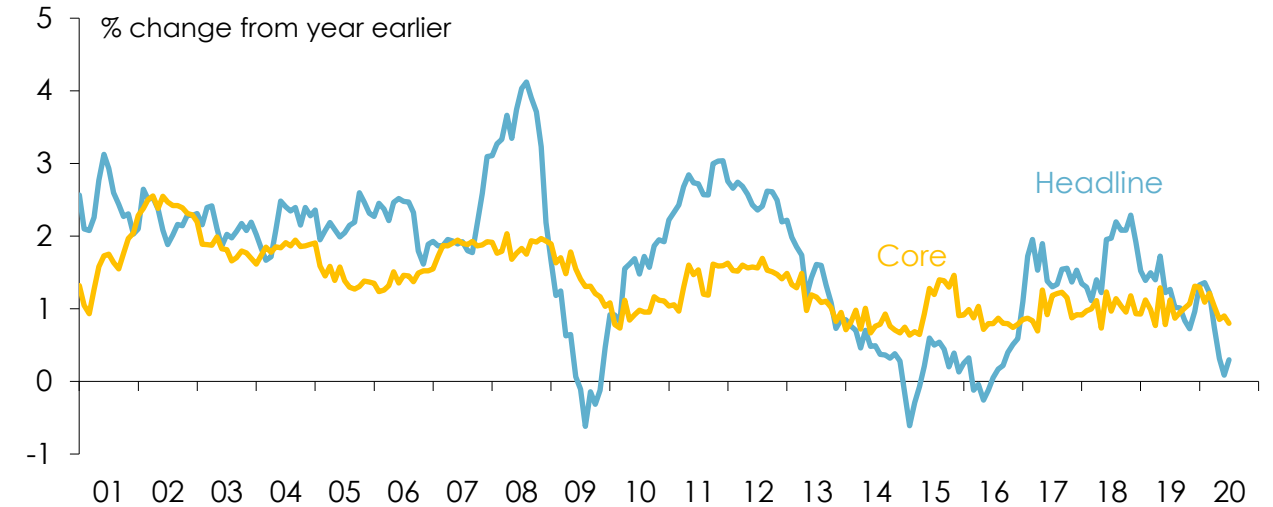
Note: Japan is M2+CDs; UK is M4. Sources: US Federal Reserve; European Central Bank; Bank of Japan; Bank of England.

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

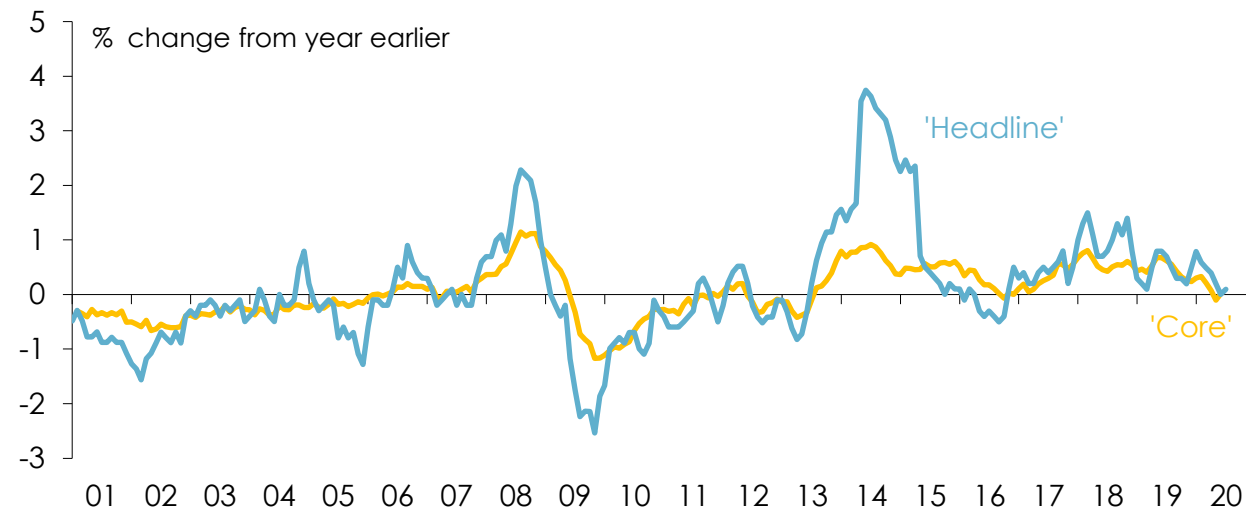
'Headline' and 'core' inflation - US



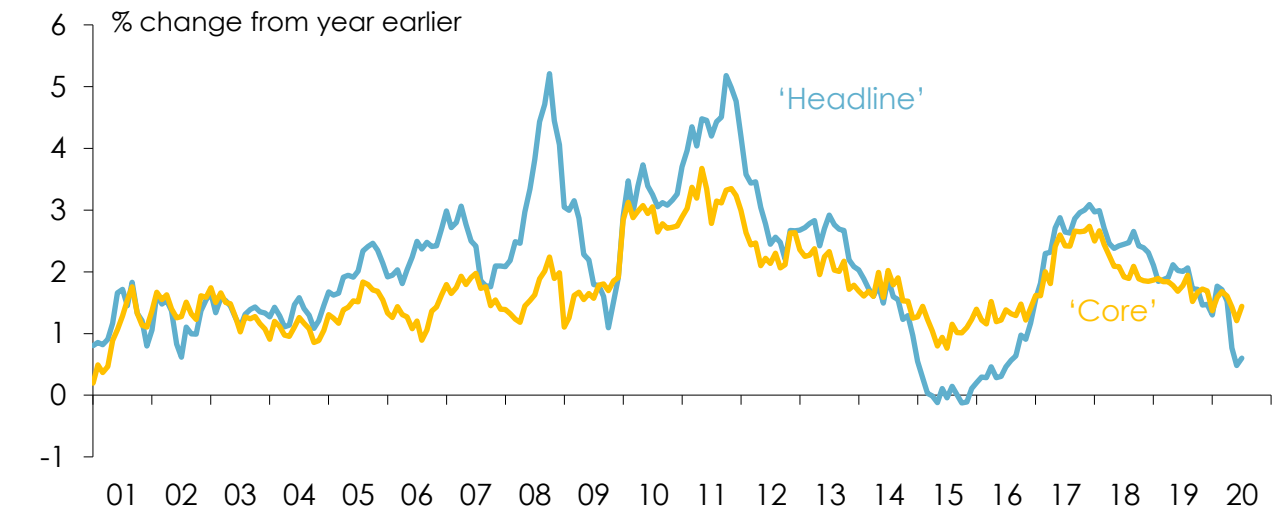
'Headline' and 'core' inflation – Euro area



'Headline' and 'core' inflation - Japan

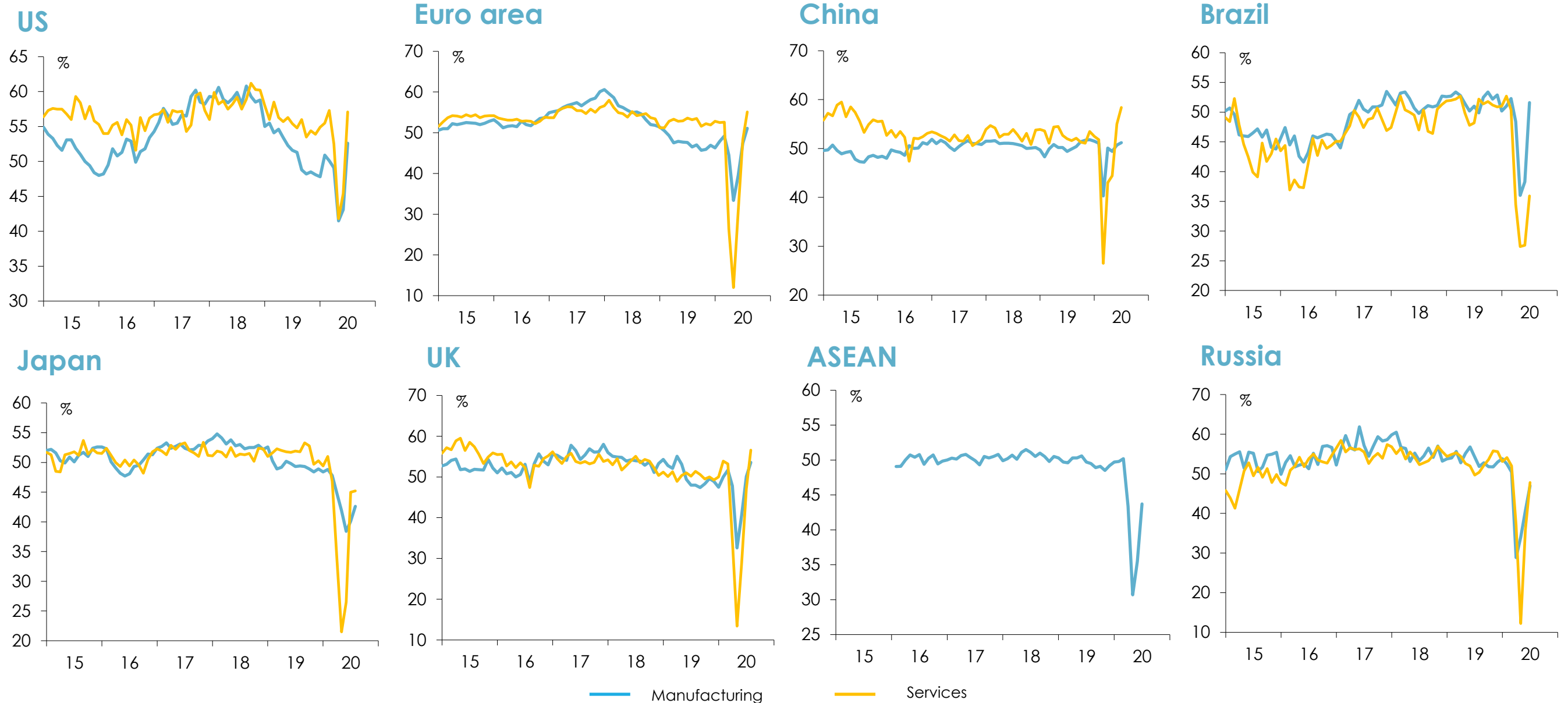


'Headline' and 'core' inflation – UK



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.

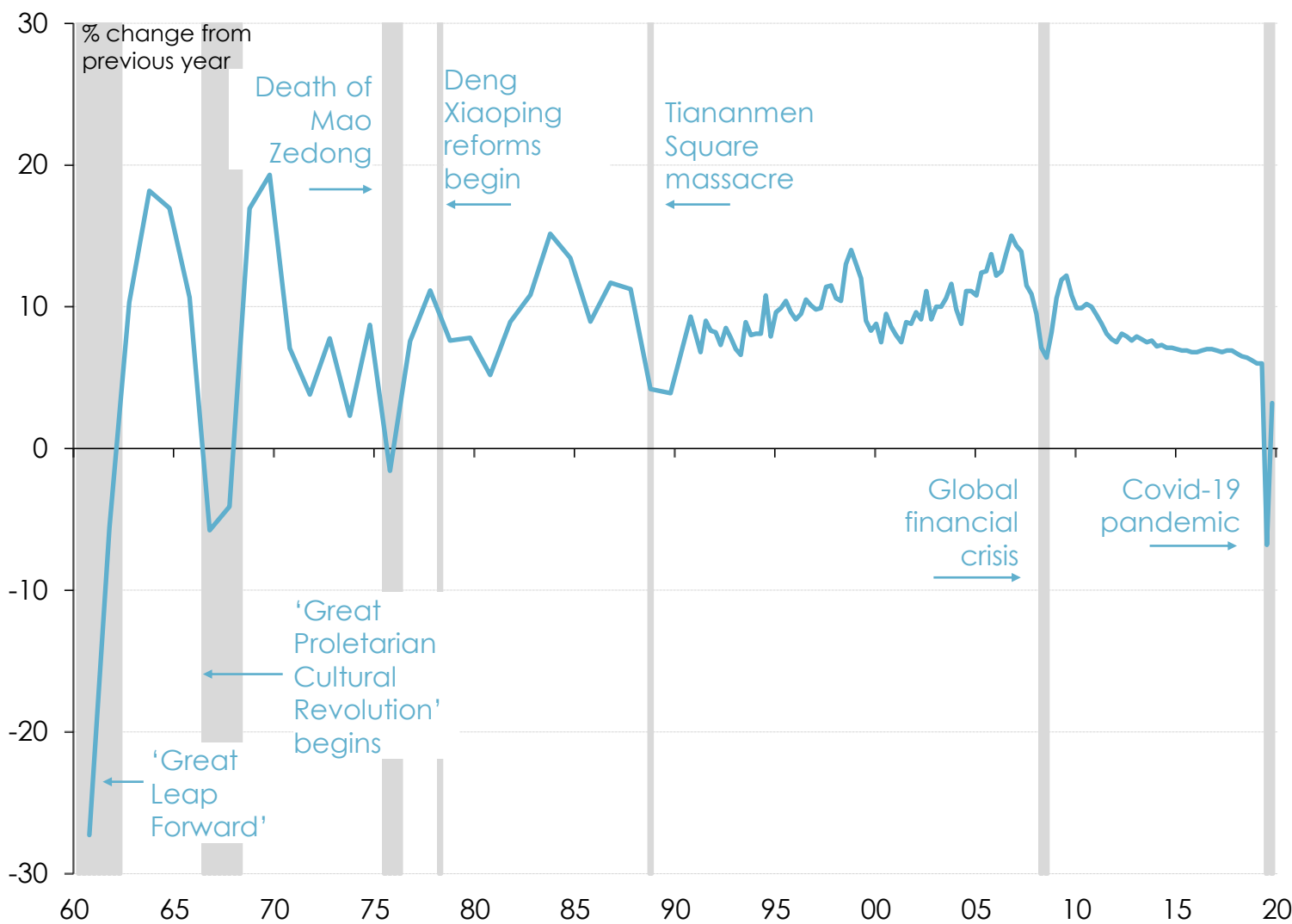
Purchasing managers' indices (PMIs) point to an ongoing rebound in both manufacturing and services in major economies since May



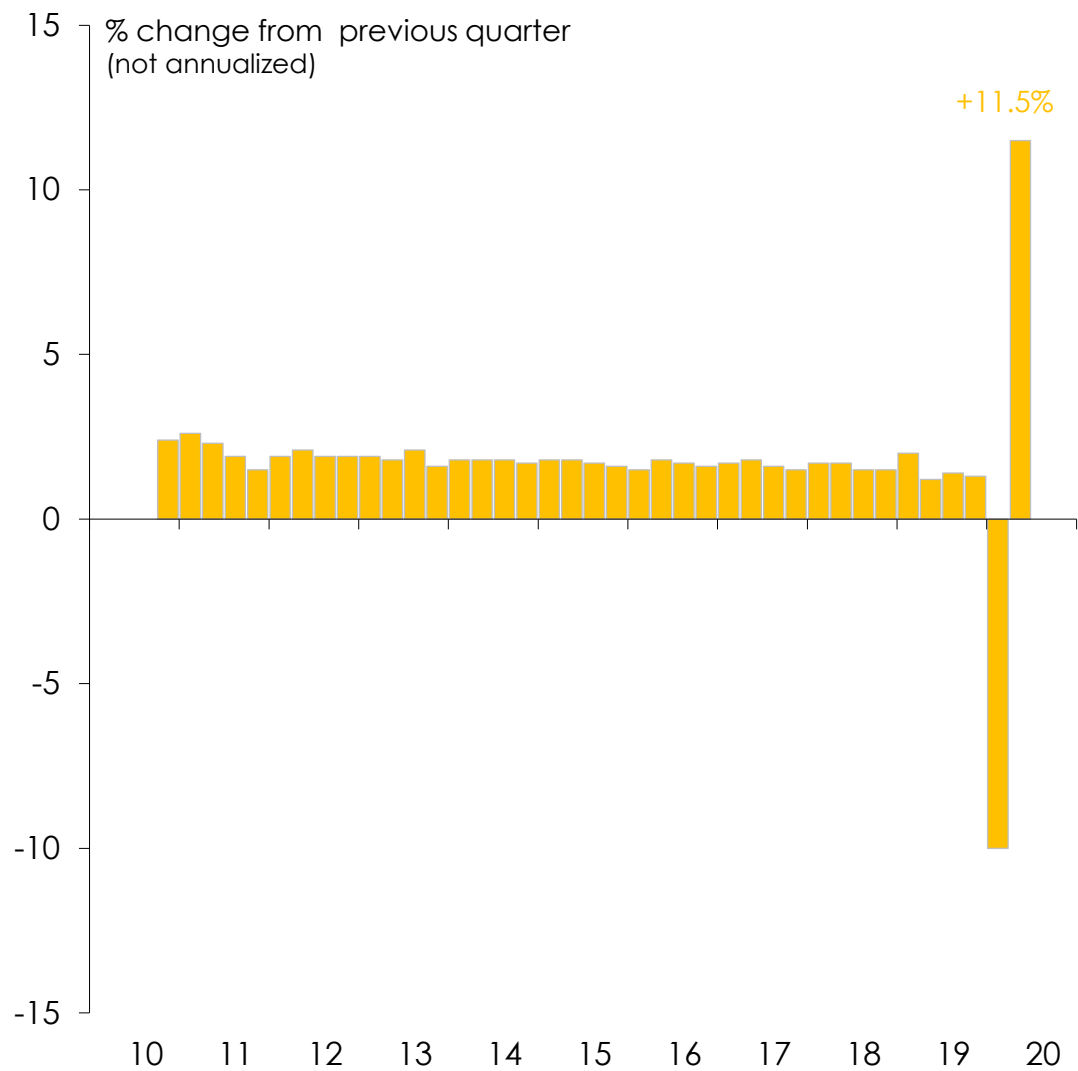
Note: Purchasing Managers' Indexes (PMIs) are derived from surveys of senior executives, who are asked to report whether various dimensions of business activity recorded an increase, decrease or no change compared with the previous month. A reading of 50 indicates an overall increase cf. the previous month, and a reading of less than 50 indicates a decrease. Latest for Japan, the euro area and the UK are July (preliminary); all others June. See also PMIs for other Asia-Pacific economies on slide 37. Sources: US Institute of Supply Management; INH Markit; Caixin; Refinitiv Datastream.

China's economy rebounded strongly in Q2 from what had been the worst downturn in almost 60 years in Q1

Real GDP growth, from year earlier, 1961-2020



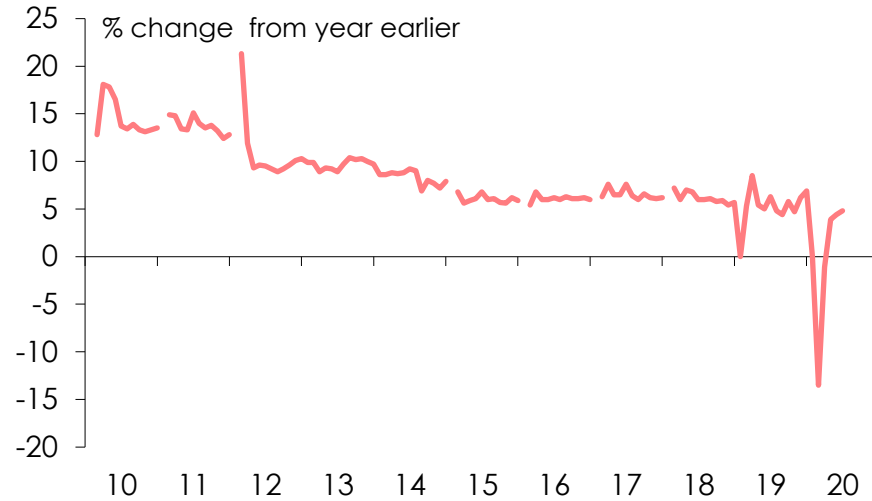
Quarterly real GDP growth, 2010-2020



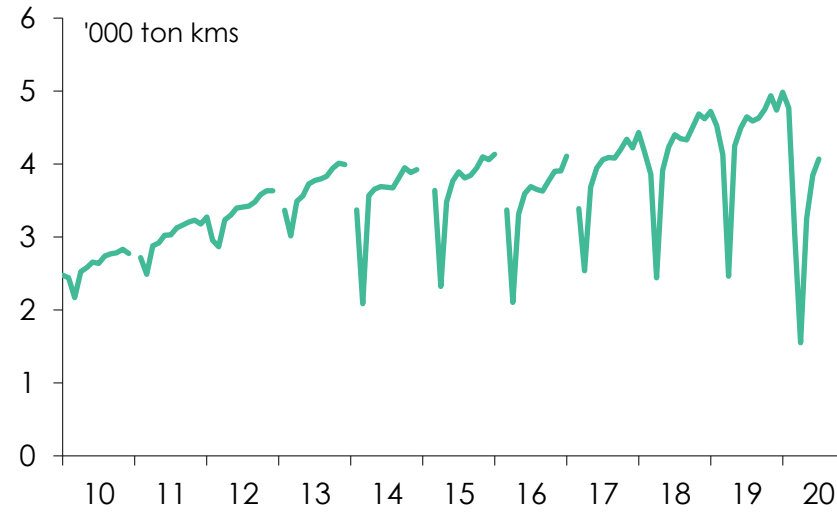
Note: In the left-hand chart, GDP growth rates are annual averages up to the December quarter of 1991, and then quarter-on-corresponding-quarter-of-previous-year thereafter. Sources: China National Bureau of Statistics.

The production side of the Chinese economy rebounded strongly in the June quarter

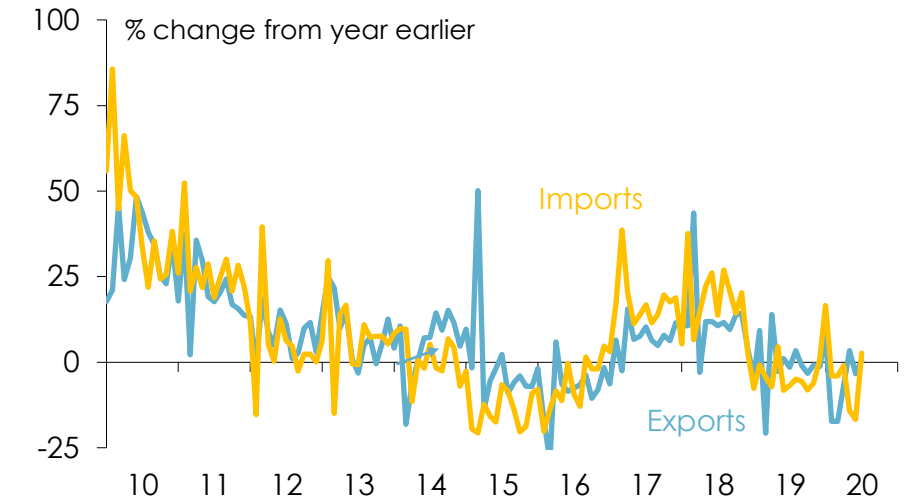
Industrial production



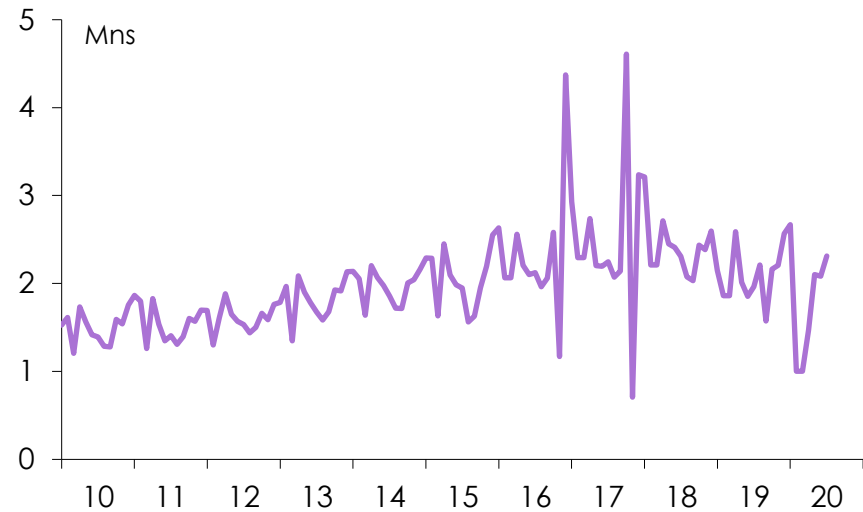
Freight traffic volumes



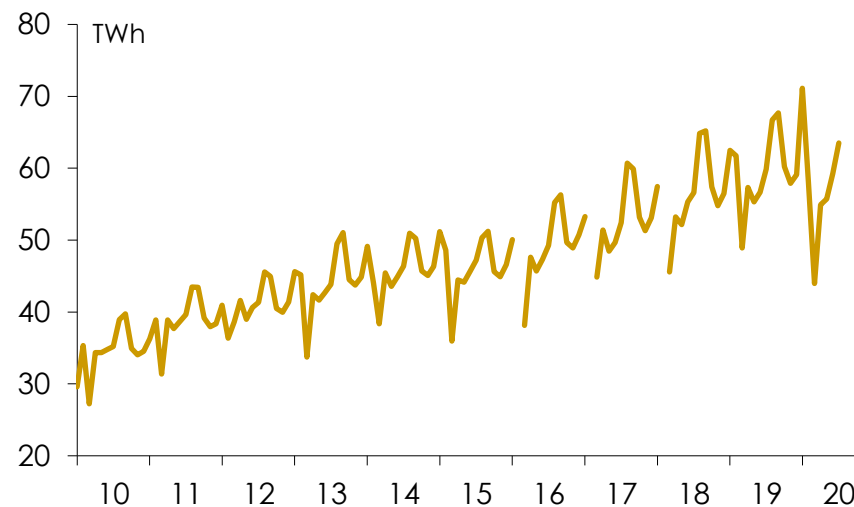
Merchandise trade



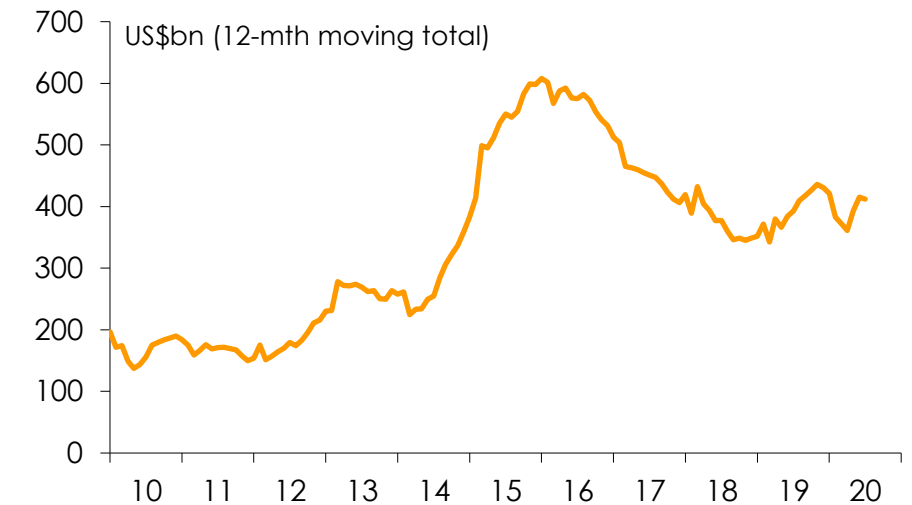
Motor vehicle production



Primary electricity production



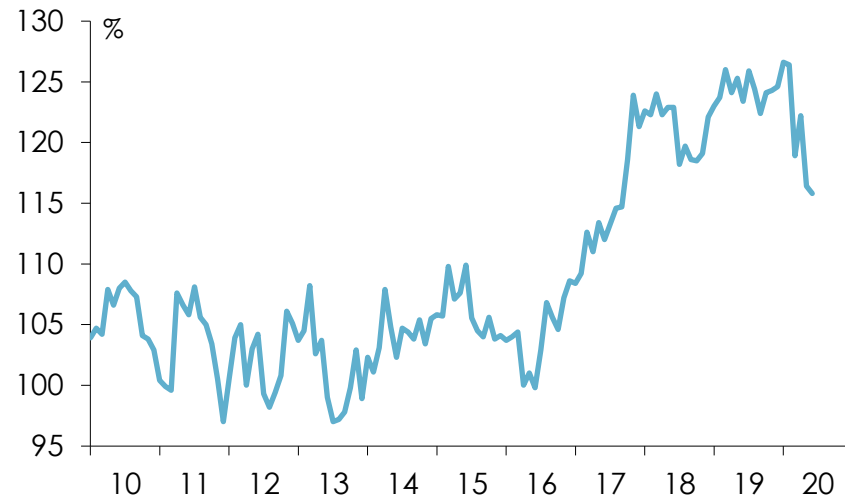
Merchandise trade balance



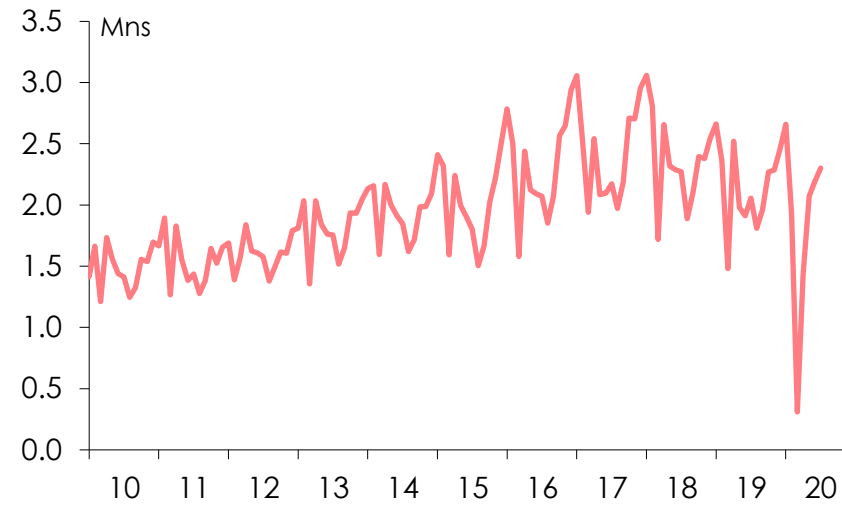
Sources: China National Bureau of Statistics; China Association of Automobile Manufacturers; China General Administration of Customs.

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

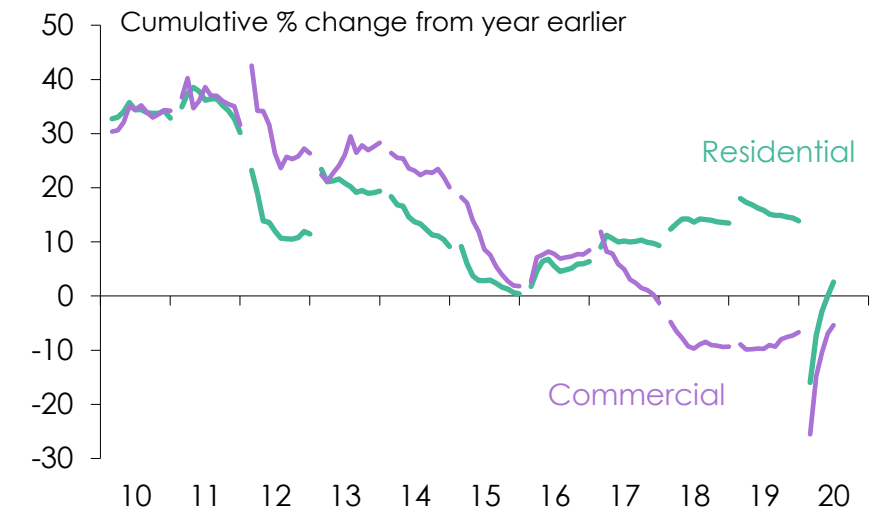
Consumer sentiment



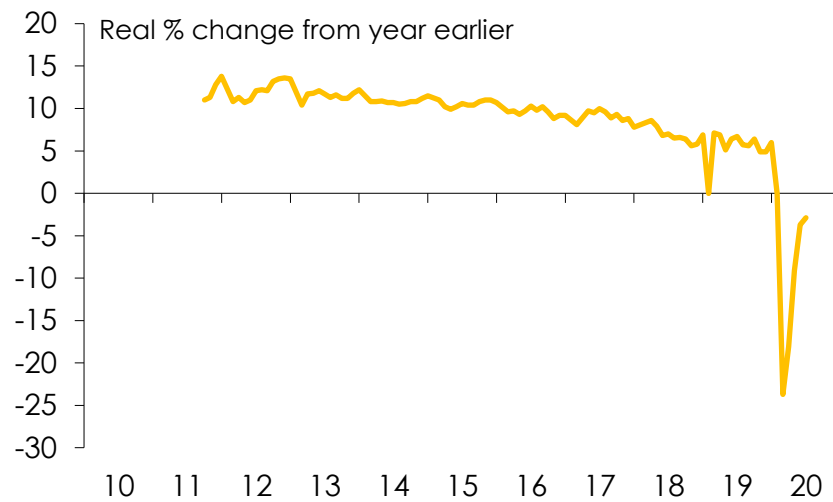
Motor vehicle sales



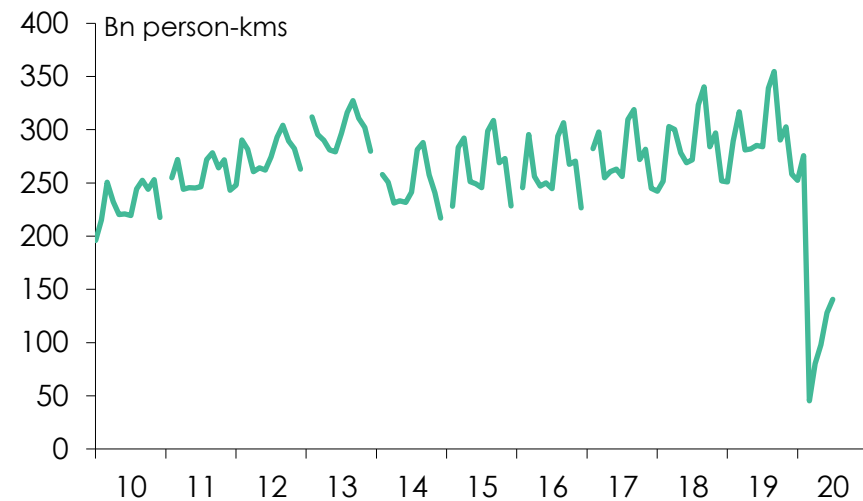
Real estate investment



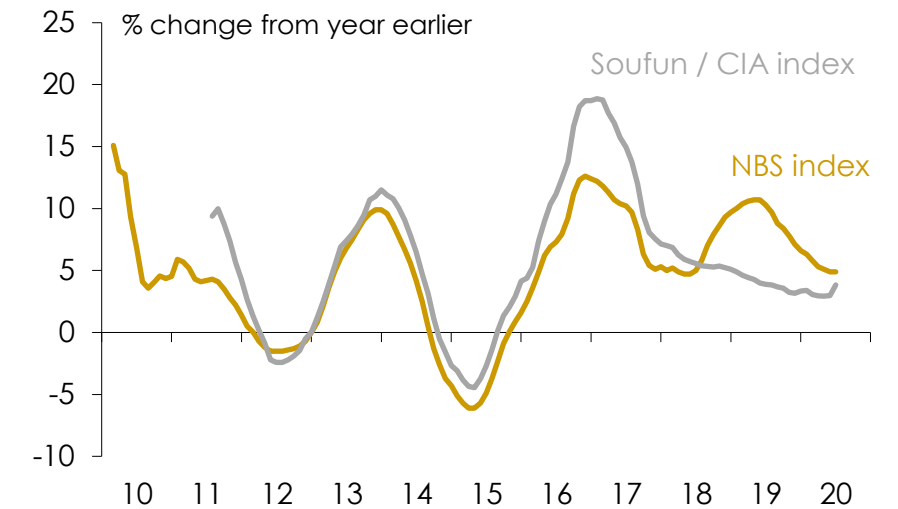
Retail sales volume



Passenger traffic volumes



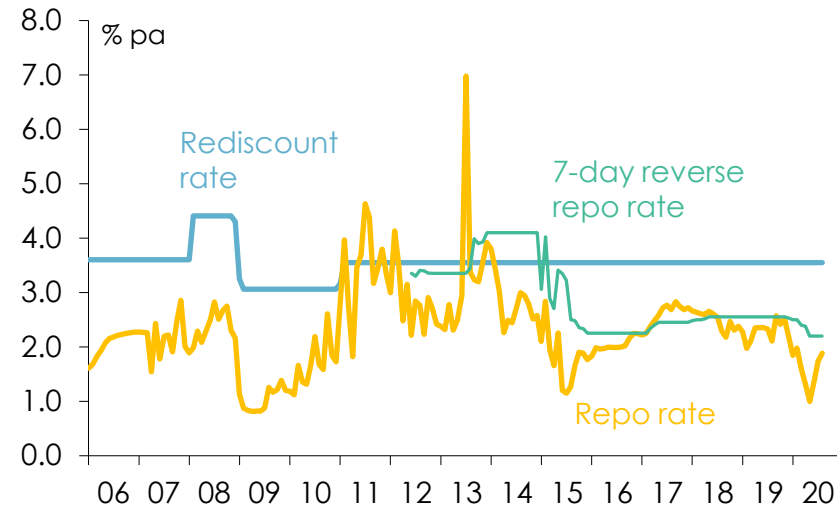
Residential real estate prices



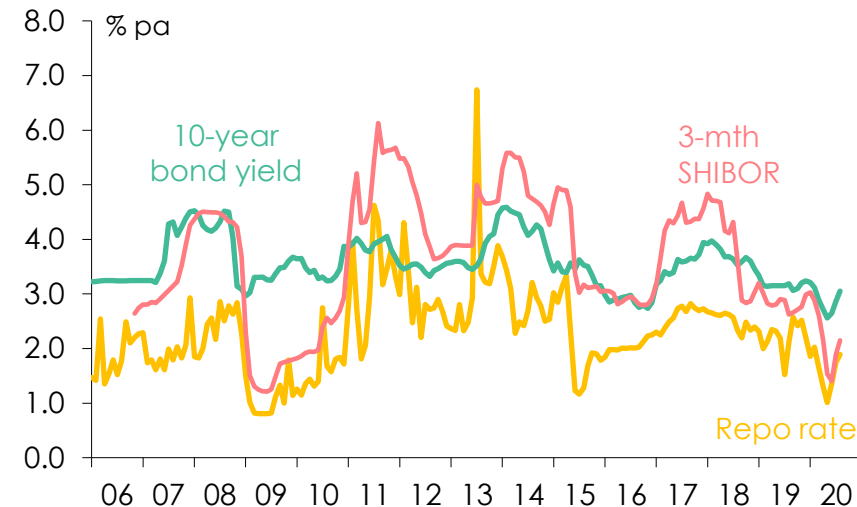
Sources: China National Bureau of Statistics; China Association of Automobile Manufacturers; China Index Academy.

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

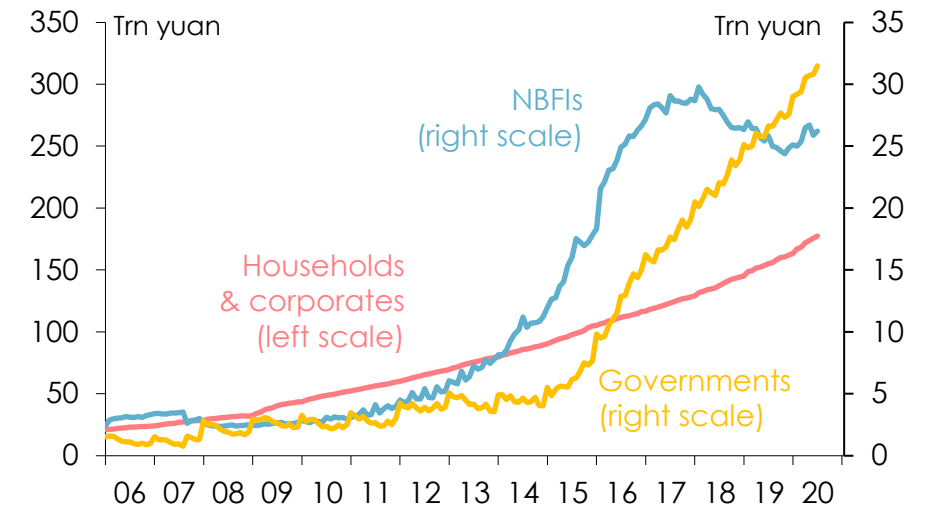
PBoC policy interest rates



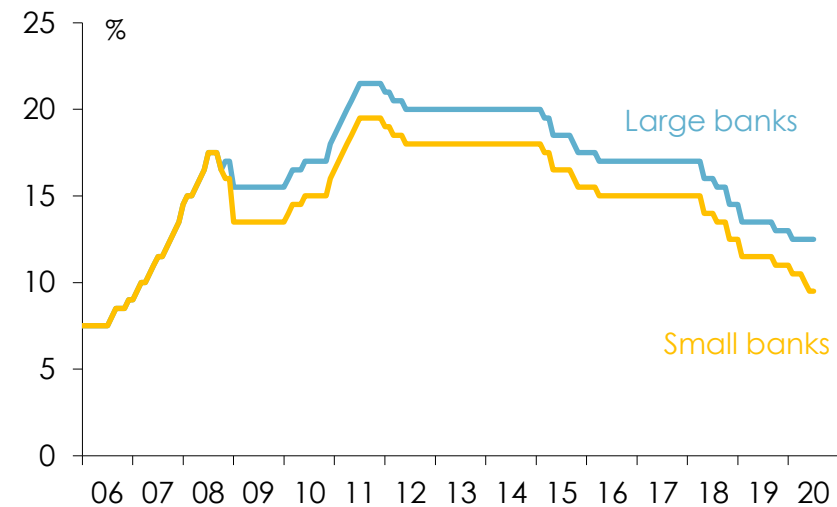
Market interest rates



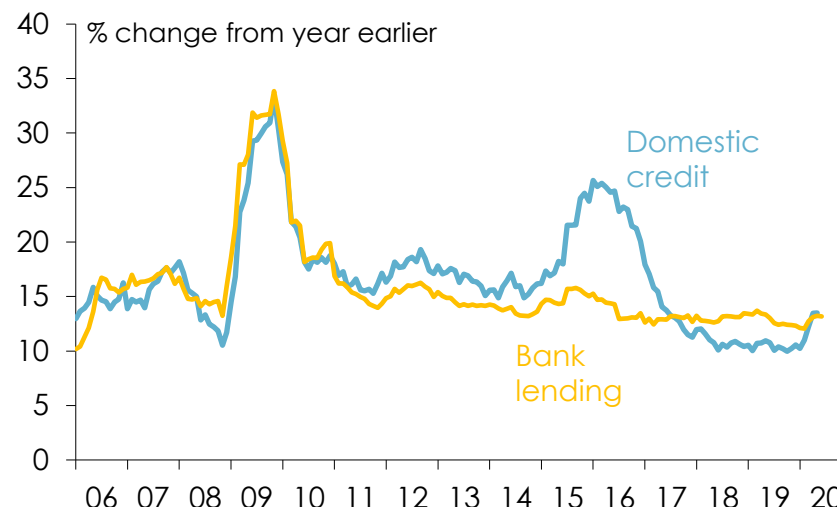
Depository corporation assets



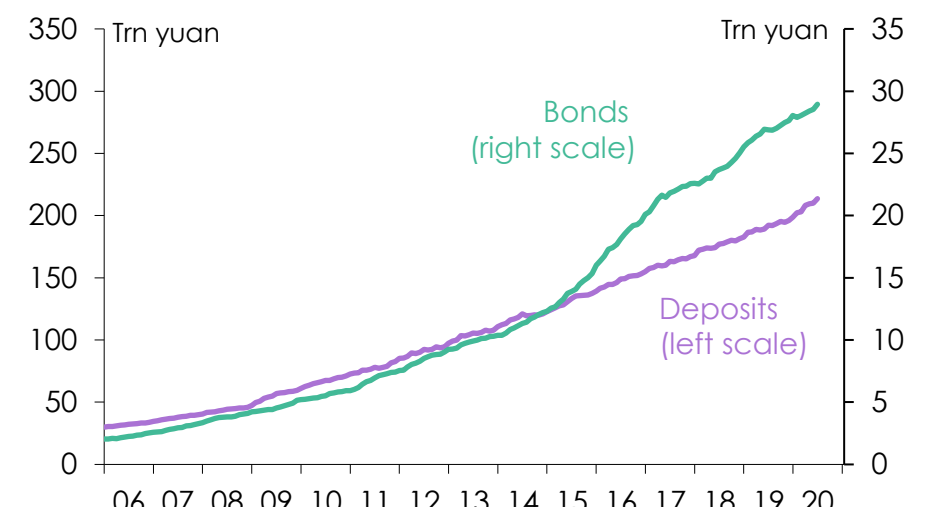
Bank reserve requirement ratios



Credit growth



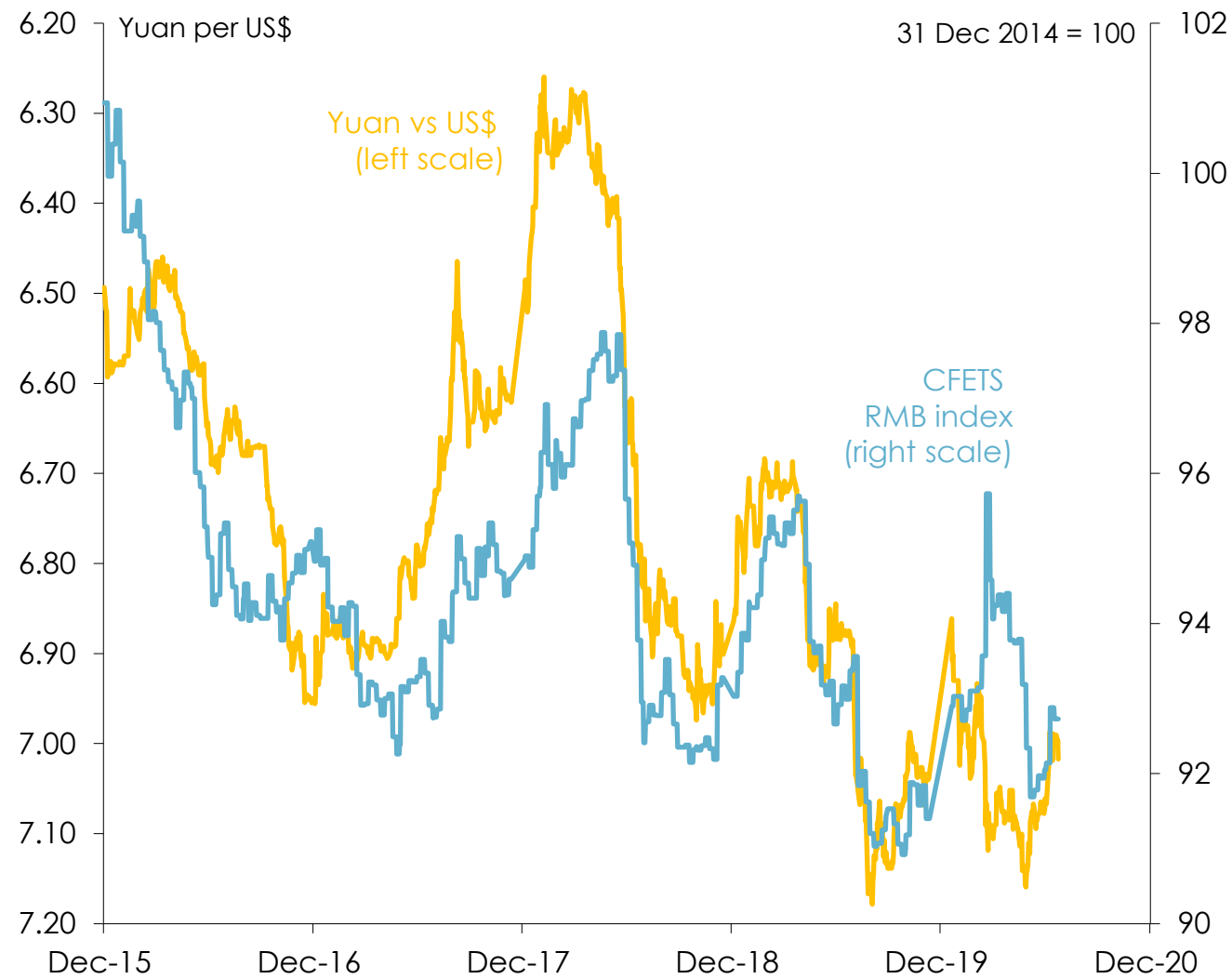
Depository corporation liabilities



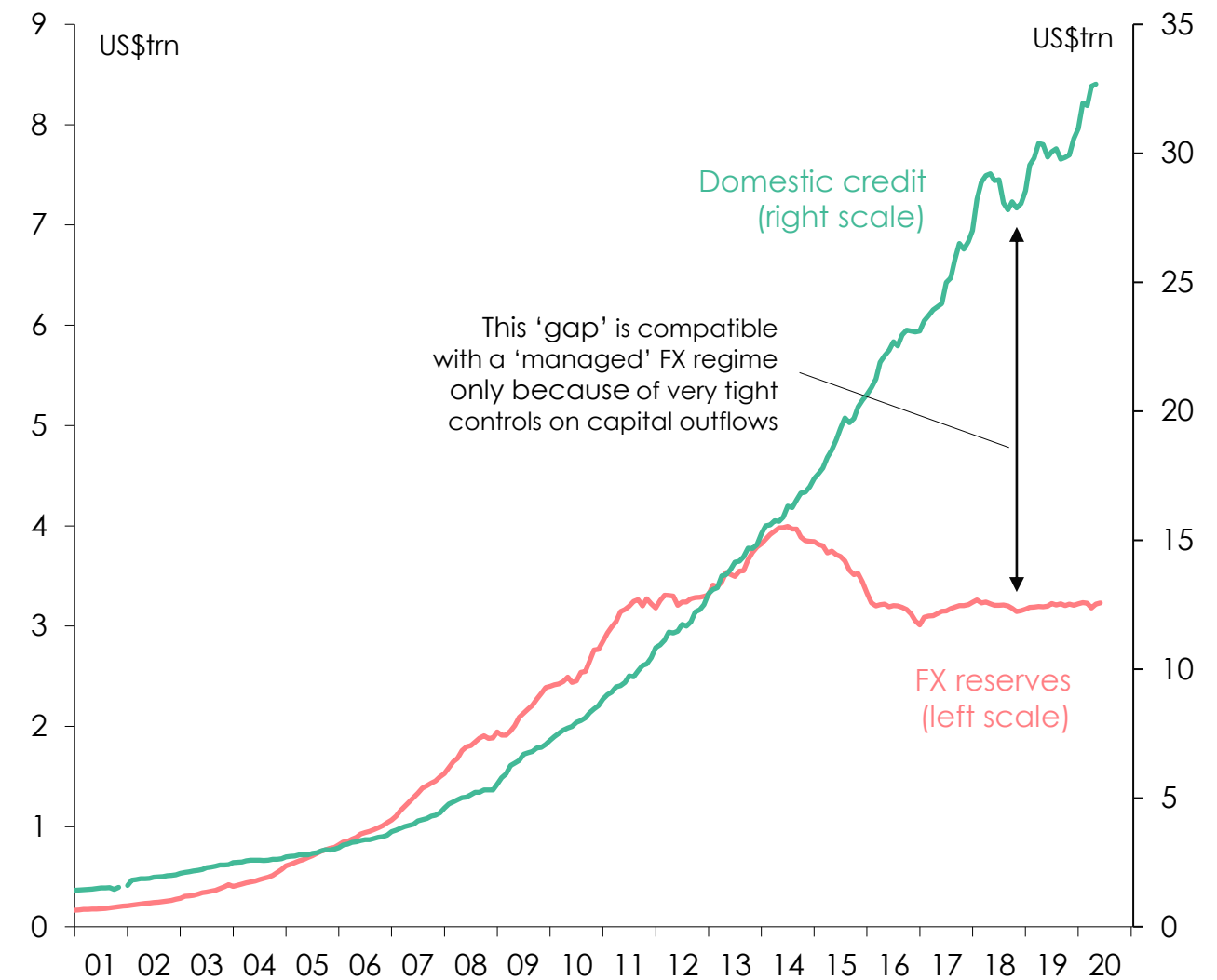
Sources: Refinitiv Datastream; People's Bank of China.

The yuan has fell 0.4% against both the US\$ and the CFETS index – from a longer-term perspective Rmb stability is dependent on capital controls

Chinese yuan vs US\$ and trade-weighted index



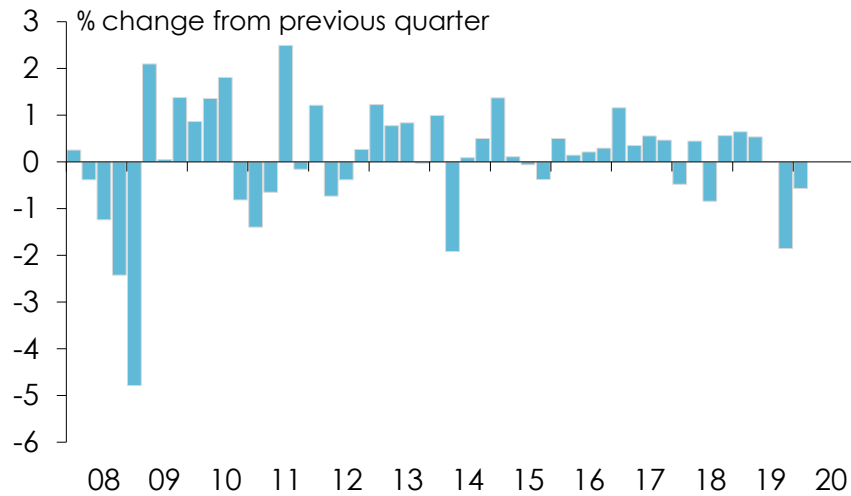
FX reserves and domestic credit



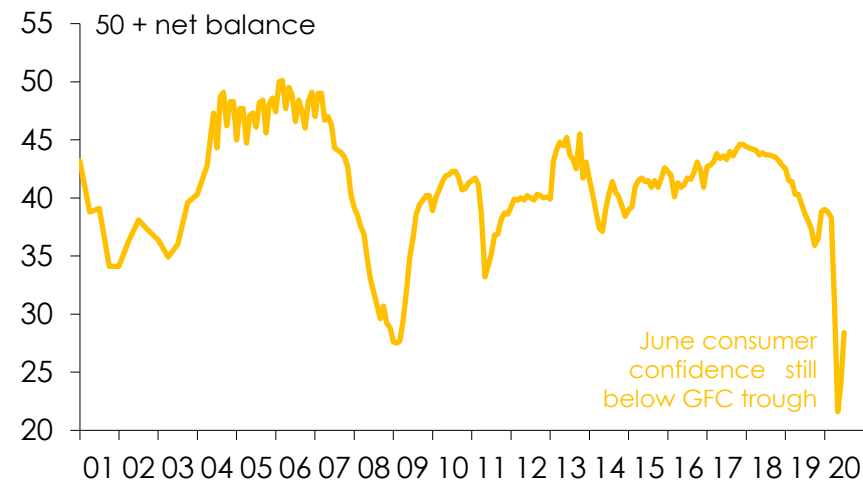
Sources: Refinitiv Datastream; China Foreign Exchange Trading System; People's Bank of China. Exchange rates up to 24th July.

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

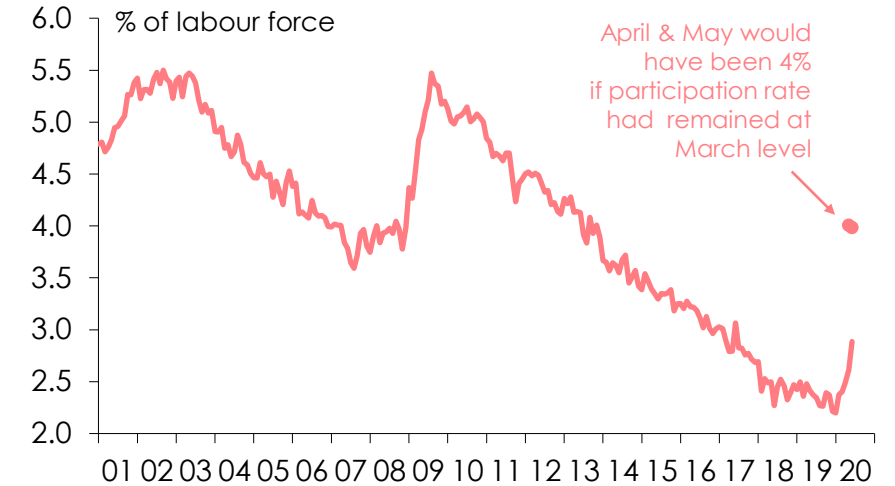
Real GDP



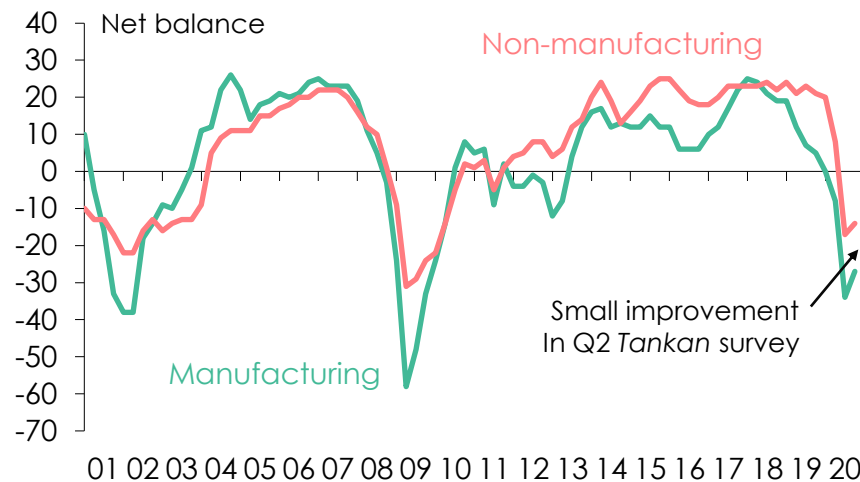
Consumer confidence



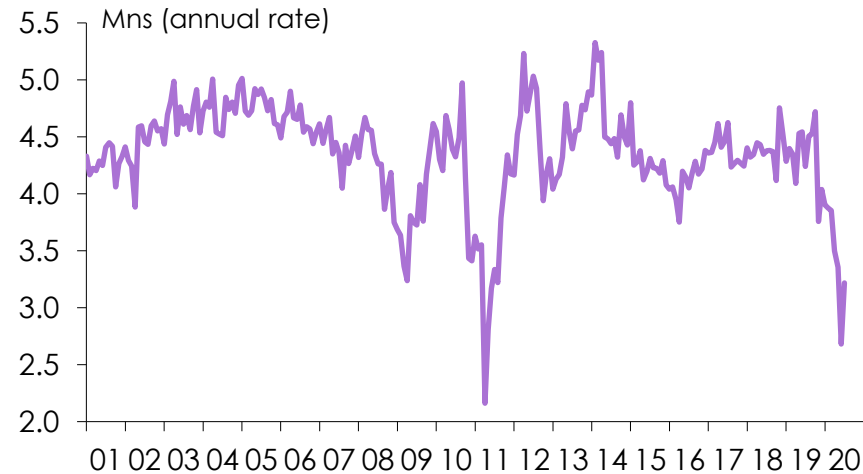
Unemployment



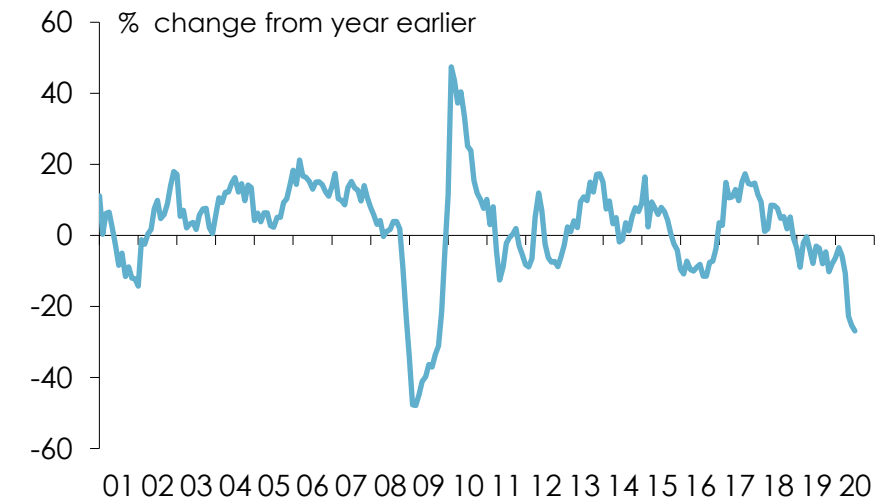
Business conditions – large firms



Passenger vehicle sales



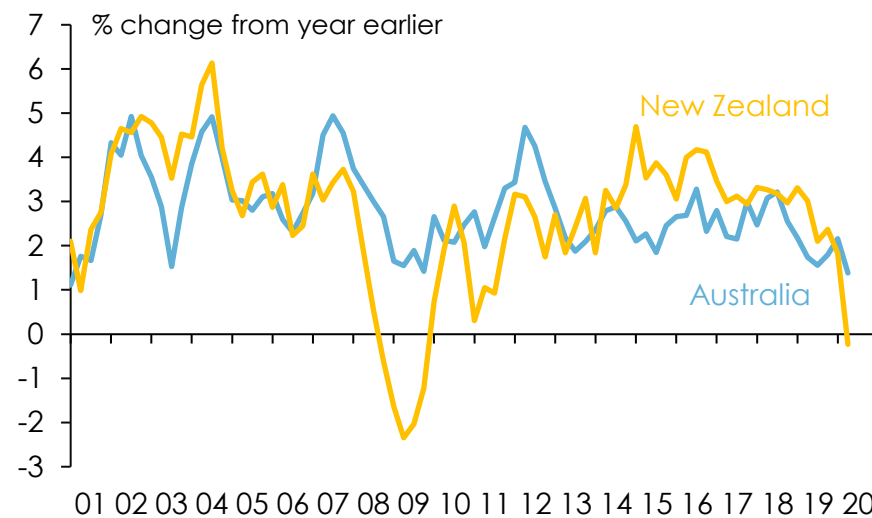
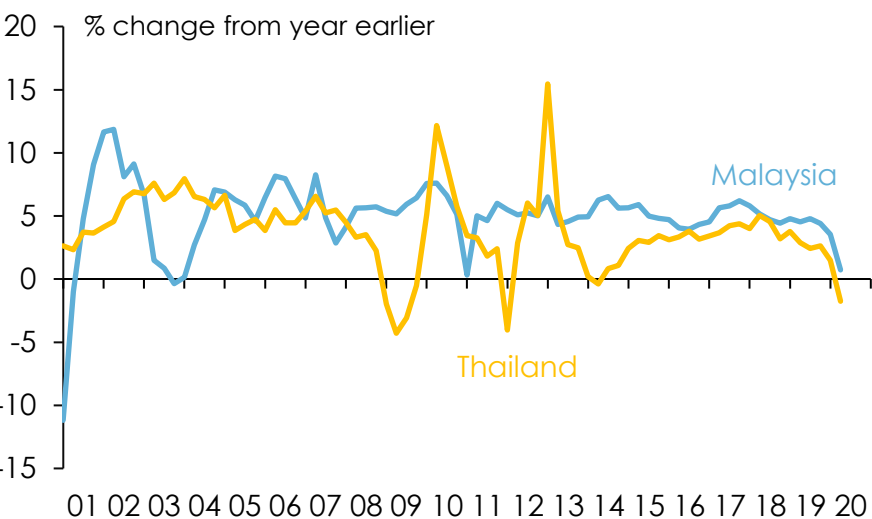
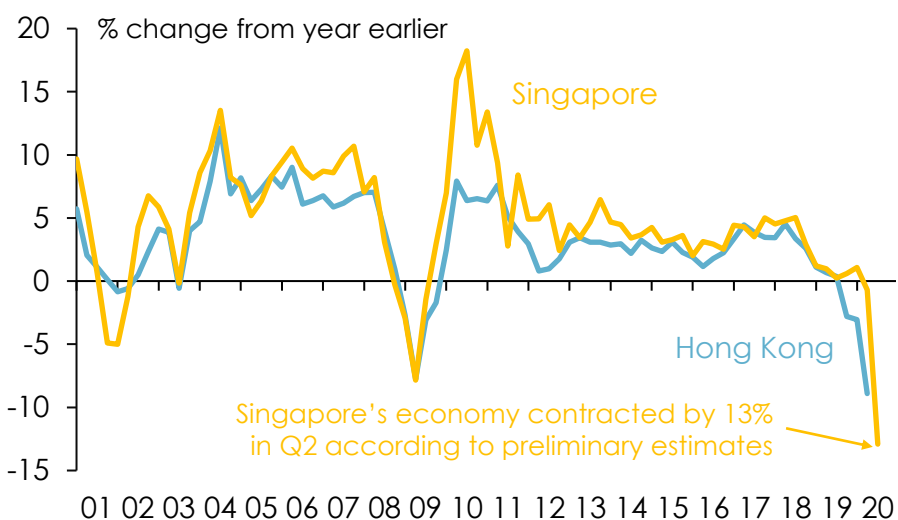
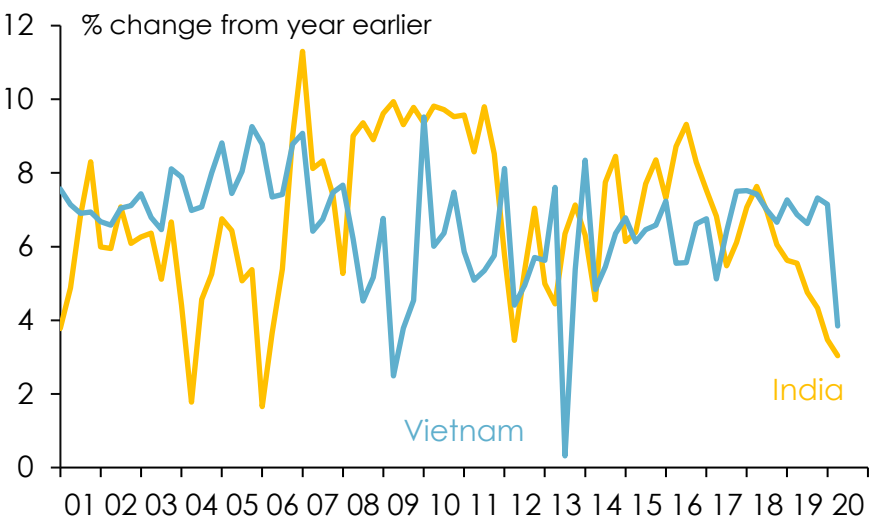
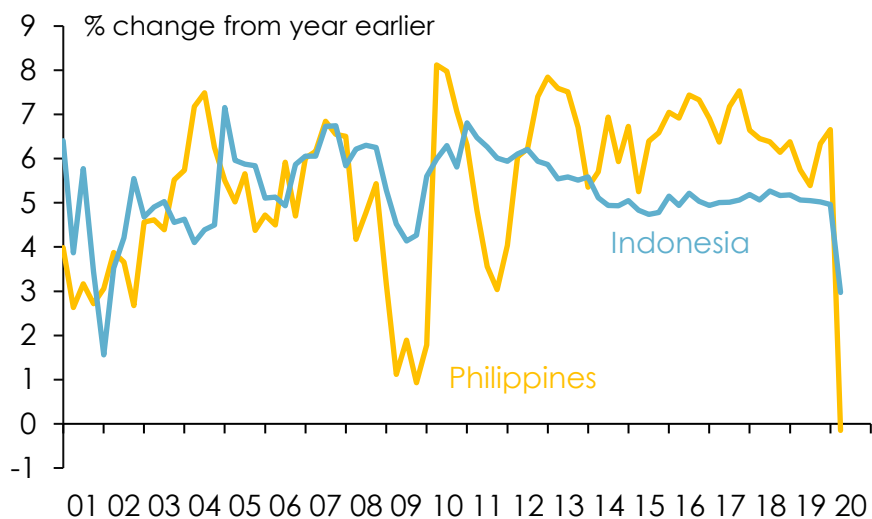
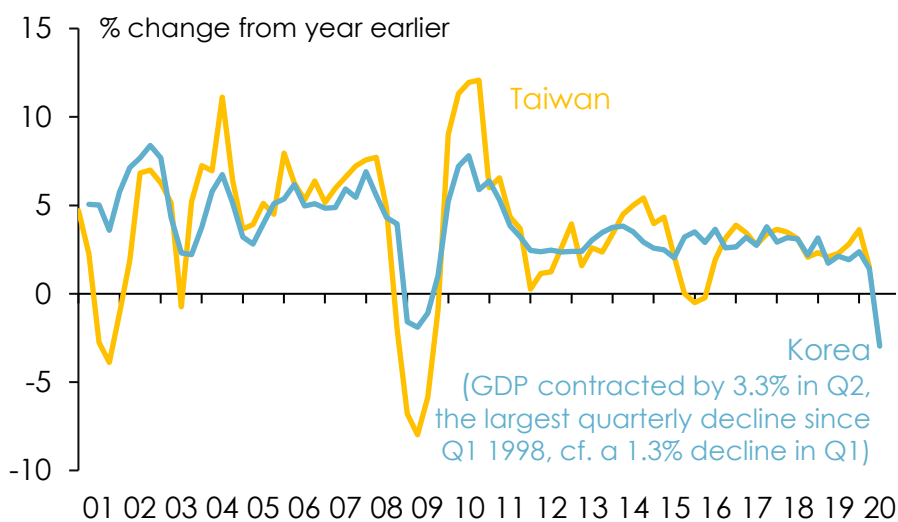
Merchandise exports



Sources: Japan Cabinet Office; Bank of Japan; Japan Automobile Dealers' Association; Ministry of Health, Labour & Welfare. The first estimate of Q2 GDP will be released on 17th August.

