

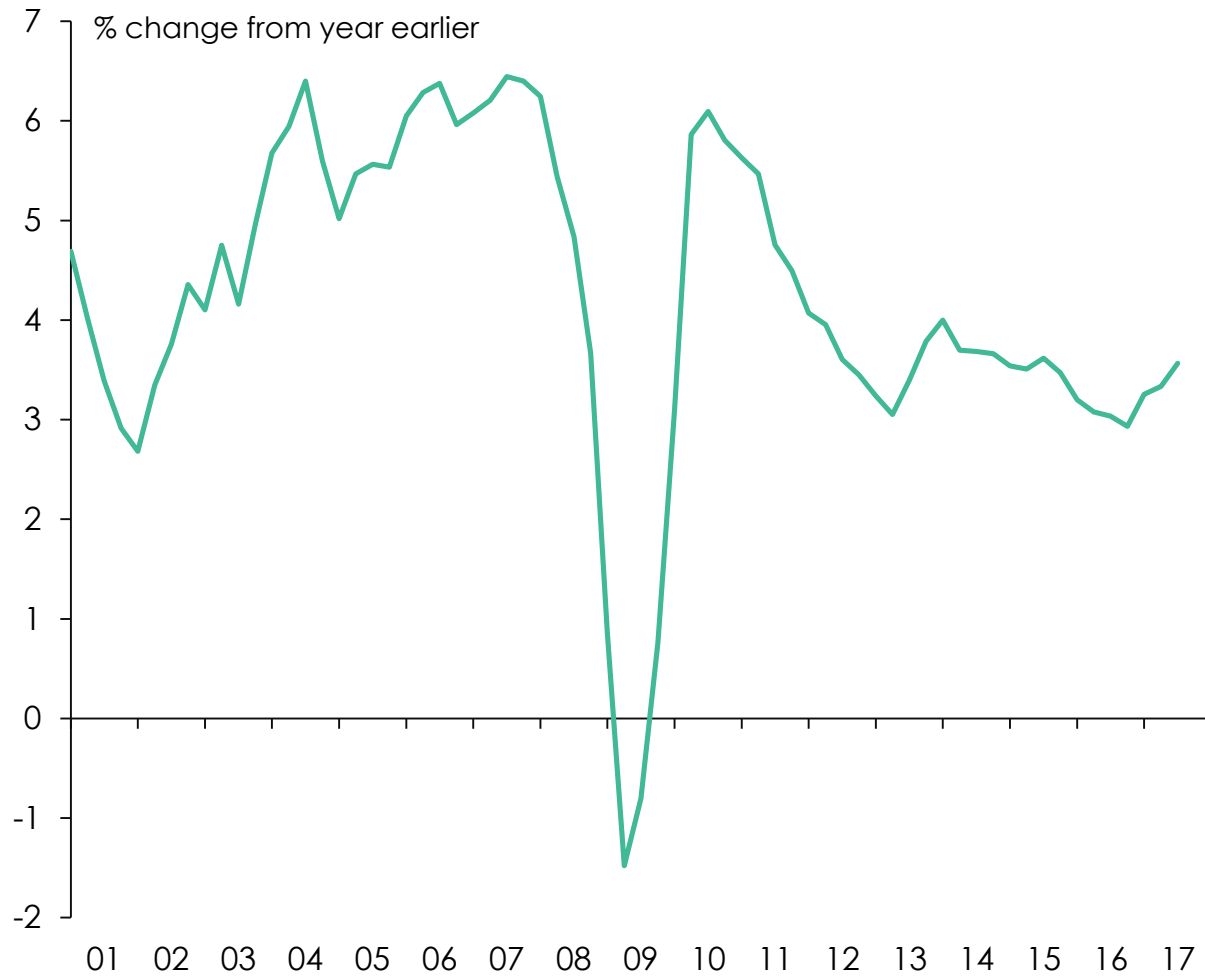
THE WORLD TODAY – A GLOBAL MACRO-ECONOMIC AND POLITICAL PERSPECTIVE

PRESENTATION TO HRL MORRISON & CO
INFRASTRUCTURE CONFERENCE 2017

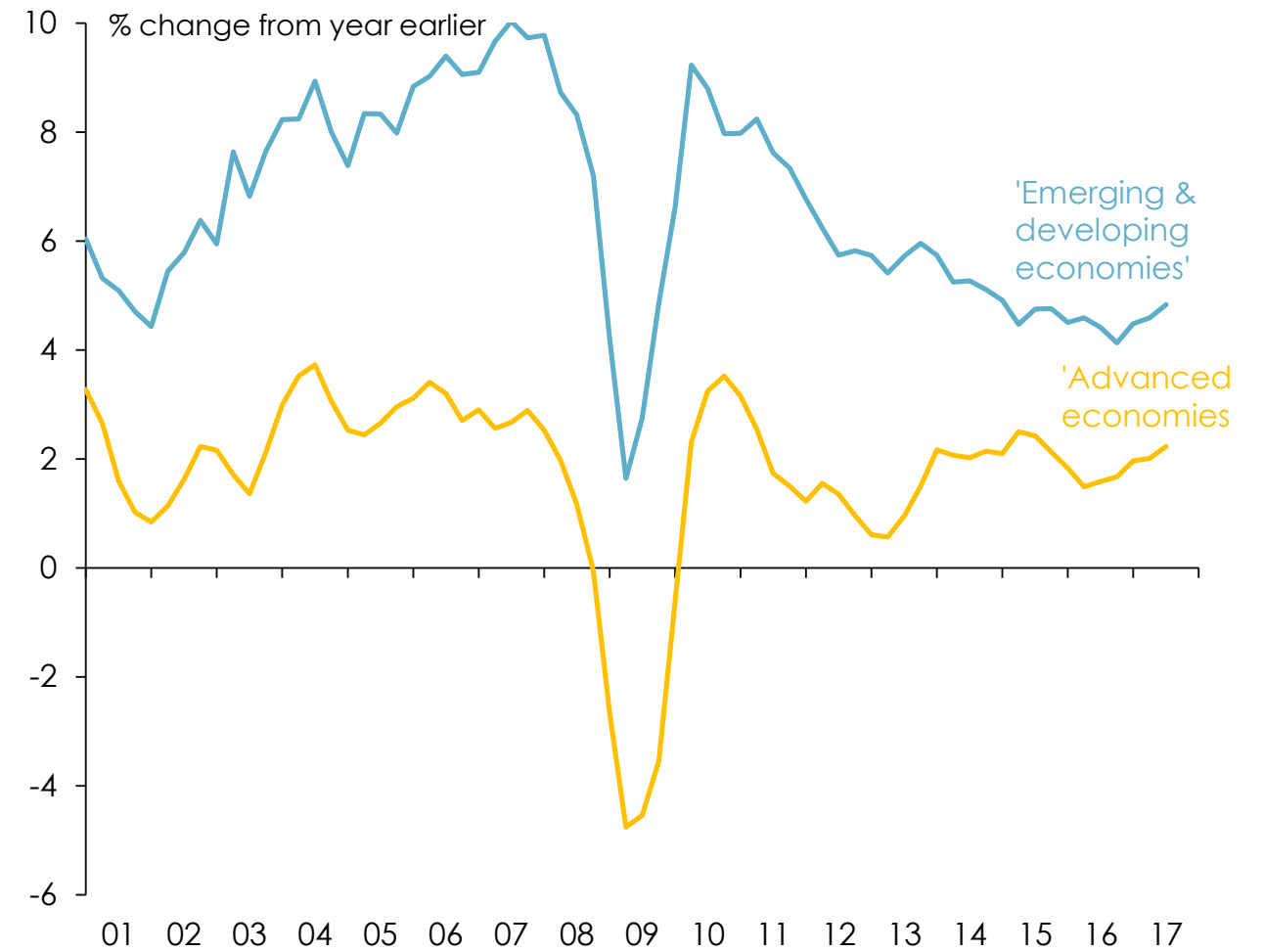
MILLBROOK RESORT, QUEENSTOWN, NEW ZEALAND – 19TH SEPTEMBER 2017

World economic growth is picking up

World real GDP growth



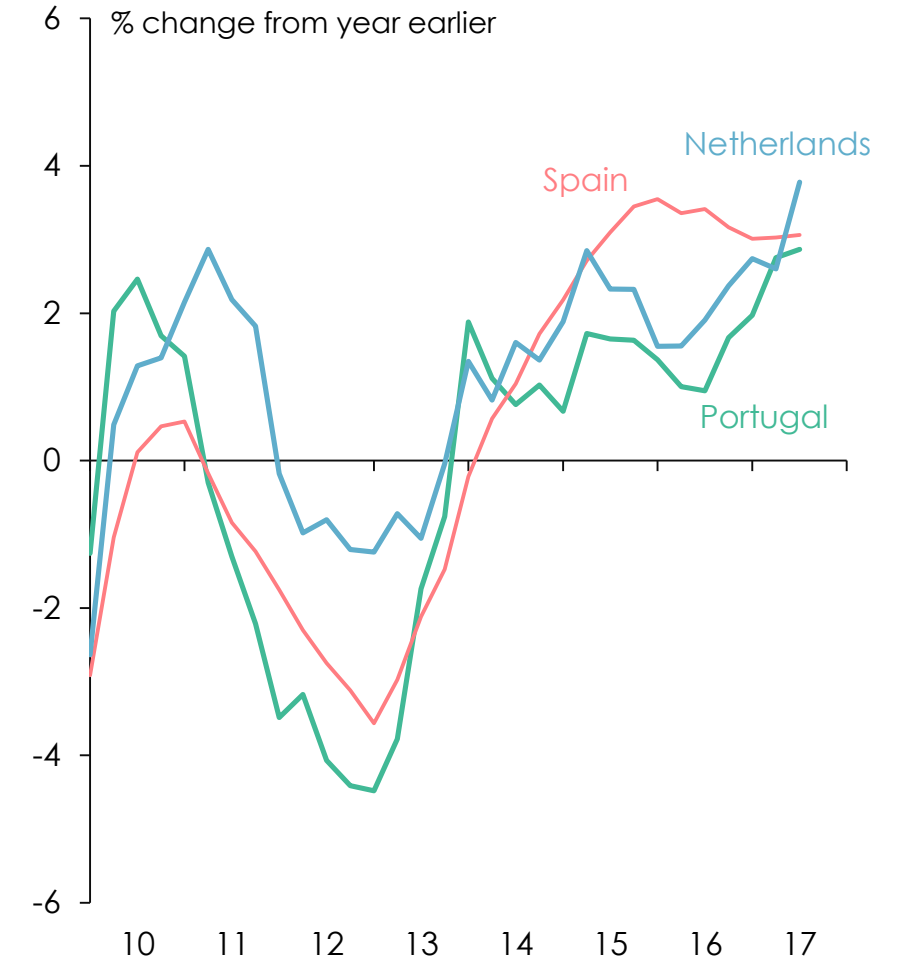
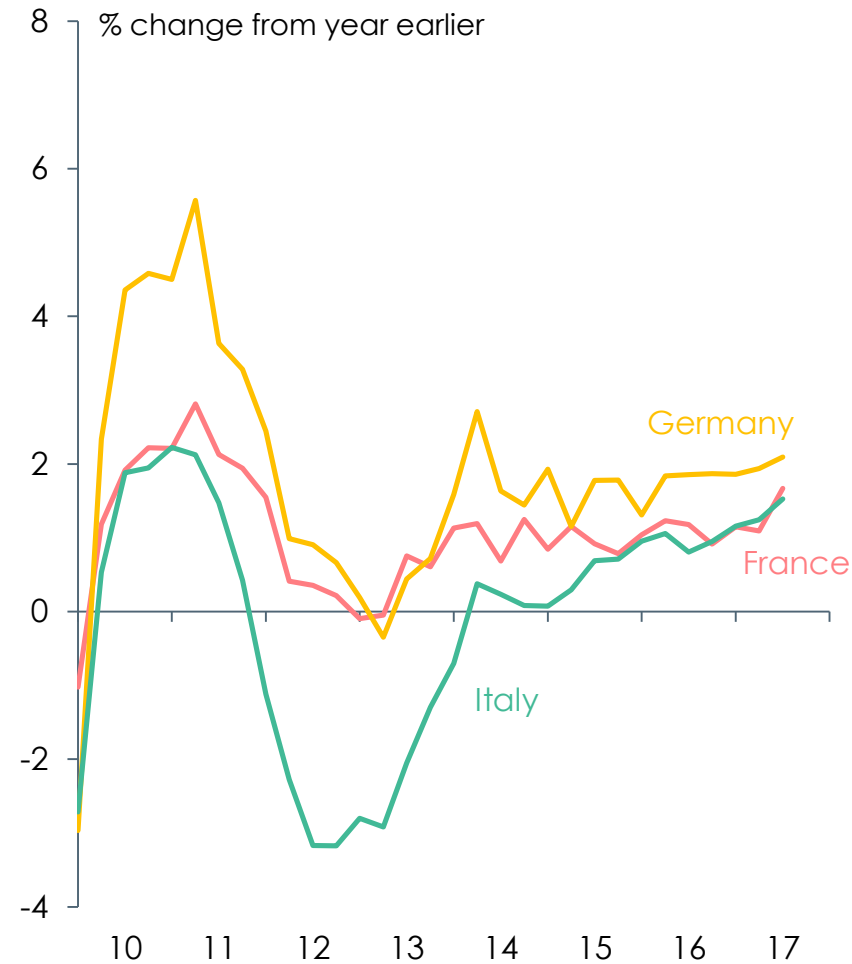
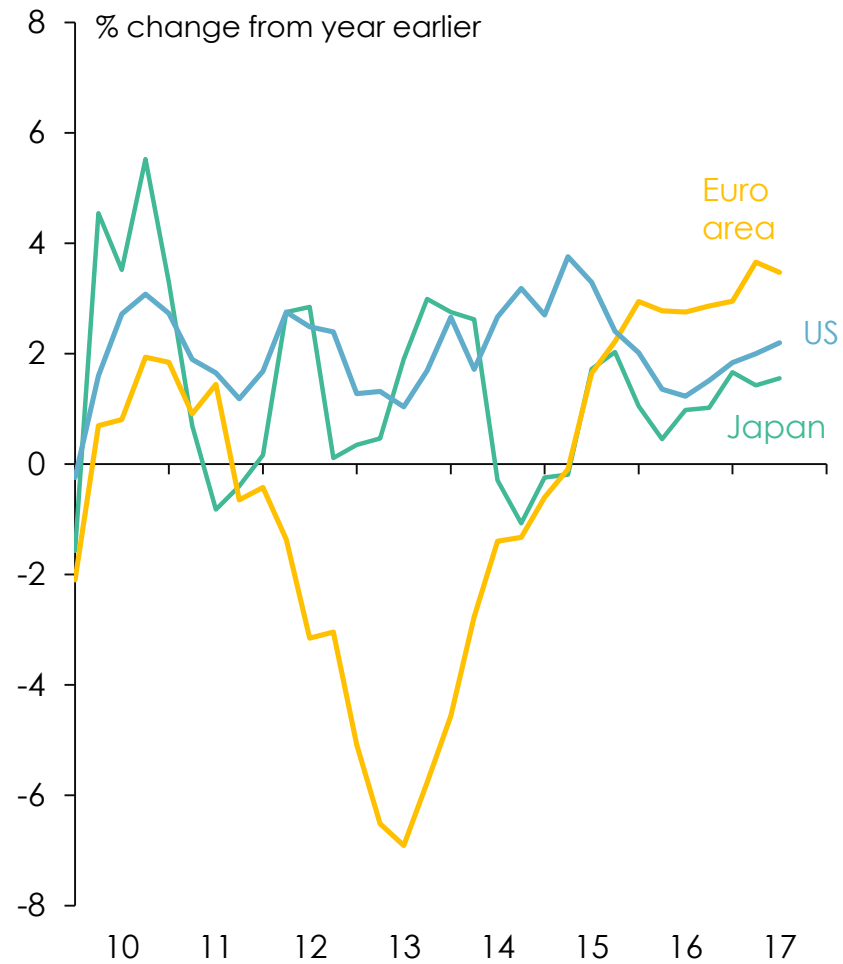
'Advanced' and 'emerging & developing' economies real GDP growth



