THE GLOBAL AND AUSTRALIAN ECONOMIES

PRESENTATION TO A LUNCHEON FOR THE

CORPORATE LEADERS' NETWORK

QT HOTEL MELBOURNE, 17TH OCTOBER 2018

SAUL ESLAKE

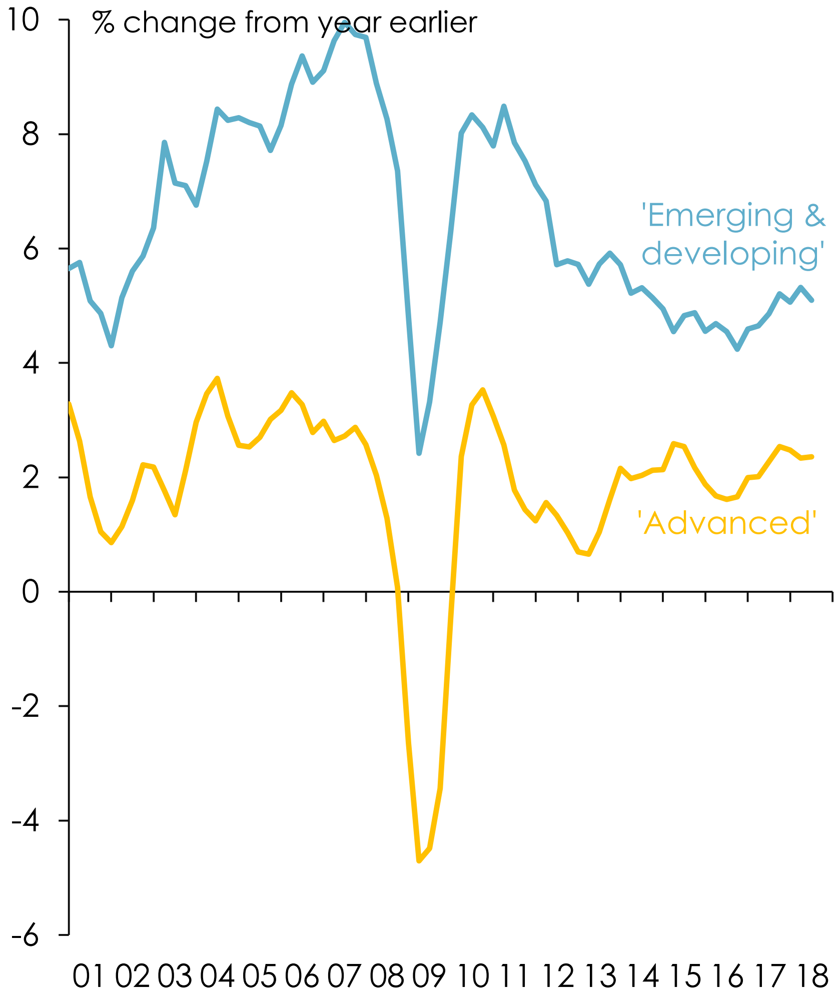
CORINNA ECONOMIC ADVISORY PTY LTD

The global economy

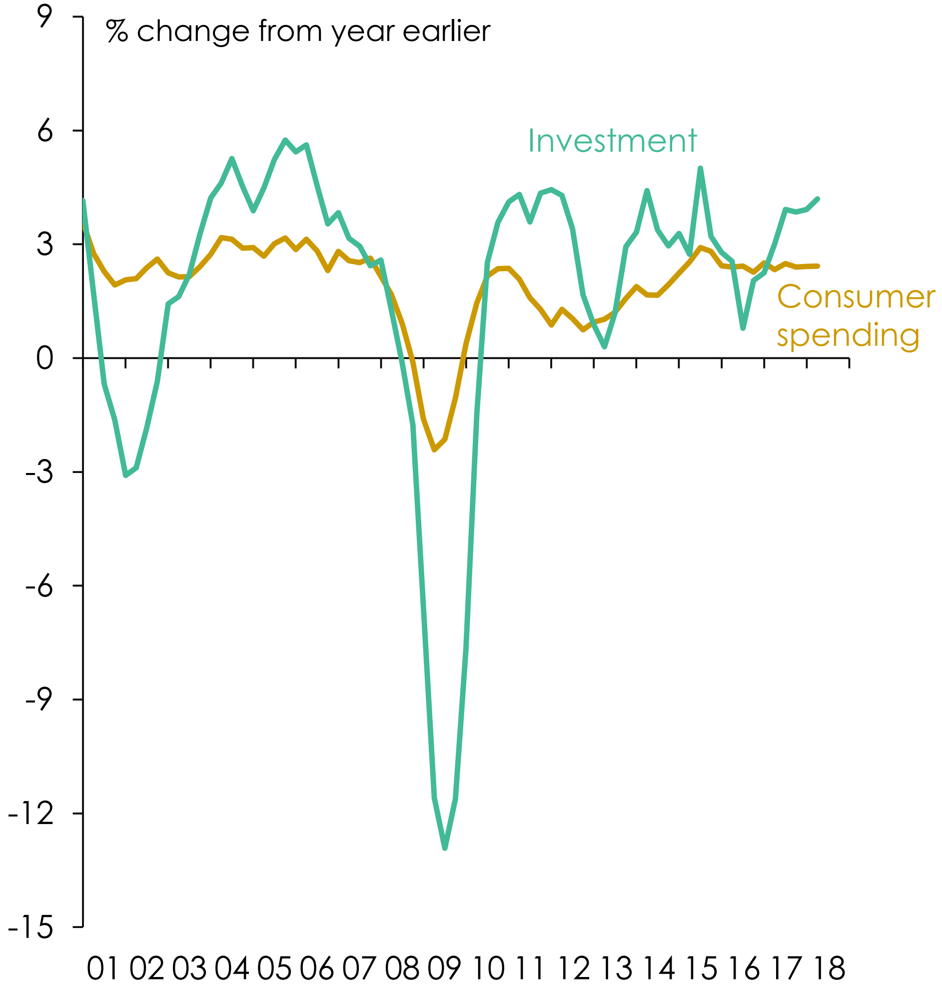
The world economy picked up strongly last year – led by stronger investment in 'advanced' economies – but has slowed again this year

World economic growth

'Advanced' vs 'emerging and developing' economies



Major components of developed country growth



Sources: Thomson Reuters Datastream; IMF; OECD; Eurostat; other national statistical agencies; Corinna Economic Advisory.

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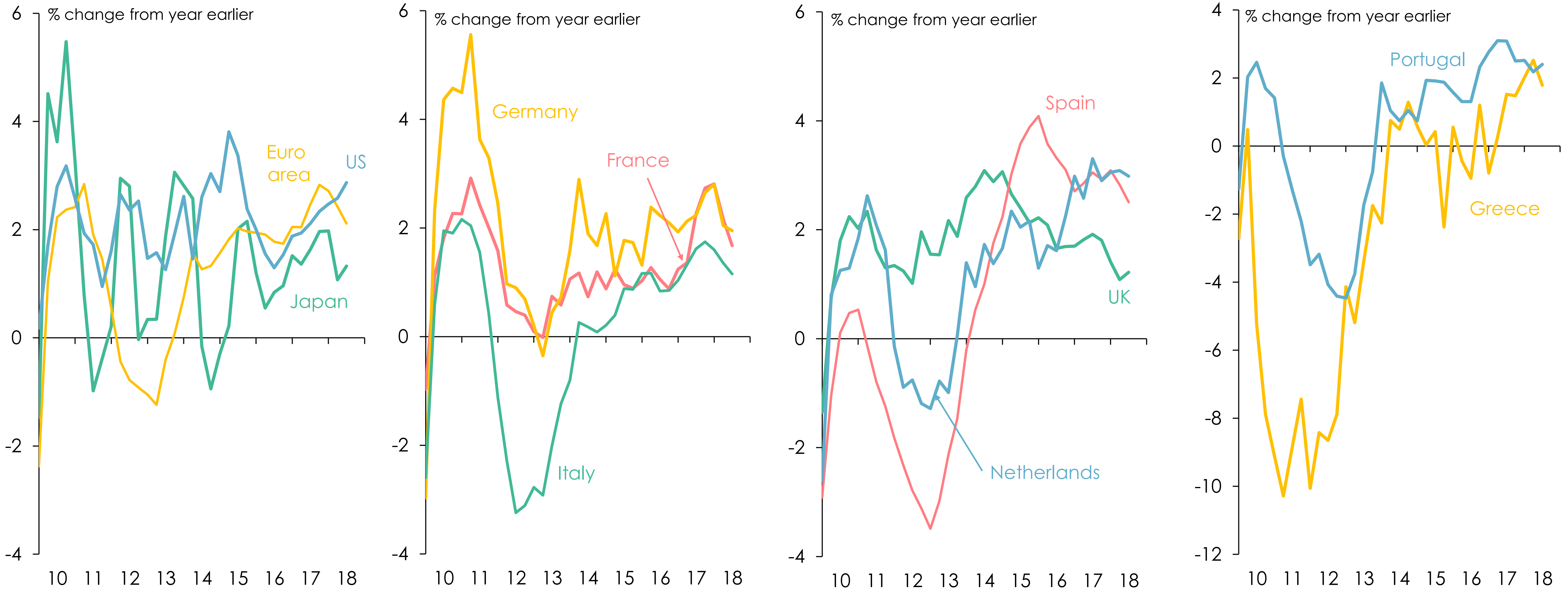
Last year's upswing was broadly based across 'advanced' economies (except the UK) – but only the US has grown faster this year

Real GDP growth in 'advanced' economies



Sources: National statistical agencies; Eurostat; Thomson Reuters Datastream.

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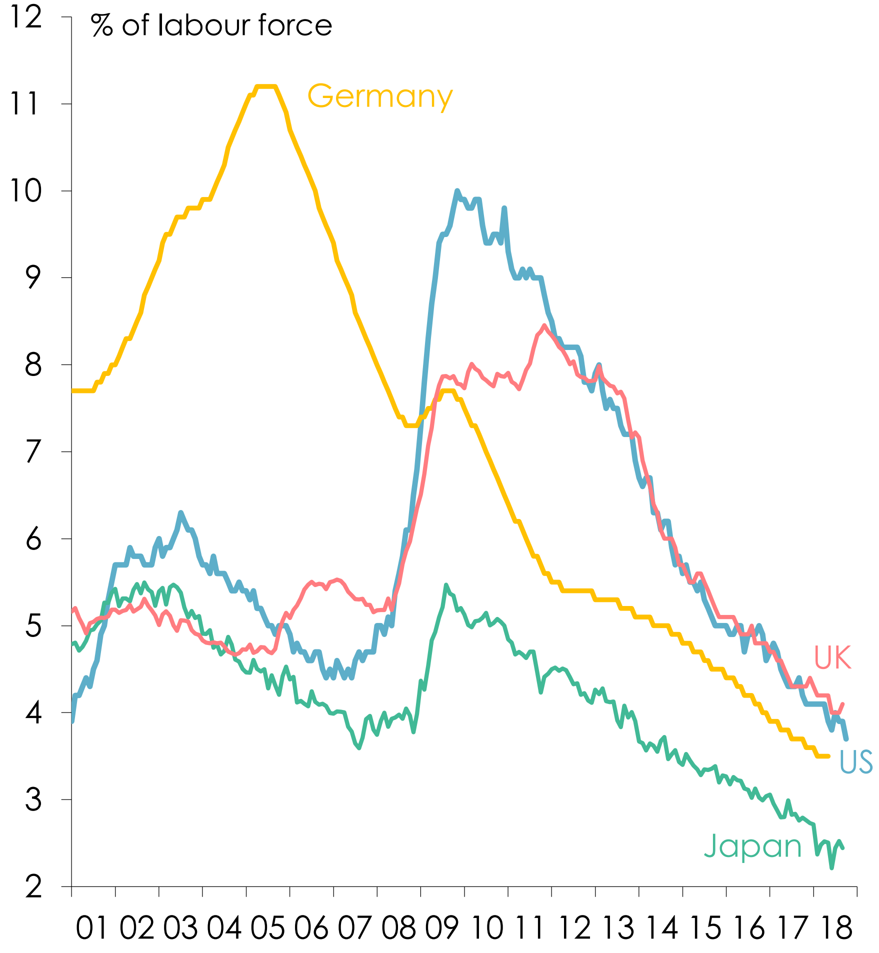
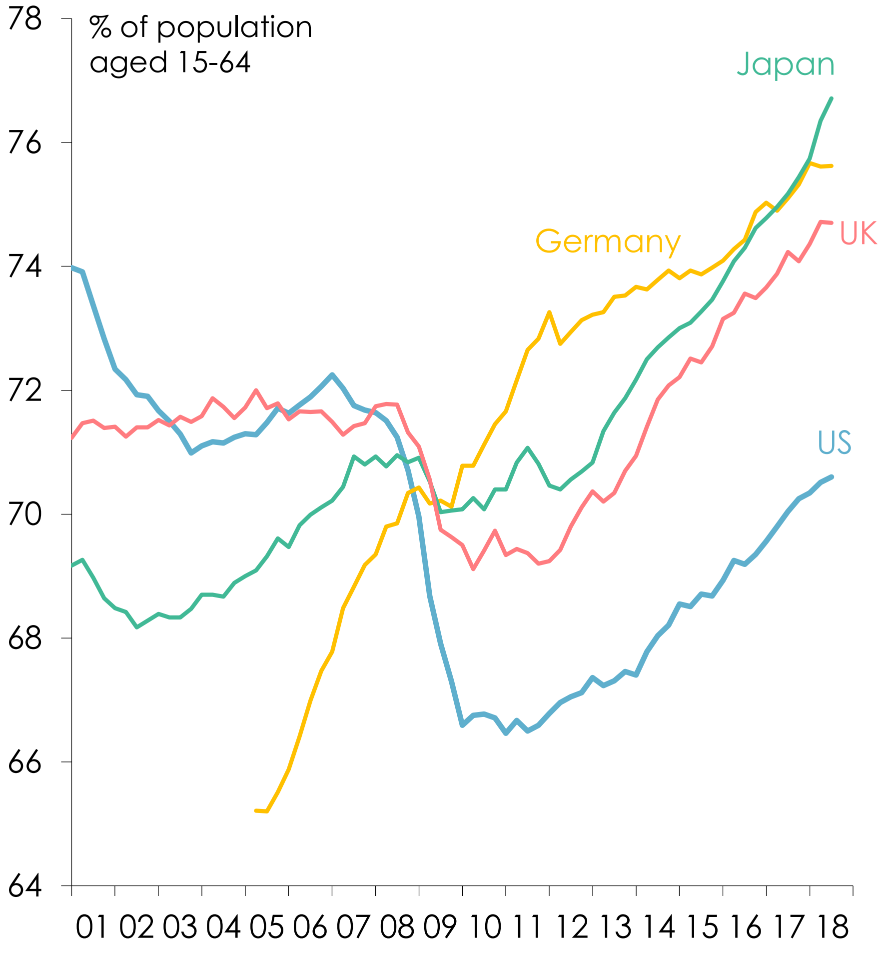
Labour markets are getting tighter – especially in the four largest 'advanced' economies

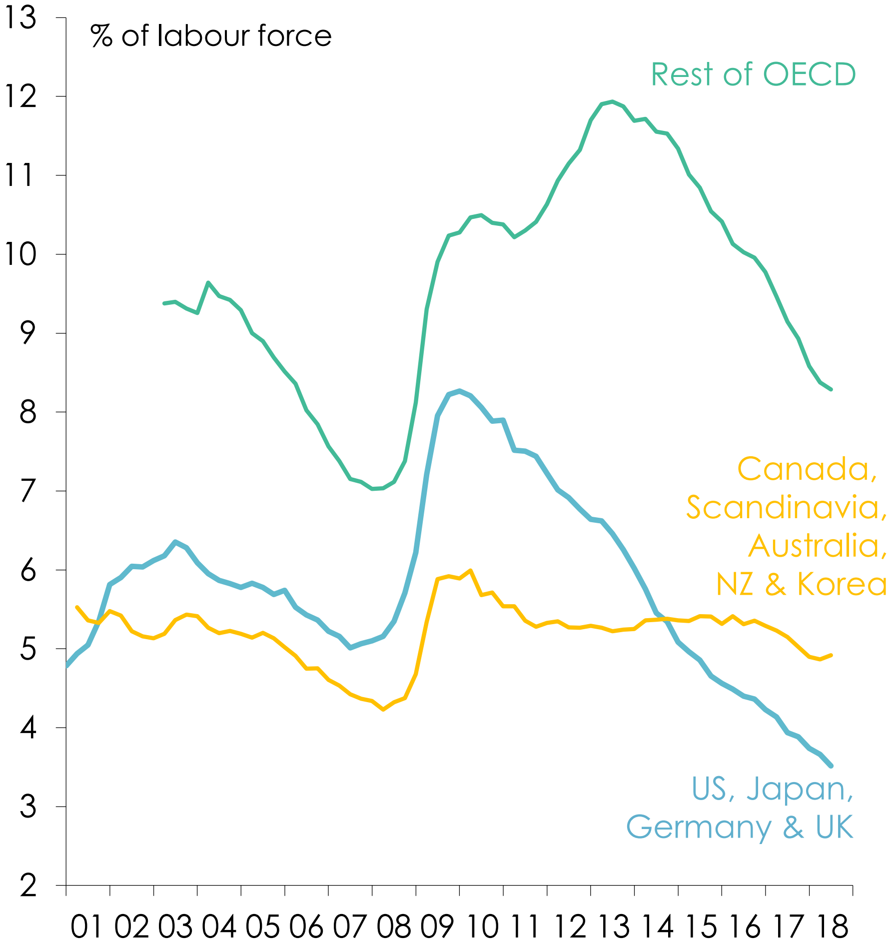
Unemployment – 4 largest 'advanced' economies



'Employment rates' – 4 largest 'advanced' economies



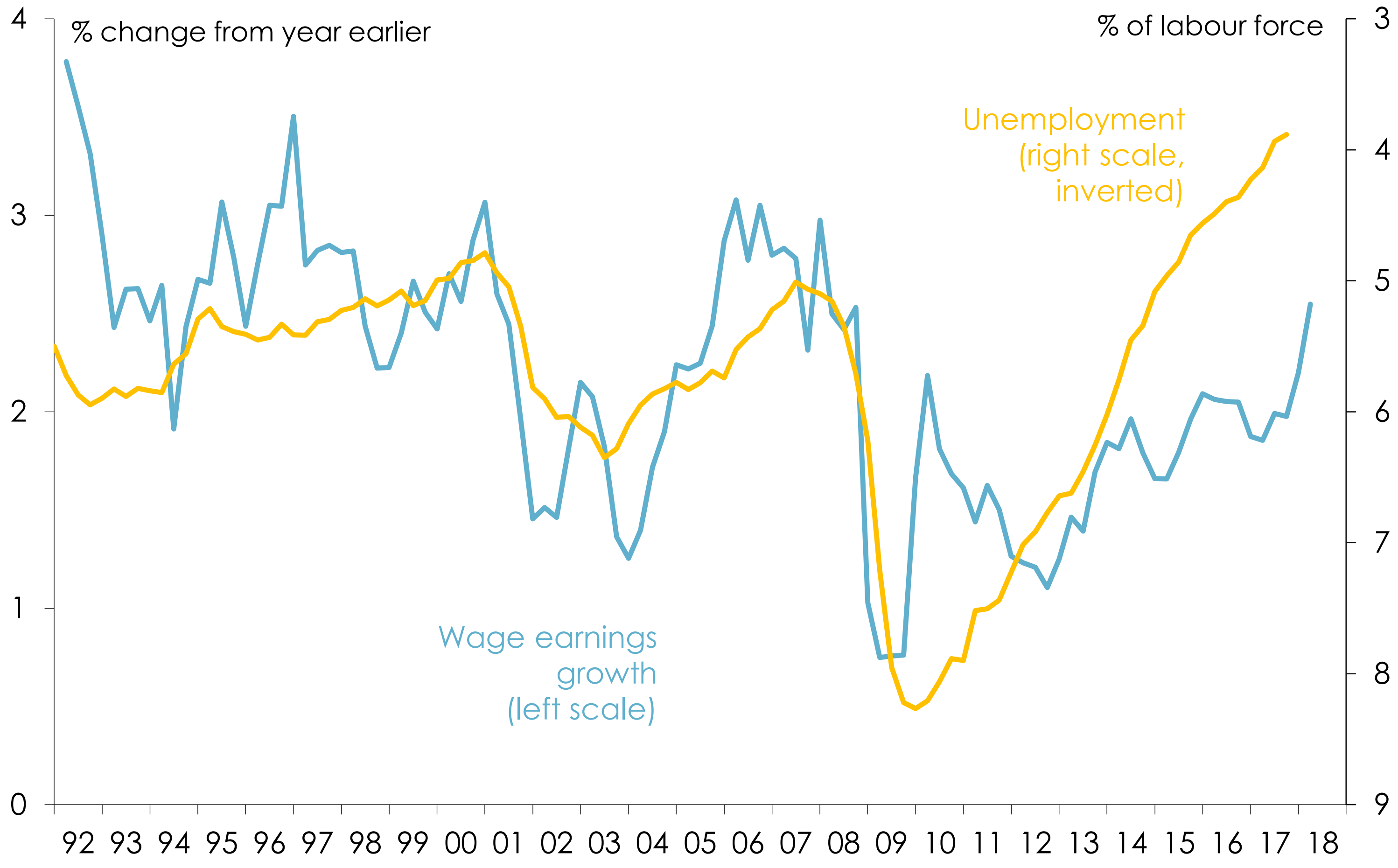
Unemployment rates – other OECD economies



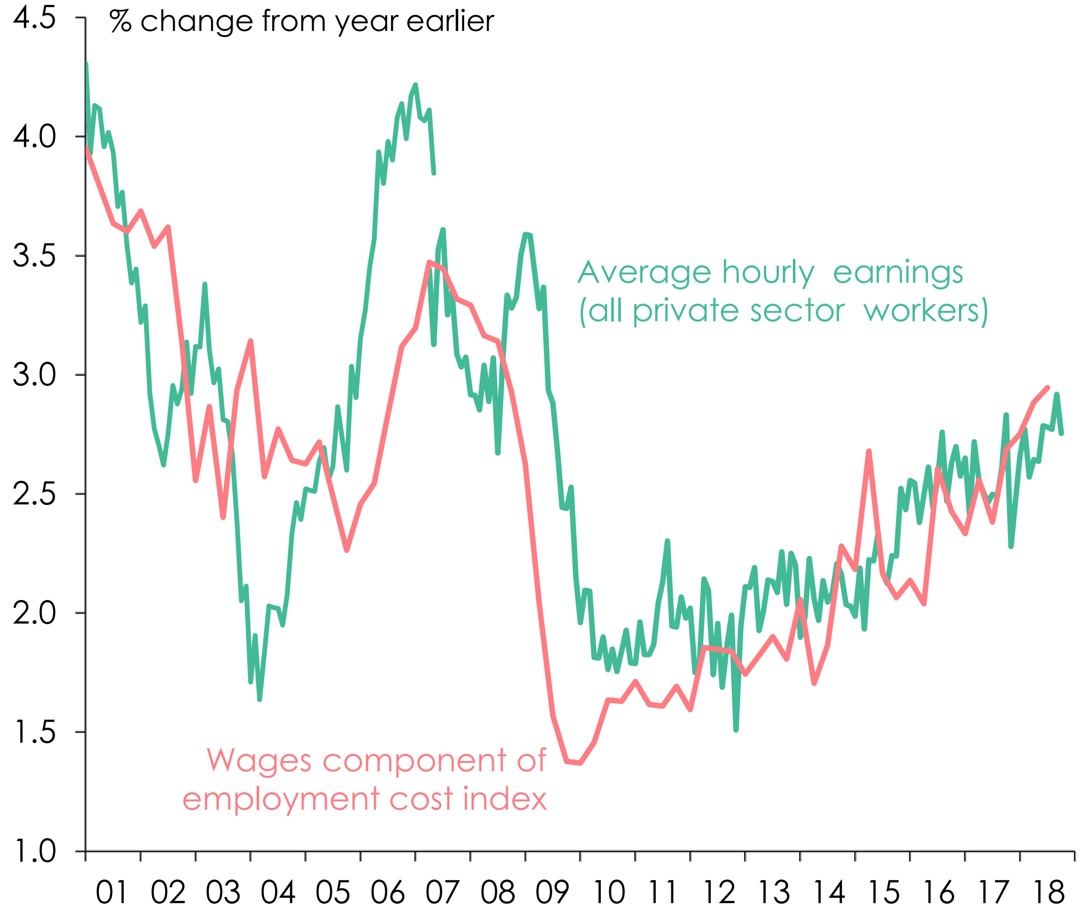
Sources: US Bureau of Labor Statistics; Eurostat; Japan Labour Ministry; Bundesagentur fur Arbeit; UK Office of National Statistics ; OECD *Main Economic Indicators*; Corinna Economic Advisory.

Wages are taking longer to respond to labour market tightening than they did pre-GFC – although wages growth seems to be creeping up in the US

Wages growth and unemployment in the four largest 'advanced' economies



US measures of wages growth



Note: Wages growth and unemployment are averages for the US, Japan, Germany and the UK, weighted by total employment.
Sources: US Bureau of Labor Statistics; Eurostat; Japan Labour Ministry; Bundesagentur fur Arbeit; UK Office of National Statistics; OED; Corinna Economic Advisory.

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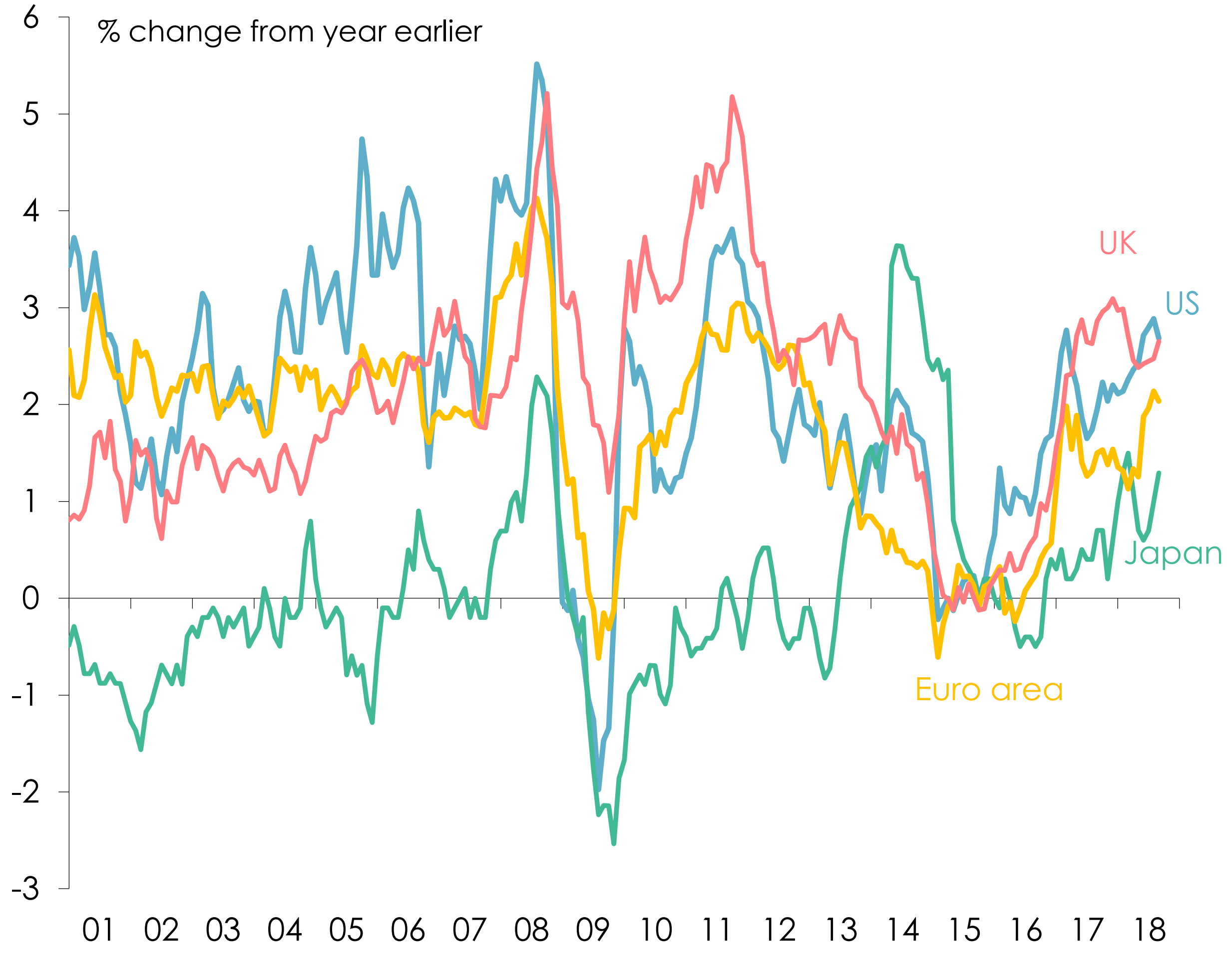
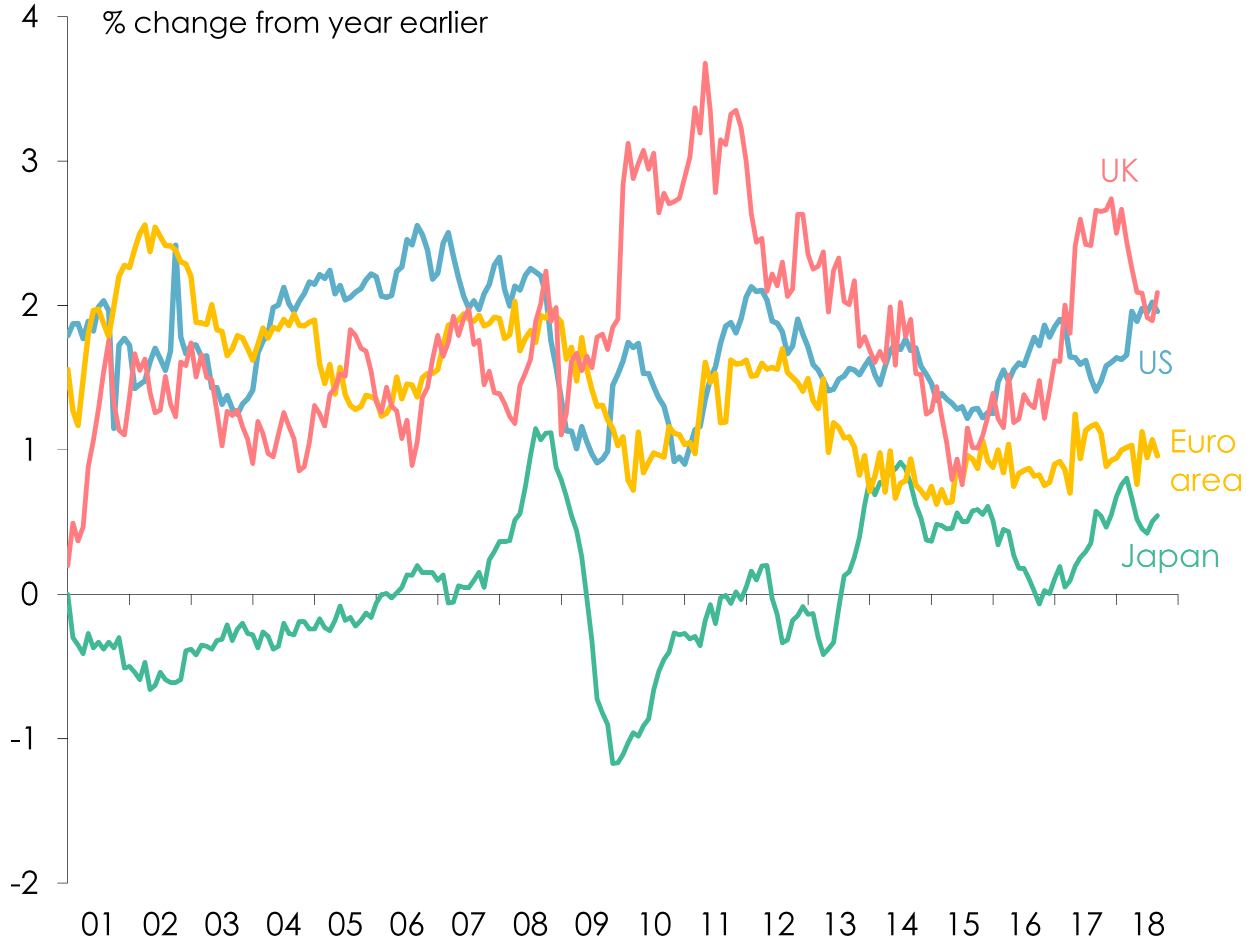
Inflation in the major 'advanced' economies is now more clearly heading to where central banks want it to be – although "we're not there yet"

'Headline' consumer price inflation



Central bank preferred measures of 'core inflation'



Sources: US Bureau of Labor Statistics and Bureau of Economic Analysis; Eurostat; Japan Statistics Bureau; Bank of Japan; UK Office of National Statistics.
Central bank preferred measure of 'core inflation' is private consumption expenditure deflator excluding food and energy in the US; CPI excluding food and energy in the euro area and UK; and 'trimmed mean' in Japan.