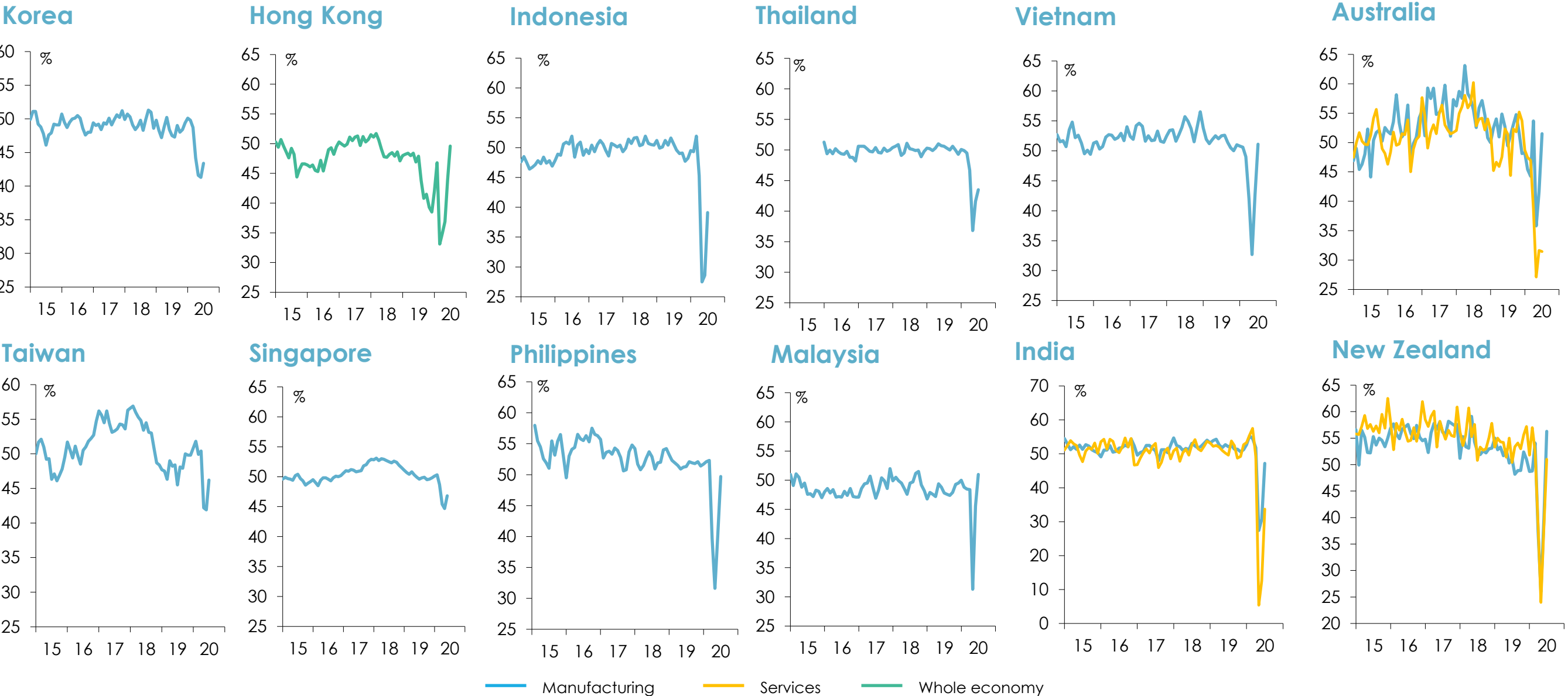
Most other Asian economies experienced a slowdown during the first quarter of 2020, with worse to come in the second quarter

Real GDP growth – Asia-Pacific economies



Sources: Bank of Korea; Taiwan Directorate-General of Budget, Accounting & Statistics; Hong Kong Census & Statistics Department; Singapore Ministry of Trade and Industry; 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; Australian Bureau of Statistics; Statistics New Zealand; .

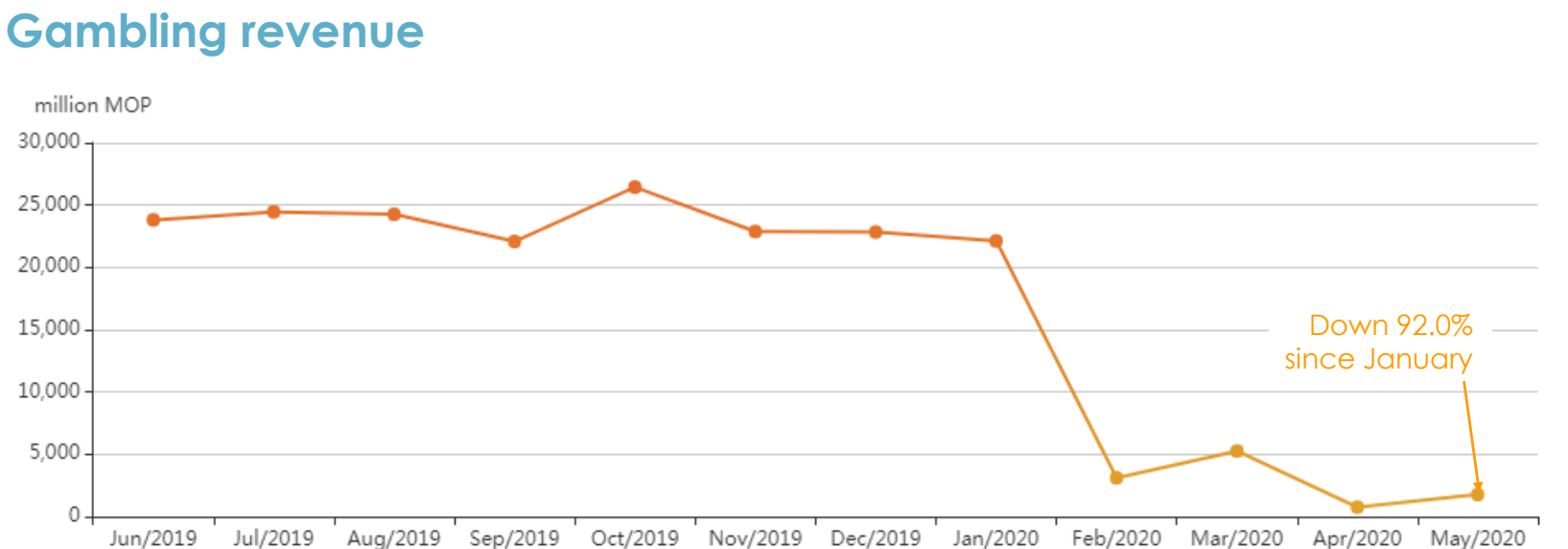
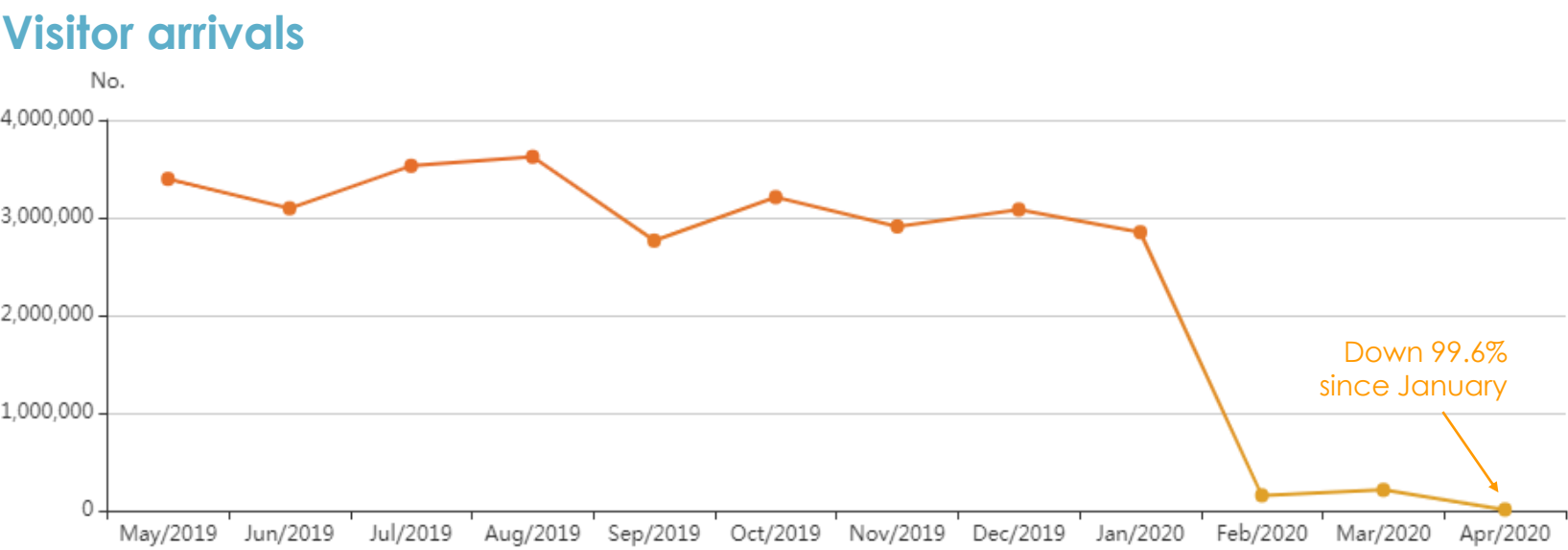
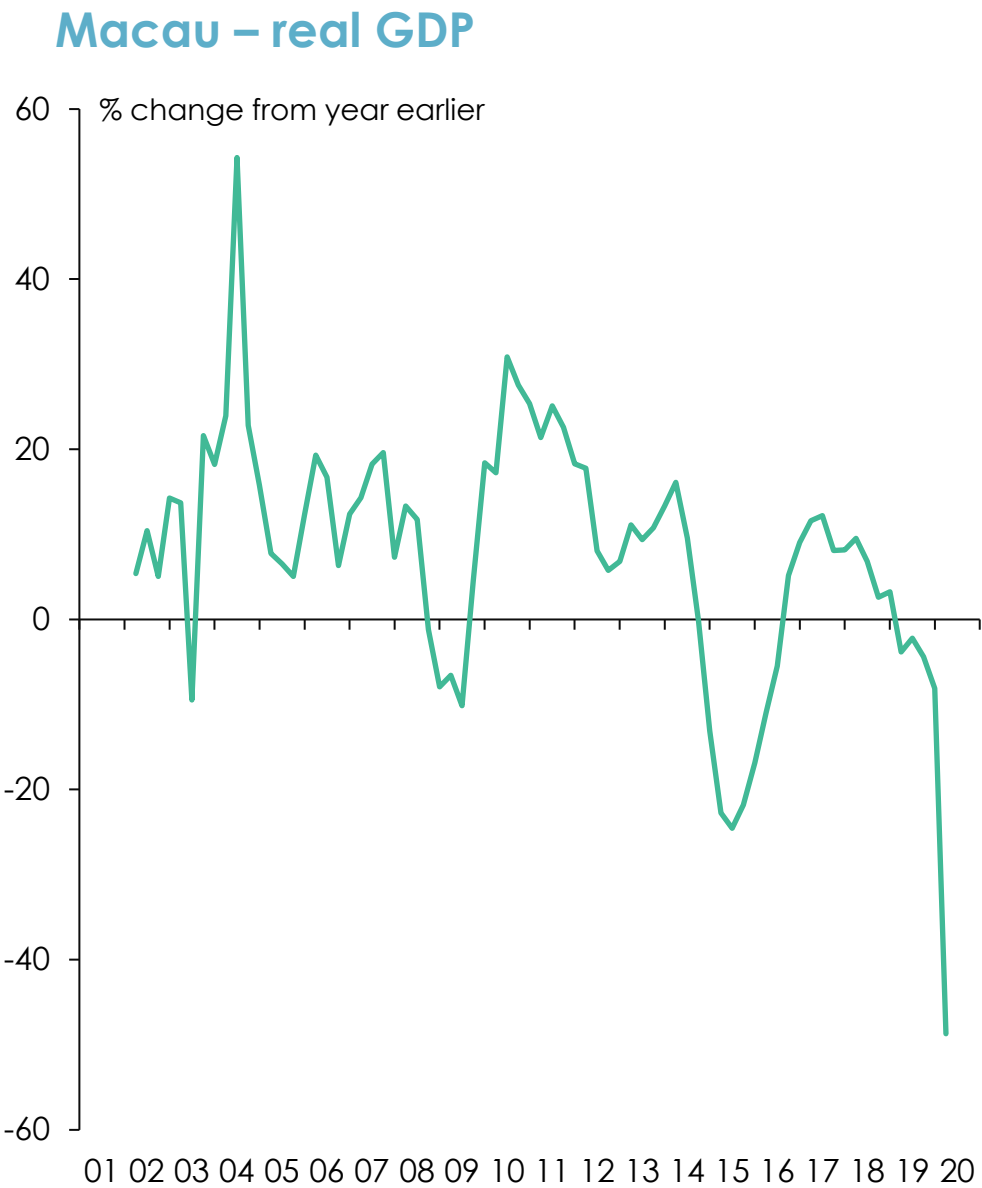
Purchasing managers' indices suggest activity in Asia-Pacific economies started to recover in May and improved further in June



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 June.

Sources: IHS Markit; Singapore Institute of Purchasing & Materials Management; Australian Industry Group; Business NZ; Refinitiv Datastream.

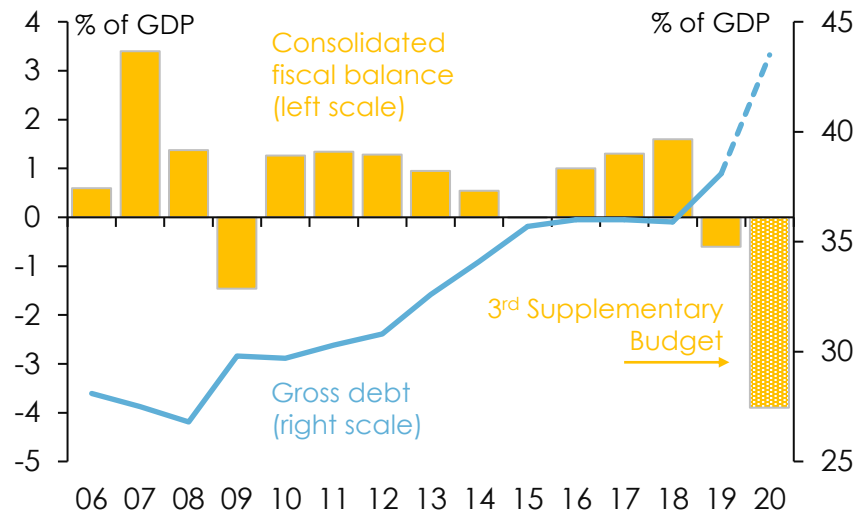
The world's worst recession is probably in Macau



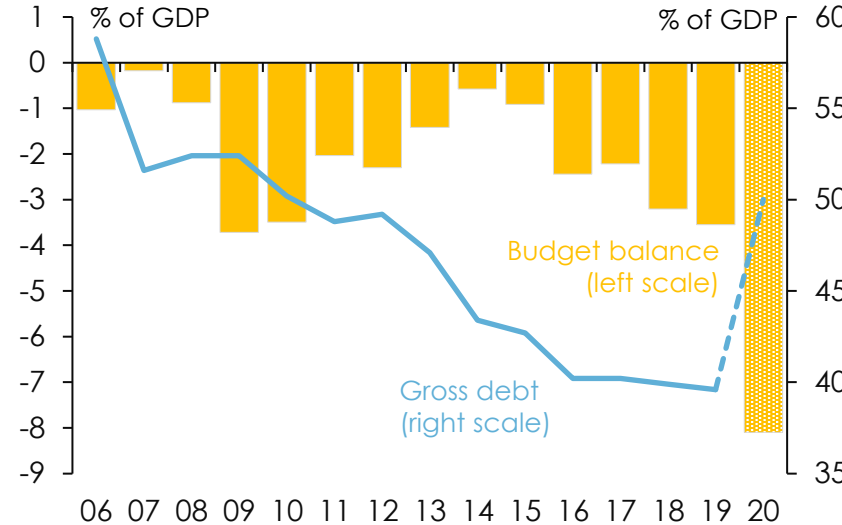
Source: Macau Statistics and Census Service.

Some Asian central banks have engaged in various forms of 'quantitative easing'

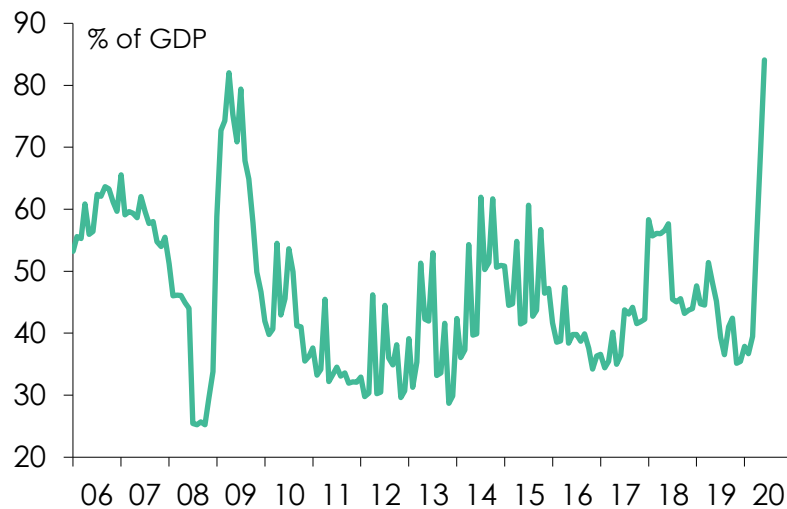
Korea central government budget



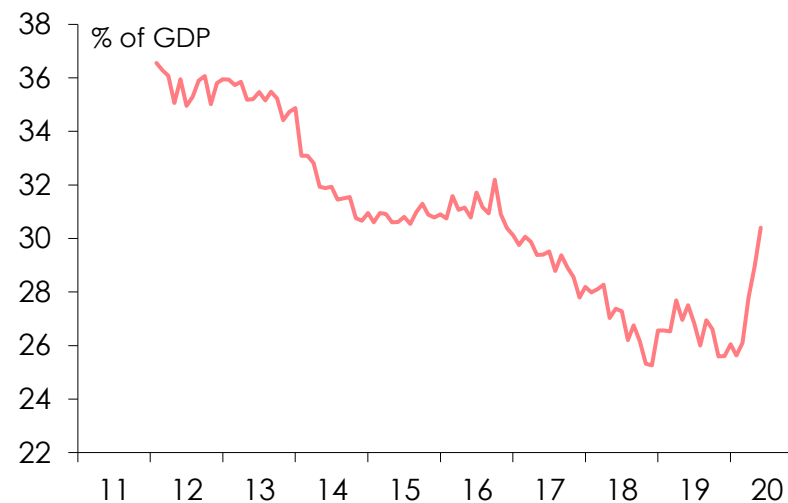
Philippines NG budget



BoK domestic assets



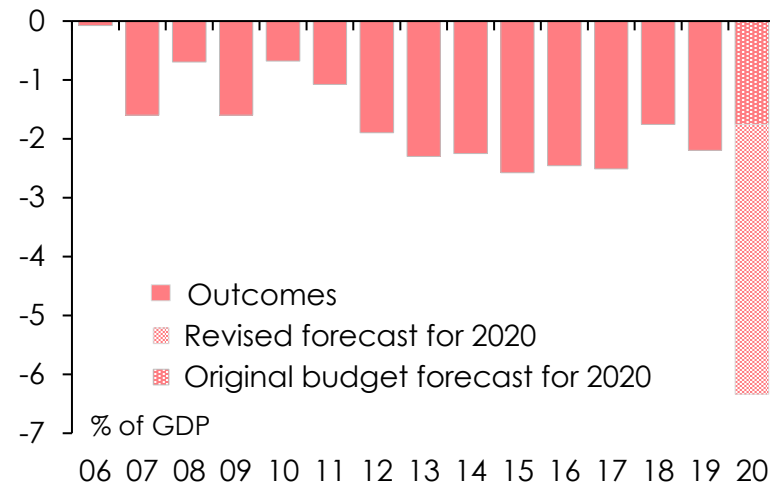
BSP assets



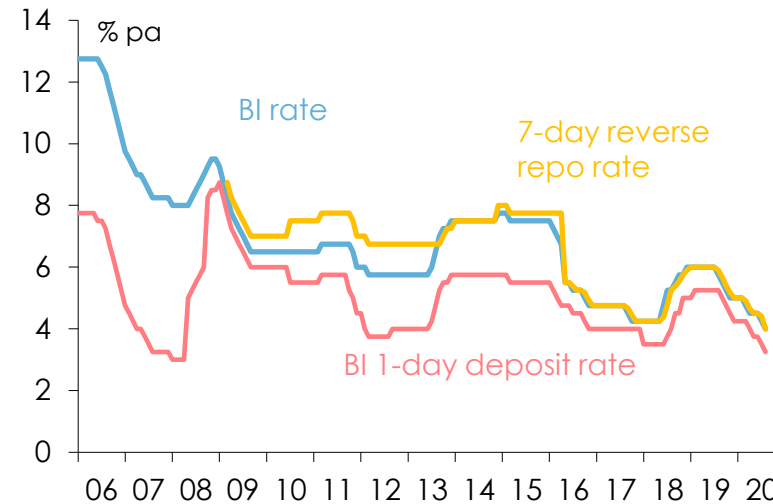
- ❑ The Bank of Korea has cut its policy rate by 100bp so far this year to a record low of 0.50%
- ❑ After its last rate cut in May, Governor Lee Ju-Yeol indicated the BoK was considering using 'unconventional monetary tools' to support growth
 - since March, the BoK has been willing to supply 'unlimited liquidity' to financial institutions, accepting a wider range of collateral in repos
 - this month the BoK lent ₩8 trn to a ₩10 trn SPV established to buy corporate bonds and CP
- ❑ The BoK's total domestic assets more than doubled between end-February and end-May, from 40% of GDP to 84% - reflecting increased holdings of bonds, reverse repos and lending to both government and the private sector
- ❑ The Philippines National Government (NG) expects its budget deficit to reach 8.1% of GDP this year, and public debt to rise to 50% of GDP
- ❑ In March, the BSP purchased ₱300bn (US\$6bn) of bonds directly from the Treasury Bureau under a 6-mth repo arrangement, and has indicated a willingness to purchase a further ₱200bn (but to date hasn't made any further purchases)

Bank Indonesia has entered into a formal agreement with the Indonesian Government to purchase debt directly, and subsidize other debt issuance

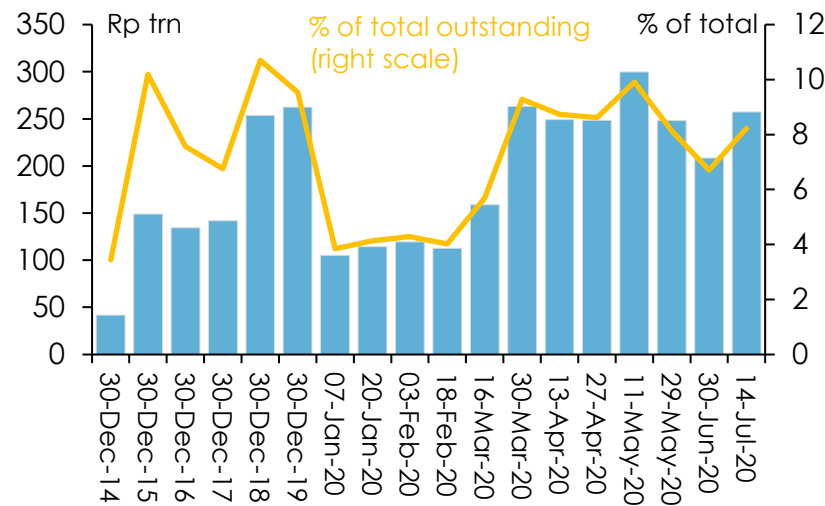
Indonesia budget deficit



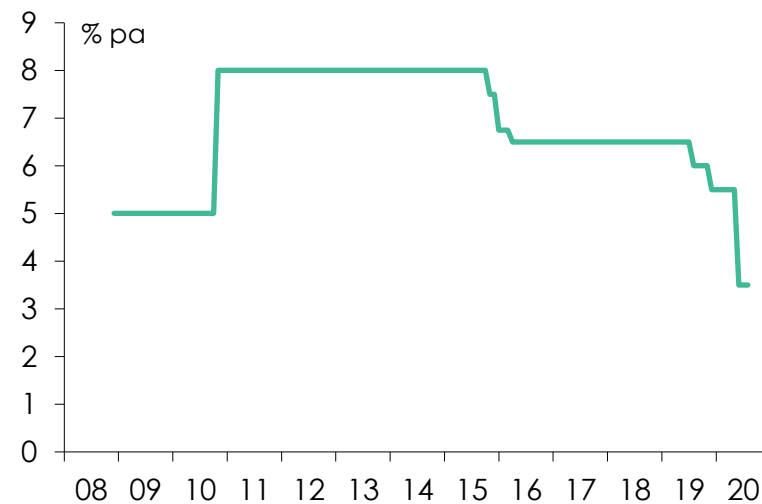
BI monetary policy rates



BI holdings of tradeable SBNs



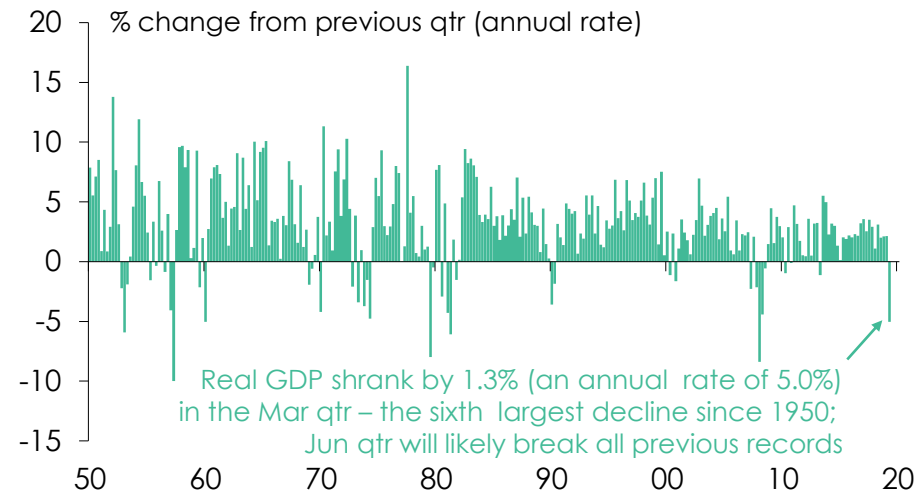
Bank reserve requirement ratio



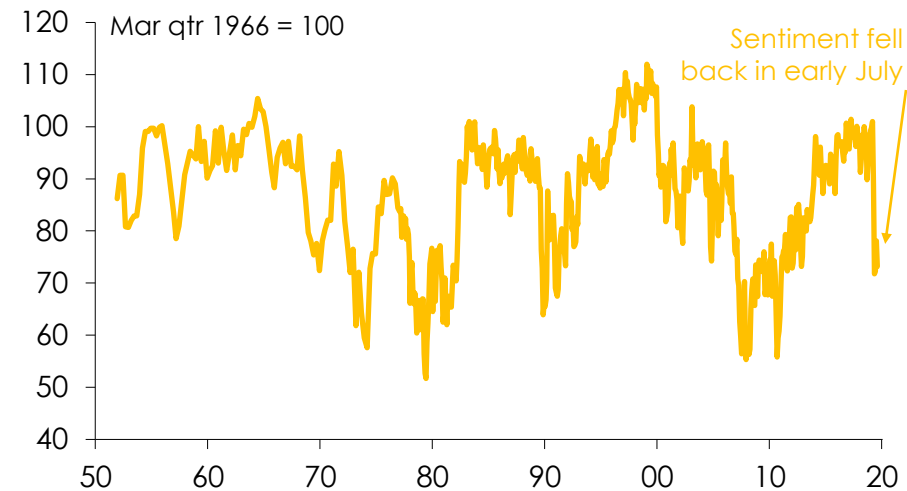
- ❑ Last week the Indonesian Government and Bank Indonesia agreed on a 'burden sharing' scheme under which BI will directly purchase from the Government almost Rp400 trn of bonds (SBNs) – equivalent to about 1/4 of this year's financing requirement – at its benchmark reverse repo rate, and return the interest received to the Government
 - BI has so far purchased Rp36.7 trn of SBNs
 - prior to this BI had also purchased at least Rp166trn of SBNs in the secondary market
- ❑ BI will also subsidise the interest on another Rp177trn of bonds issued to fund loans to micro, small and medium-sized businesses
- ❑ This follows BI's decision in mid-April to cut banks' reserve requirement ratio by 200bp, coupled with a requirement that banks use the funds thus 'freed up' to purchase SBNs
 - banks' holdings of SBNs have since increased by Rp 213 trn (27%)
- ❑ BI calls all this 'synergic monetary expansion'
- ❑ BI is also doing conventional monetary policy: it cut its policy indicator rates by 25bp at this month's policy meeting

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

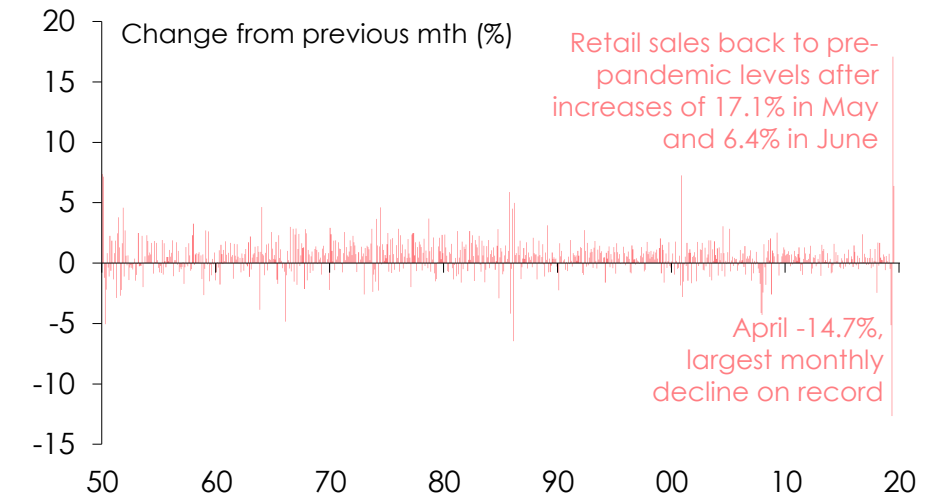
Real GDP



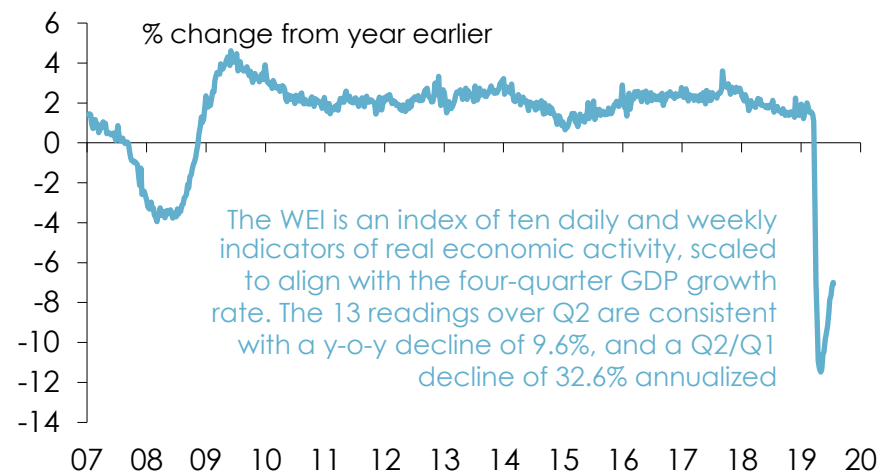
Consumer sentiment



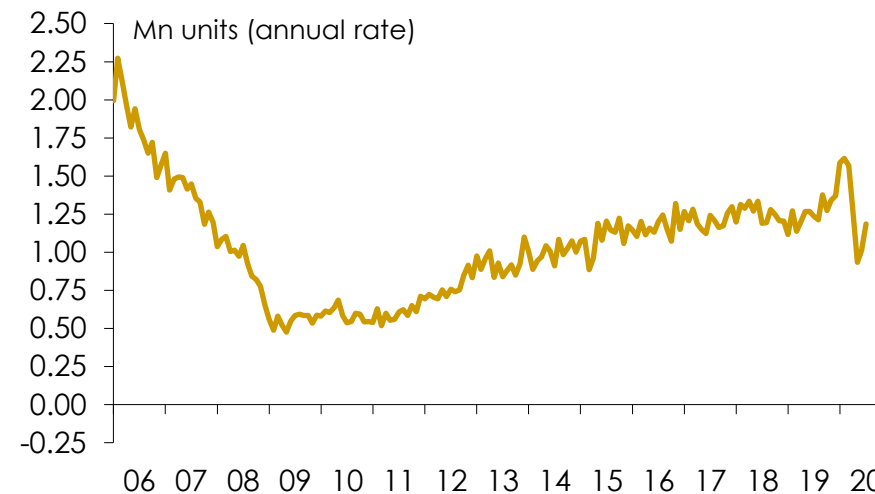
Retail sales



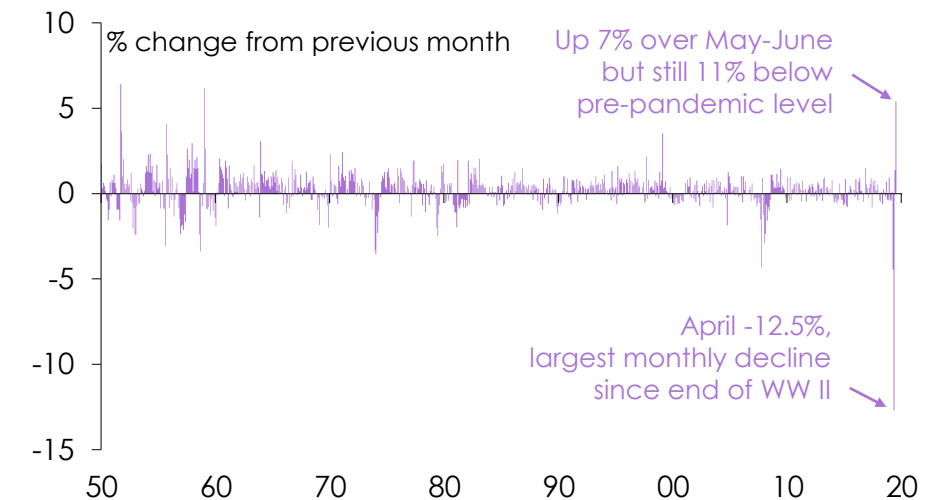
NY Fed weekly economic index



Housing starts



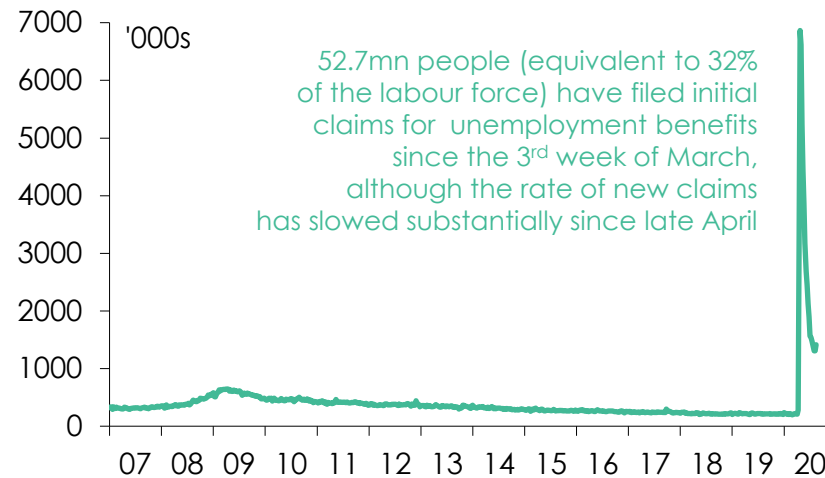
Industrial production



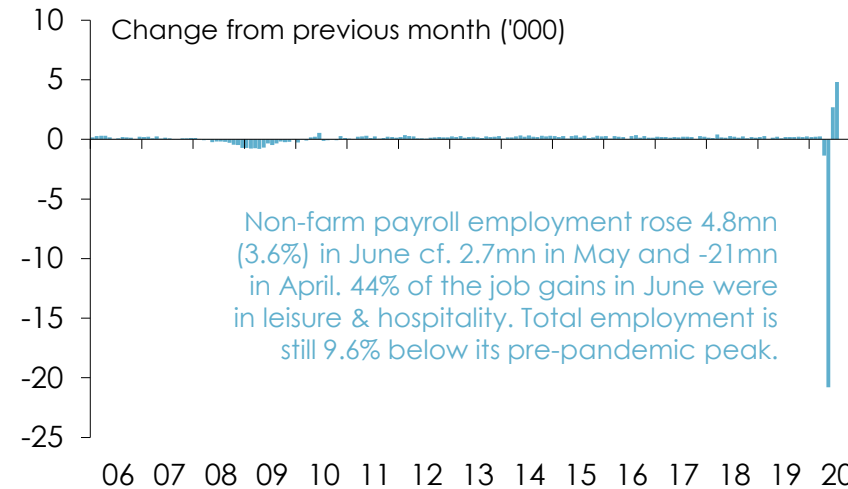
Sources: US Bureau of Economic Analysis; Federal Reserve Bank of New York; Michigan University Survey Research Center; US Commerce Department; Board of Governors of the Federal Reserve System. The first estimate of Q2 GDP will be released this Thursday, 30th July.

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

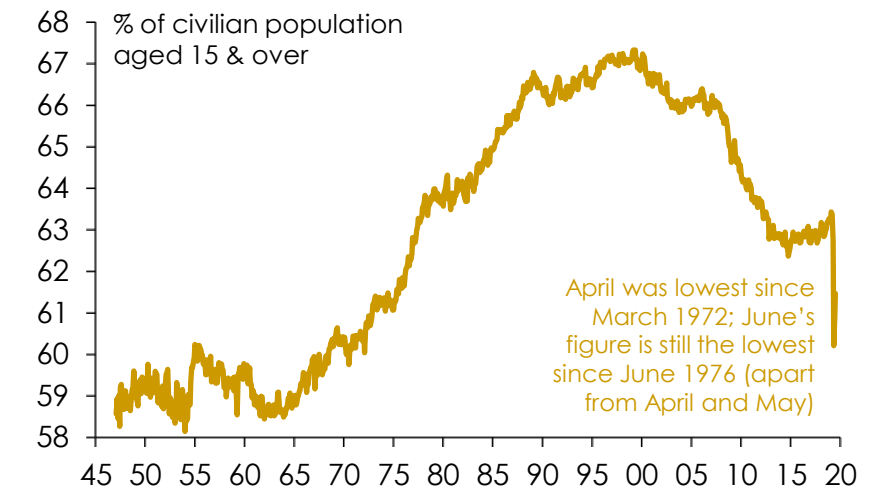
Unemployment benefit claims



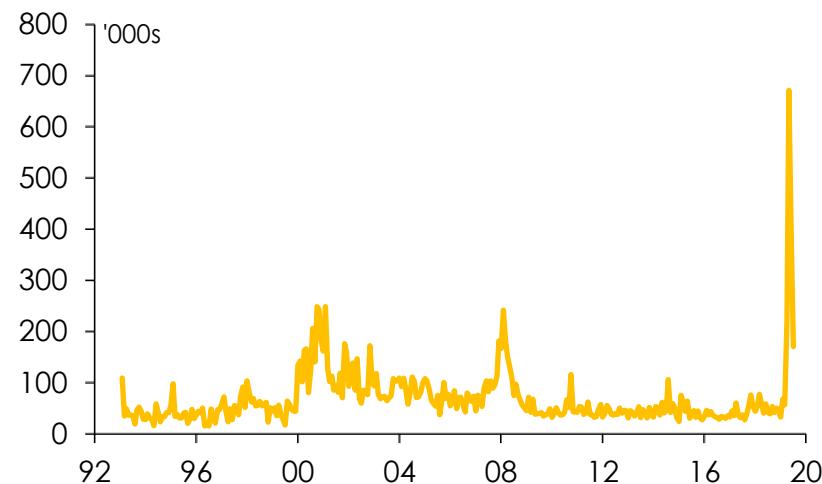
Non-farm payroll employment



Labour force participation rate



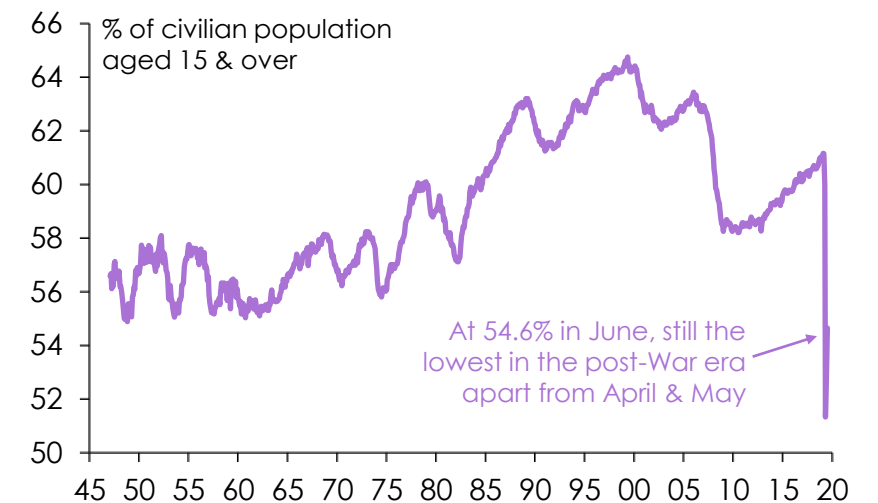
Layoff announcements



Unemployment rate



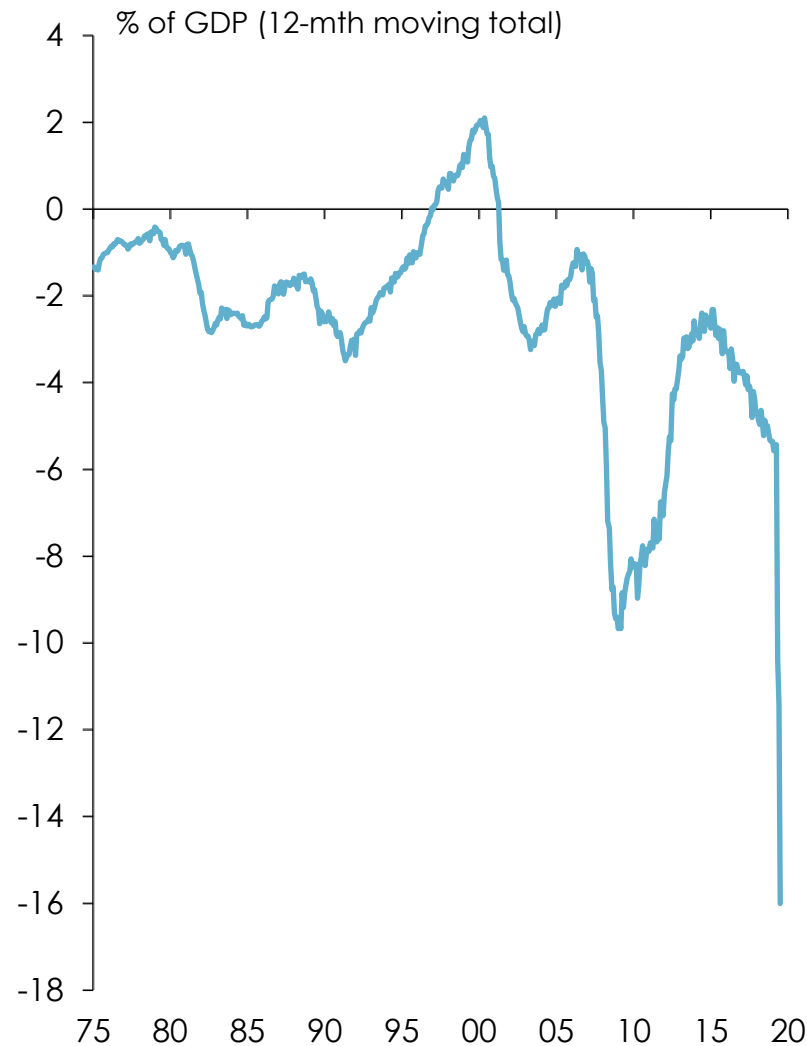
Employment to population ratio



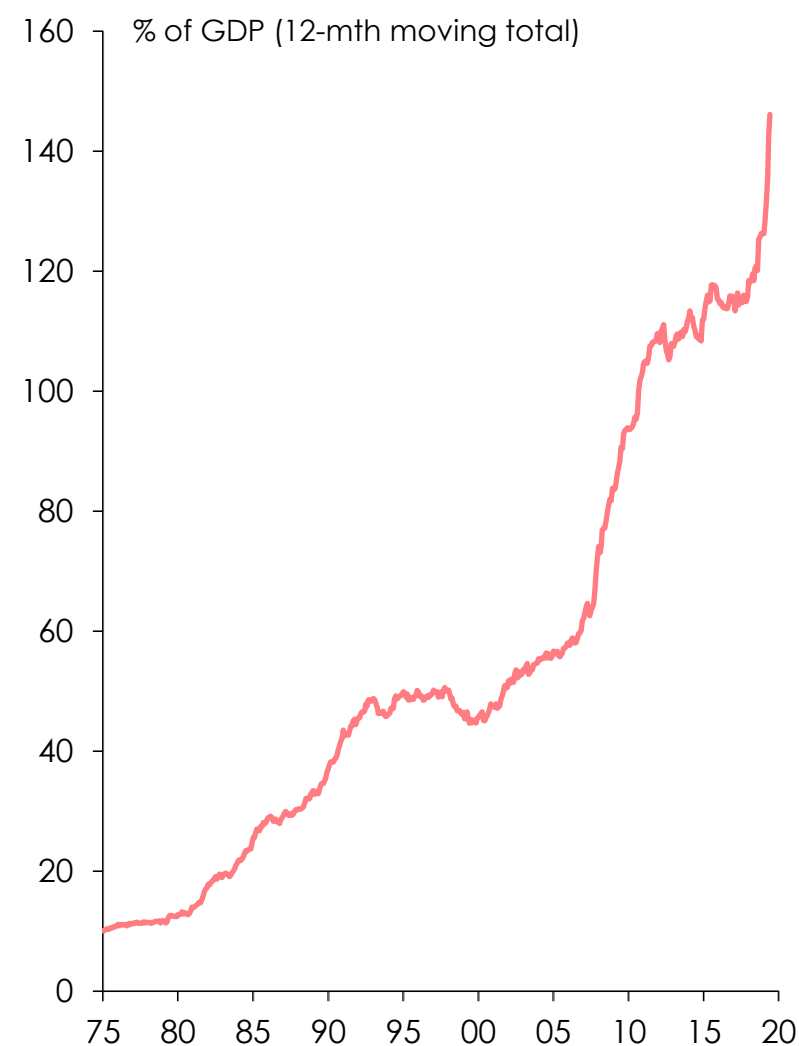
Sources: US Department of Labor; Challenger, Gray & Christmas; US Bureau of Labor Statistics; National Bureau of Economic Research Macro History database. July employment and other labour force data will be released on 7th August.

The US budget deficit has blown out dramatically since the end of March, reaching 16% of GDP in the 12 months ended June

US Federal budget deficit



US gross Federal debt

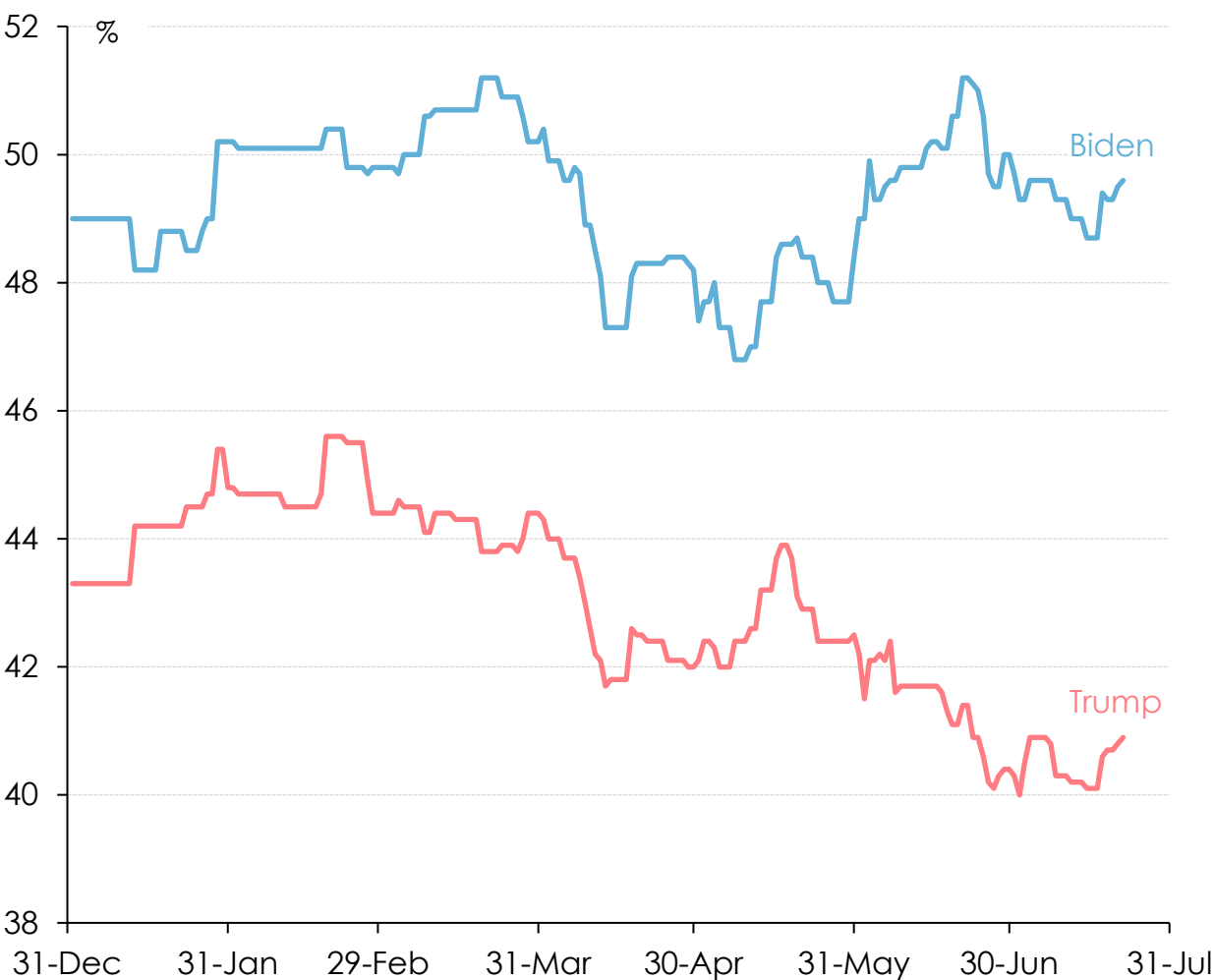


- ❑ The US federal budget deficit widened from US\$582bn (3.3% of GDP) in 2016 (Obama's last year in office) to US\$1 trn (5.4% of GDP) in 2019, while gross federal debt rose from US\$20.4 trn (115% of GDP) to \$24.1trn (126% of GDP)
- ❑ In March, the Congressional Budget Office forecast the deficit 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 April, May and June amounted to US\$2.0trn (reflecting the impact of Covid-19 related measures), bringing the 12-month moving total to US\$3.0 trn (16.0% of GDP), cf. a peak of 9.7% of GDP during the GFC (and the largest since 20.8% of GDP in FY 1945)
- ❑ Gross federal debt increased by US\$727 bn to US\$28.7 trn (154% of GDP)

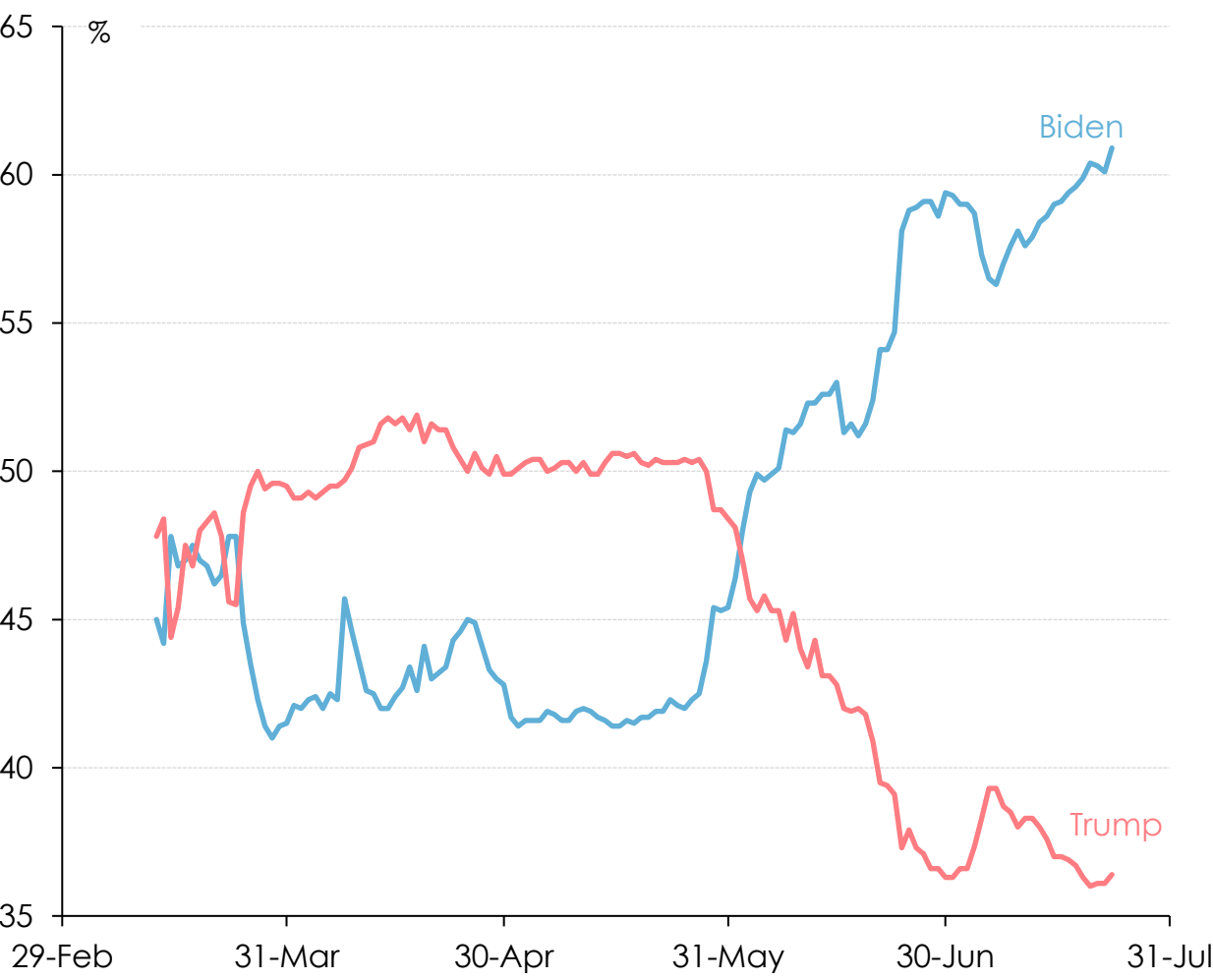
Note: The measure of US gross federal debt is at market value. Sources: US Treasury Department; Federal Reserve Bank of Dallas; US Bureau of Economic Analysis; US Congressional Budget Office; Corinna. July budget data are released on 12th August.

Joe Biden's lead in opinion polls remained under 9 pc pts this week, but his lead in betting markets widened to over 24 pc pts

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



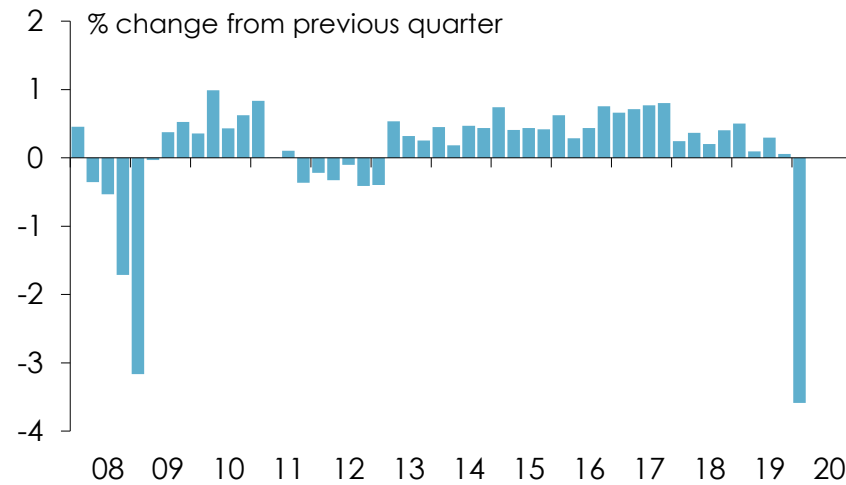
Winner of November US Presidential election
– betting odds



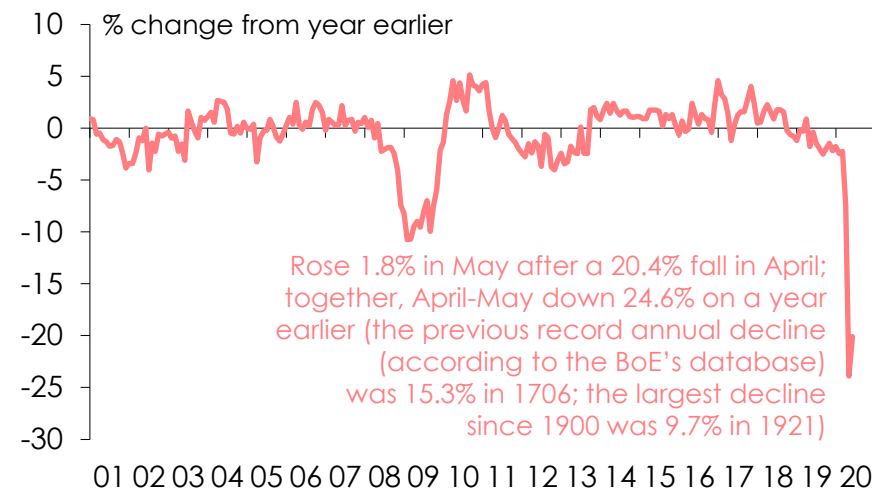
Note: The opinion poll average is based on 9 different polls; the betting odds average is based on 6 different markets. Latest opinion poll data is 22nd July; latest betting odds are 23rd July. Source: RealClearPolitics.