Note: World GDP growth is the average of growth rates for 68 economies (42 'advanced' and 26 'emerging & developing') accounting for 90% of total world GDP (according to IMF estimates), weighted by their shares of 2016 world GDP at purchasing power parities. Sources: national statistical agencies and central banks; Corinna Economic Advisory.

The upswing in 'advanced' economy growth is being led by the euro area – and the euro area recovery is being driven by smaller economies

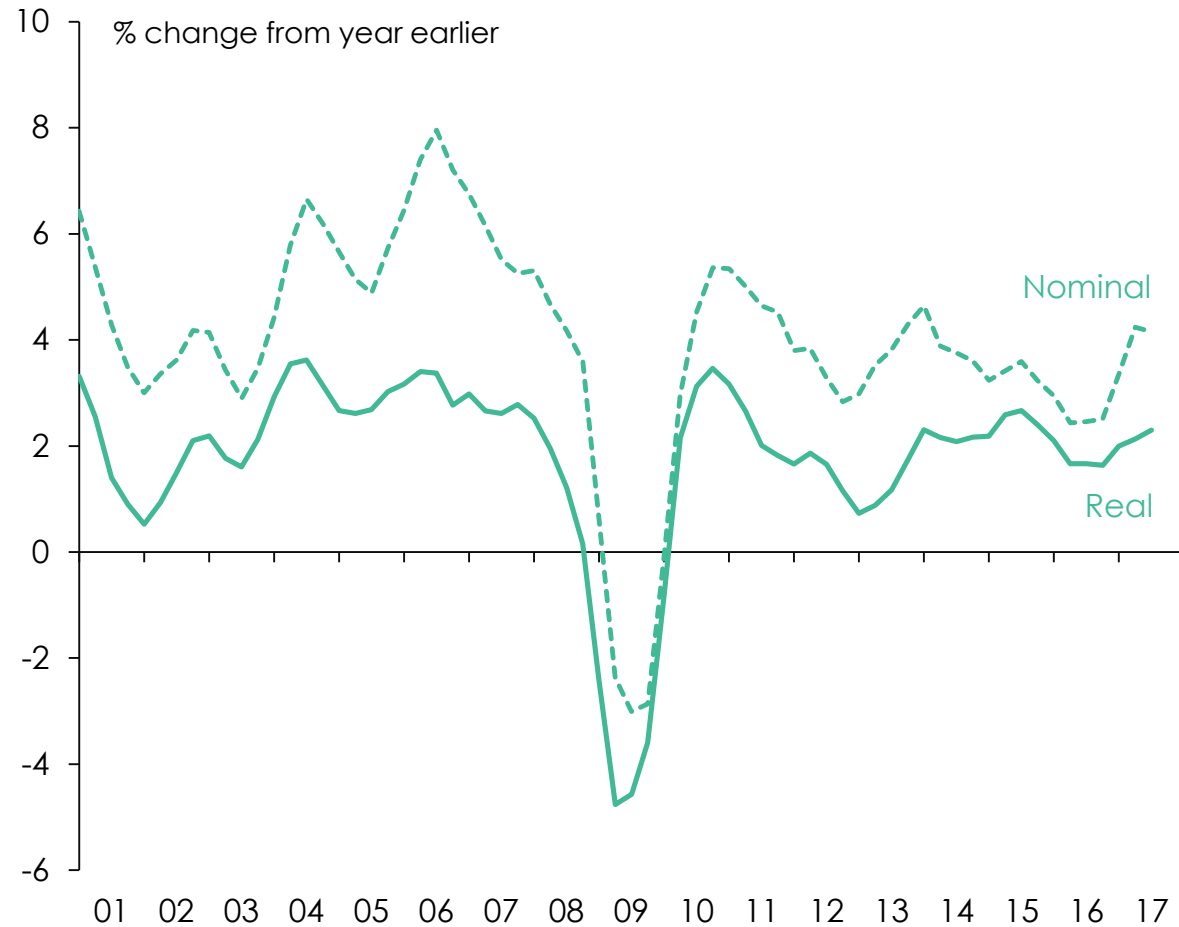
Real GDP growth in 'advanced' economies



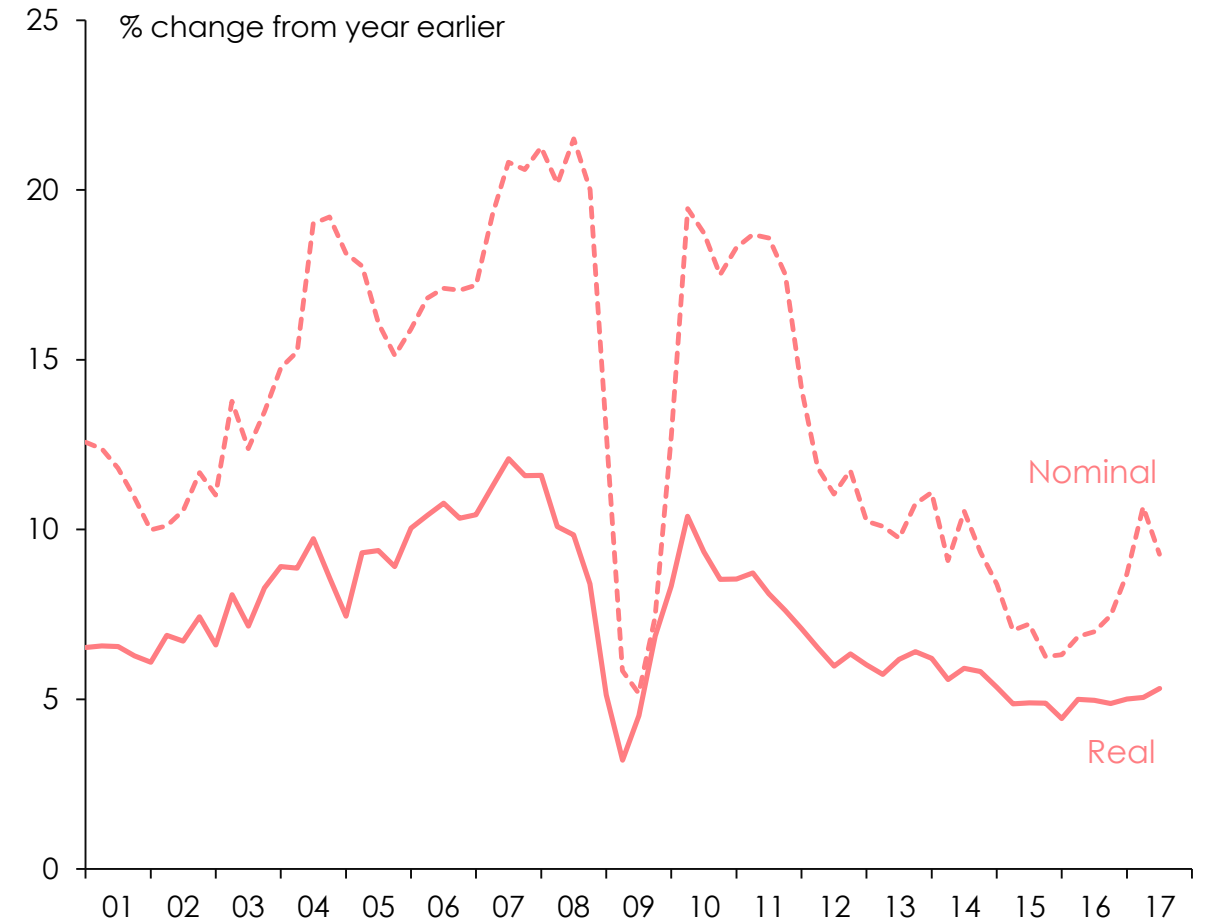
Sources: US Bureau of Economic Analysis; Eurostat; Japan Cabinet Office.