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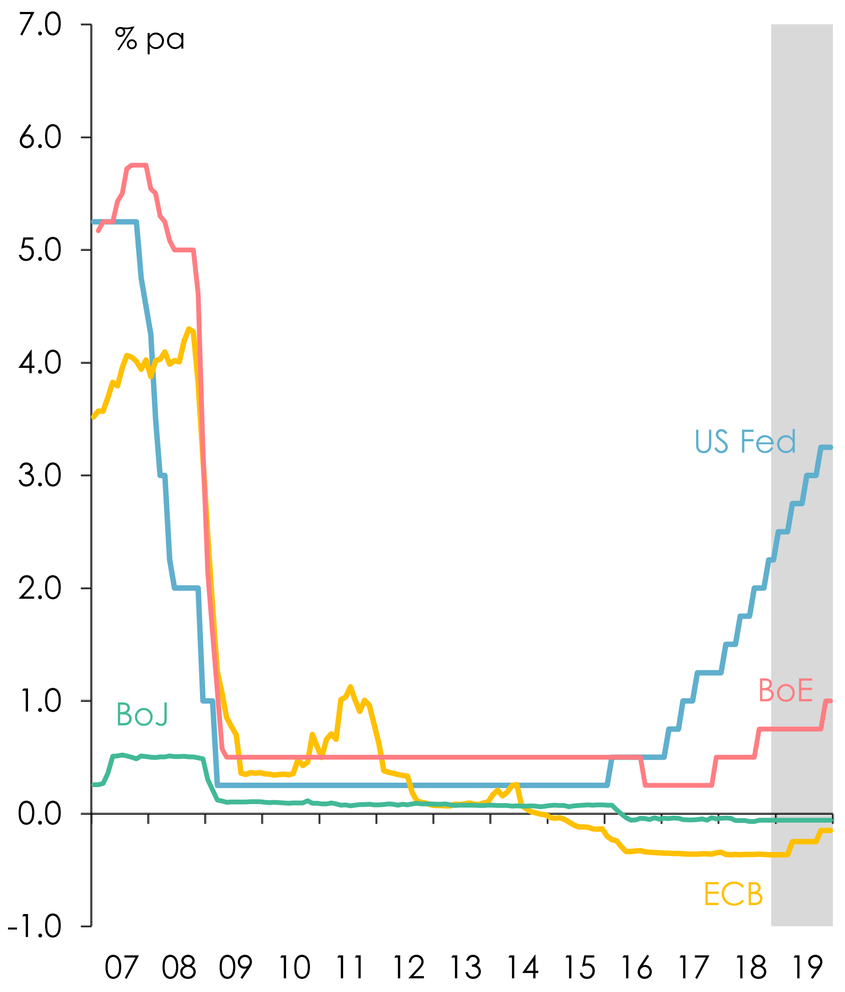
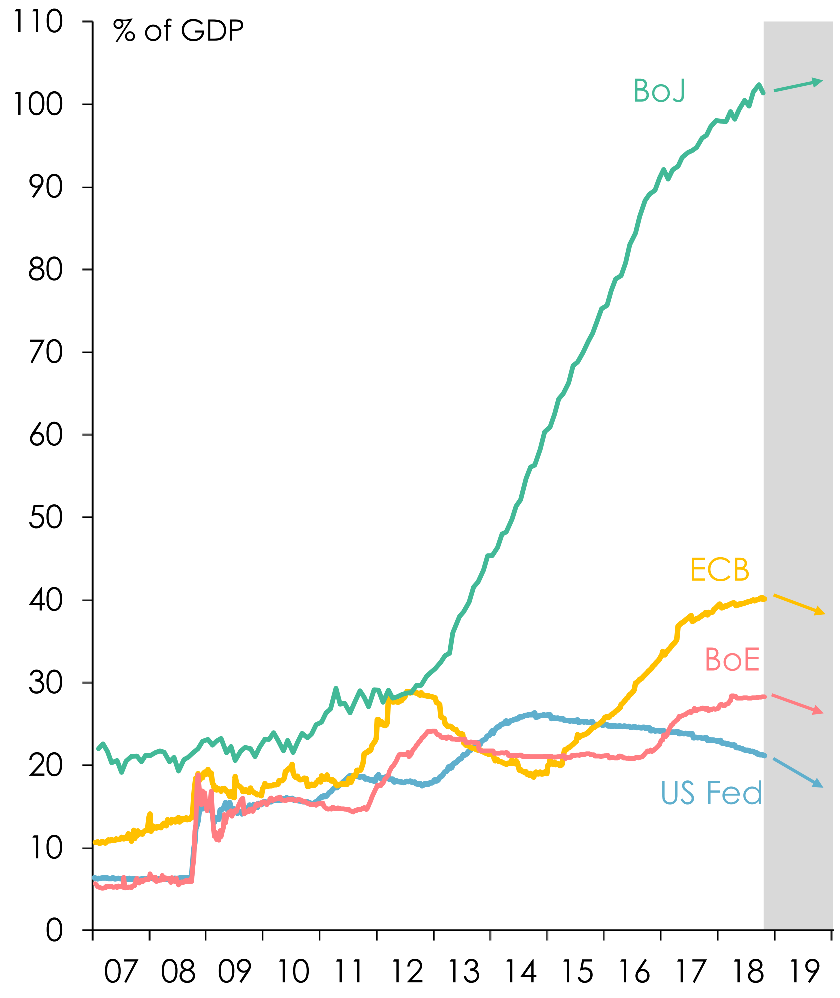
So the era of ultra-cheap money is coming to an end – as bond markets began to sense from the middle of last year

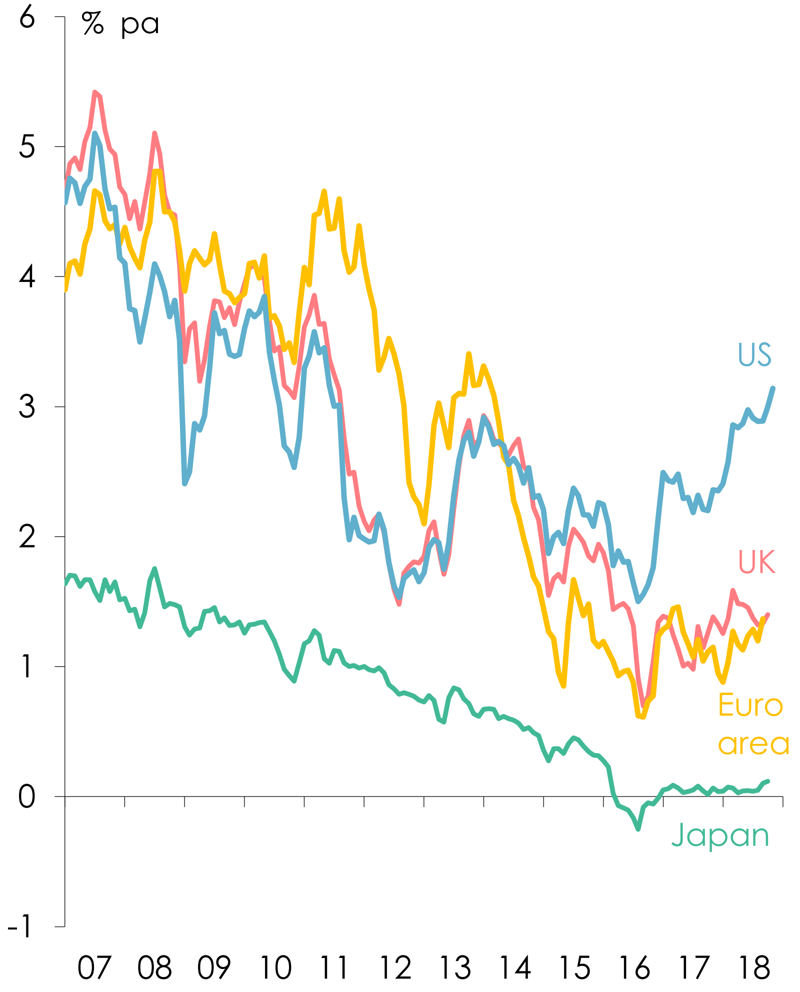
Major central bank policy interest rates



Major central bank balance sheets



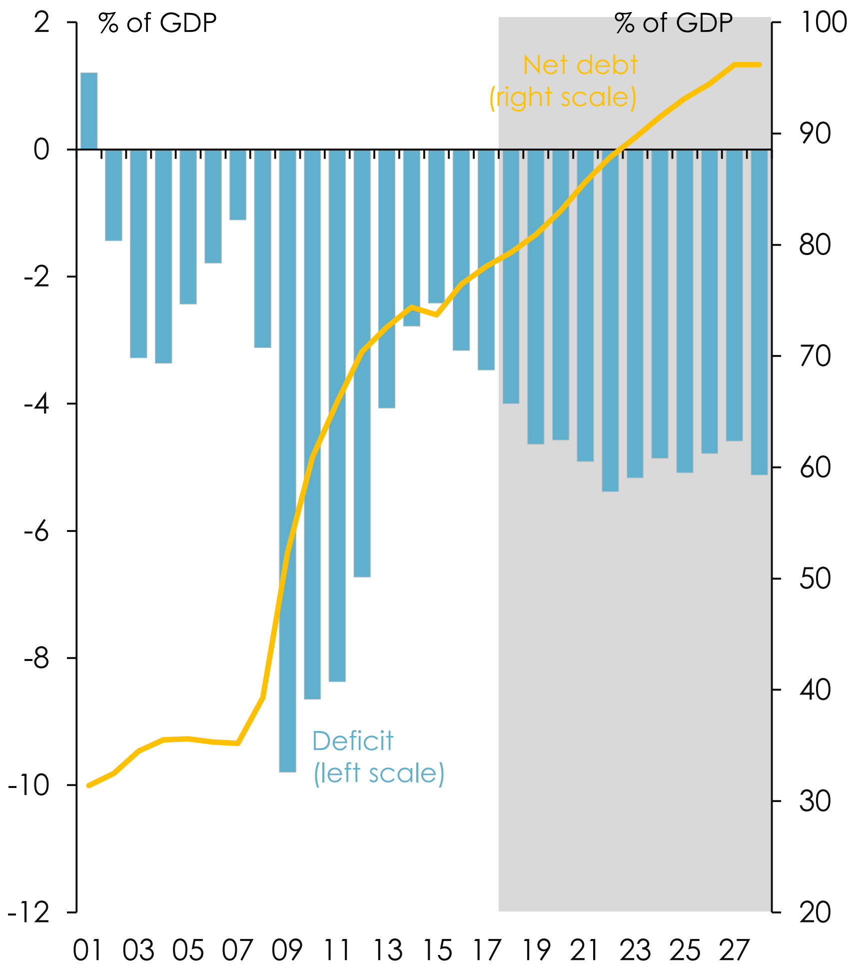
10-year bond yields



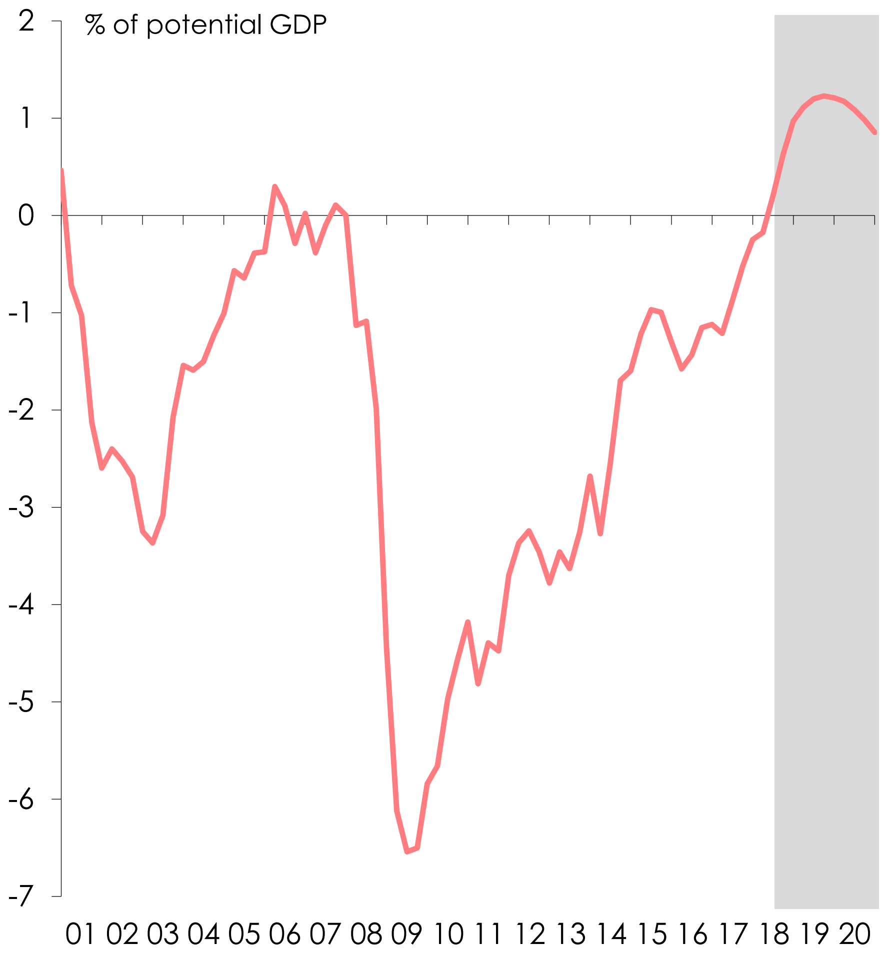
Source: Thomson Reuters Datastream; US Federal Reserve; European Central Bank; Bank of Japan.

US fiscal stimulus is spectacularly ill-timed from an economic management standpoint and will add to upward pressure on interest rates

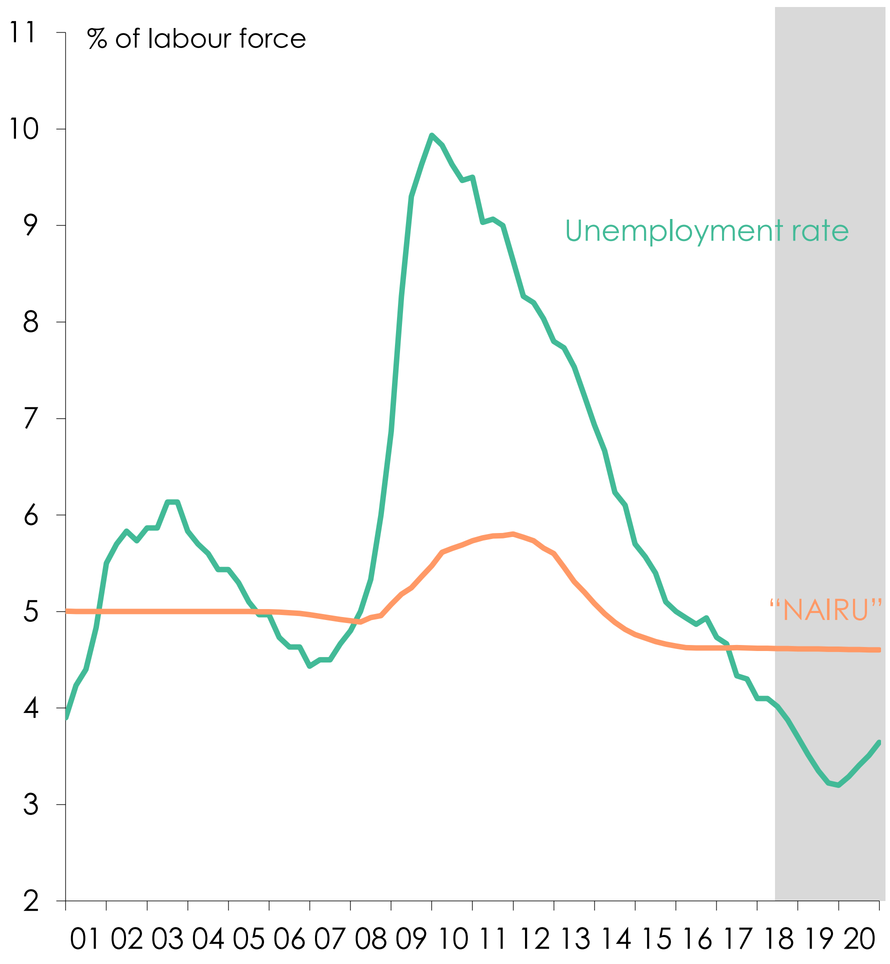
US Federal Government budget deficit and debt



US 'output gap'



US unemployment rate and 'NAIRU'



Note: 'Net debt' excludes debt held by the US Federal Reserve. The 'output gap' is the difference between actual and 'potential' GDP. The 'NAIRU' or non-accelerating inflation rate of unemployment' is the lowest level of unemployment consistent with stable inflation.
Source: US Congressional Budget Office, *The Budget and Economic Outlook: 2018 to 2028.*

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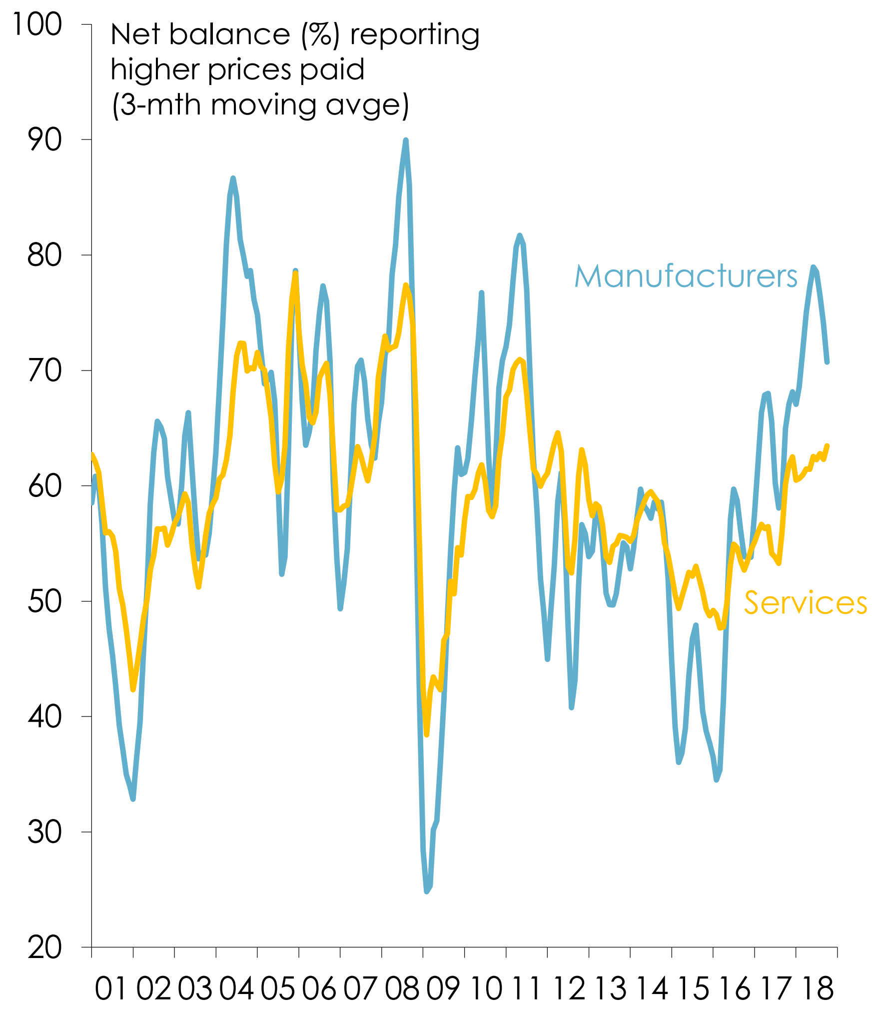
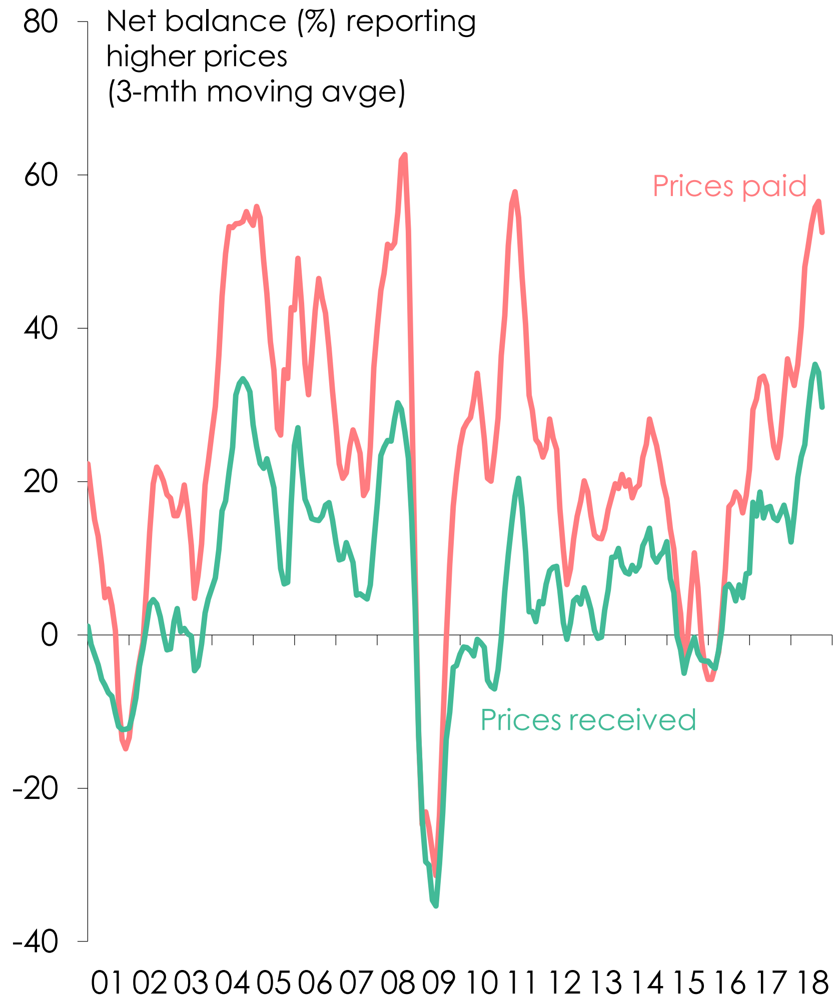
US 'upstream' price pressures have increased noticeably – partly as a result of the Trump Administration's tariff measures

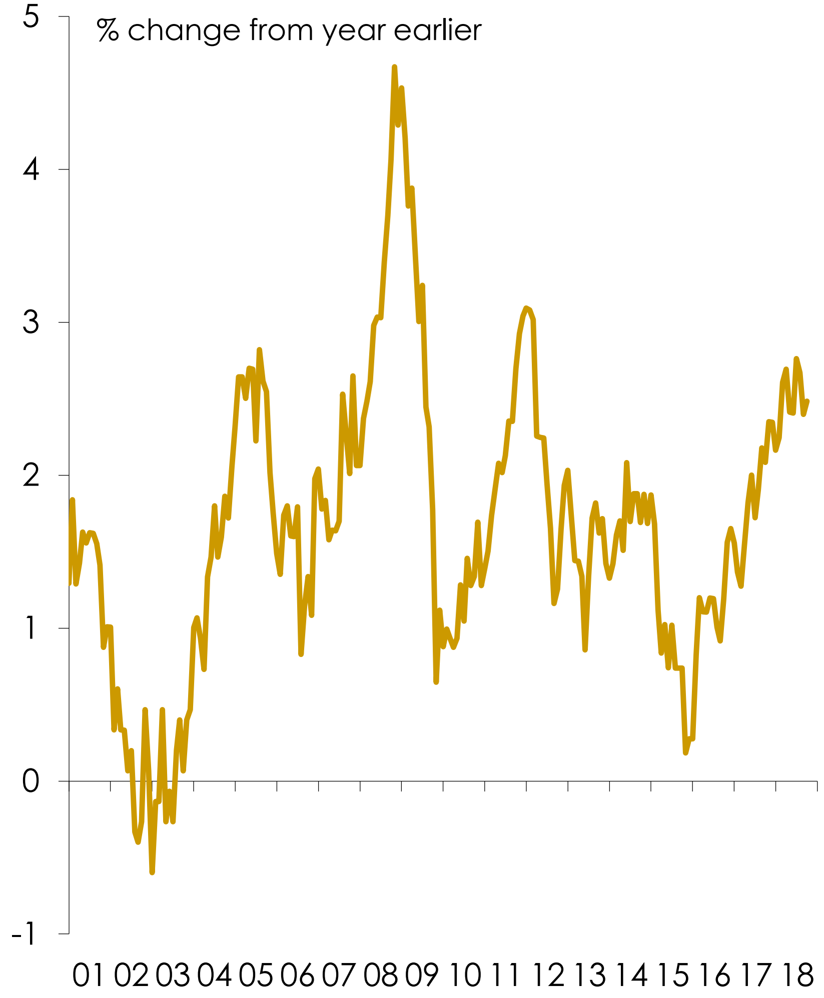
'Prices paid' – purchasing managers (ISM) surveys



'Prices paid and received' – Philadelphia Fed survey



Producer price index – goods excluding food & energy



Sources: Institute of Supply Management (ISM) ; Federal Reserve Bank of Philadelphia; US Bureau of Labor Statistics.

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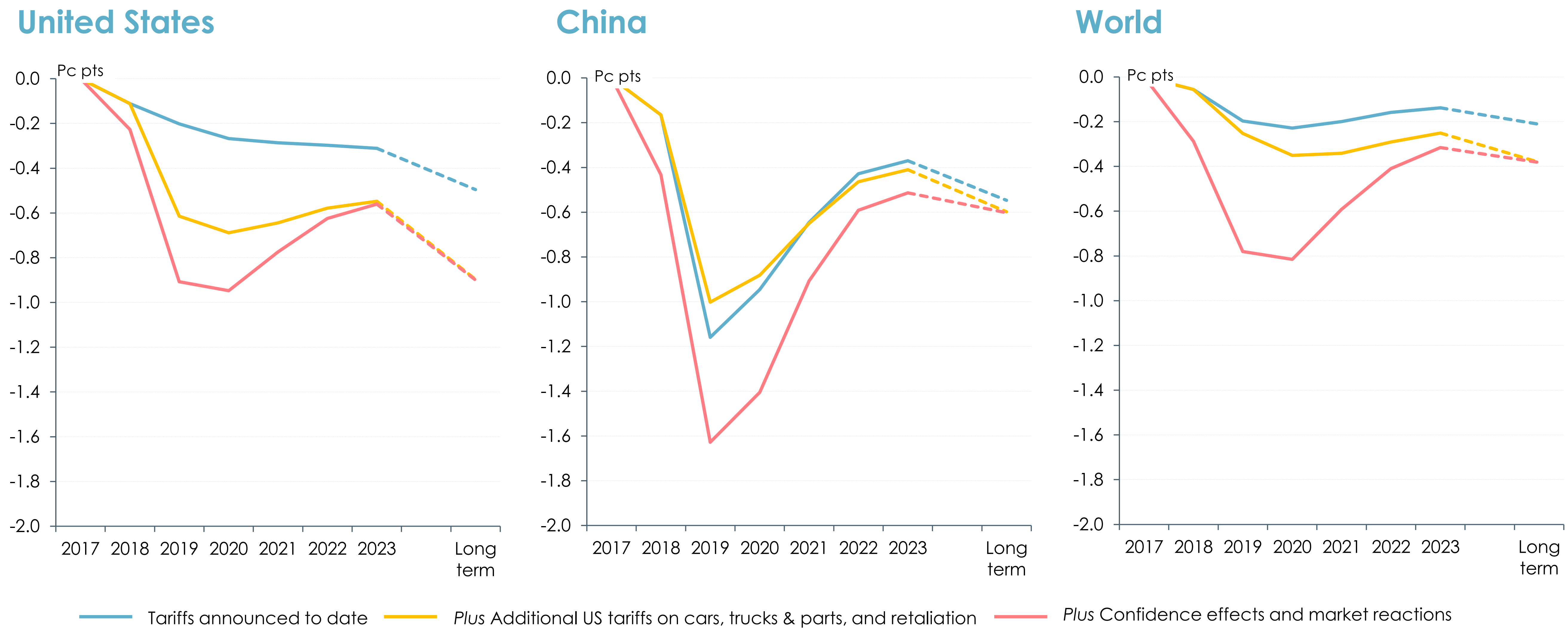
Markets are right to be worried about the possible consequences of a 'trade war' – but could be under-estimating them

Possible impact of trade tensions between the US and its trading partners on GDP growth



Note: Charts show the percentage deviation of real GDP from a baseline with no tariffs, simulated using the IMF's Global Integrated Monetary and Fiscal Model.
Source: IMF, *World Economic Outlook*, October 2018.