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

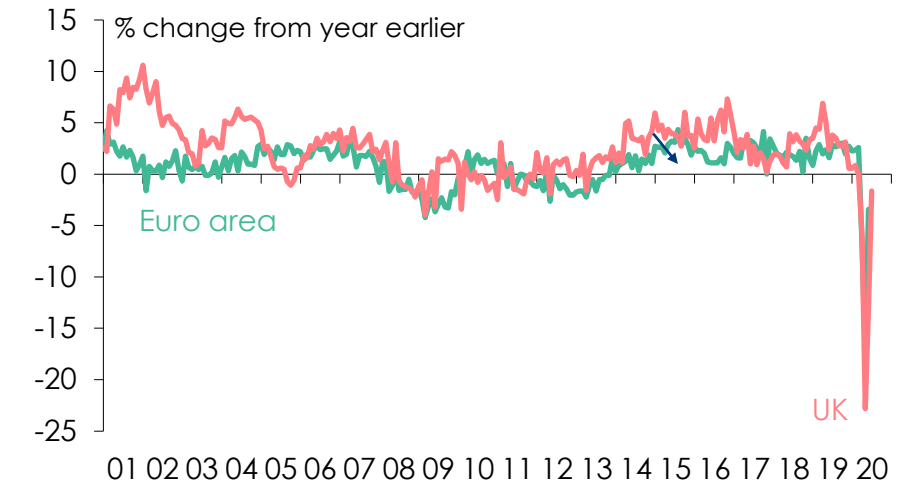
Euro area real GDP



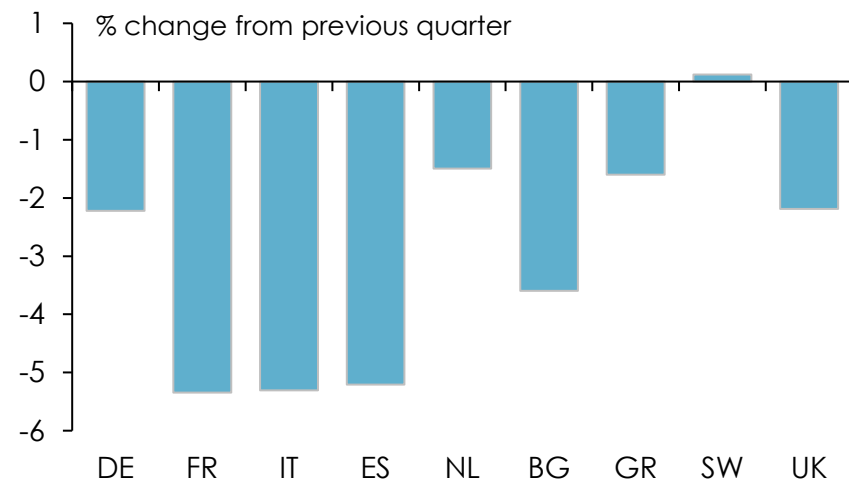
UK monthly GDP



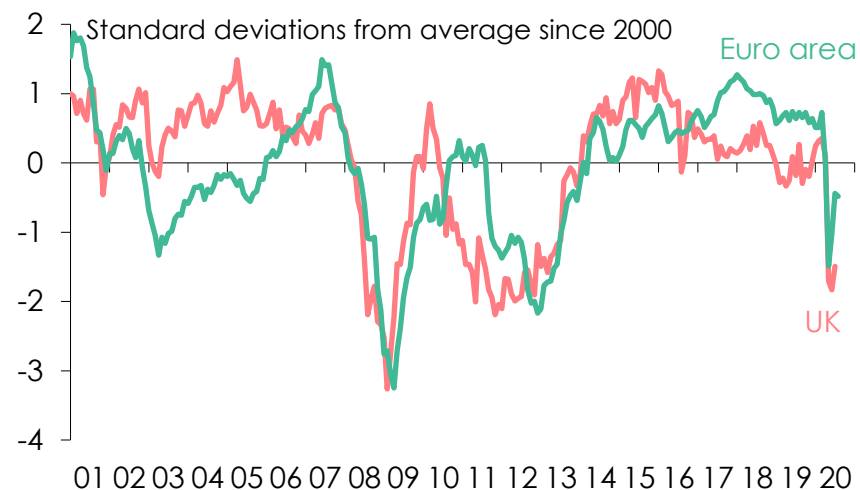
Retail sales volume



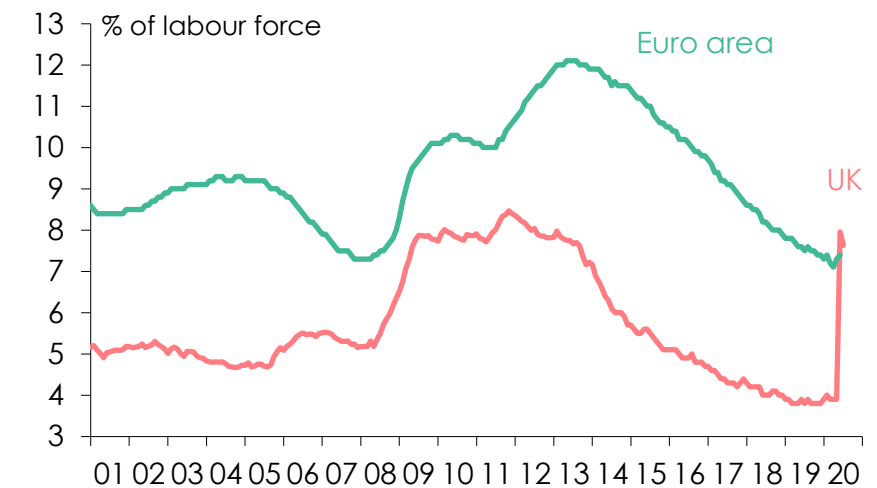
March quarter GDP by country



Consumer confidence



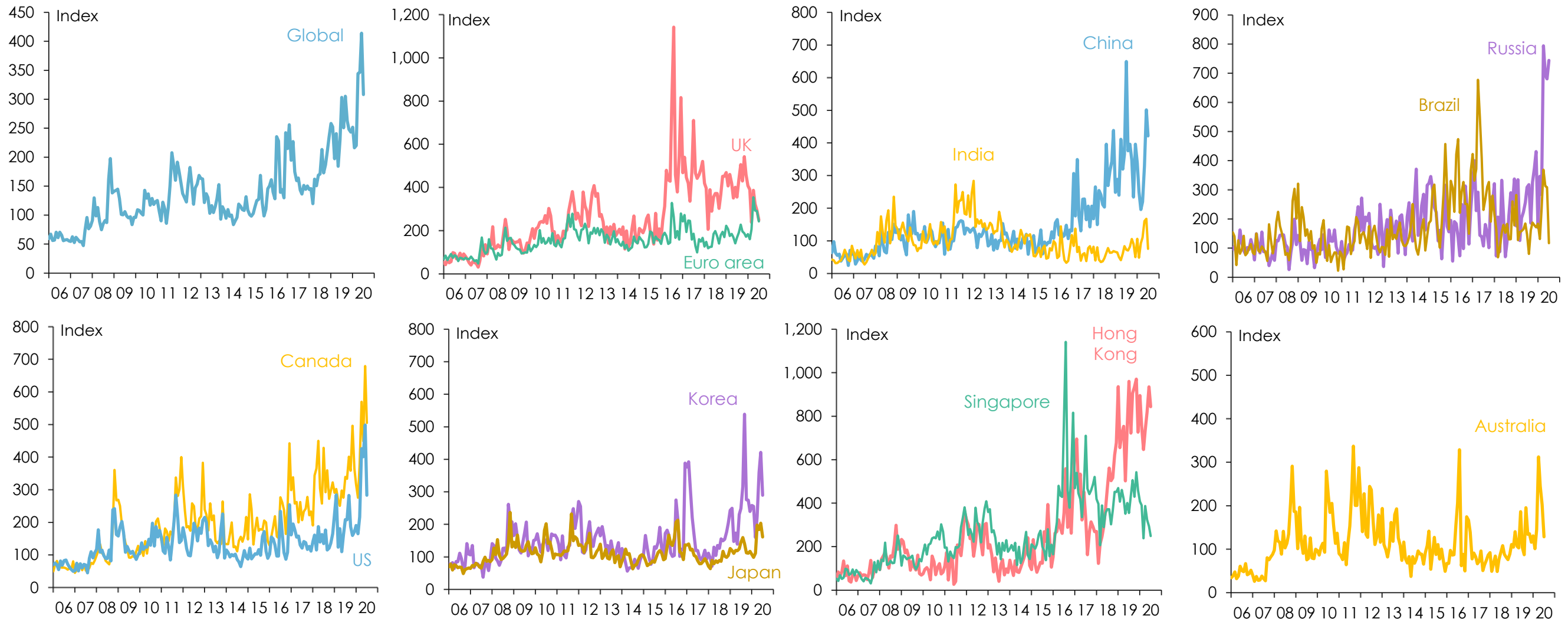
Unemployment



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. Preliminary estimates of Q2 GDP for the euro area and UK will be released on 31st July and 12th August respectively.

Perhaps surprisingly, economic policy uncertainty eased almost everywhere in June – although it remains elevated by historical standards

Economic policy uncertainty indices

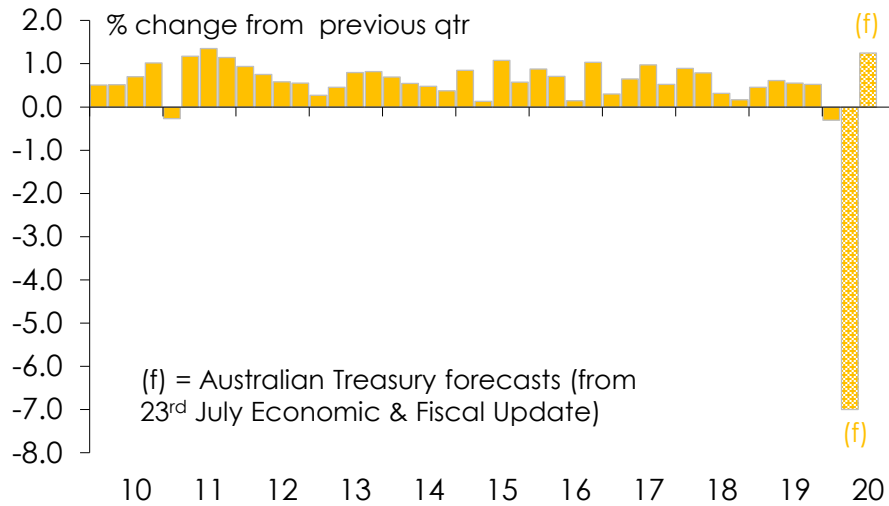


Note: The Economic Policy Uncertainty Index is derived from a count of newspaper articles containing the words “uncertain” or “uncertainty”, “economy” or “economic”, and policy-relevant terms pertaining to regulation, monetary or fiscal policy, central bank, taxation, tariffs, deficit, budget, etc. The index for the euro area is a GDP-weighted average of indices for Germany, France, Italy, Spain, the Netherlands and Ireland constructed by Corinna. Latest data are for June 2020.
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.

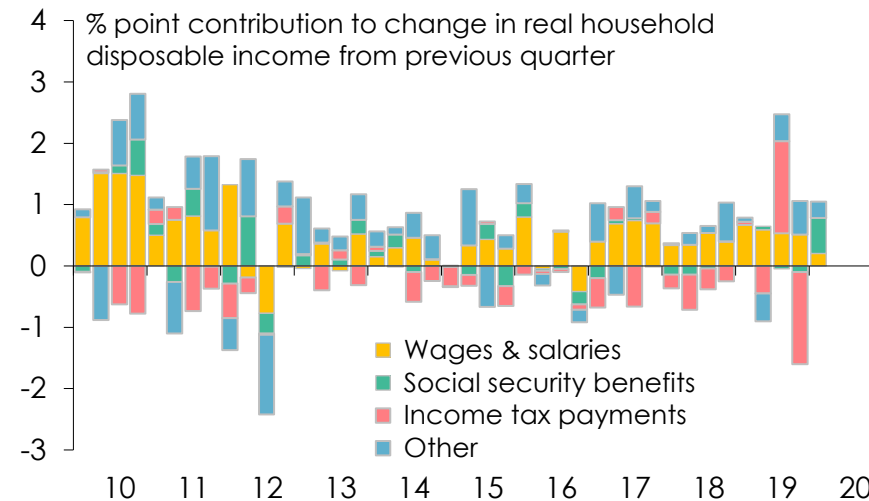
Australia

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

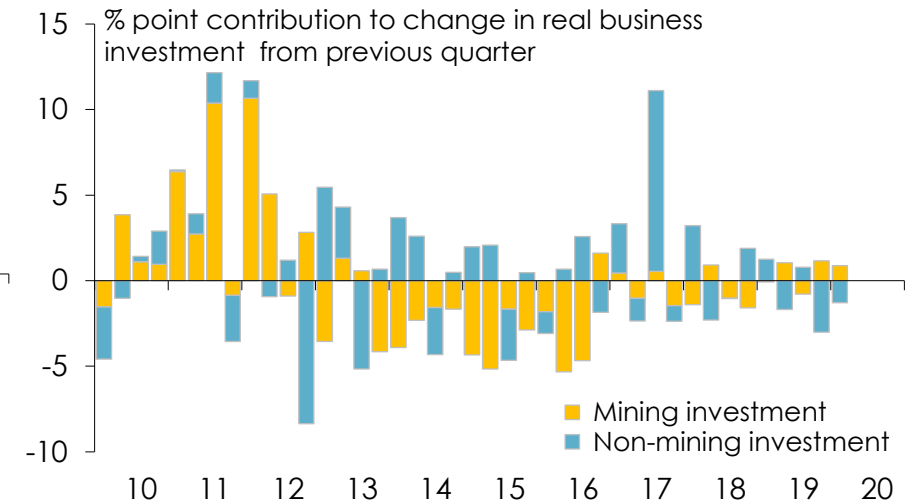
Quarterly change in real GDP



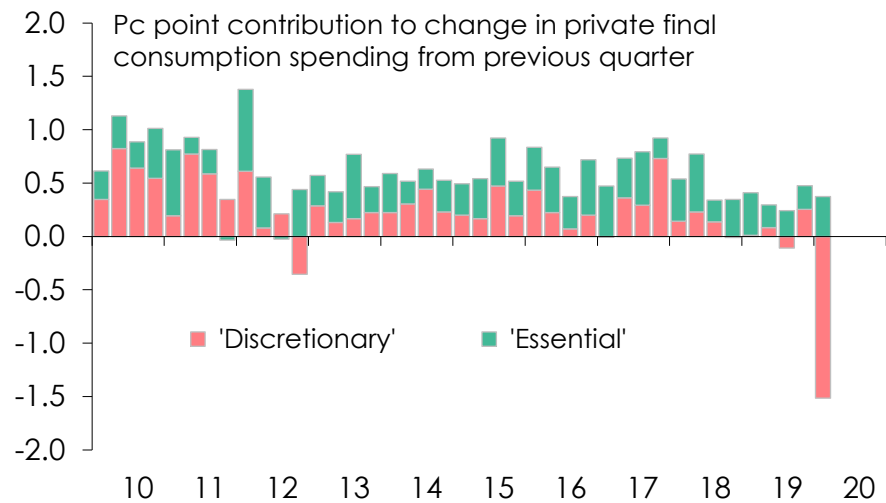
Household disposable income



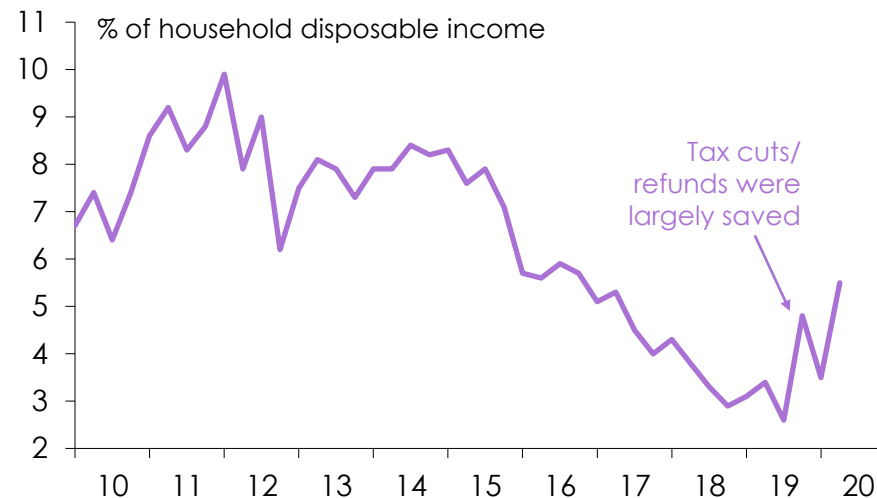
Business investment expenditure



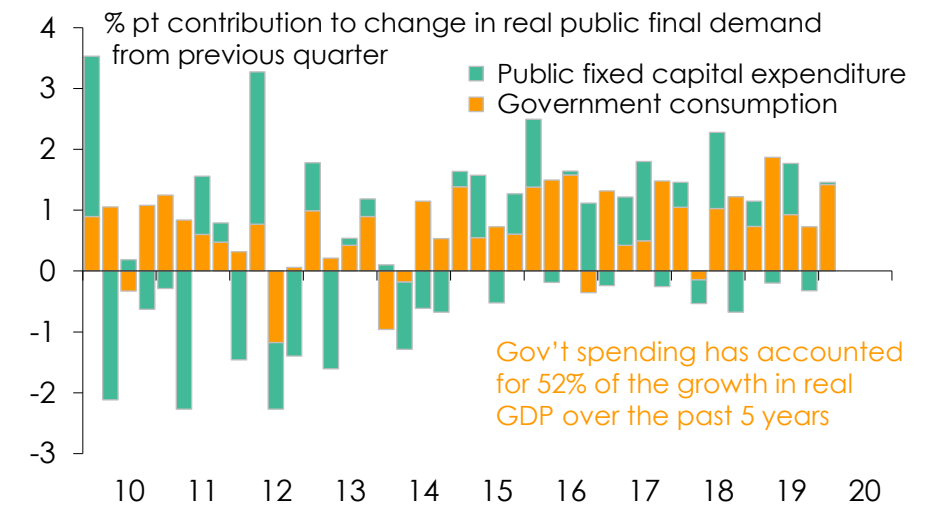
Household consumption expenditure



Household saving rate



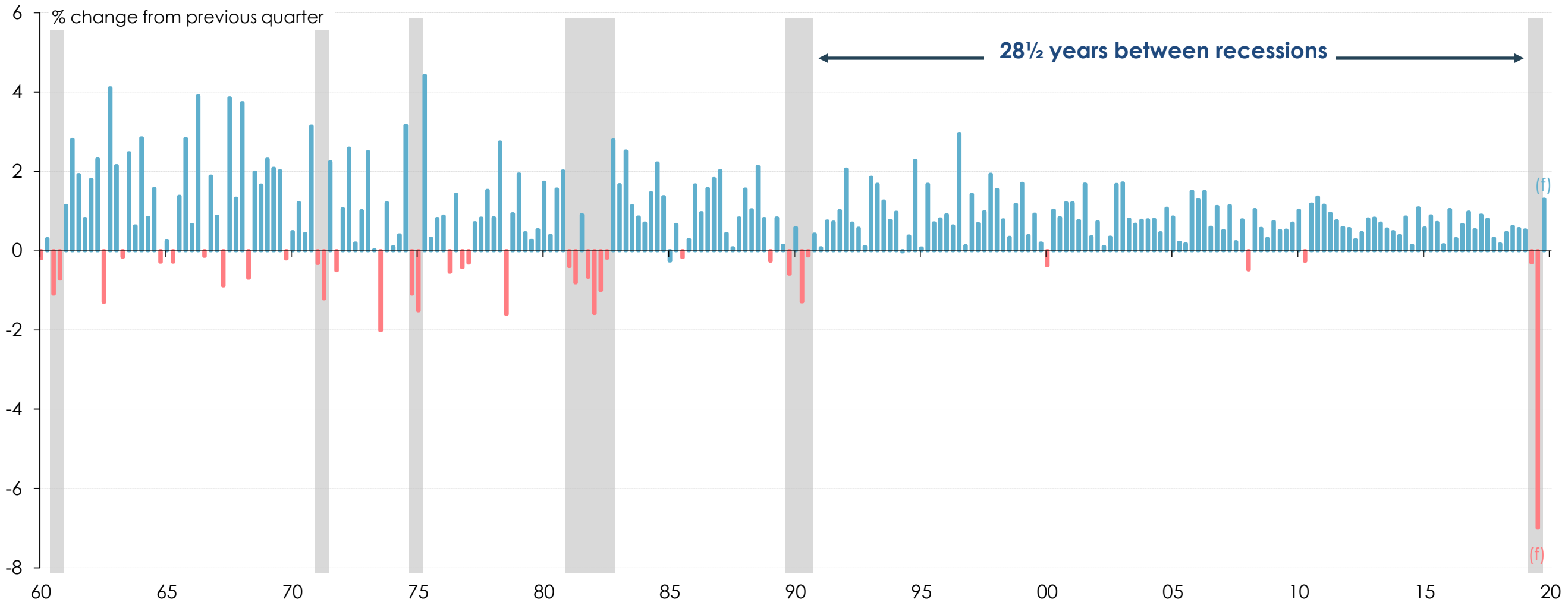
Public expenditure



Note: 'Essential' household consumption expenditure comprises food; rent & other dwelling services; electricity, gas & other fuel; operation of vehicles; rail, bus & taxi services; communications; health; education; and insurance & other financial services. Components of household disposable income are deflated by the implicit price deflator of household final consumption expenditure. Source: ABS; Australian Treasury. June quarter national accounts released on 2nd September.

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

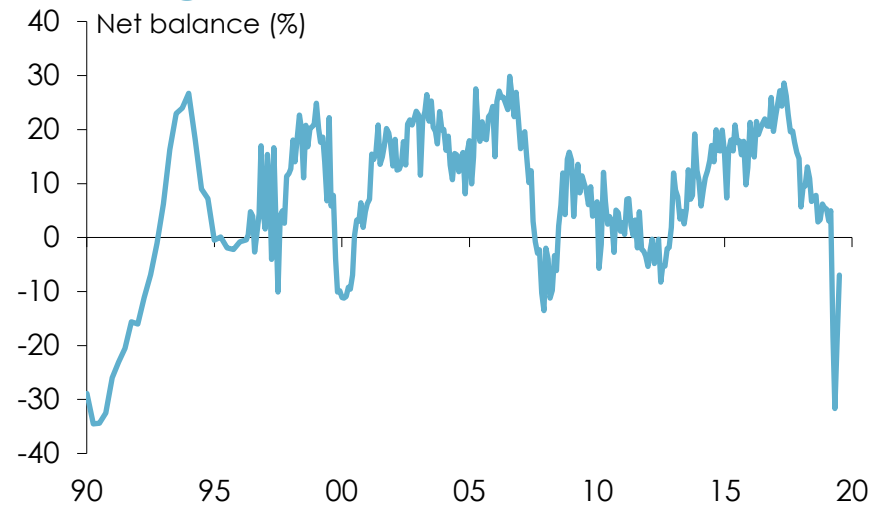
Quarterly growth in Australian real GDP, 1960-2020



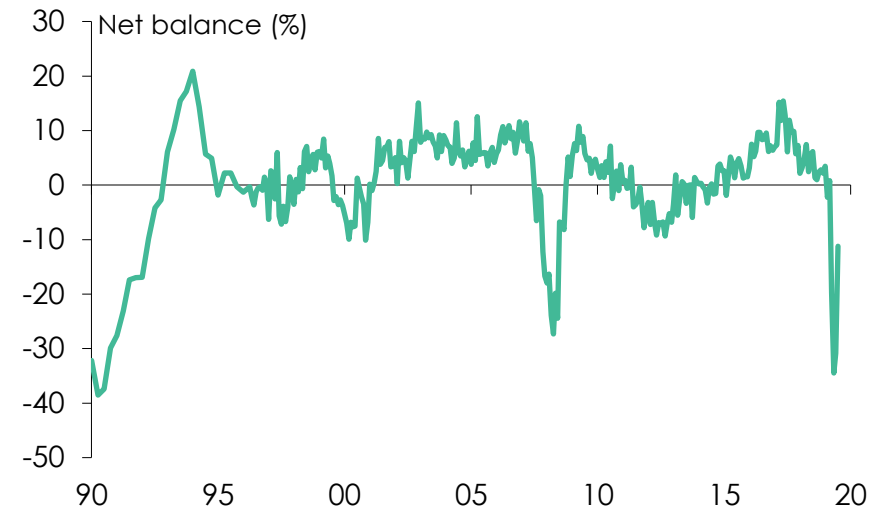
Note: Shaded areas denote recessions. (f) denotes Australian Treasury forecasts (for more detail see slide 93).
Sources: ABS; Australian Treasury, *Economic and Fiscal Update*, 23rd July 2020.

All of the components of the NAB monthly survey improved substantially in June, following an initial bounce in May, but they remain negative

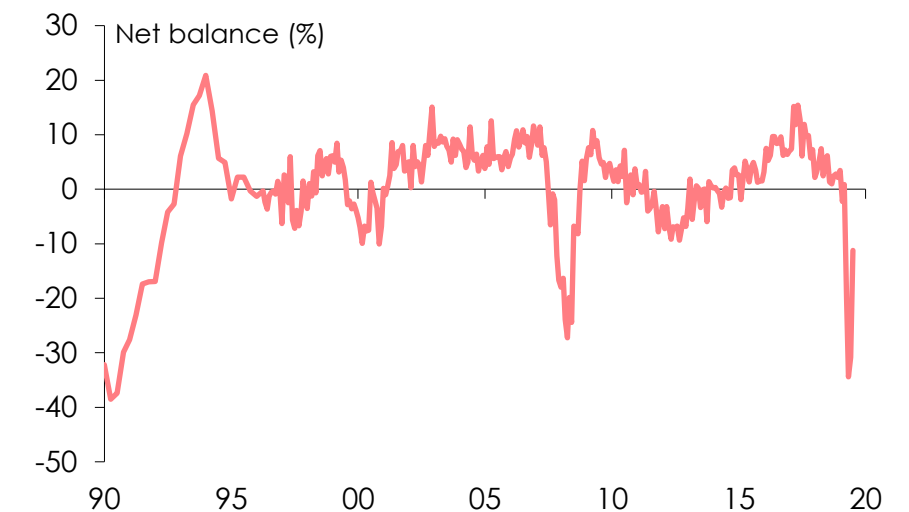
Trading conditions



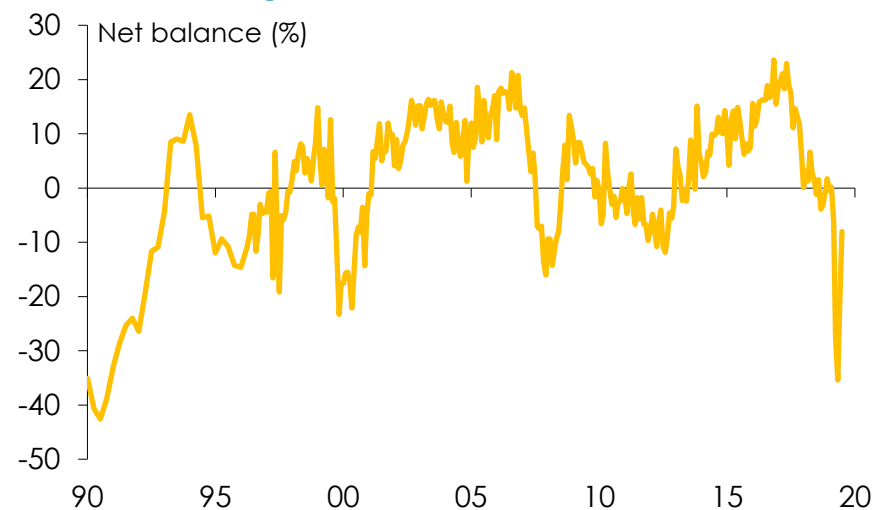
Forward orders



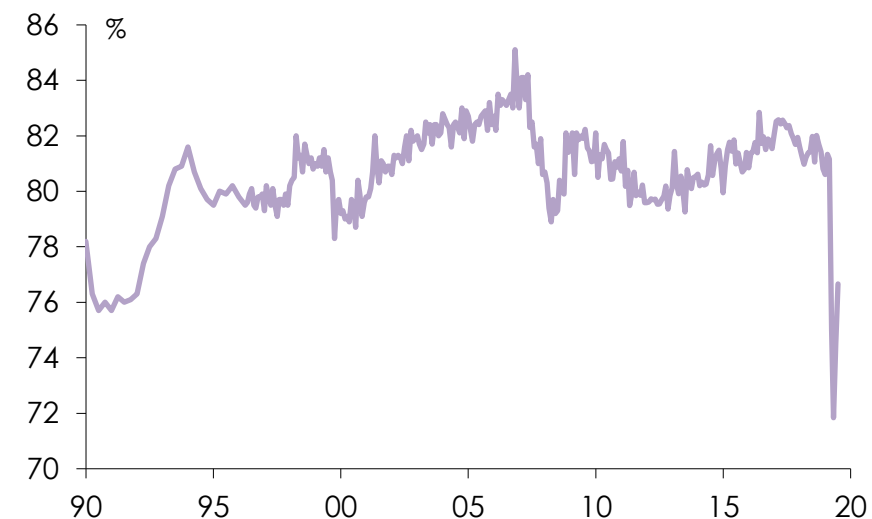
Employee hiring intentions



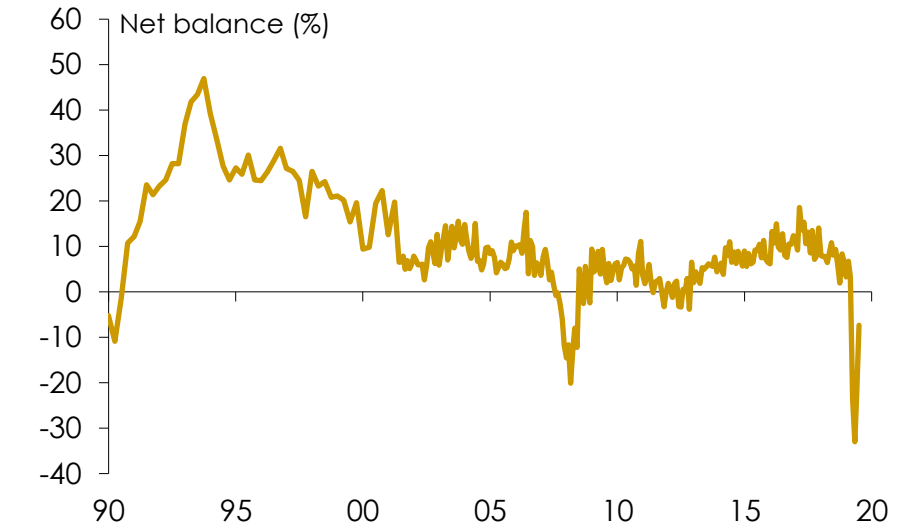
Profitability



Capacity utilization



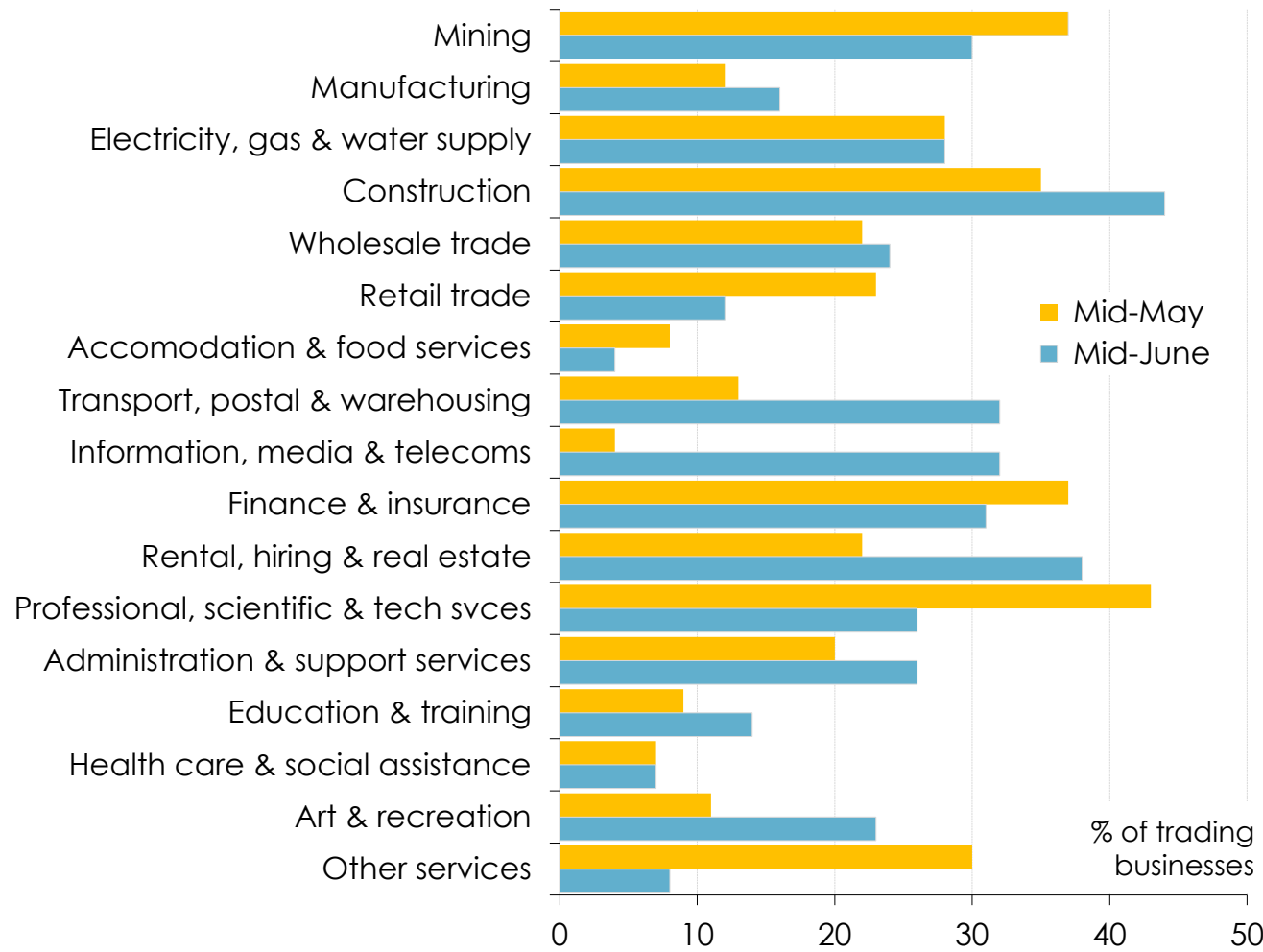
Capital expenditure intentions



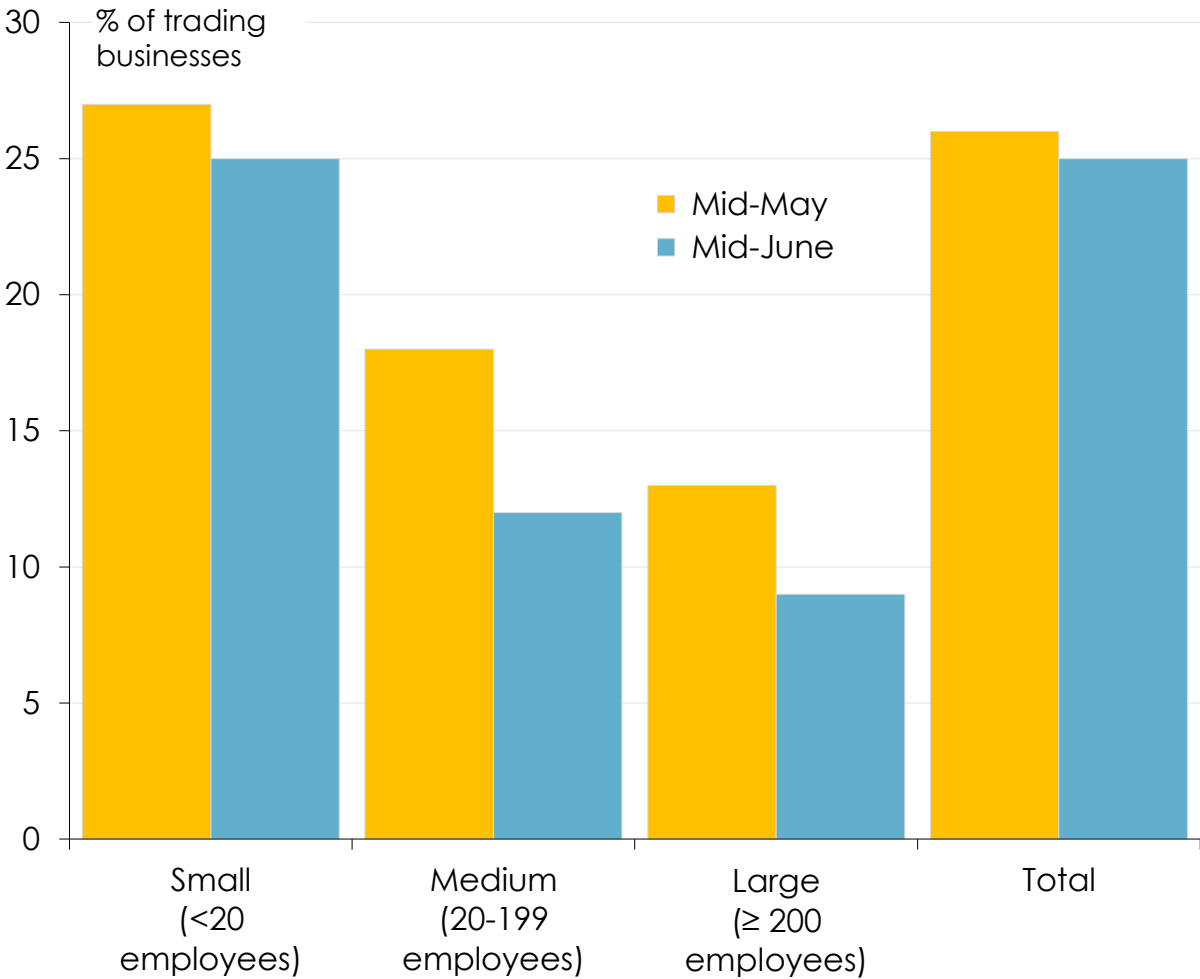
Note: Quarterly data up to March 1987 (May 2002 for capex intentions), monthly thereafter (latest data June 2020). Source: National Australia Bank (July survey results will be released on 12th August).

Three-quarters of businesses are still operating under ‘modified conditions’ – with fewer large business operating as ‘normal’ than small ones

Proportion of ‘trading businesses’ which are operating ‘as normal’ – by industry



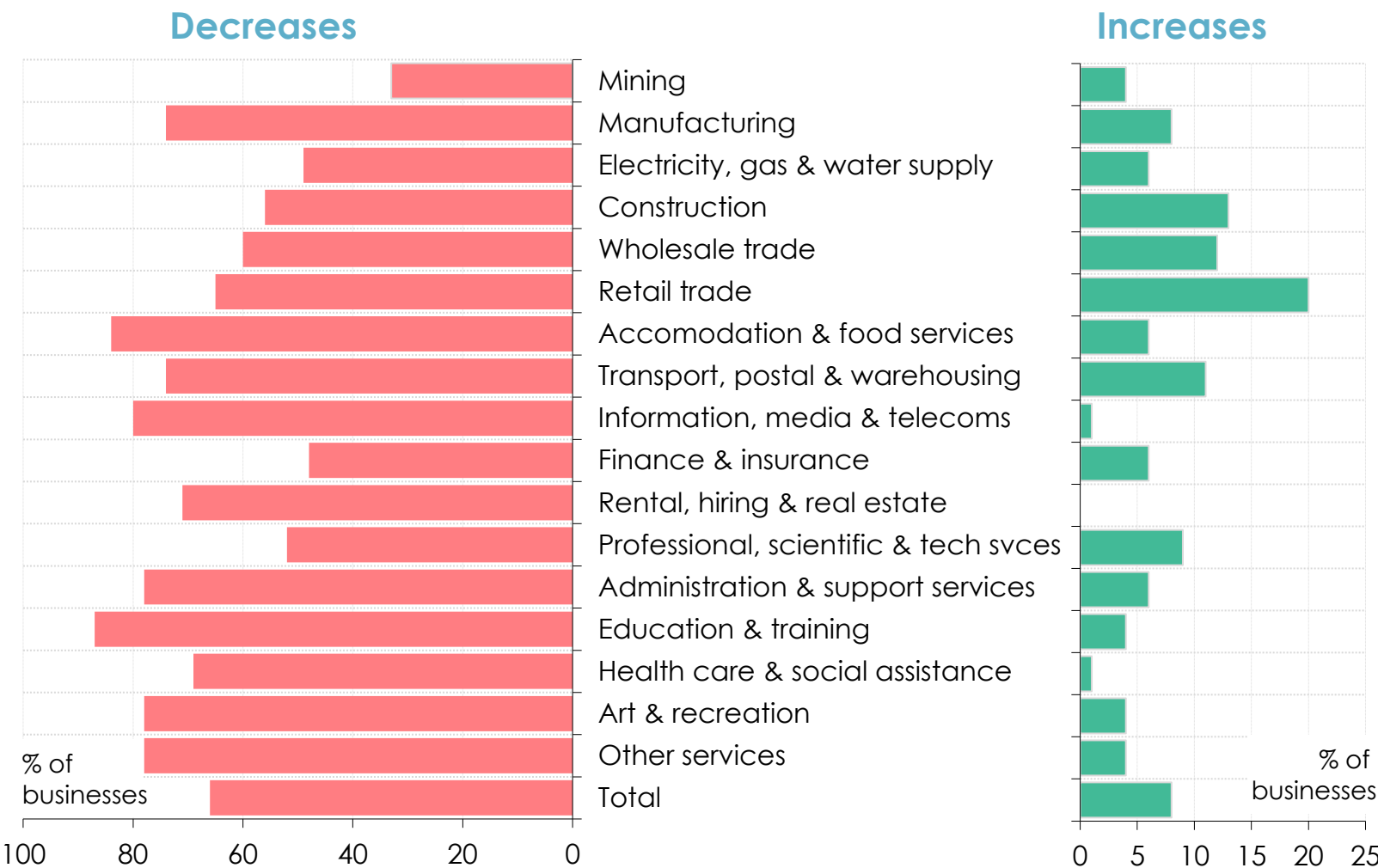
Proportion of ‘trading businesses’ which are operating ‘as normal’ – by size



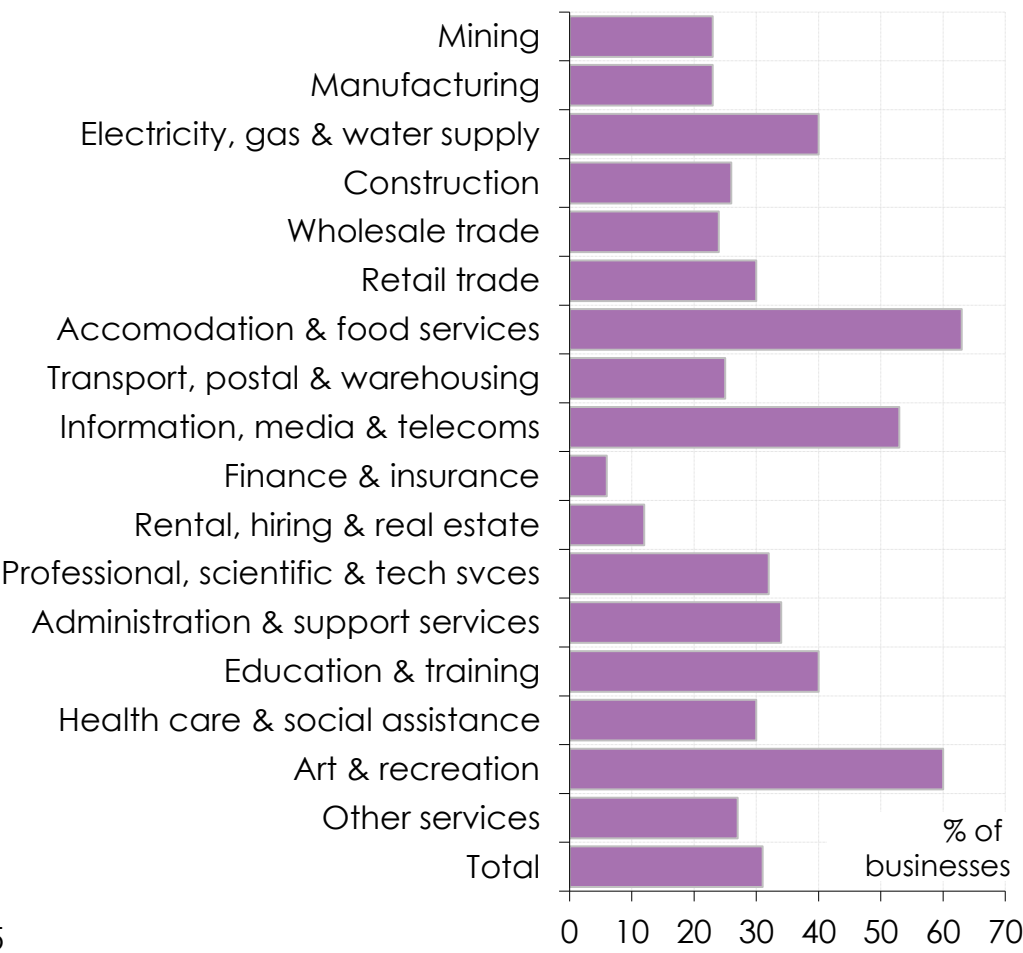
Source: ABS Business Indicators, Business Impacts of COVID-19, May 2020 (based on survey conducted between 13th and 22nd May) and June 2020 (based on survey conducted between 10th and 17th June).

Two-thirds of all businesses reported lower revenue in June compared with June last year – and 30% of them reported declines of more than 50%

Proportion of businesses reporting decreases or increases in revenue in June 2020 cf. June last year, by industry



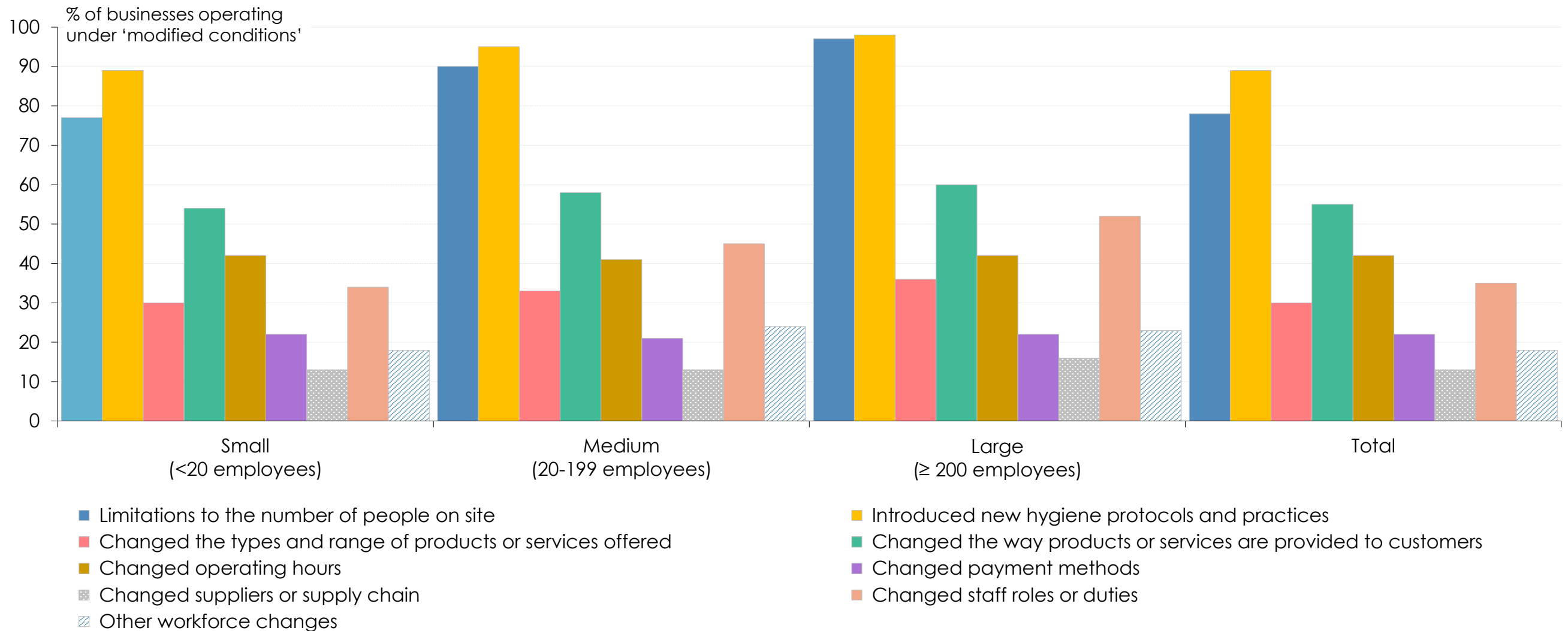
Businesses with revenue decreases of 50% or more in June cf. June last year, as a pc of businesses with lower revenue



Source: ABS Business Indicators, Business Impacts of COVID-19, June 2020 (based on survey conducted between 10th and 17th June).

The biggest changes made by businesses have been limits on the no. of people on site, hygiene protocols, product delivery methods and staff roles

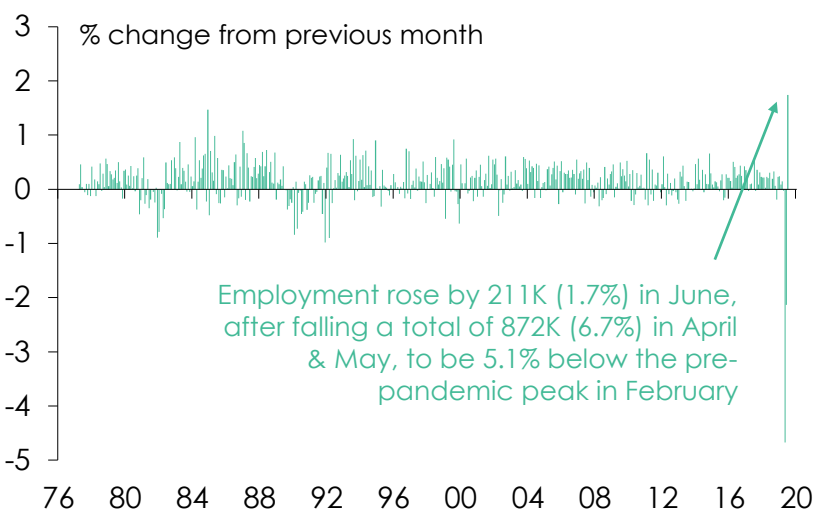
Changes made to business operations, by size of business



Source: ABS Business Indicators, Business Impacts of COVID-19, June 2020 (based on survey conducted between 10th and 17th June).

211,000 (24%) of those who lost their jobs in March-April are now back at work, while another 70,000 started looking for work

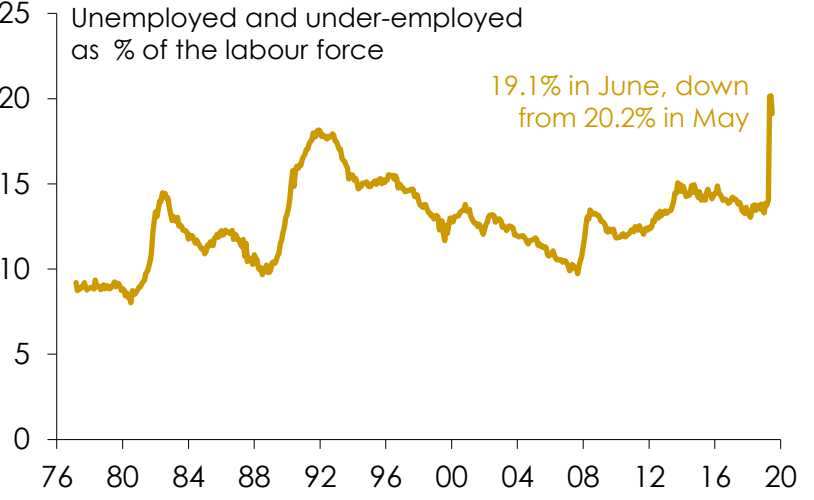
Employment



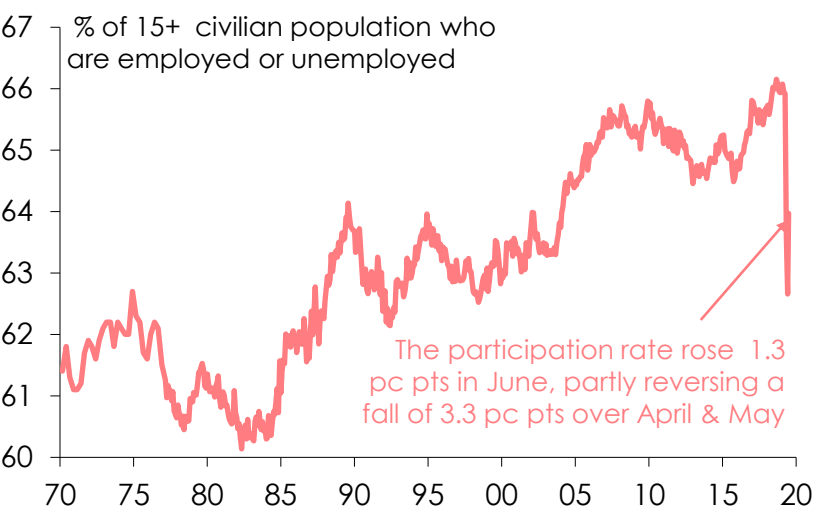
Unemployment rate



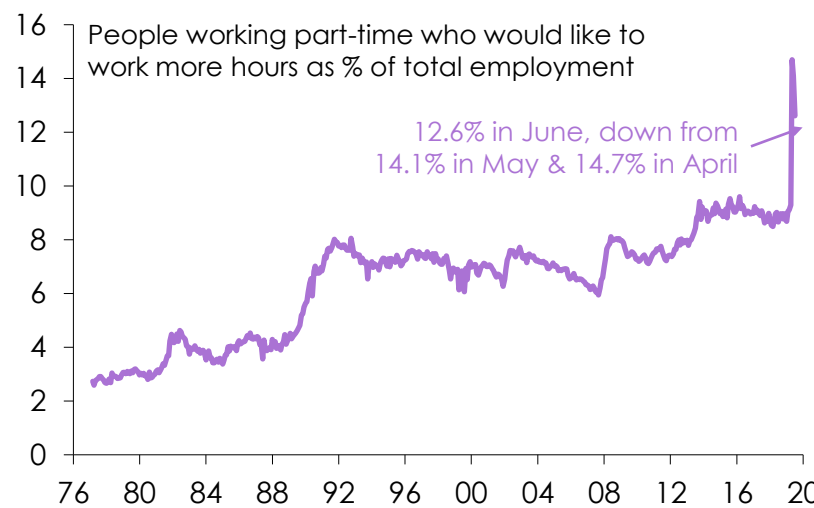
'Under-utilization' rate



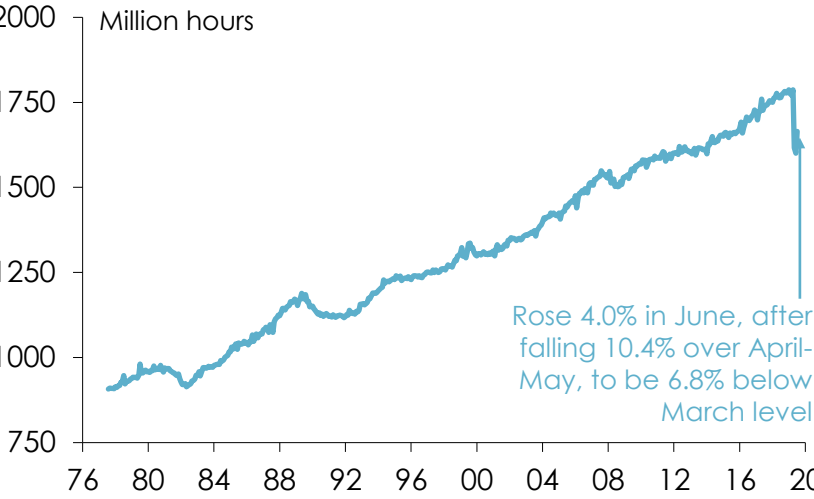
Labour force participation rate



Under-employment ratio



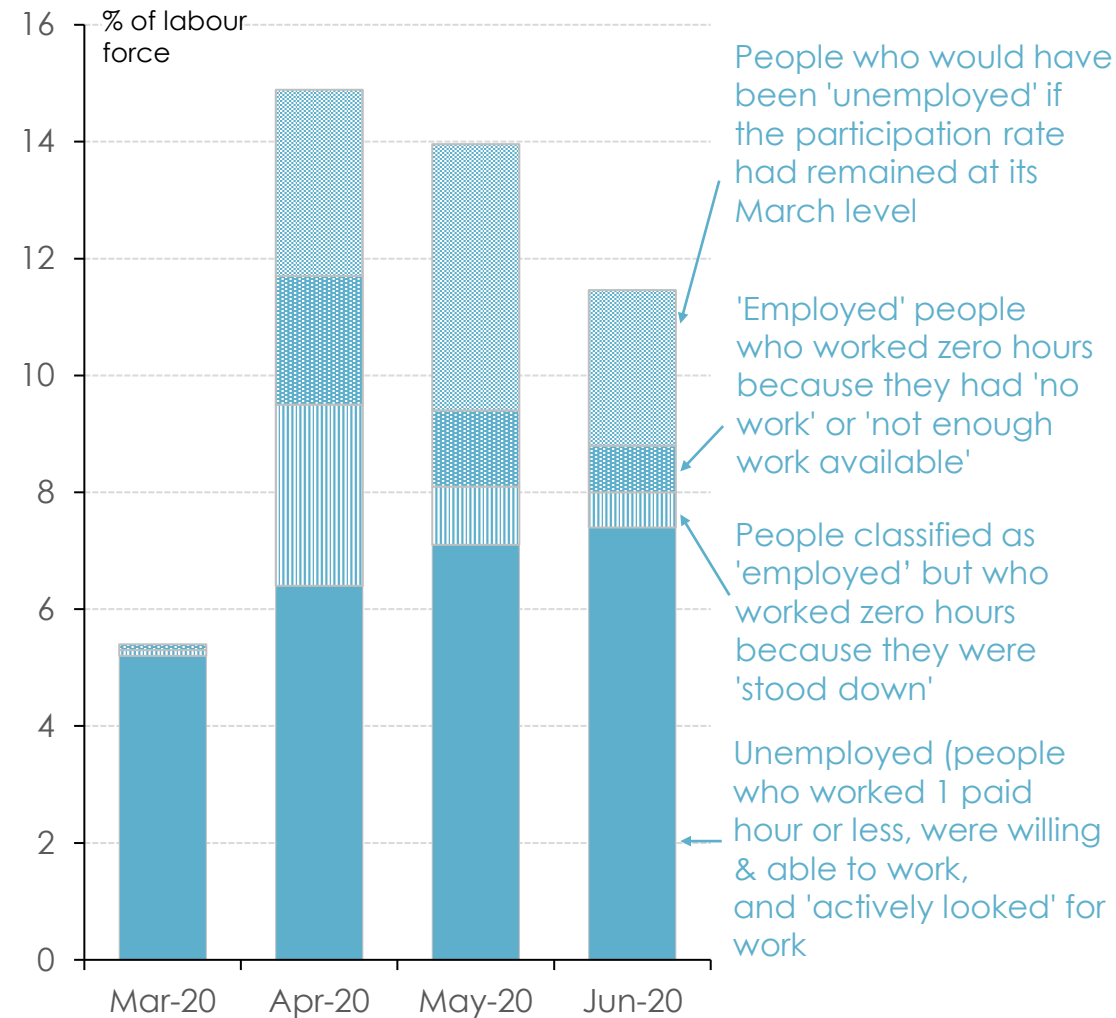
Total hours worked



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. July data will be released on 13th August.