Nominal GDP growth is accelerating more than real growth – which is good for profits, and for servicing debt

OECD area real and nominal GDP growth



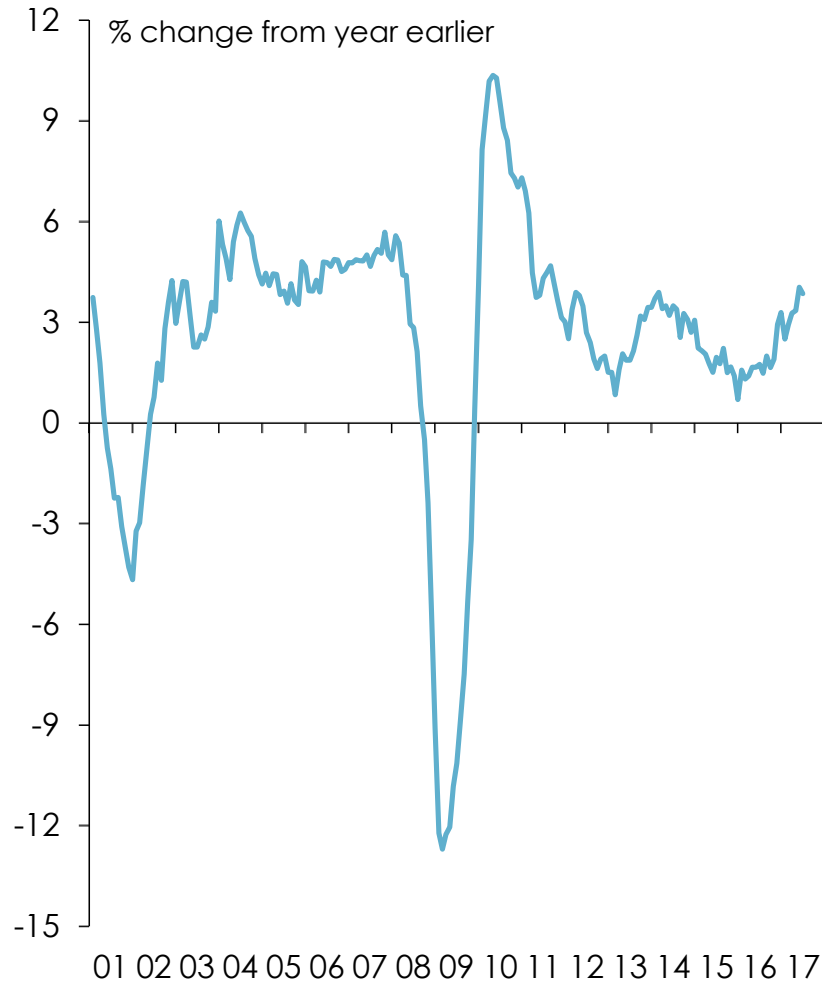
'BRICS' real and nominal GDP growth



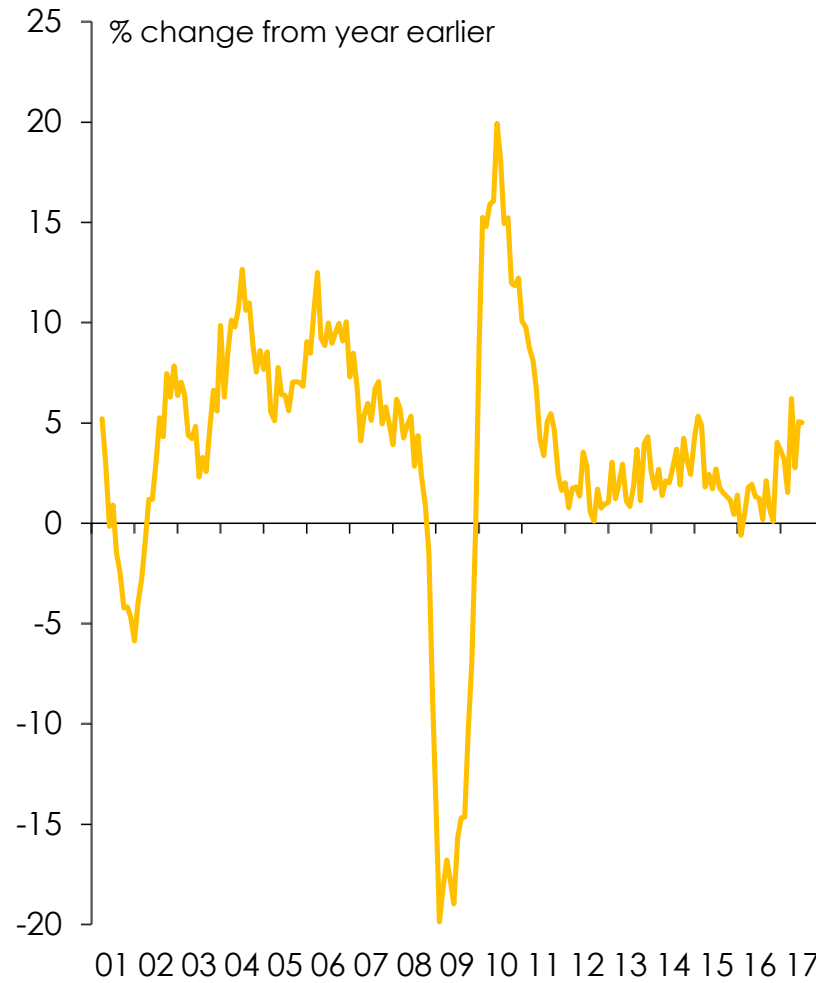
Note: OECD includes some 'emerging' economies (Mexico, Turkey, Chile) and excludes some 'advanced' economies (Taiwan, Hong Kong, Singapore). 'BRICS' is Brazil, Russia, India, China and South Africa, weighted by 2016 GDP at purchasing power parities. Sources: OECD; national statistical agencies; Corinna.

World industrial production and trade volumes are strengthening - and commodity prices are rising again