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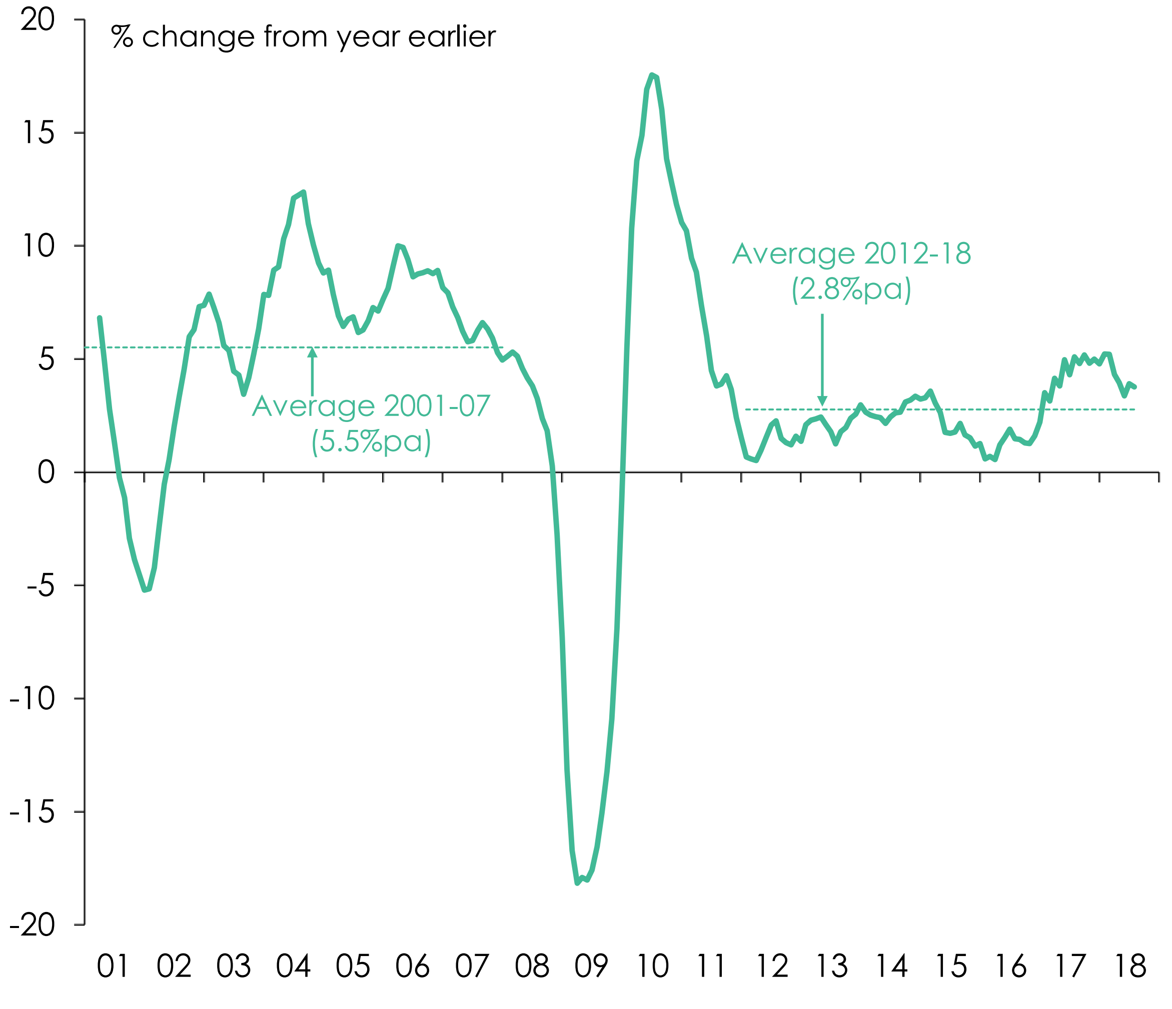
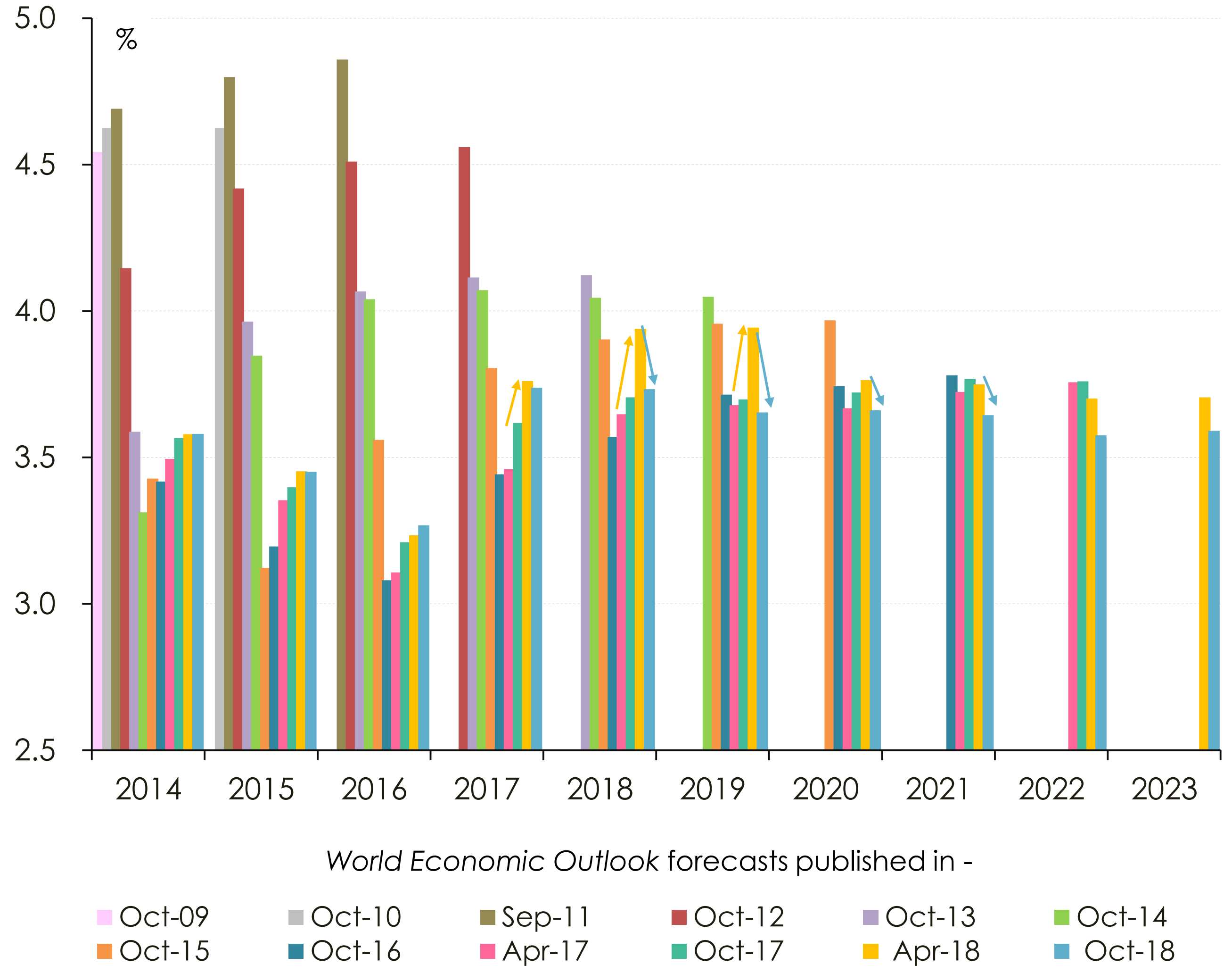
World trade growth has begun to slow again this year — and forecasts for world economic growth are being revised down again

Volume of world trade



IMF forecasts of world economic growth



Sources: Netherlands Economic Planning Bureau (CPB); IMF, *World Economic Outlook*.

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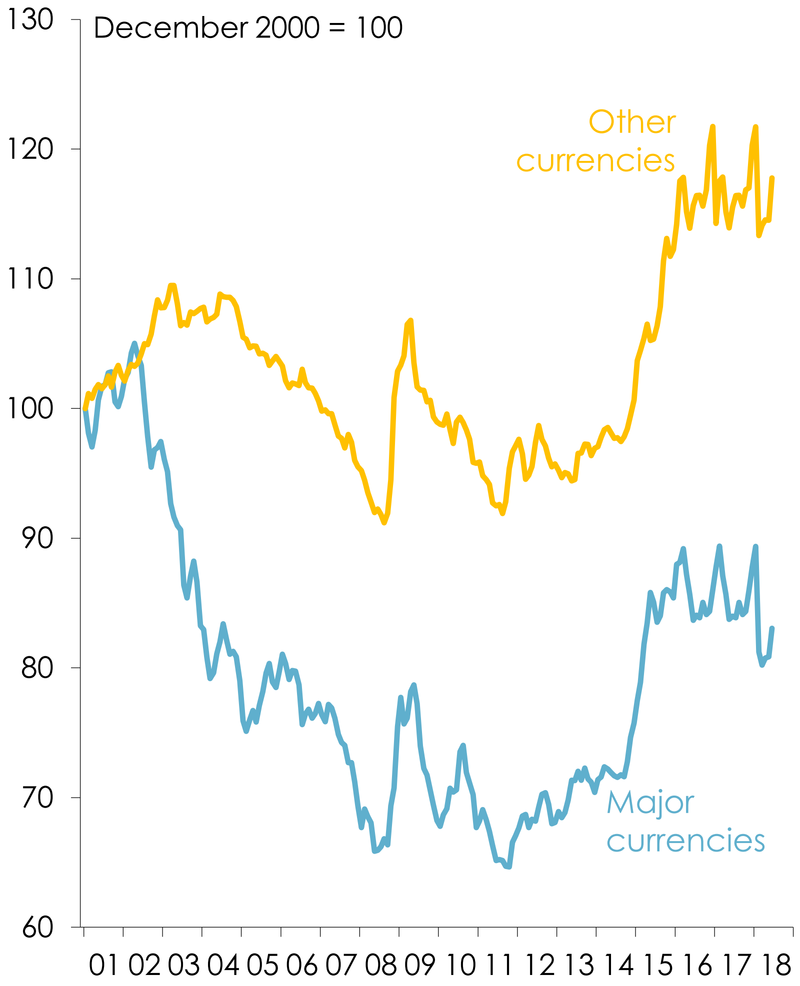
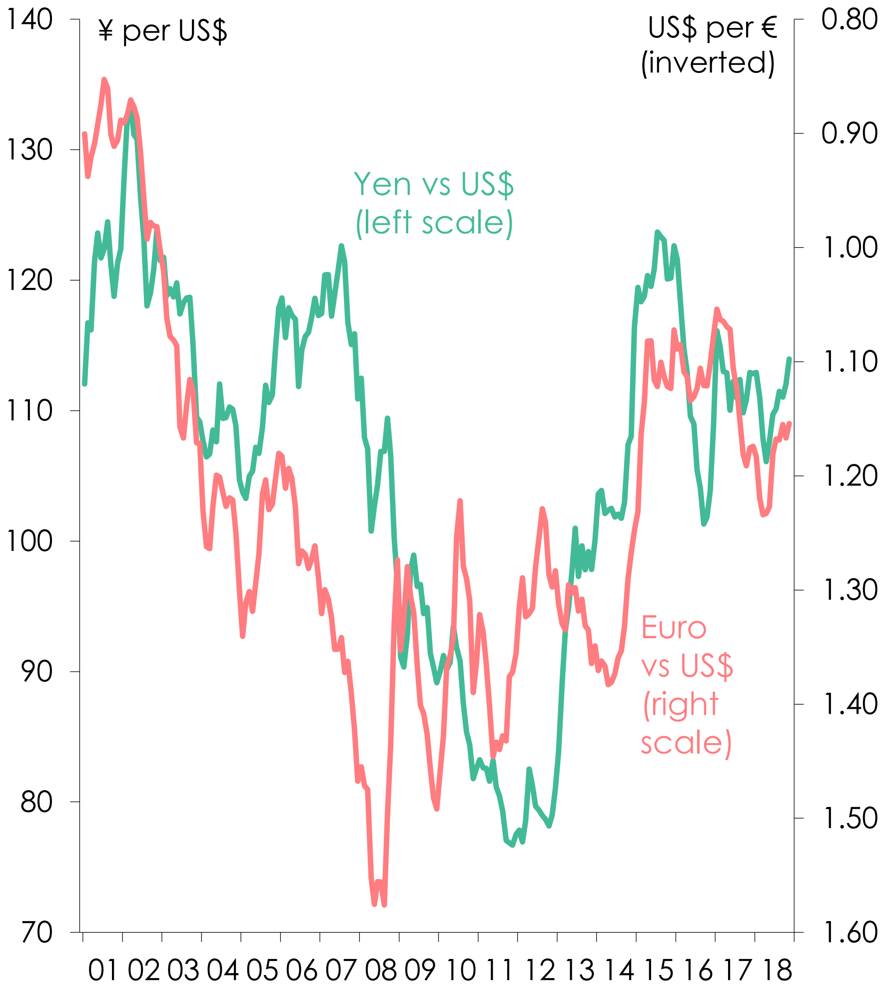
Widening interest rate spreads between the US and other major economies should see the US$ strengthen – which could mean trouble for some others

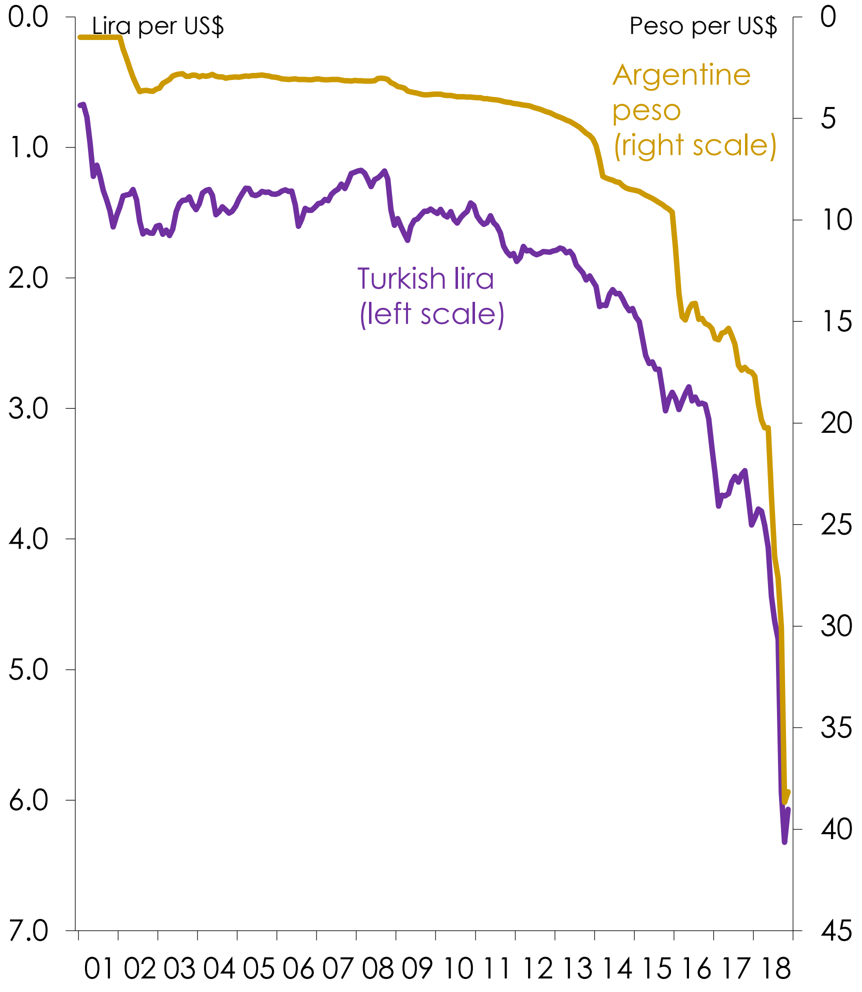
US dollar index vs major and other currencies



US dollar vs Japanese yen and euro



Turkish lira and Argentine peso vs US dollar



Source: Thomson Reuters Datastream.

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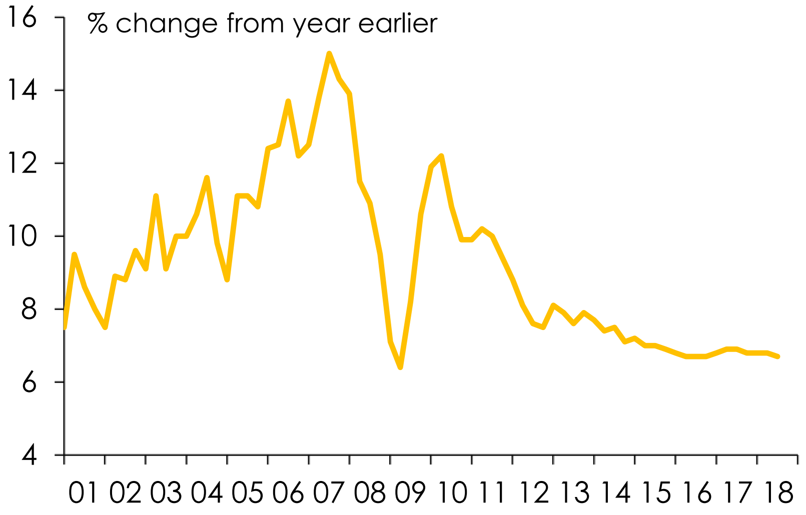
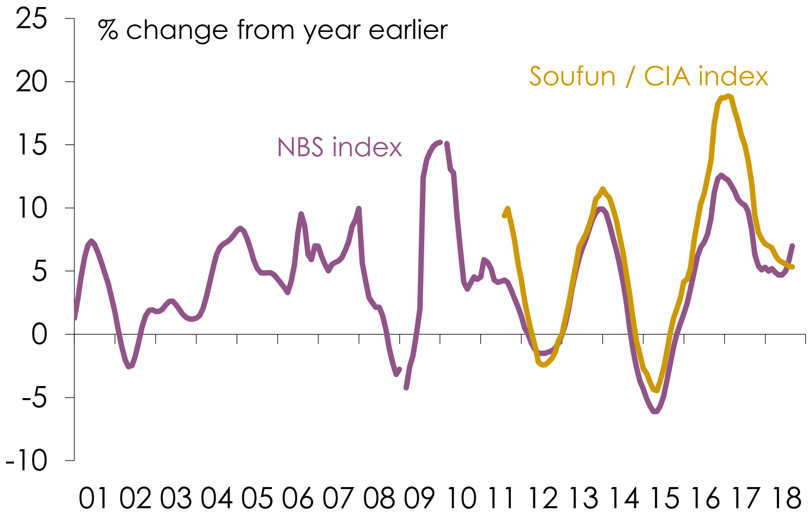
Amazingly steady Chinese GDP figures masking a slow-down in some of the more commodity-intensive sectors of the economy

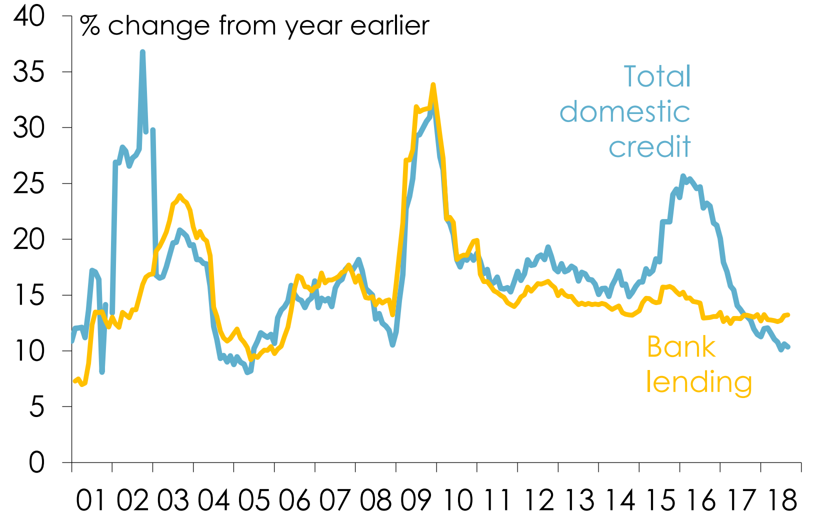
Real GDP growth



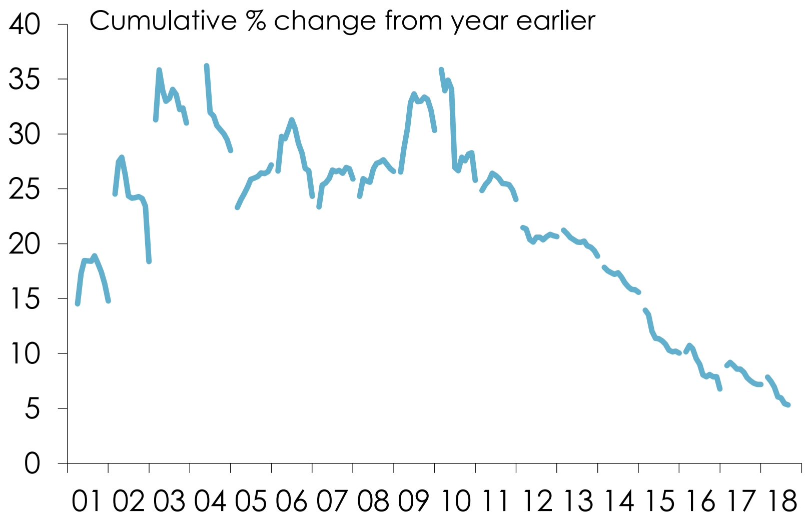
Residential property prices



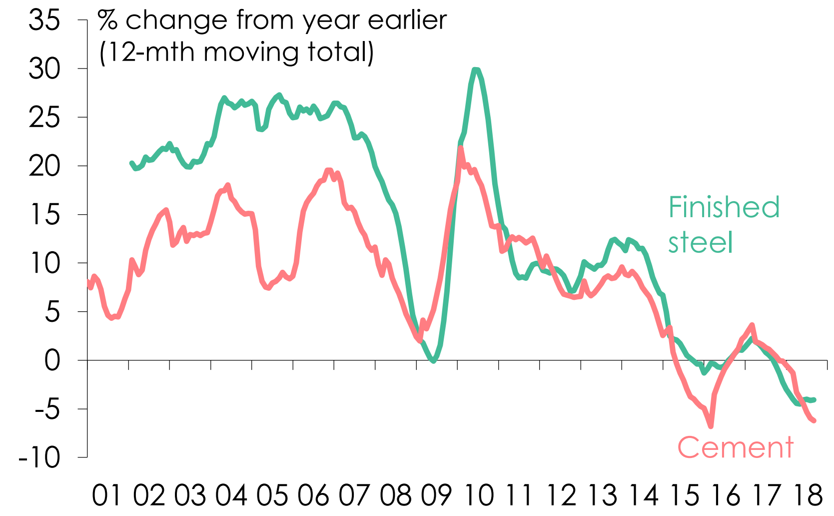
Credit growth



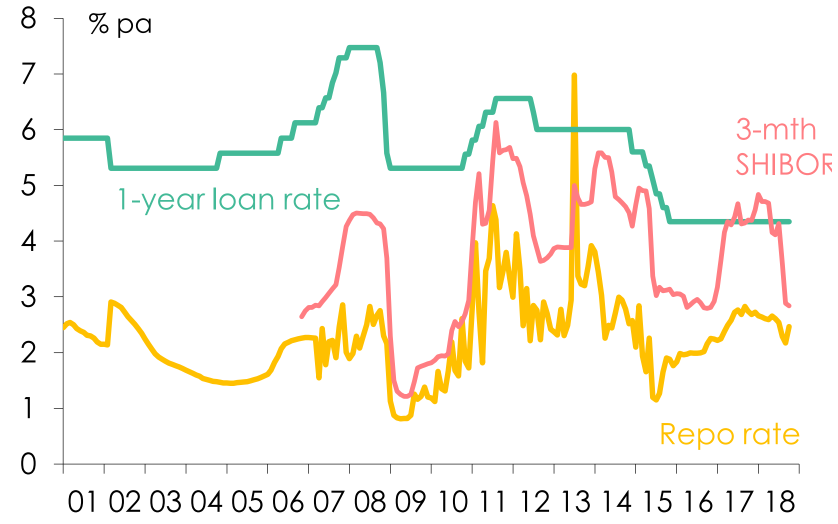
Fixed asset investment



Steel and cement production



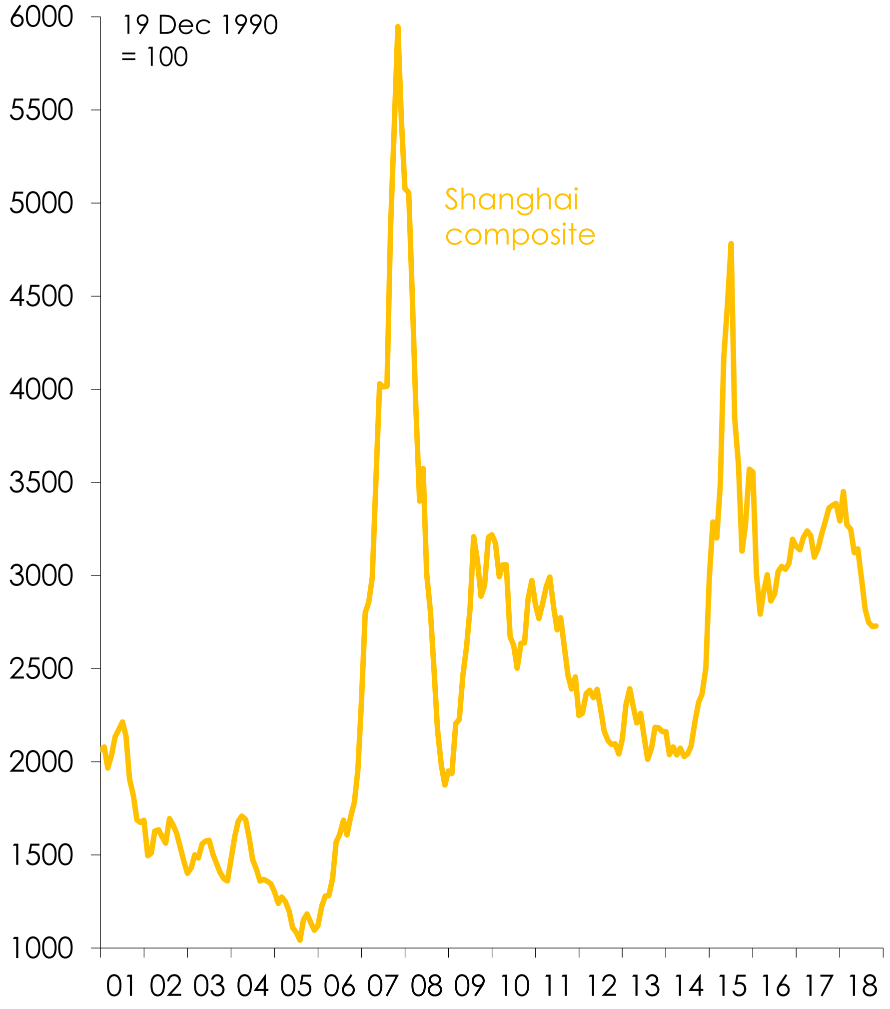
Interest rates



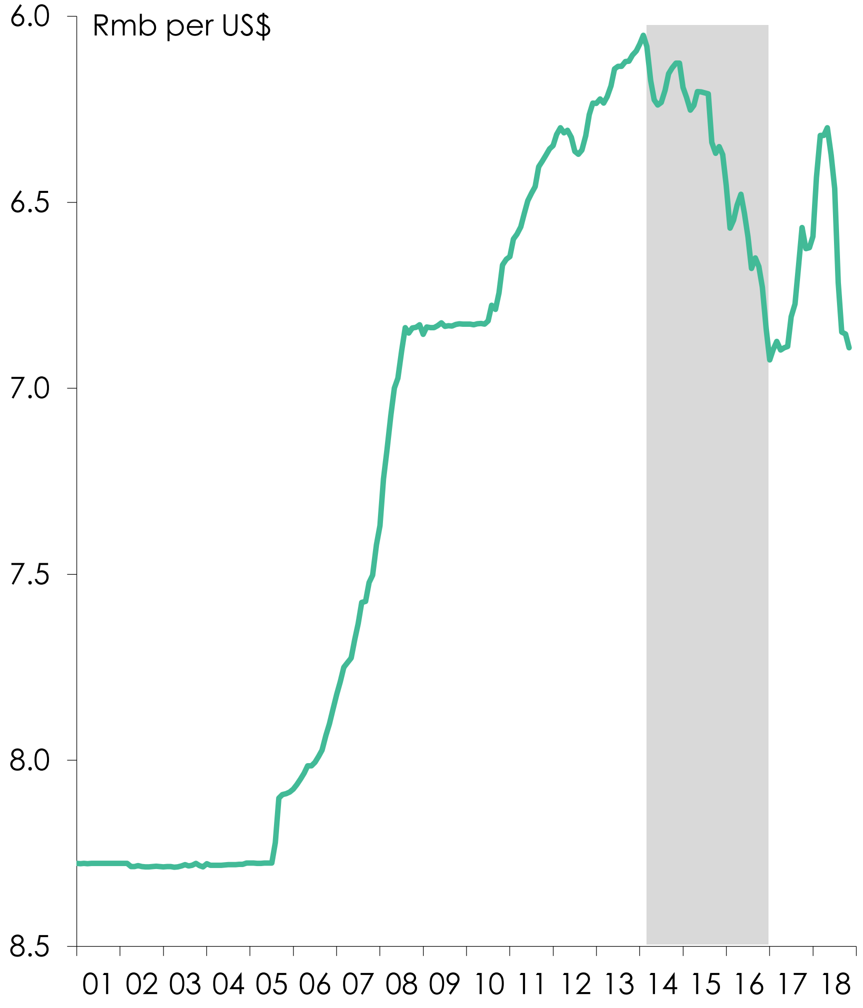
Source: China National Bureau of Statistics; People's Bank of China.