The June unemployment rate would have been 11½% if people working zero hours and those who dropped out of the labour force were counted

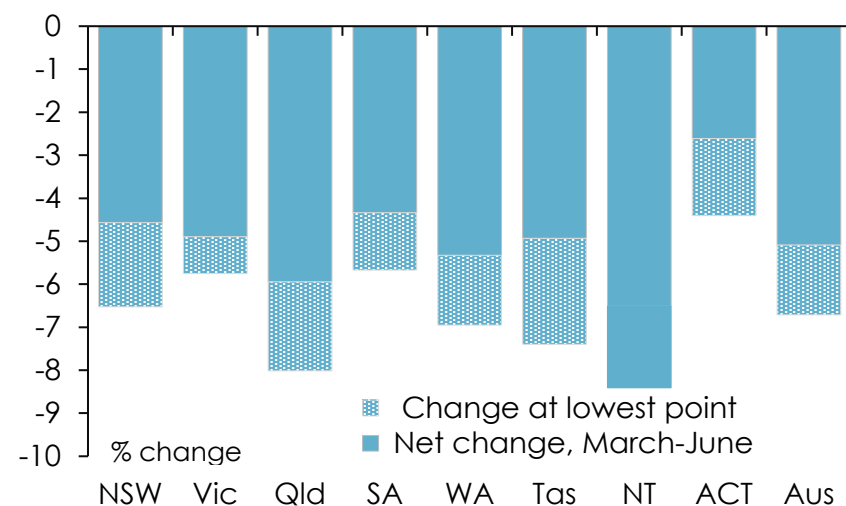
Alternative measures of unemployment



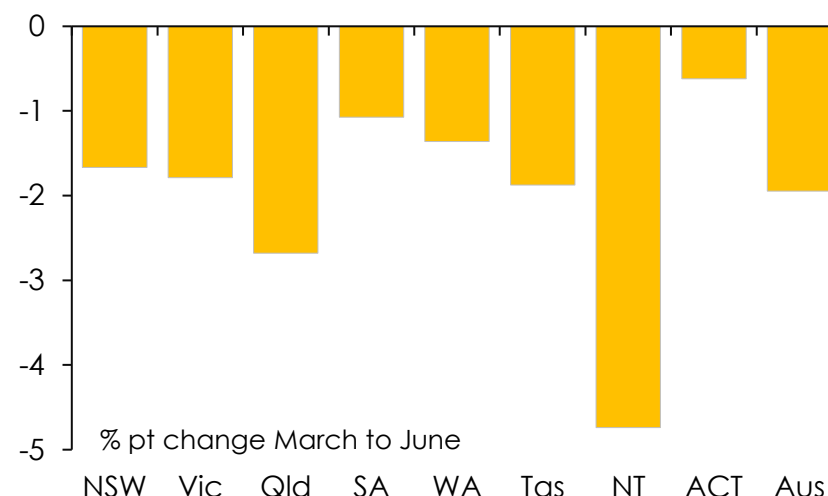
- ❑ The Government's JobKeeper program pays eligible employers a subsidy of \$1500 per fortnight for each eligible employee kept on the payroll between 30 March and 27 September
- ❑ Eligible employers are those with
 - annual turnover of <\$1bn whose turnover has fallen by >30%
 - annual turnover of >\$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
- ❑ If these people, and those who've dropped out of the labour force since March, were counted as unemployed, then the unemployment rate in June would have been 11.5% - down from 14.0% in May and 14.9% in April

Tasmania, Queensland & NSW had the strongest recoveries in employment in June, while the NT has continued to shed jobs

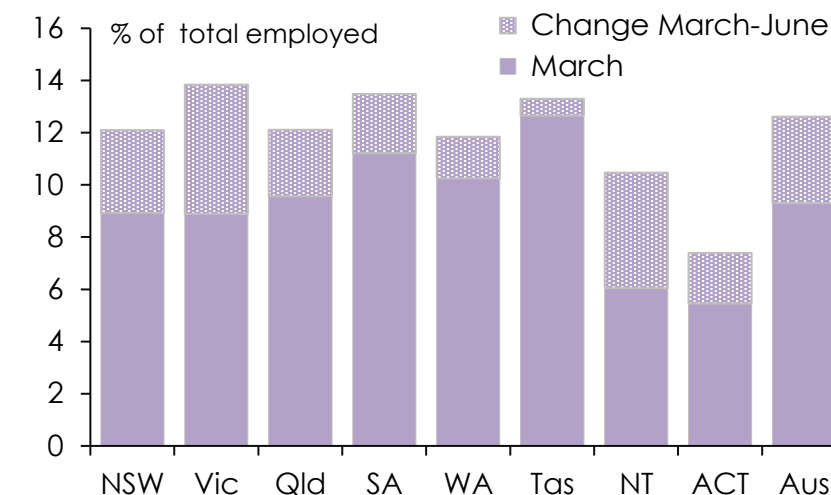
Employment



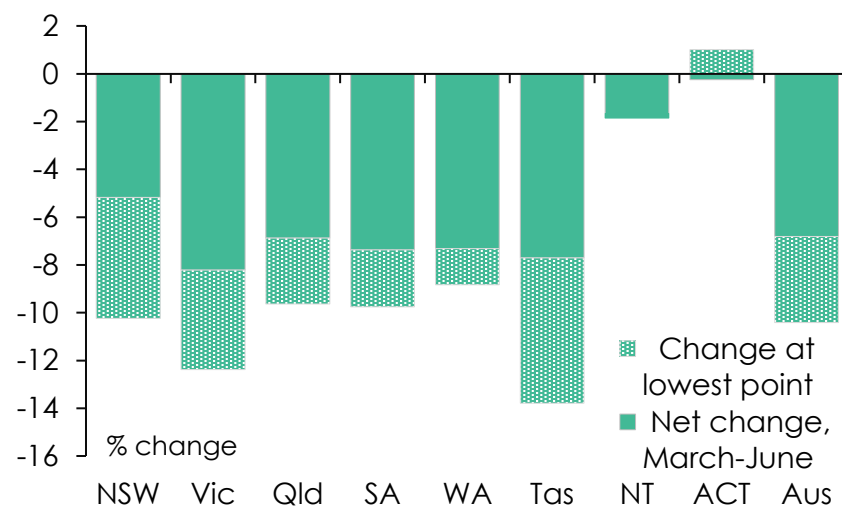
Labour force participation rate



Under-employment ratio



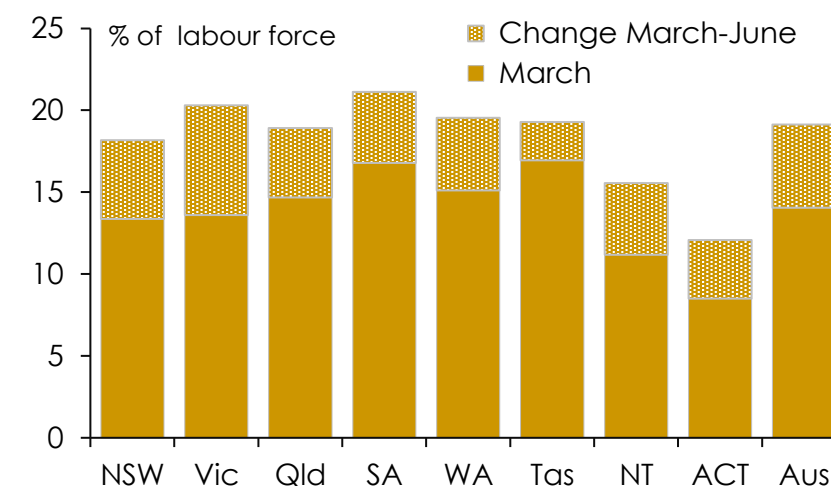
Total hours worked



Unemployment rate



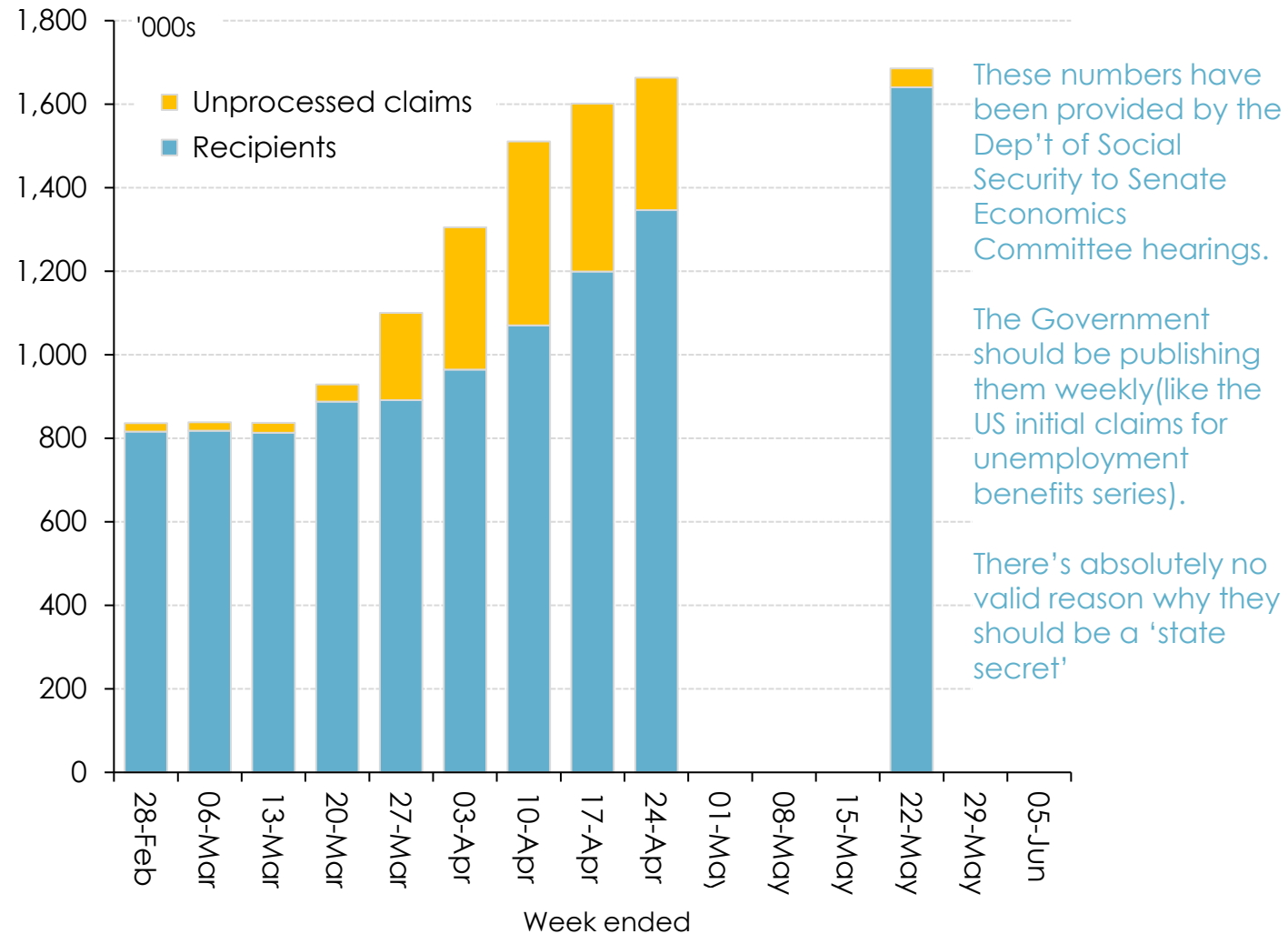
'Under-utilization' rate



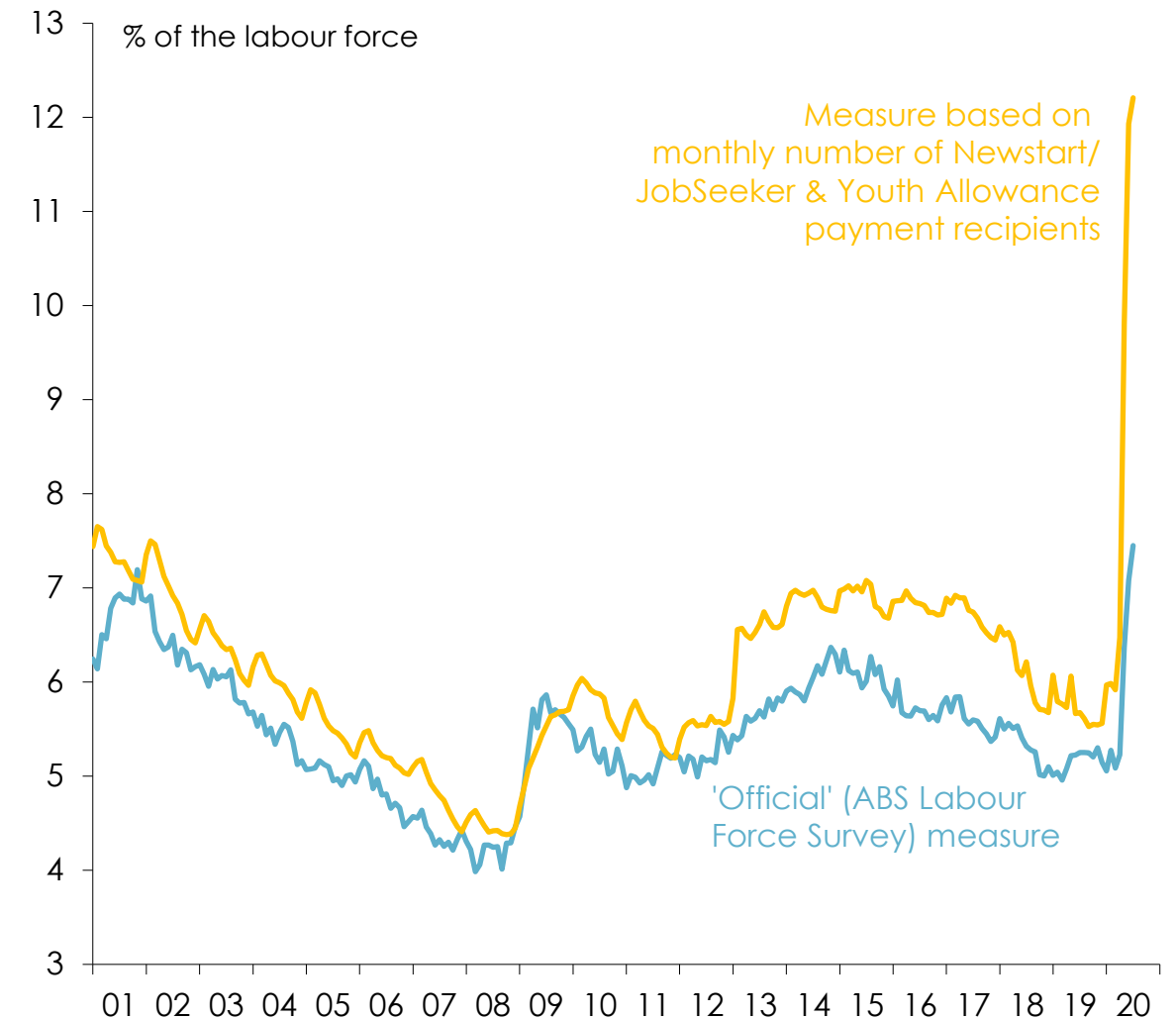
Note: The 'under-employment ratio' is the percentage of employed persons who are working fewer hours than they are willing and able to work. The 'under-utilization rate' is the proportion of the labour force who are unemployed or underemployed. Source: ABS (July data will be released this Thursday, 13th August).

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'

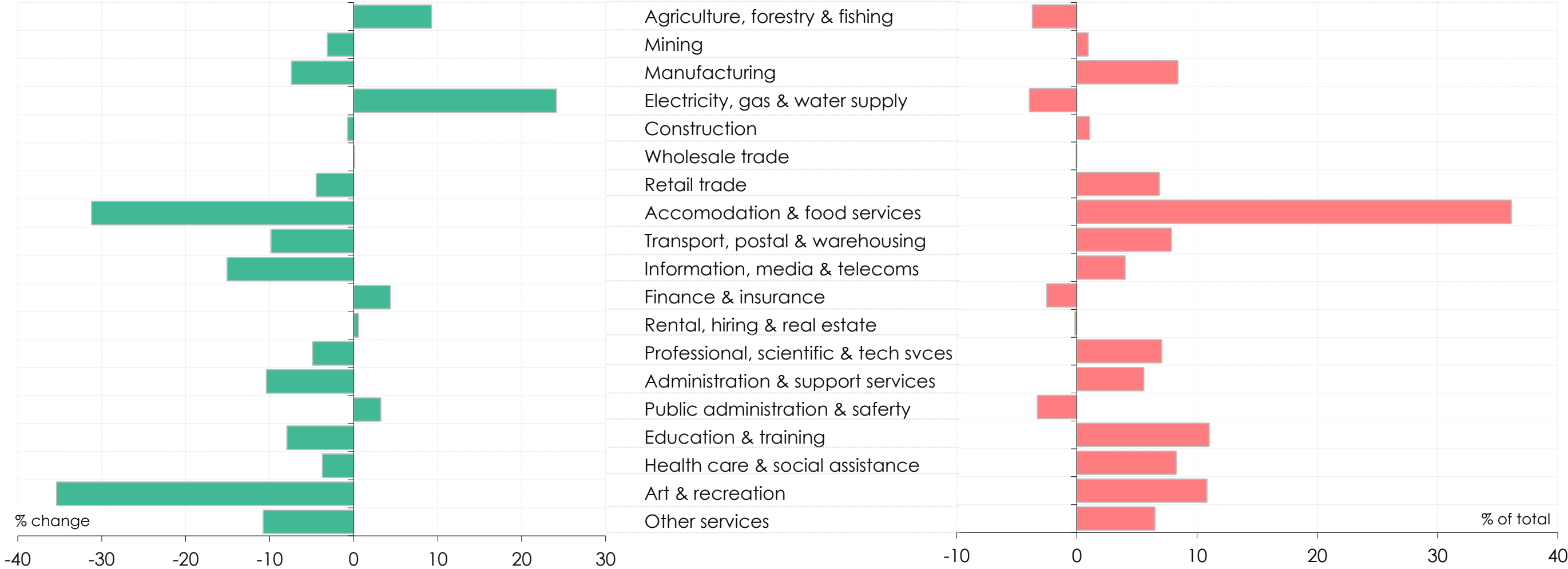


Sources: Department of Social Security; ABS. Note: Youth Allowance recipients excludes full-time students. Number of Newstart/JobSeeker and Youth Allowance recipients is not seasonally adjusted. Latest (monthly) data is for June 2020.

58% of total job losses between February & May were in accommodation & food services, education & training, and arts & recreation

Change in employment between February and March 2020, by industry

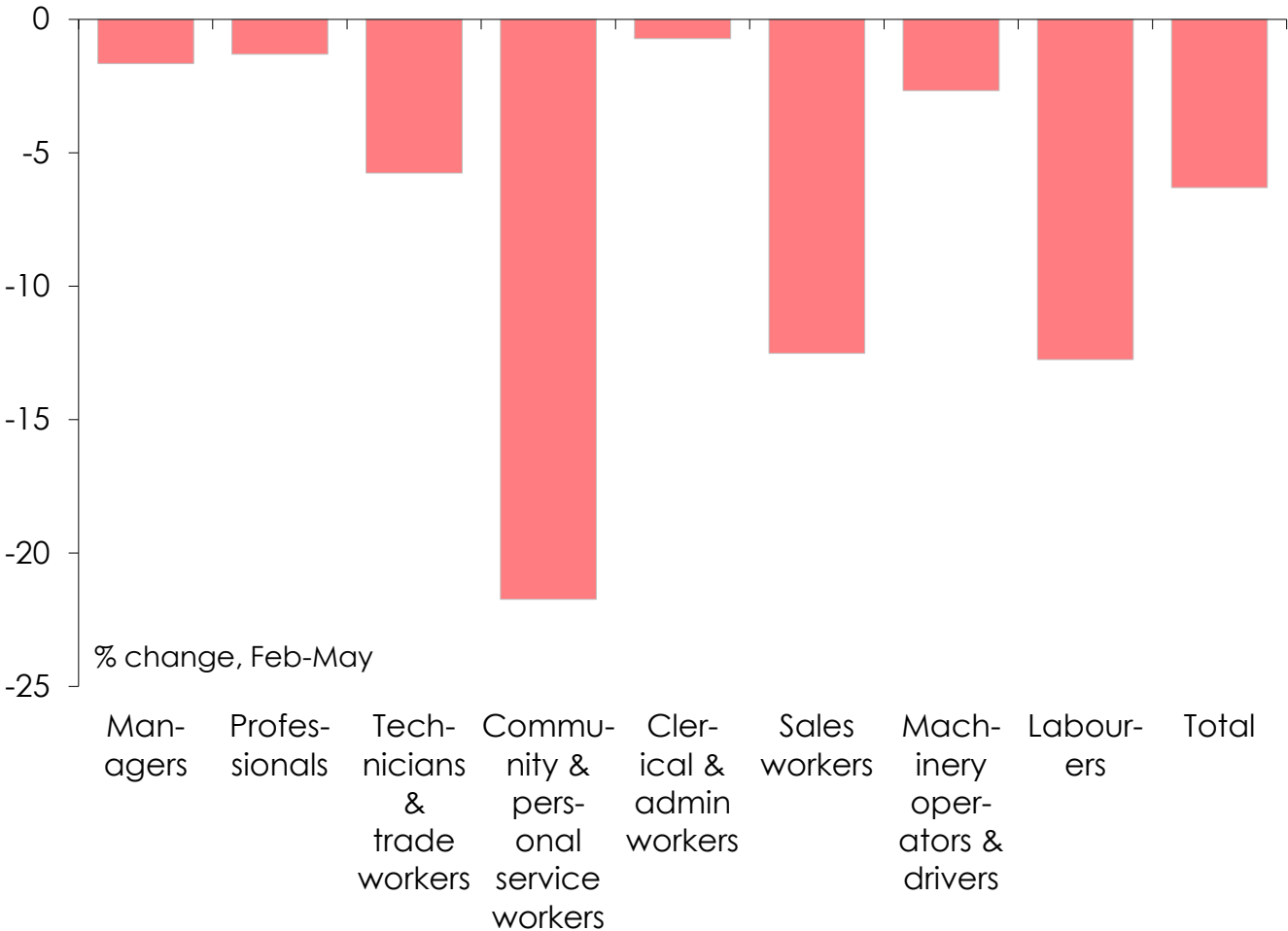
Proportion of change in total employment between February and March 2020, by industry



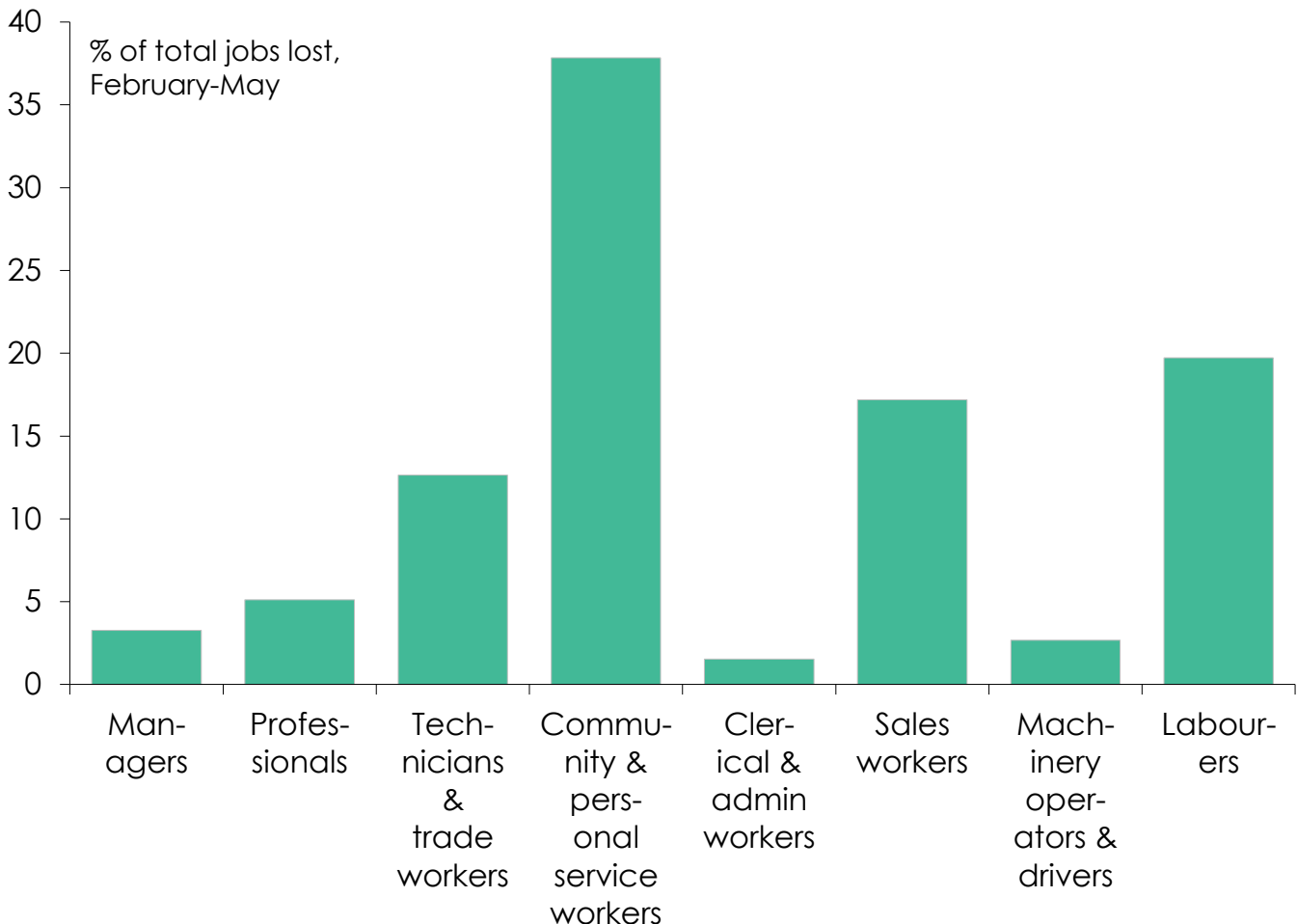
Note: The accommodation & food services, education & training, and arts & recreation services sectors accounted for 15% of total employment in February.
Source: ABS, Detailed quarterly labour force data, May 2020. August data will be released on 24th September.

Community & personal service workers, sales workers and labourers have accounted for 75% of job losses since February

Change in employment between February and March 2020, by occupation



Proportion of change in total employment between February and March 2020, by occupation



Source: ABS, Detailed quarterly labour force data, May 2020. August data will be released on 24th September.

Women bore 53% of the job losses between February & May, in part because they typically work in occupations or industries which have been hardest hit

Women’s share of jobs in February, and of job losses since February, by occupation



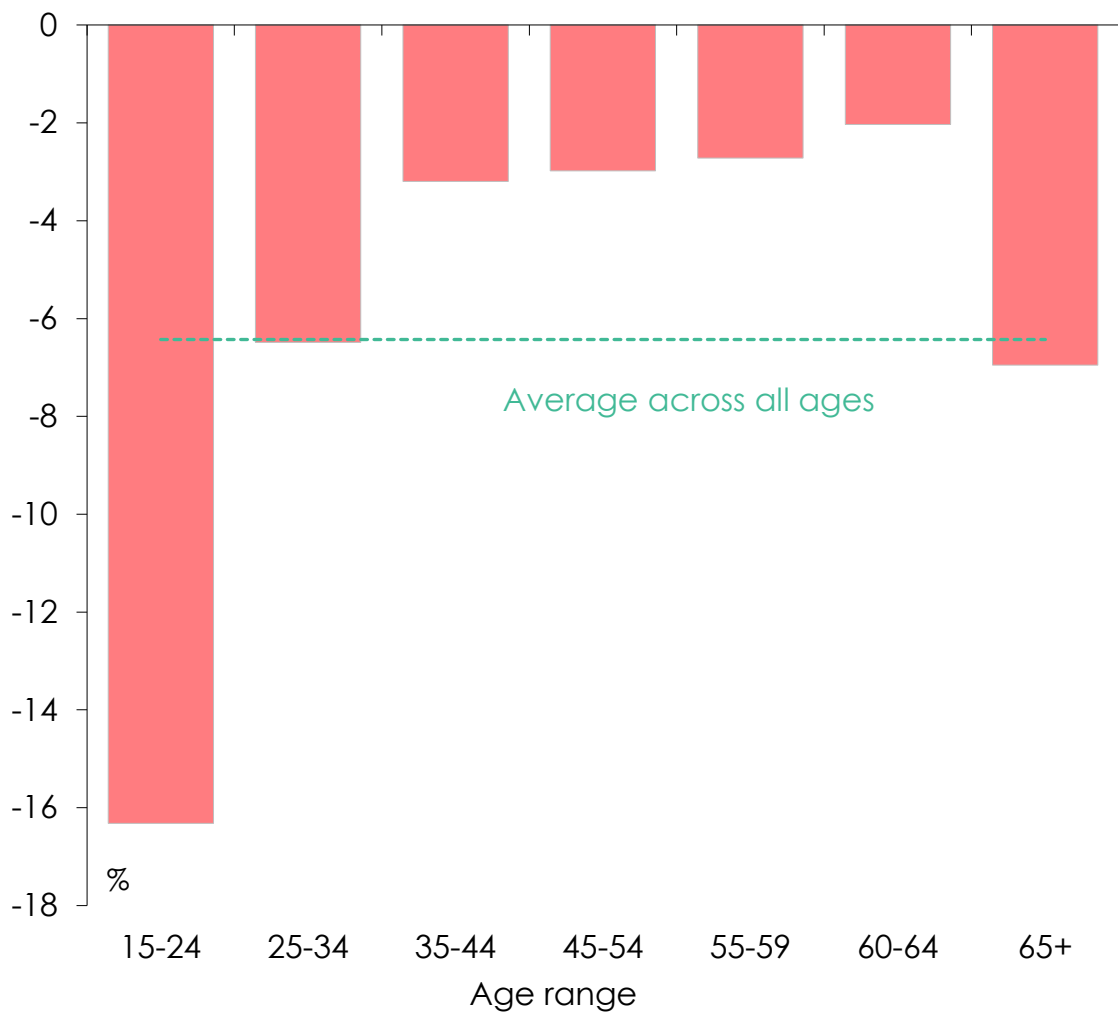
Women’s share of jobs in February, and of job losses since February, by industry



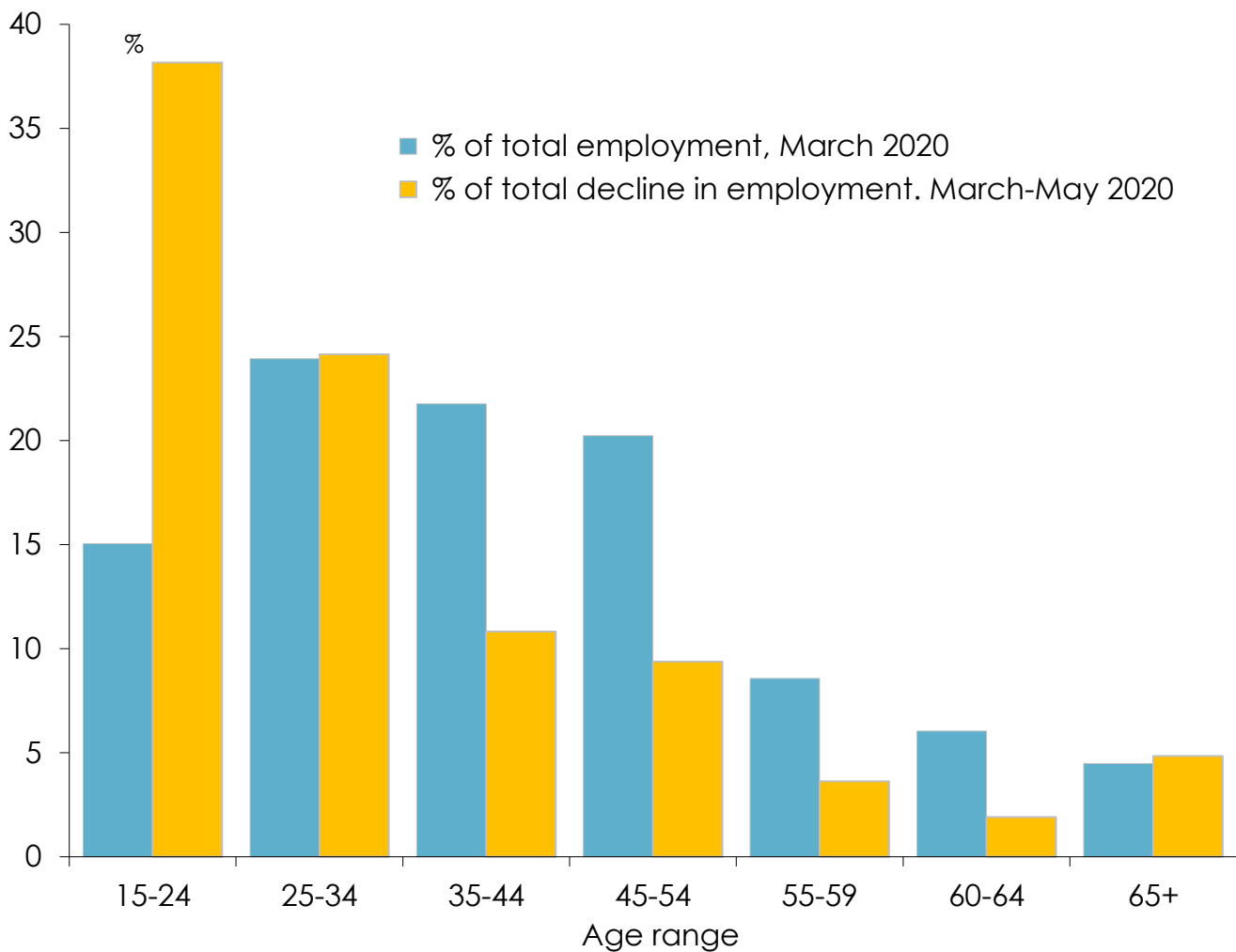
Note: Data depicted in these charts are not seasonally adjust. “nm” = “not meaningful”, because employment of women in the industry thus marked either increased between February and May 2020; or fell despite total employment in that industry rising between February and May.
Source: ABS, Detailed quarterly labour force data, May 2020. August data will be released on 24th September.

People aged 15-24 accounted for 15% of total pre-pandemic employment but have experienced 38% of the jobs lost since March

Change in employment, March-May 2020, by age range



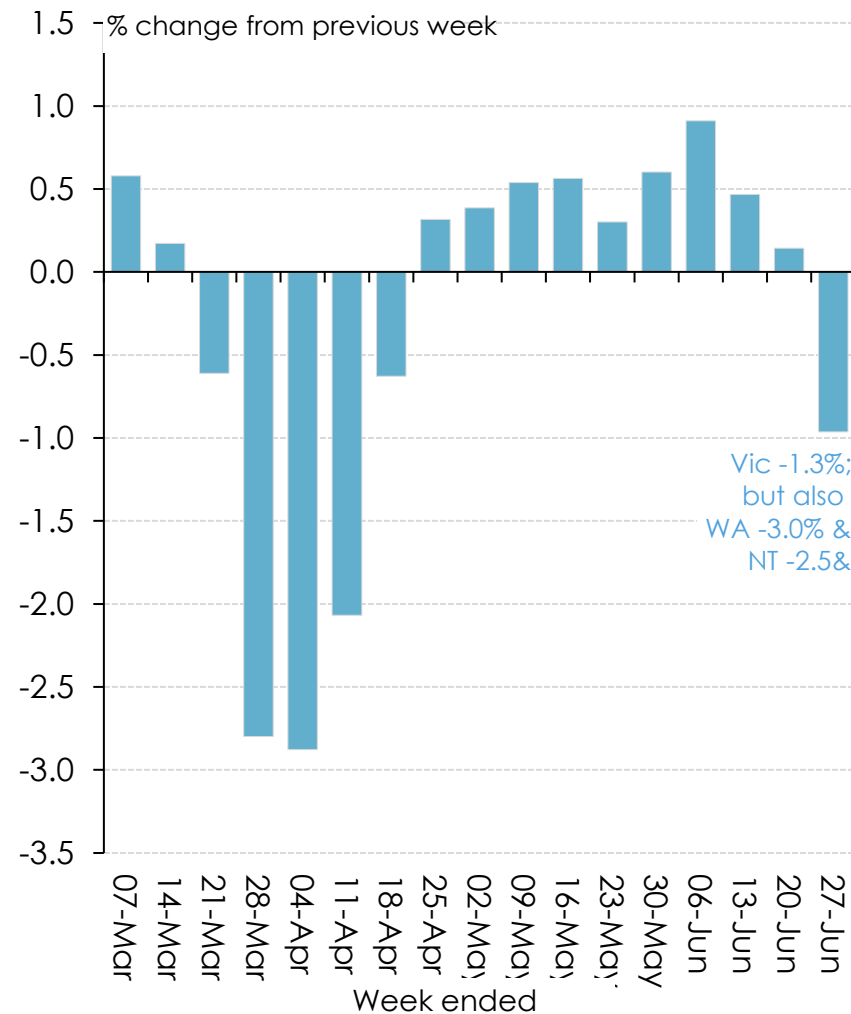
Share of total job losses between March and May 2020 and share of total employment in March, by age group



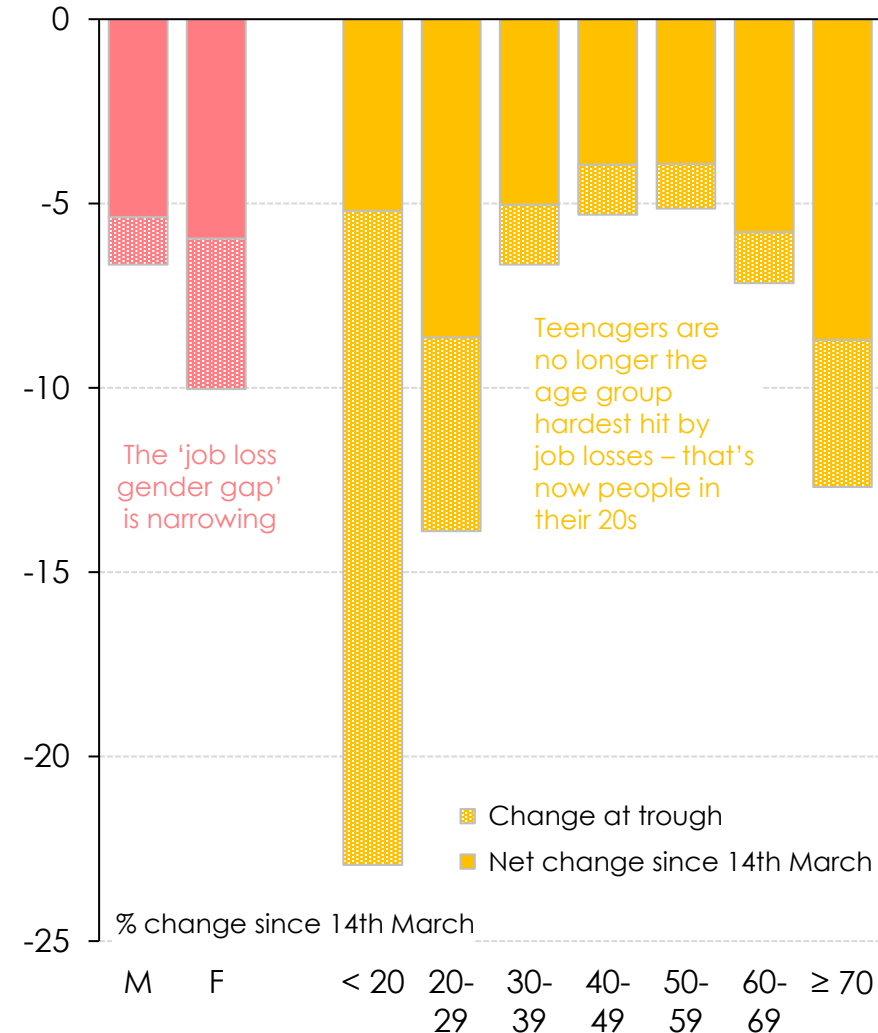
Source: ABS detailed monthly labour force data, May 2020; Corinna. August data will be released on 24th September.

The recovery in payroll employment stalled and went into reverse in the second half of June – and not just because of Victoria

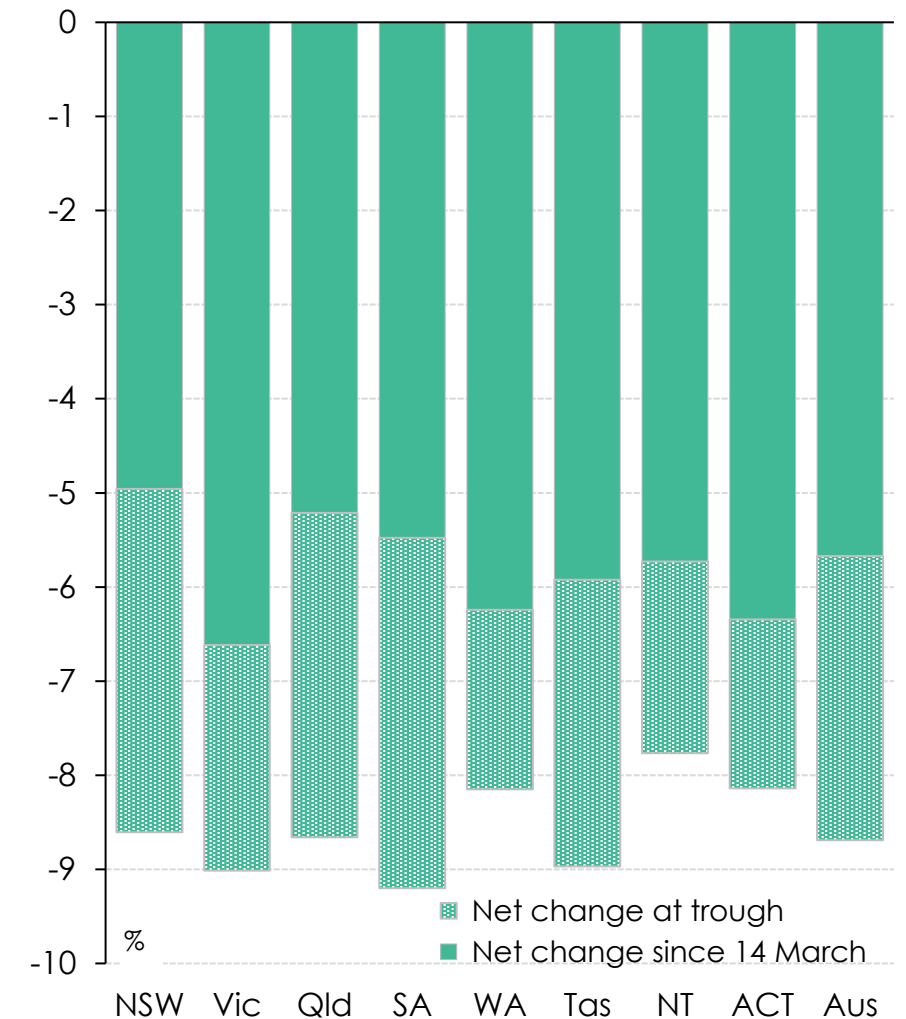
Weekly change in number of payroll jobs



Change in payroll jobs by age & gender



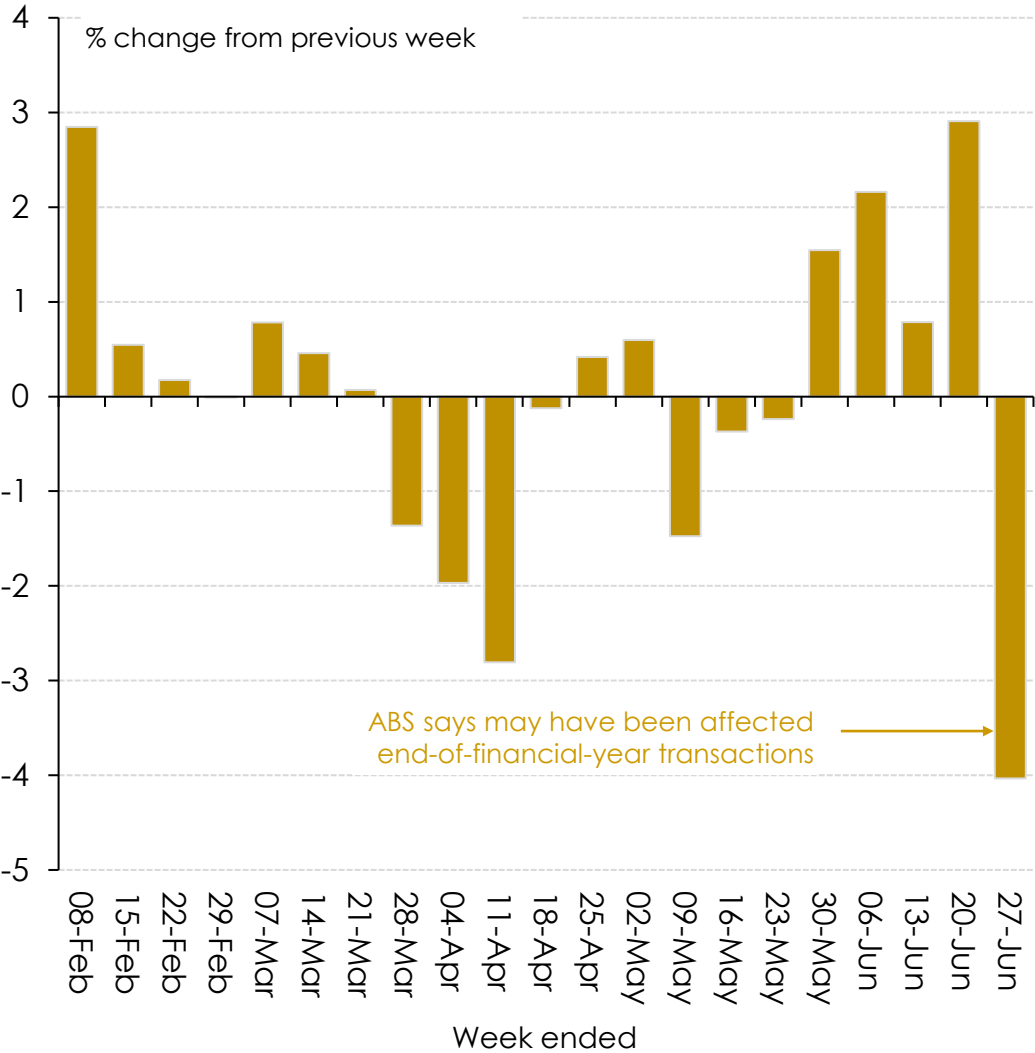
Change in payroll jobs by State & Territory



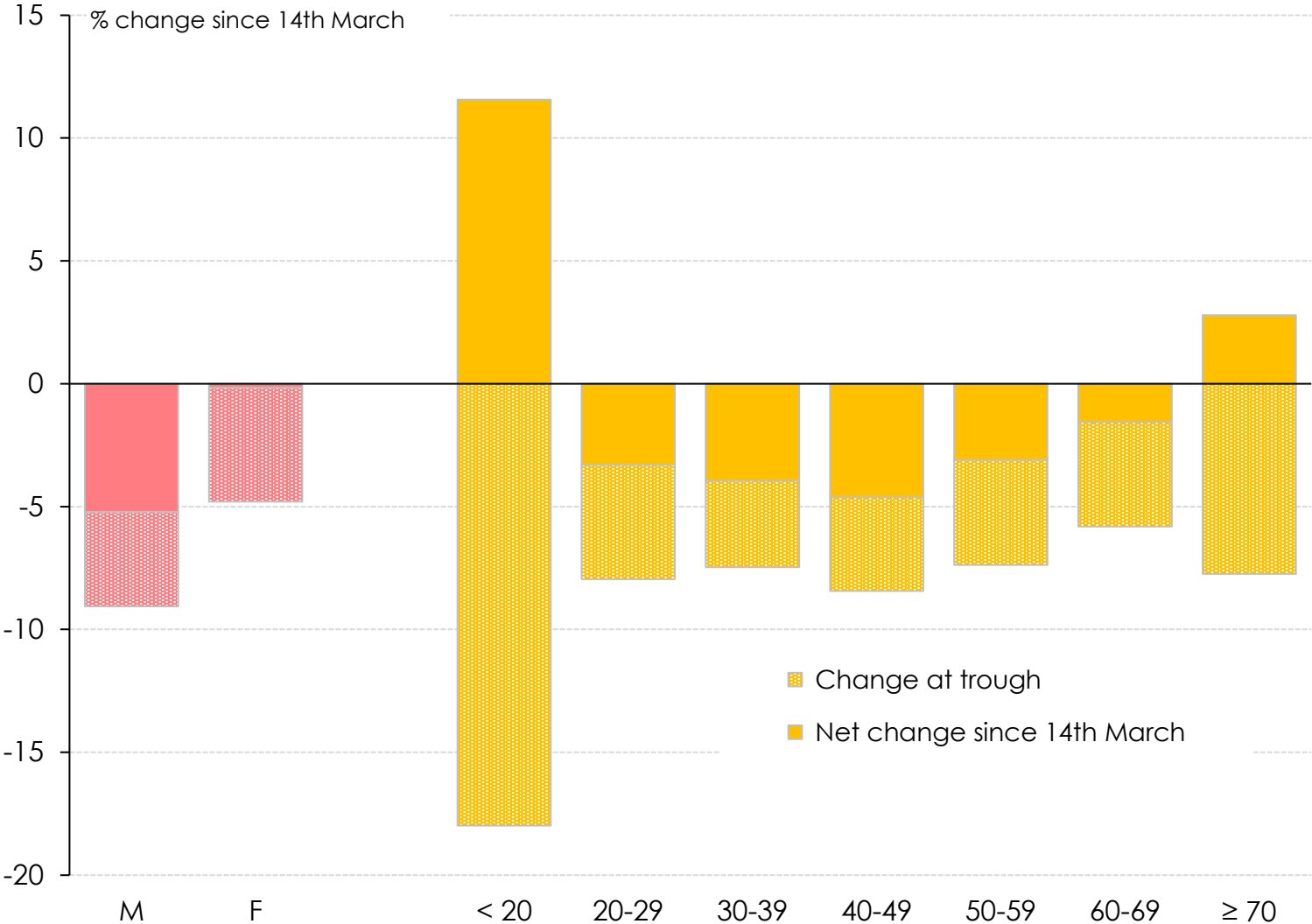
Source: ABS. Data refers to the number of payroll jobs at businesses participating in the Australian Taxation Office's Single Touch Payroll system, which covers 99% of employers with 20 or more employees and about 71% of smaller employees. People with two or more jobs (about 6% of the total) are counted more than once. Data are not seasonally adjusted. Data for weeks up to week ended 11th July will be released this coming Tuesday, 28th July.

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



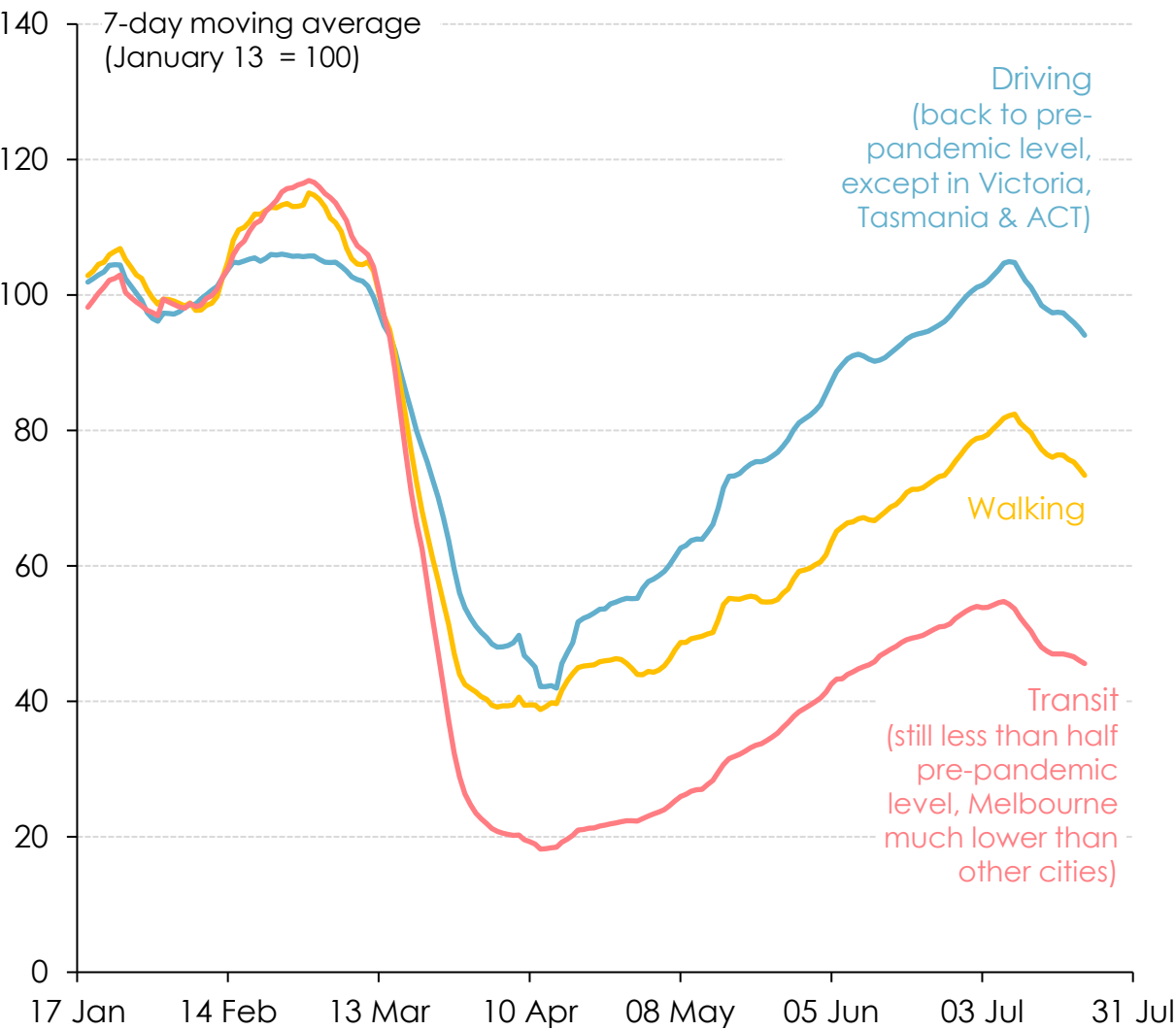
Change in total wages paid by gender and age group



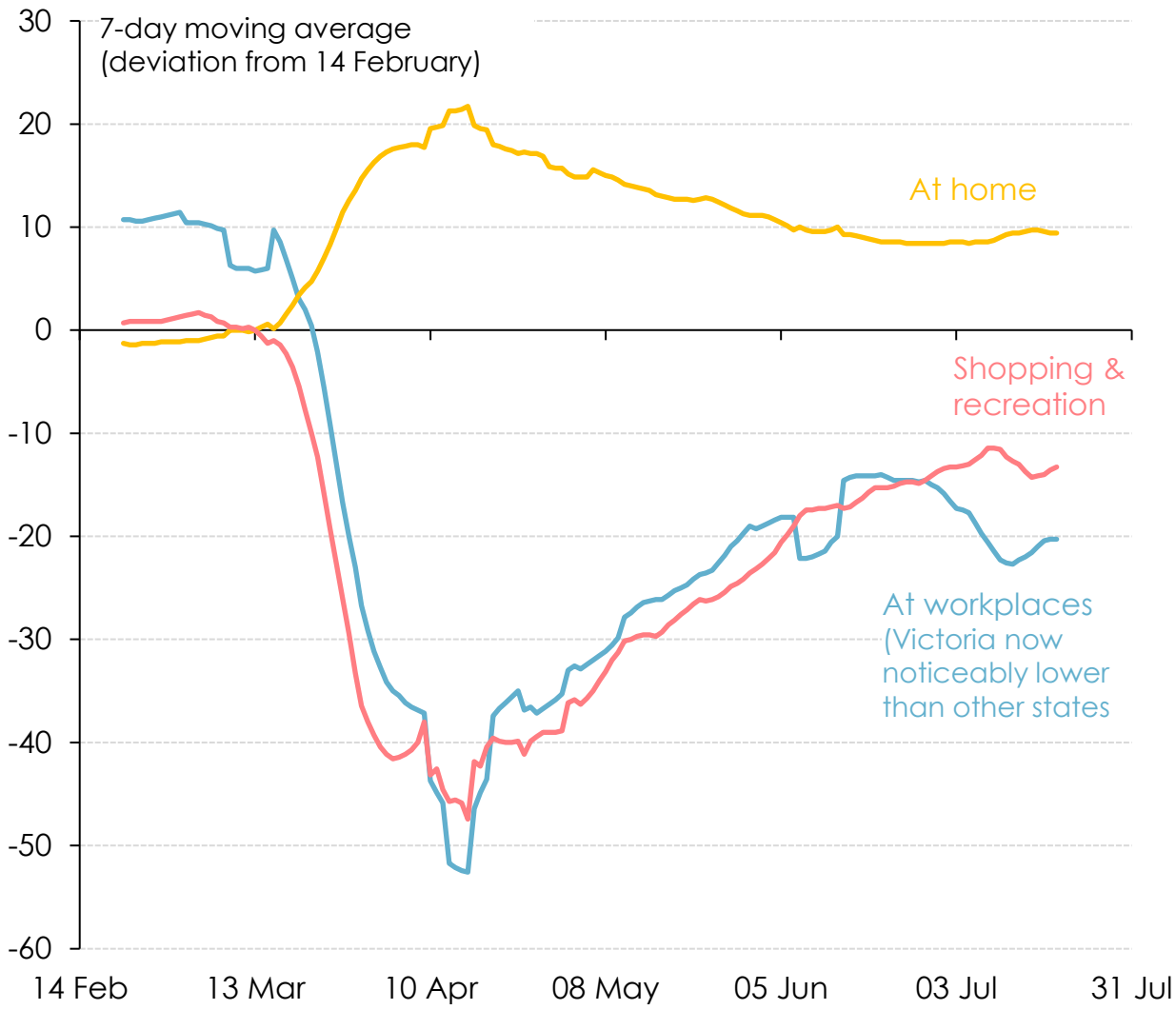
Note: The smaller fall in women's wages than men's likely reflects the fact that JobKeeper payments (at a flat rate of \$1500 per employee per fortnight) represent a higher proportion of women's (lower) average earnings than men's. Ditto for teenagers (most of whom work part-time). Source: ABS. Data 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.

Australians are starting to get out and about again as restrictions ease, but many people are avoiding public transport

Time spent driving, walking and in transit



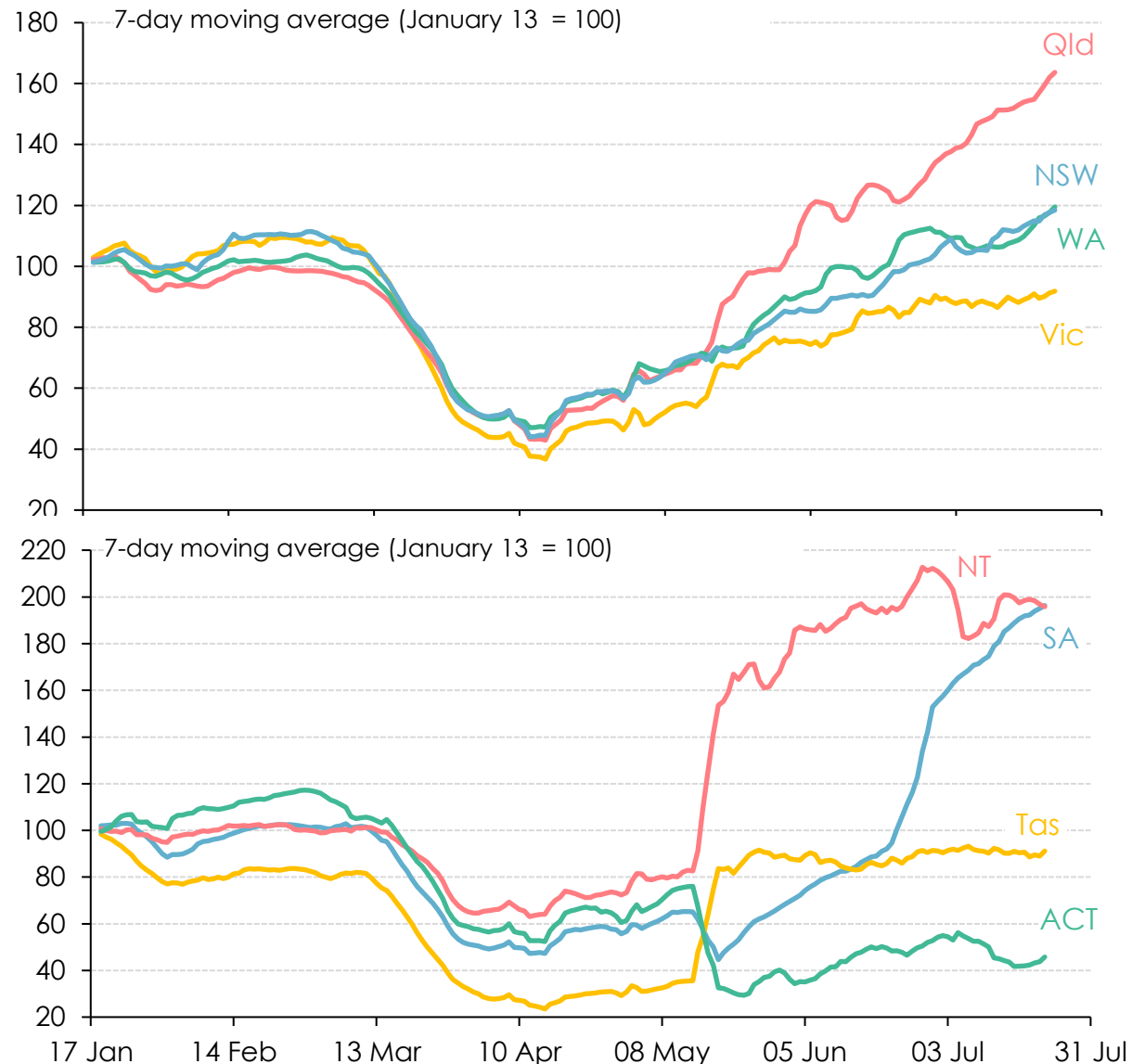
Time spent working, at home, shopping & playing



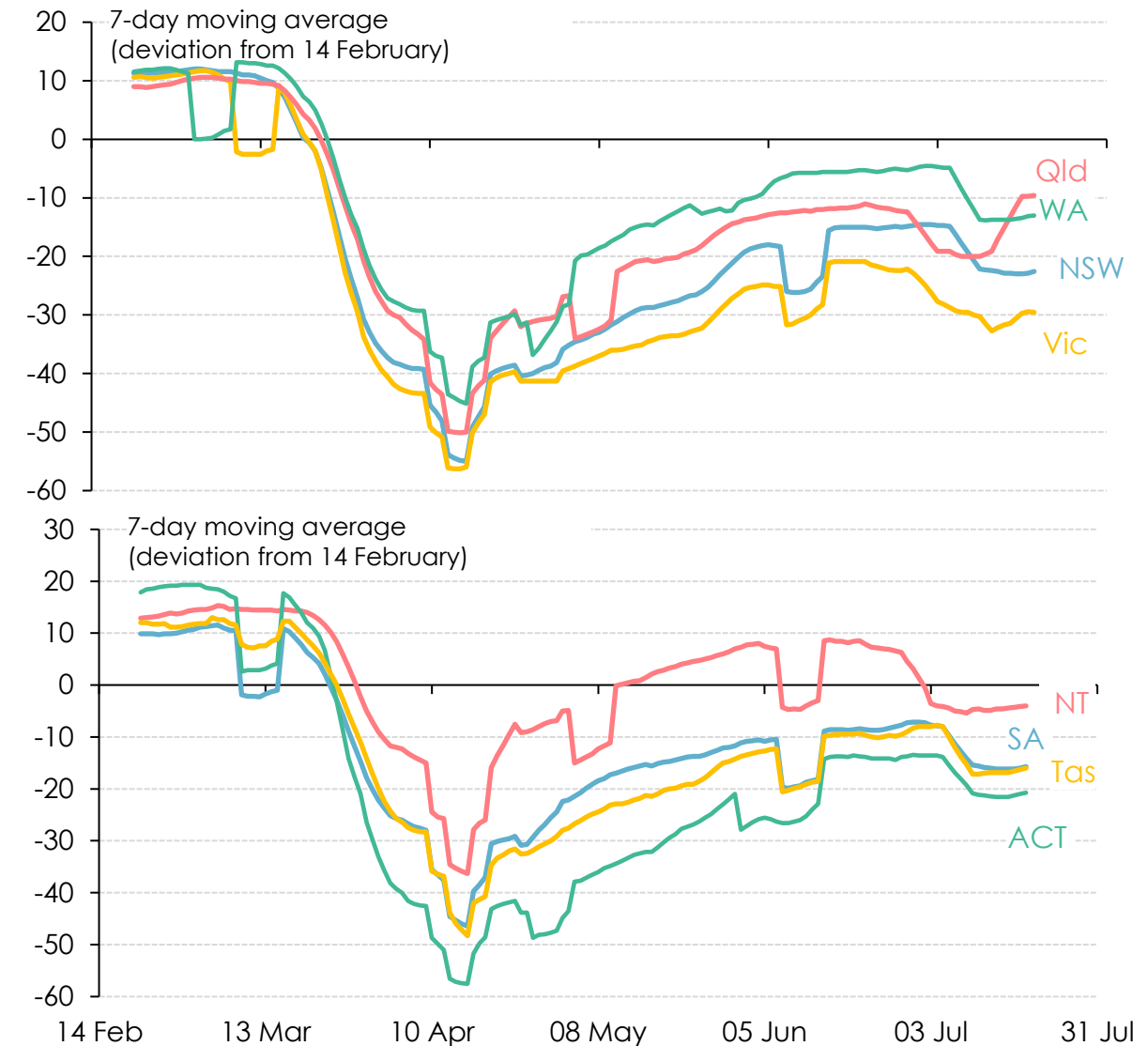
Note: 'transit' means using public transport. Sources: Apple Mobility Trends Reports (data up to 22nd July); Google Covid-19 Community Mobility Reports (data up to 19th July). For state-level data see slide 65.