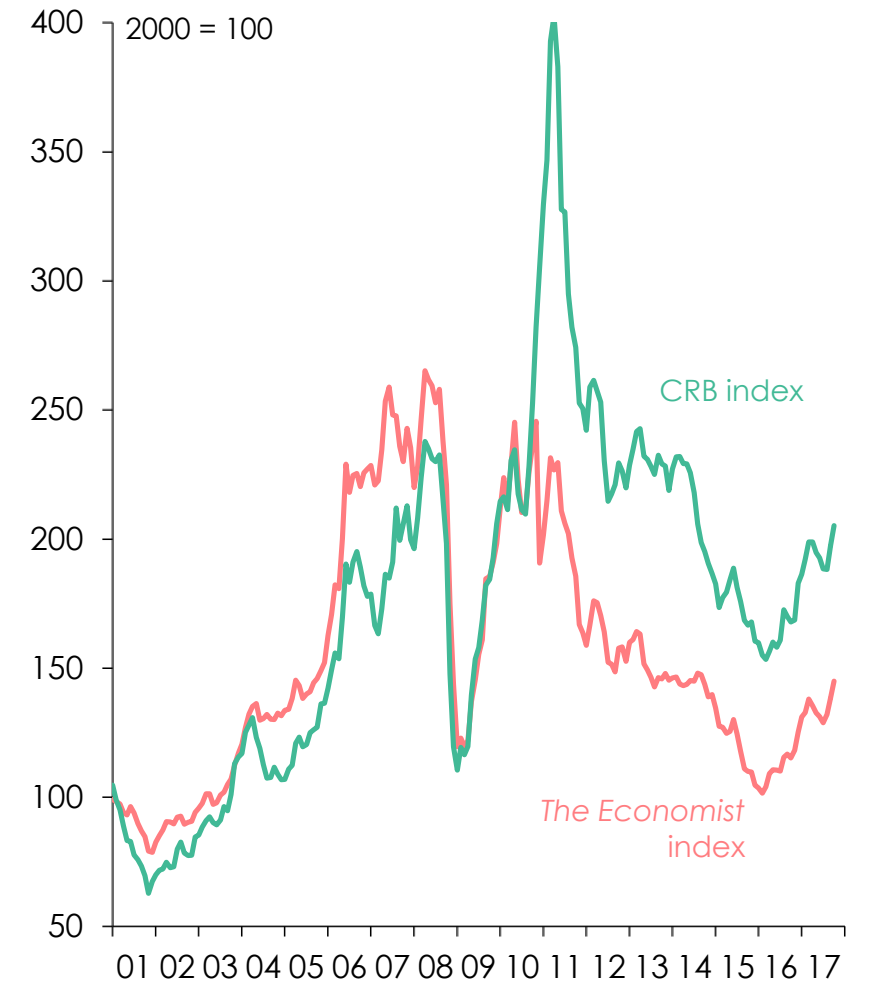
World industrial production



World trade volume



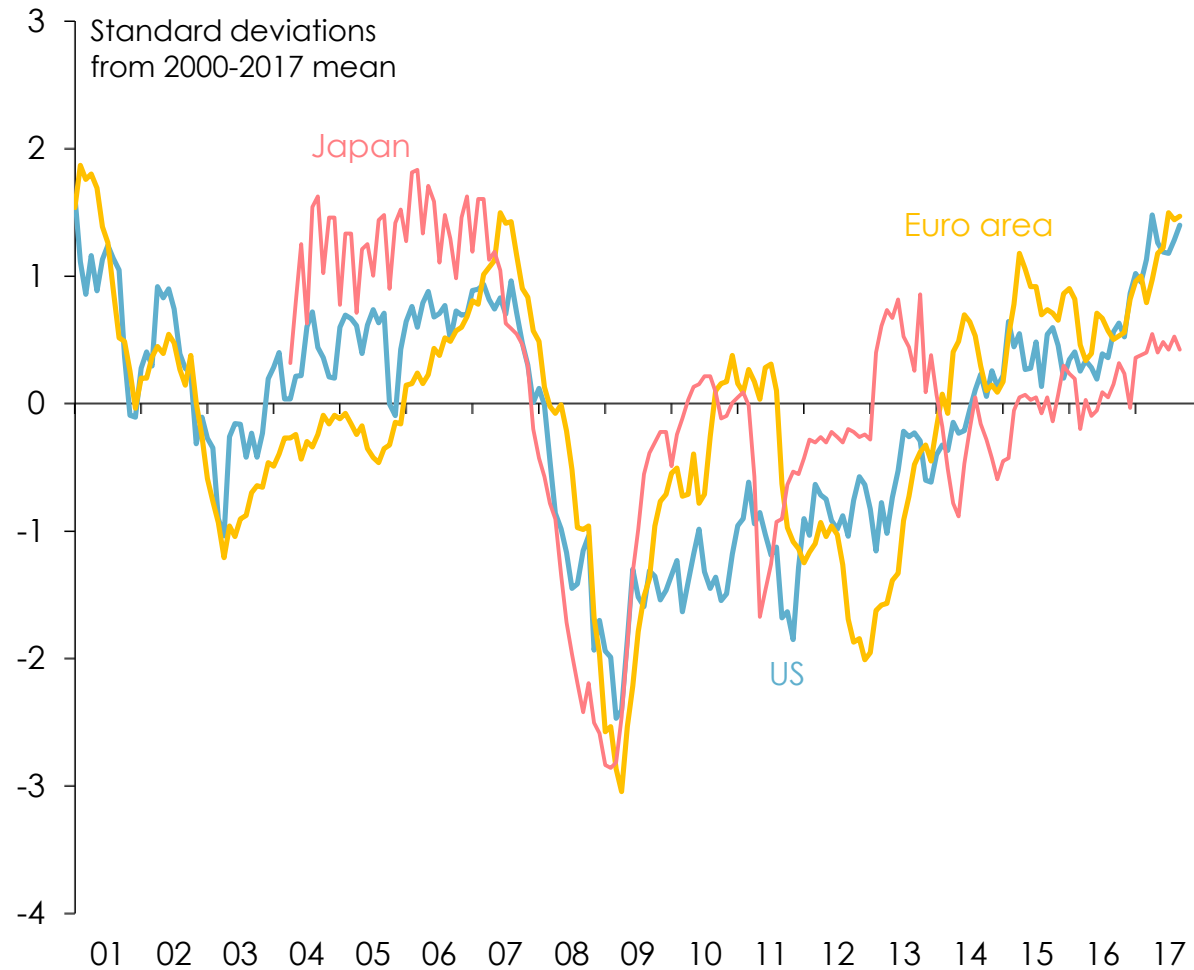
Industrial commodity prices



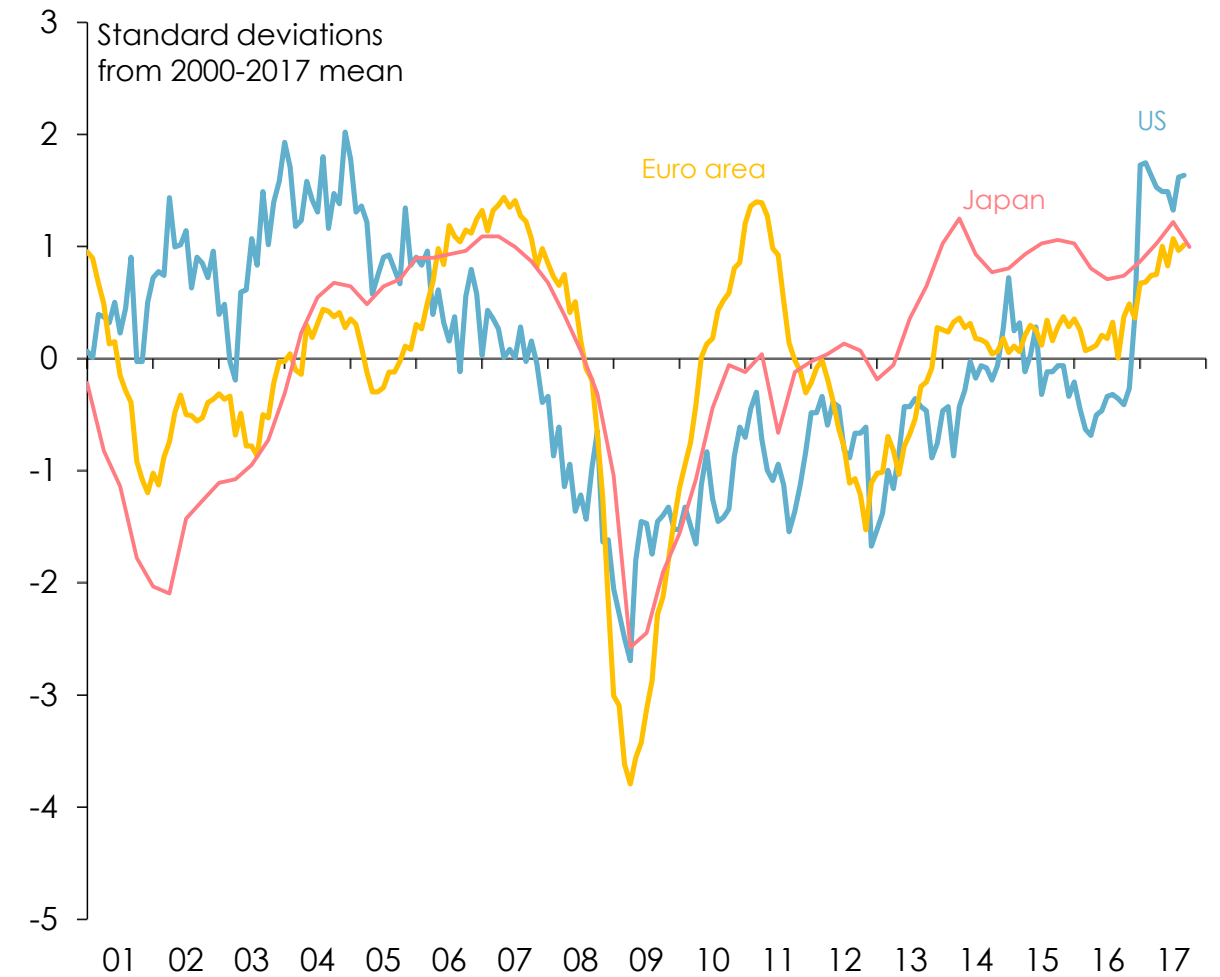
Sources: Netherlands Economic Planning Bureau (CPB); *The Economist*; Thomson Reuters Datastream.

Consumer and business confidence have also improved in the major 'advanced' economies, reflecting political as well as economic events

Consumer confidence



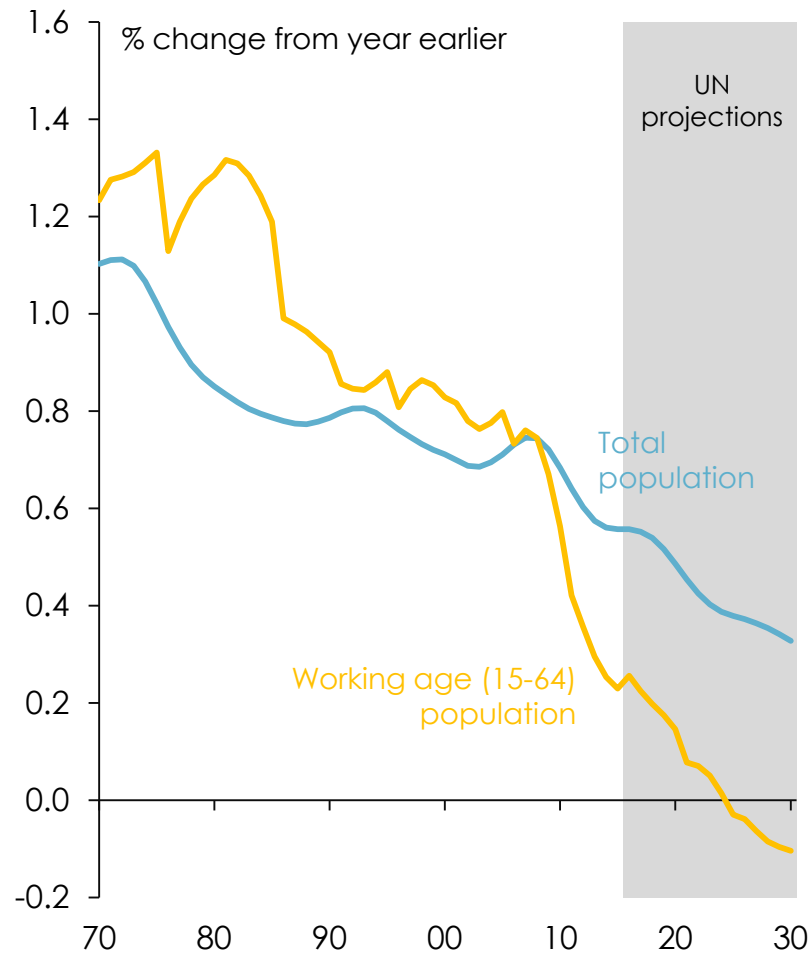
Business confidence



Note: Consumer confidence measures are those compiled by the Conference Board (US), European Commission (euro zone) and Cabinet Office (Japan). Business confidence measures are those compiled by the National Federation of Independent Businesses (US), European Commission (euro zone) and the Bank of Japan (the 'tankan' survey, averaged over large and small businesses).

The scope for more rapid economic growth in 'advanced' economies is limited by demographic change and slower productivity growth