China's markets may be vulnerable to economic pressure – despite its seemingly ample FX reserves

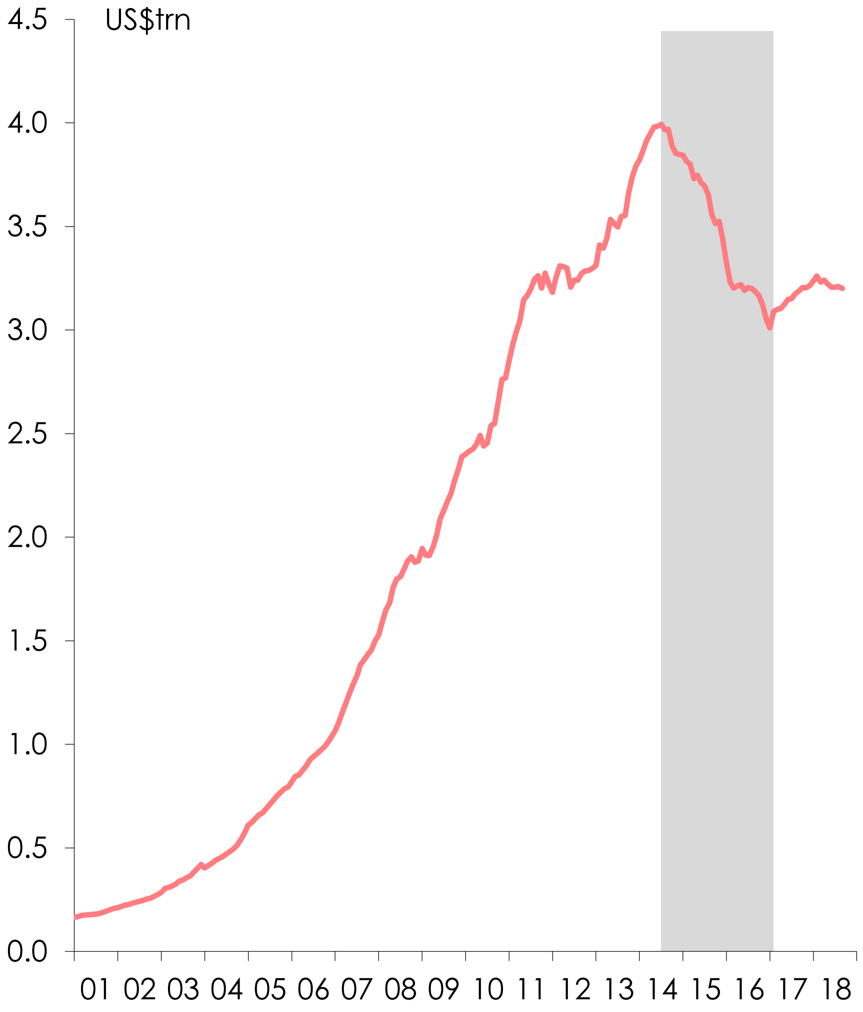
China's stock market



Chinese yuan vs US dollar



China's FX reserves



Source: Thomson Reuters Datastream ; People's Bank of China.

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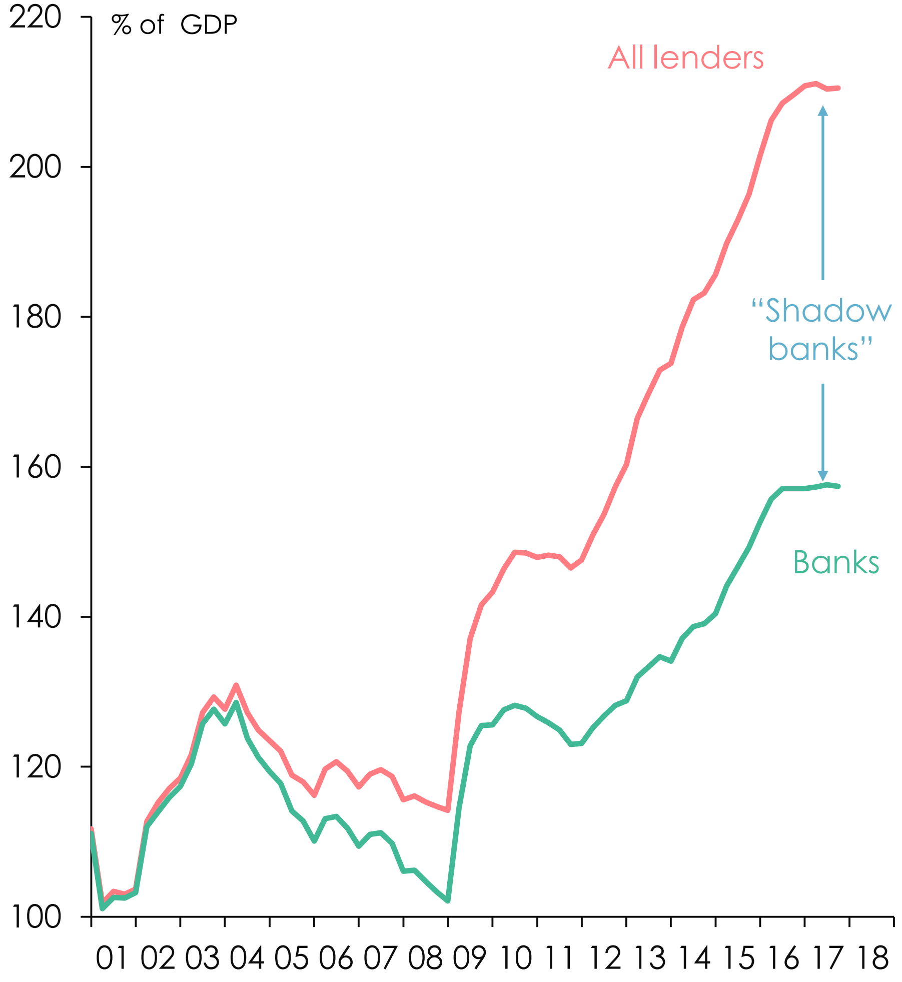
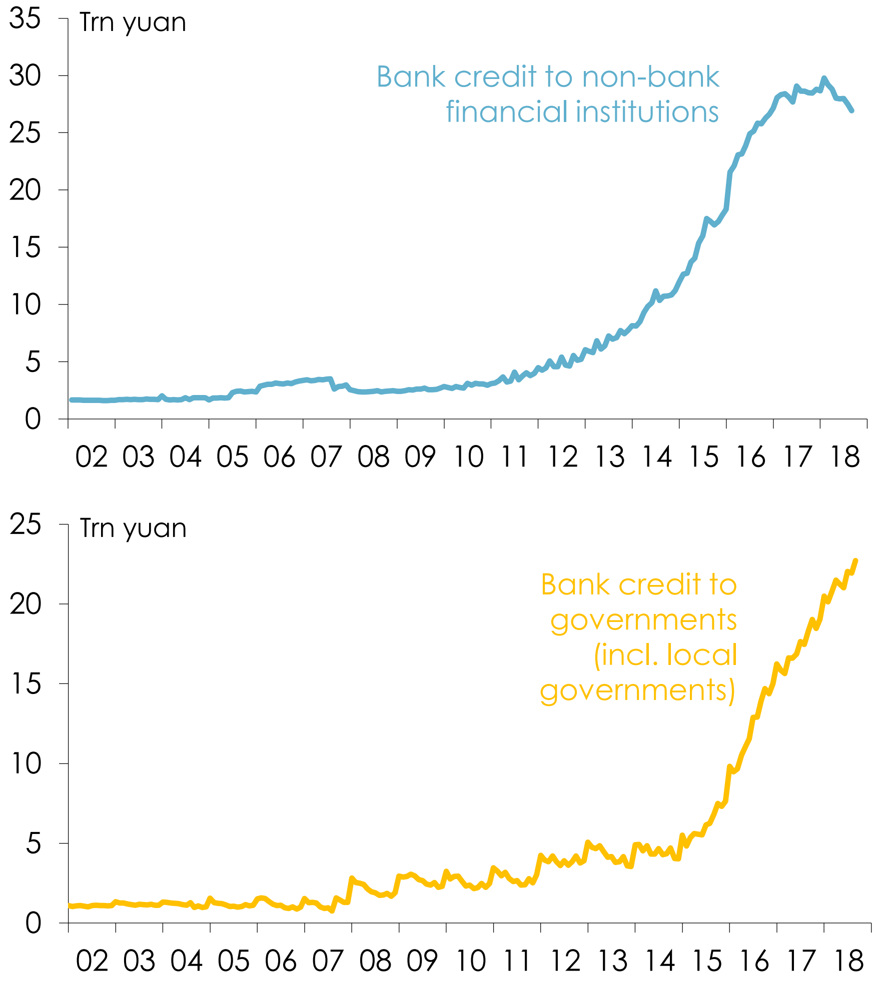
A particular area of concern is the rapid growth in 'shadow bank' lending – and shadow banks' connections with the banking system

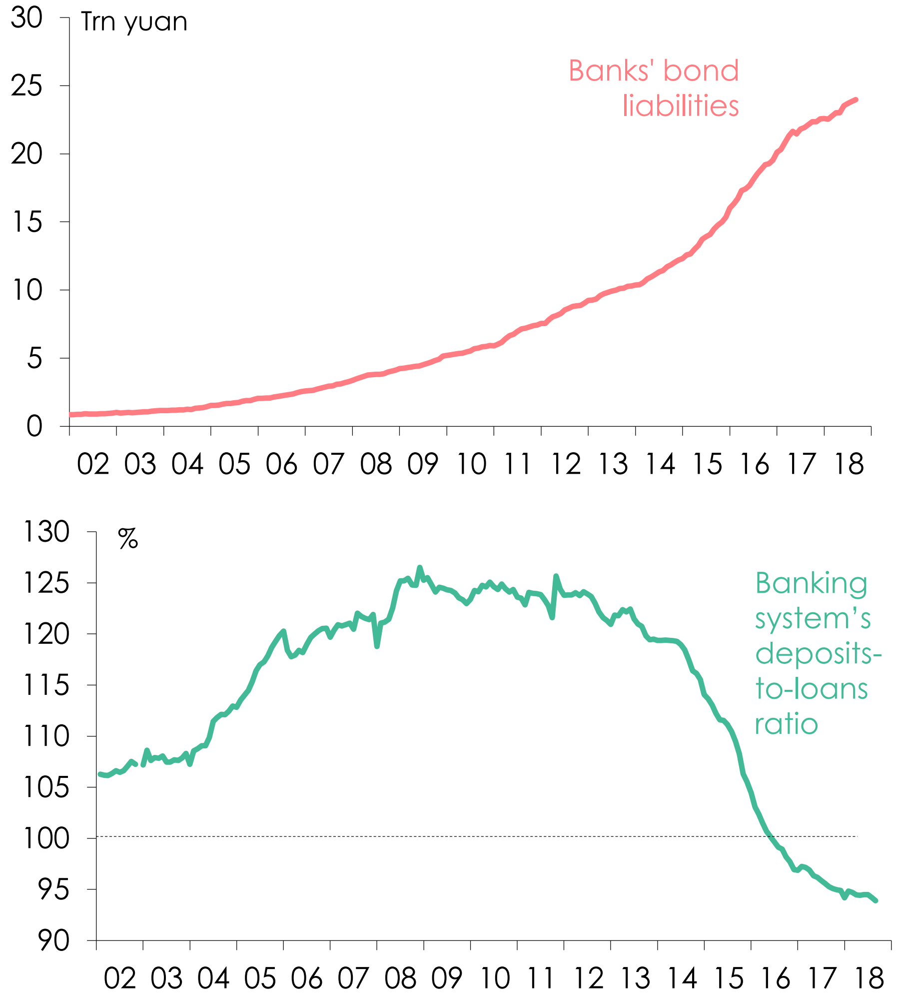
Credit to the private non-financial sector, by source



Bank lending to 'shadow banks' and governments



Bank liabilities



Sources: Bank for International Settlements; People's Bank of China.

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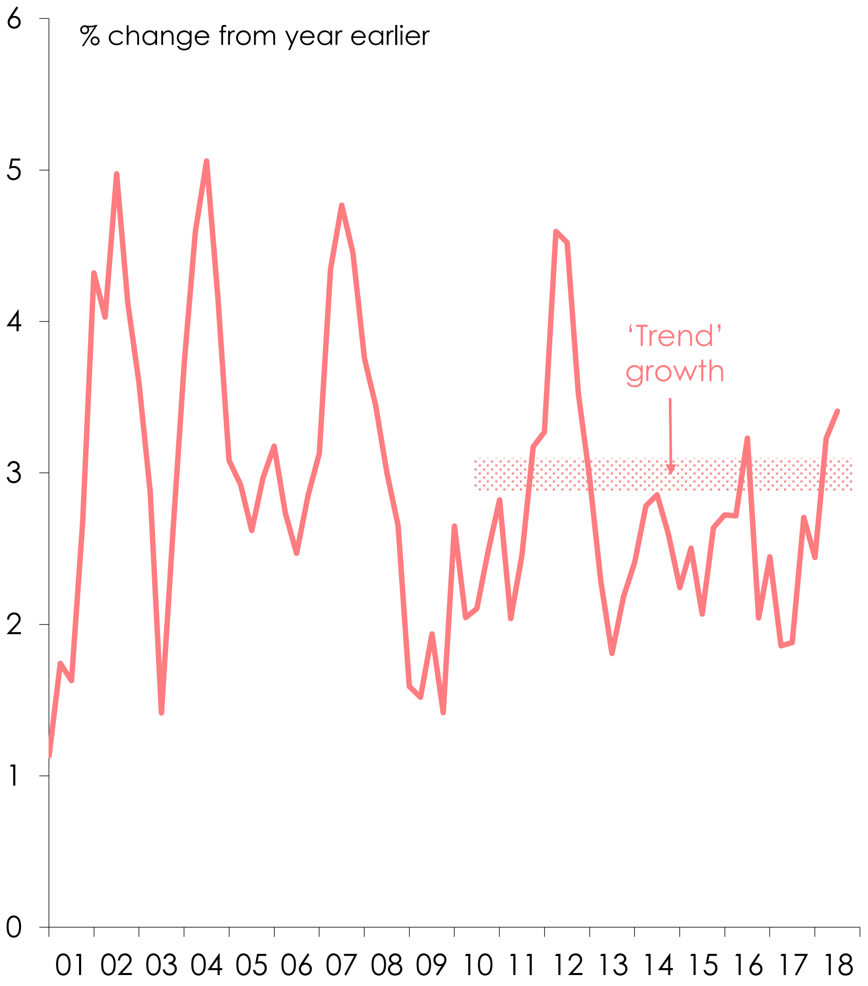
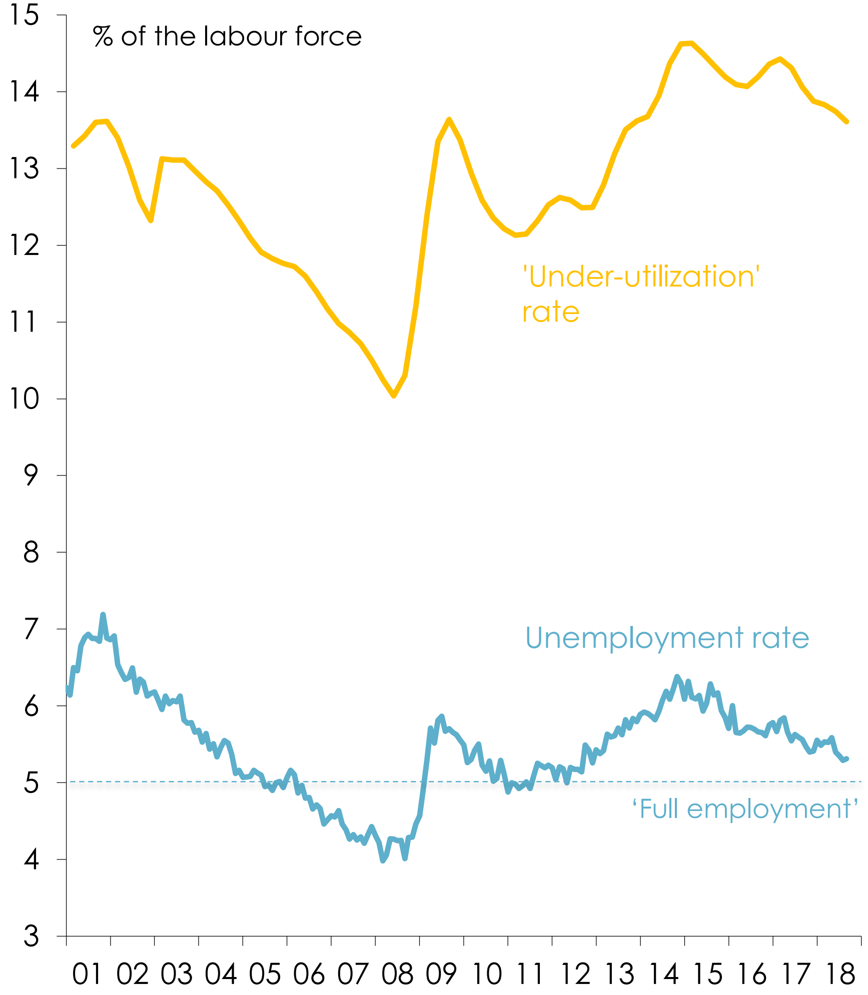
The Australian economy

Australian economic growth is now above 'trend', but unemployment and 'under-employment' are still 'too high', and inflation is still below target

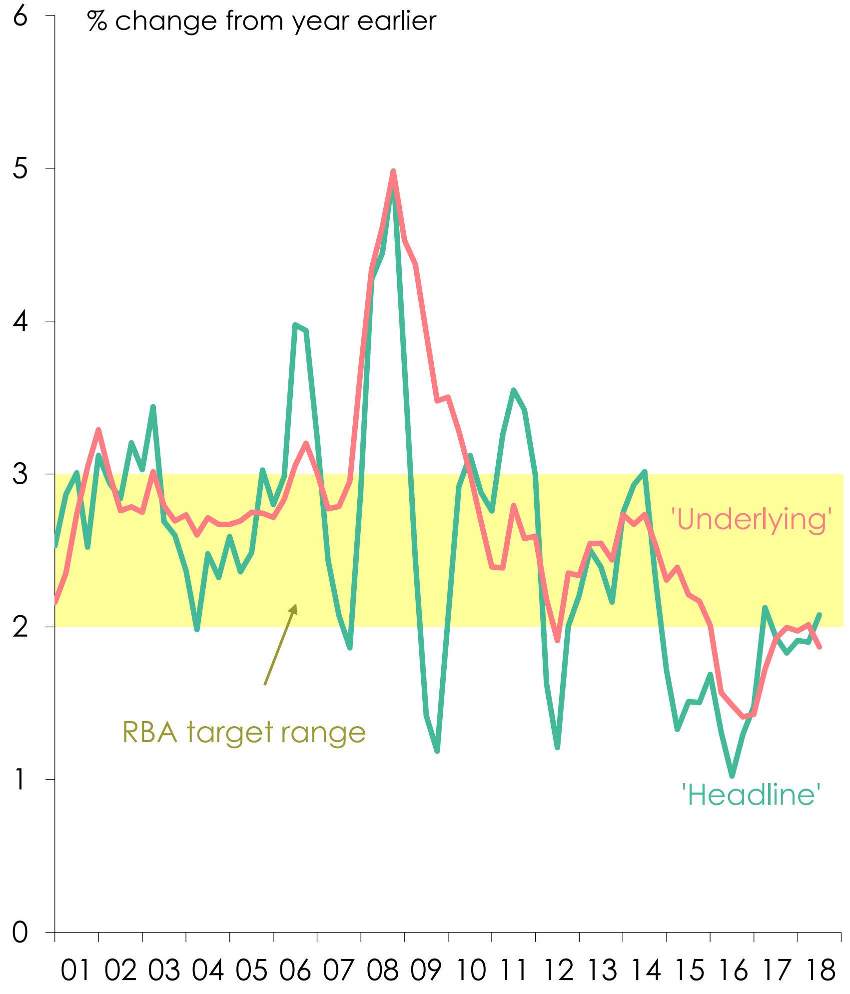
Real GDP growth



Unemployment and under-employment



Consumer prices



Note: The labour force 'under-utilization' rate includes people employed part-time who are willing and able to work longer hours (and weights them equally with people who are 'unemployed' in the conventional sense). 'Underlying' inflation abstracts from the impact of volatile items (typically items such as petrol, or fruit and vegetables) on the CPI. *Source:* ABS; RBA.

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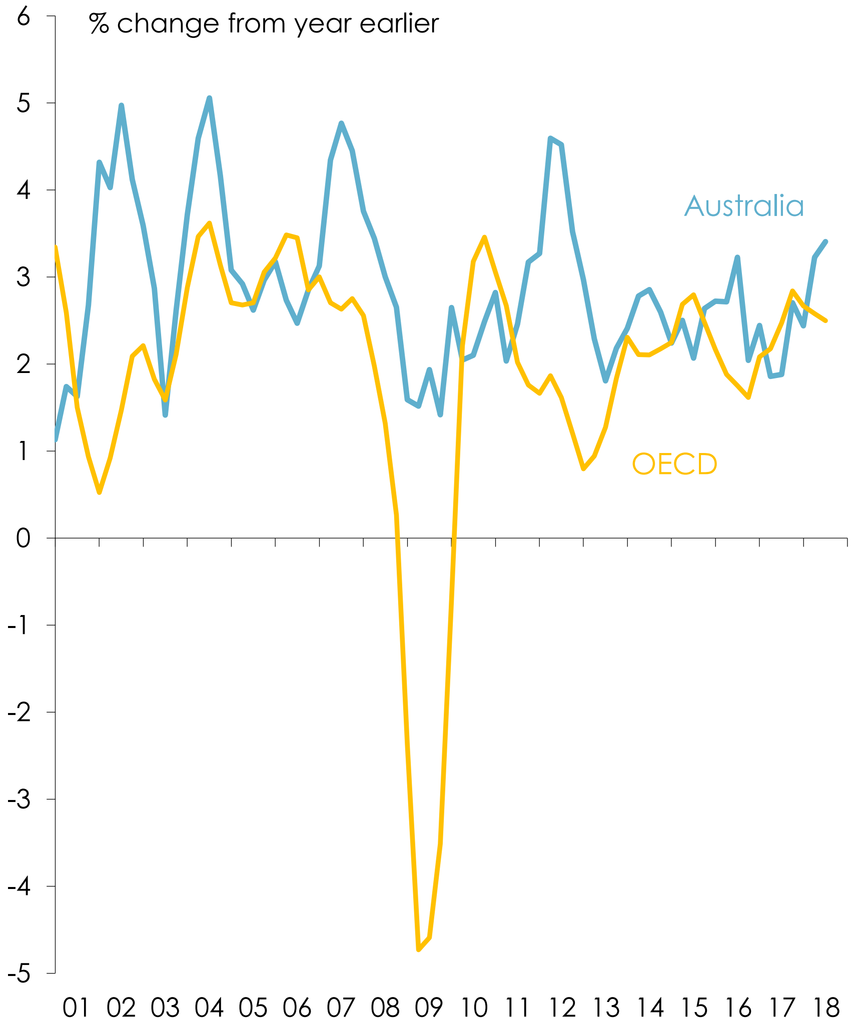
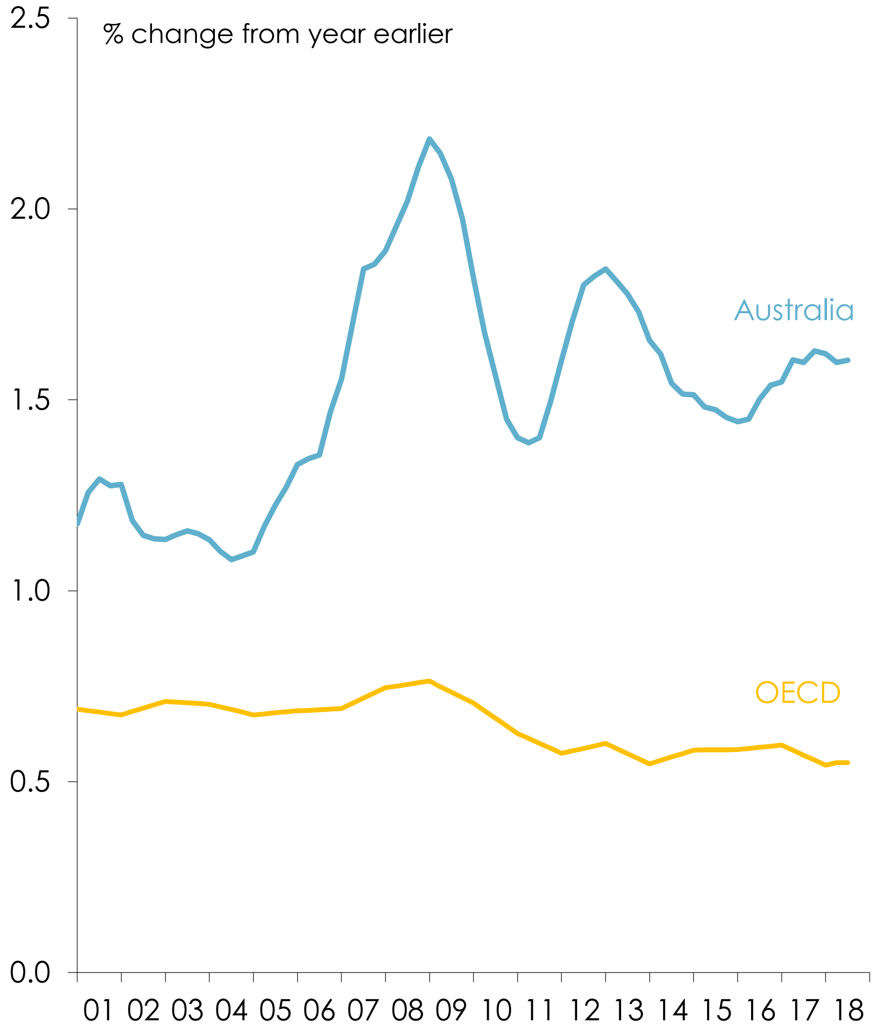
Australia's above-average economic growth owes a lot to population growth – without which, per capita GDP growth has been below average