Mobility data suggest Queensland, Western Australia & the NT returning to 'normal' fastest, with New South Wales & especially Victoria lagging

Time spent driving, by State and Territory



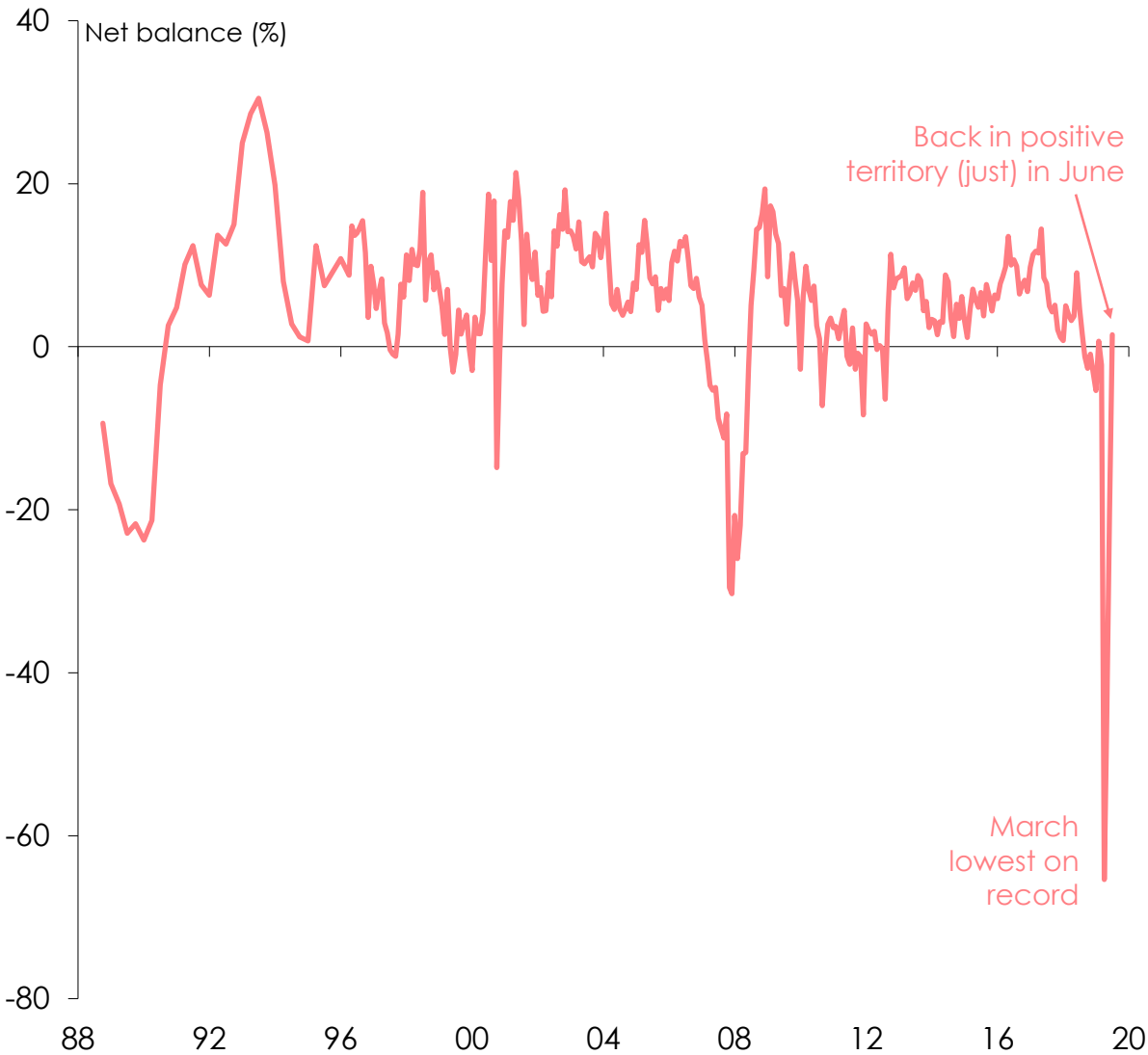
Time spent working, by State and Territory



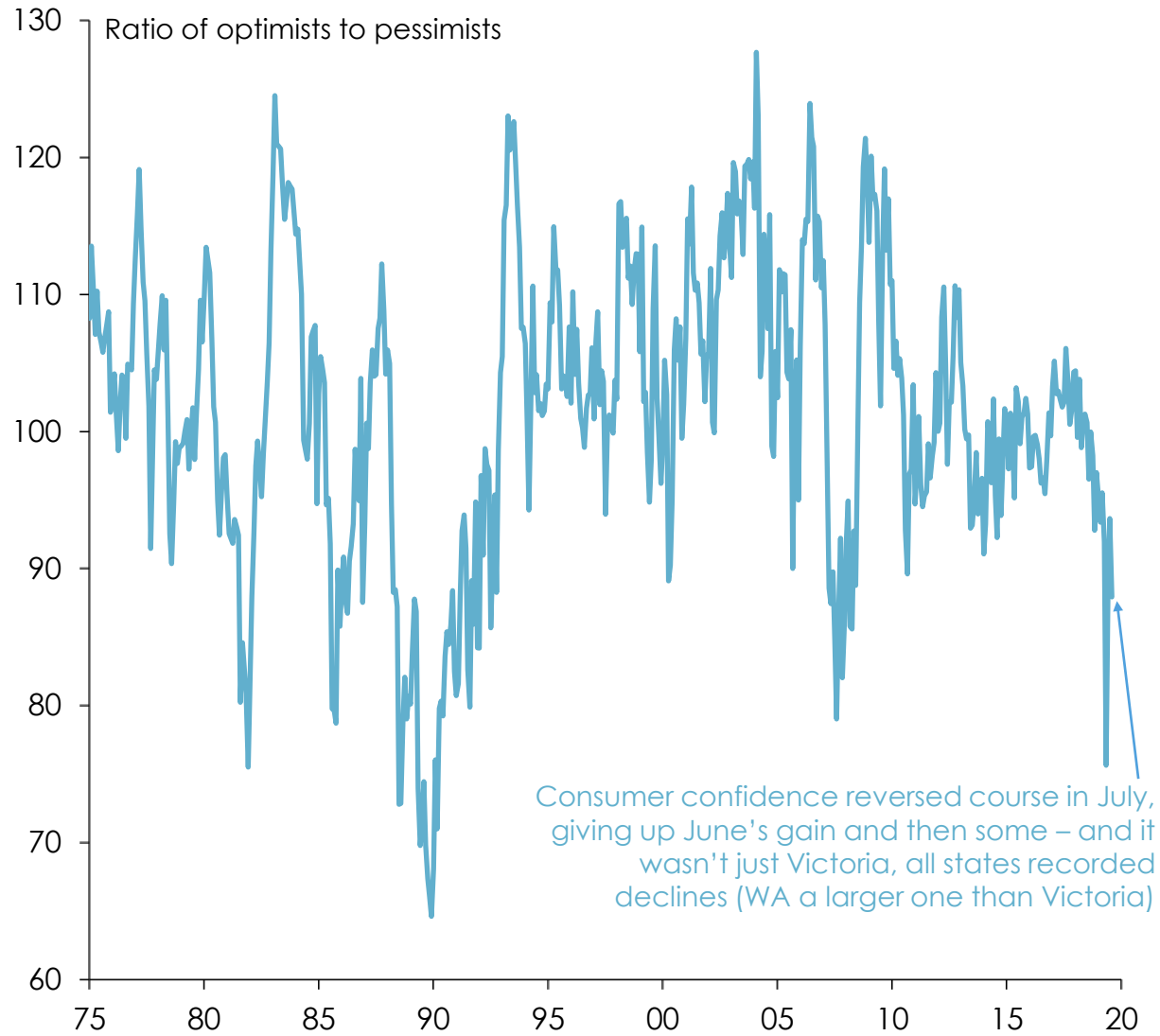
Sources: Apple Mobility Trends Reports (data up to 22nd July); Google Covid-19 Community Mobility Reports (data up to 19th July).

Business confidence improved significantly in June, but the June gains in consumer confidence were more than reversed in July

Business confidence

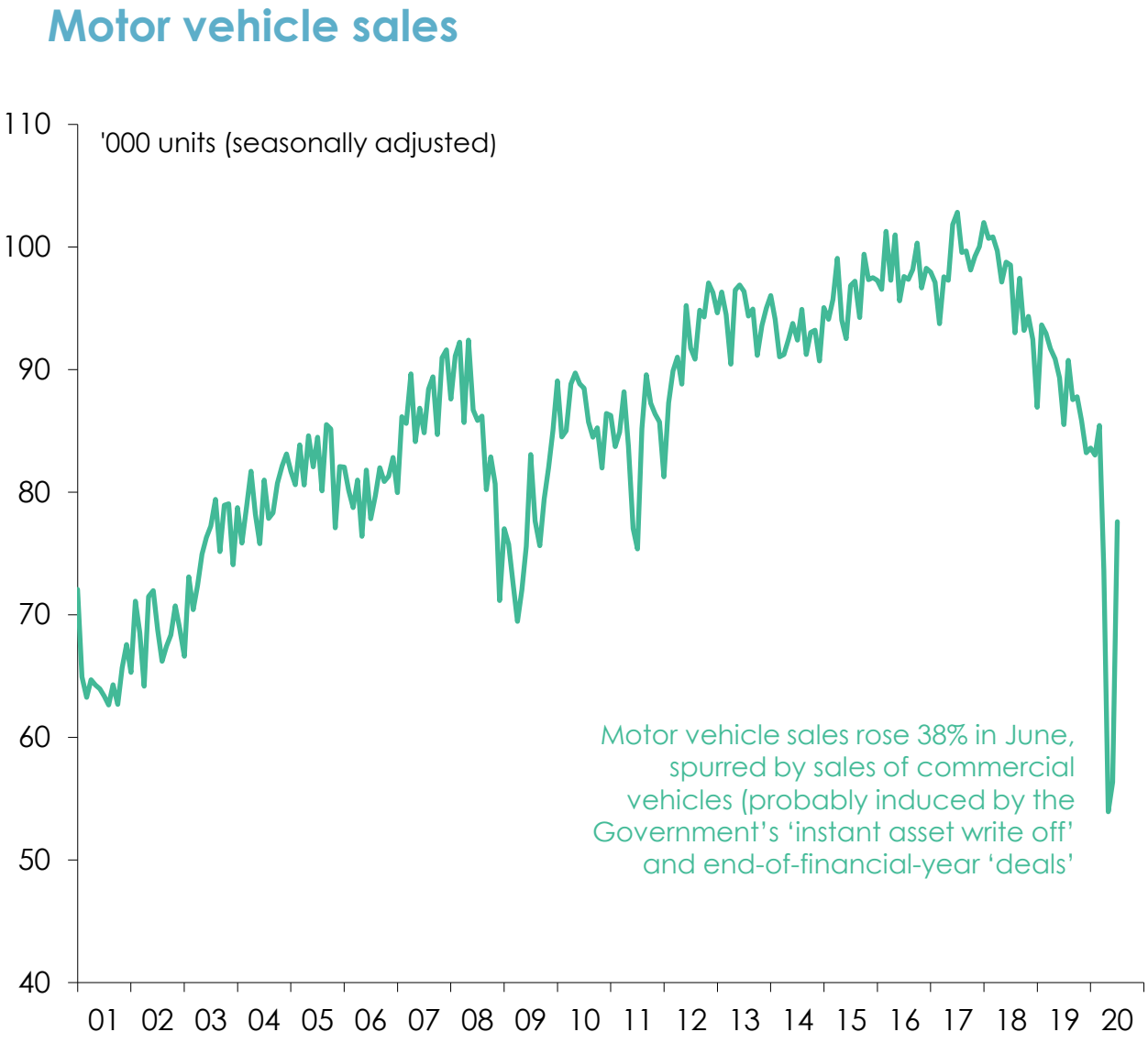
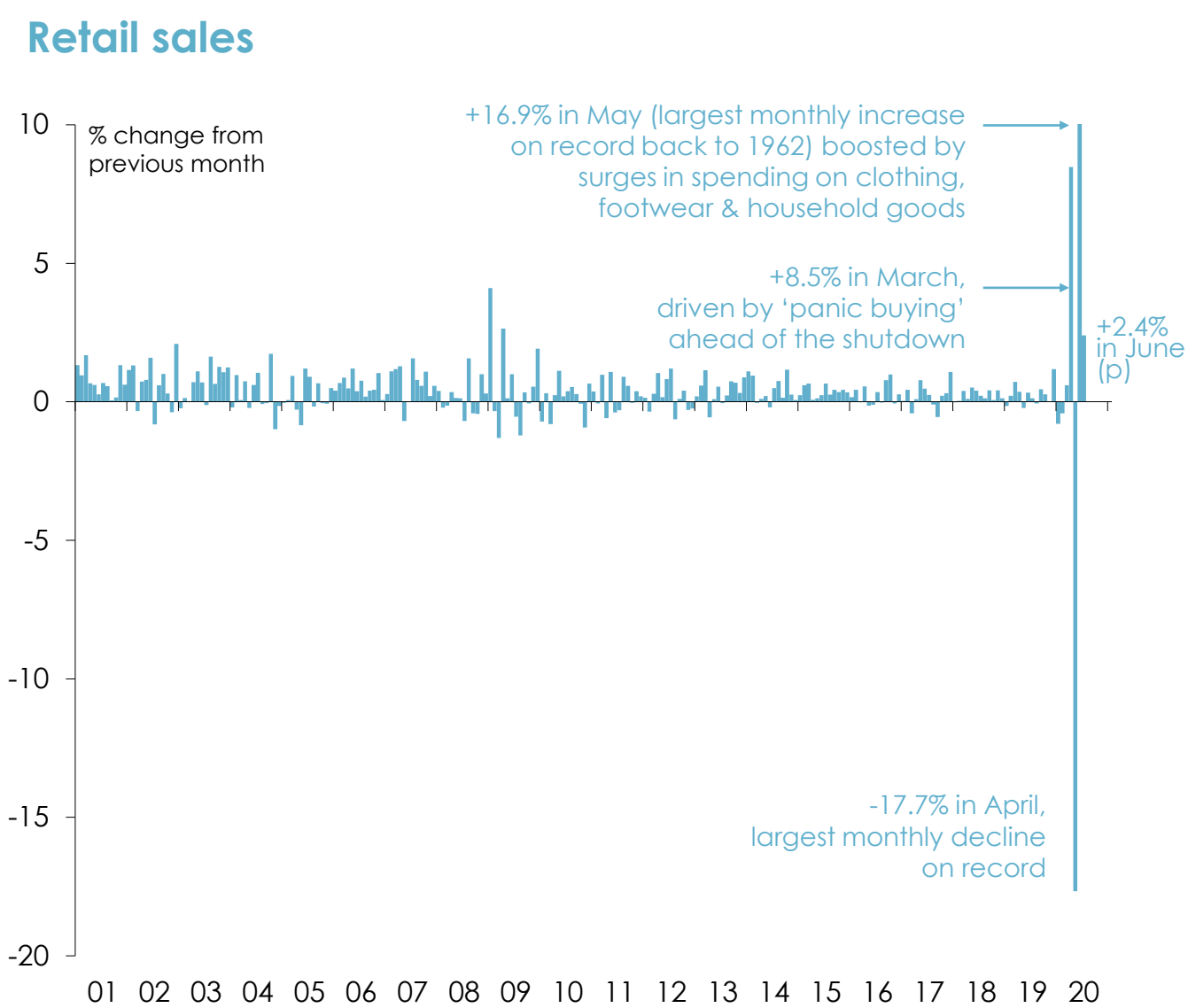


Consumer confidence



Sources: National Australia Bank; Westpac-Melbourne Institute. July and August data will be released on 11th and 12th August, respectively.

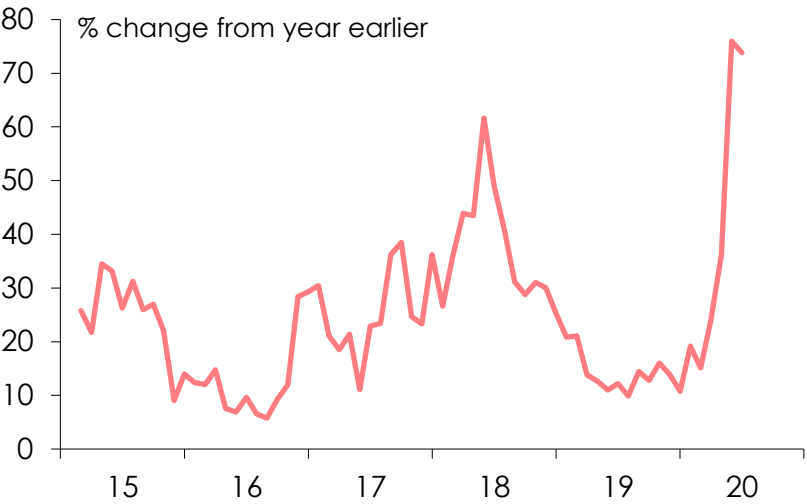
Retail sales rose another 2.3% in June after a 17% rebound in May; while vehicle sales surged in June (though still well below year-earlier levels)



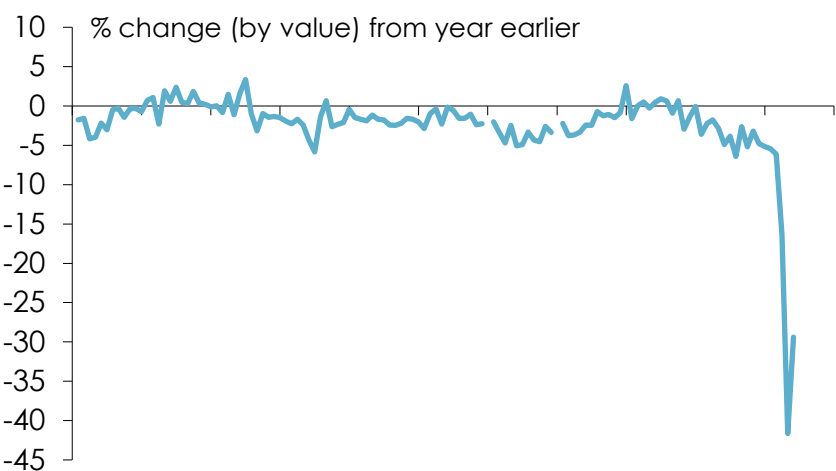
Sources: ABS; Federal Chamber of Automotive Industries VFACTS (seasonal adjustment of FCAI data by Corinna). Final (and detailed) retail sales data for June will be released on 4th August.

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

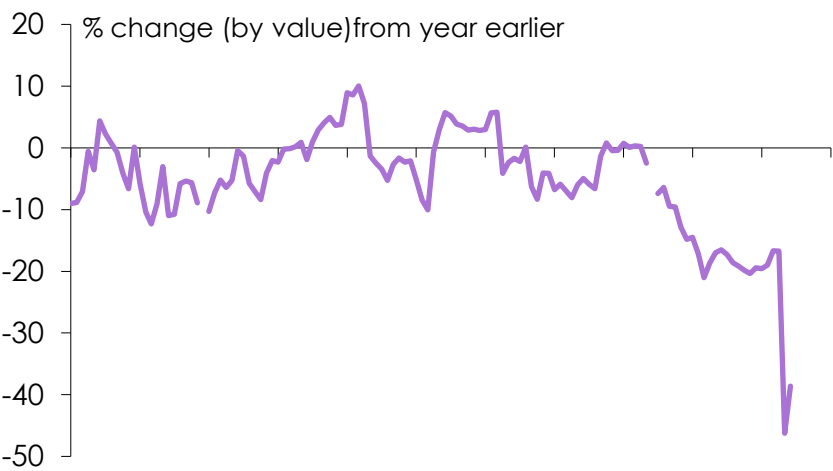
Growth in online retail sales



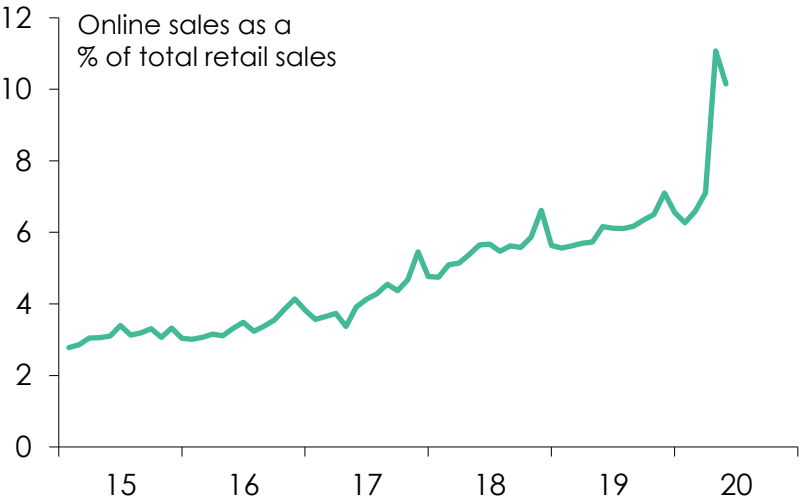
ATM cash withdrawals



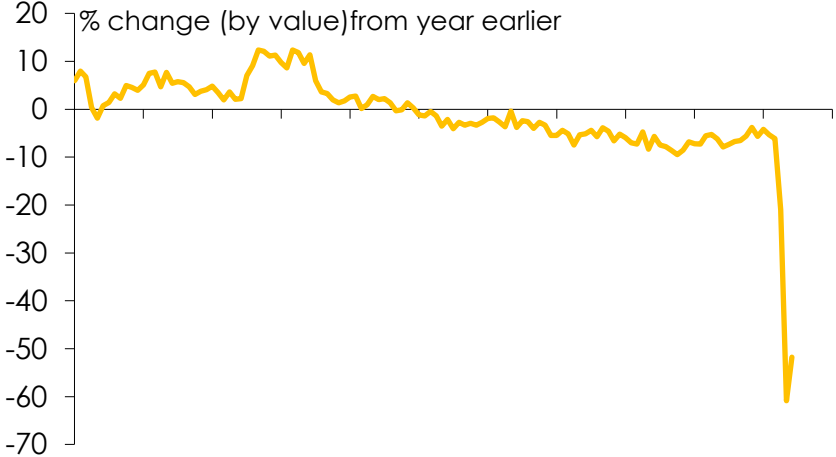
Credit card cash advances



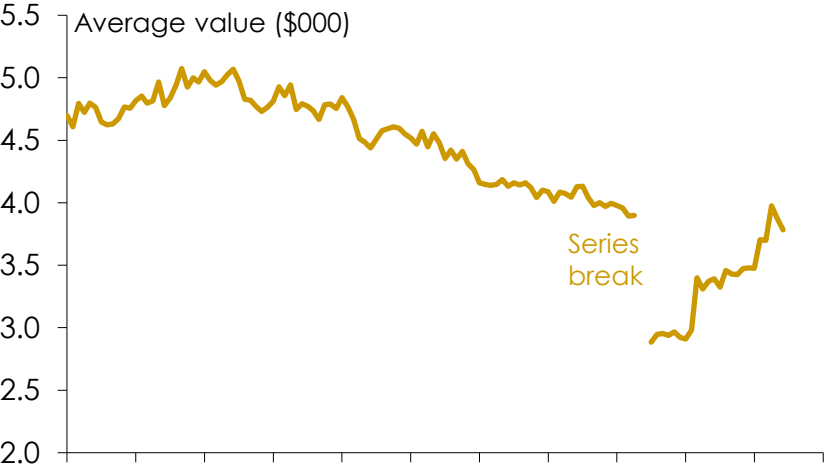
Online retail 'market share'



Debit card cash-outs



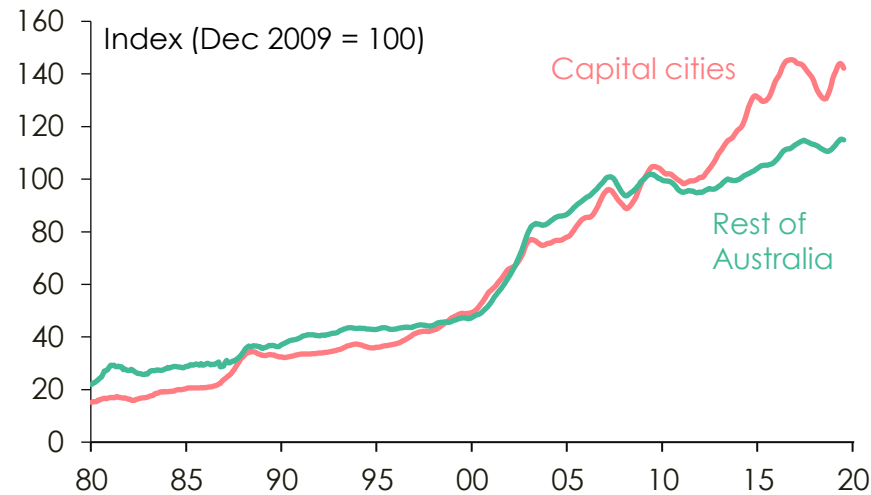
Direct entry payments



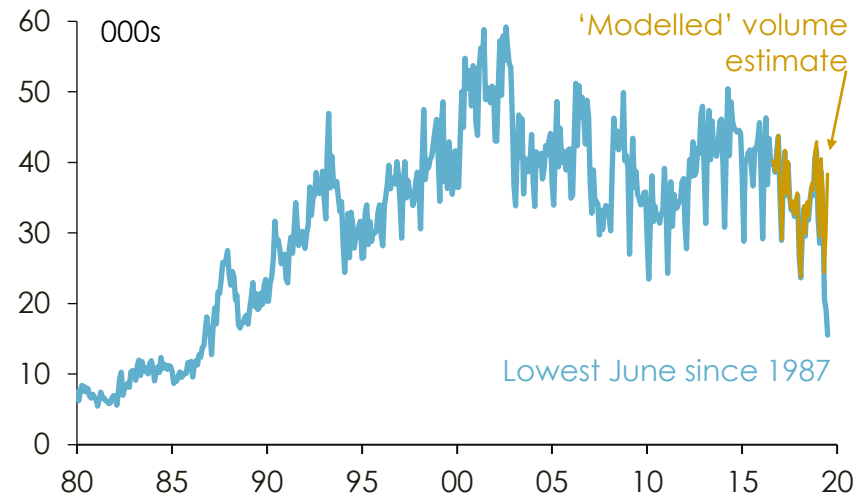
Sources: ABS; RBA. Latest data are for June: online retail sales data for July will be released on 4th August and payments system data on 10th August.

Property prices fell by an average of 1.0% over May and June on thin volumes, largely reflecting falls in top quartile prices

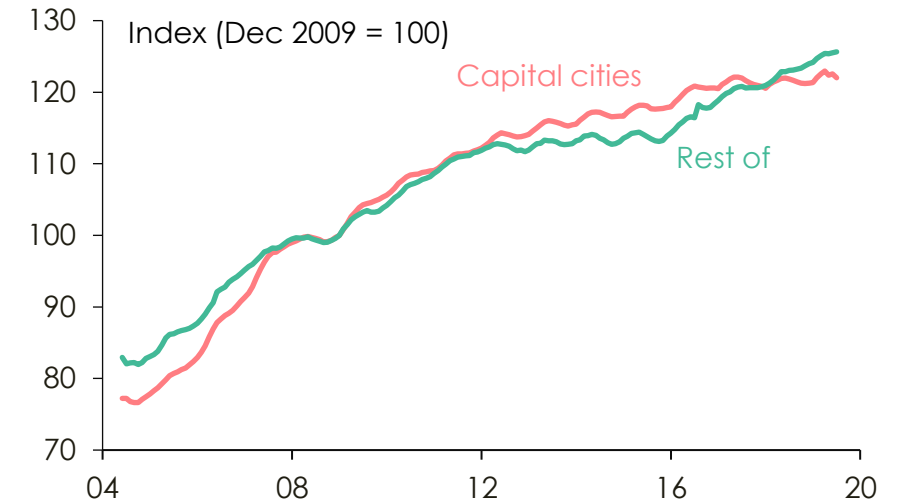
Residential property prices



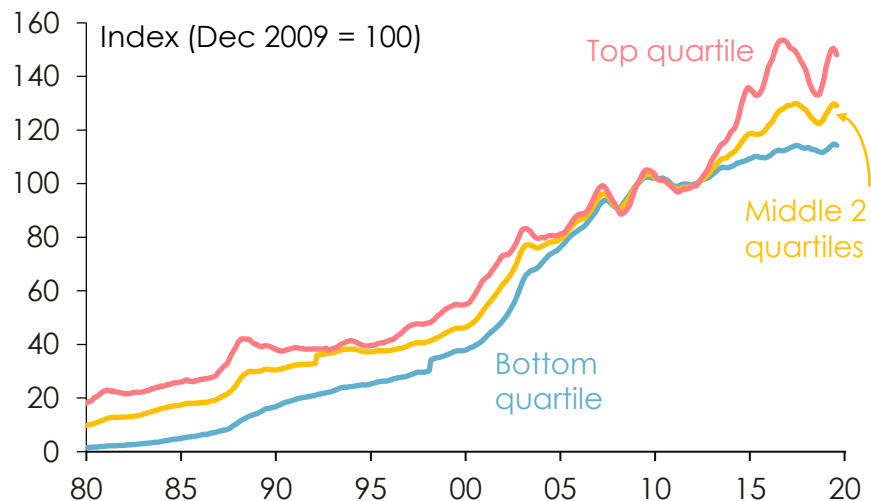
Residential property sales volumes



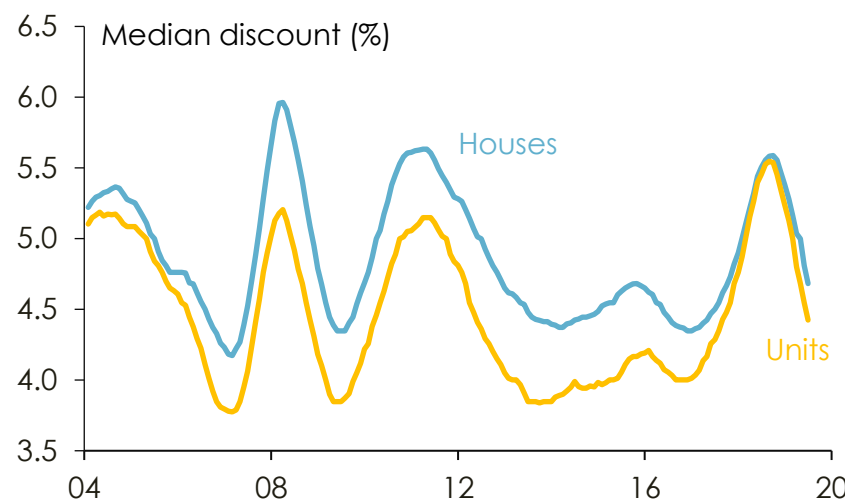
Residential rents



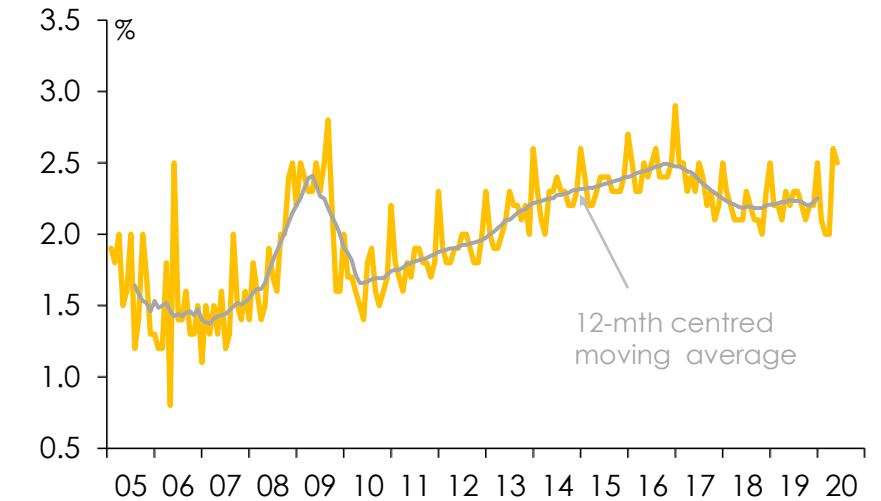
Property prices by tier



Vendor discounting



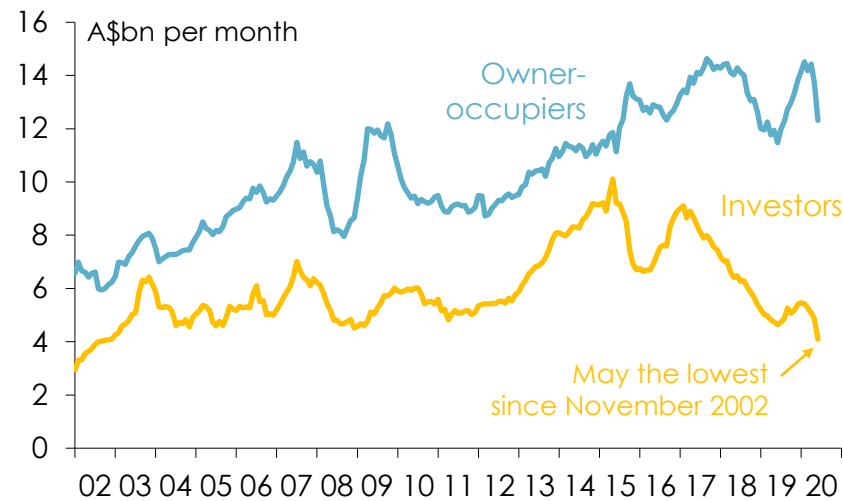
Capital city rental vacancy rates



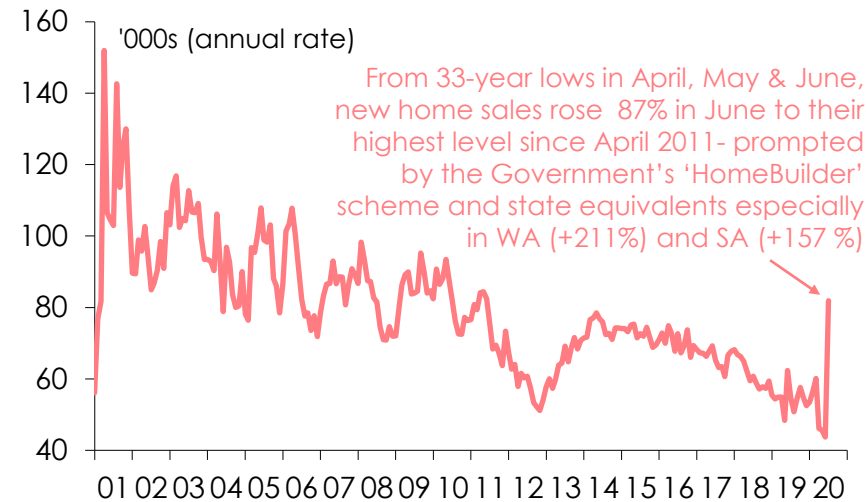
Note: The index of property prices measures the 'organic' change in underlying sales values by using a hedonic regression methodology that takes account of changes in the characteristics of properties being sold from month to month. The index of residential rents uses a similar methodology to measure the 'organic' change in underlying rents. The 'modelled' sales volume estimates seek to account for delays in receiving information on transactions that have yet to settle (which can be more than six weeks after the contract date). Latest data are for June 2020; July data released on 3rd August. 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

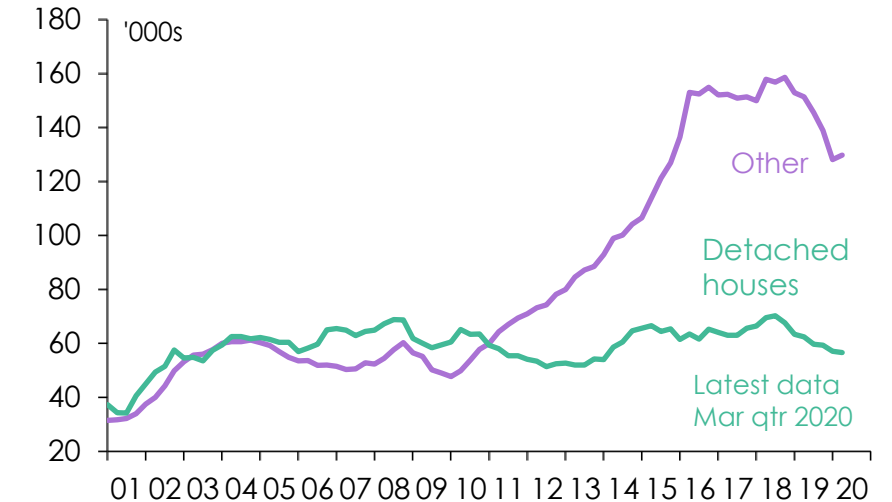
Housing finance commitments



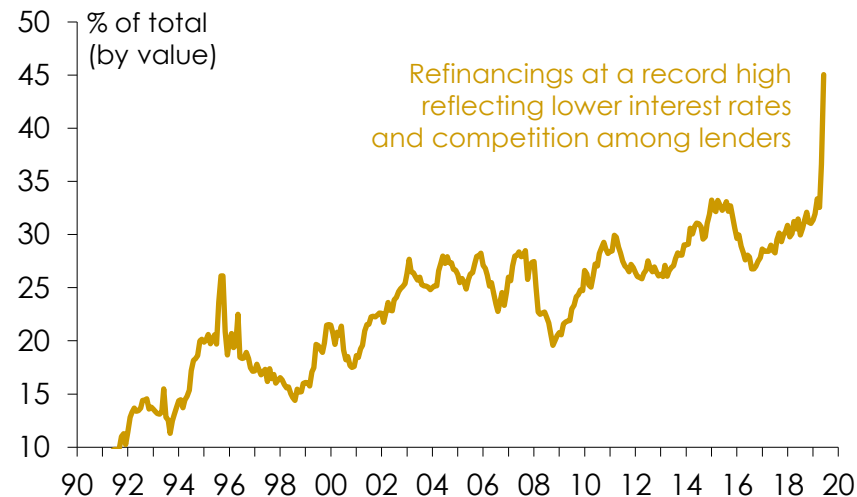
Large builders' new home sales



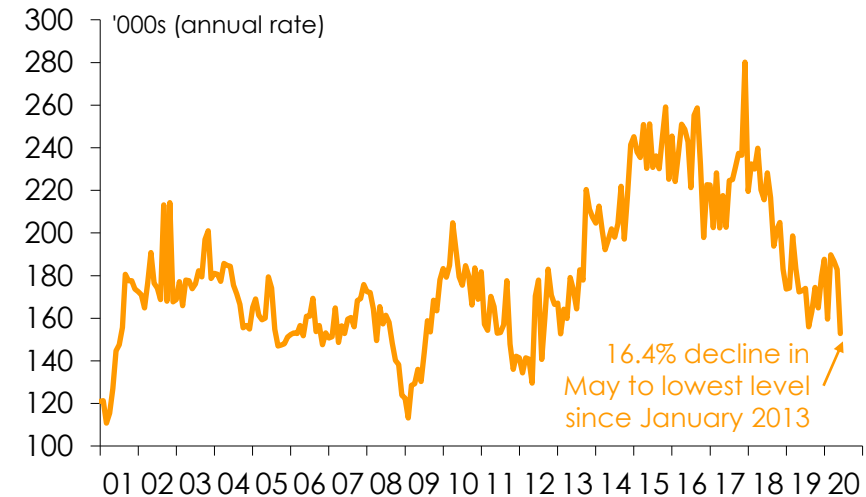
Dwellings under construction



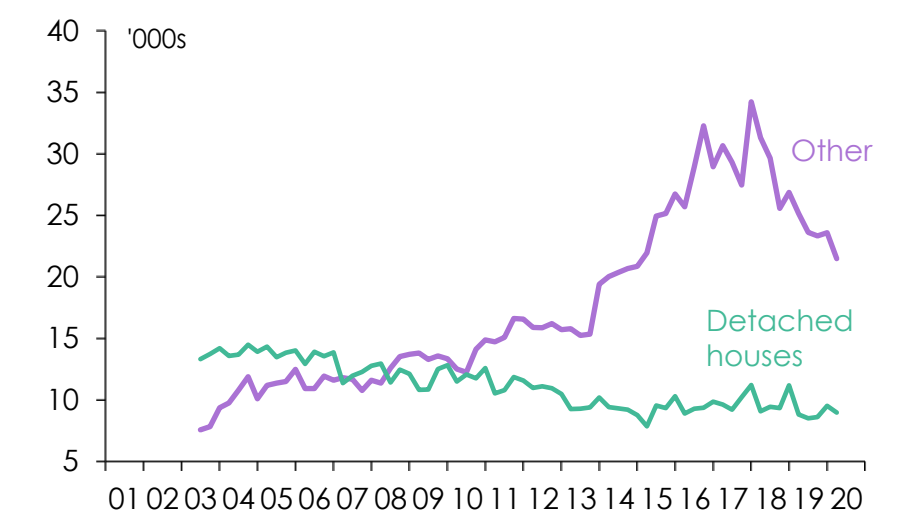
Refinancings as pc of total



Residential building approvals



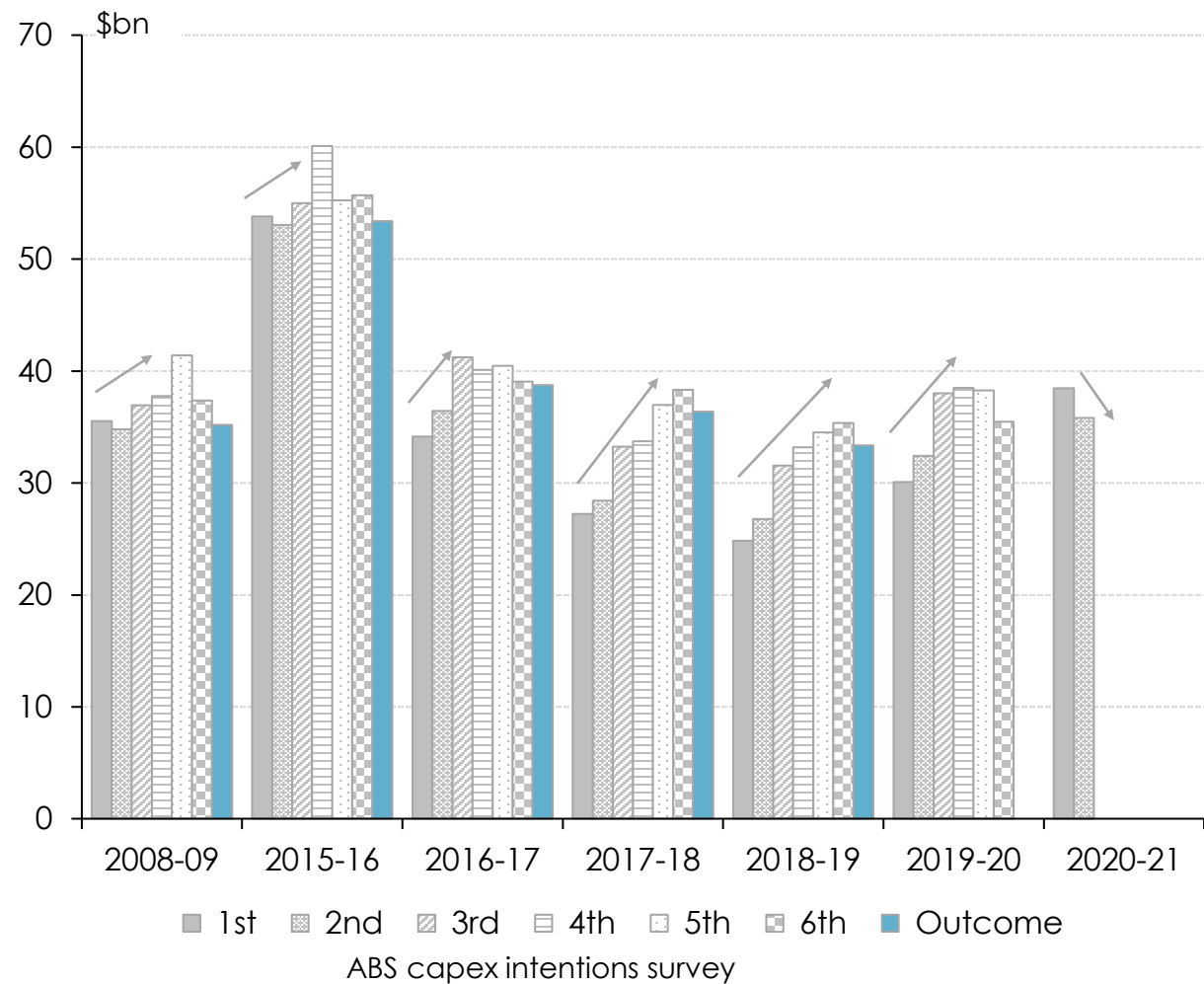
'Pipeline' of work yet to be done



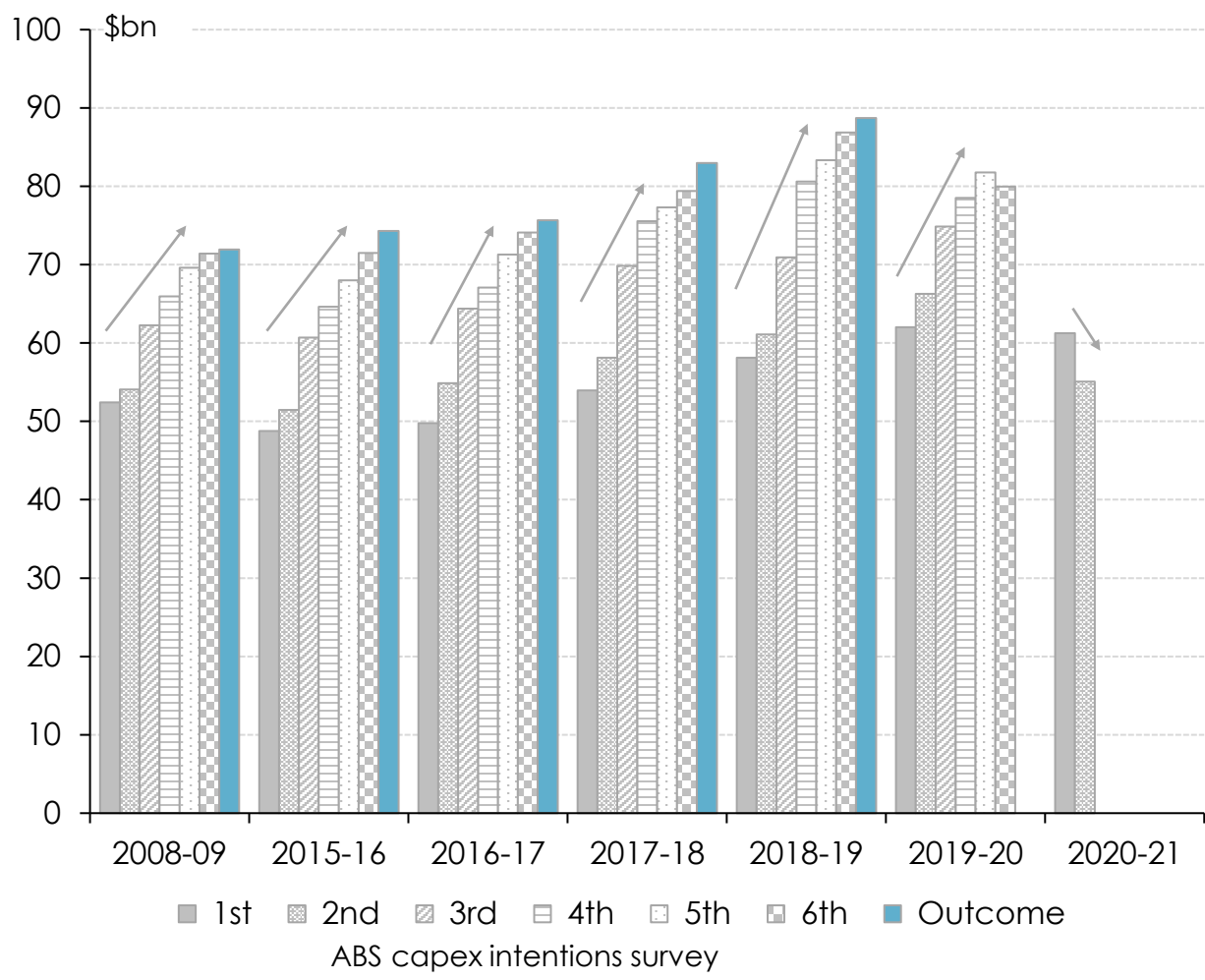
Note: 'New home sales' are of detached dwellings only and exclude small-scale builders. Sources: ABS; Housing Industry Association. June residential building approvals will be released this Thursday 30th July; June housing finance data on 7th August; and June quarter dwellings under construction and 'pipeline' data on 14th October.

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

Capital expenditure intentions - mining

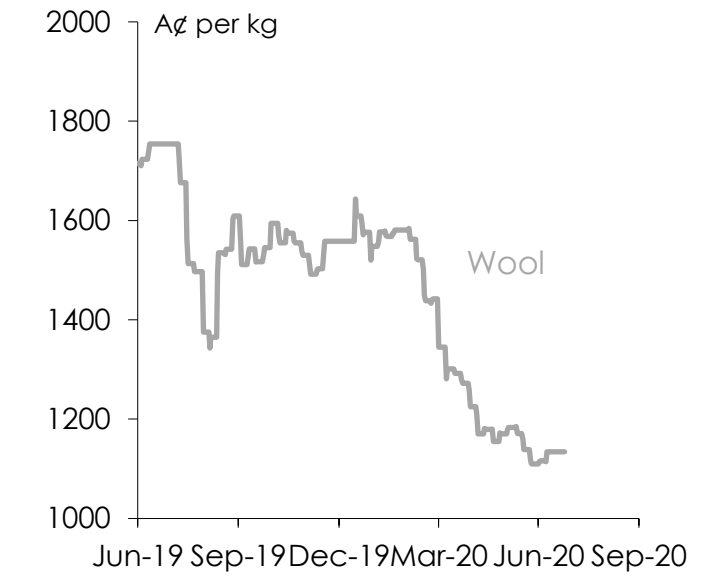
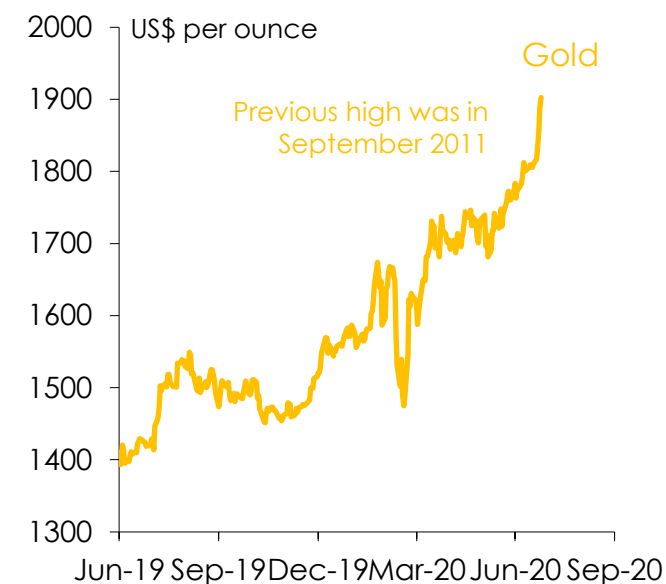
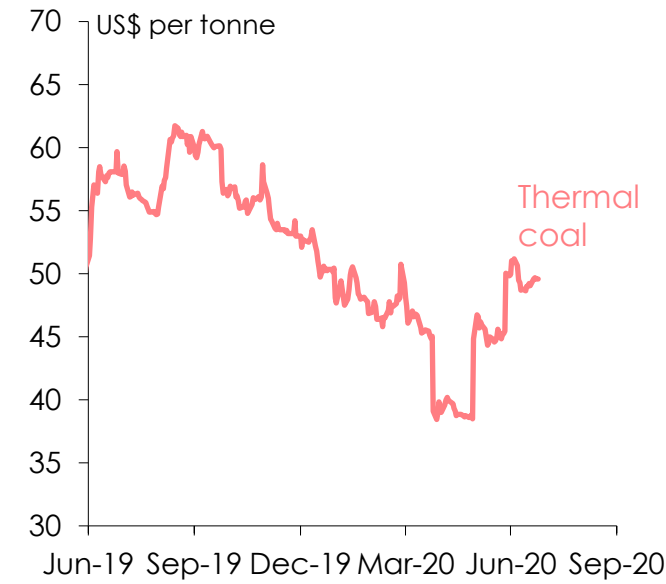
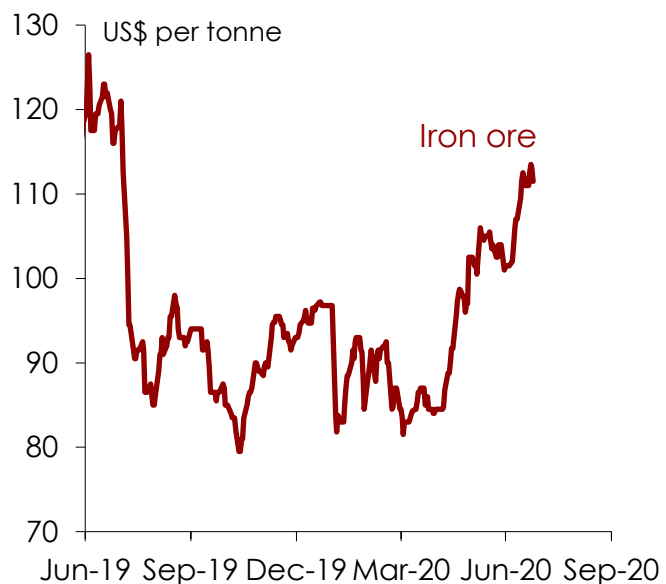
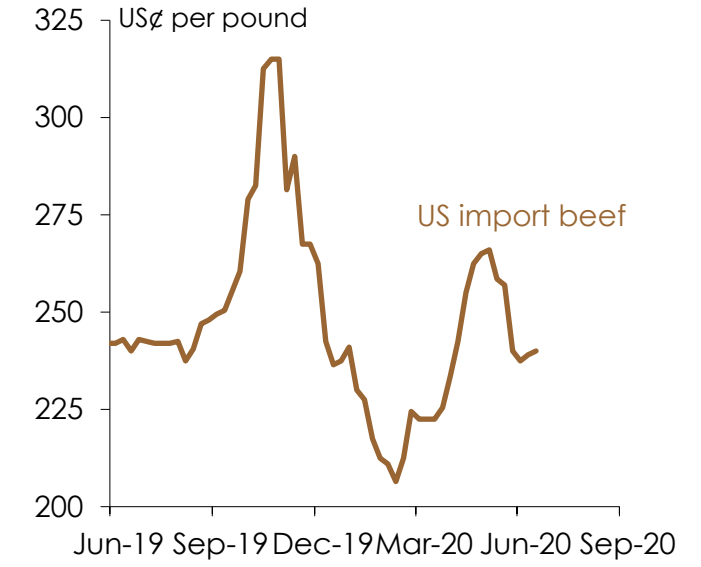
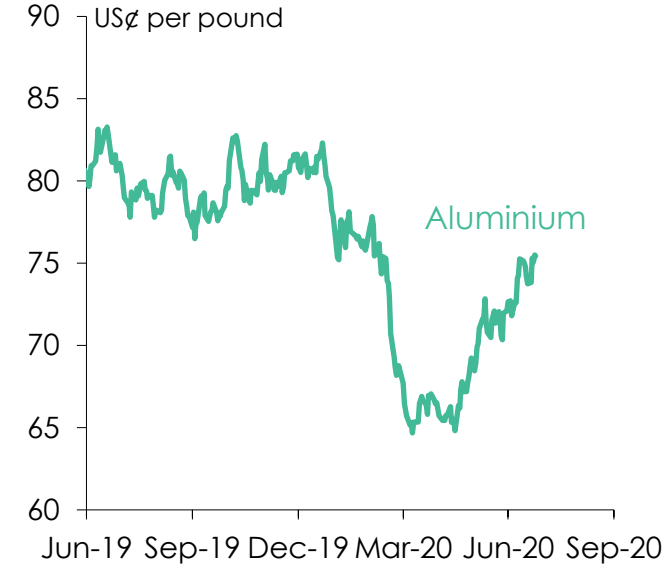
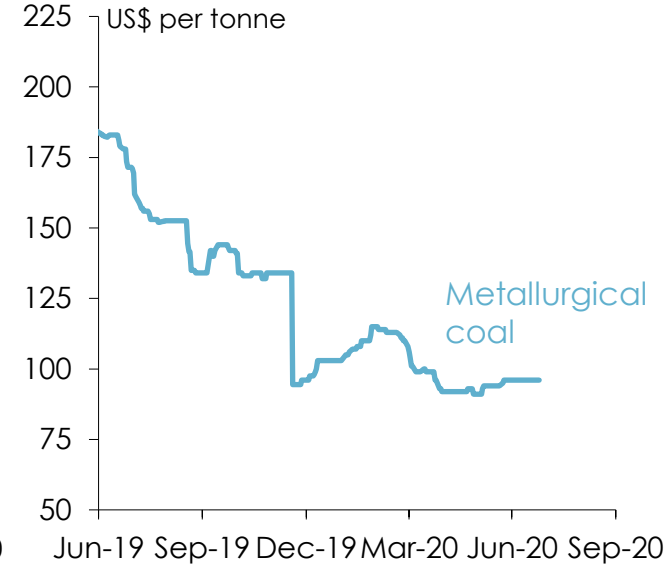
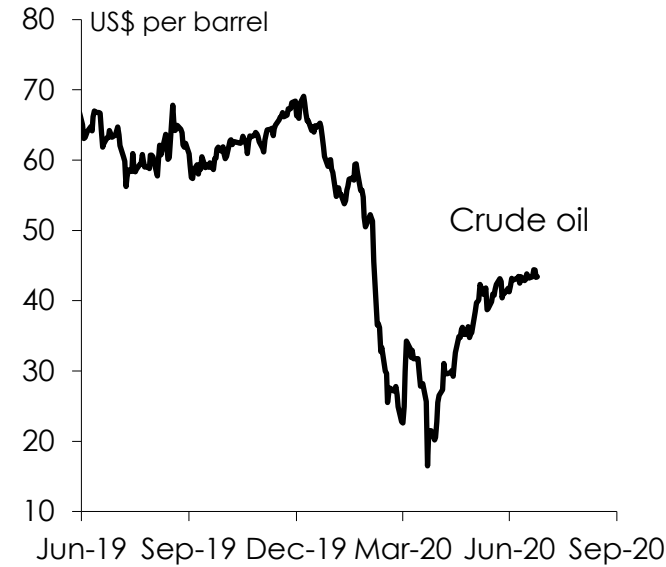


Capital expenditure intentions – non-mining



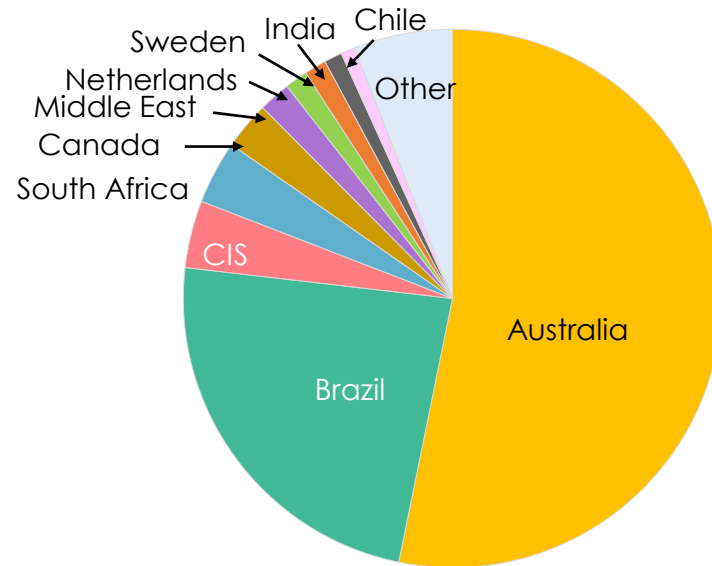
Note: The ABS conducts six surveys of business' capital expenditure intentions in respect of each financial year. The first is conducted in January & February prior to the commencement of the financial year, the second in May & June, the third in July & August of the financial year, the fourth in October & 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 (next update 27th August).