OECD area population growth



OECD area labour productivity growth



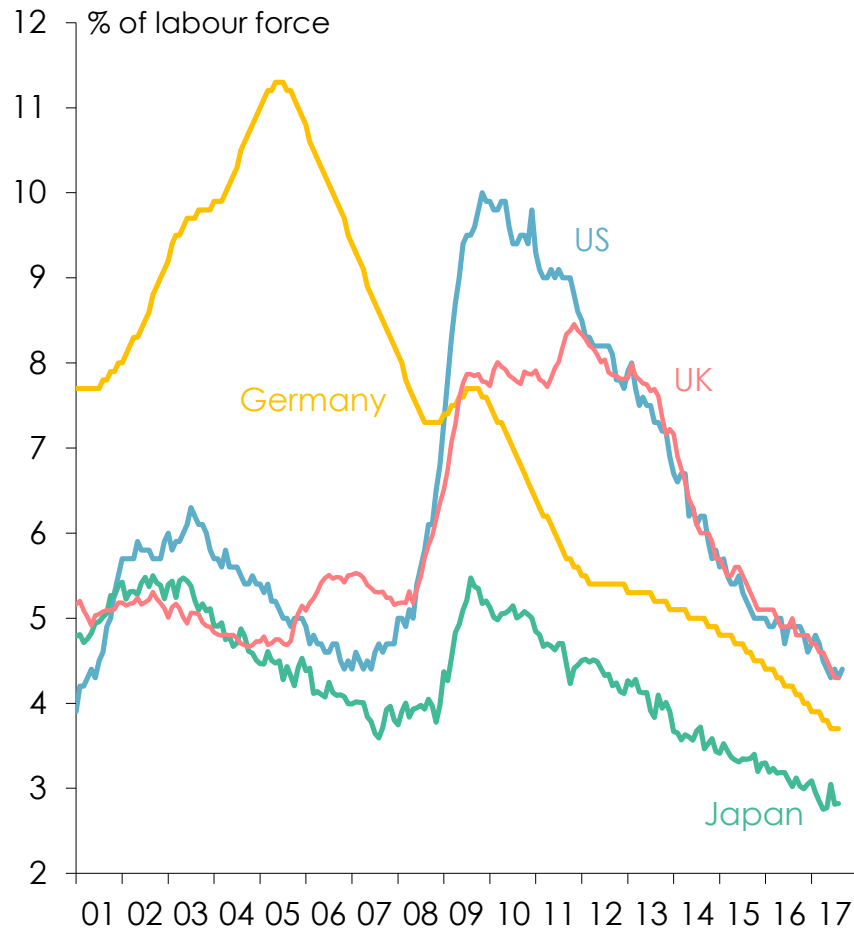
OECD area potential GDP growth



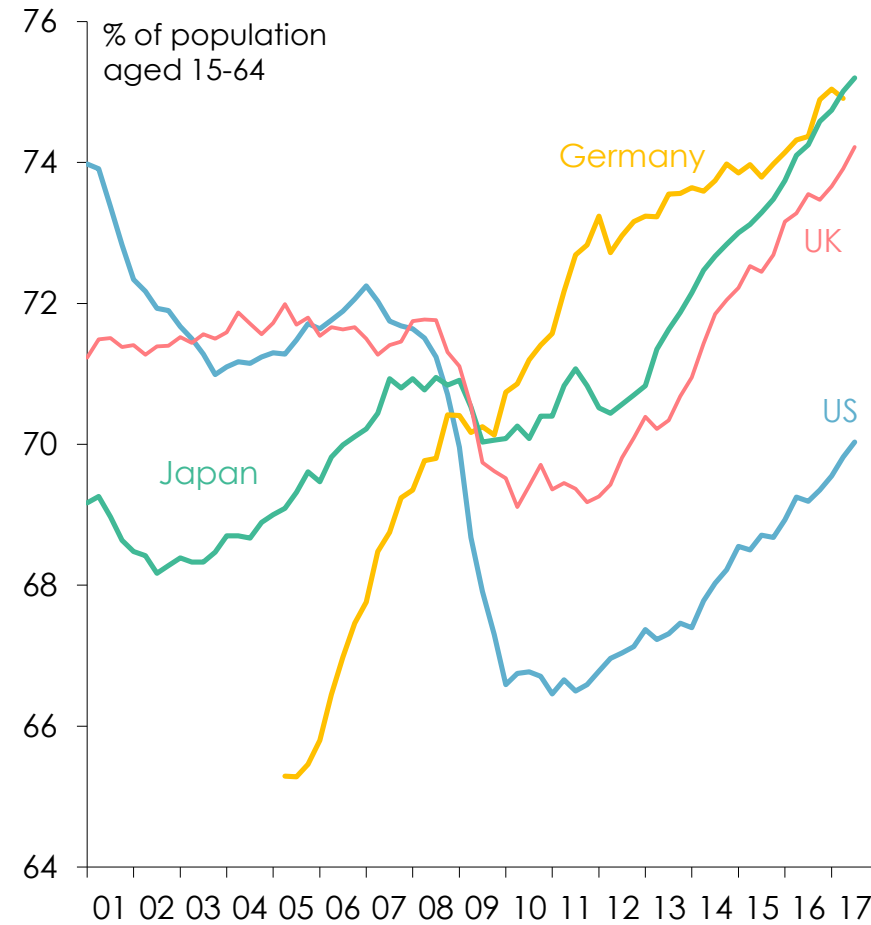
Sources: United Nations Economic & Social Affairs Division, Population Branch, *World Population Prospects – The 2017 Revision*; Organization for Economic Co-operation & Development (OECD), *Economic Outlook* database June 2017. 'Potential growth' means growth in the level of real GDP assuming full employment of the available labour force. Note that the OECD area includes some 'emerging' economies (Mexico, Turkey, Chile) and excludes some 'advanced' ones (Taiwan, Hong Kong and Singapore)

The largest four 'advanced' economies don't have much 'spare capacity' left in their labour markets

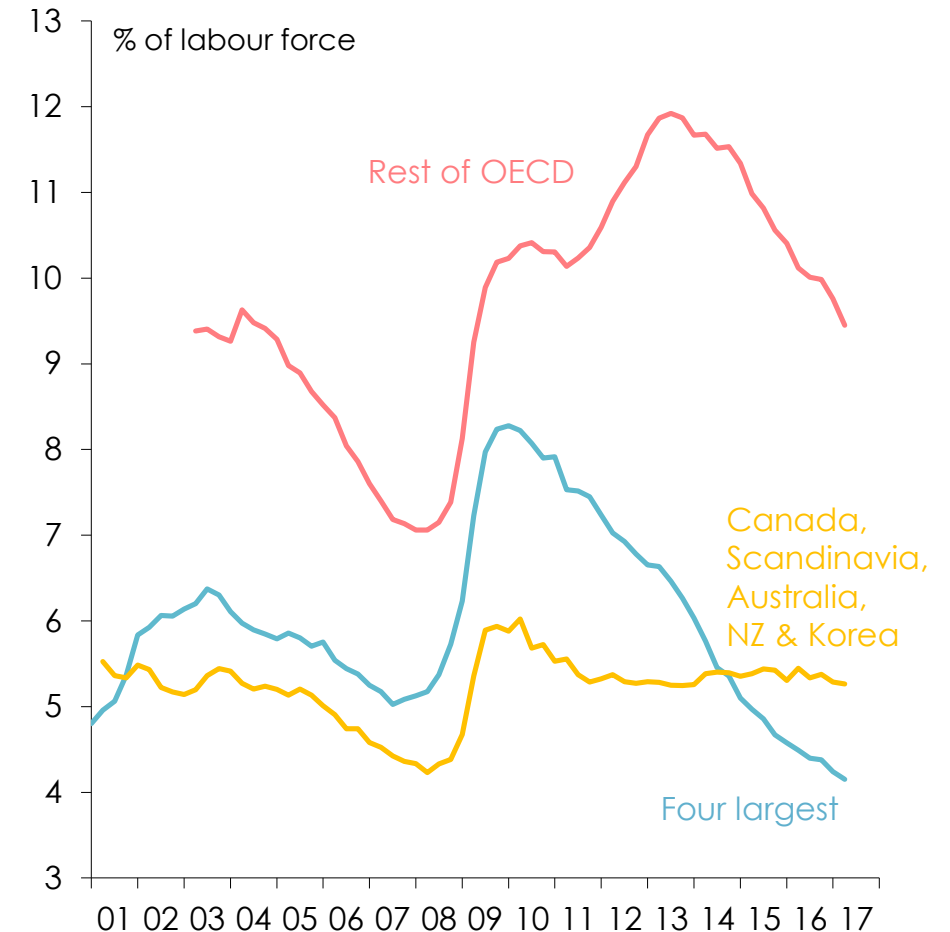
Unemployment – 4 largest 'advanced' economies



'Employment rates' – 4 largest 'advanced' economies



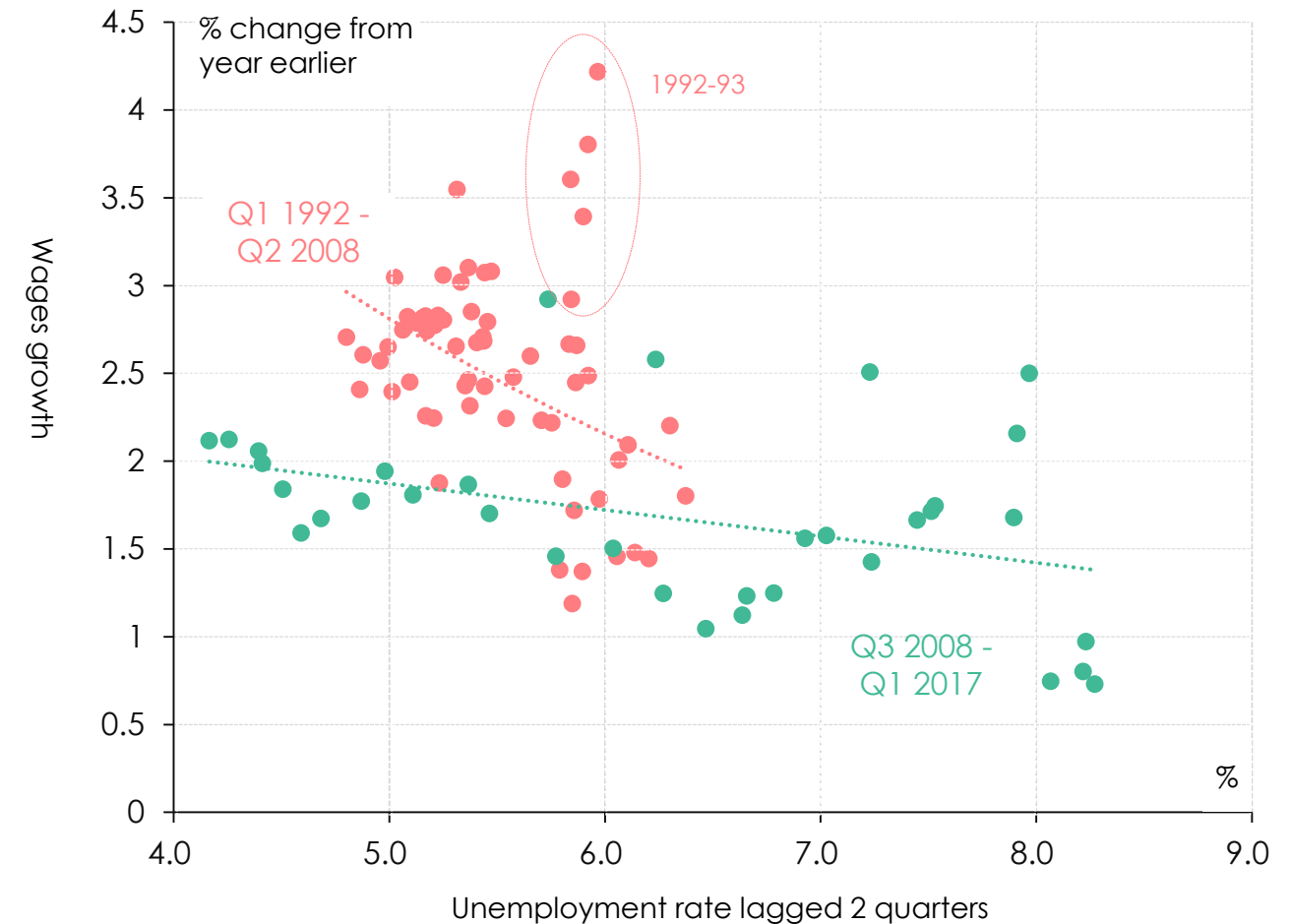
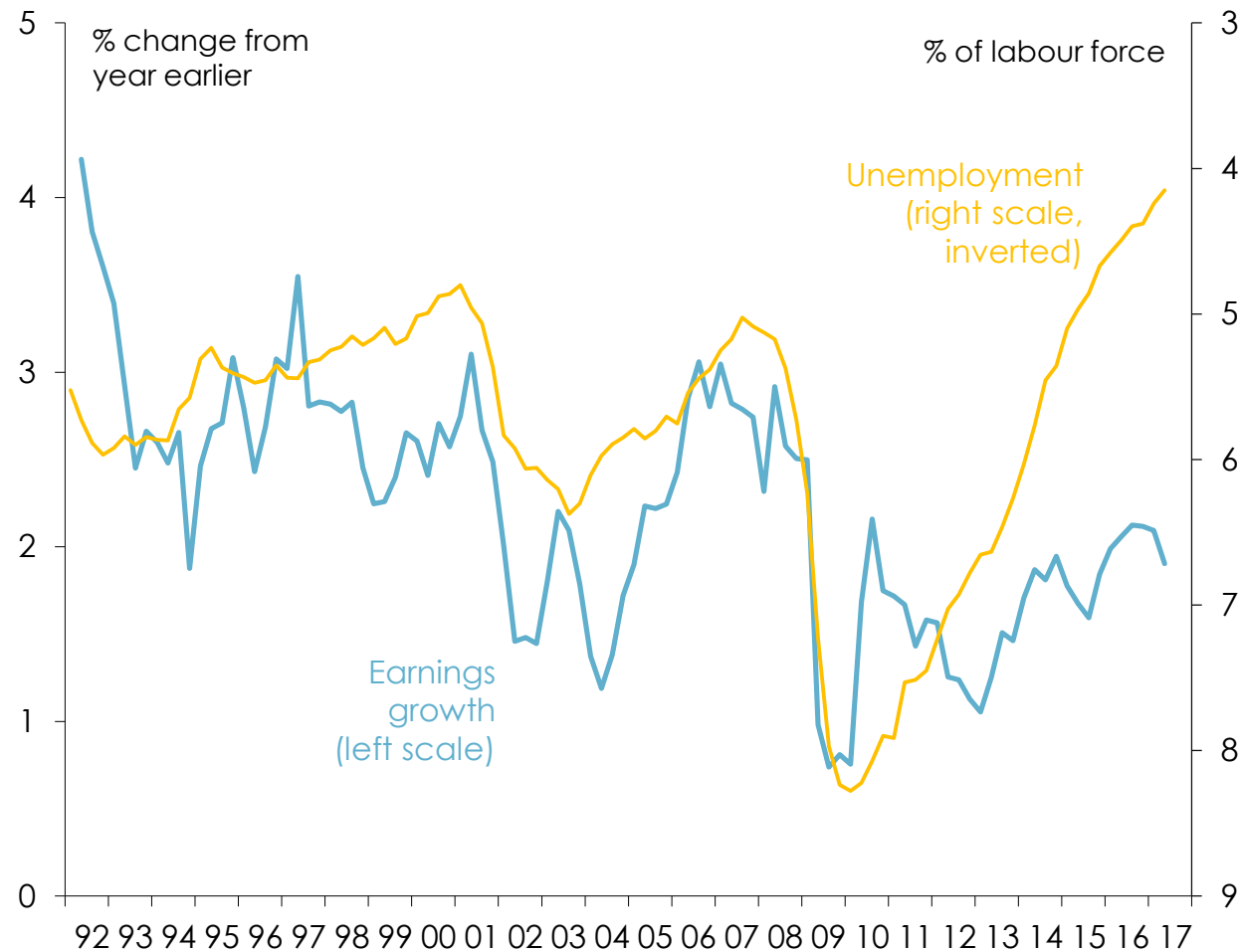
Unemployment rates – other OECD economies