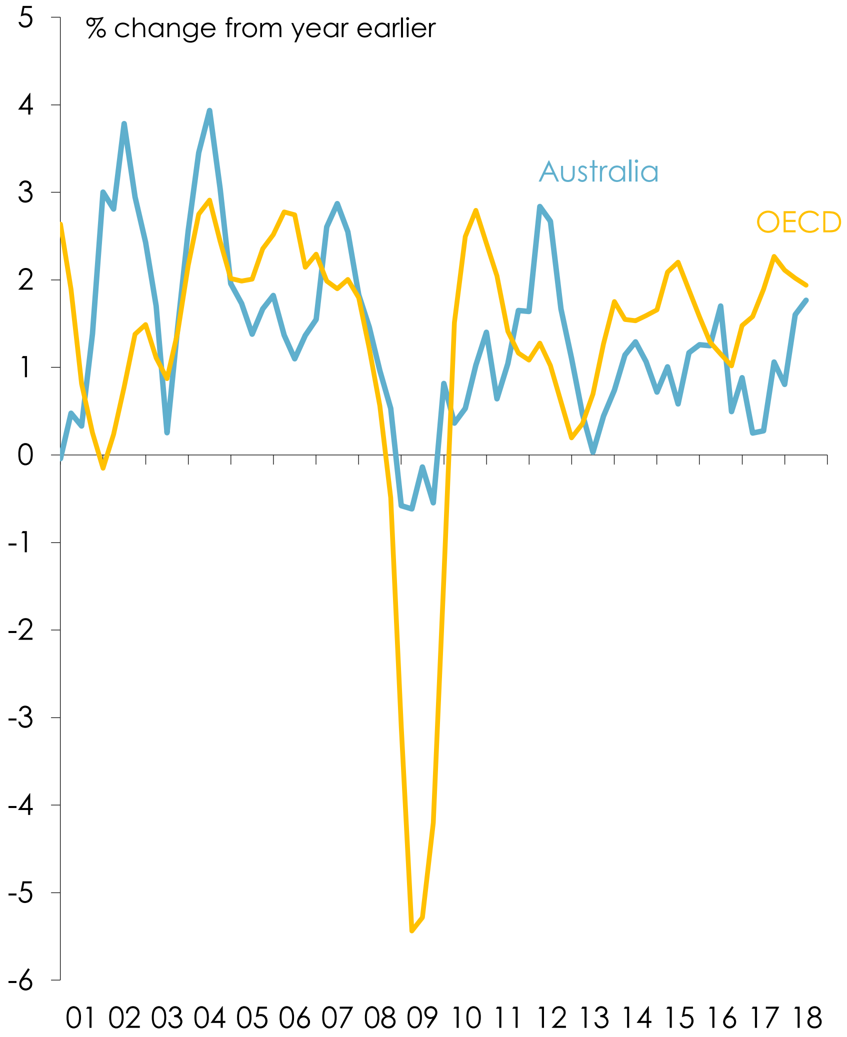
Real GDP growth



Population growth



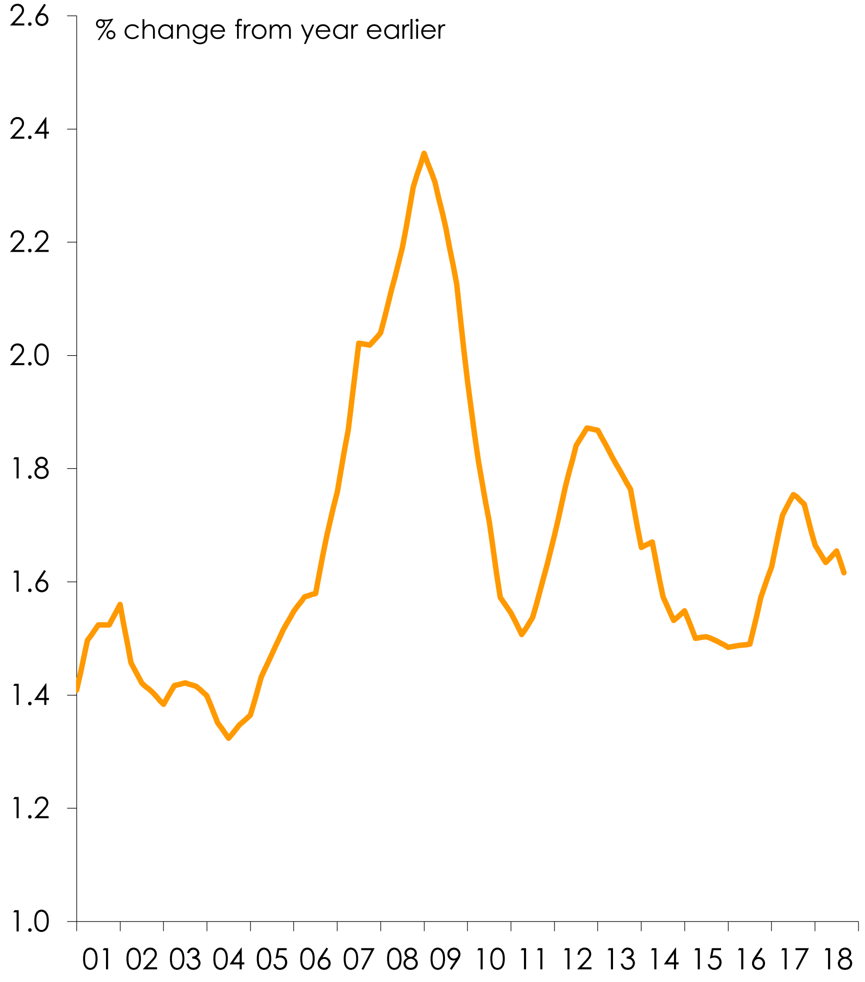
Real per capita GDP growth



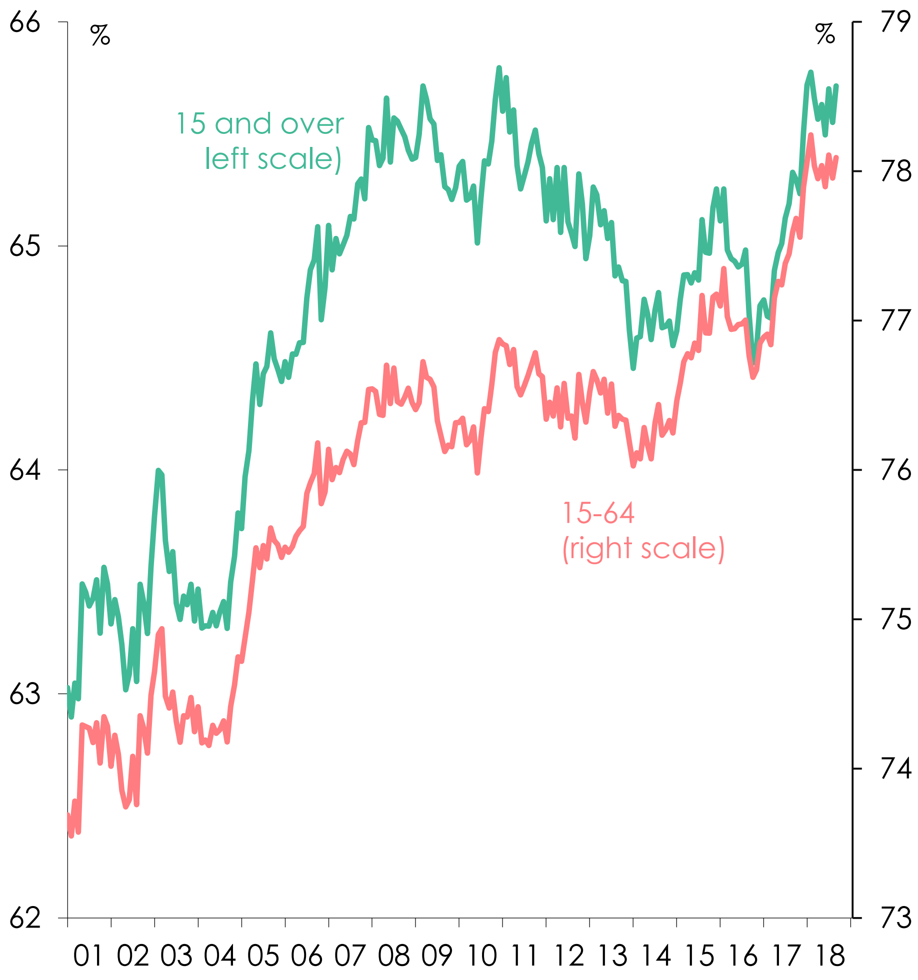
Note: OECD (Organization for Economic Co-operation and Development) comprises 34 (mostly) 'advanced' economies in Europe and North America plus Japan, Korea, Australia, New Zealand, Mexico, Chile, Turkey and Israel.
Sources: Australian Bureau of Statistics; OECD.

Population growth, combined with rising work force participation, explains why strong employment growth hasn't lowered unemployment very much

Civilian working-age (15+) population growth



Labour force participation rates



Employment and labour force growth

Note: The labour force participation rate is the proportion of the working-age population (15+) or population aged 15-64 who are either in employment, or actively seeking employment (ie, unemployed). *Source:* ABS.

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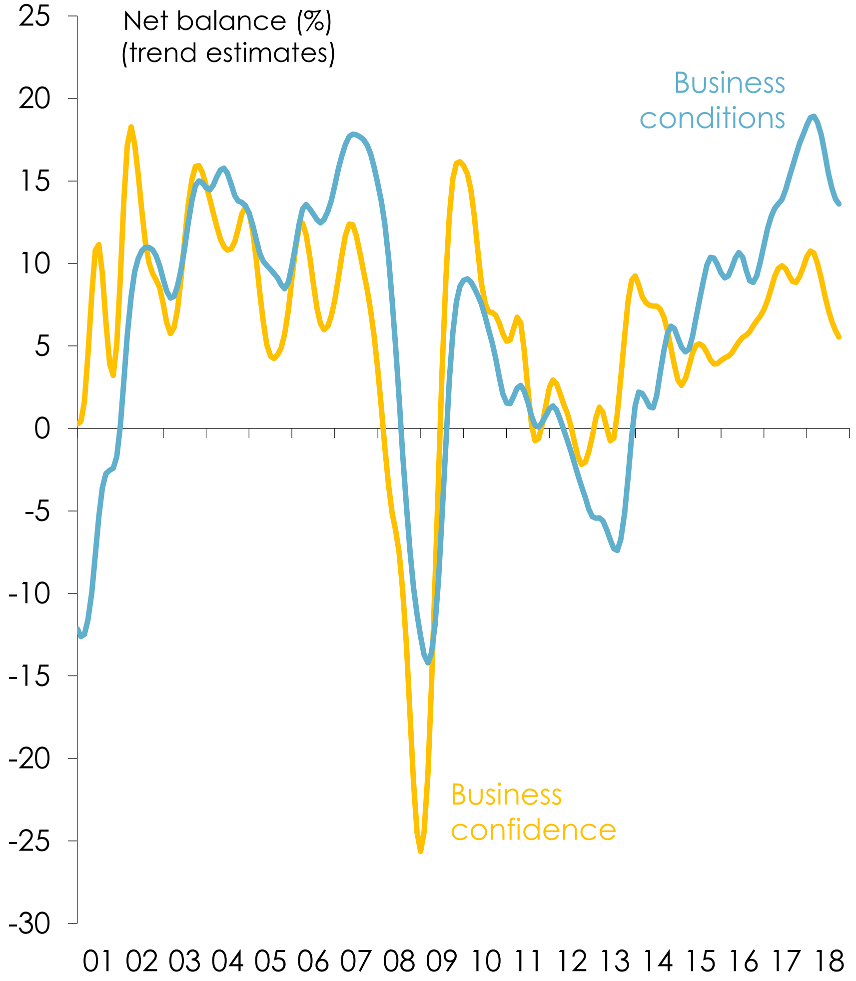
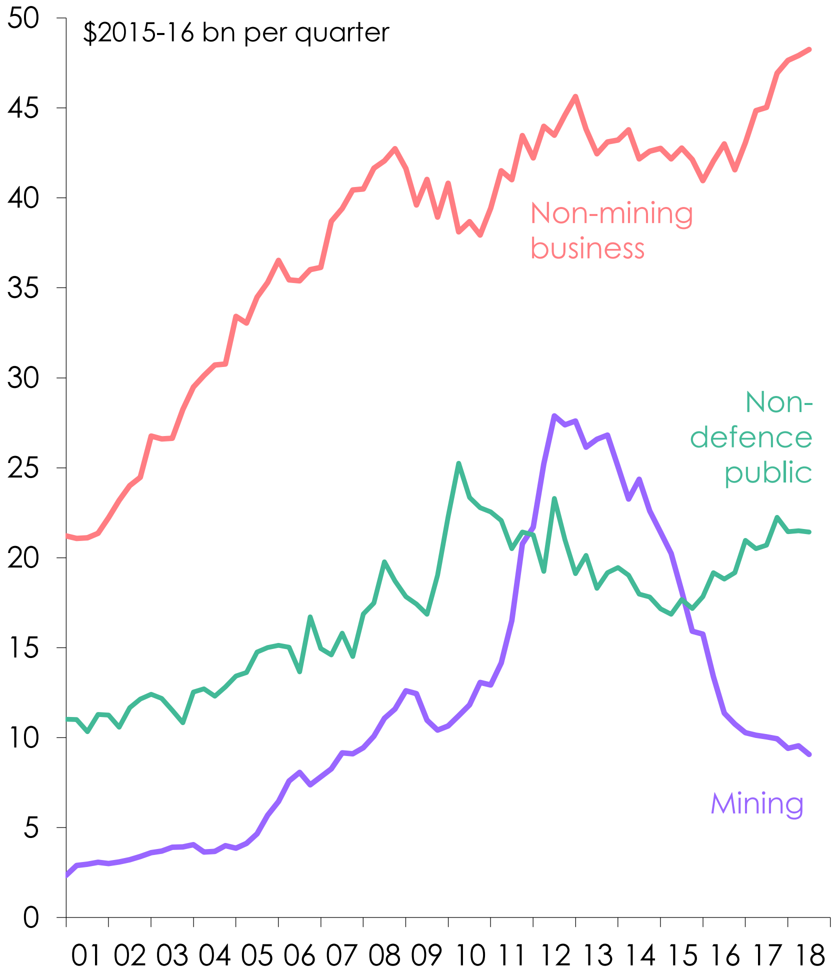
Business conditions remain above average, non-mining business investment is picking up , and resources exports are growing strongly

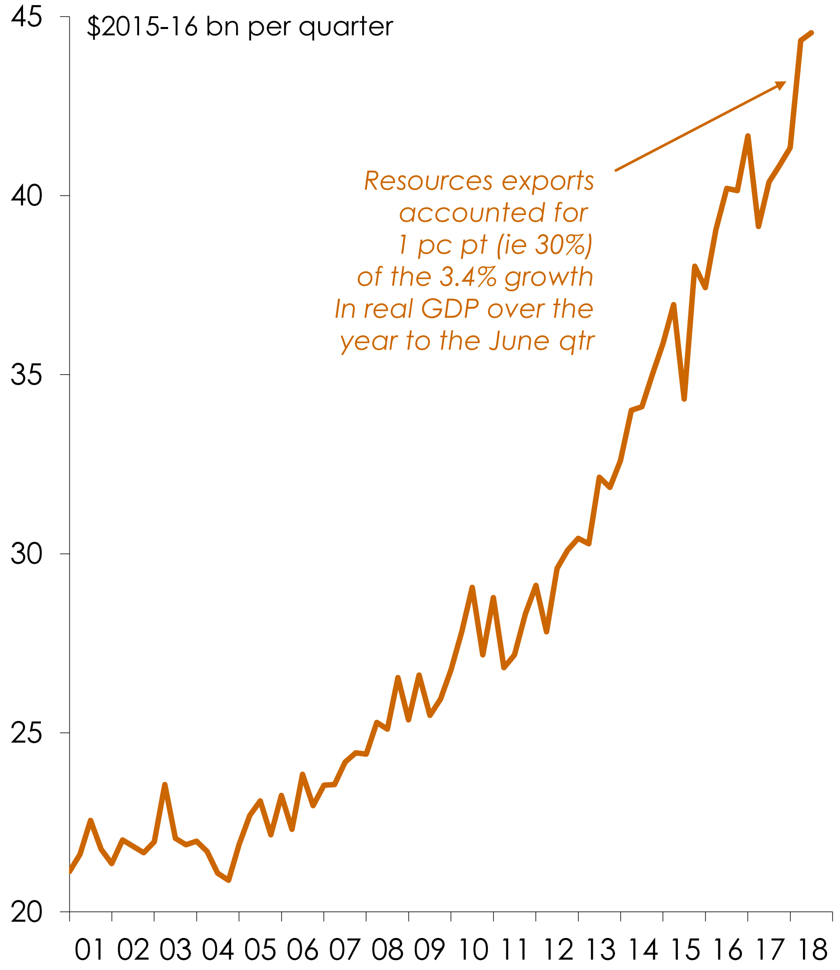
Business conditions and confidence



Non-residential investment – mining vs other sectors



Volume of resources exports



Sources: National Australia Bank; ABS.

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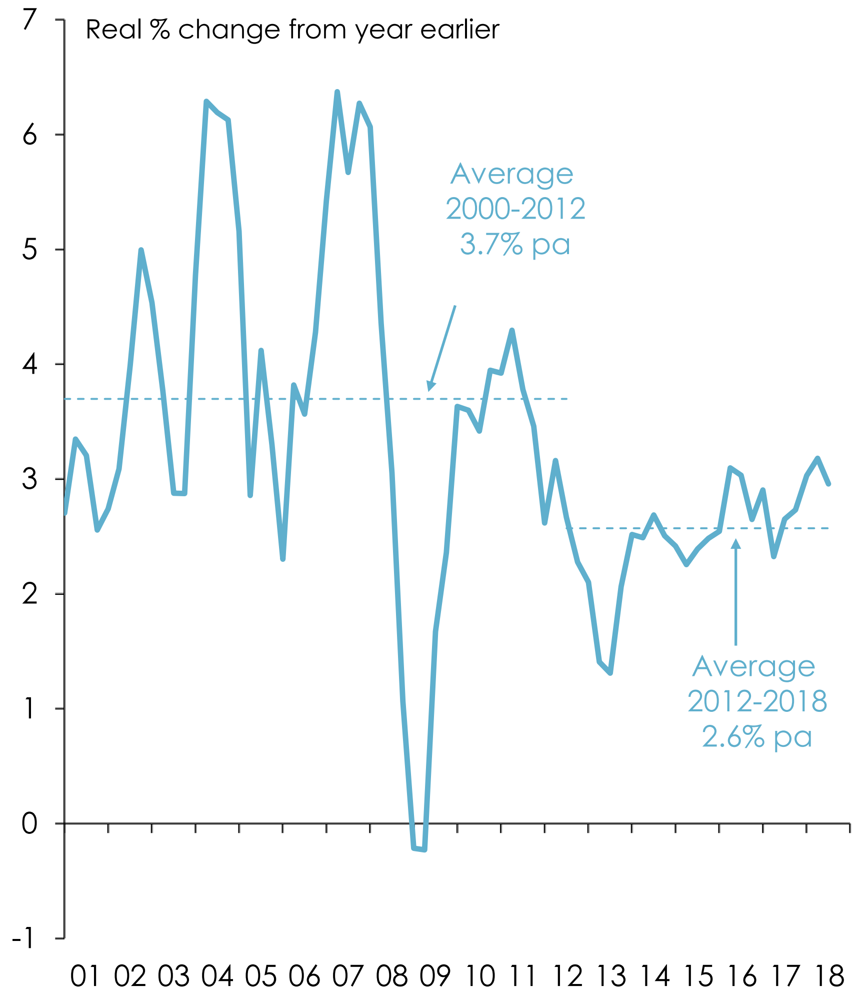
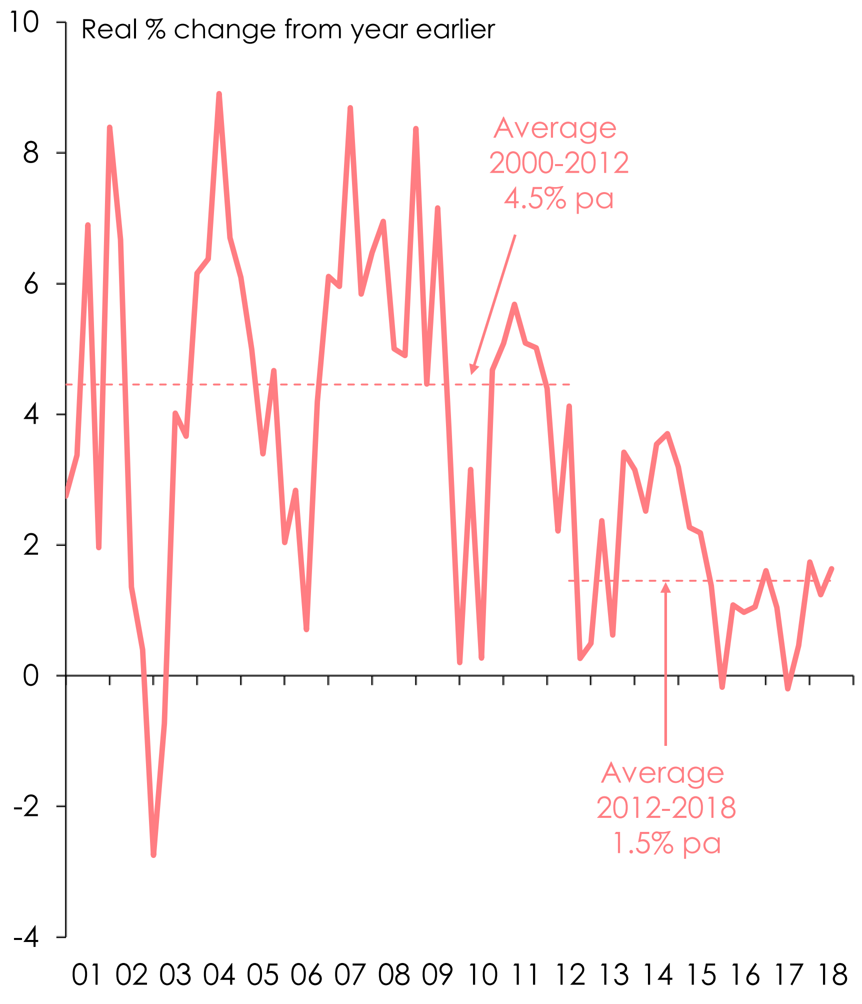
Household spending has grown faster over the past year than the post-mining boom average, but that can't be sustained unless income picks up

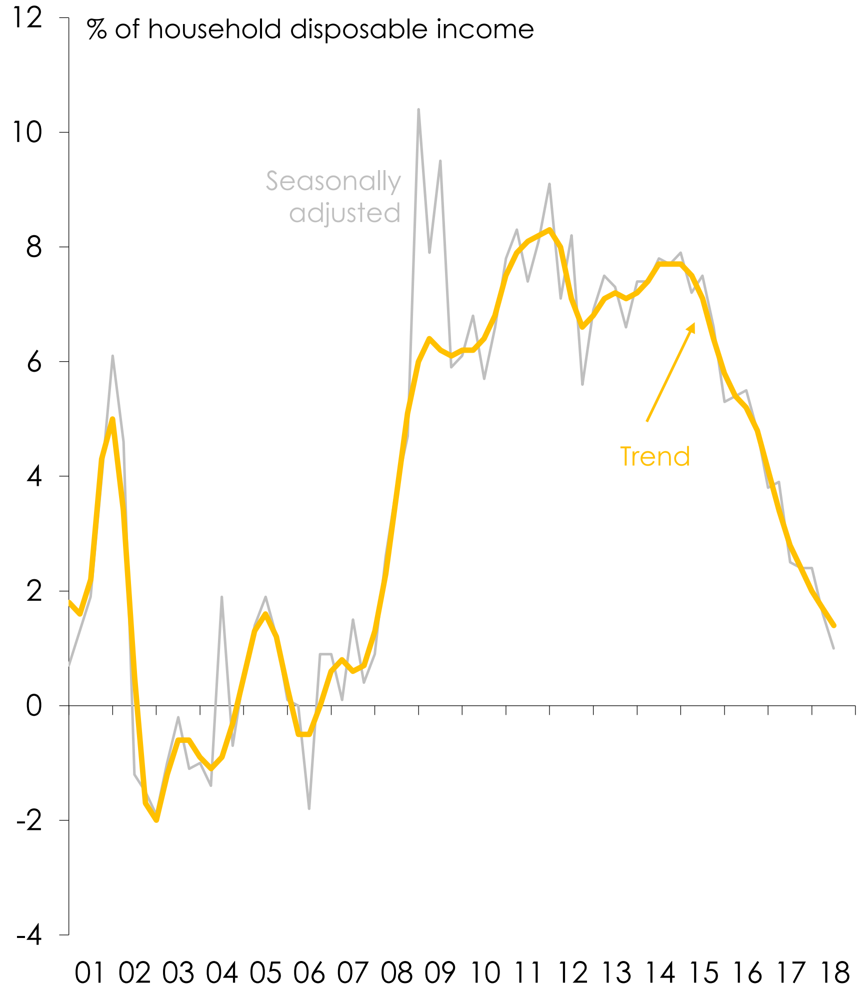
Household consumption expenditure



Household disposable income



Household saving



Source: ABS.

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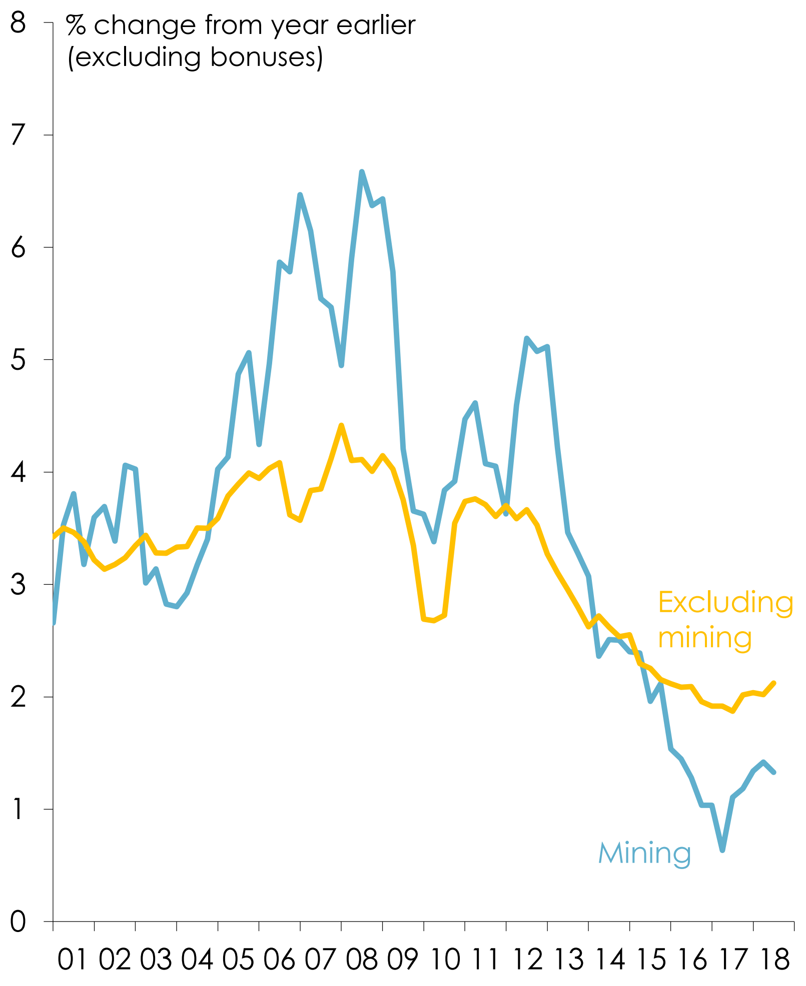
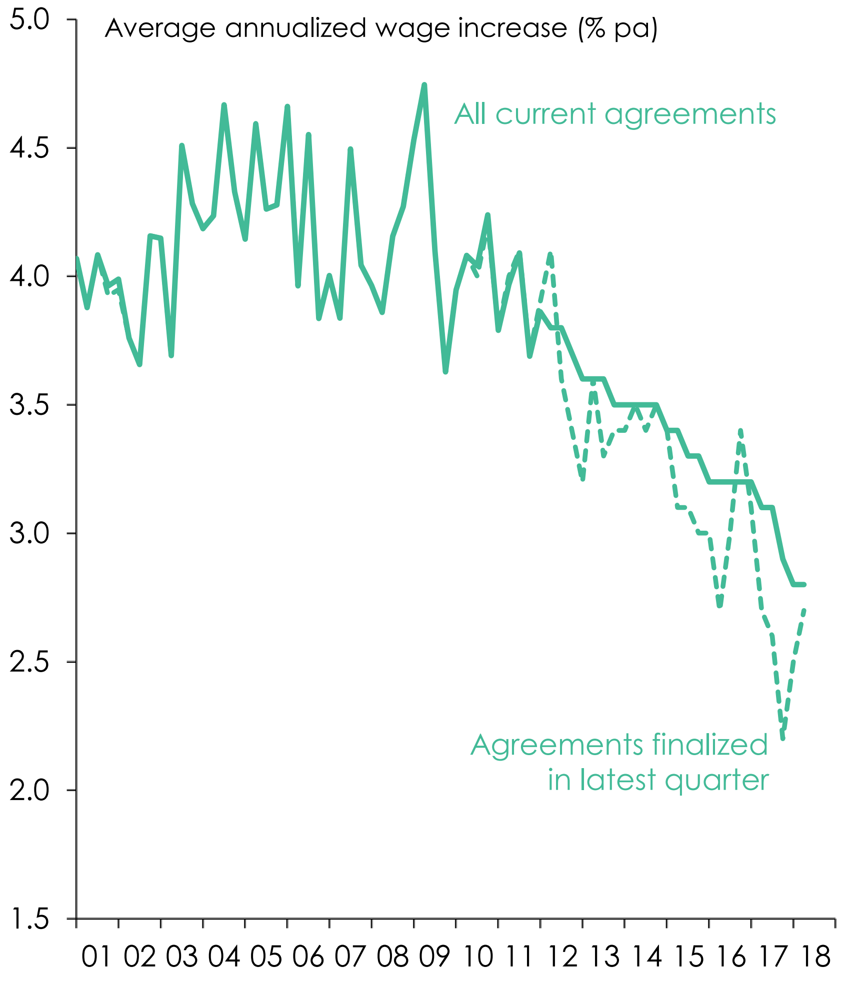
As in other countries wages growth remains soft , although it may be bottoming – but skill shortages don't seem to be making much difference