The gold price hit a record high this week, iron ore prices remained resilient, and oil prices crept up to their highest since early March

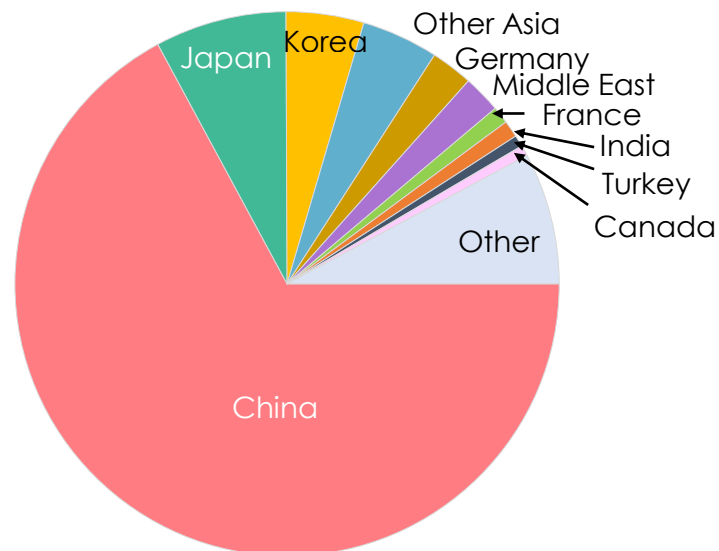


The resilience of iron ore prices stems from strong Chinese demand, declining Chinese production and constraints on Brazilian exports

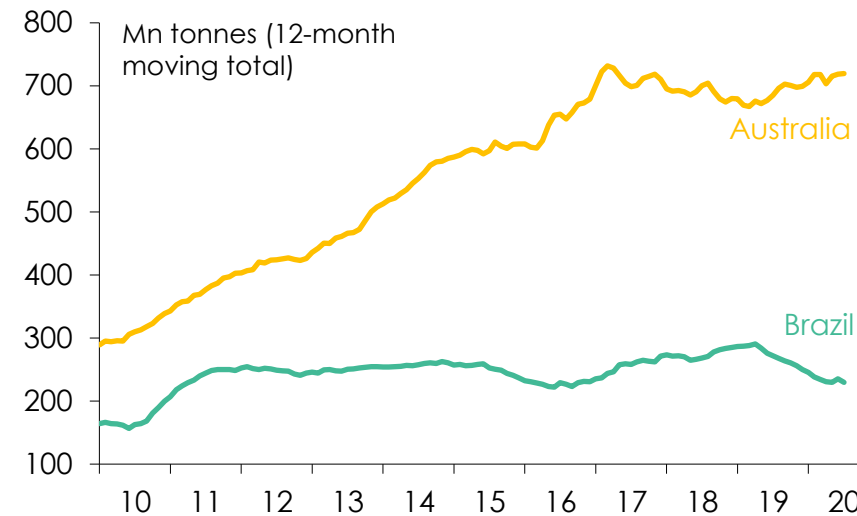
Iron ore exports, 2018



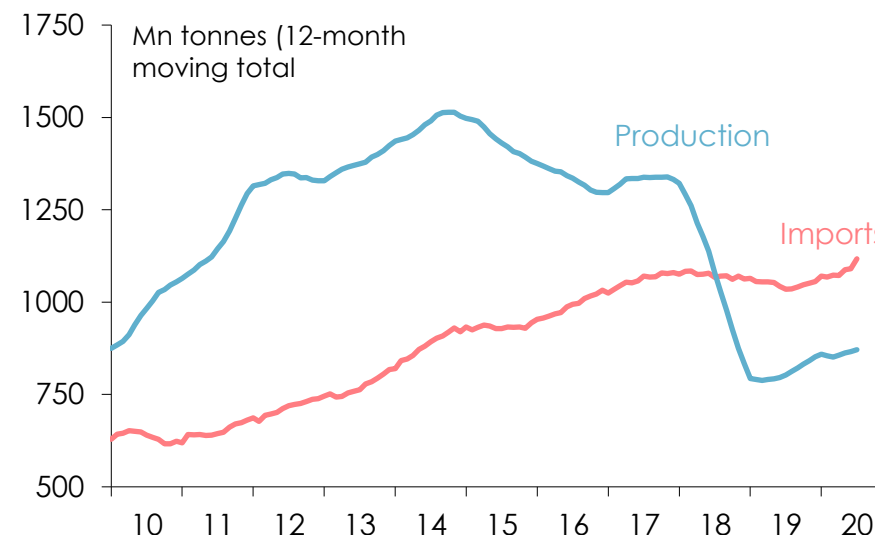
Iron ore imports, 2018



Australia & Brazil iron ore exports



China iron ore production & imports

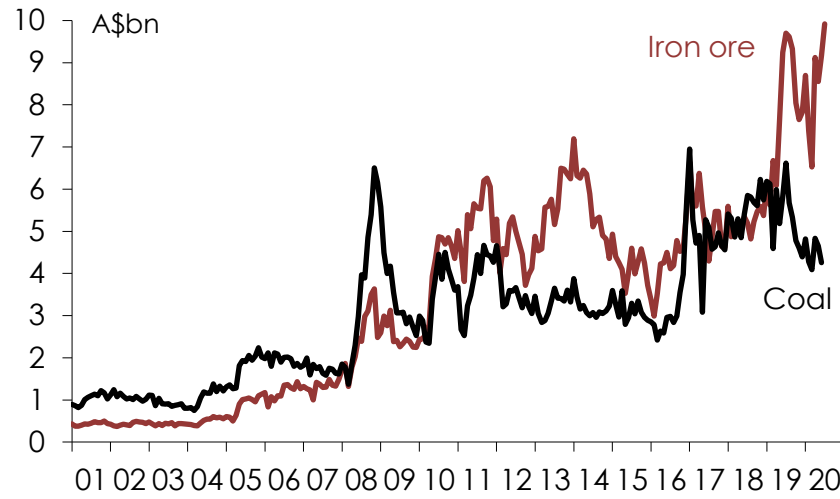


- ❑ The global seaborne iron ore trade is dominated by shipments from Australia & Brazil to China (which accounts for 53% of global steel production and 51% of steel use)
- ❑ Chinese iron ore production has fallen by more than 34% since 2017, largely because of rapidly declining quality – forcing Chinese steel mills to become more dependent on imports in response to increased demand driven by stimulus measures
- ❑ Meanwhile Brazilian production and exports have been curtailed by a series of tailing dam collapses over the past five years, and more recently by Covid-19 outbreaks at four large mine sites
- ❑ China is seeking to develop other sources especially in West Africa but this is a slow process

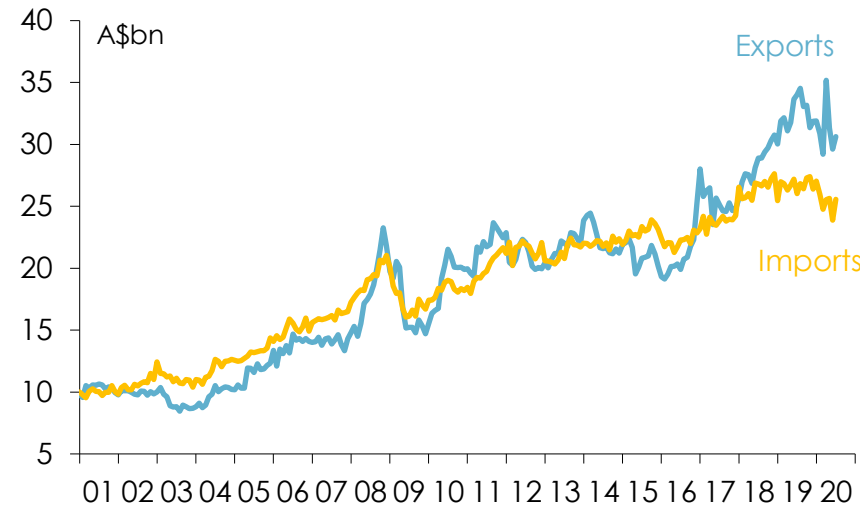
Note: Export volume data for Australia and Brazil derived by dividing export values (in US\$) from ABS and IGBE by the average US\$ price of Chinese iron ore imports.
Sources: World Steel Association; China National Bureau of Statistics; China General Administration of Customs; Refinitiv Datastream; ABS; IGBE; Corinna.

Exports of most items except iron ore have fallen since March, but that's been offset by big falls in imports, especially services & consumer goods

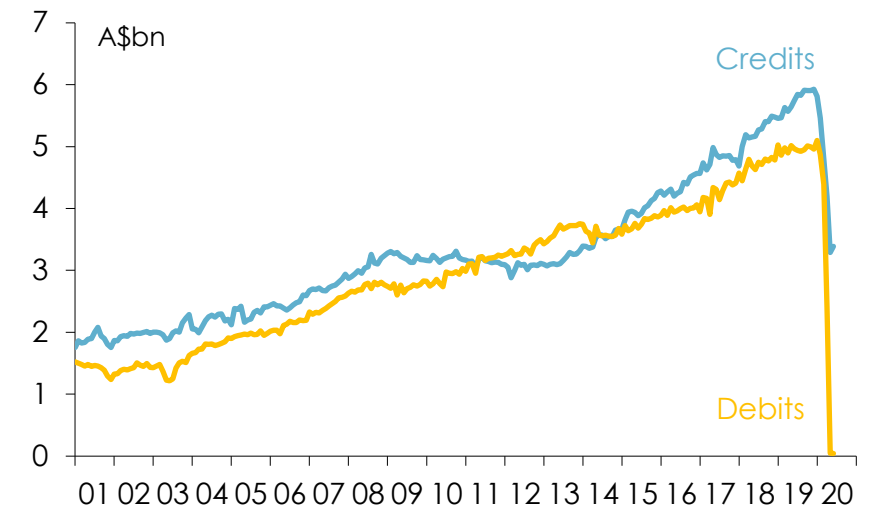
Iron ore and coal exports



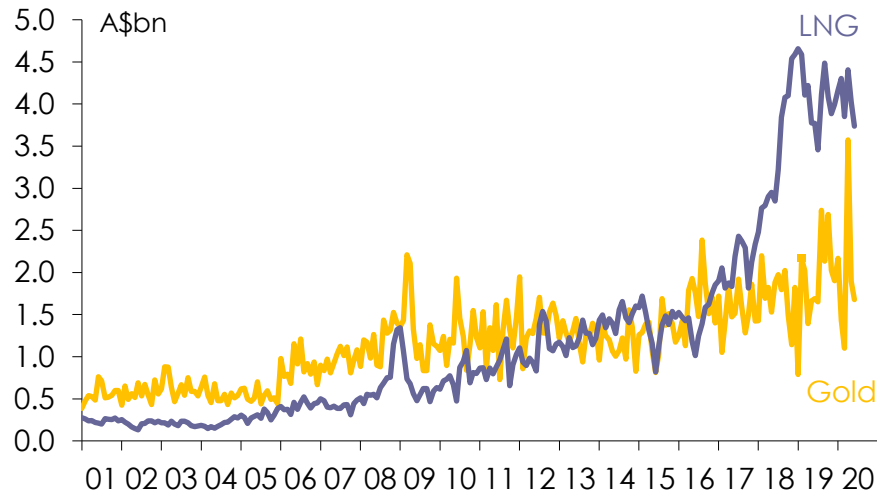
Merchandise exports and imports



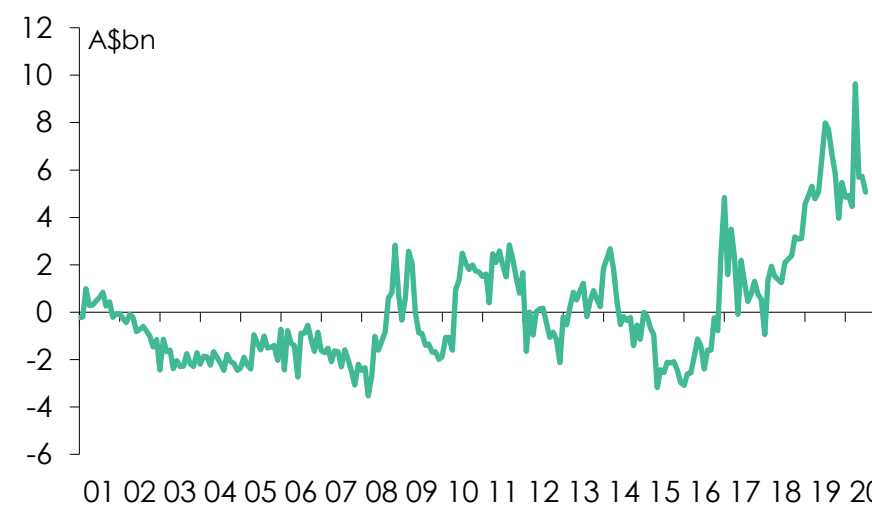
Tourism-related services trade



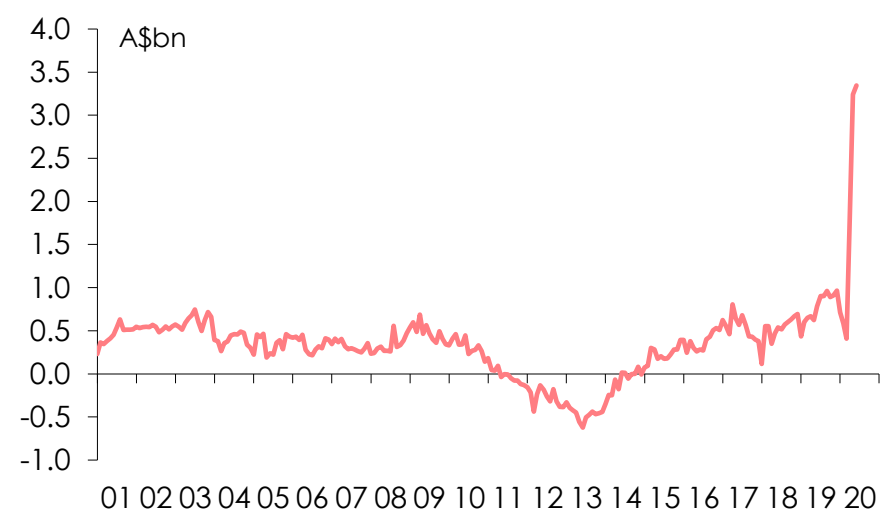
LNG and gold exports



Merchandise trade balance



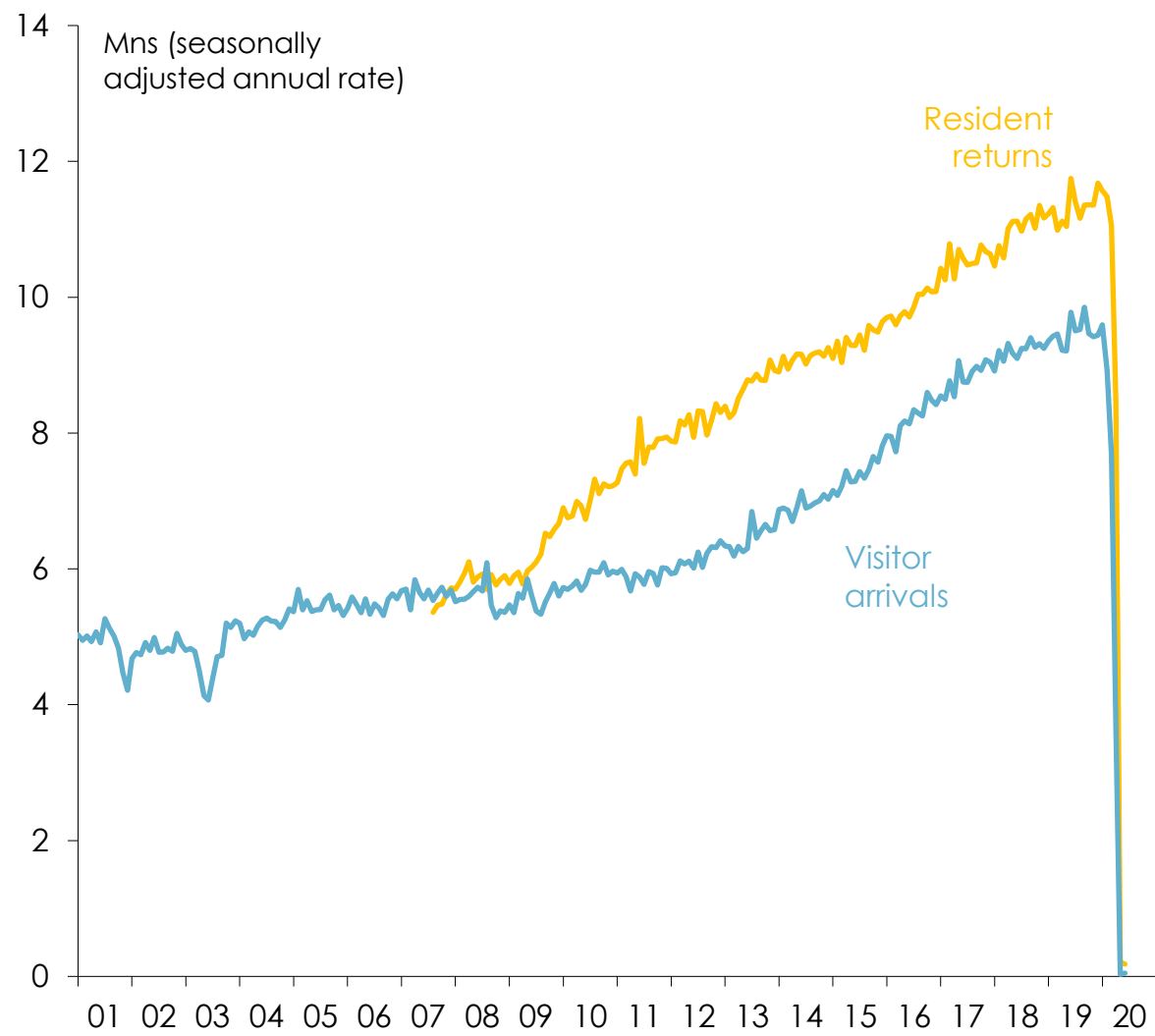
Tourism services trade balance



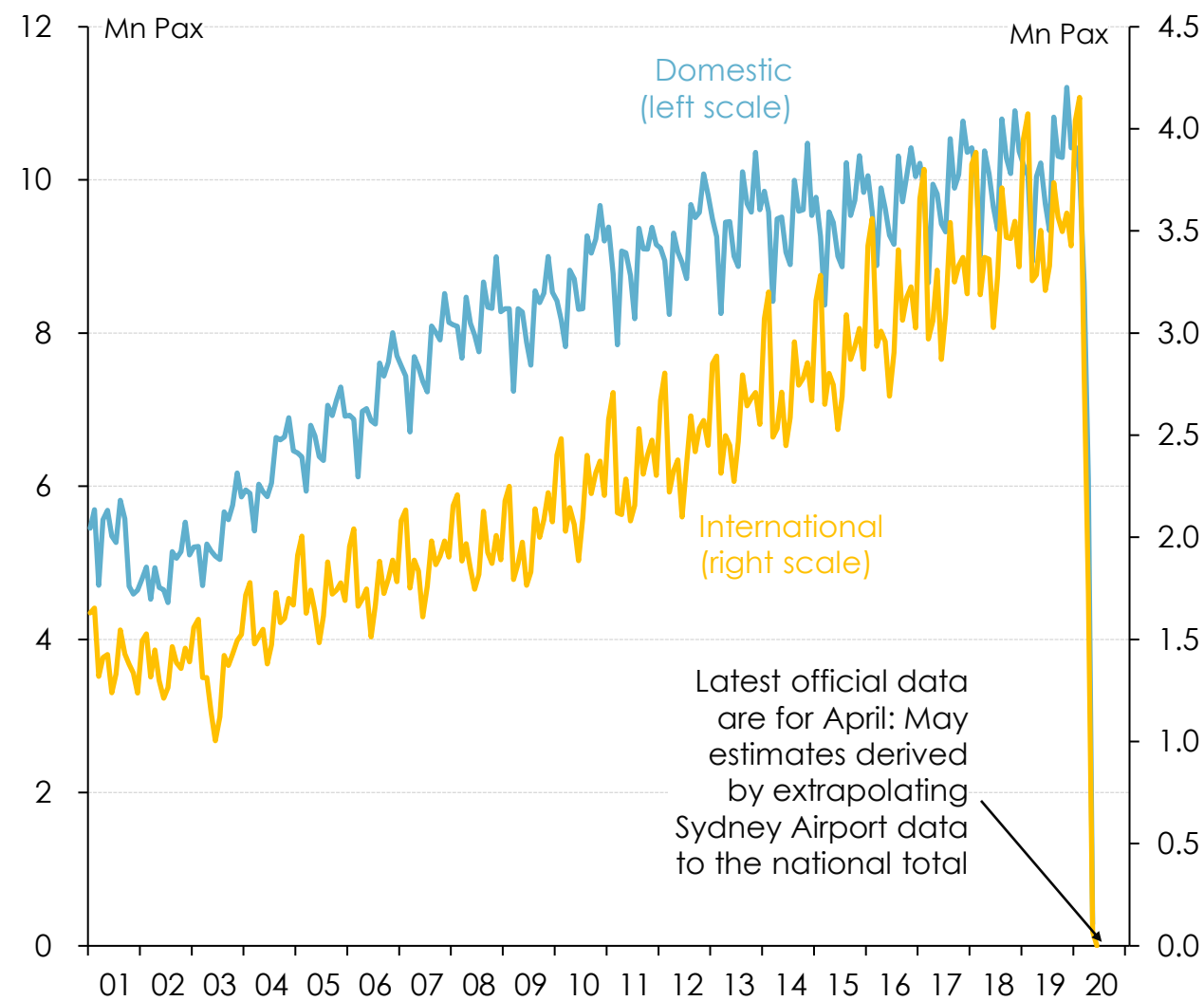
Source: ABS. Latest data are for May, except for iron ore, merchandise exports & imports and the merchandise trade balance which are preliminary June data, seas. adj. by Corinna; final June data will be released on 4th August.

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

Short-term visitor arrivals and resident returns



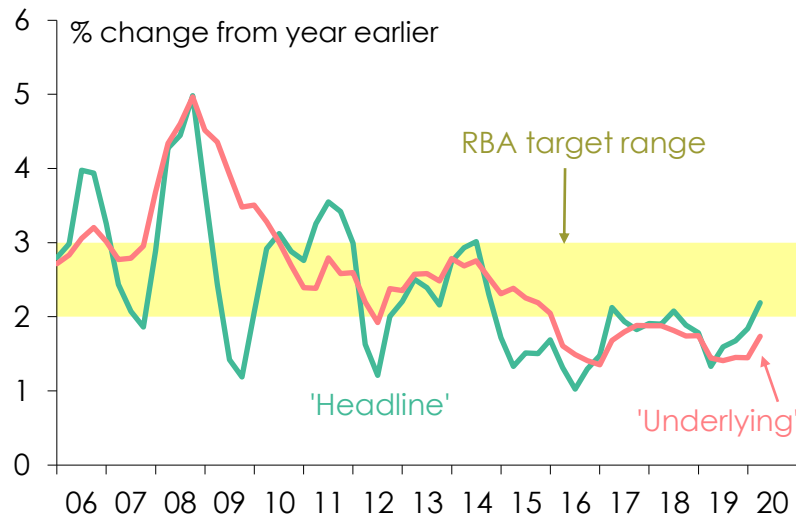
Airport passenger movements



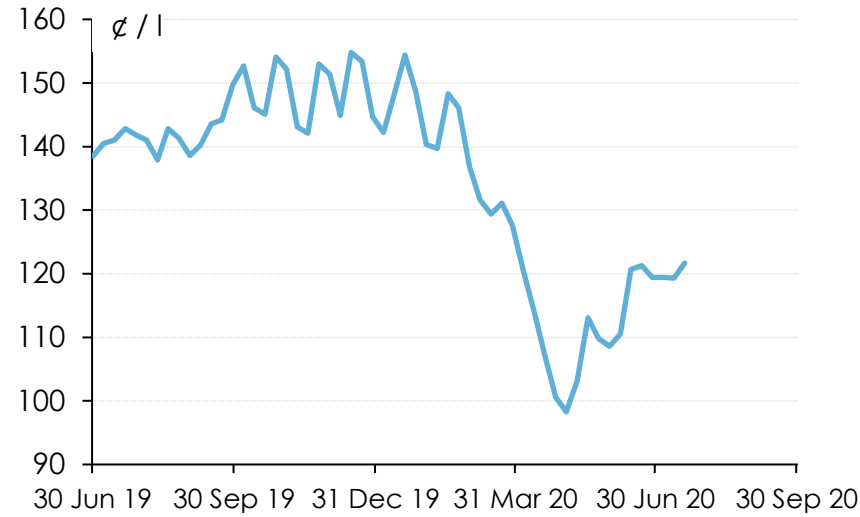
Note: The ABS has suspended publication of seasonally adjusted estimates of short-term visitor arrivals and resident returns, so published original estimates for April 2020 (and beyond) have been seasonally adjusted by Corinna using the same seasonal factors as for the corresponding month of 2019.
Sources: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

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

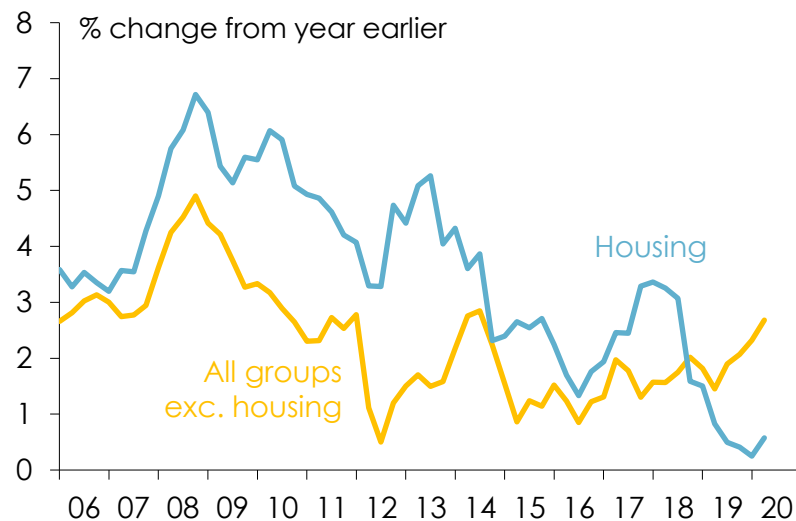
Consumer prices



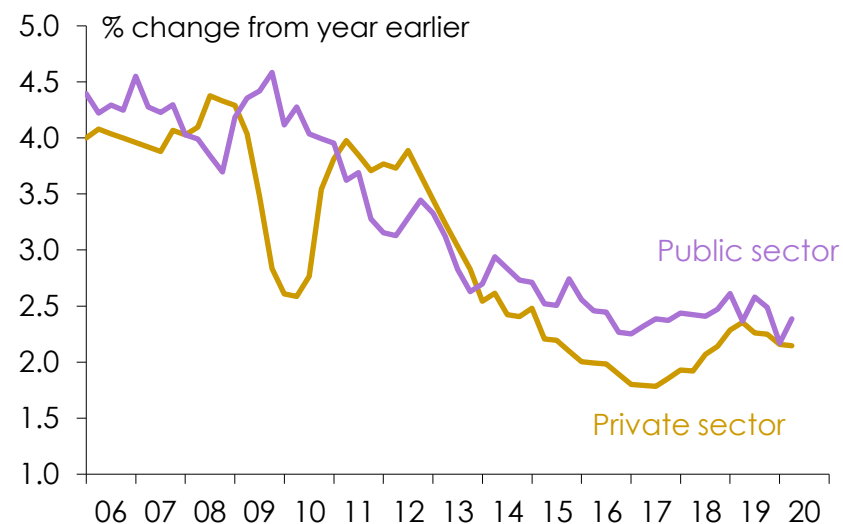
Retail petrol prices



Housing costs in the CPI



Wage price index

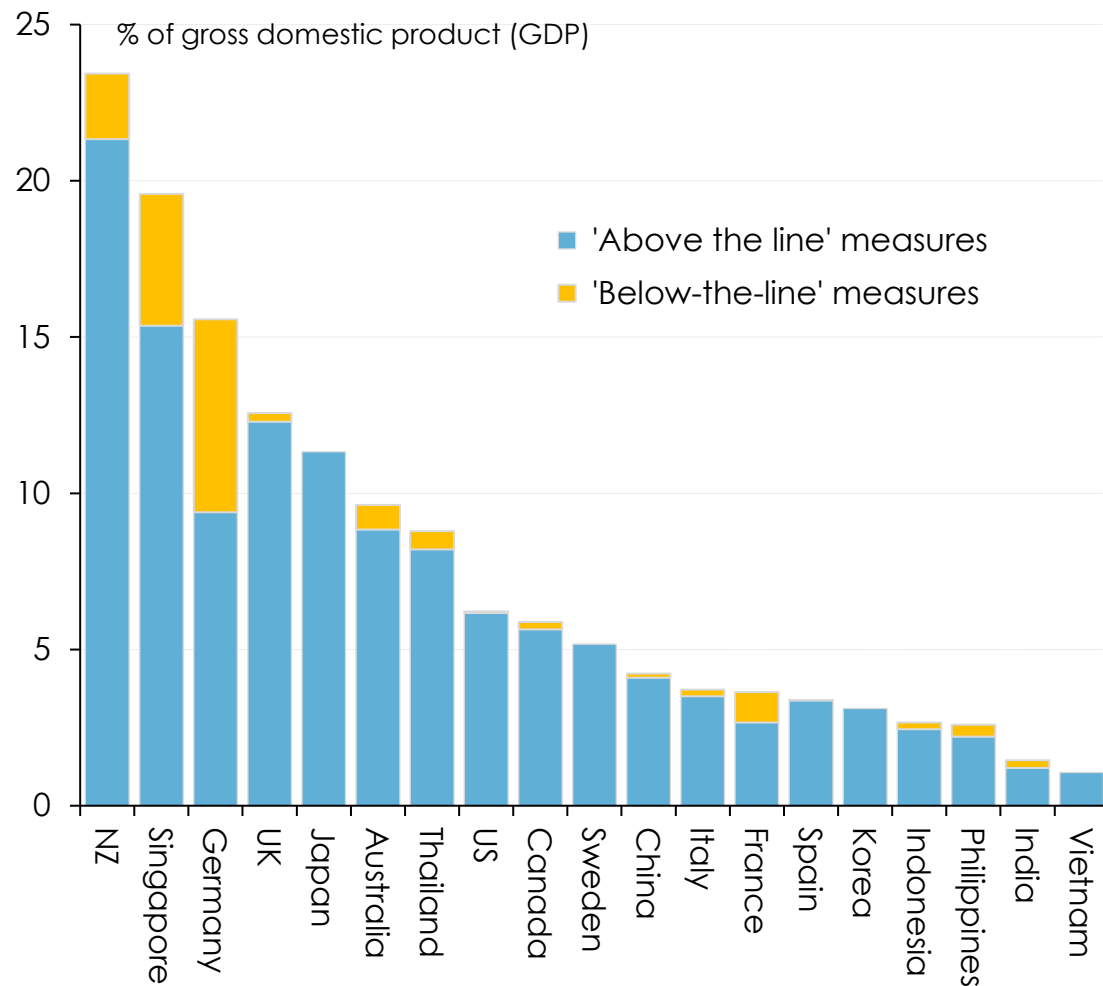


- ❑ The RBA has undershot its 2-3% target for 'underlying' inflation for four years in a row
- ❑ Q2 inflation will likely be negative (both qoq and yoy) as a result of lower petrol prices (down 21% on average in the quarter) and the Government's provision of free child care during the shutdown
- ❑ Conversely 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 (this week's Economic & Fiscal Update forecast wages growth of just 1¼% over the year to Q2 2021)

Note: 'Underlying' inflation is the average of the weighted median and trimmed mean CPIs. Wage price indices exclude houses.
Sources: ABS (June quarter CPI will be released this coming Wednesday, 29th July); Australian Institute of Petroleum.

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

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



Note: 'Above the line' measures comprise additional or accelerated spending and deferred or foregone revenue. 'Below the line' measures comprise equity injections, loans, asset purchases and debt assumptions, but do not include loan guarantees or other contingent liabilities. Source: IMF, *Fiscal Monitor: Database of Country Fiscal Measures in Response to the COVID-19 Pandemic*, 24th June 2020.

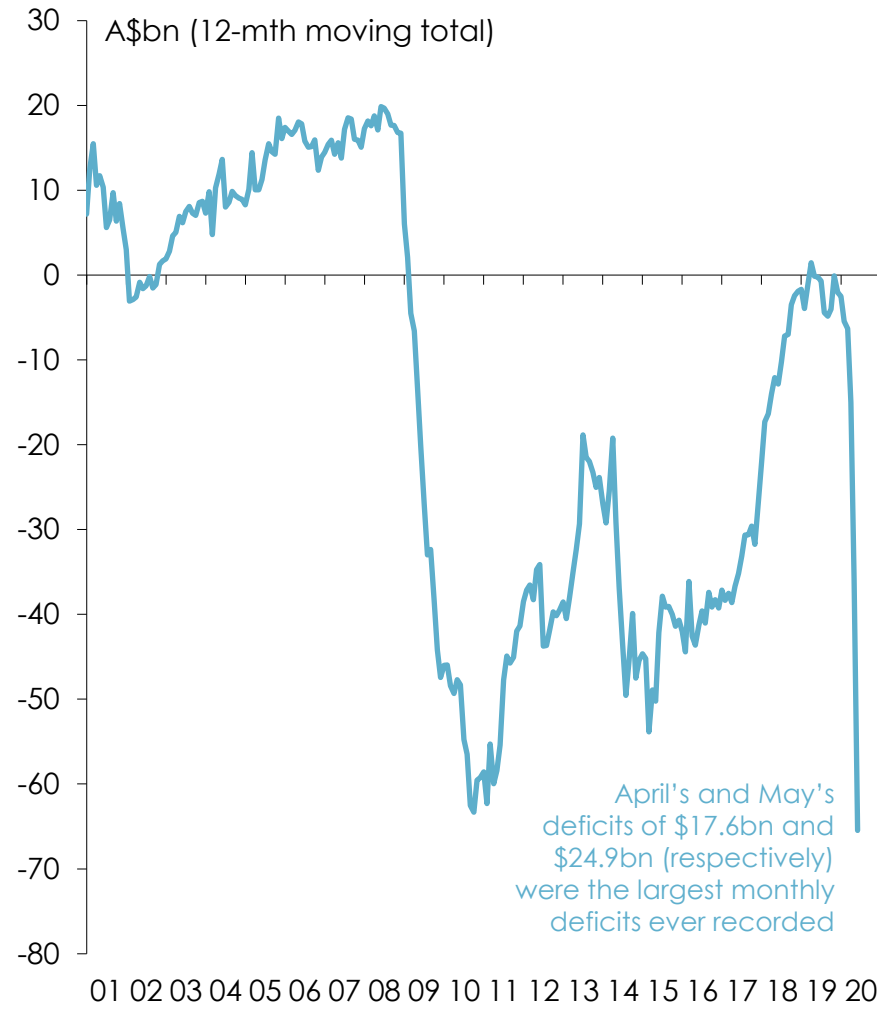
- ❑ Policy measures announced thus far by the Australian Government total \$177bn over FYs 2019-20 and 2020-21 or about 9% of one year's GDP – which is large by international standards (and double what was done during the GFC)
- ❑ Principal objectives of policy measures have been to –
 - maximize the '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
 - This week the Government announced the extension of 'JobKeeper' and 'JobSeeker' beyond end-September to end-March, albeit at lower payment levels

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

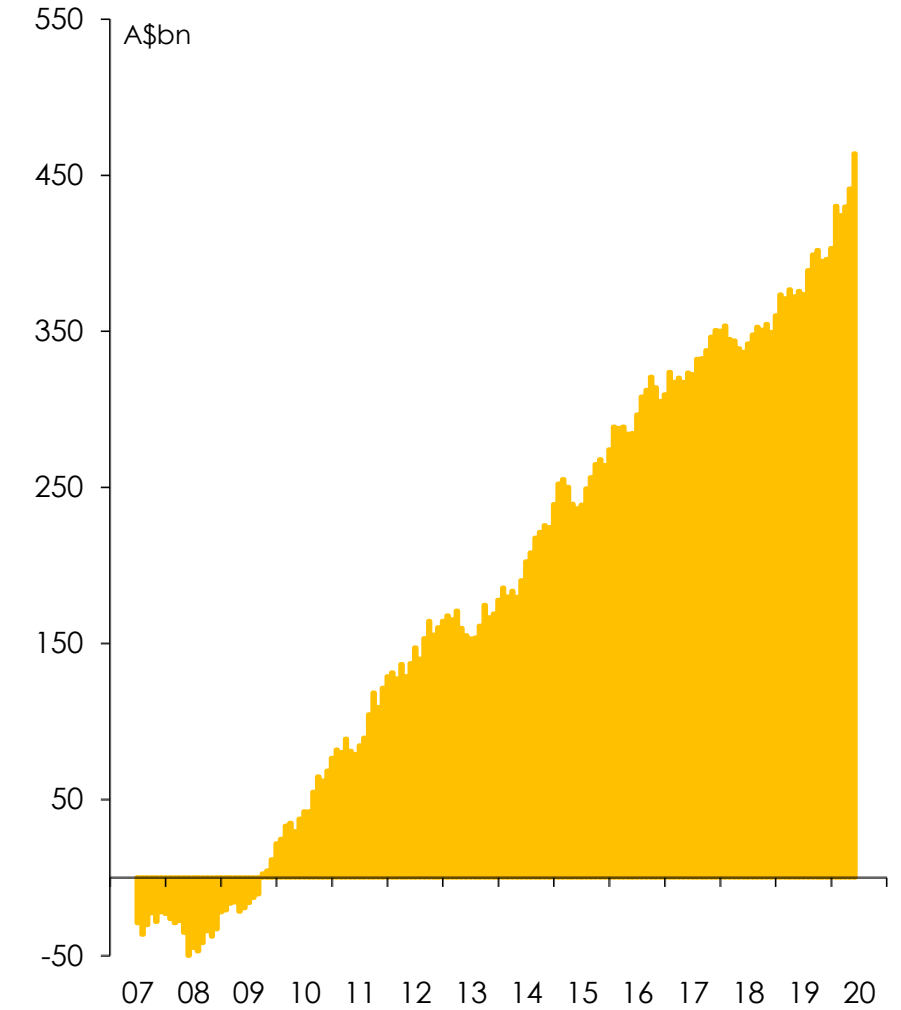
Australian Government revenue and expenses



Australian Government 'underlying' cash balance



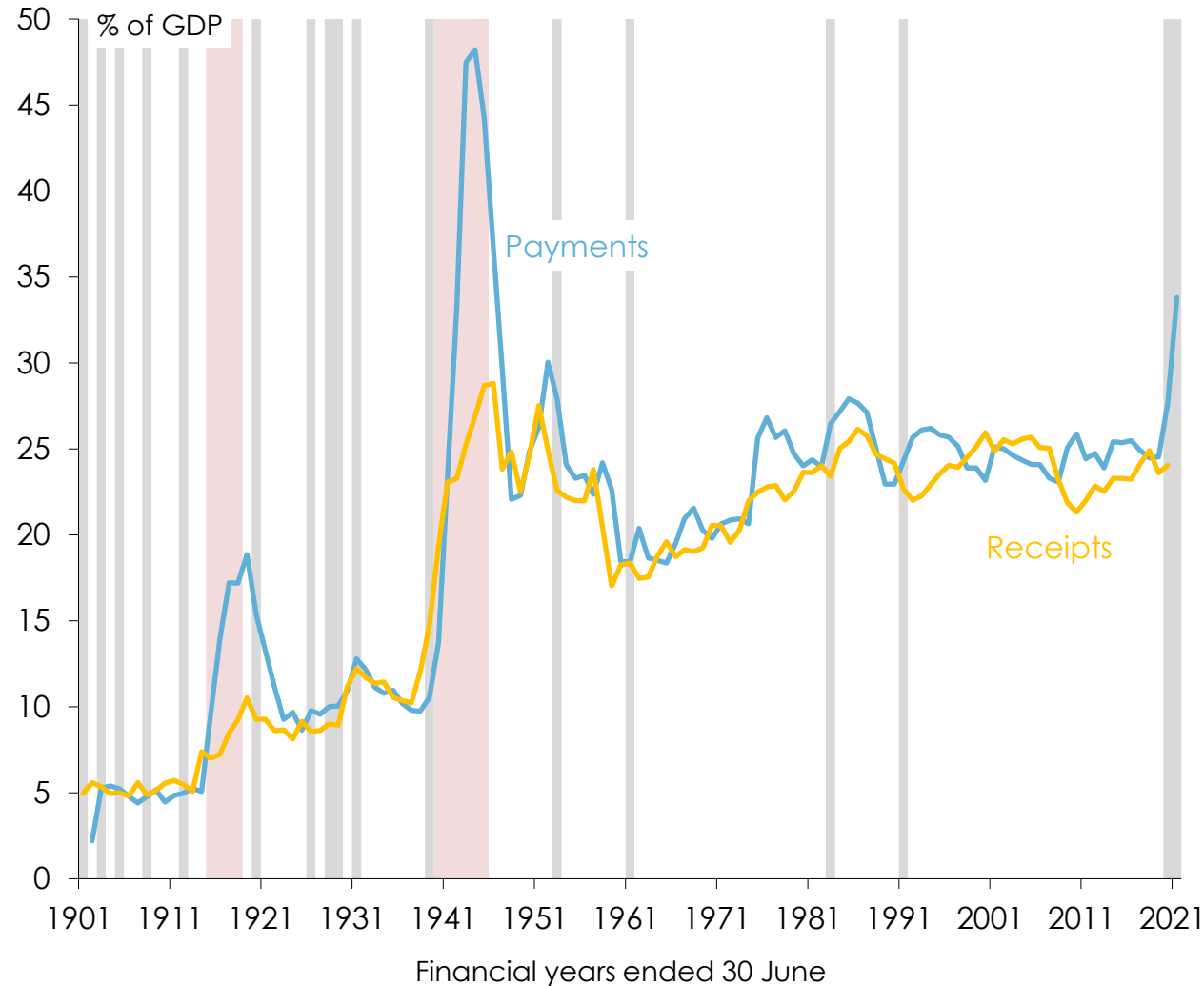
Australian Government net debt



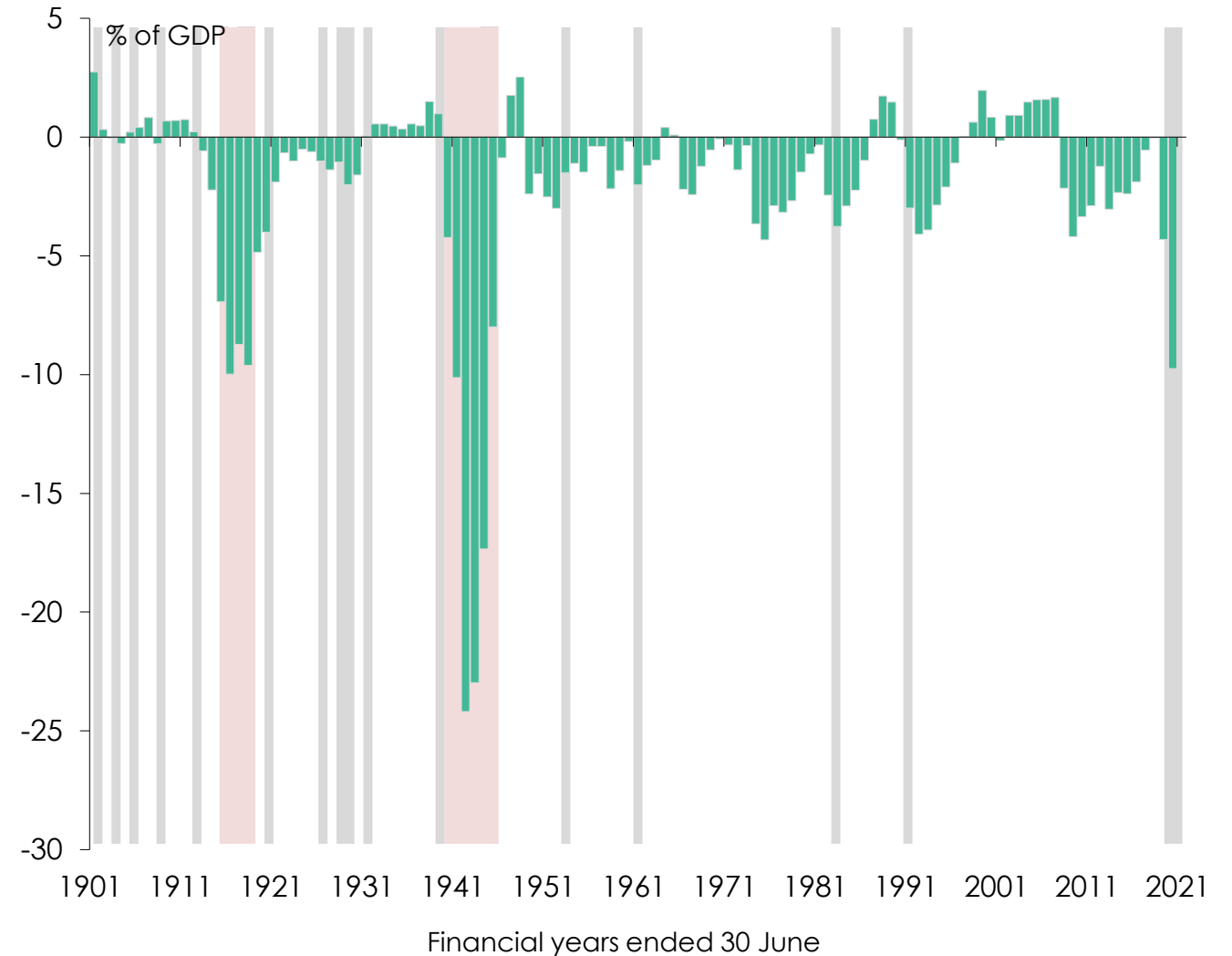
Note: Revenue and expenses are accrual accounting items. The 'underlying' cash balance is (cash) receipts minus payments, excluding transactions in financial assets for policy purposes and net earnings of the Future Fund. Net debt is total interest-bearing liabilities (government securities, deposits,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

... blew out to \$86bn in 2019-20, and is forecast to widen to \$185bn (9.7% of GDP) in 2020-21, the largest deficit as a pc of GDP since WW II

Australian Government receipts and payments



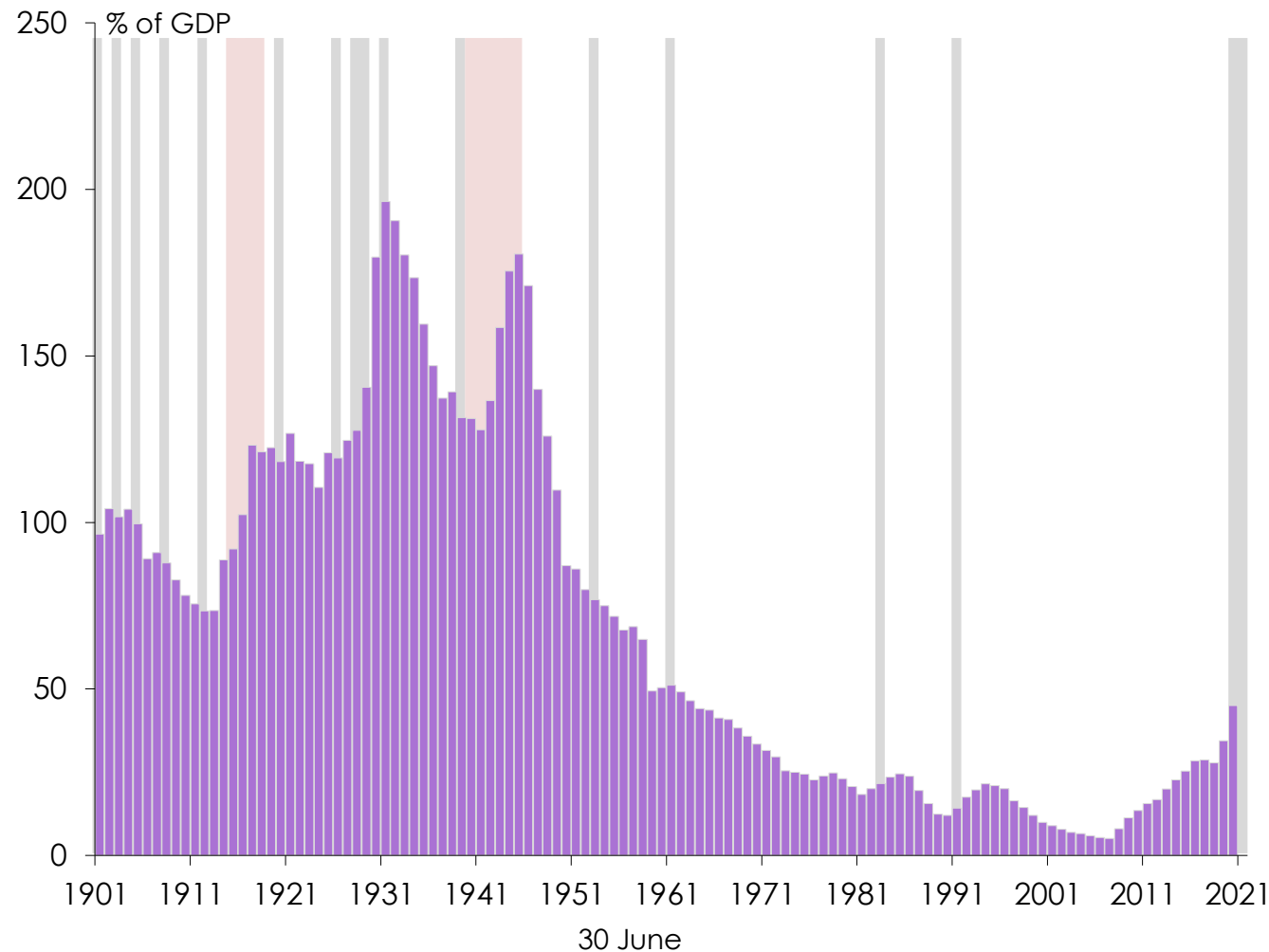
Australian Government budget deficit or surplus



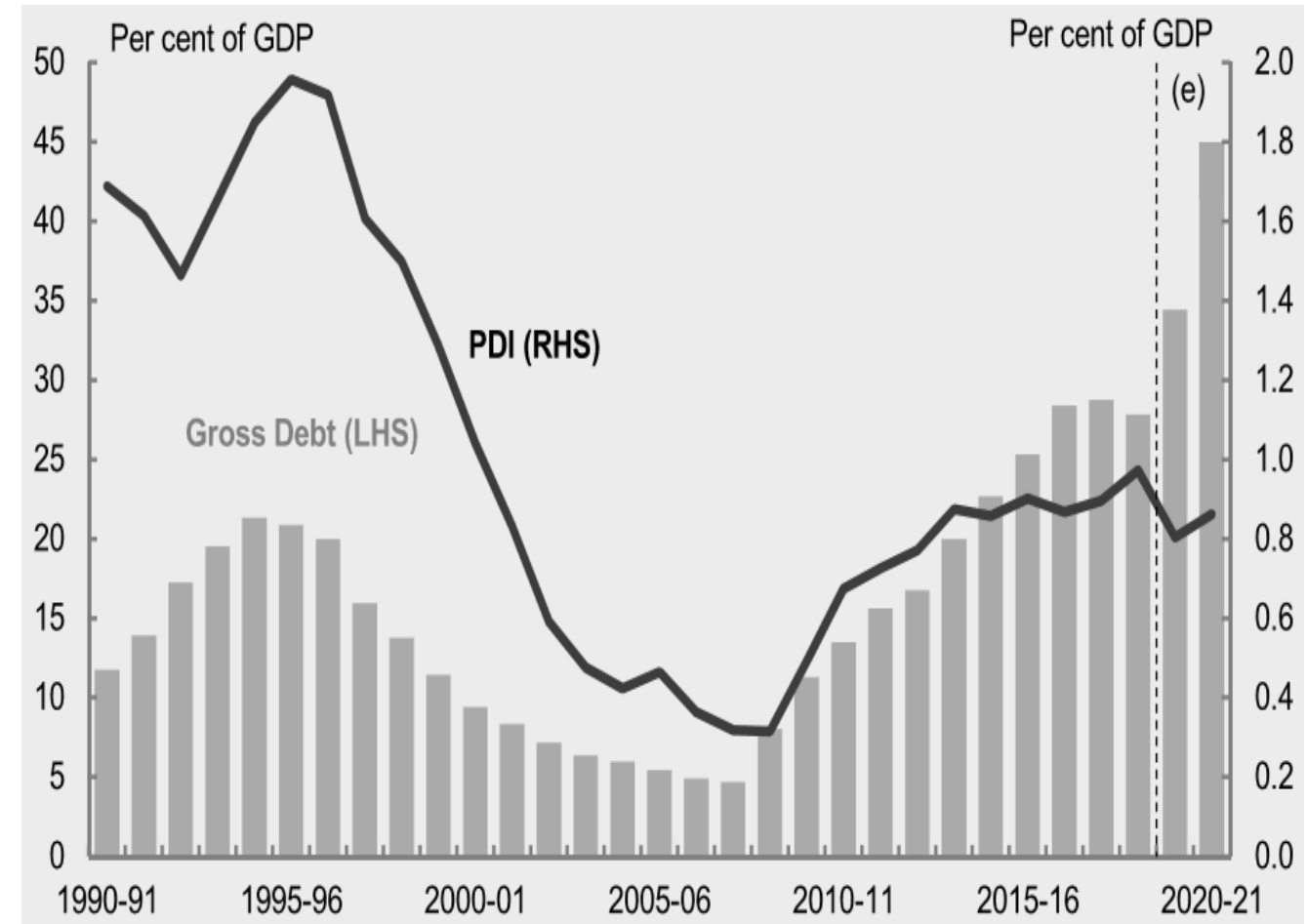
Note: Payments and the budget surplus or deficit are 'underlying' (that is, exclude 'net investments in financial assets for policy purposes') after 1989-90, when state governments became responsible for issuing their own debt, and 'headline' before that. Areas shaded in grey are fiscal years in which real GDP contracted; areas shaded in pink are World Wars I and II. Sources: Global Financial Data; Australian Government, 2019-20 Mid-Year Economic and Fiscal Outlook (December 2019) and Economic and Fiscal Update (June 2020).

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



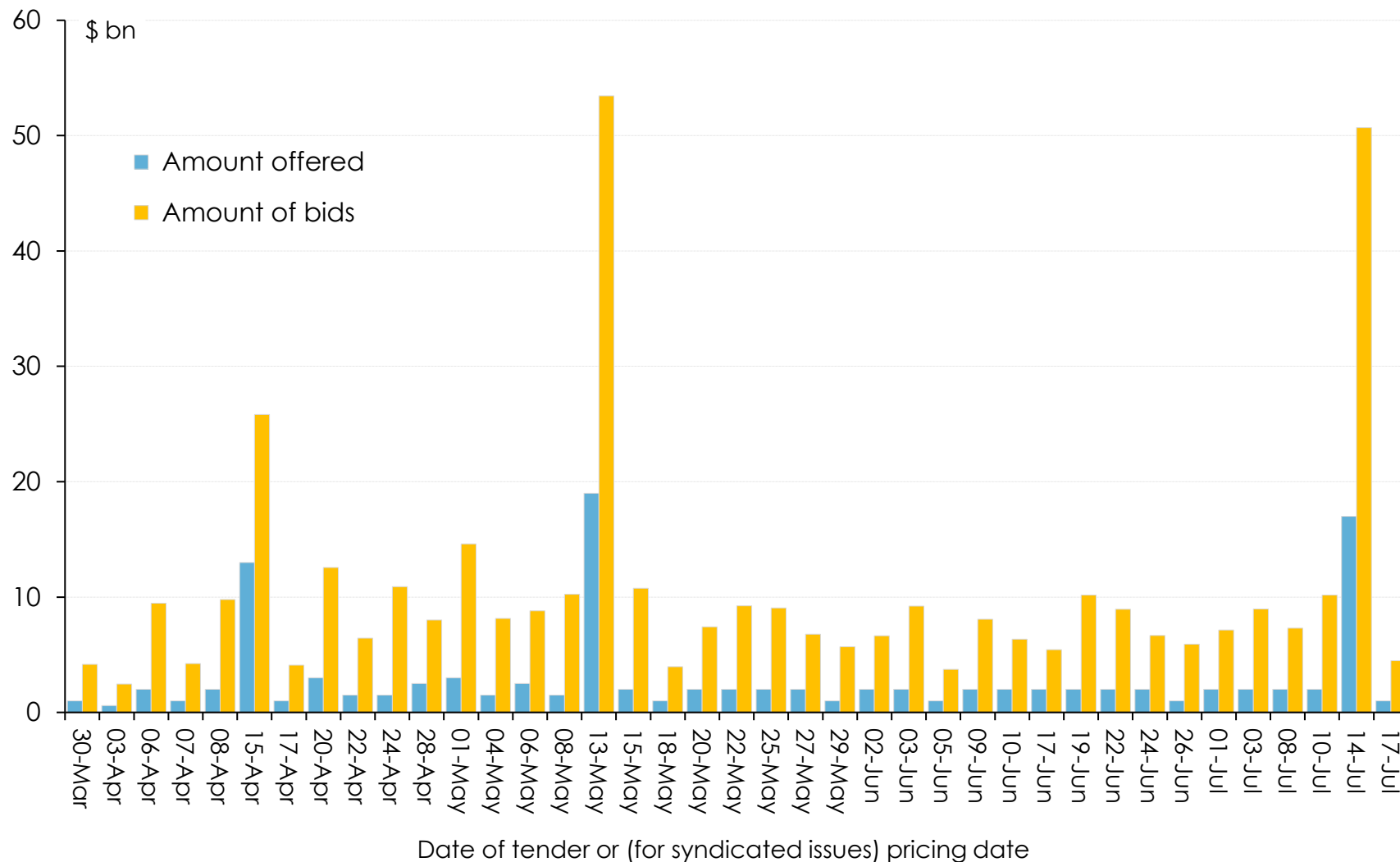
Gross public debt and public debt interest payments



Note: Areas shaded in grey are fiscal years in which real GDP contracted; areas shaded in pink are World Wars I and II. Sources: Global Financial Data; Australian Government, *Mid-Year Economic and Fiscal Outlook* (MYEFO), December 2019, and *Economic and Fiscal Update*, June 2020; International Monetary Fund, *Fiscal Monitor*, April 2020.

The Australian Government has so far had absolutely no difficulty financing its significantly higher deficits

Australian government bond issuance since March 2020

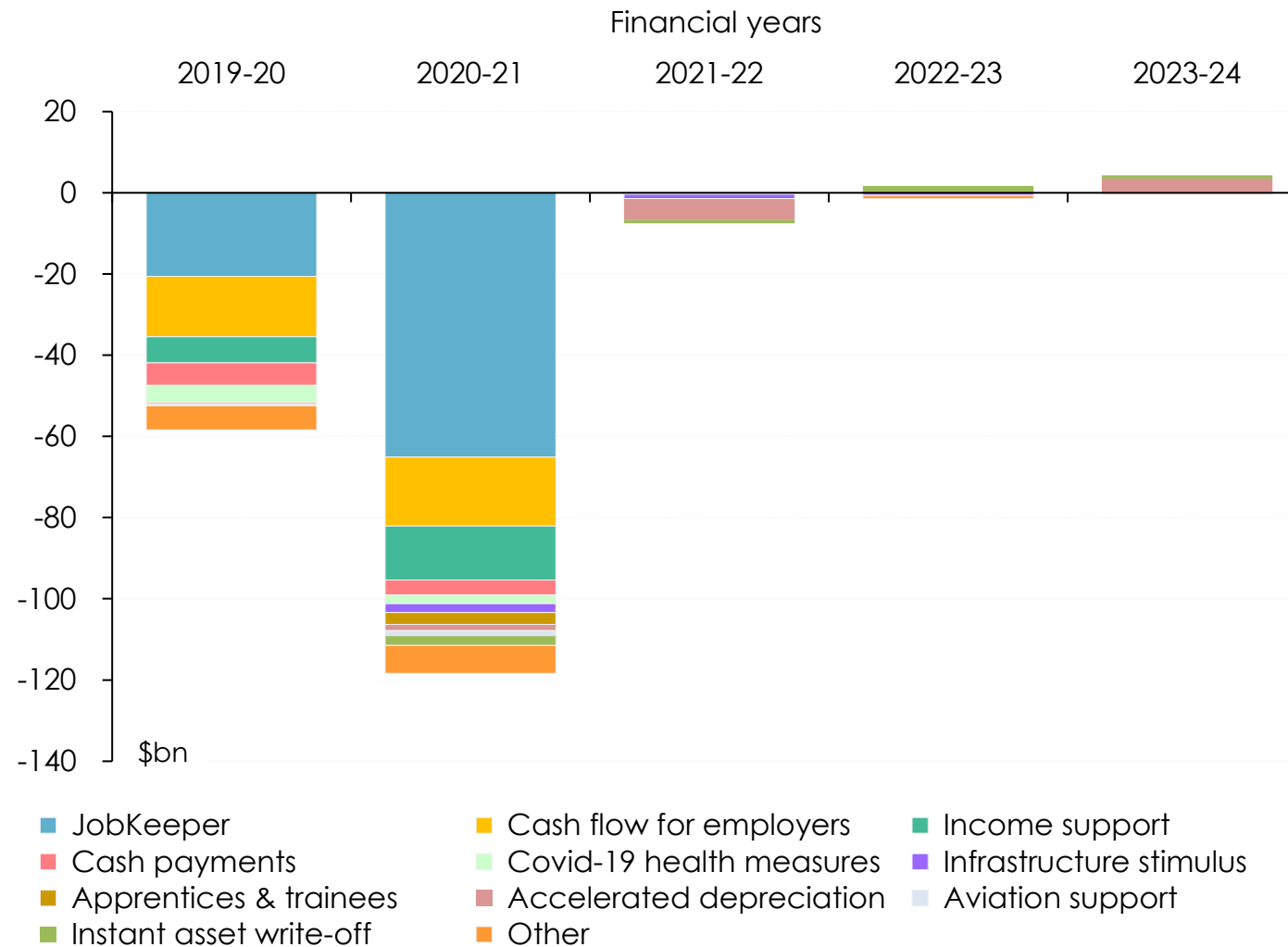


- Since 30th March, the Australian Office of Financial Management (which conducts the Government's borrowing programs) has issued \$112.6bn of Treasury bonds
- Based on the volume of bids received at bond tenders or for syndicated issues, the AOFM could have borrowed \$406bn (that is, 3.6 times as much as it actually accepted) – with the highest yields on unsuccessful bids averaging 34bp above the highest accepted yields
- Last week, AOFM received offers worth \$50.7bn for \$17bn of 4½ year bonds carrying a coupon rate of 0.25% pa – the average yield on successful bids was 0.495%
 - 42% of the bonds were bought by banks, 27% by fund managers, 23% by hedge funds, and 8% by (foreign) central banks

Source: Australian Office of Financial Management data hub.

The Government has provided a massive fiscal stimulus during the June and September quarters, but this is set to wind back in Q4 and beyond

Impact of 'policy decisions' taken since last December on the Australian Government's 'underlying' cash balance



- ❑ 'Policy decisions' taken since last December's Mid-Year Economic & Fiscal Outlook (MYEFO) represent a discretionary fiscal stimulus equivalent to 2.9% of GDP in 2019-20 and 6.3% of GDP in 2020-21
- ❑ Treasury estimates that this fiscal support boosted by real GDP (relative to what it would have been otherwise) by $\frac{3}{4}\%$ in 2019-20, and will boost it by around $4\frac{1}{4}\%$ in 2020-21
 - and that this support prevented the loss of around 700,000 jobs, lowering the peak unemployment rate by around 5 pc points
- ❑ This week's decisions to extend 'JobKeeper', and the elevated level of 'JobSeeker' payments (albeit at lower levels) beyond end-September until the end of March (see next slide) have lowered the 'fiscal cliff' that was looming at the end of September
 - Nonetheless, as things currently stand there will still be a significant tightening of fiscal policy at the end of this and the next two quarters
- ❑ The Government will need to (and probably will) provide more fiscal stimulus in the (delayed) Budget to be presented on 6th October (see next slide)

The Treasurer has foreshadowed ‘bringing forward’ personal income tax cuts scheduled for 2022 and 2024 as a form of fiscal stimulus

Legislated personal income tax cuts

Rates from 2017-18 to 2023-24	New thresholds from 2018-19 to 2021-22	New thresholds from 2022-23 to 2023-24
Nil	Up to \$18,200 pa	Up to \$18,200 pa
19 %	\$18,201 - \$37,000	\$18,201 - \$45,000
32.5 %	\$37,001 - \$90,000	\$45,001 - \$120,000
37 %	\$90,001 - \$180,000	\$120,001 - \$180,000
45 %	Above \$180,000	Above \$180,000
Low & middle income tax offset	Up to \$1,080	-
Low income tax offset	Up to \$445	Up to \$700

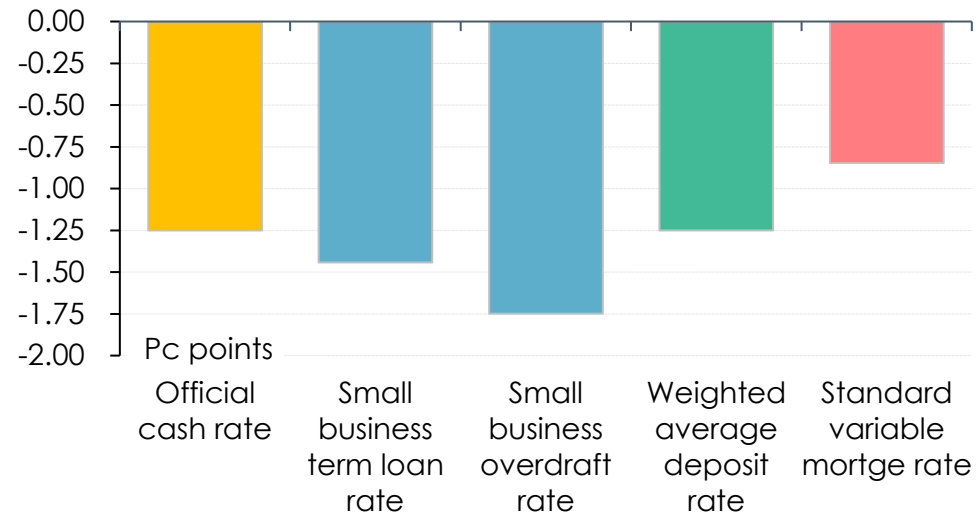
Rates from 2024-25	New thresholds from 2024-25
Nil	Up to \$18,200 pa
19 %	\$18,201 – \$45,000 pa
30 %	\$45,001 – \$200,000 pa
45 %	Above \$200,000 pa
Low income tax offset	Up to \$700

Source: Australian Government, 2019-20 Budget Paper No. 1, *Budget Strategy and Outlook*, April 2019.