Sources: US Bureau of Labor Statistics; Eurostat; Japan Labour Ministry; Bundesagentur für 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 before the crisis – but there's no reason to think they won't eventually

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

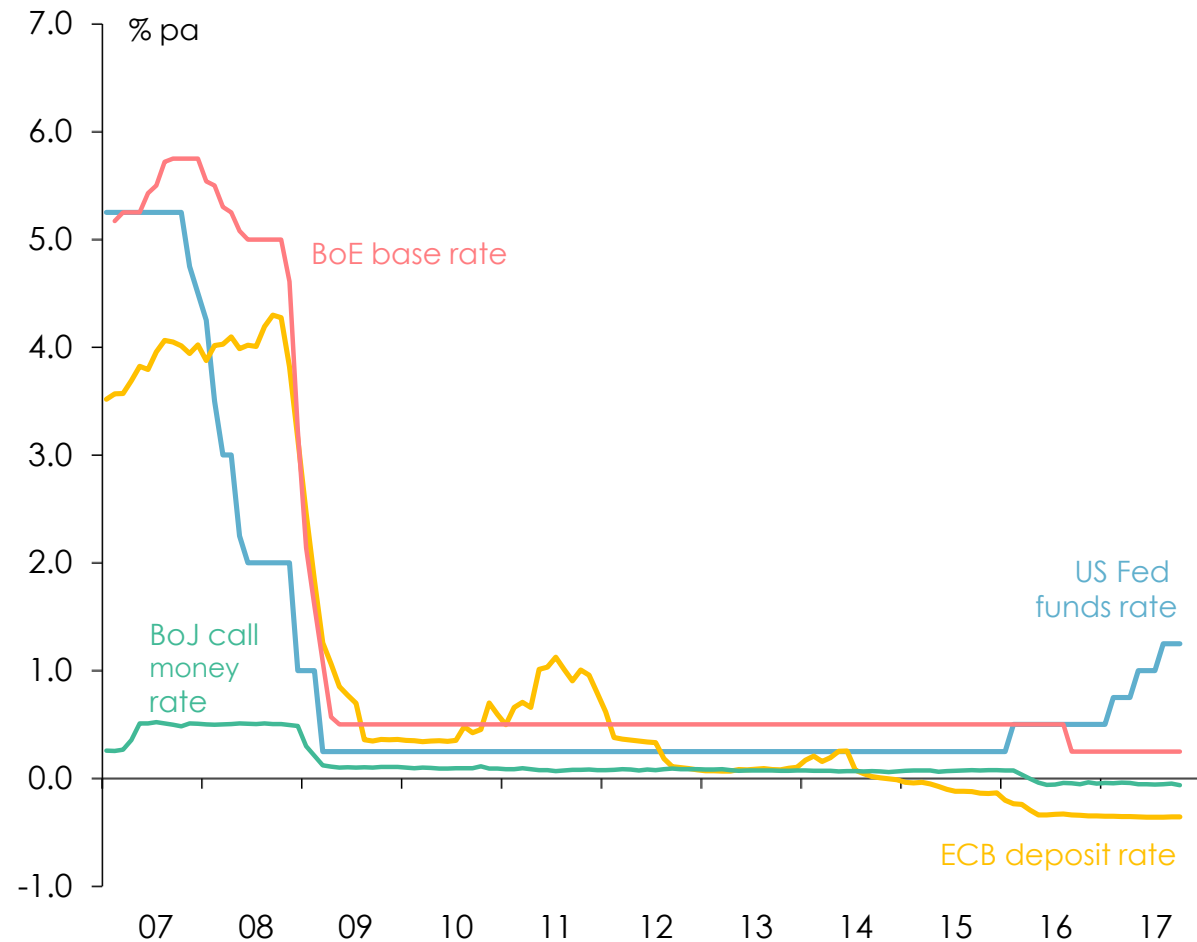


Note: Wages growth and unemployment are averages for the US, Japan, Germany and the UK, weighted by total employment.

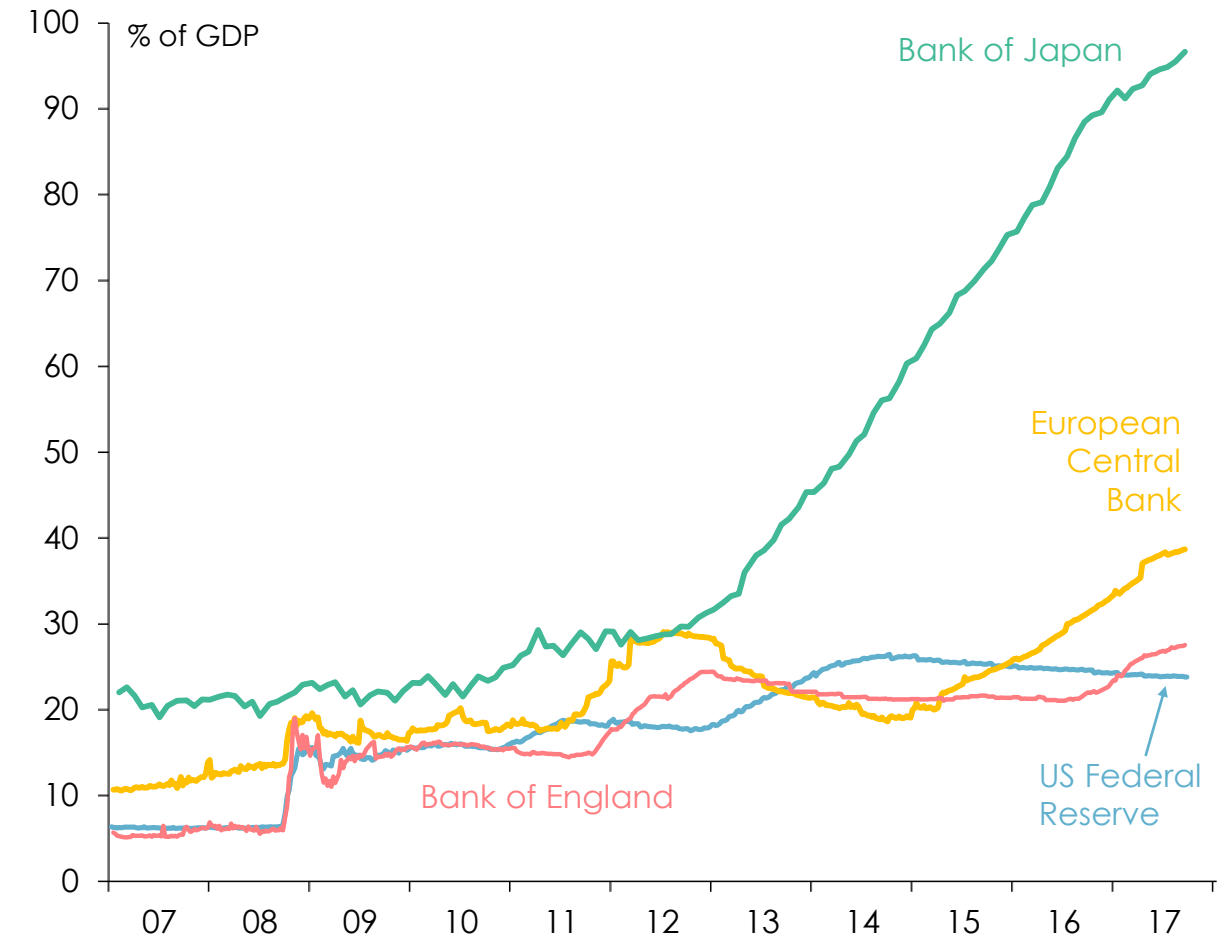
Sources: US Bureau of Labor Statistics; Eurostat; Japan Labour Ministry; Bundesagentur für Arbeit; UK Office of National Statistics; OED; Corinna Economic Advisory.

The Fed has already begun moving interest rates back towards normal – it will soon start unwinding ‘QE’, and other central banks may follow

Major ‘advanced’ economy central bank policy interest rates



Major ‘advanced’ economy central bank balance sheets

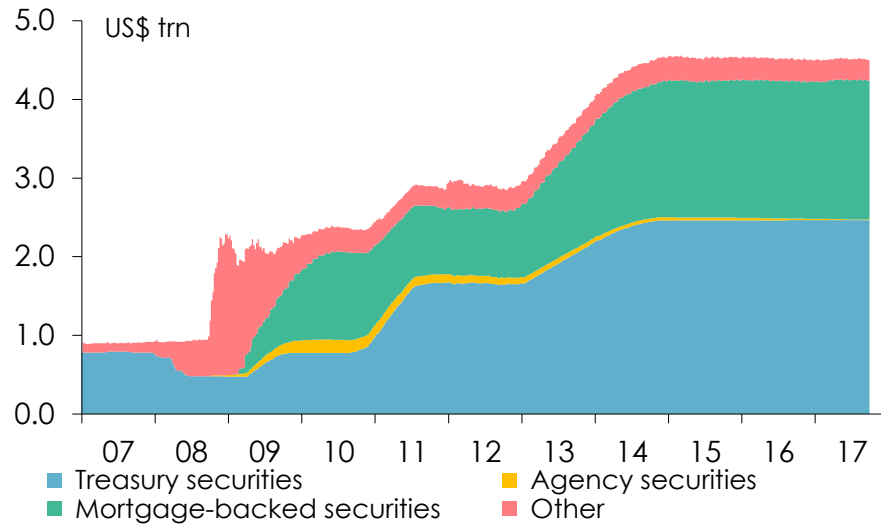


Sources: US Federal Reserve; European Central Bank; Bank of Japan; Bank of England; Corinna Economic Advisory

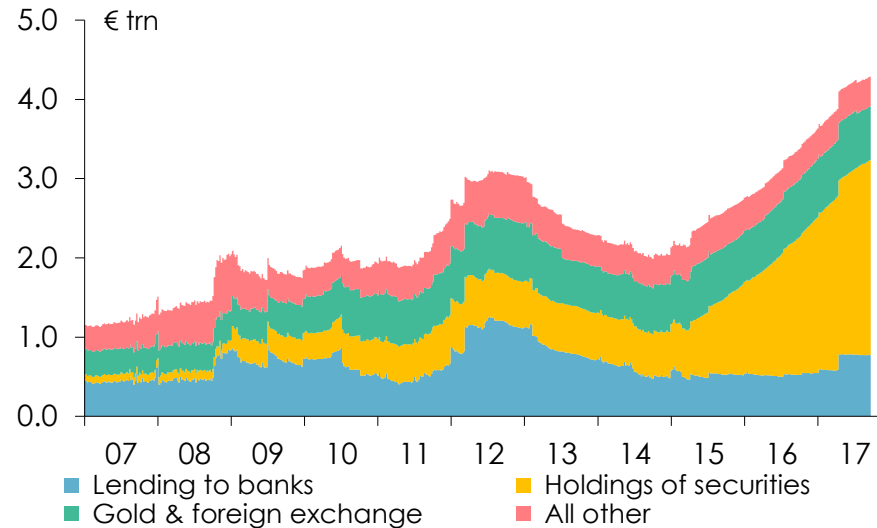
Central banks' 'quantitative easing' wasn't inflationary – and there's no reason to think 'quantitative tightening' will be deflationary