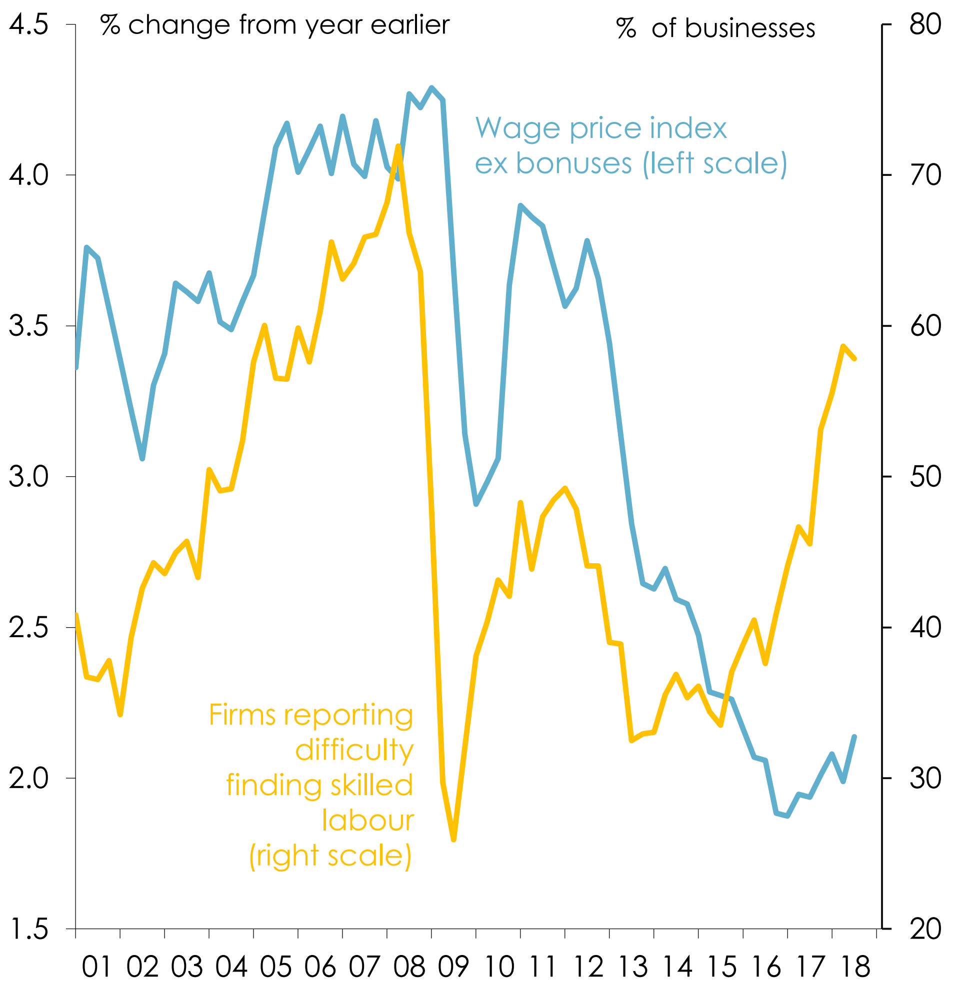
Wages growth



Enterprise agreements



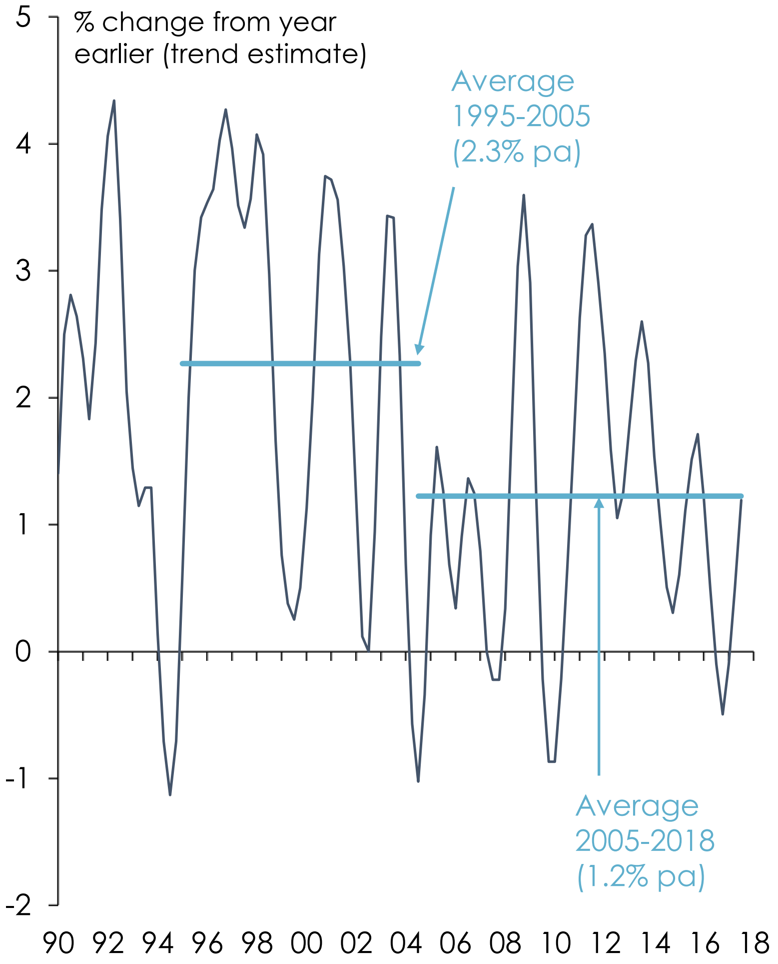
Labour shortages and wage increases



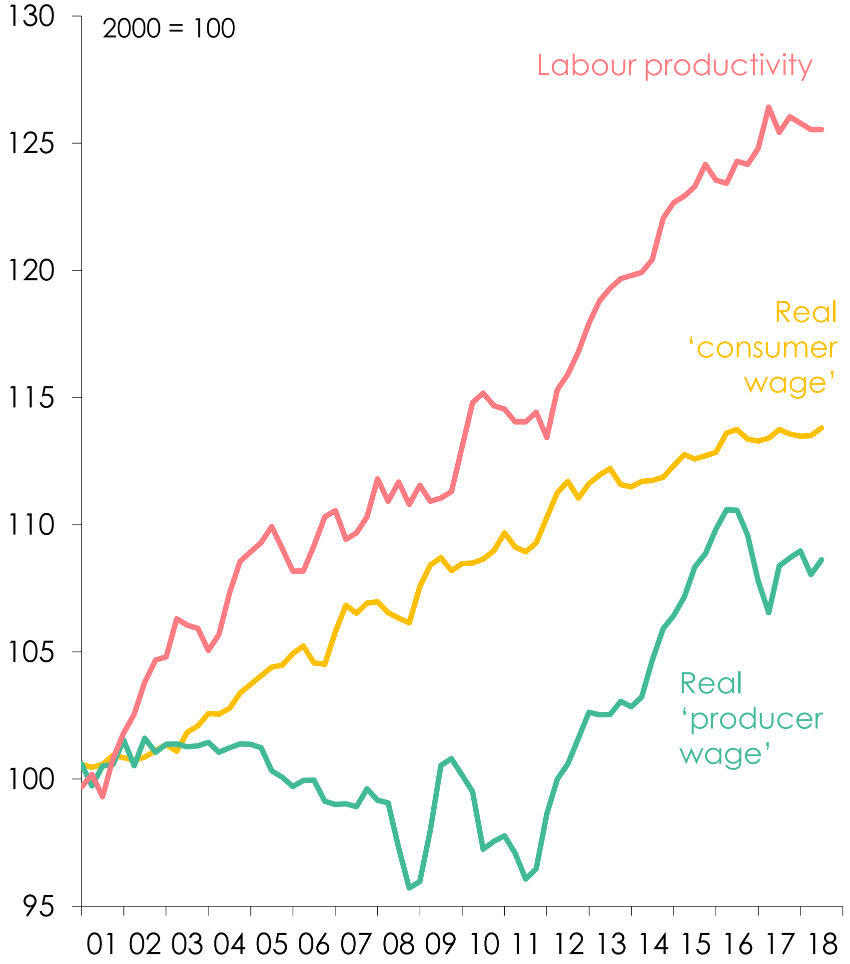
Sources: ABS ; Australian Government Department of Jobs and Small Business ; National Australia Bank

Low wages growth partly reflects slower productivity growth – but that isn't the only reason because wages have grown even less than productivity

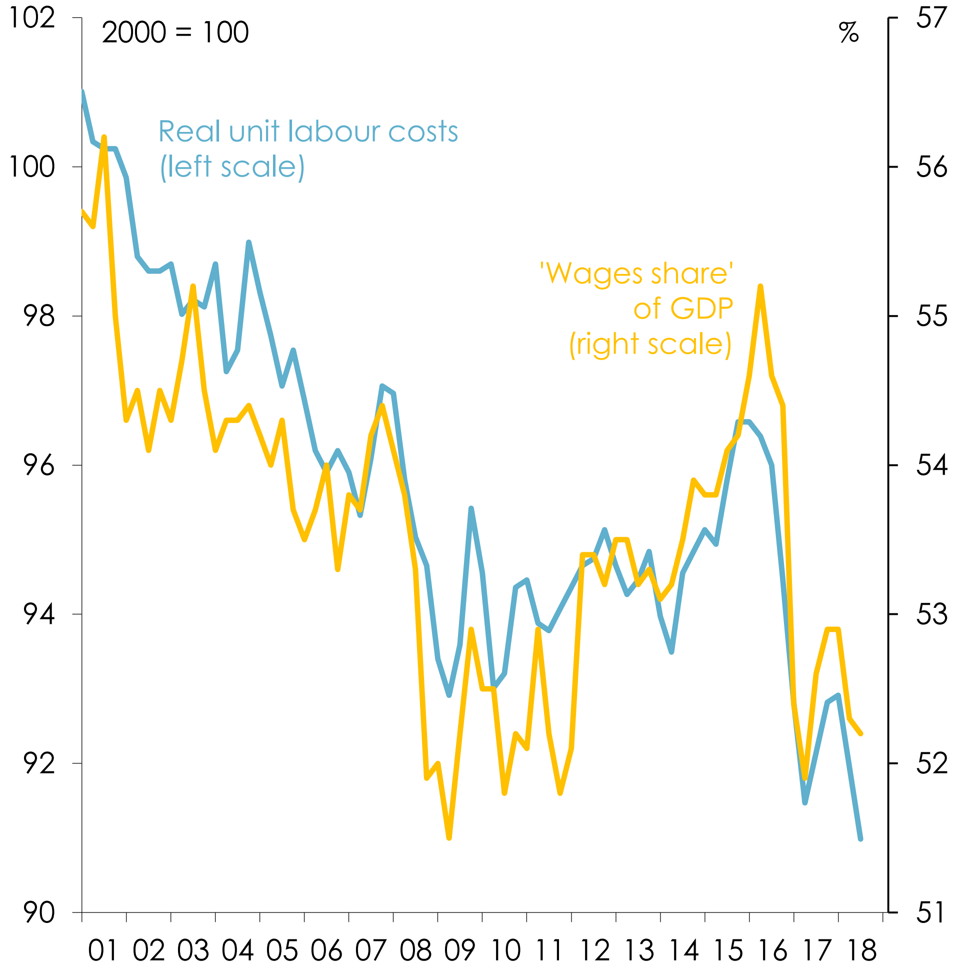
Labour productivity growth



Productivity and real wages growth



Real unit labour costs and the 'wages share' of GDP



Note: The real 'consumer wage' is the wage price index deflated by the CPI (ie, real wages from employees' standpoint). The real 'producer wage' is the wage price index deflated by the implicit price deflator of non-farm GDP (Ie, real wages from employers' standpoint). 'Real unit labour costs' is real wages (plus on-costs) per unit of output, or (equivalently) wages (and on-costs) per hour divided by output per hour (labour productivity). *Source:* ABS.

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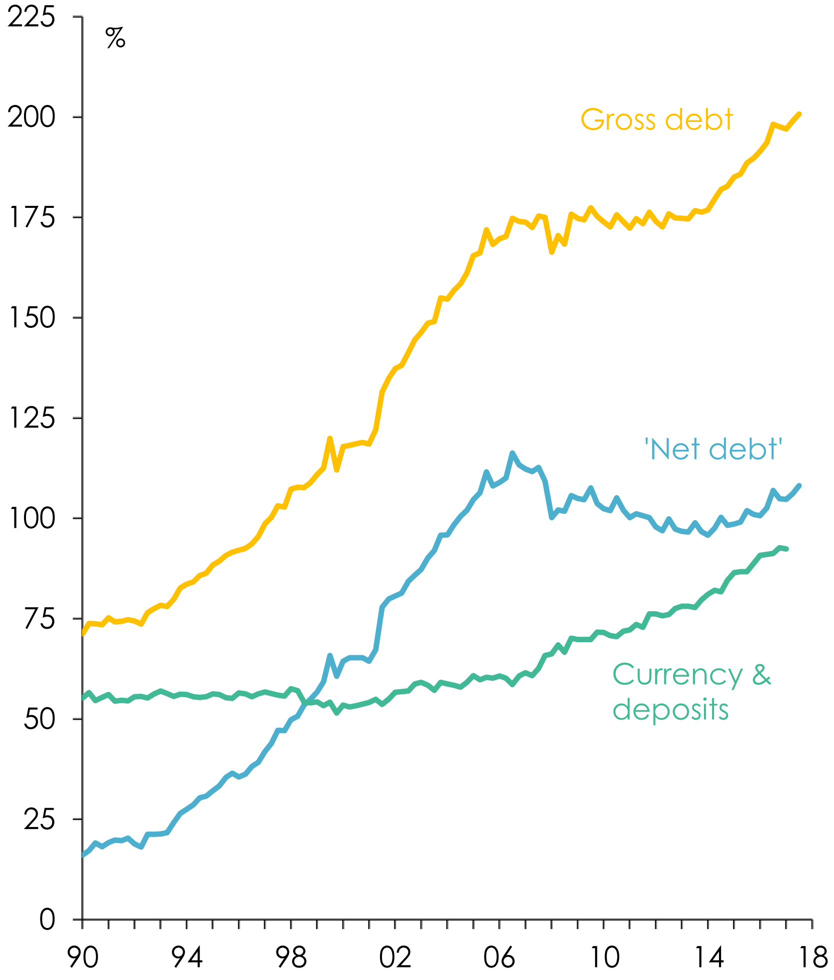
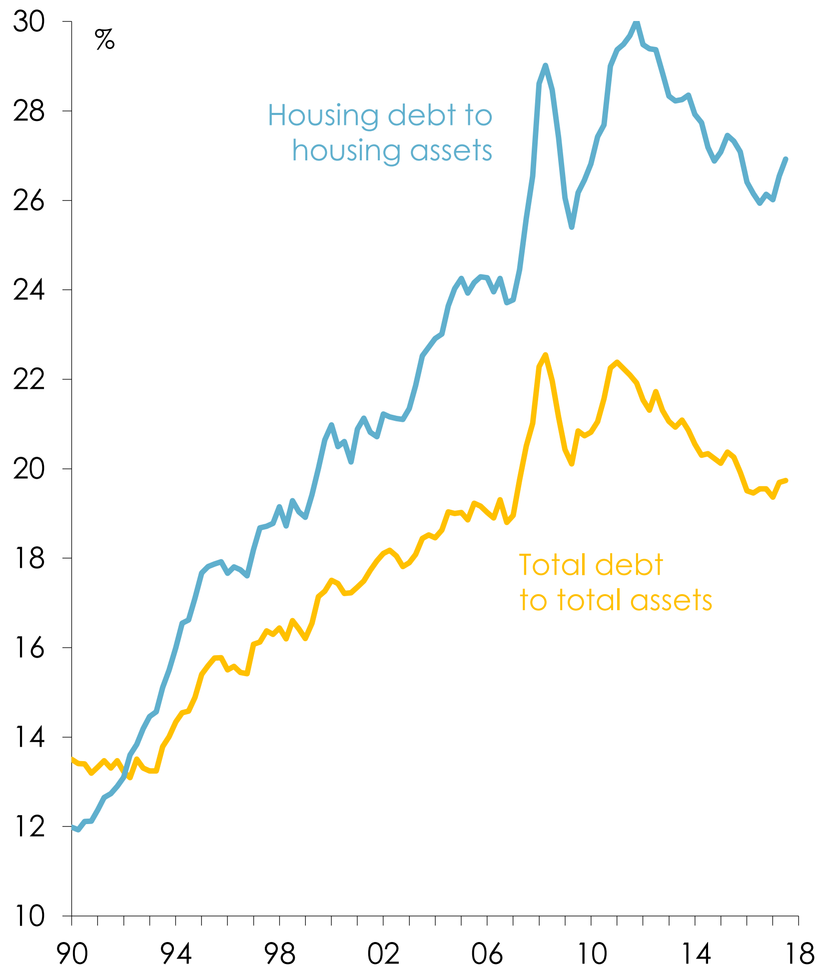
Household gross debt is at a record high percentage of household income – but net debt isn't, nor is gearing, or debt servicing

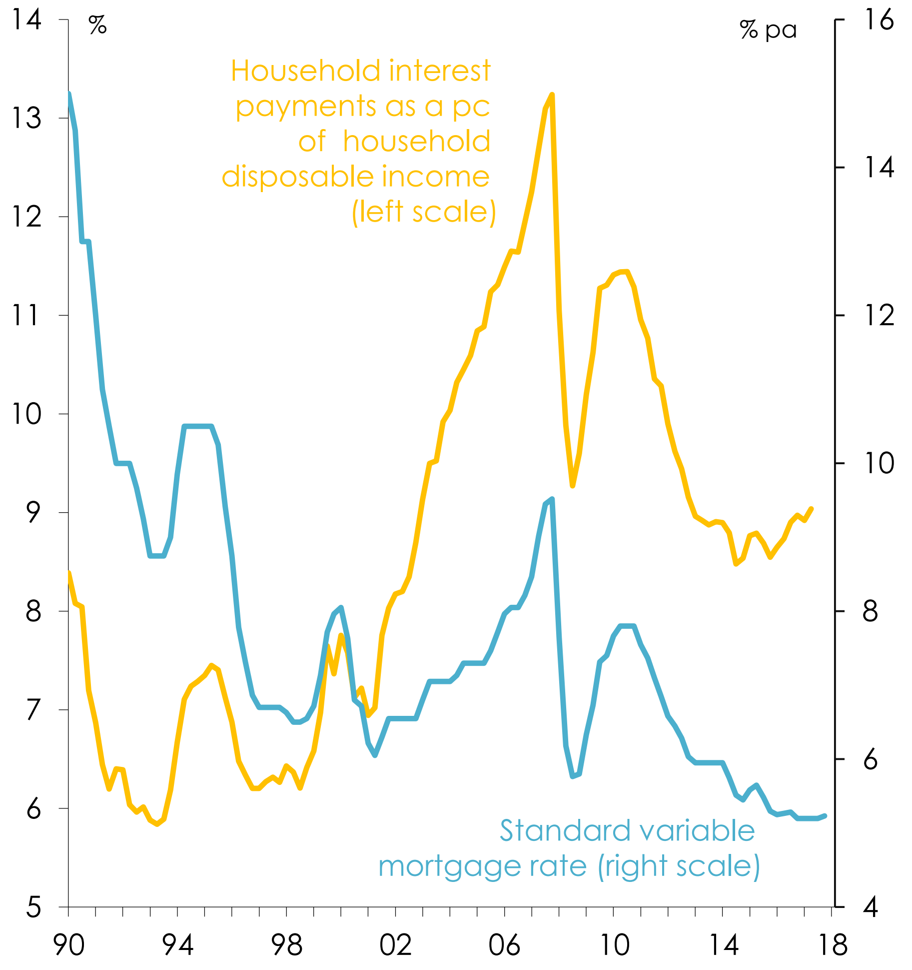
Household gross debt, liquid assets and net debt



Household debt-to-assets ratio



Household interest-to-income ratio



Sources: ABS; RBA.

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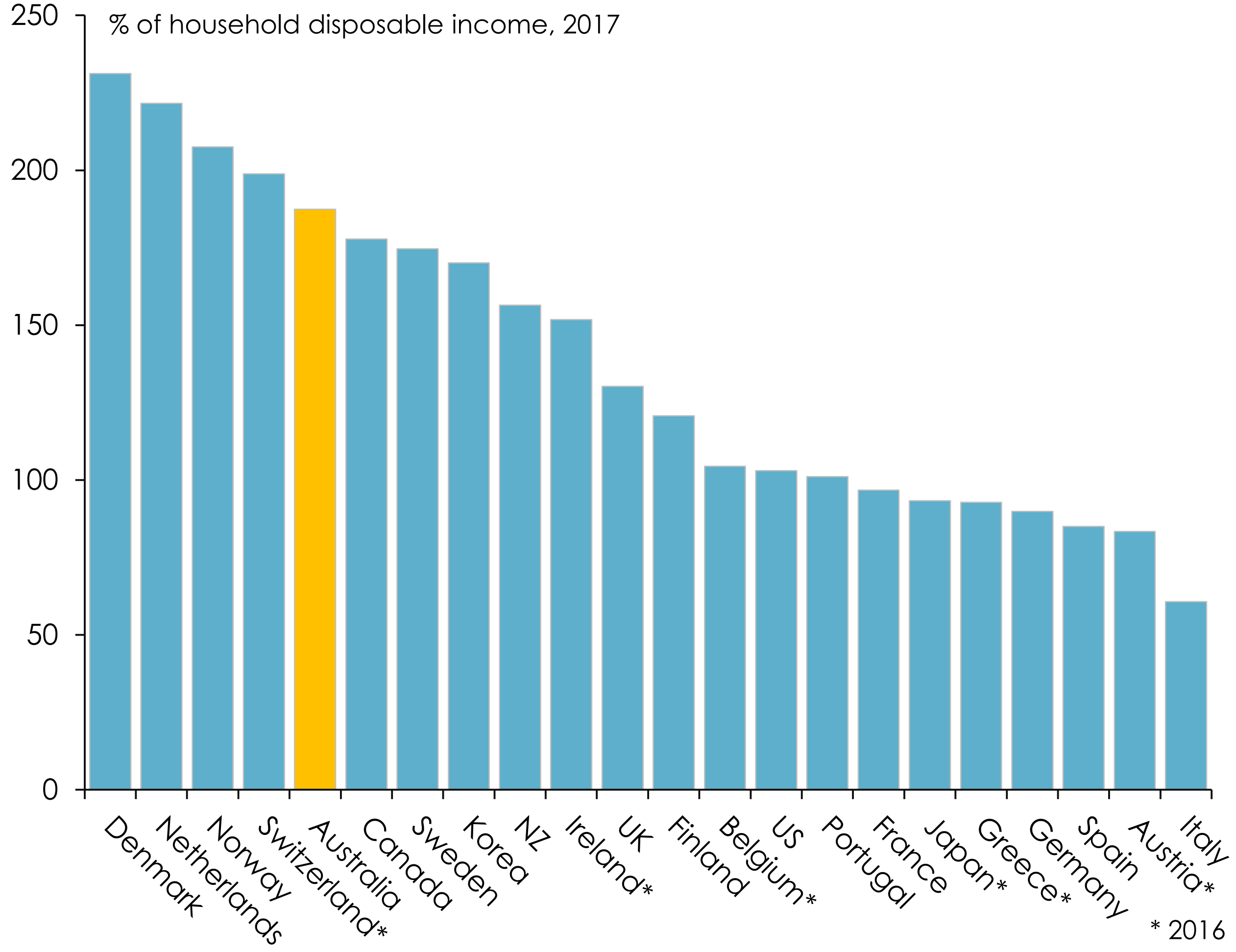
Australian households have among the highest debt-to-income ratios in the world – partly because they own a high proportion of the housing stock

Household debt-to-income ratios, 'advanced' economies



Household debt and ownership of the housing stock

Sources: Bank for International Settlements (BIS); ABS; OECD; national statistical agencies; Michelle Bullock (Assistant Governor, RBA), 'The Evolution of Household Risks', Address to Ai Group, September 2018.

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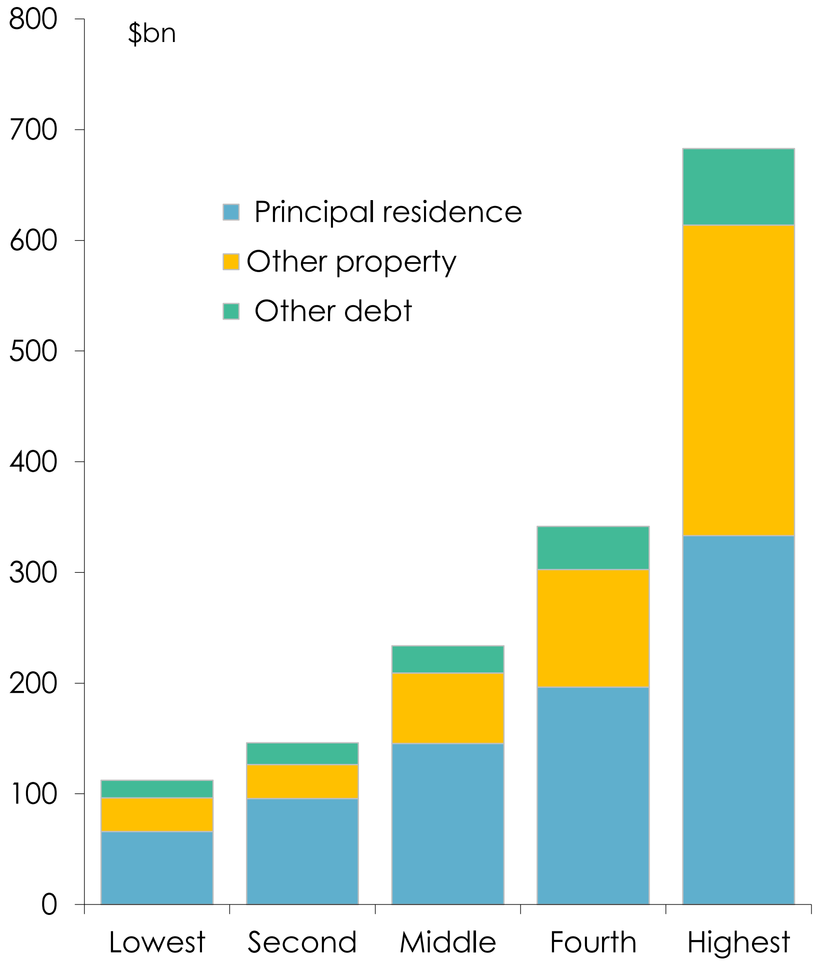
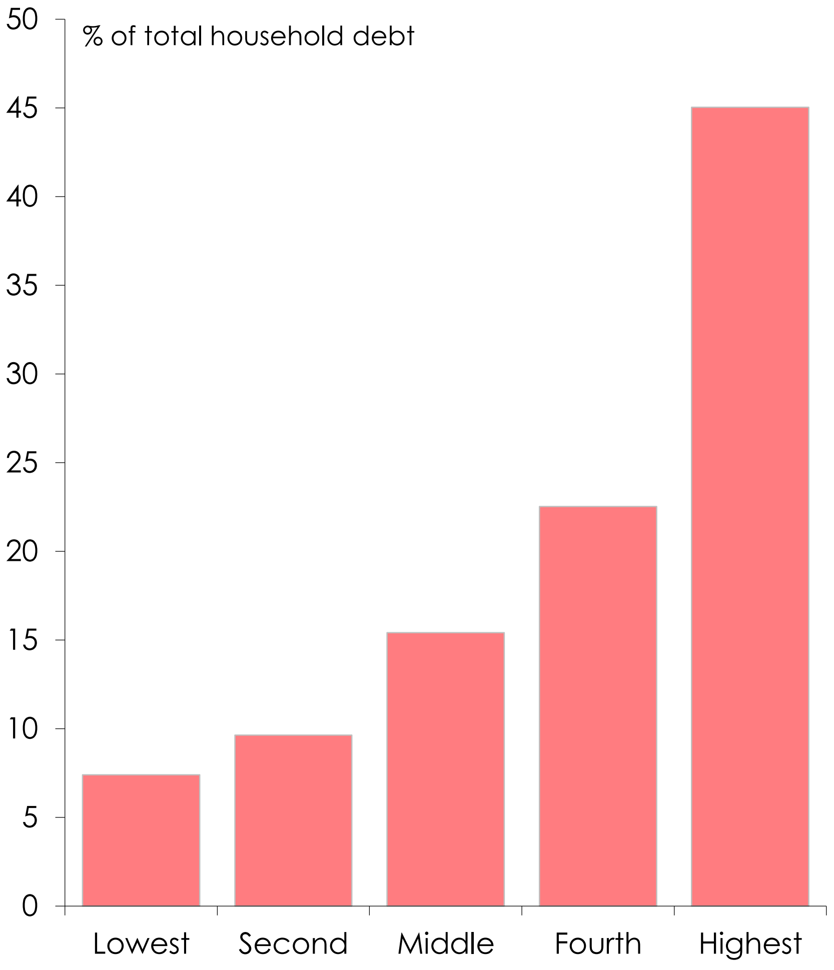
Two-thirds of Australian household debt is owed by the richest 40% of households – and that has barely changed over the past dozen years

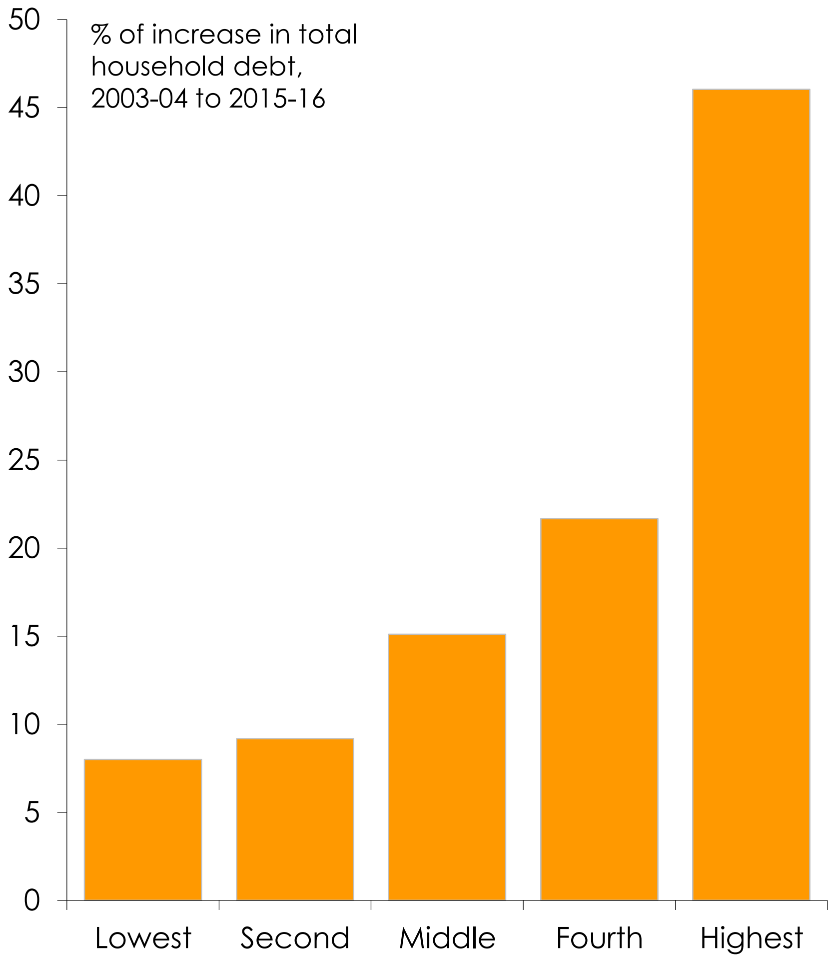
Household debt by income quintile, 2015-16



Share of total debt by income quintile, 2015-16



Share of increase in debt by quintile, 2003-04 to 2015-16



Source: ABS.