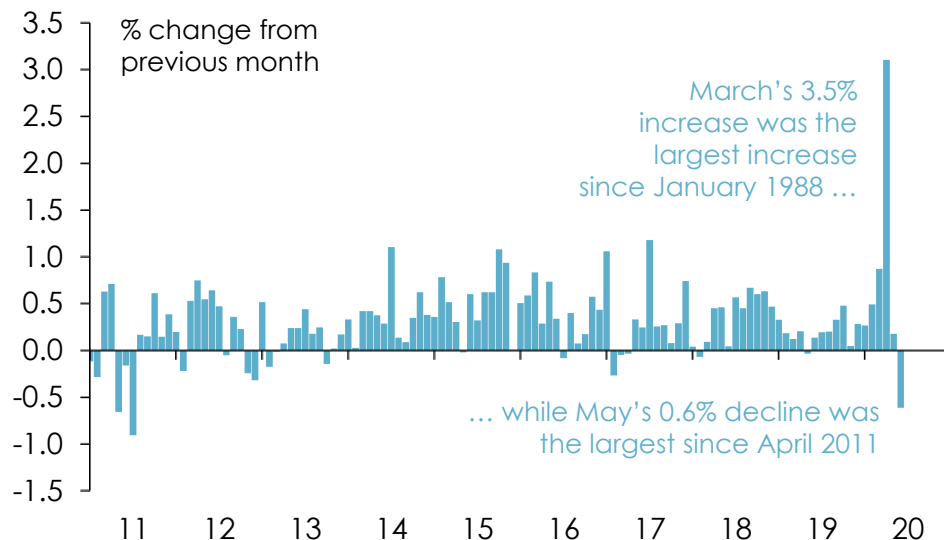
- ❑ This week the Government announced extensions to its (wage subsidy and income support schemes
 - ‘JobKeeper’ will be extended from 28th September to 28th March 2021, but fortnightly payments will step down from \$1500 to \$1200 (or \$750 for people working < 20 hrs per week before 1st March 2020) from 28th September, and then to \$1,000 (\$650 for part-time workers) from 4th January
 - the ‘Coronavirus Supplement’ paid to JobSeeker recipients (and some others) will be extended beyond 27th September until 31st December, but at a lower fortnightly rate of \$300 (cf. \$550 currently) – although recipients will be allowed to earn \$300/fortnight (cf. \$200 currently)
- ❑ Treasurer Josh Frydenberg has foreshadowed bringing forward the personal income tax cuts currently legislated to come into effect on 1st July 2022, as a way to ‘boost aggregate demand, boost consumption [and] put more money in people’s pockets’
- ❑ These were estimated to ‘cost’ \$4½bn (in revenue foregone) in FY2022-23 and (together with the further cuts legislated to take effect from the beginning of FY2023-2024) \$143bn over the ten years to 2029-30
 - bringing forward these tax cuts would likely provide a lift to demand and activity – but, inevitably, at least some of the boost in after-tax incomes would be saved and/or used to pay down debt (as happened with the enhanced tax refunds paid out in the Sep quarter of last year – slide 48)
 - whereas the same dollar amount spent (eg) on infrastructure, or on cash handouts to low-income earners who don’t pay tax, would boost demand by a larger amount

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

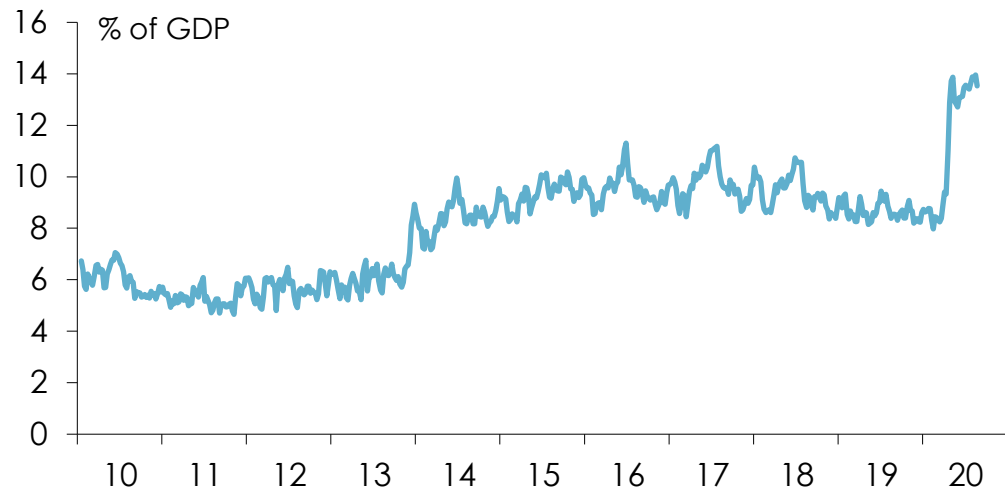


- ❑ Banks have cut interest rates on small business loans by more than the official cash rate since June last year (when the RBA started cutting rates again)
- ❑ Banks have extended 'repayment holidays' of up to six months to business and home mortgage borrowers who request it (about 13% of mortgages and 20% of SME loans)
 - although it is important to note that under these arrangements interest payments are deferred and capitalized, not foregone
- ❑ These 'repayment holidays' are due to expire at end-September, but banks this week announced that they would be extended for up to four months for those customers who were still experiencing difficulties but have good prospects of eventually repaying
- ❑ 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

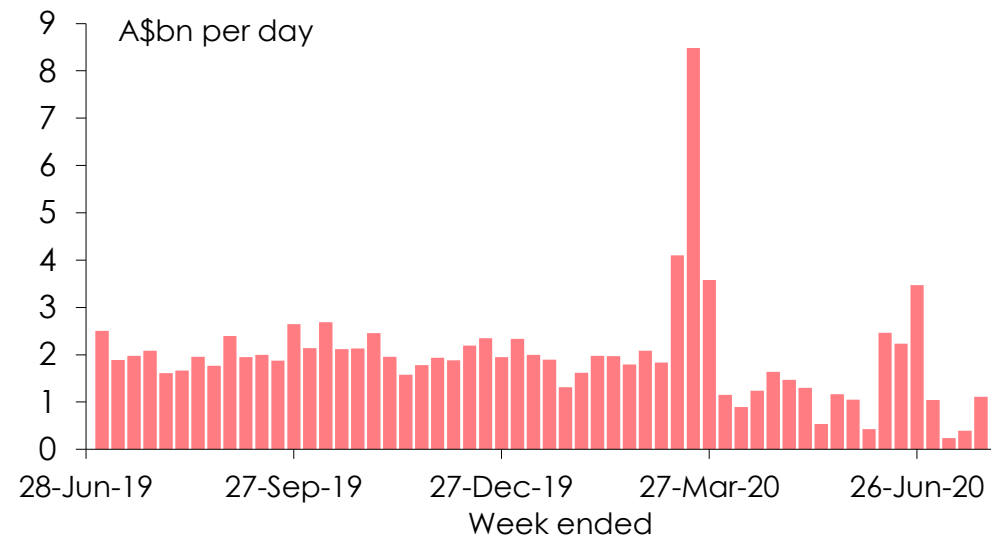
Source: Reserve Bank of Australia.

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



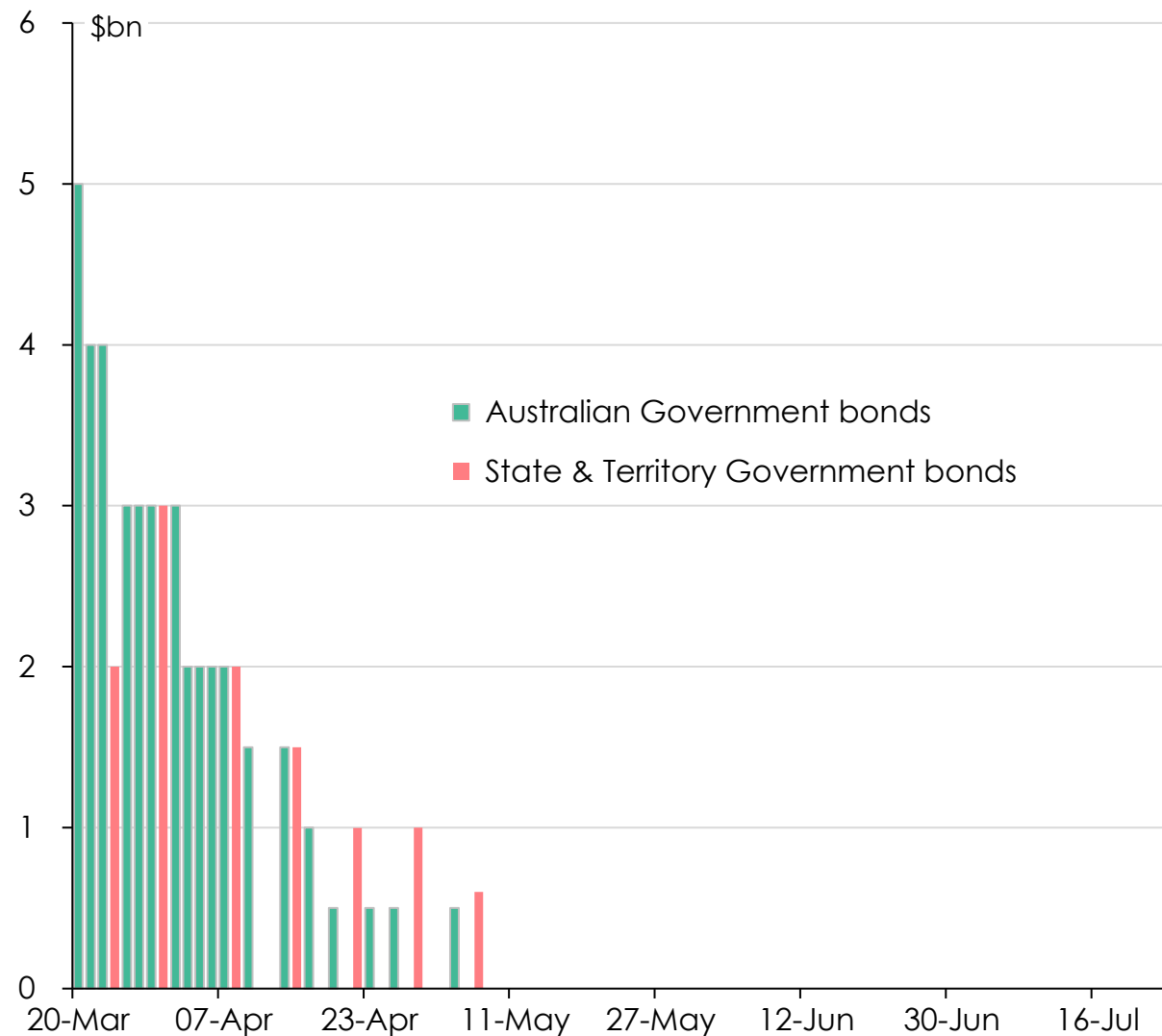
Reserve Bank daily repo transactions



- ❑ **The RBA again left its cash rate target at 0.25% this week**
 - 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 14% of GDP (cf. BoC 23%, US Fed 33%, BoE 36%, ECB 54%, BoJ 119% - see slide 24) and RBNZ 17.5%
- ❑ **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 since the beginning of April (except for the last two three weeks of the 2019-20 financial year), down from peak of almost \$8½ bn a day in 3rd week of March
- ❑ **'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 \$24.8 bn has been provided through this facility

The RBA is targeting the 3-year bond yield at 0.25% pa – and hasn't needed to purchase bonds since 6th May in order to keep it there

RBA open market bond purchases



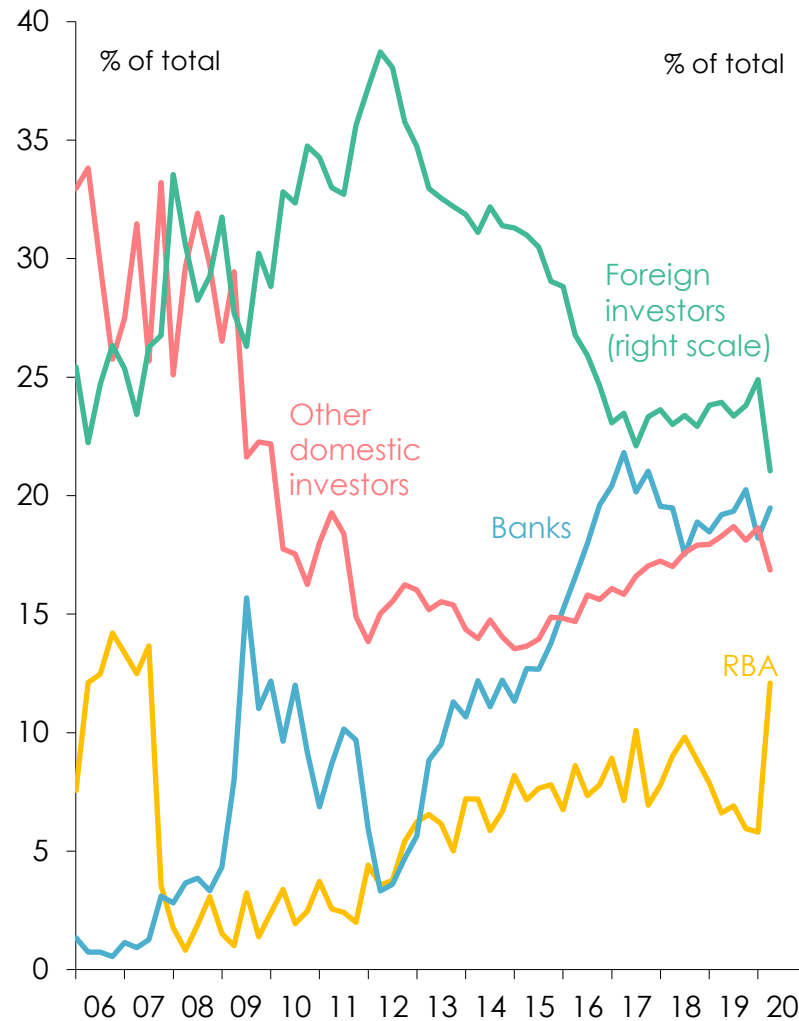
Source: Reserve Bank of Australia. Data up to 24th July.

Interest rates

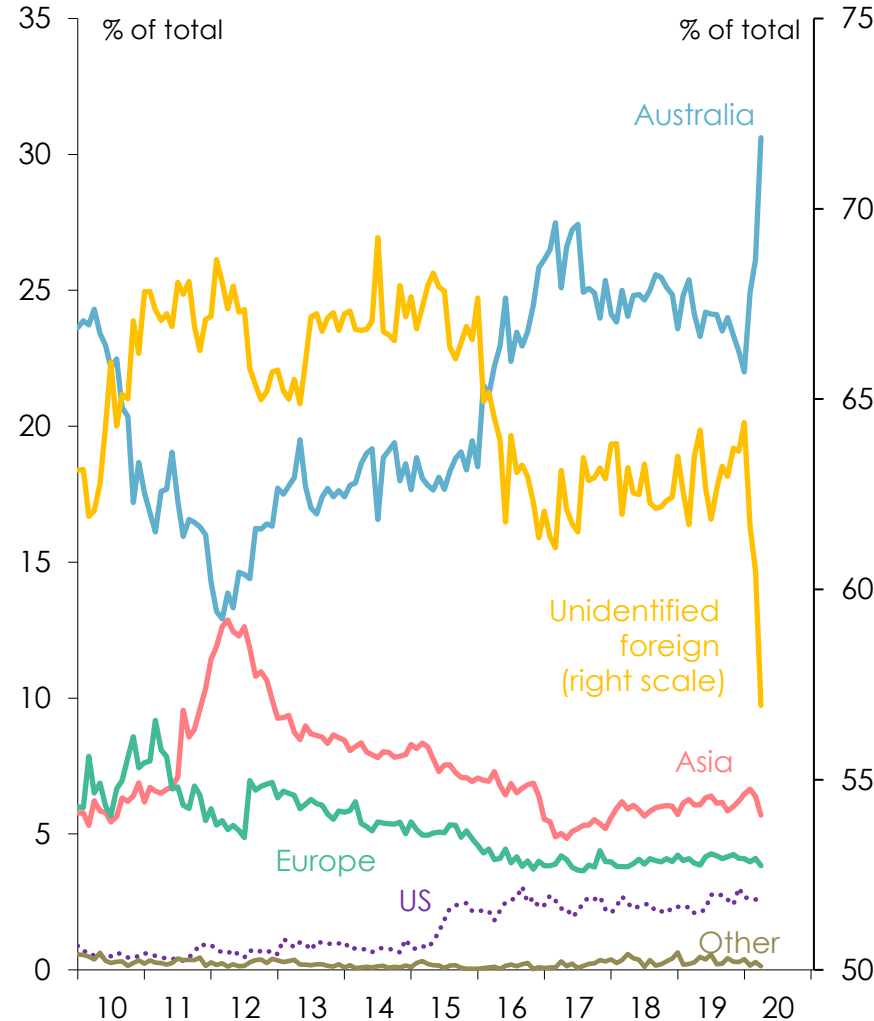


The RBA in effect more than absorbed the increase in Commonwealth and State debt, and sales by foreign investors, during the March quarter

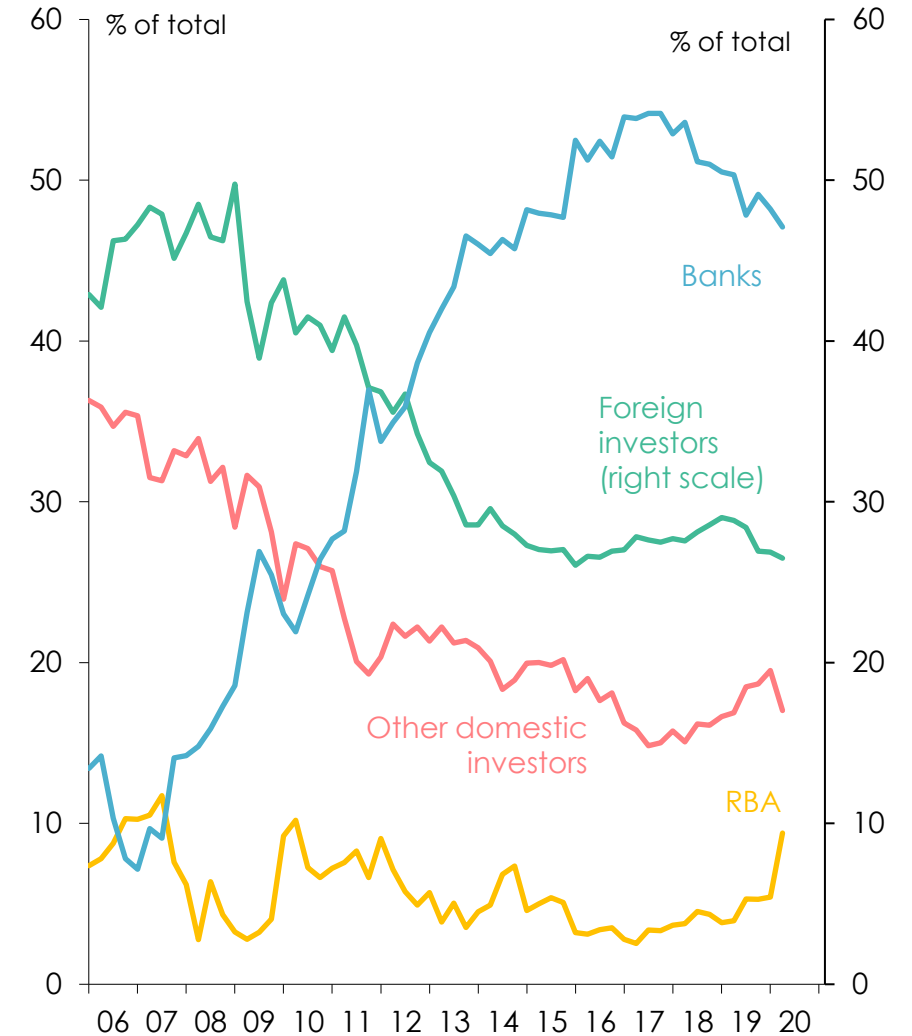
Holder of Australian Government bonds



Nationality of Australian Government bond holders



Holder of State and Territory Government bonds



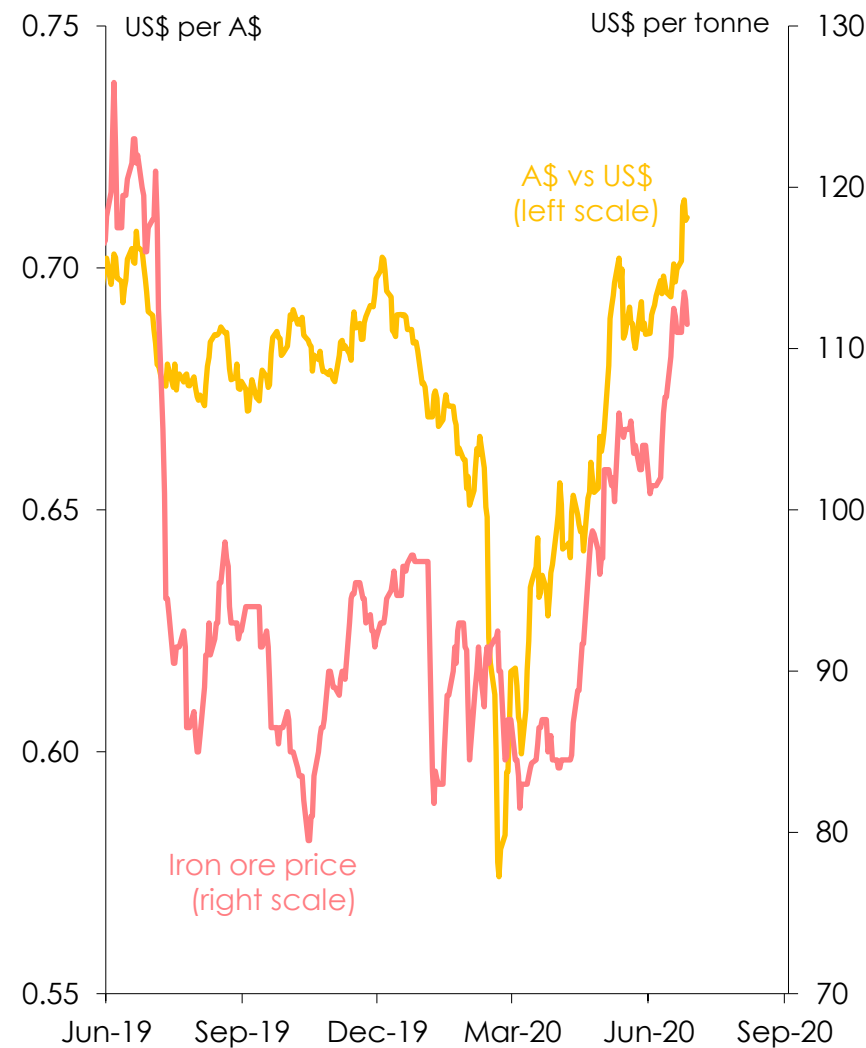
Sources: ABS (Finance & Wealth Accounts); Australian Office of Financial Management. June quarter data will be released on 24th September.

The RBA Governor has again ruled out negative interest rates - and the application of 'modern monetary theory'

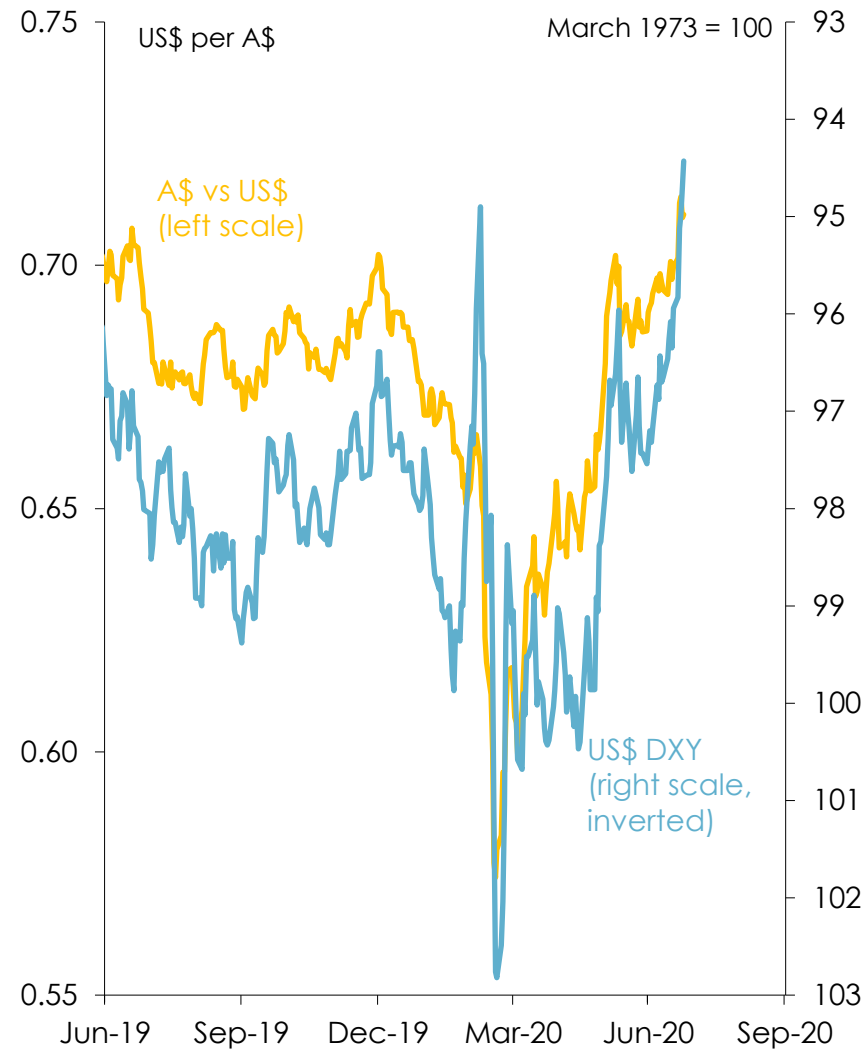
- ❑ **Speaking yesterday, Governor Lowe said “negative interest rates in Australia are extraordinarily unlikely”**
 - “They can cause stresses in the financial system that are unhelpful for the supply of credit. They can also encourage people to save more, rather than spend more, so they can be counter-productive from that perspective too”
- ❑ **Governor Lowe also dissed ‘modern monetary theory’ (MMT) – though without referring to it by name**
 - “For some, this idea is seen as a way of avoiding financing constraints – it is seen as holding out the offer of a free lunch of sorts”
 - “The reality, though, is there is no free lunch. The tab always has to be paid and it is paid out of taxes and government revenues in one form or another”
- ❑ **How ‘the tab is paid for’ depends, according to Governor Lowe, on ‘the arrangements in place’**
 - if money-financed government spending was “successful in stimulating the economy” and started to push inflation up, and interest rates weren’t raised to counter that, the tab would be paid “through the inflation tax that the community pays”
 - if the government were to pay the IOU issued to the central bank along with any accumulated interest at some point, “this repayment would need to be funded by future taxes”
 - if the IOU was not interest-bearing and wasn’t repaid, “the central bank would start accumulating losses as the interest rate it paid on its deposit liabilities increased and there was no offsetting income” which “would lead to a decline in dividends to the government and possibly a future recapitalization of the central bank” both of which “have to be funded through tax revenue”
 - or, if the general level of interest rates were raised to counter inflation, but the low rate on deposits at the central bank maintained, that “would effectively amount to a tax on the banking system”
- ❑ **Governor Lowe also addressed the proposal by Stanley Fischer et al that monetary financing of budget deficits could be ‘welfare enhancing’ when governments are unable to borrow ‘on reasonable terms’ and conventional monetary policy options have been exhausted, provided that the central bank (rather than the government) determined the amount of monetary financing and the conditions under which it is provided**
 - “there are likely to be very significant challenges in maintaining this type of safeguard over time”
 - and in any case this “is not relevant to the situation we face in Australia”

The A\$ traded above US71¢ for much of the past week, largely on the back of a weaker US\$, but also supported by high iron ore prices

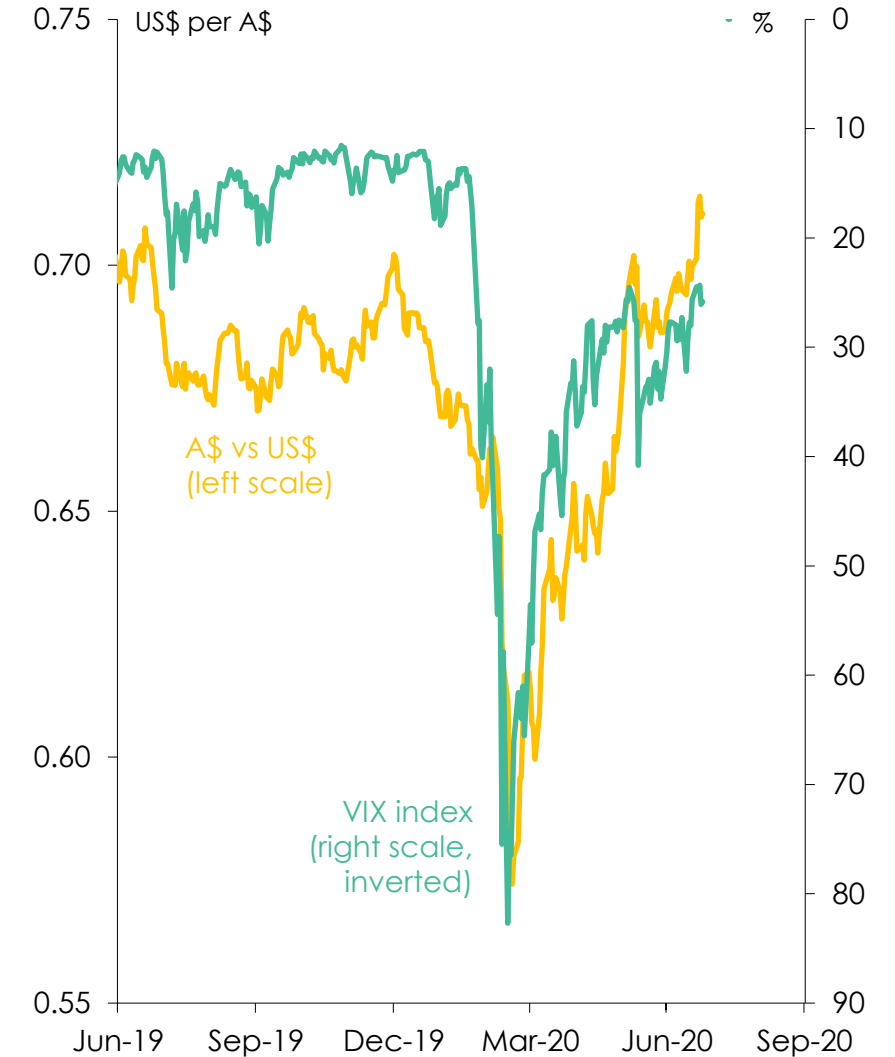
A\$-US\$ and spot iron ore prices



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



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



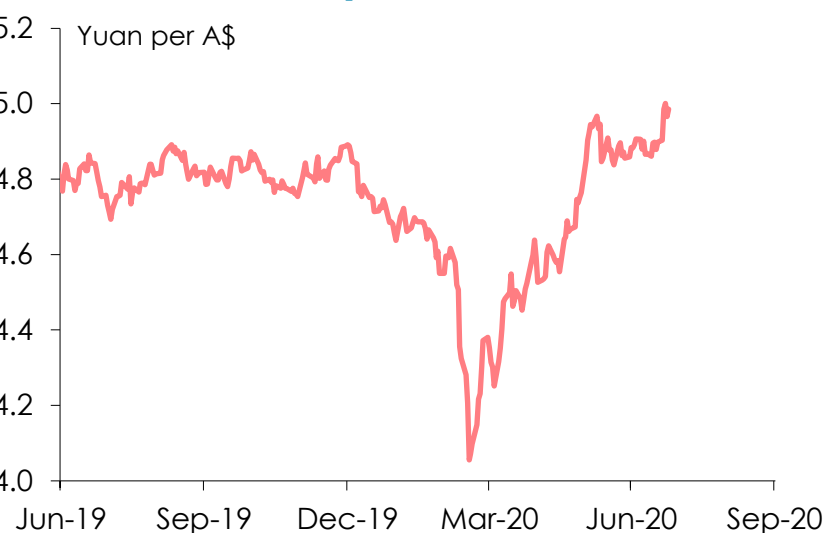
Note: The VIX index is a measure of the implied volatility of S&P500 options and is widely interpreted as an indicator of investor risk appetite or aversion. For an explanation of the factors underpinning the strength in the iron ore price see slide 73. Source: Refinitiv Datastream. Data up to 24th July.

The A\$ also rose against most Asian currencies this week, but weakened against the euro and the British pound

A\$ vs Japanese yen



A\$ vs Chinese yuan



A\$ vs British pound



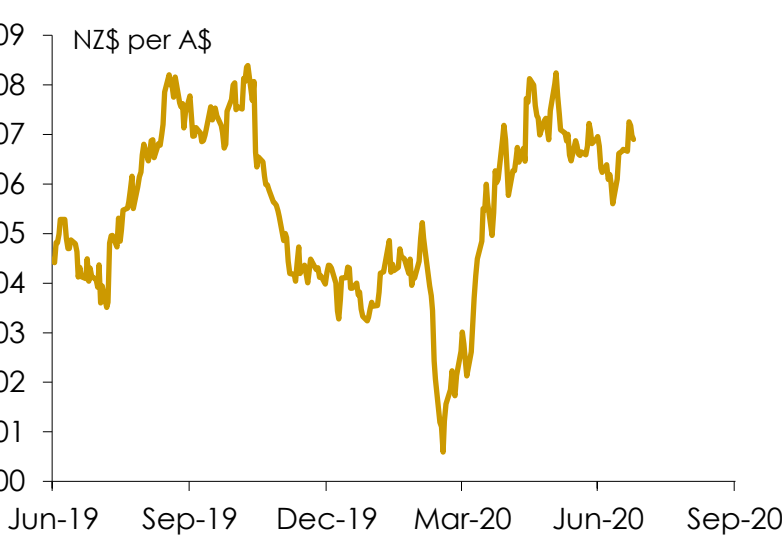
A\$ vs Korean won



A\$ vs Euro



A\$ vs NZ\$



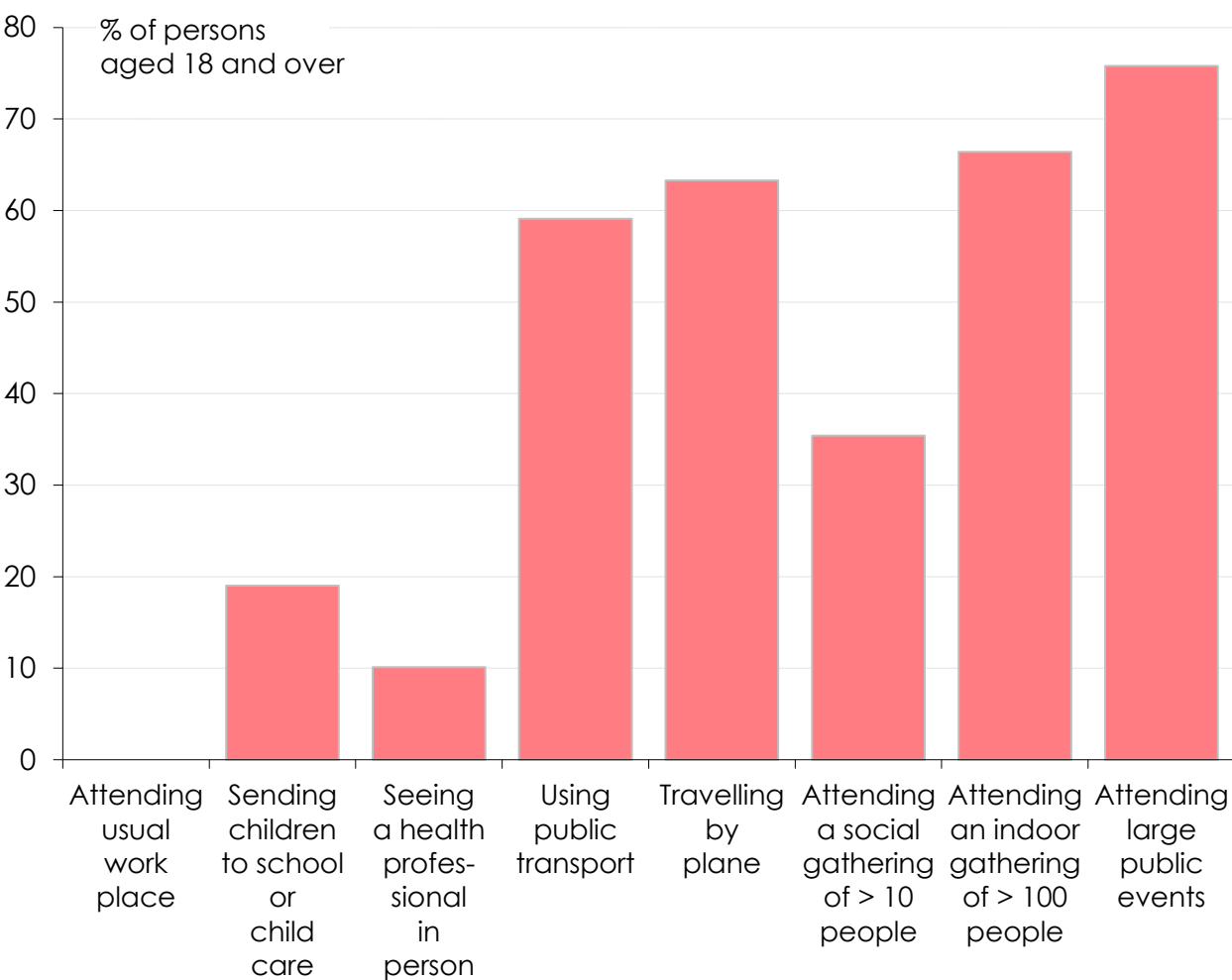
Source: Refinitiv Datastream. Data up to 24th July.

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

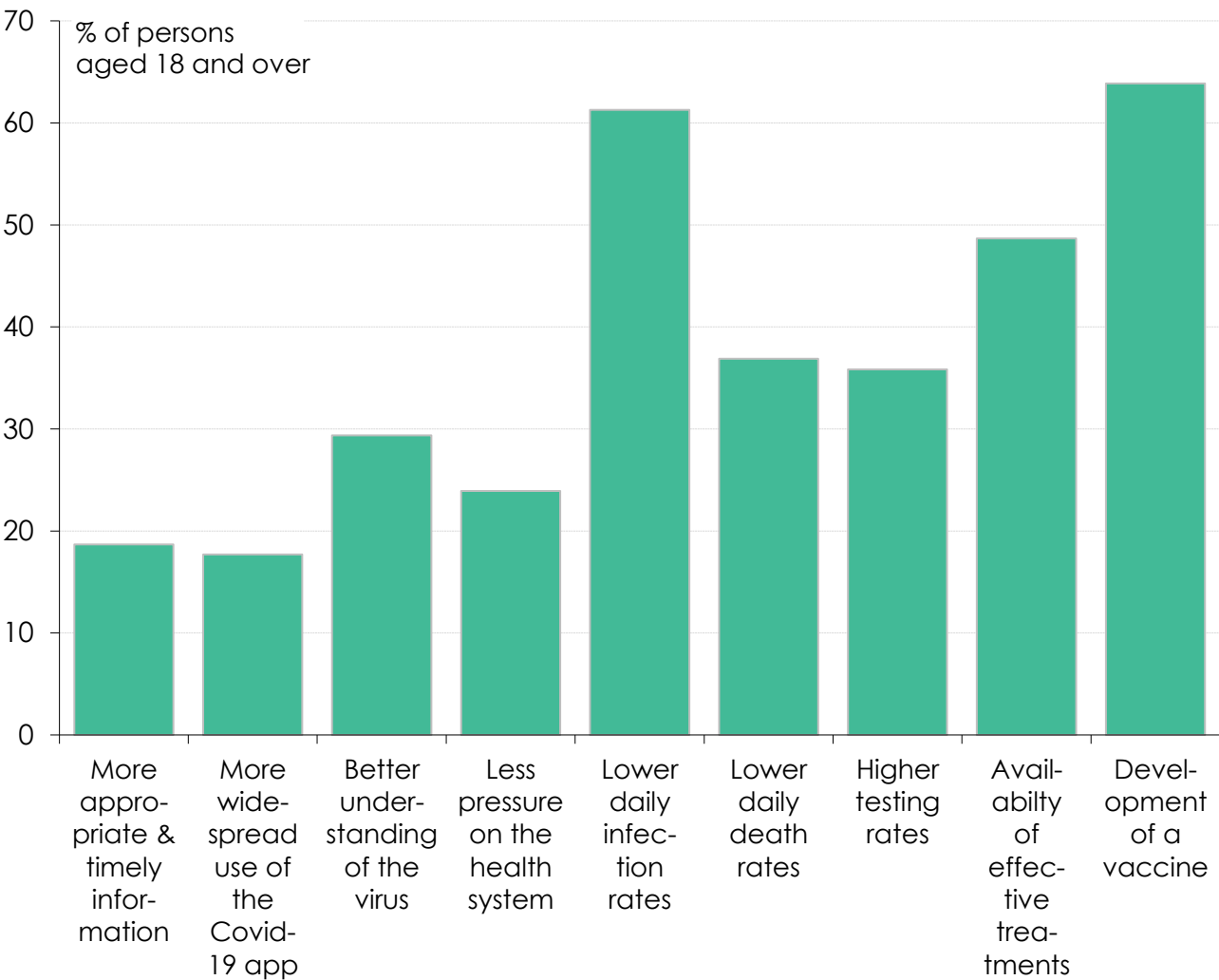
- ❑ **‘Social distancing’ requirements will be relaxed gradually rather than ‘all at once’**
 - new health and safety regulations will likely limit the number of employees and customers who can be ‘on premises’ (which may make it uneconomic for some businesses to re-open until restrictions are relaxed)
 - and many people may remain wary of exercising all of their newly-regained ‘freedoms’ (see slide 92)
- ❑ **‘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



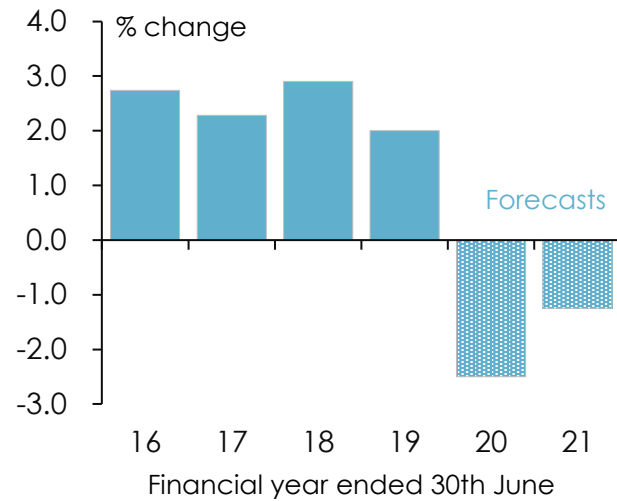
Actions that would improve people’s comfort with activities as restrictions are eased



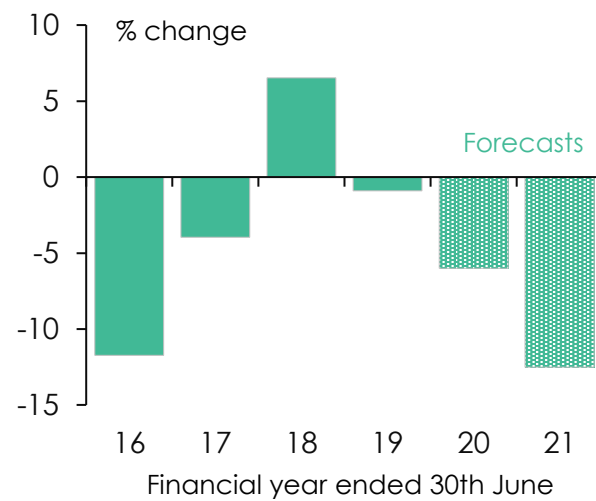
Source: ABS, Household Impacts of Covid-19 Survey, 26th-29th May (published 15th June).

Treasury's forecasts paint a grim picture of the Australian economy in 2020-21 – though not as bleak as seemed likely two months ago

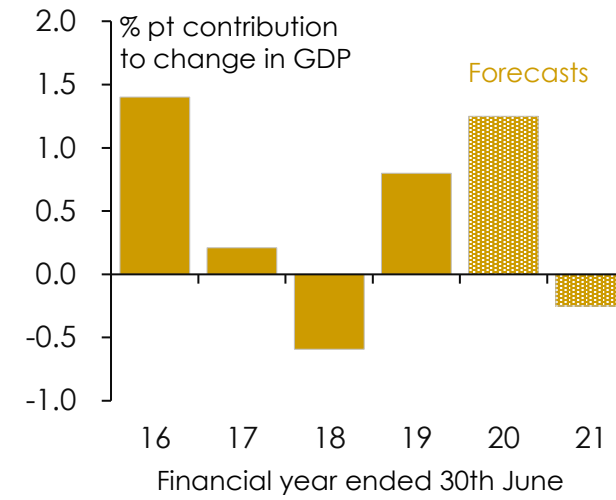
Household consumption



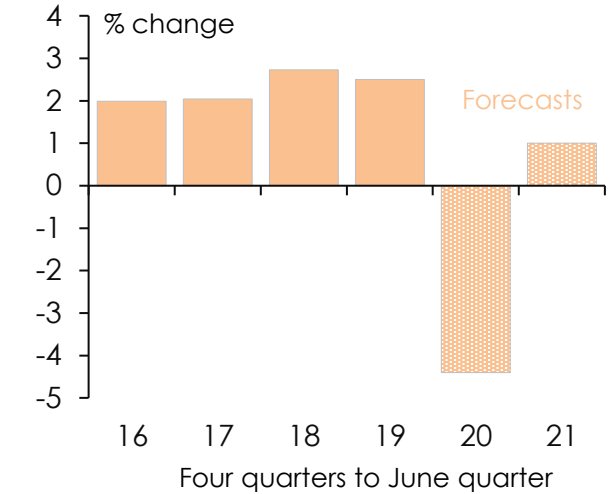
Business investment



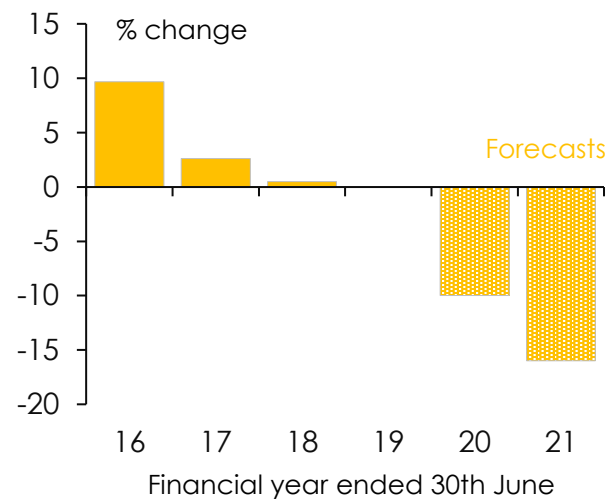
Net exports



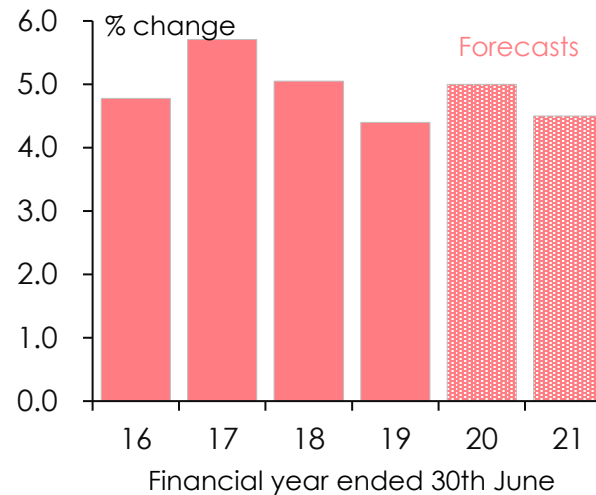
Employment



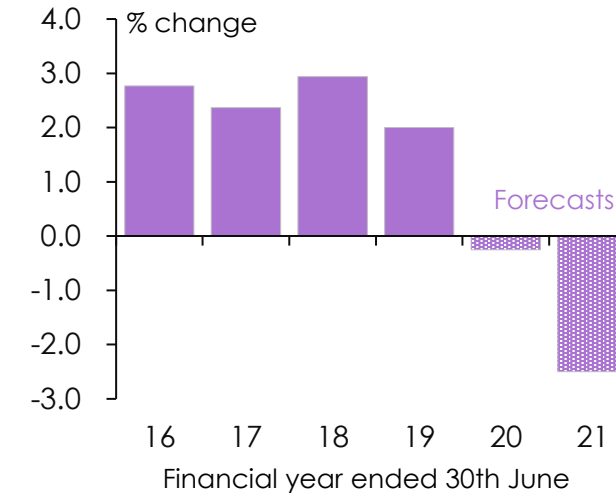
Dwelling investment



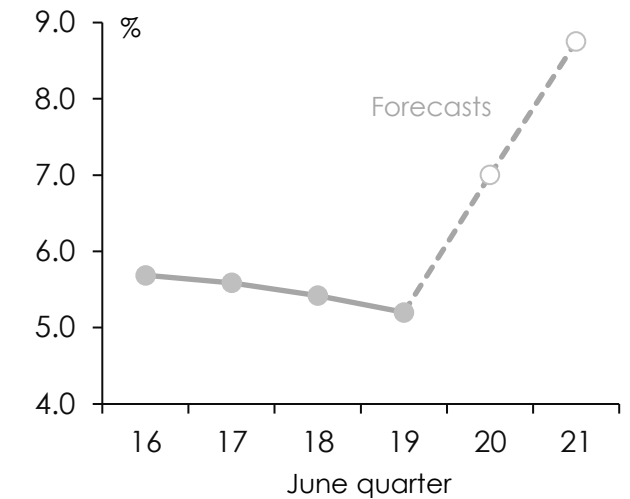
Public spending



GDP



Unemployment rate



Note: Business investment and public spending exclude transactions in second-hand assets. Employment growth is June quarter on June quarter; unemployment rate is June quarter. Assumptions include current restrictions in Melbourne ending after 6 weeks, no further restrictions imposed, and other restrictions being eased in line with the '3-step process' outlined by the Government on 8th May. Net overseas migration assumed to fall from 232K in 2018-19 to 154K in 2019-20 and 31K in 2020-21; international travel bans lifted from 1st January 2021; the iron ore price falling to US\$55/t FoB by end-2020; metallurgical and thermal coal prices remaining at US\$110/t and \$54/t FoB respectively; and the A\$ remaining at around US\$69¢. Sources: ABS; Australian Treasury, *Economic and Fiscal Update*, 23rd July 2020.

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

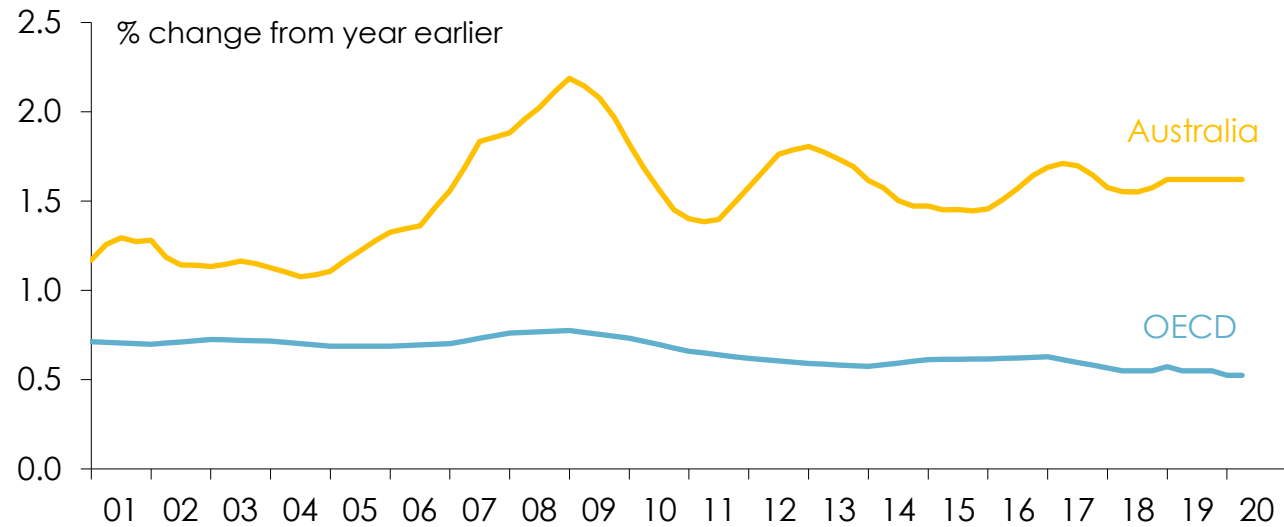
❑ (Mostly) good macro-economic policy – especially by comparison with other 'advanced' economies

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

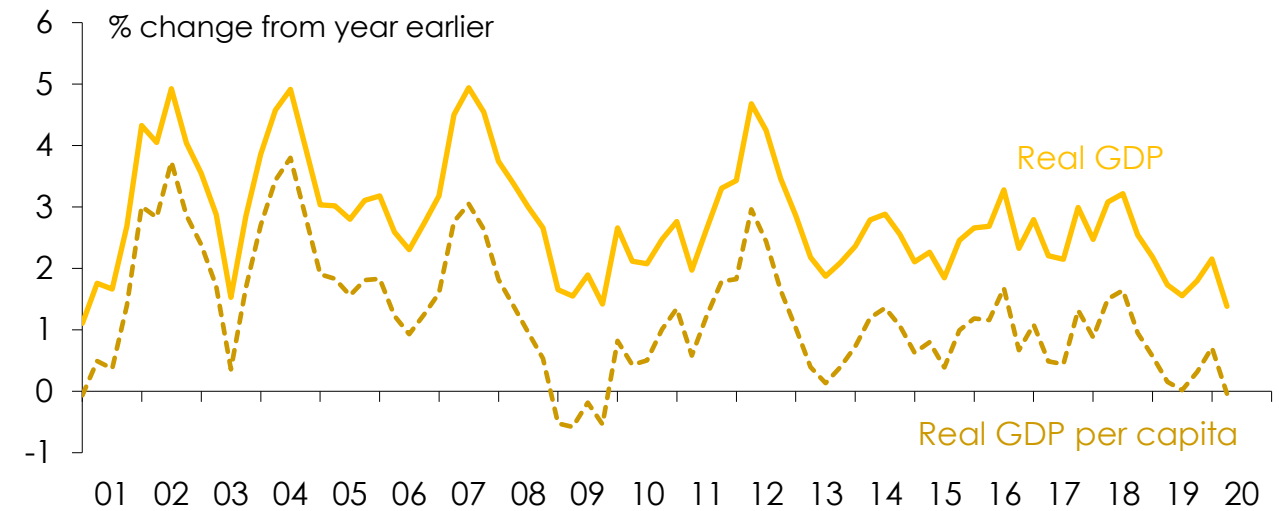
The first three of these are likely to be of less assistance from now on

Australia's above-average economic growth over the past 20 years owes a lot to above-average population growth: that's about to change

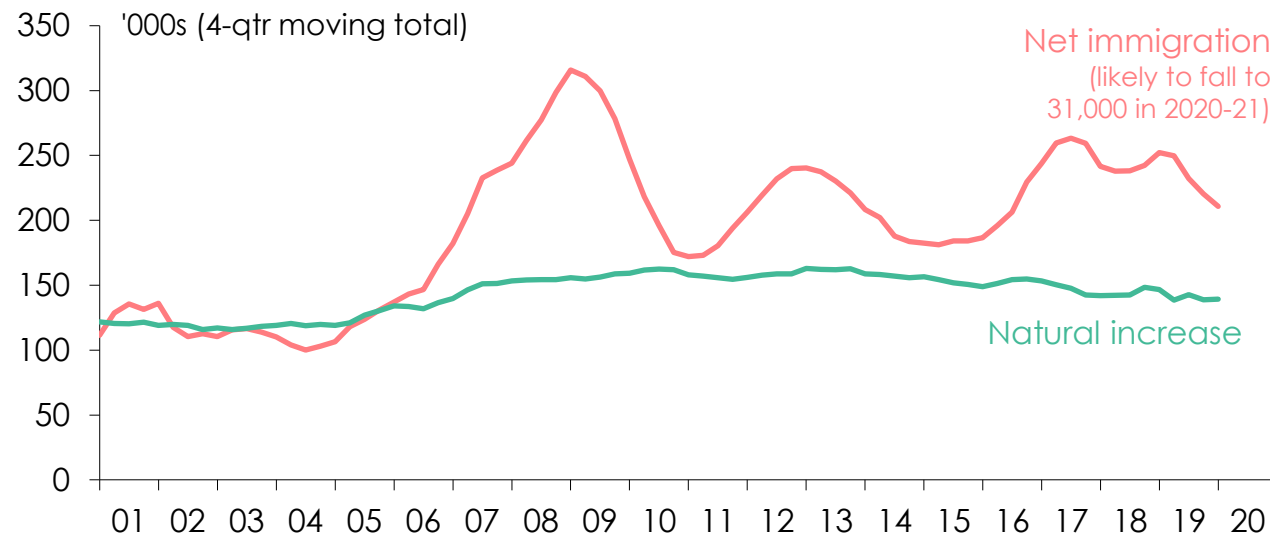
Australia and OECD population growth



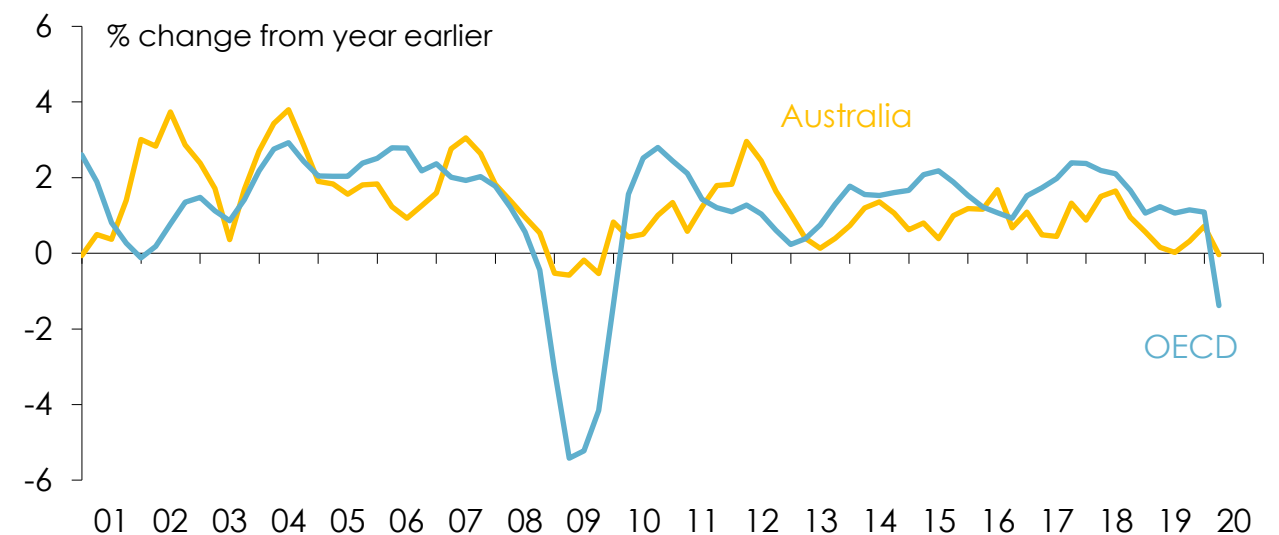
Australian GDP and per capita GDP growth



Sources of Australia's population growth



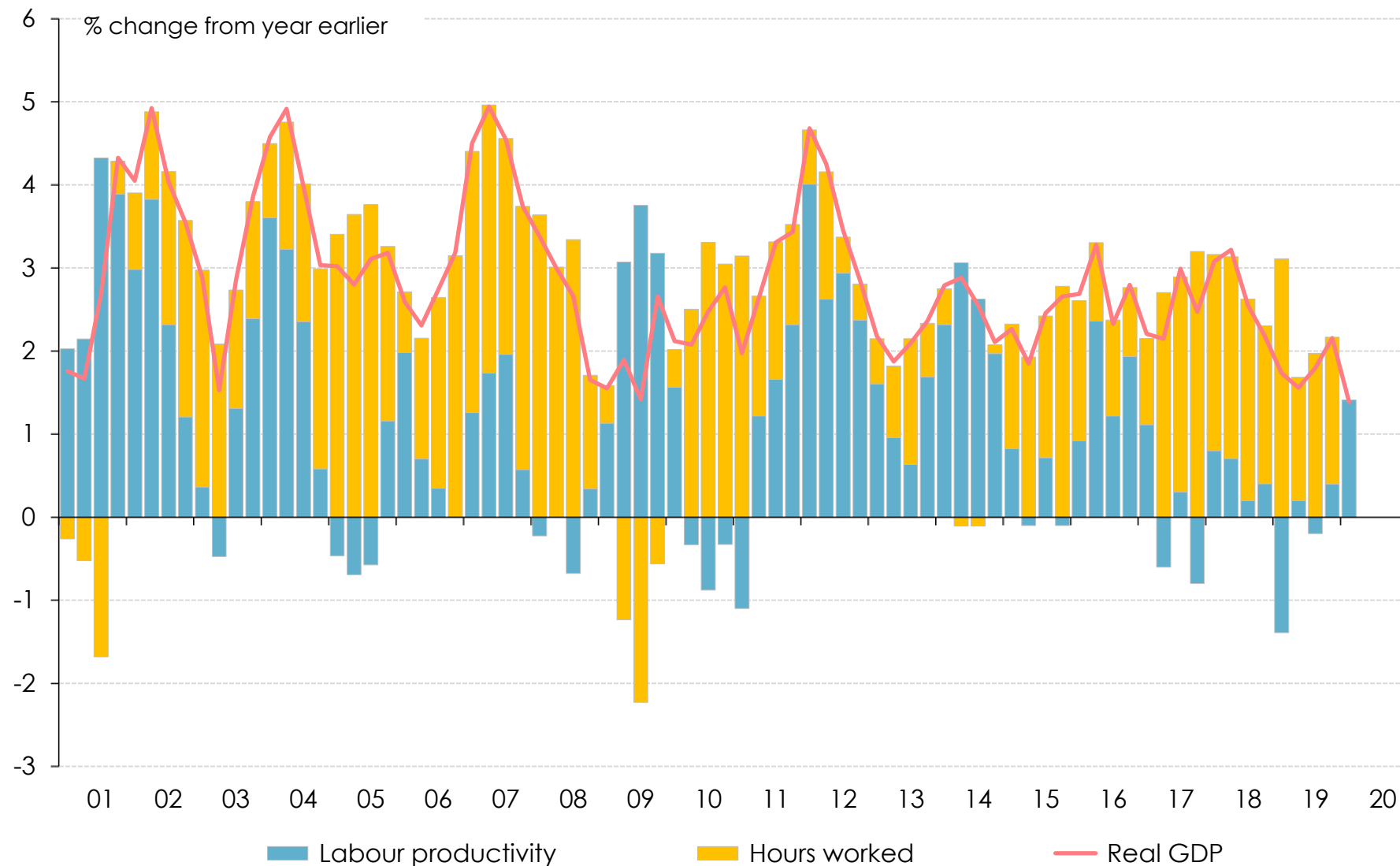
Australia and OECD per capita real GDP growth



Sources: ABS; OECD.