Major 'advanced' economy central bank assets and liabilities

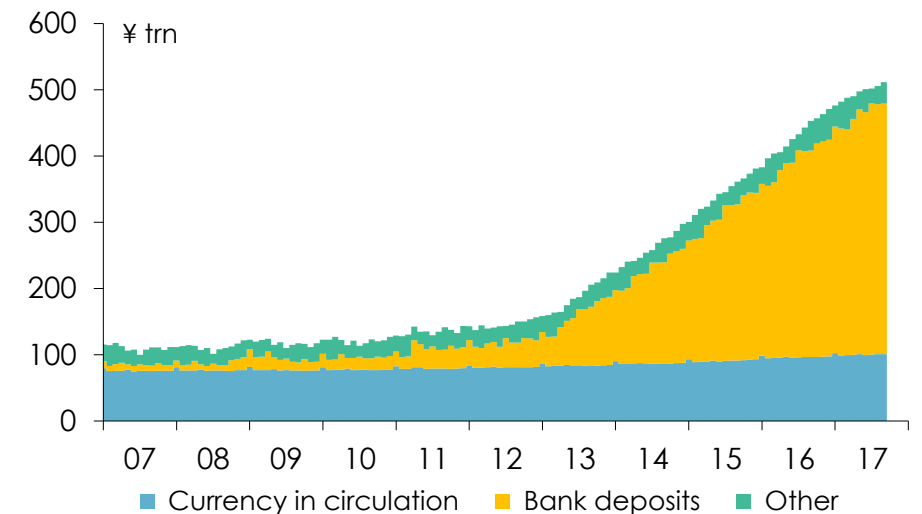
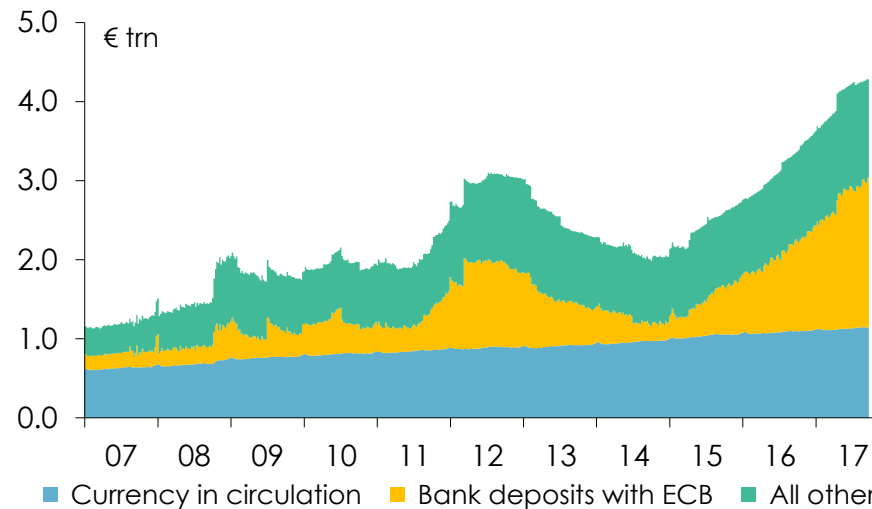
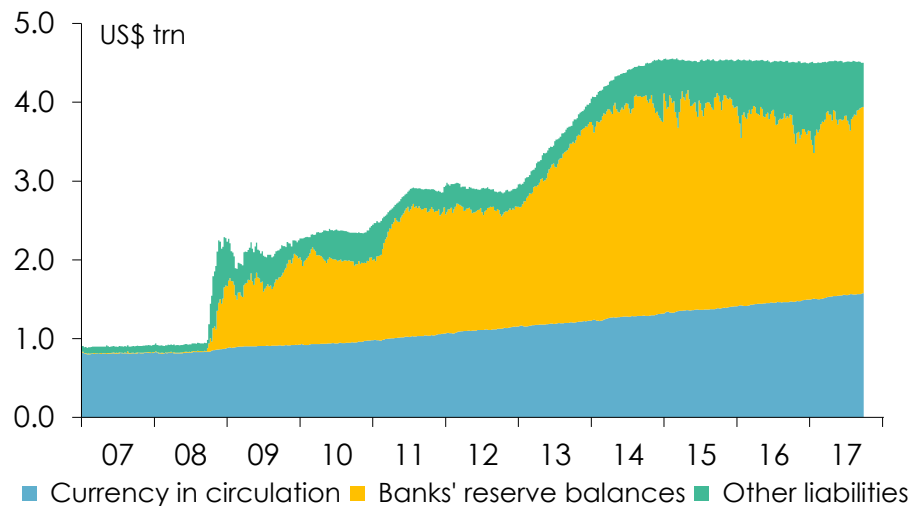
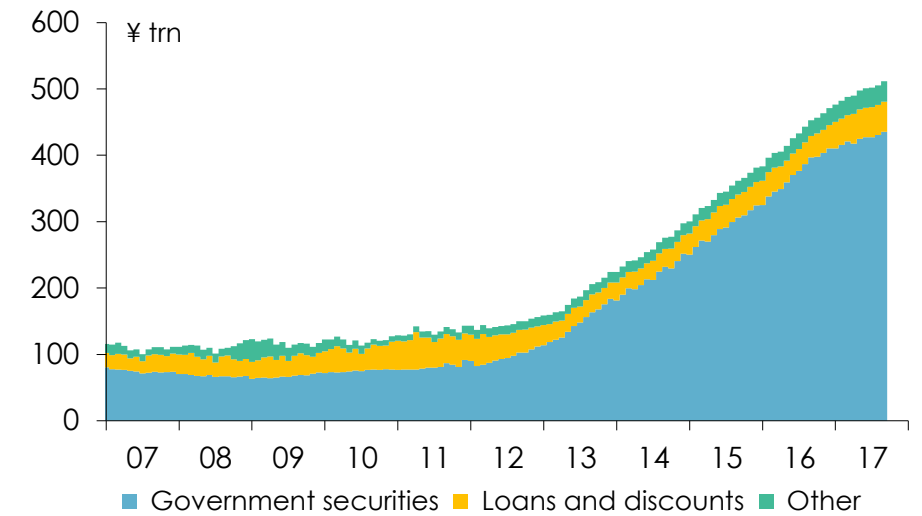
US Federal Reserve



European Central Bank



Bank of Japan



Sources: US Federal Reserve; European Central Bank; Bank of Japan; Bank of England; Corinna Economic Advisory

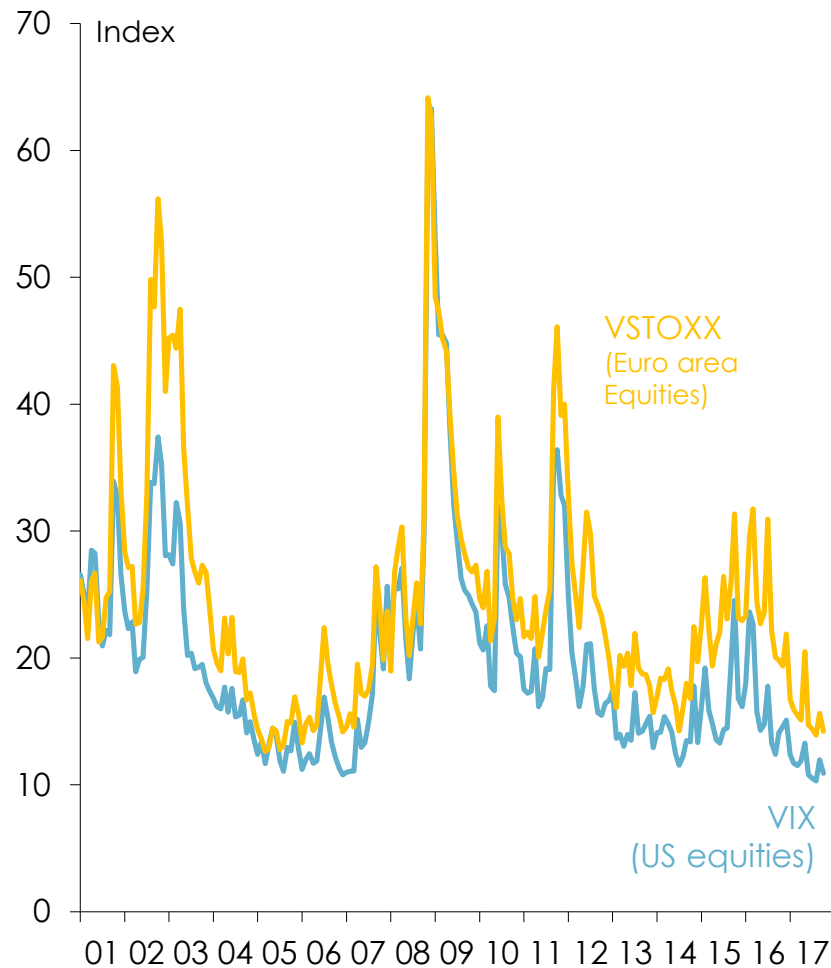
Key considerations in ‘normalizing’ central bank balance sheets

- ❑ **Central banks have absorbed the lessons of the 2013 ‘taper tantrum’**
 - every move will be foreshadowed far in advance, painstakingly gradual, and data-dependent
- ❑ **Important to recognize that the run-down in central banks’ asset holdings will be matched by a run-down in central banks’ liabilities**
- ❑ **Central banks can’t be sure that they know what the impact of balance sheet normalization will be – on financial markets, or on economic activity**
 - but they are likely to be willing to adjust their strategies in response to unforeseen or unexpected reactions
- ❑ **All else being equal, reductions in central bank holdings of government securities will likely result in upward pressure on bond yields**
 - but so would more orthodox forms of monetary policy tightening (such as raising policy interest rates)
- ❑ **From that perspective, balance sheet normalization may well turn out to be an alternative to raising interest rates**
 - just as ‘quantitative easing’ was an alternative to cutting interest rates (in circumstances where it wasn’t possible to cut interest rates any further)
- ❑ **Quantitative easing didn’t have any obvious impact on exchange rates – except for the BoJ’s ‘QQE’ – so there’s not obvious reason why ‘quantitative tightening’ by the Fed or ECB should affect FX**
- ❑ **In the US, balance sheet normalization may in theory have some impact on spreads between Treasury and mortgage-backed securities**
 - but the Fed has said it “currently does not anticipate selling agency mortgage-backed securities as part of the normalization process”