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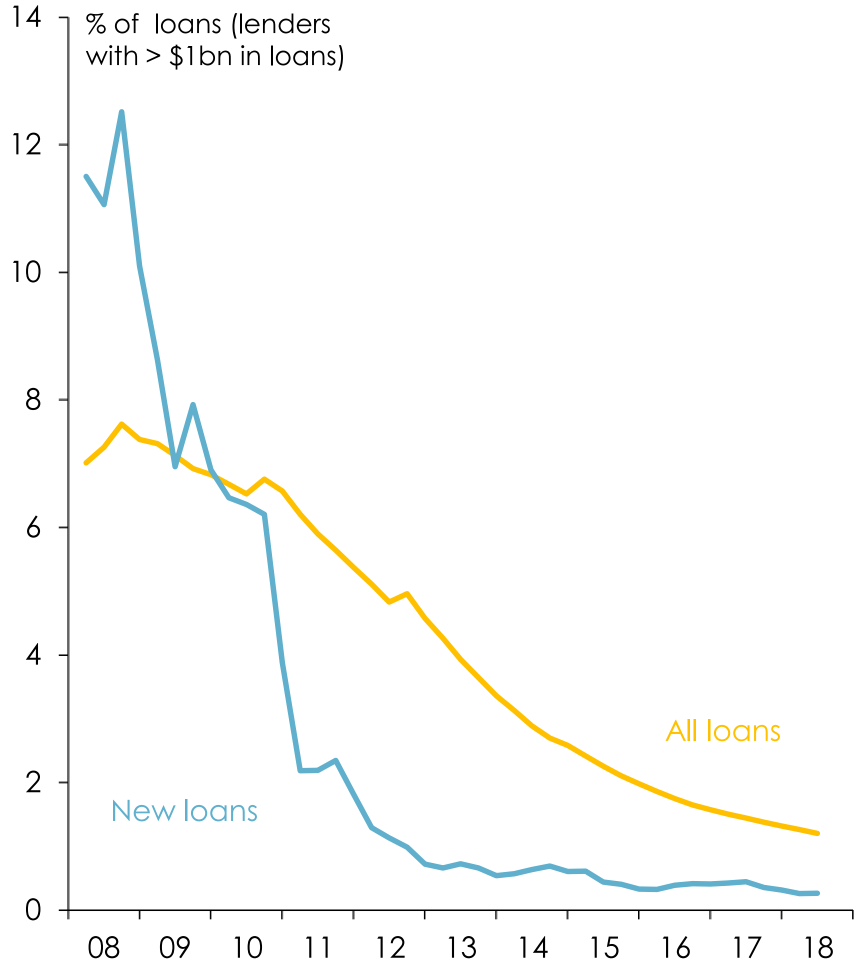
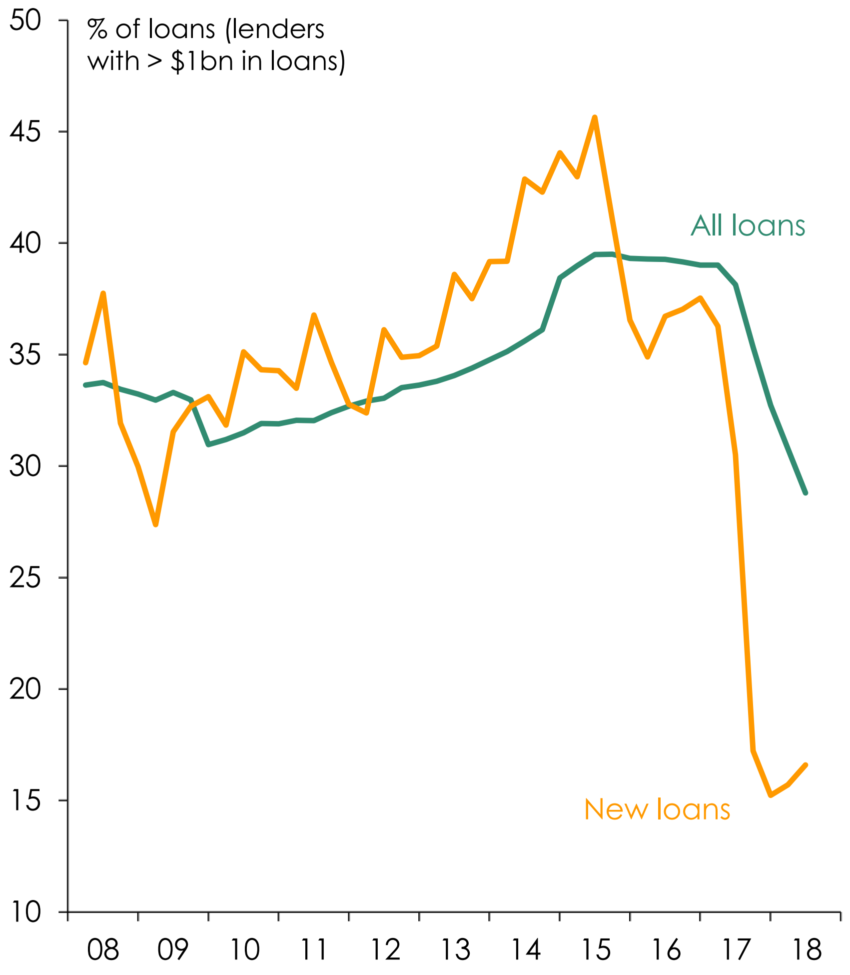
Most of the riskier forms of lending have been curtailed since the financial crisis – although the crack-down on interest-only loans is more recent

Low-doc loans as a pc of total mortgages



High LVR loans as a pc of new mortgages

Interest-only loans as a pc of mortgages



Source: Australian Prudential Regulation Authority.

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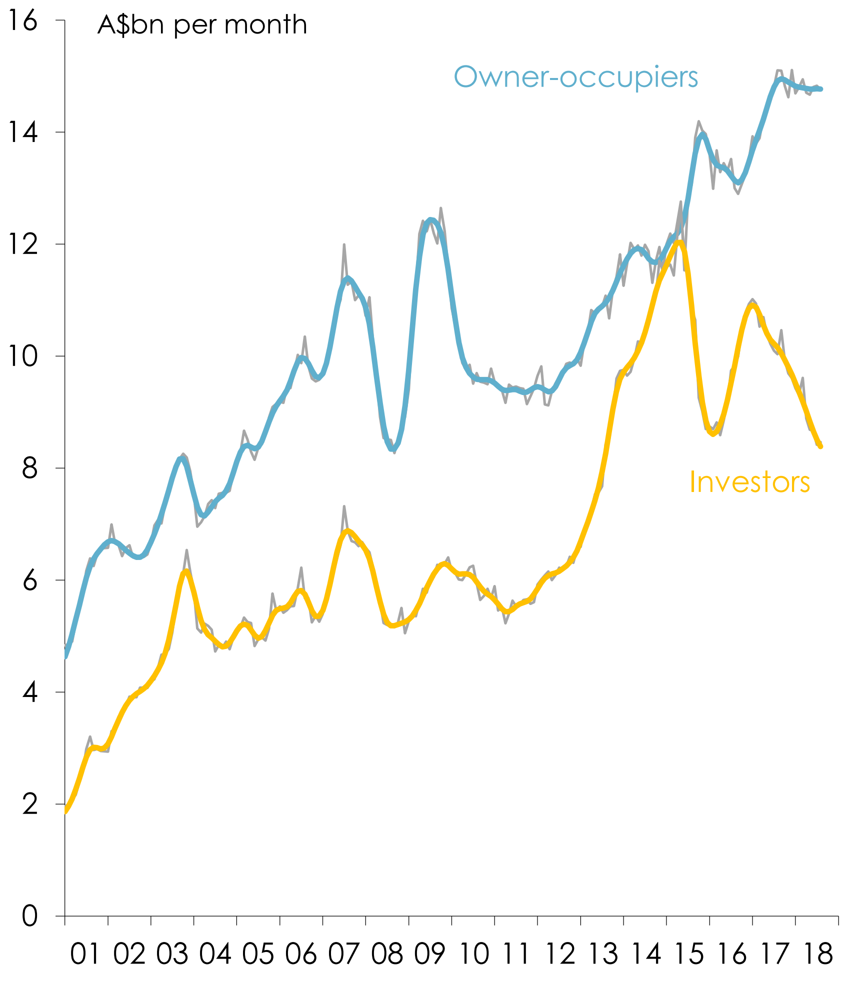
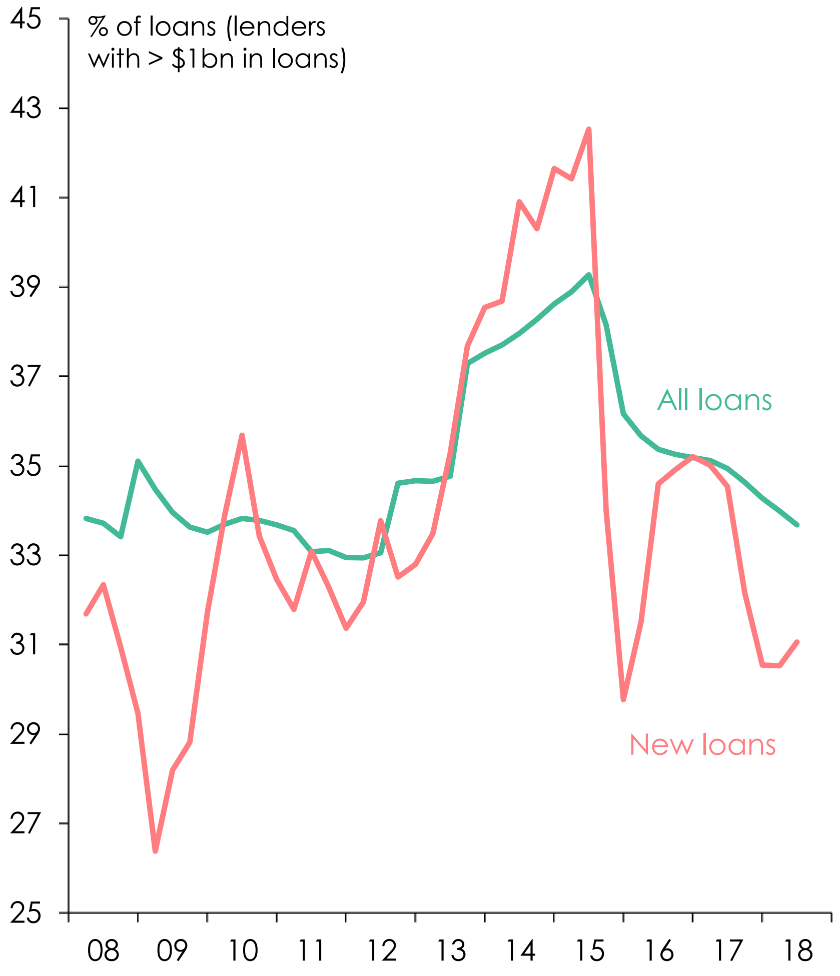
This has had a significant dampening effect on lending to property investors – while foreign investment has also declined sharply

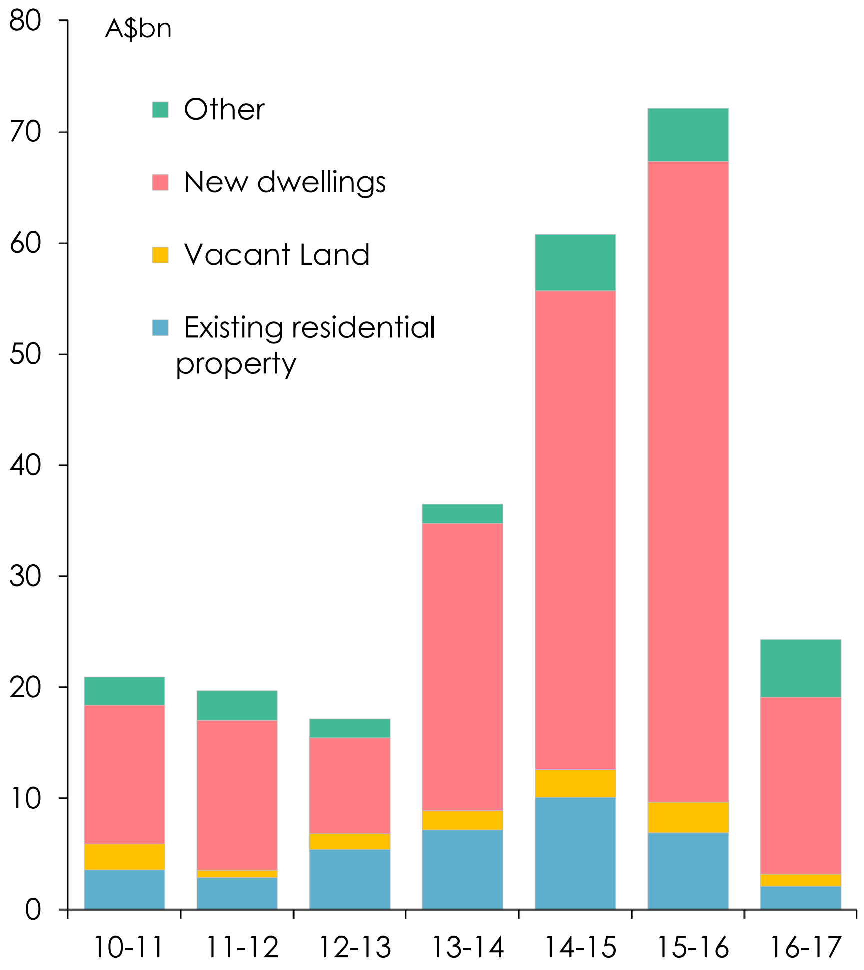
Housing finance commitments by type of borrower



Lending to property investors as a pc of total



FIRB approvals for investment in residential real estate



Sources: ABS; APRA; Foreign Investment Review Board.

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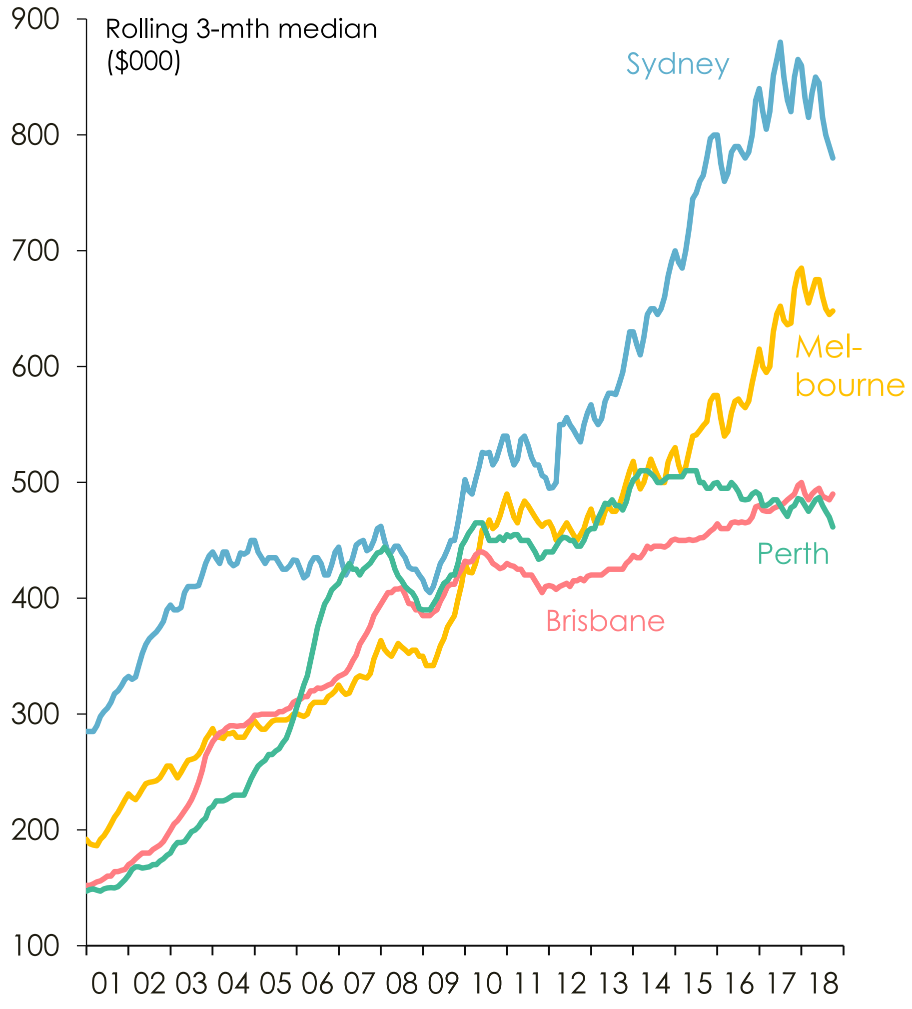
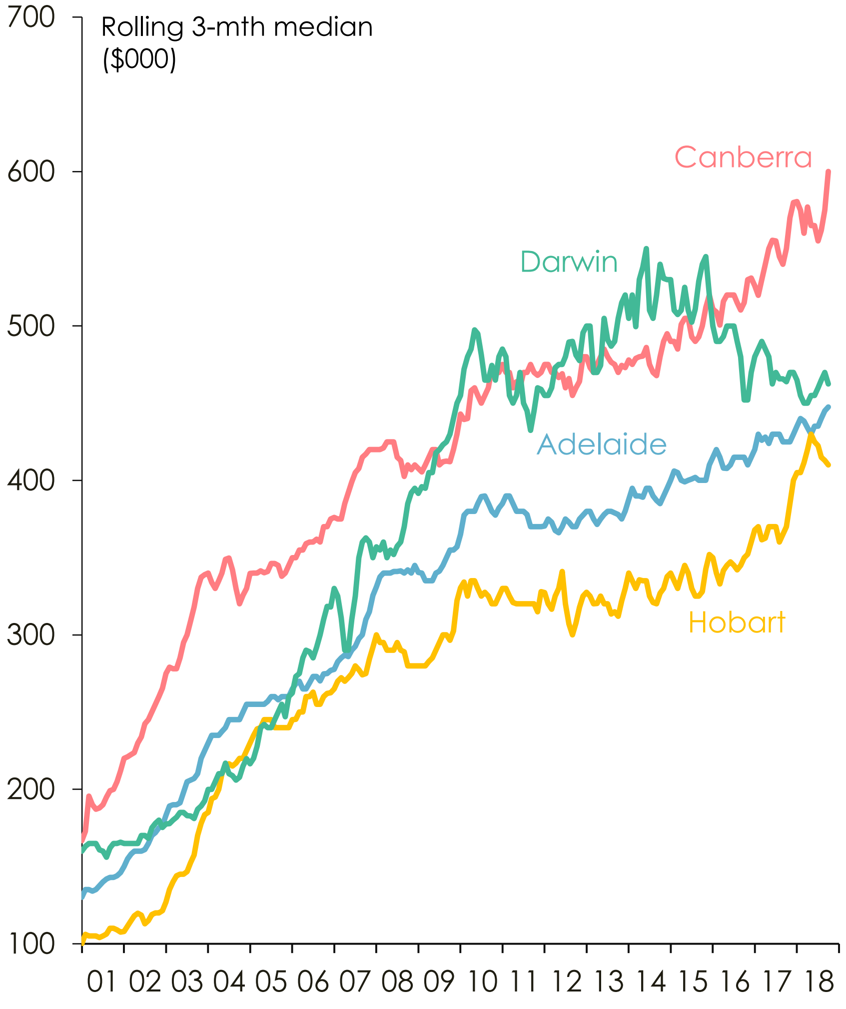
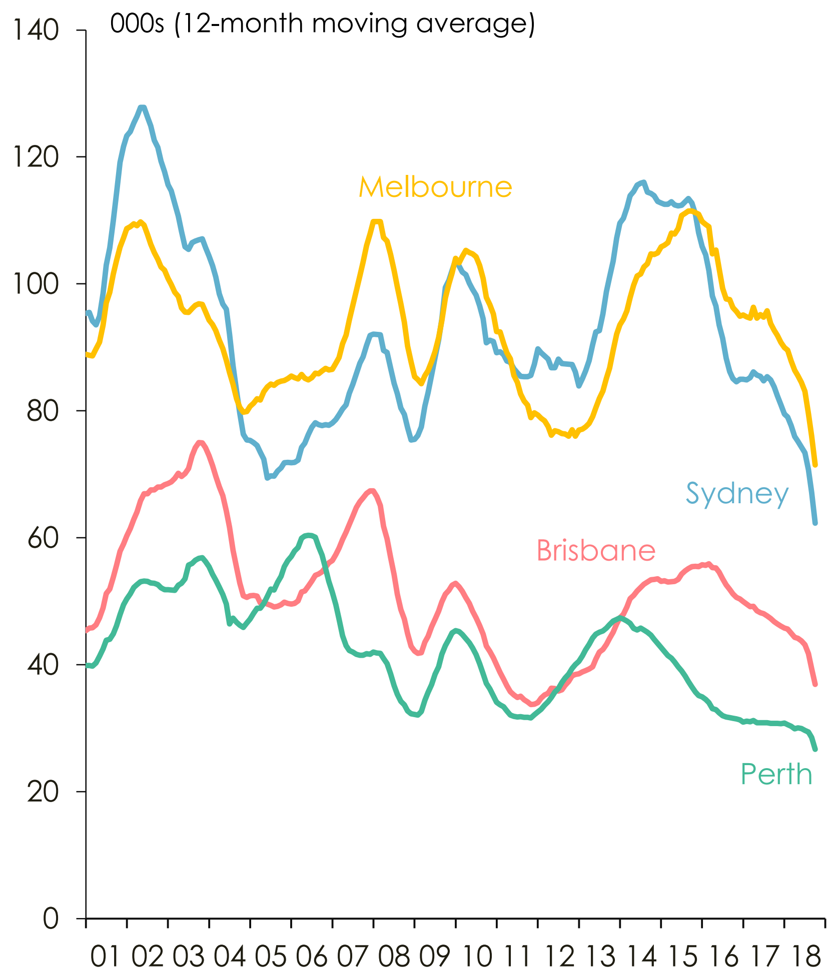
Waning investor demand appears to be the major factor behind the decline in property prices currently under way

Capital city median dwelling sale prices





Sales volumes



Source: CoreLogic.

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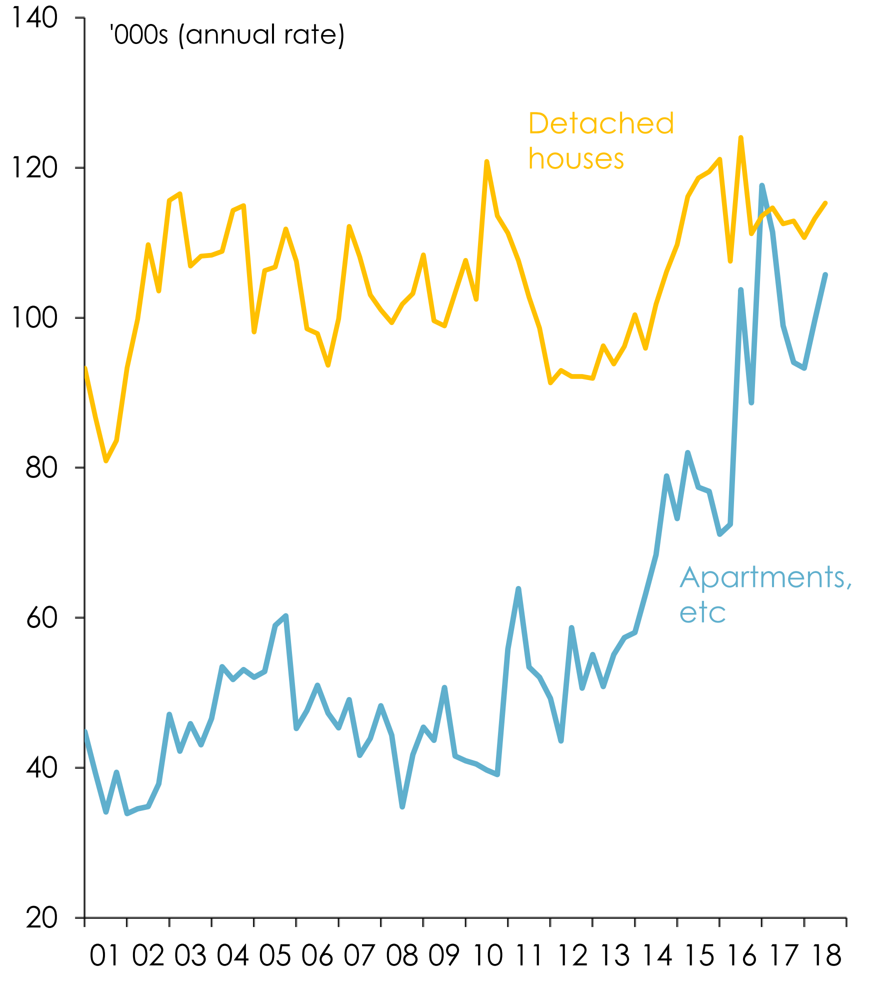
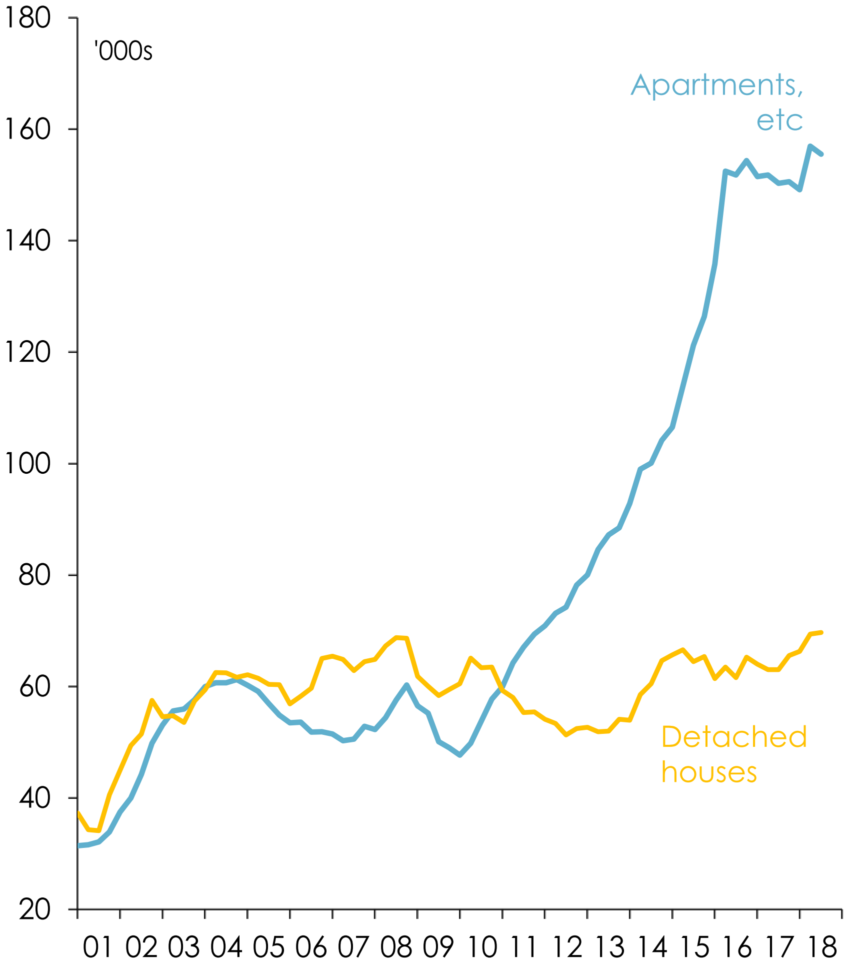
Increased housing supply is also likely to exert some downward pressure on property prices – but mainly for apartments, not houses

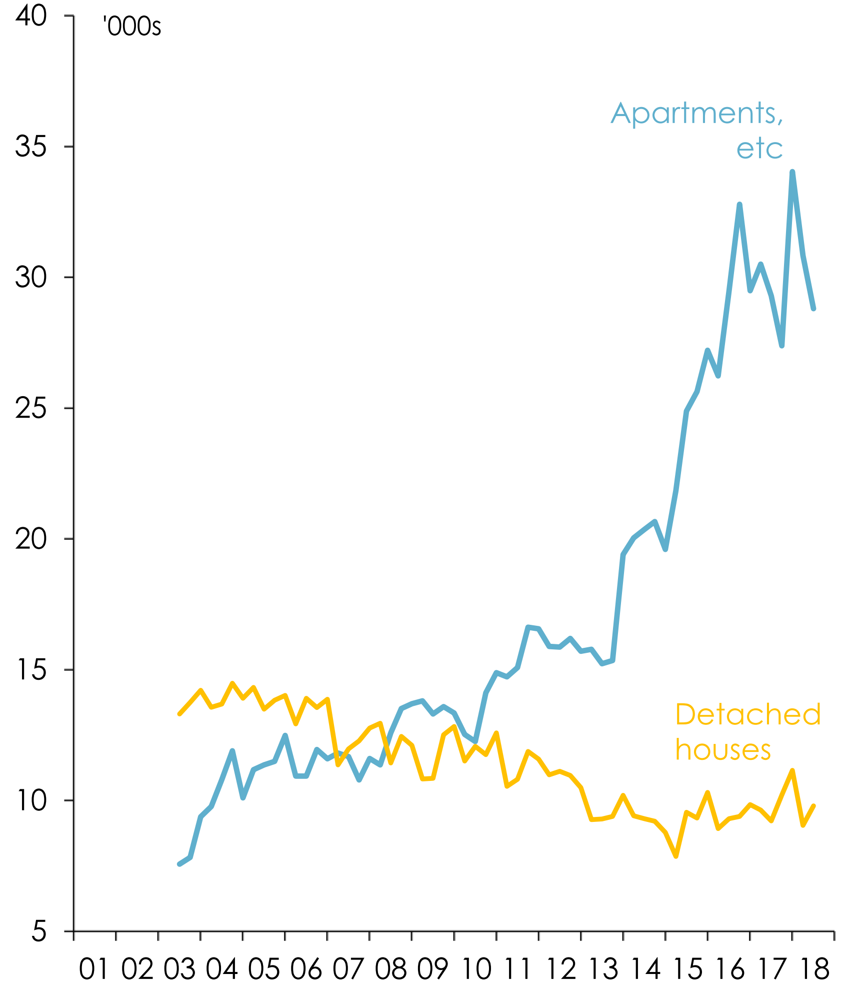
Housing completions



Housing commencements



Housing approved but not yet commenced



Source: ABS.