Australia has come to rely much more heavily on increased labour input to drive economic growth in recent years – we can't keep doing that

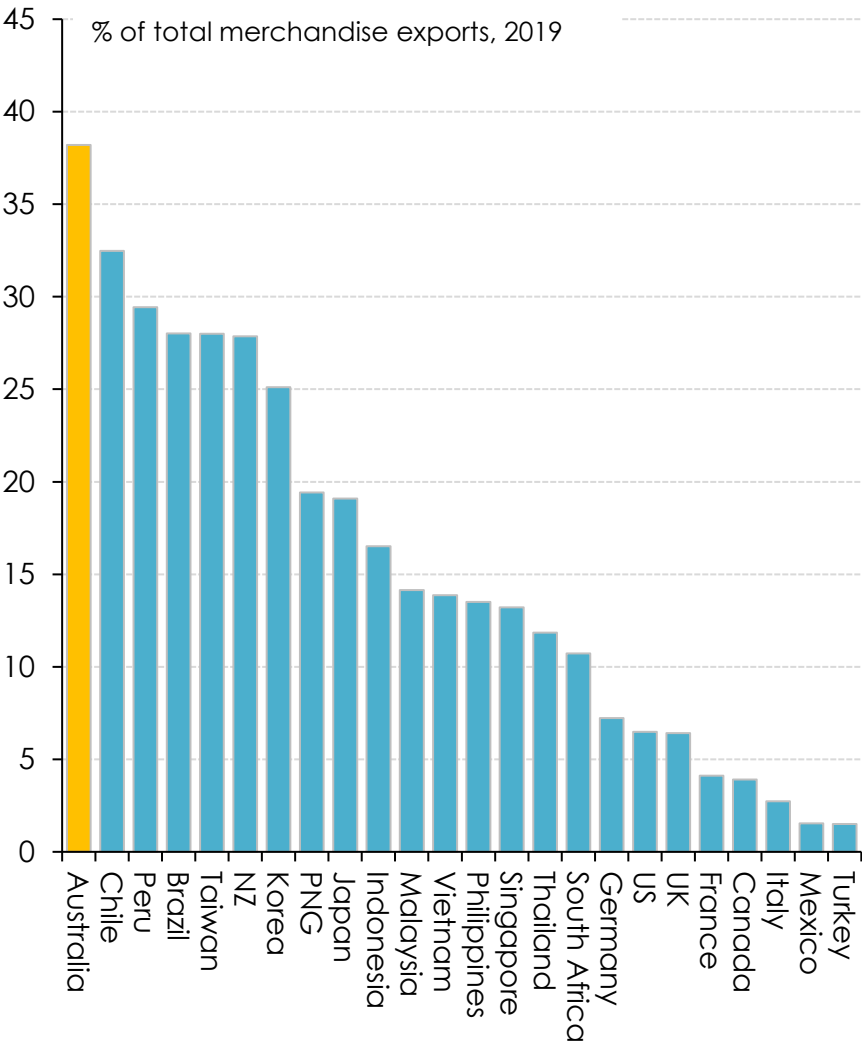
Labour input and labour productivity contributions to Australian real GDP growth



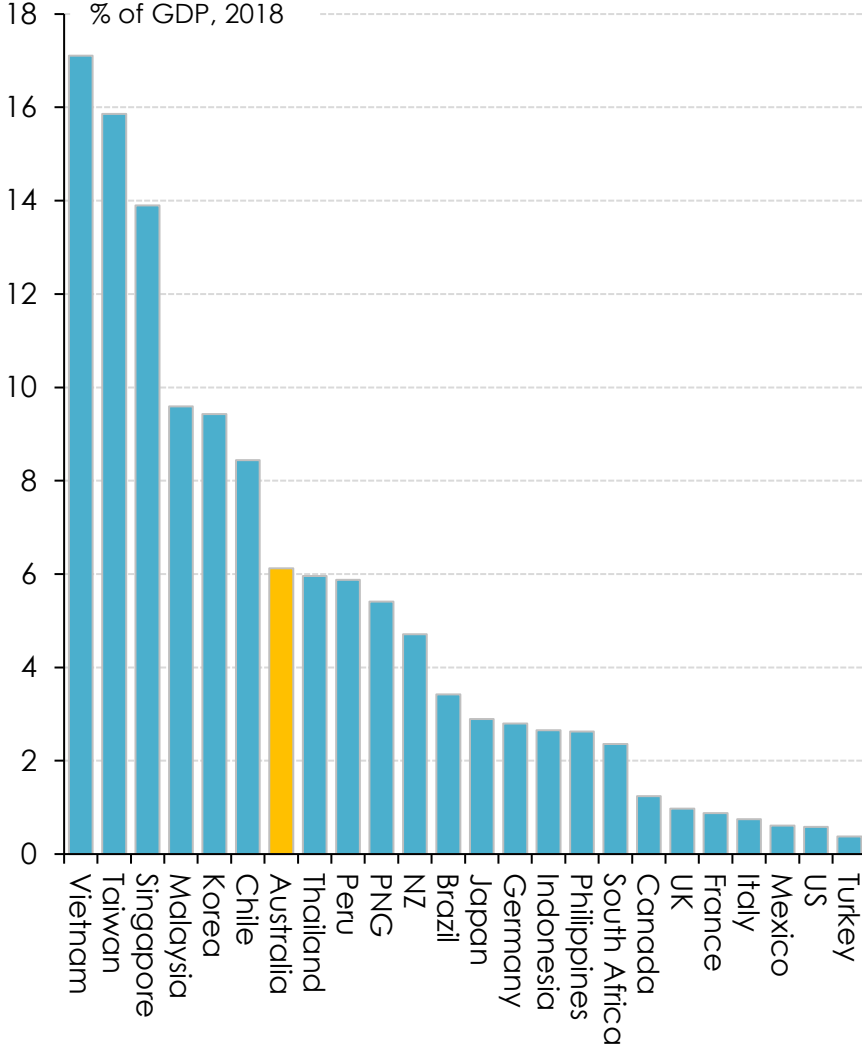
- Over the past five years, 72% of Australia's real GDP growth has come from increased labour input, and only 28% from labour productivity growth
- By contrast, between the end of the early 1990s recession and the onset of the global financial crisis, 46% of Australia's real GDP growth came from increased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

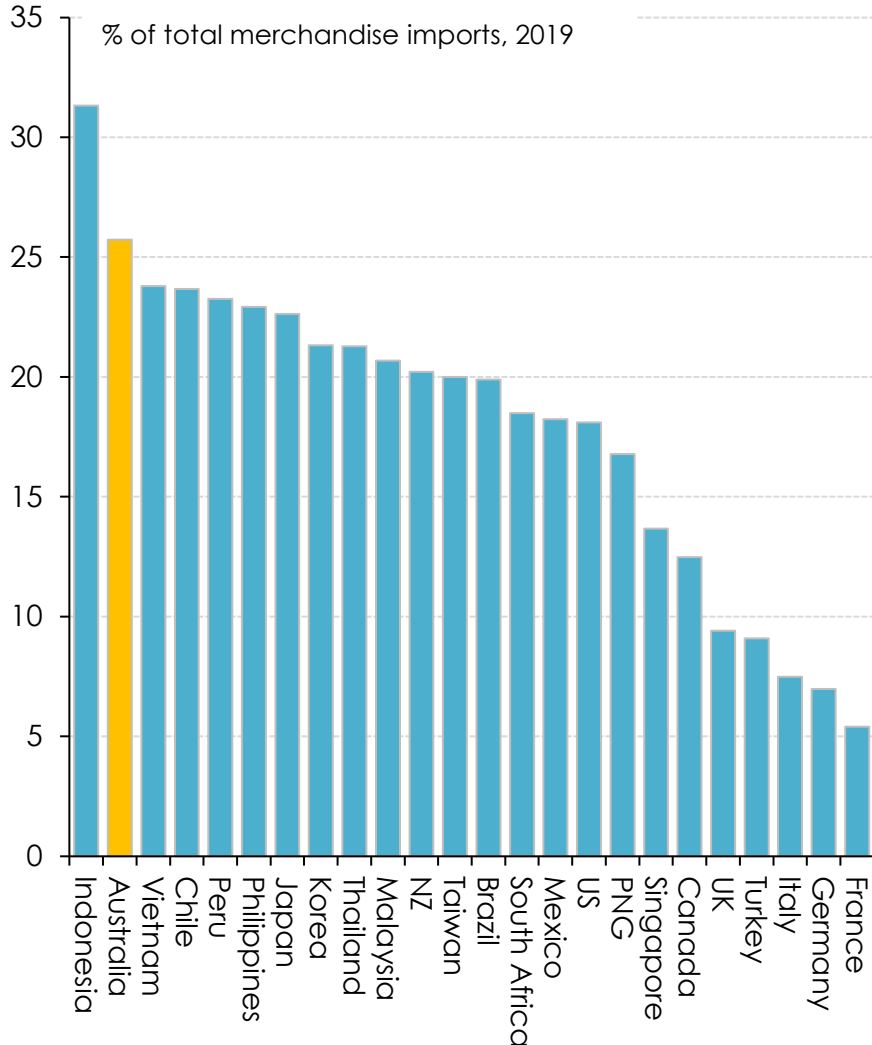
Merchandise exports to China as a pc of total



Merchandise exports to China as a pc of GDP



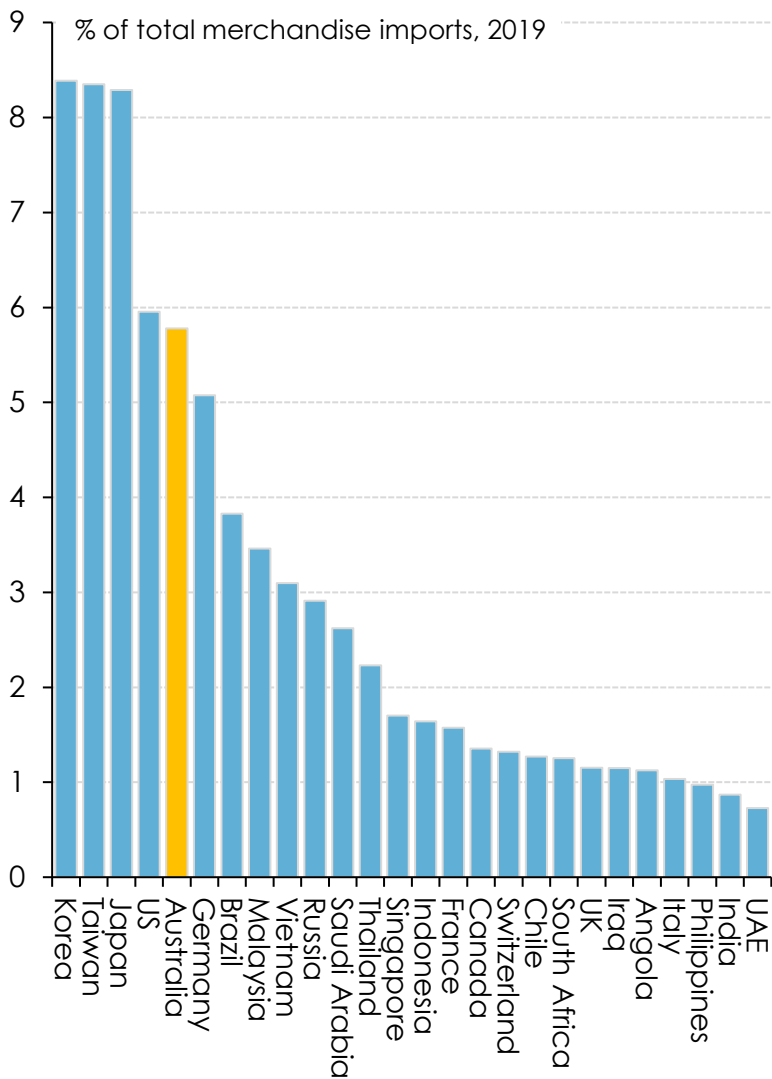
Merchandise imports from China as a pc of total



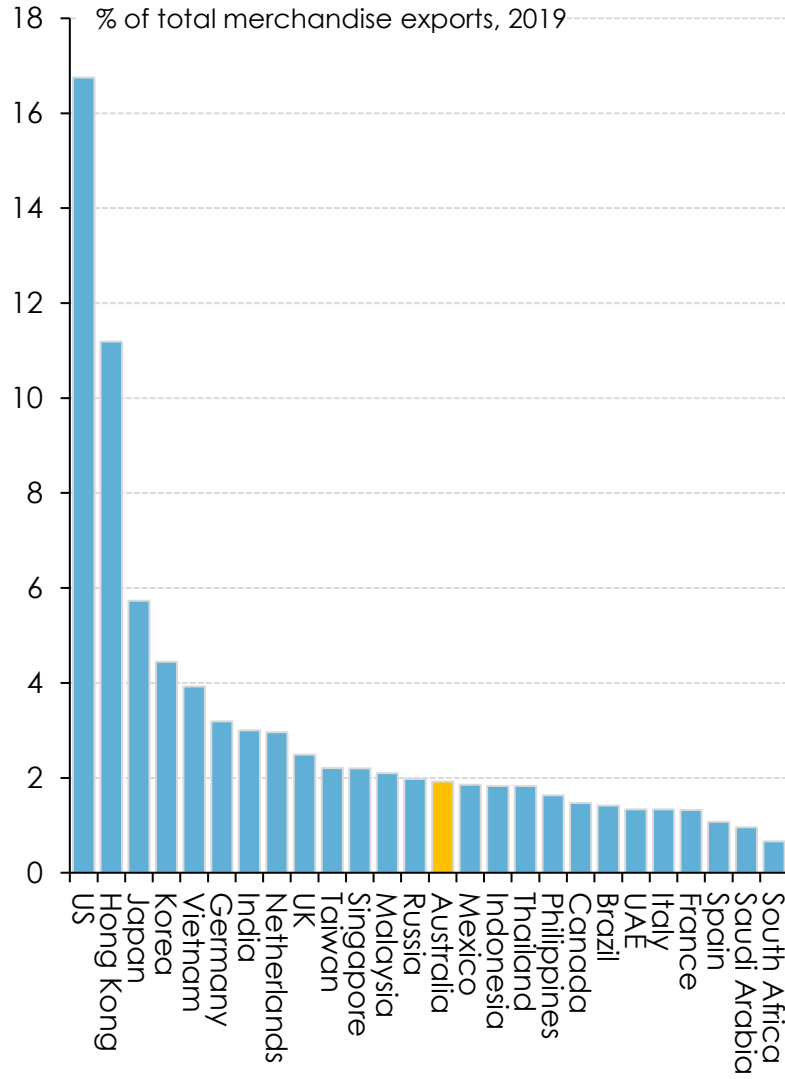
Sources: IMF, Direction of Trade Statistics; Taiwan Ministry of Economic Affairs, Bureau of Foreign Trade.

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

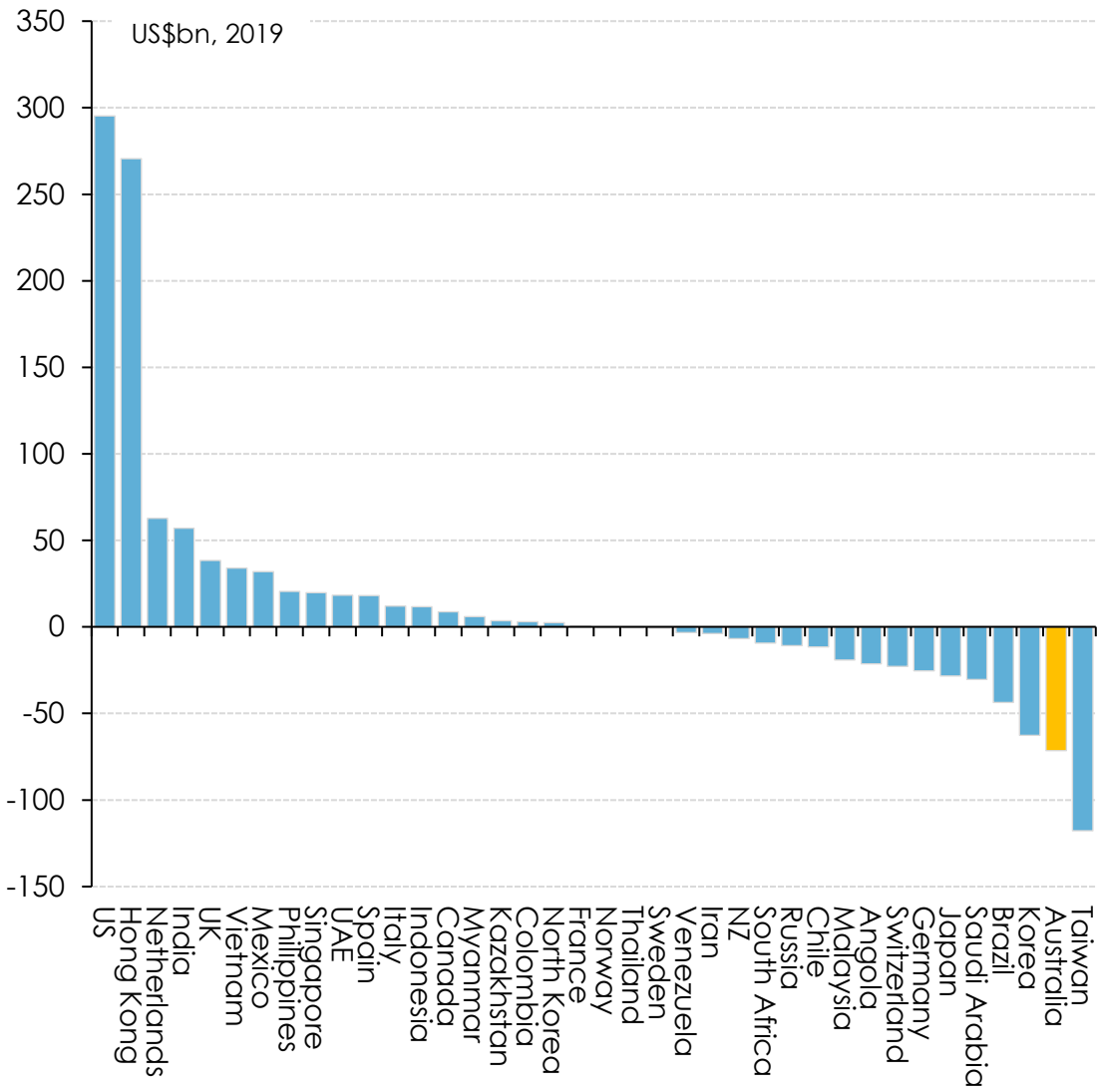
China's sources of imports



China's export destinations



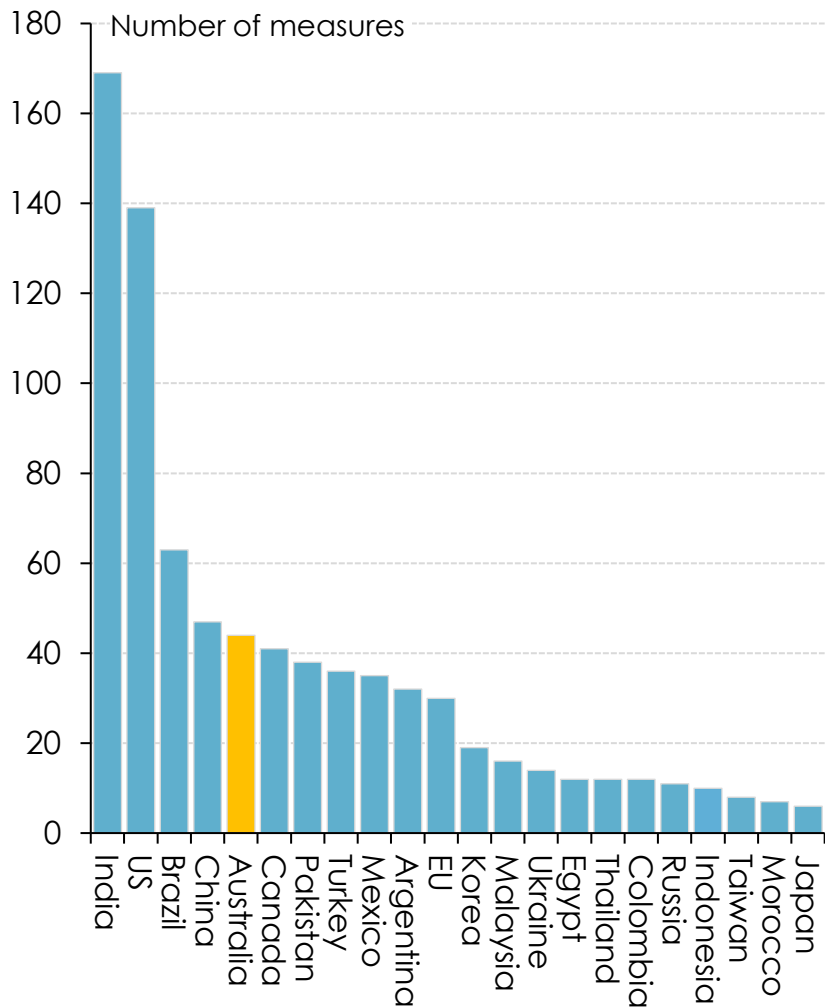
China's bilateral merchandise trade balances



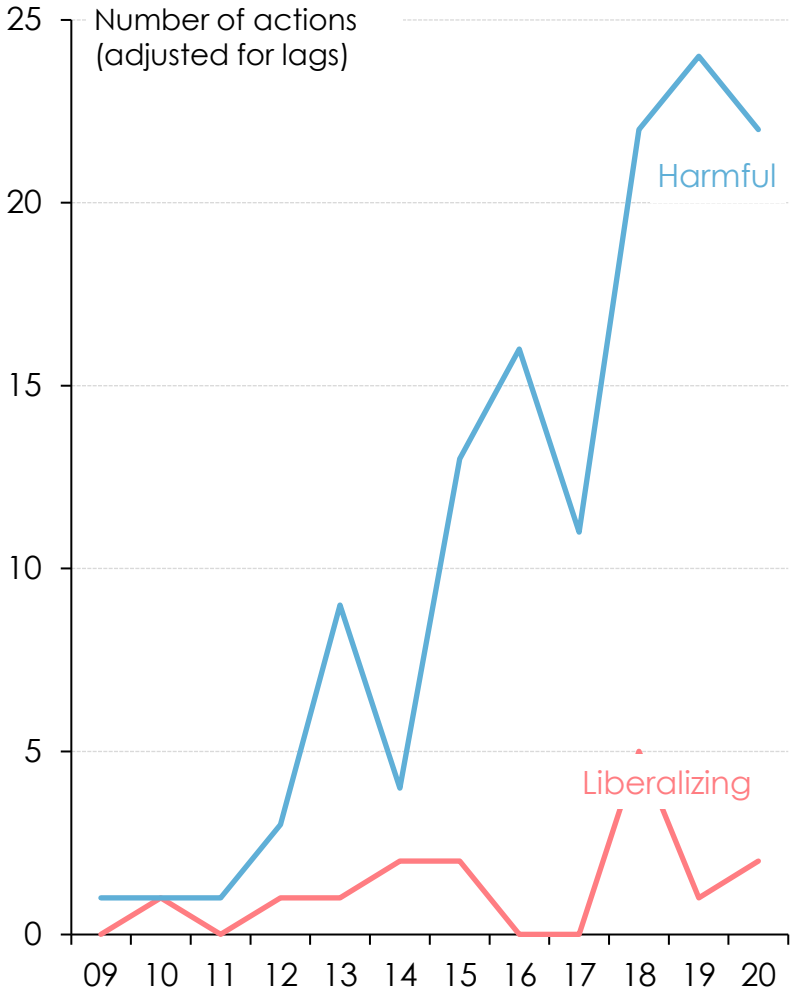
Source: International Monetary Fund, Direction of Trade Statistics.

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

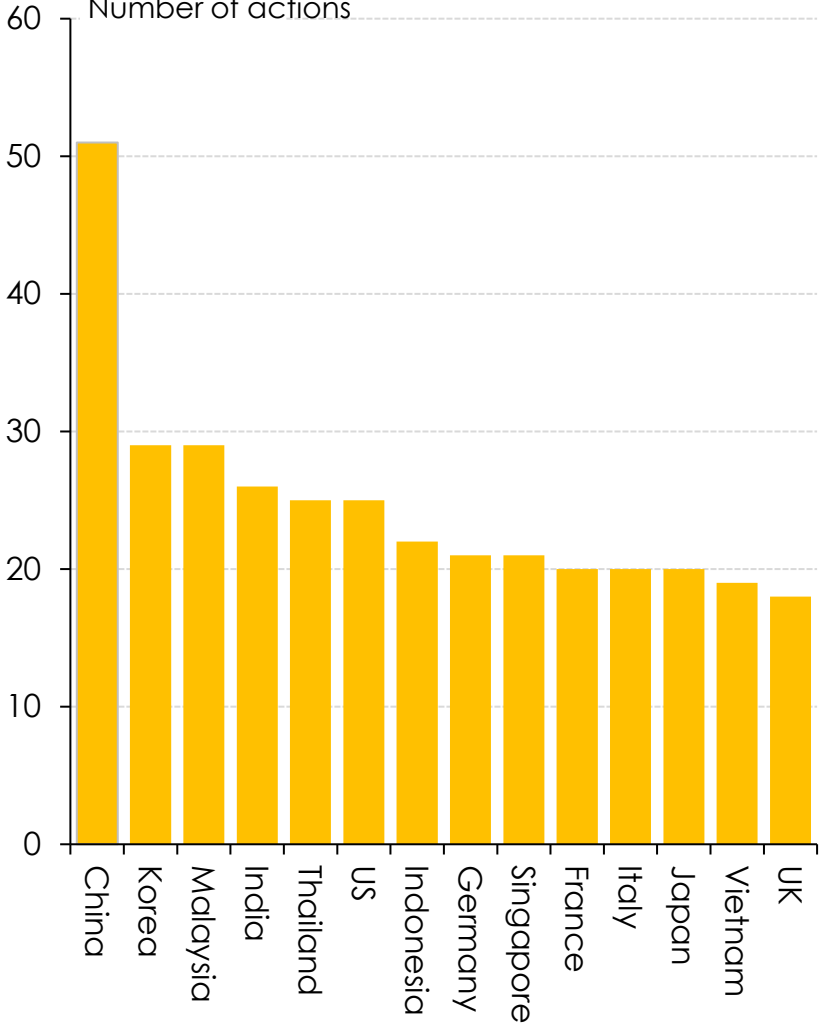
Number of anti-dumping measures imposed, 2015-19



Australian trade policy measures since 2009



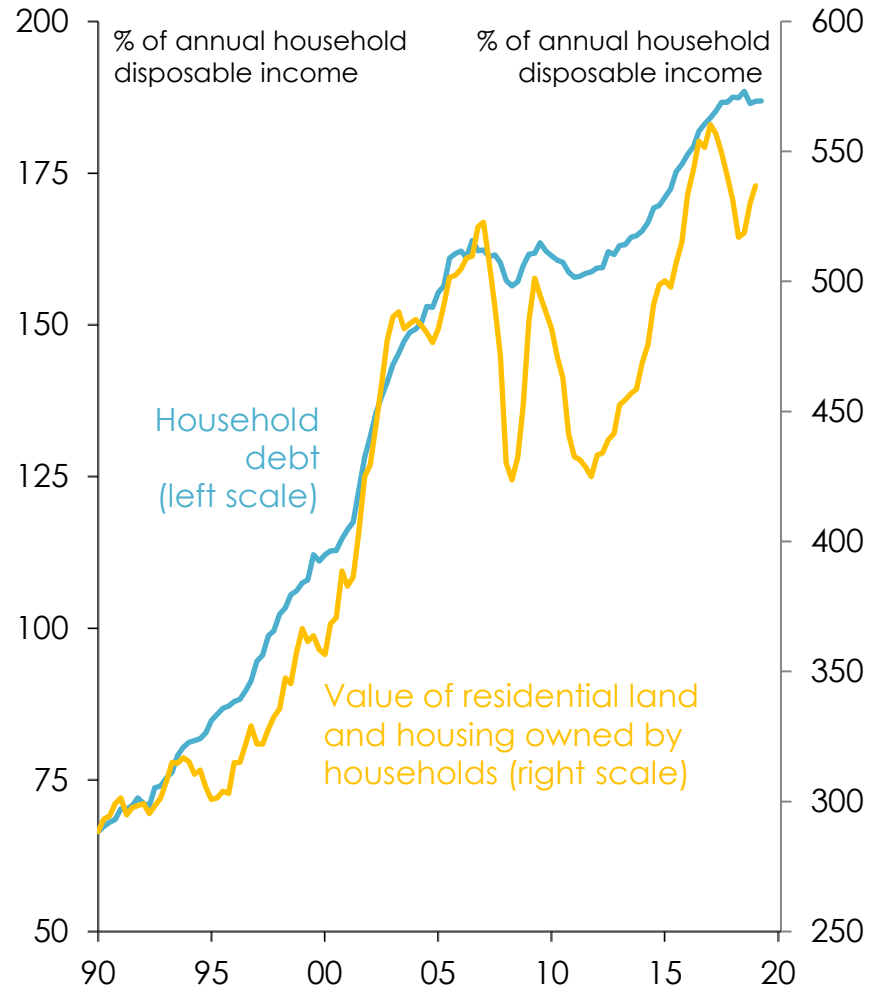
Countries adversely affected by 'harmful' Australian trade actions



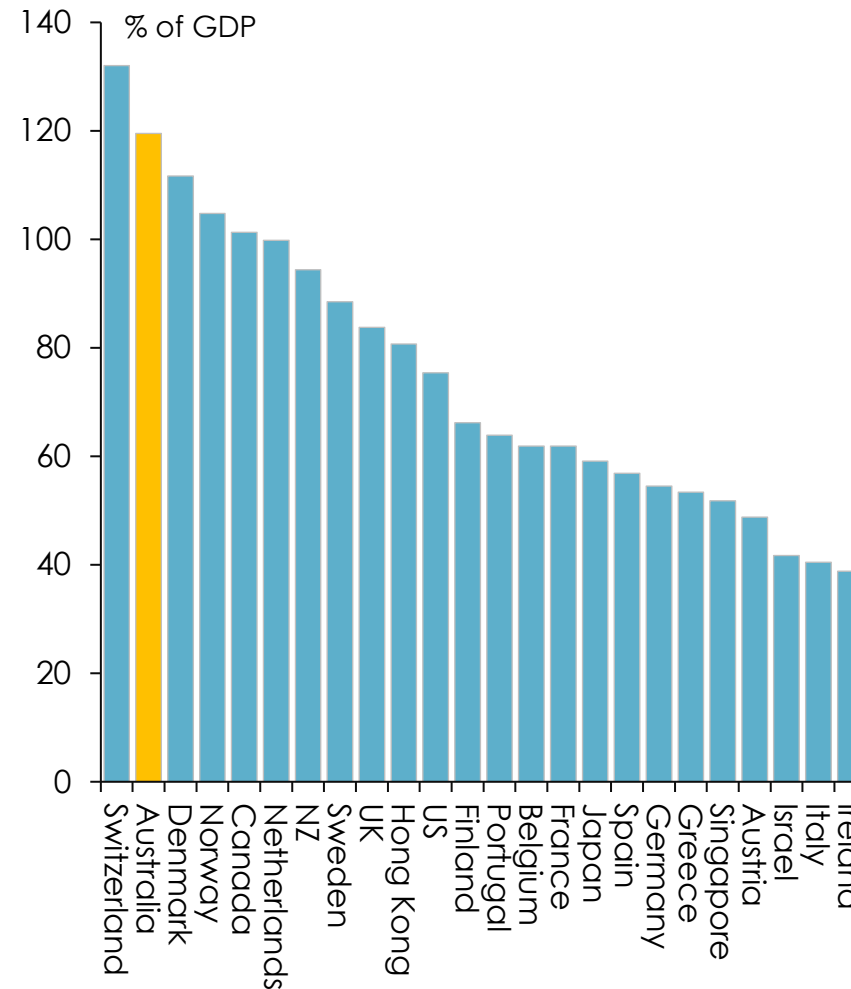
Sources: World Trade Organization; Global Trade Alert (data up to 20th July).

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

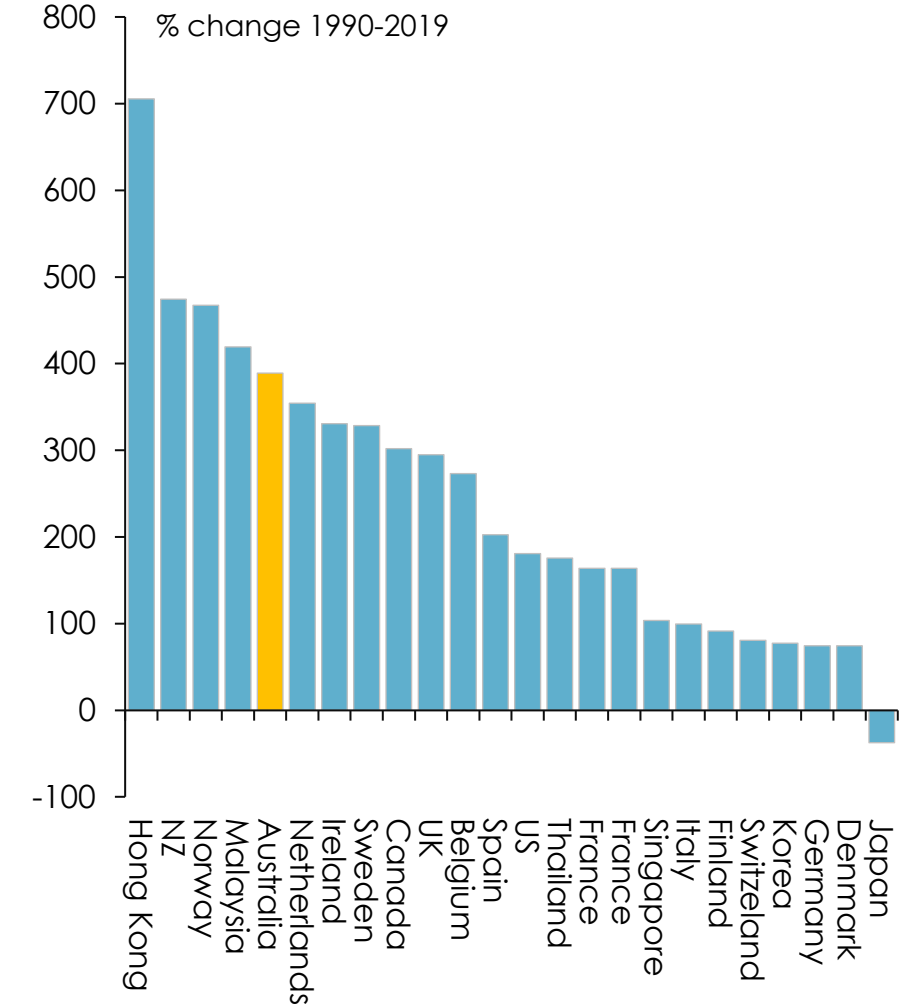
Australian housing wealth and household debt



Household debt as a pc of GDP, December 2019



Increase in residential property prices, 1990-2019

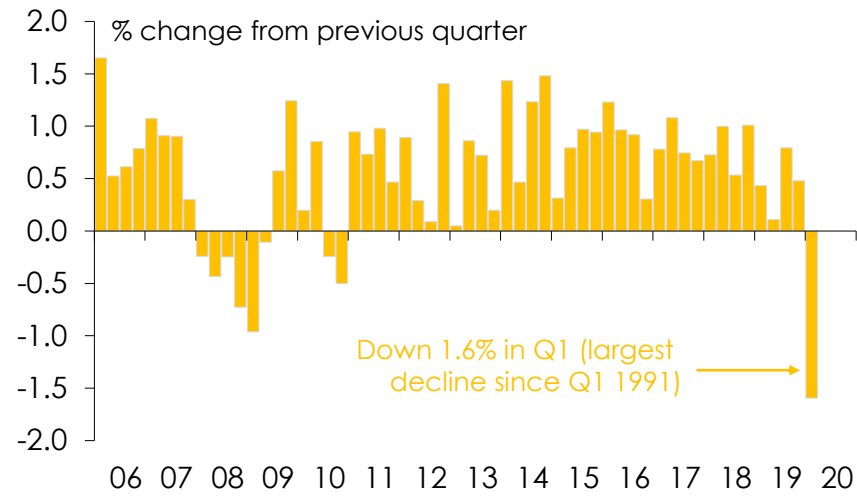


Note: Singapore property price increase is from March quarter 1999. Sources: ABS; Bank for International Settlements.

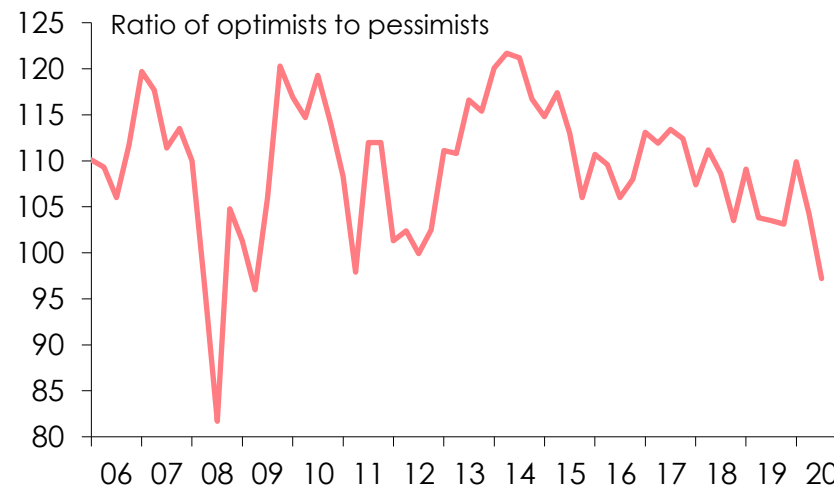
New Zealand

New Zealand has paid a high economic price for its success in (nearly) eradicating the Covid-19 virus

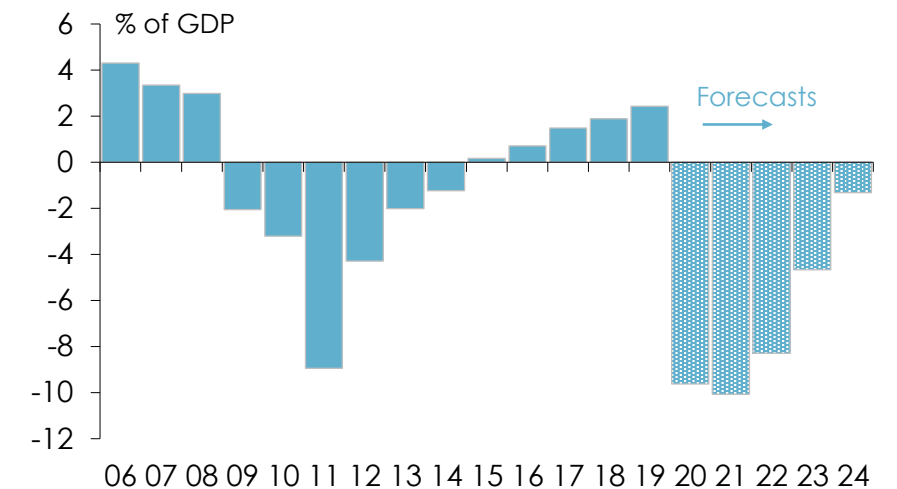
Real GDP



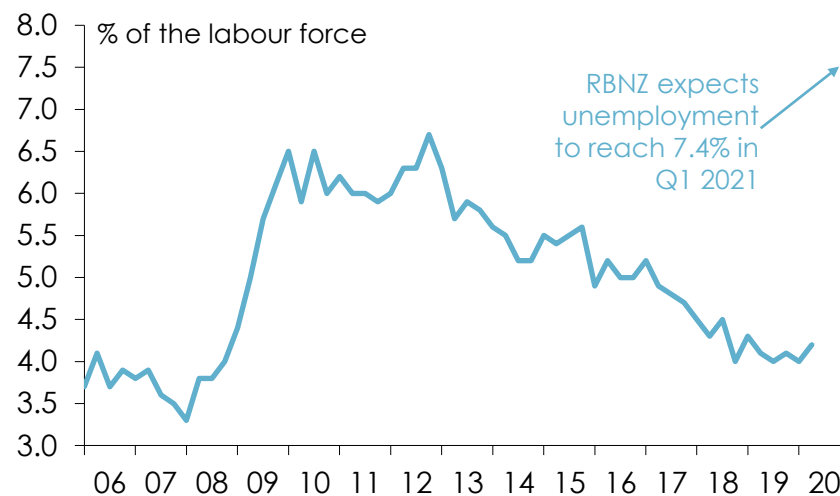
Consumer confidence



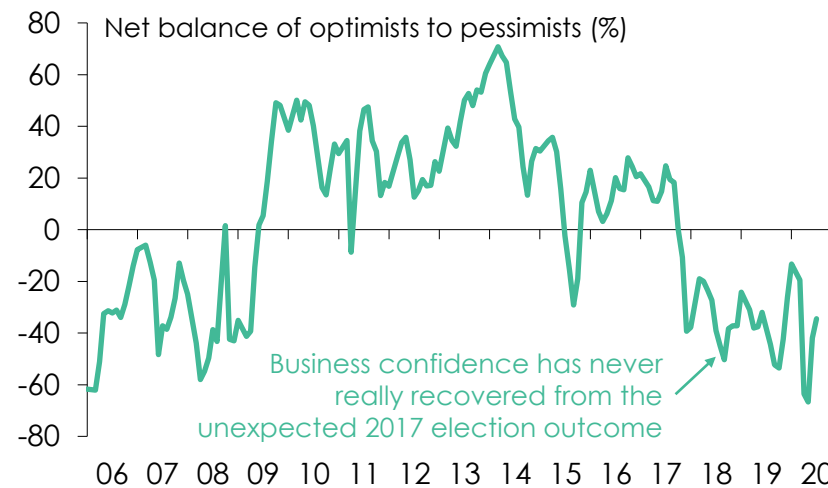
NZ government budget balance



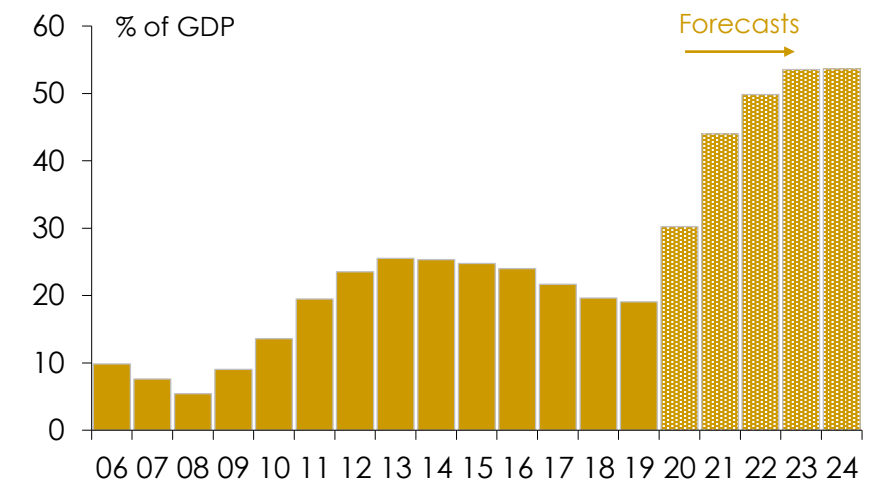
Unemployment rate



Business confidence



NZ 'core Crown debt'

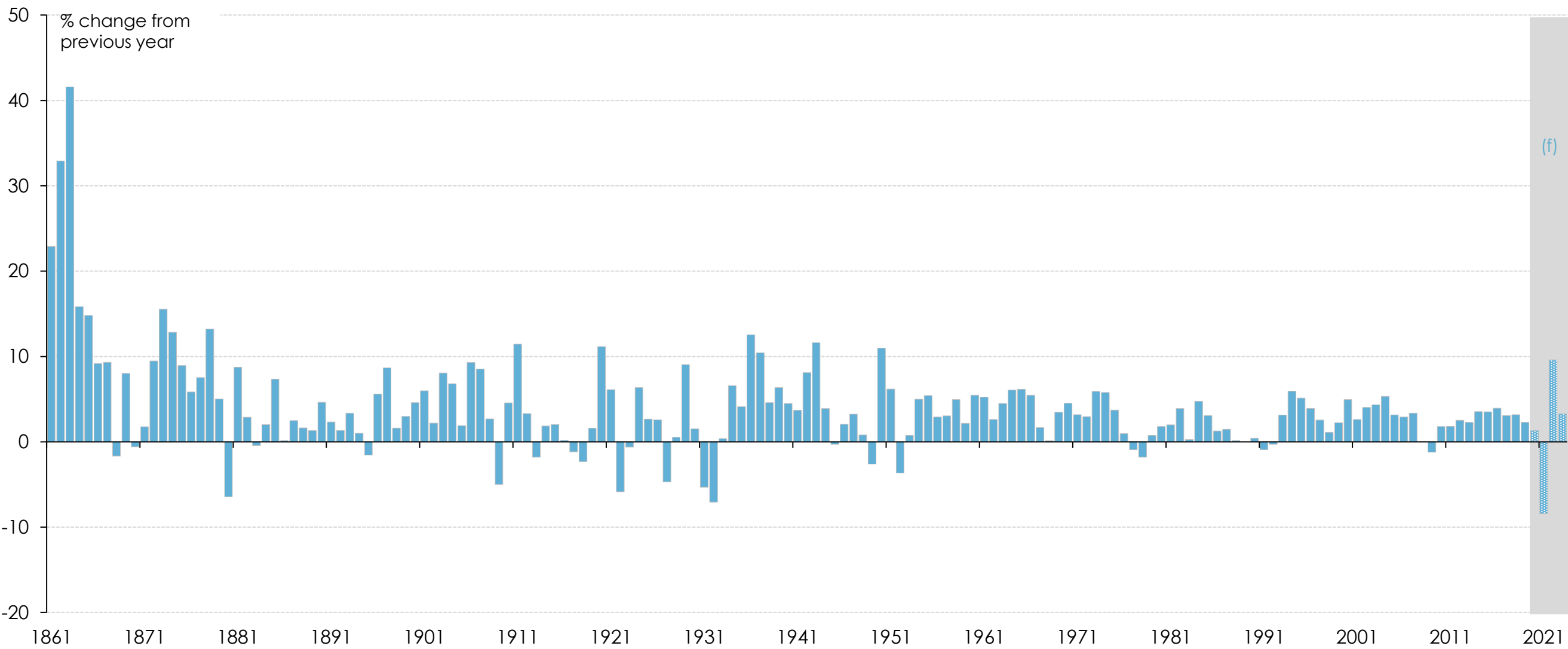


Note: New Zealand uses GDP(P) as its preferred measure of GDP. Unemployment rates are quarterly. The measure of the NZ Government budget balance is 'OBEGAL', operating balance excluding gains and losses (an accrual accounting measure). Net 'core Crown debt' excludes assets of the NZ Super Fund, student 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*. Q2 GDP estimates will be released on 17th September.

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

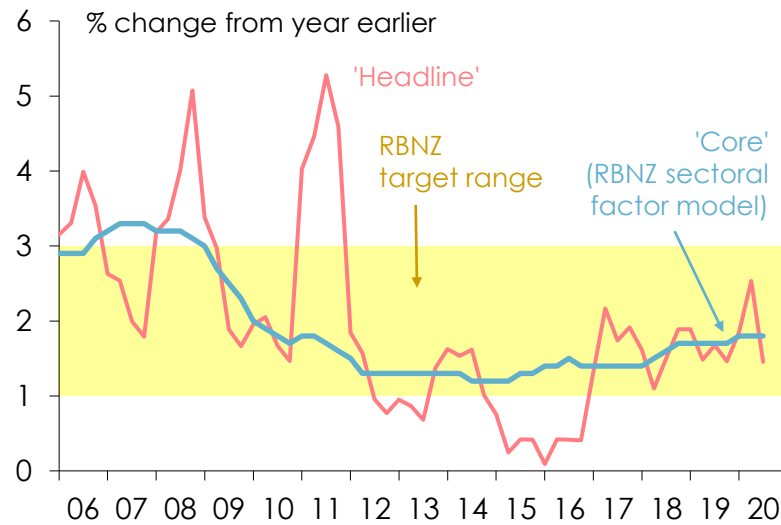
Annual growth in New Zealand real GDP, 1861-2023



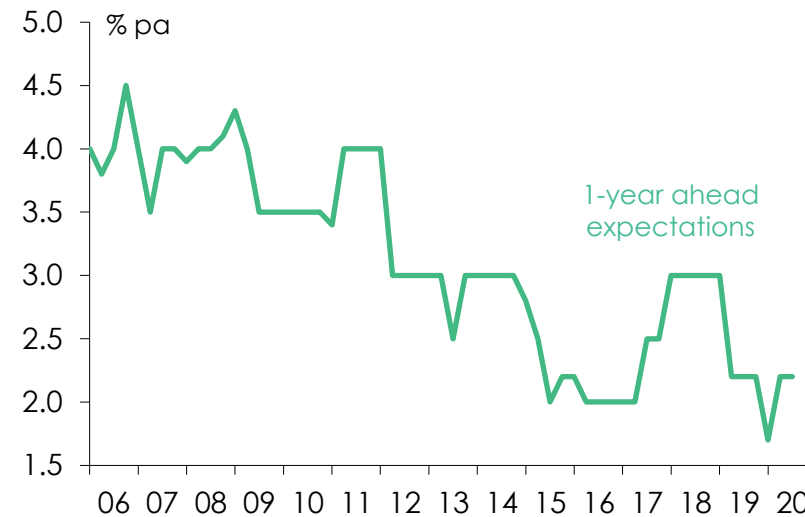
Note: Forecasts are for years ended 31 March. Source: RBNZ, Monetary Policy Statement, May 2020.

Inflation remained comfortably in the RBNZ's target band in the June quarter

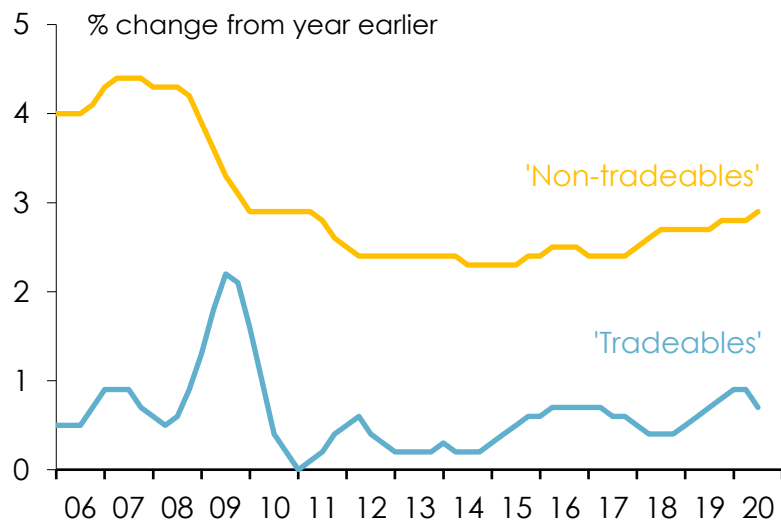
Consumer prices



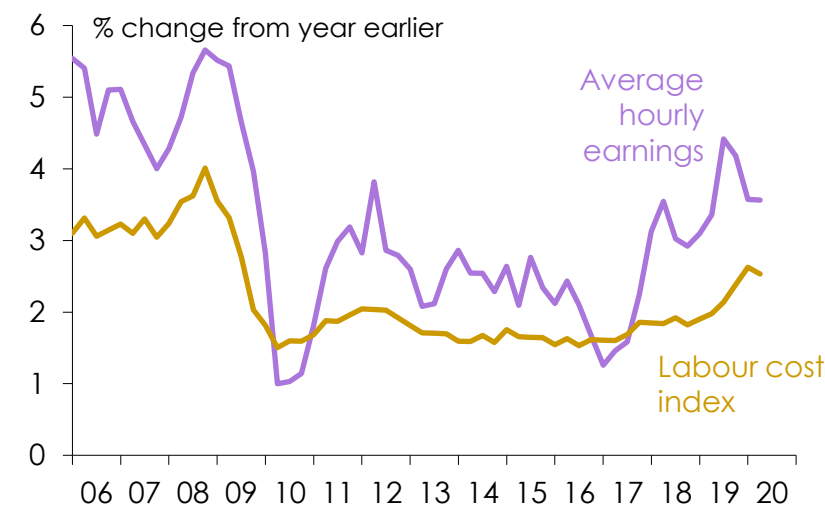
Household inflation expectations



Components of 'core' inflation



Labour costs

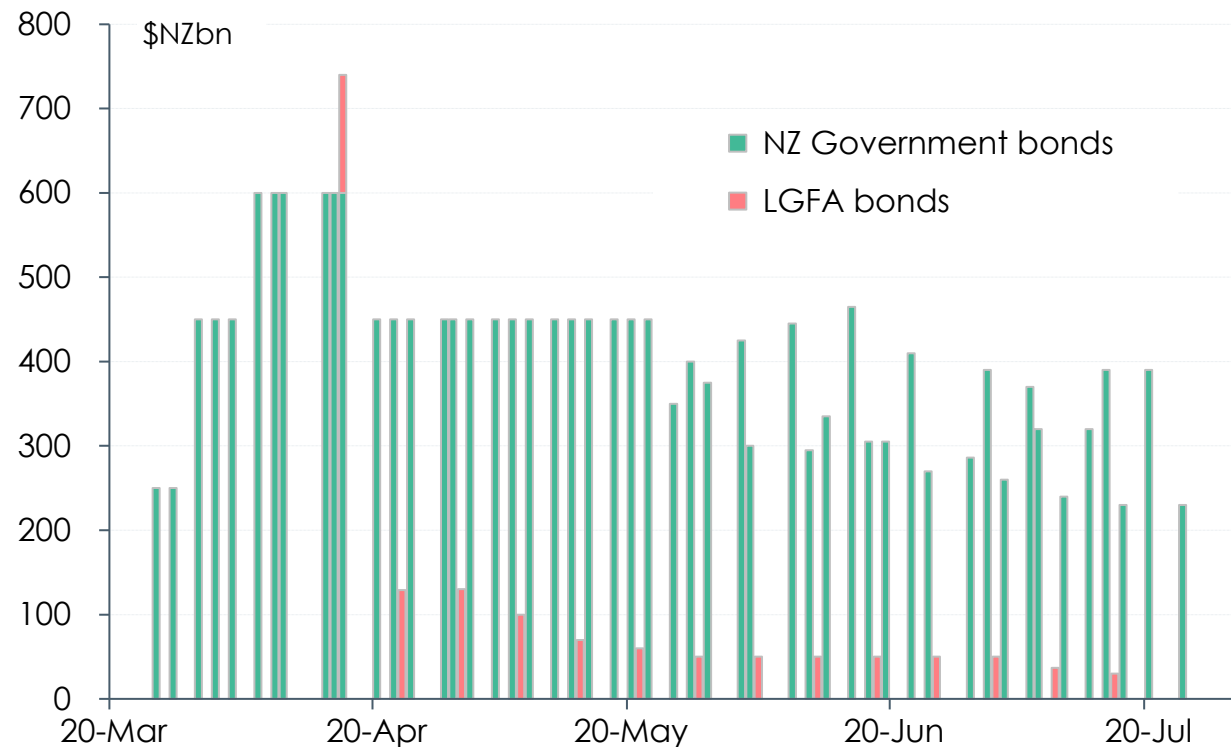


- ❑ The CPI fell 0.5% in the June quarter, reflecting a 12% fall in petrol prices, partly offset by a 16% increase in food prices and SNZ's inability to capture fully the effect of freeze on residential rents between 26th March and 25th September
- ❑ The June quarter result cut the annual 'headline' inflation rate to 1.5%, from the 8-year high of 2.5% recorded in the March quarter (which resulted from large increases in rents, food and cigarette & tobacco prices)
- ❑ The annual 'core' inflation rate remained unchanged at 1.8%, with a further slight acceleration in 'core' non-tradeables inflation (to its highest level in 9 years) offset by an easing in 'core' tradeables inflation
- ❑ Inflation expectations remain low, and pressures from labour costs are likely to abate given the weakening in the labour market since March

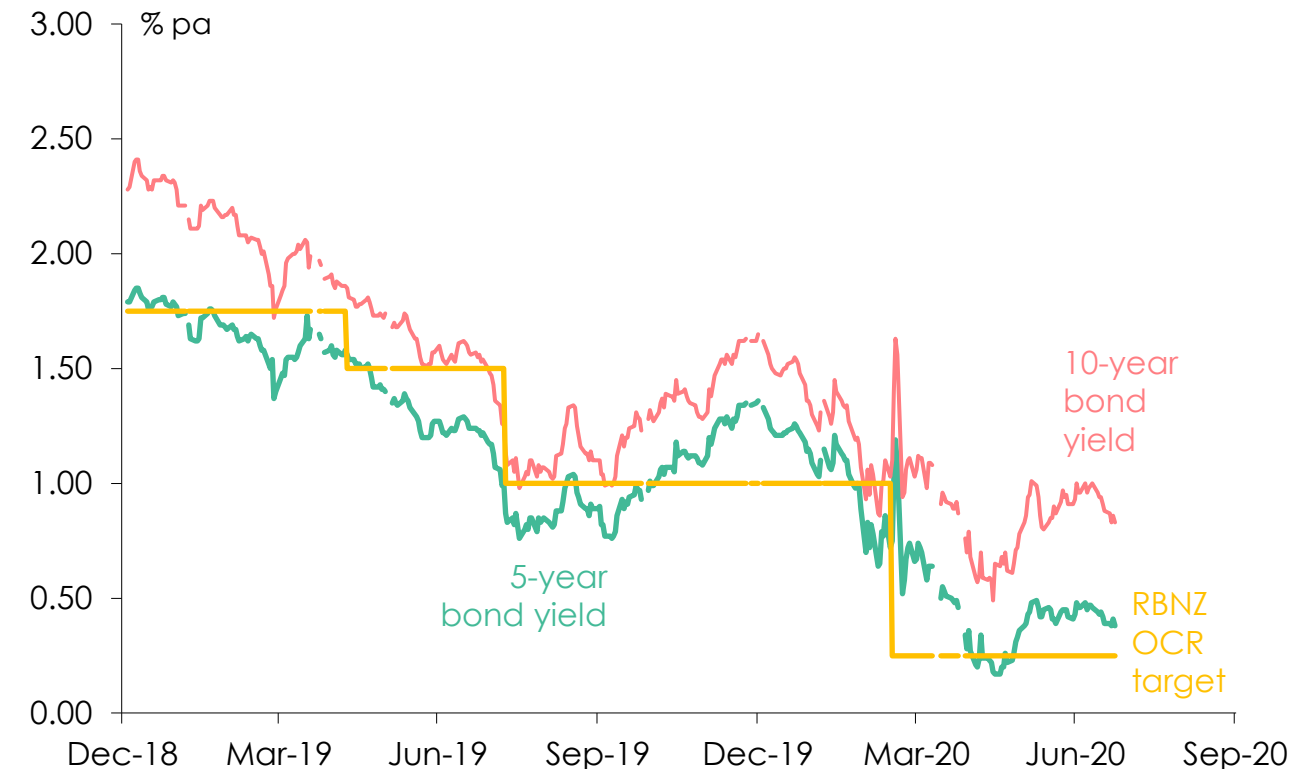
Sources: Statistics NZ; Reserve Bank of New Zealand. September quarter CPU will be released on 23rd October.

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`

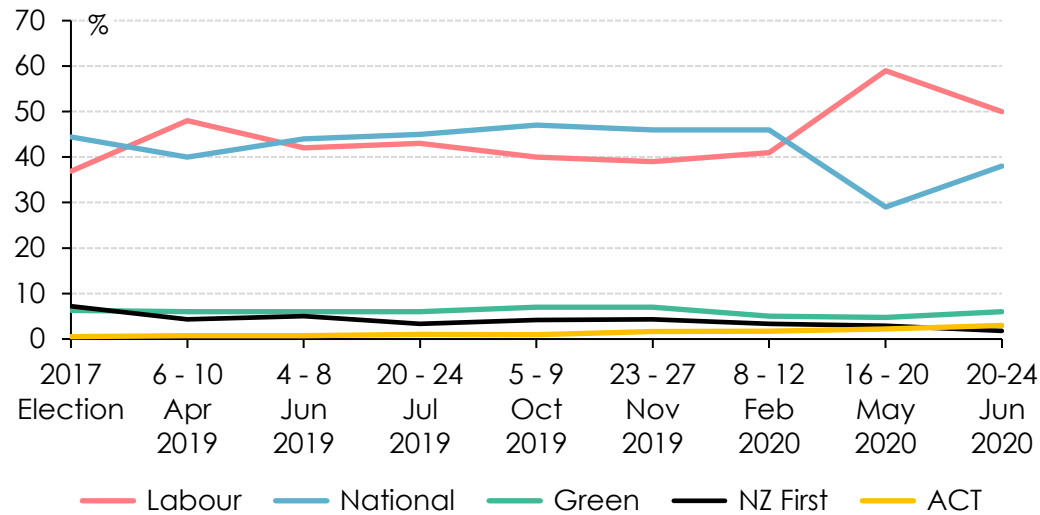


- ❑ RBNZ has adopted an ECB-style QE program, establishing a Large Scale Asset Program initially set at \$NZ33bn (10½% of GDP), since increased to \$60bn (19% of GDP)
- ❑ Since 25th March RBNZ bond purchases have amounted to \$NZ21 bn (6.9% of GDP) – but have been less successful than the RBA's in stabilizing 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 24th July.

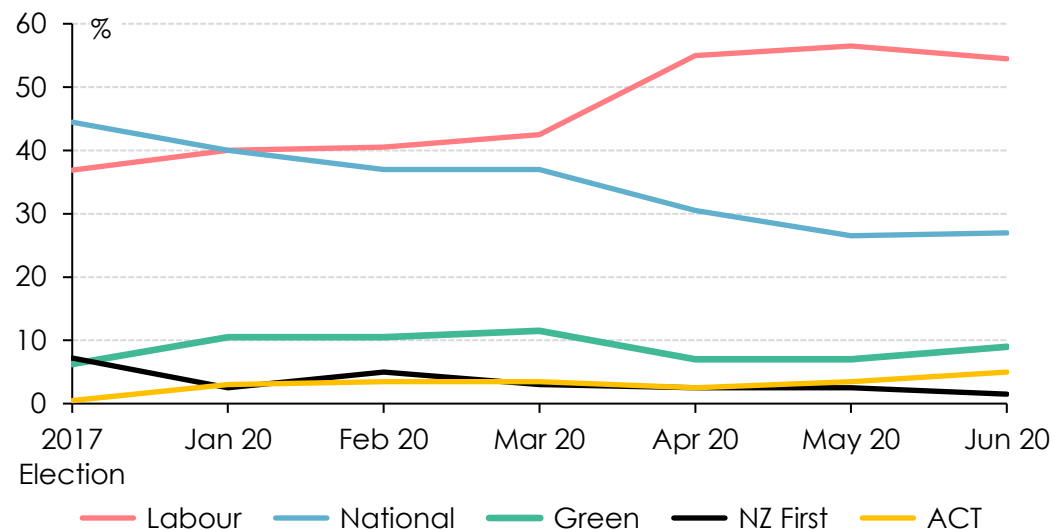
PM Jacinda Ardern's Labour Party seems likely to win a majority in its own right at the elections to be held on 19th September

Colmar-Brunton 1-News 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 in Britain)
 - the other 49 are chosen from party lists such that each party has the same share of seats in the Parliament as its share of the national vote, provided 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 two 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)
- ❑ For the second time eight weeks, National changed leaders, installing Judith Collins (known to her colleagues as 'Crusher' Collins) after the resignation of Todd Muller for 'health reasons'
- ❑ Labour's lead in opinion polls has narrowed but still looks likely to win 62 seats, enough to govern in its own right
 - the Greens appear likely to retain their place in Parliament but NZ First is well short of the 5% threshold

Roy Morgan poll



Note: 'ACT' is the Association of Consumers and Taxpayers, a libertarian party which currently holds one constituency seat in the NZ Parliament. Sources: NZ Electoral Commission; Colmar Brunton; Roy Morgan NZ Single Source.

Some possible longer-term consequences

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)
- ❑ **A reduced role for (conventional) monetary policy in managing economic cycles**
 - implying a greater role for fiscal policy (or, alternatively, bigger and perhaps more frequent 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 (see slide 64)**
- ❑ **Accelerated decline in the use of cash for transactions (see slide 68)**
- ❑ **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

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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