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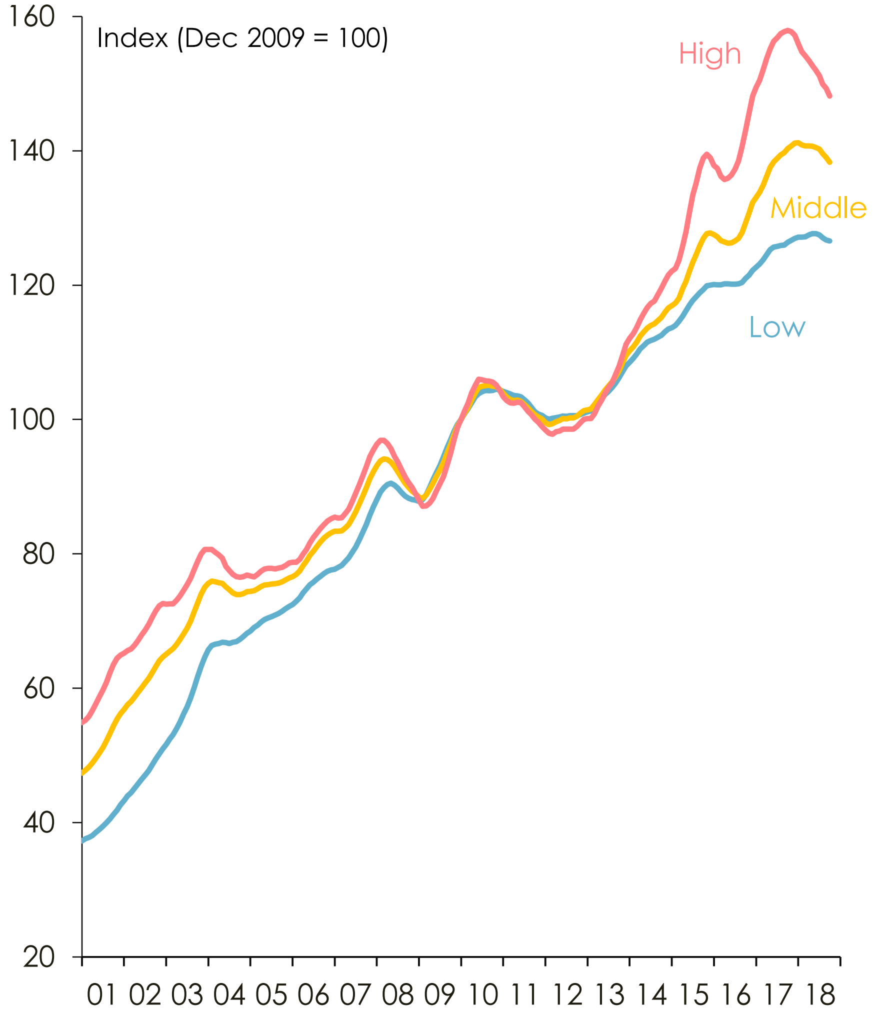
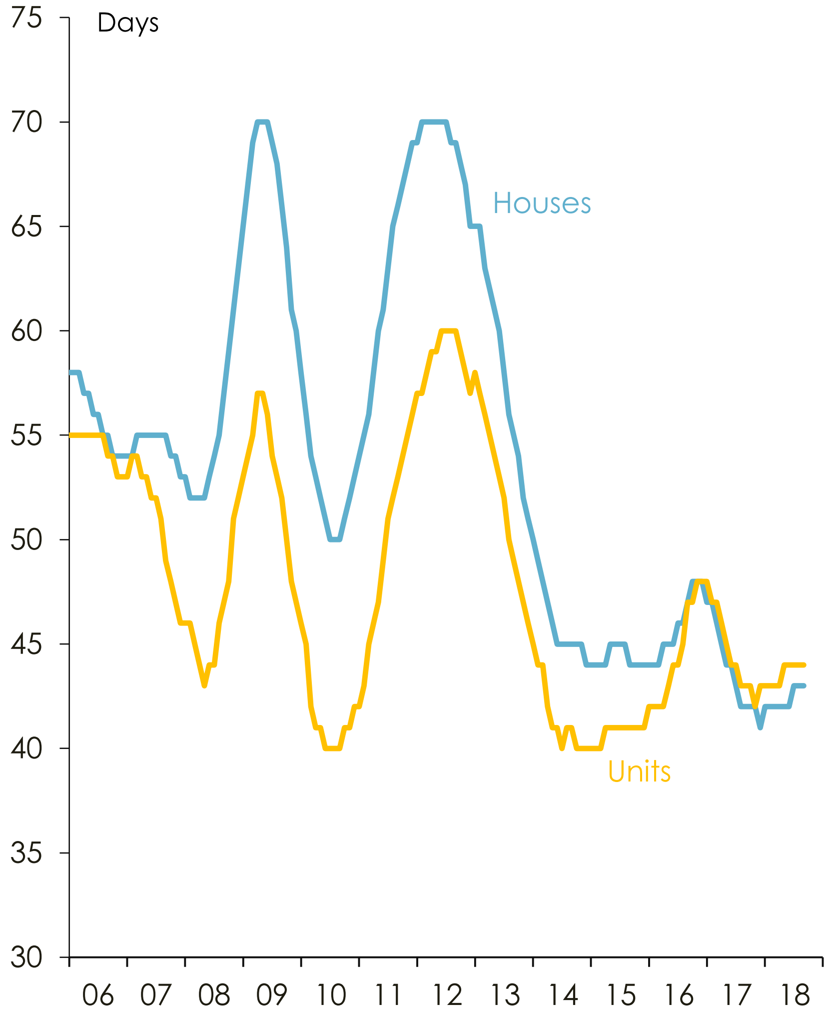
Price declines have been concentrated at the top end of the market – and there's no evidence of widespread forced or panic selling

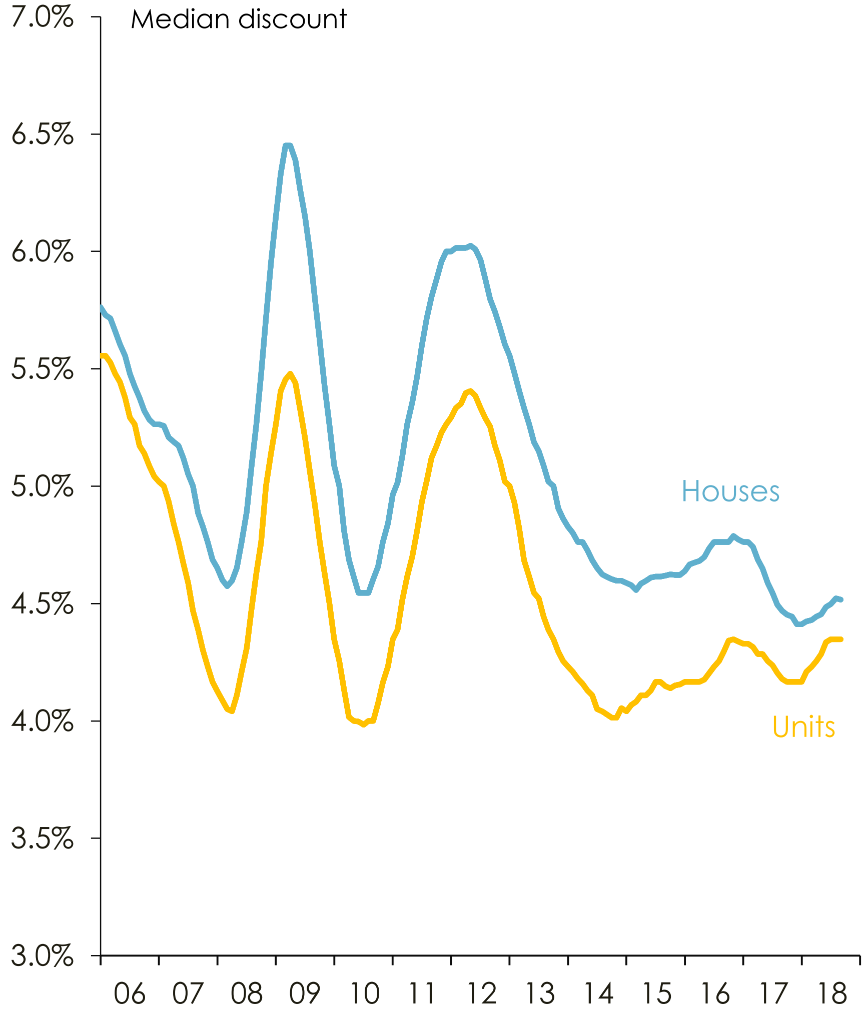
Home values by 'tier'



Median time on the market



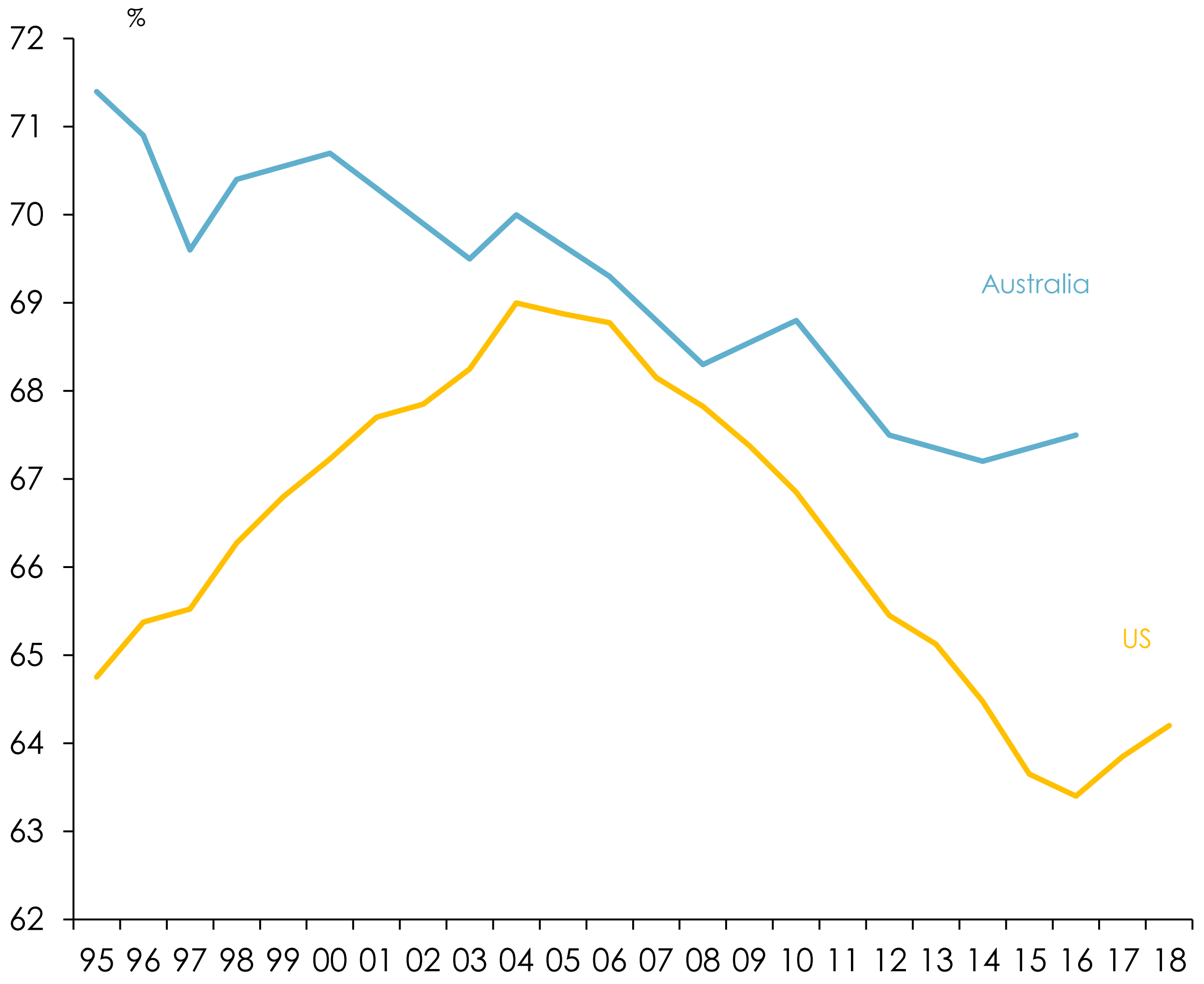
Vendor discounting



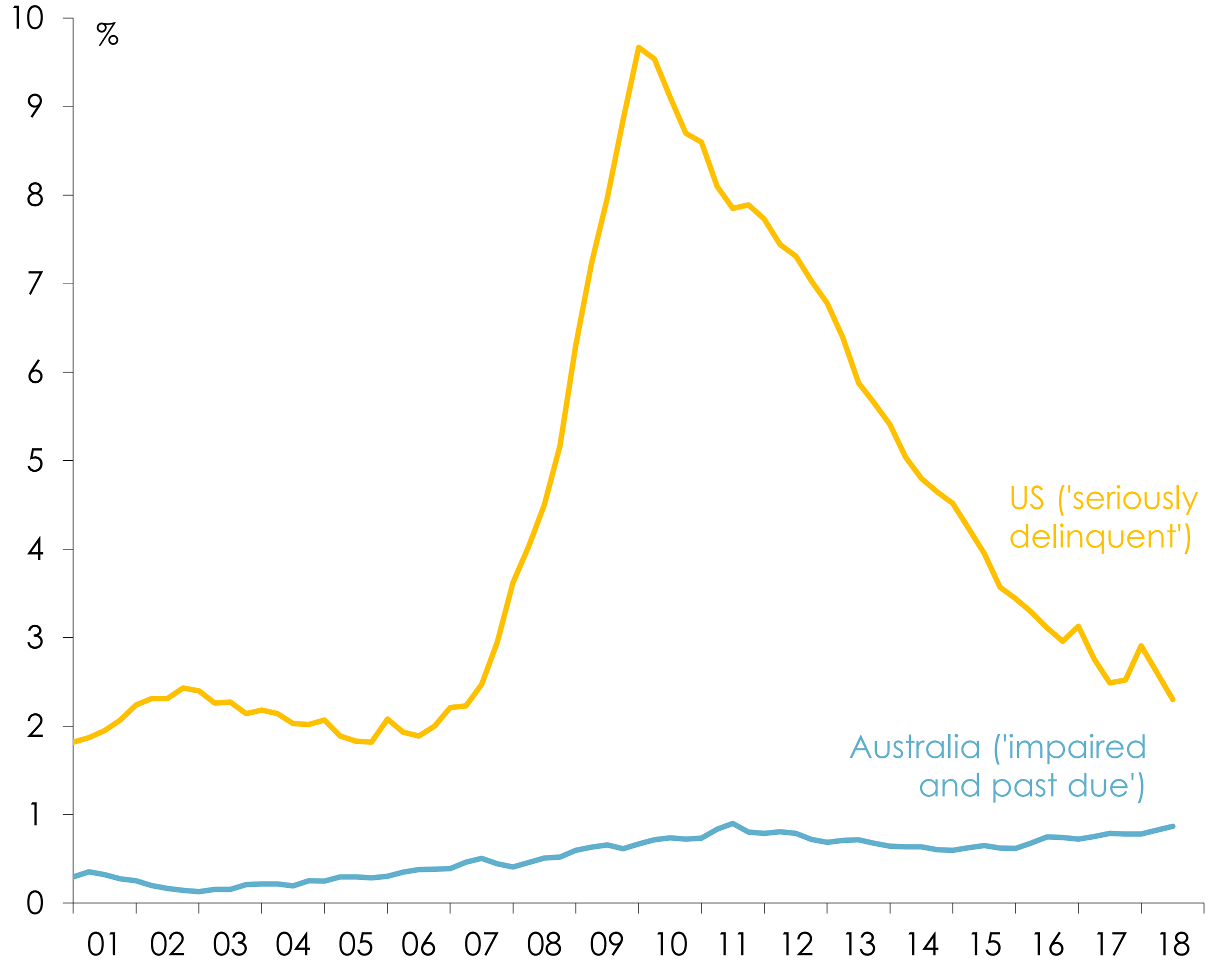
Note: The low, medium and top tiers measure the underlying sales value of the properties making up the bottom 25%, middle 50% and top 25%, respectively. Note that these are hedonic value indexes (that is, they control for structural and locational characteristics of different properties) rather than prices. *Source:* CoreLogic.

There's unlikely to be a lot of 'forced sellers' in Australia, as there were in the US a decade ago

Home ownership rates, US and Australia



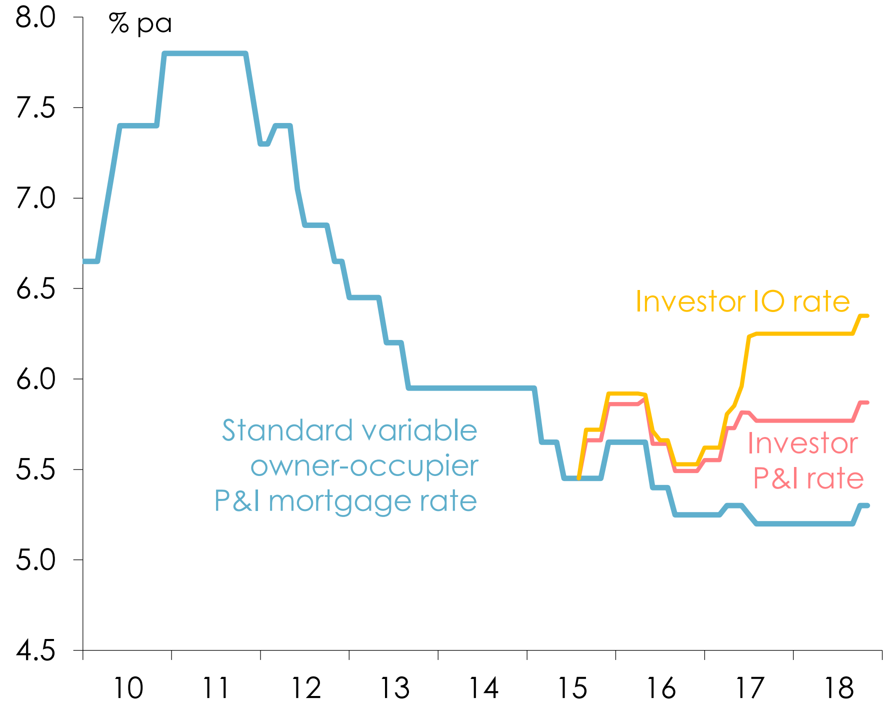
Mortgage delinquency rates, US and Australia



Sources: ABS, US Department of Commerce; Reserve Bank of Australia; Mortgage Bankers' Association of America.

The risks associated with the clamp-down on interest-only lending appear to be relatively small

Interest rates for investor and owner-occupier mortgages



Source: Reserve Bank of Australia.

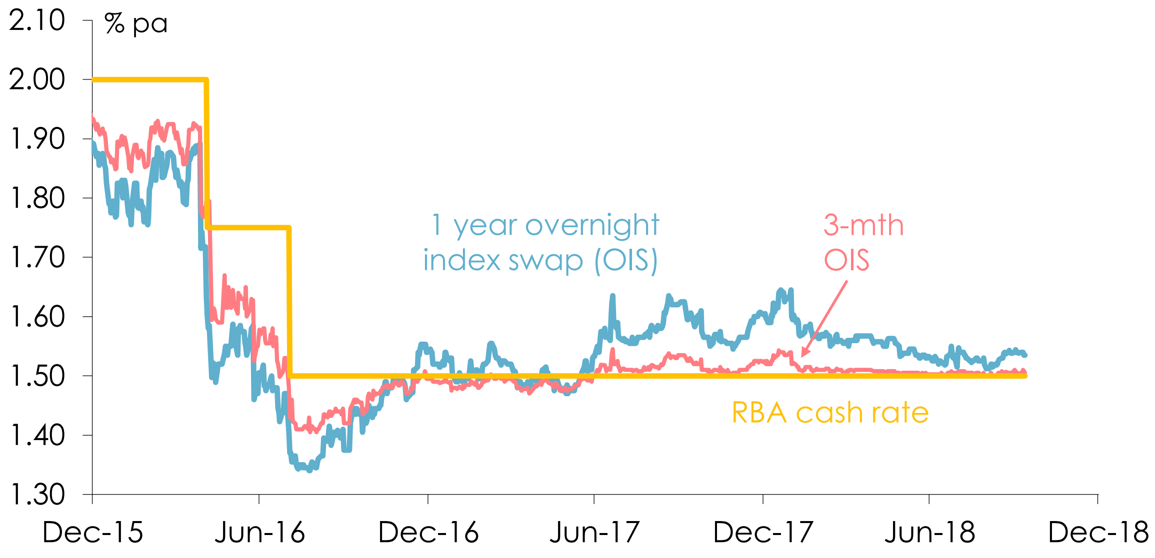
- **The RBA estimates that interest-only (IO) loans averaging about $120bn a year are due to convert to principal-and-interest (P&I) loans between 2018 and 2021**
  - in total this represents about 30% of the total outstanding stock of mortgage debt
  - the 'step up' in mortgage payments when IO loans convert to P&I can be in the range of 30-40%
- **However the RBA believes that "any resulting increase in financial stress should not be widespread"**
  - many IO borrowers have accumulated substantial pre-payments on their loans
  - some borrowers have switched to P&I repayments ahead of schedule in order to avoid the higher rates which have applied to IO loans since 2016 – and "these borrowers appear well placed to handle the higher repayments"
  - the 'buffers' incorporated into the serviceability assessments used to write IO loans include potential for future interest rate increases and the step-up in payments at the end of the IO period
  - this latter aspect of loan serviceability standards was tightened by APRA in 2014
- **The RBA's latest *Financial Stability Review* acknowledges that "a small share of borrowers could encounter financial stress" as a result of switching from IO to P&I terms**
  - It reports that "some borrowers have encountered repayment difficulties … but many have subsequently been able to adjust to higher payments within a year

The RBA is in no hurry to begin lifting official interest rates, no matter what other central banks do

RBA forecasts

	Year-ended					
	Jun 2018	Dec 2018	Jun 2019	Dec 2019	Jun 2020	Dec 2020
GDP growth	3	3¼	3¼	3¼	3	3
Unemployment rate[b]	5.5	5½	5¼	5¼	5¼	5
CPI inflation	2.1	1¾	2	2¼	2¼	2¼
Underlying inflation	2	1¾	2	2	2¼	2¼

Market pricing of the RBA cash rate



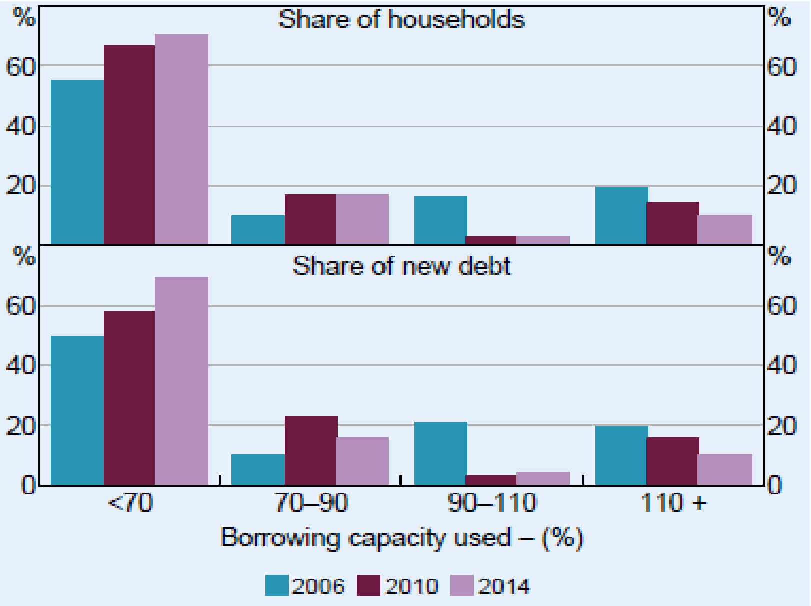
Source: RBA, *Statement on Monetary Policy*, August 2018.

- ❑ The RBA expects economic growth to be 'a bit above trend' this year and next – making for 'a further gradual decline in the unemployment rate', but not reaching 5% until 2020 …
- ❑ … while progress in 'having inflation return to target is expected … to be gradual'
- ❑ These are not the forecasts of a central bank that is on the cusp of tightening monetary policy
- ❑ The RBA takes movements in interest rates charged by lenders into account when contemplating movements in its own cash rate – and at its last meeting noted that 'the average mortgage rate is lower than a year ago' despite 'some lenders' increasing 'rates by small amounts
- ❑ The RBA would be delighted to see [further] increases in foreign interest rates while it 'stands pat' reflected in a further decline in the A$
- ❑ Financial markets and economists have been pushing out their expectations for the timing of the first increase in the RBA cash rate – it may well not be until the second half of next year, or even the first half of 2020

Will the Banking Royal Commission lead to a 'credit squeeze'?

- The Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry was scathing in its assessment of the 'culture' in financial institutions, and of the perverse incentives created by remuneration practices – and of the unwillingness of regulators to take firm action, quickly, in responses to breaches of laws or regulations by financial institutions
- However, the Royal Commission hasn't uncovered anything pointing to widespread imprudent lending or borrowing on the scale evident, for example, in the US in the early 2000s
  - the failure of lenders to ascertain and verify borrowers' expenses had been 'called out' by ASIC and APRA between 2015 and 2017

Household use of maximum borrowing capacity

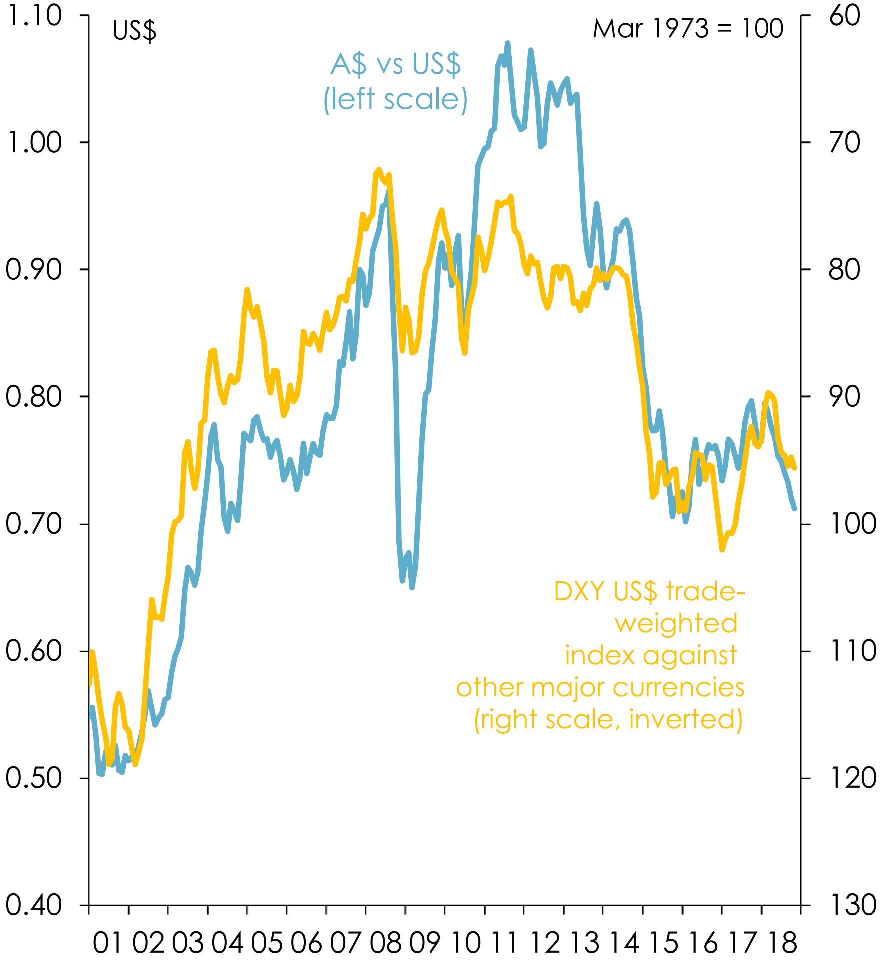


Note: Estimated maximum borrowing amount based on *current* lending standards and income-adjusted household expenditure measure.
Source: RBA, *Financial Stability Review*, October 2018,

- Concerns that the Royal Commission's recommendations – or actions by lenders in anticipation of those recommendations – may lead to a 'credit squeeze' seem exaggerated
- RBA research indicates that not many households borrow the maximum amount offered by lenders
  - the median home-buyer borrowed about half the maximum loan obtainable
  - more than two-thirds of households borrowed less than 70% of their maximum loan size
  - only around 13% of newly-indebted home-buyers borrowed 90% or more of the maximum loan size
- The average owner-occupier loan has increased from \$350K to \$410K since lending standards were first tightened in mid-2015 – but that is still well under the maximum loan of \$530-\$630K that would be offered to the median borrower under current lending standards

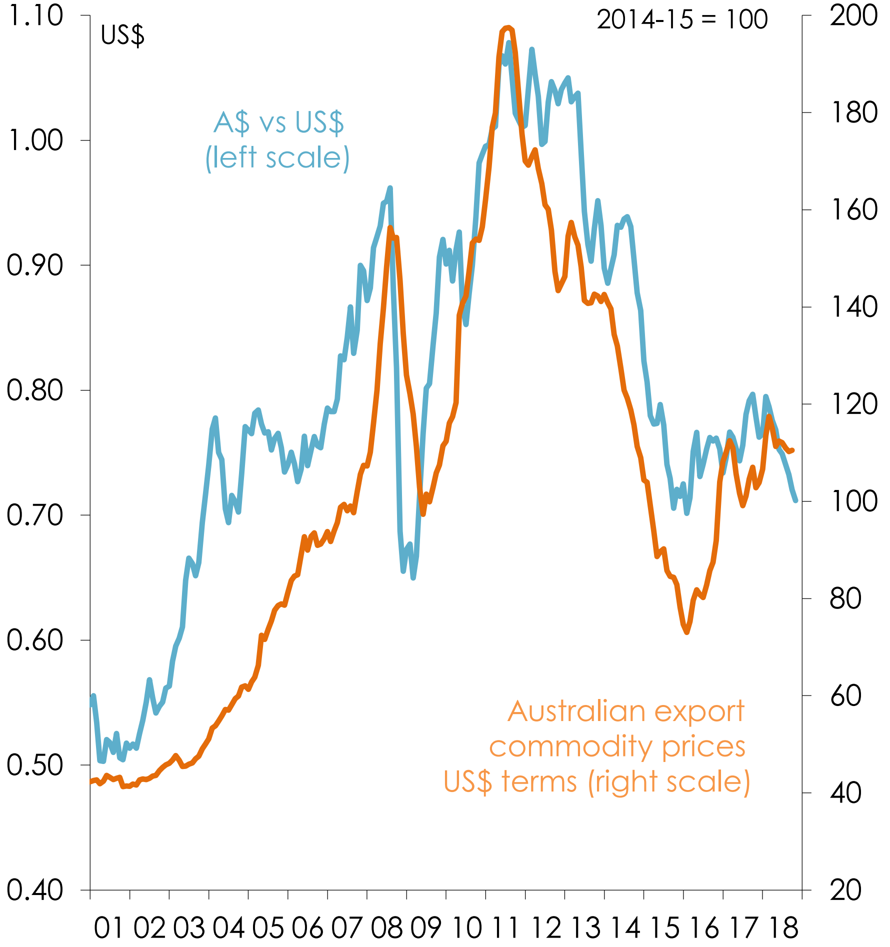
A$-US$ rate largely a function of US$ itself – narrowing in interest rate spreads has been offset by resilience in commodity prices

A$-US$ rate and US$ vs other major currencies



A$-US$ rate and Australia-US interest rate spreads

A$-US$ rate and commodity prices



Sources: Thomson Reuters Datastream; Federal Reserve Board; RBA.

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Summary and conclusions for Australia

- **Economic growth is now running close to trend, but it's hard to see any significant acceleration in growth to an 'above-trend' pace from here**
  - which means that 'spare capacity' in the labour market is likely to persist for quite a long time yet
  - which in turn means that it's unlikely there will be any meaningful acceleration in wages growth any time soon
  - which implies that the RBA may be 'doing nothing' for quite a long time
- **The most obvious risks to Australia's economic prospects come from overseas**
  - in particular, the risk of a 'trade war' – from which there are *no winners* (despite what President Trump thinks)
  - but also from higher US interest rates, a stronger US dollar and the potential for political attacks on the Fed's independence
  - and a host of other 'geo-political' risks (Mueller inquiry and US mid-term elections, 'Brexit', North Korea, Iran)
  - although the risks of an abrupt slow-down in China seem to have receded for now, they could come back again in 2019 or 2020
- **The end of the housing boom reduces what had been seen as a major risk for Australia**
  - the decline in property prices now under way in most Australian cities has further to run, and will have some dampening impact on household spending – but it is not the precursor to a US-, Irish- or Spanish-style 'housing bust'
  - rather, it should be seen as reducing the risk of that kind of event happening later on, and as offering some prospect of an improvement in housing affordability
- **Australia is likely to experience on-going political uncertainty**
  - opinion polls suggest that there will be a change of government at the next election (due in Q2 2019) – and there is some risk of instability within the current government ahead of that time
  - a future Labor Government may find the Senate as difficult to deal with as the present Government has