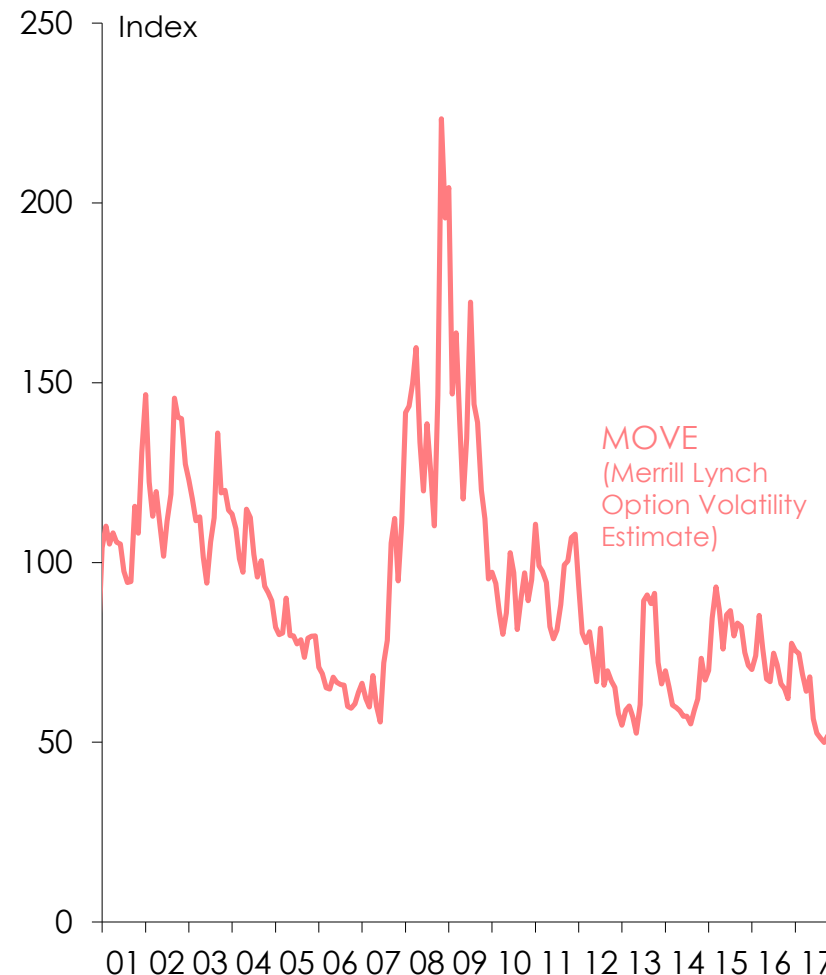
'Quantitative tightening' may have a bigger impact on financial markets than on the real economy – for example by increasing volatility

Measures of financial market volatility

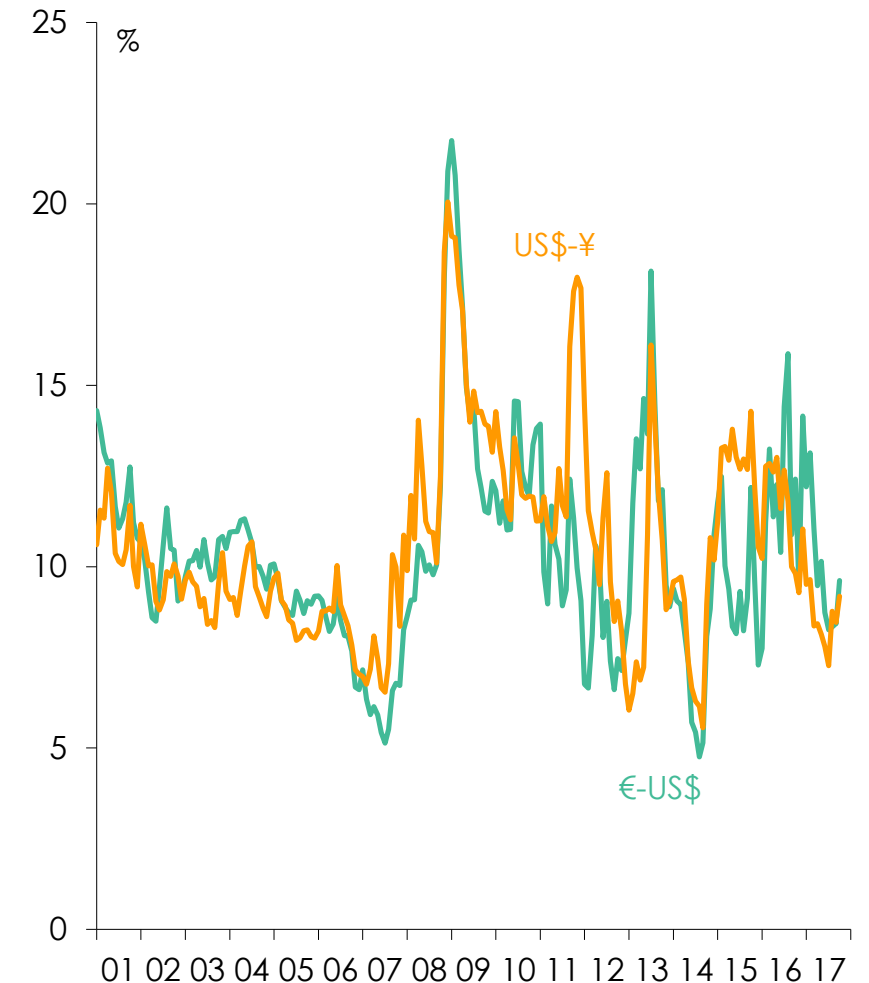
Equities



Bonds



Currencies



Source: Thomson Reuters Datastream.

One important risk around assessments of the Fed's likely course is that we don't know who will be making the key decisions

The Federal Reserve Board of Governors



Janet Yellen
Term as Chair expires
3 Feb 2018
(term as Governor
expires 31 Jan 2024)



Sarah Bloom Raskin
Resigned
13 Mar 2014



Lael Brainard
Term expires
28 May 2024



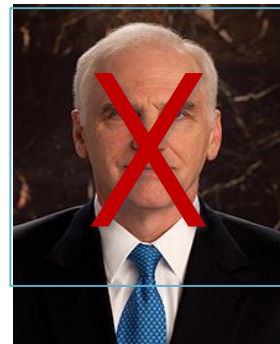
Stan Fischer
Resigned as Vice-Chair
with effect 13 Oct 2017



Jeremy Stein
Resigned
28 May 2014



Jerome Powell
Term expires
31 Jan 2028



Daniel Tarullo
Resigned
5 Apr 2017

The Federal Open Market Committee (FOMC) which makes monetary policy decisions comprises the members of the Board of Governors, plus the President of the New York Fed and four of the remaining 11 regional Fed presidents (who rotate each year).

Who will be the next Fed Chair?

Mooted candidates for Chair of the Federal Reserve Board



Gary Cohn

Chairman of Trump National Economic Council, former President of Goldman Sachs



John Taylor

Inventor of 'Taylor Rule', Treasury official during Bush Administration



Kevin Warsh

Economic adviser in Bush Administration, Fed Board member 2006-2011



Marvin Goodfriend

Former director of research at Richmond Fed, advocates abolishing cash



Glenn Hubbard

Chairman of National Economic Council in Bush Administration 2001-03, adviser to Mitt Romney campaign 2012

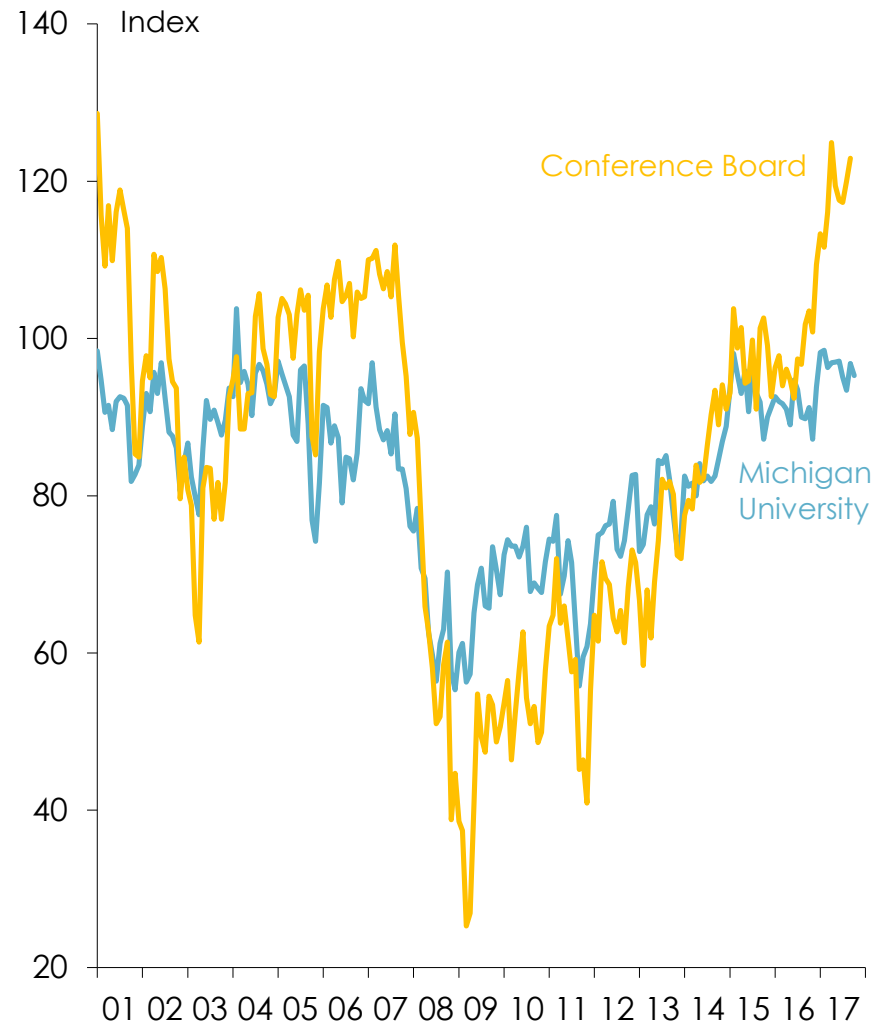


Janet Yellen

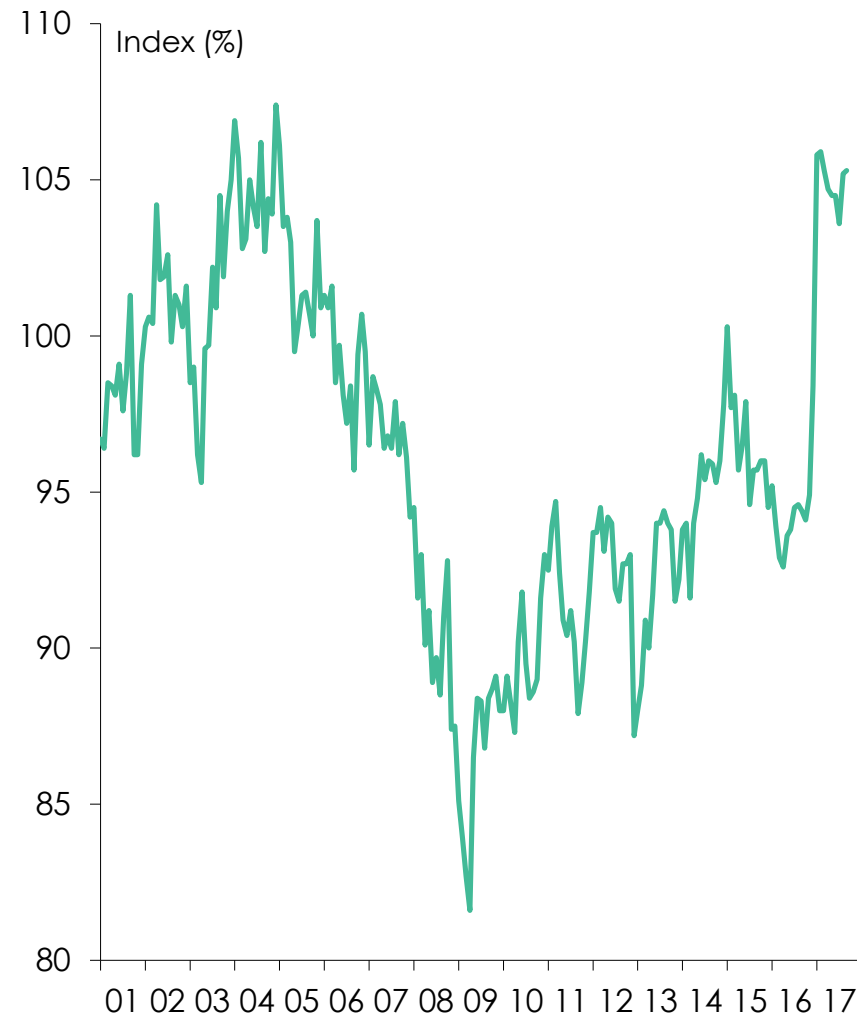
Could be re-appointed

Sharp gains in US consumer and business confidence since last November's presidential election ...

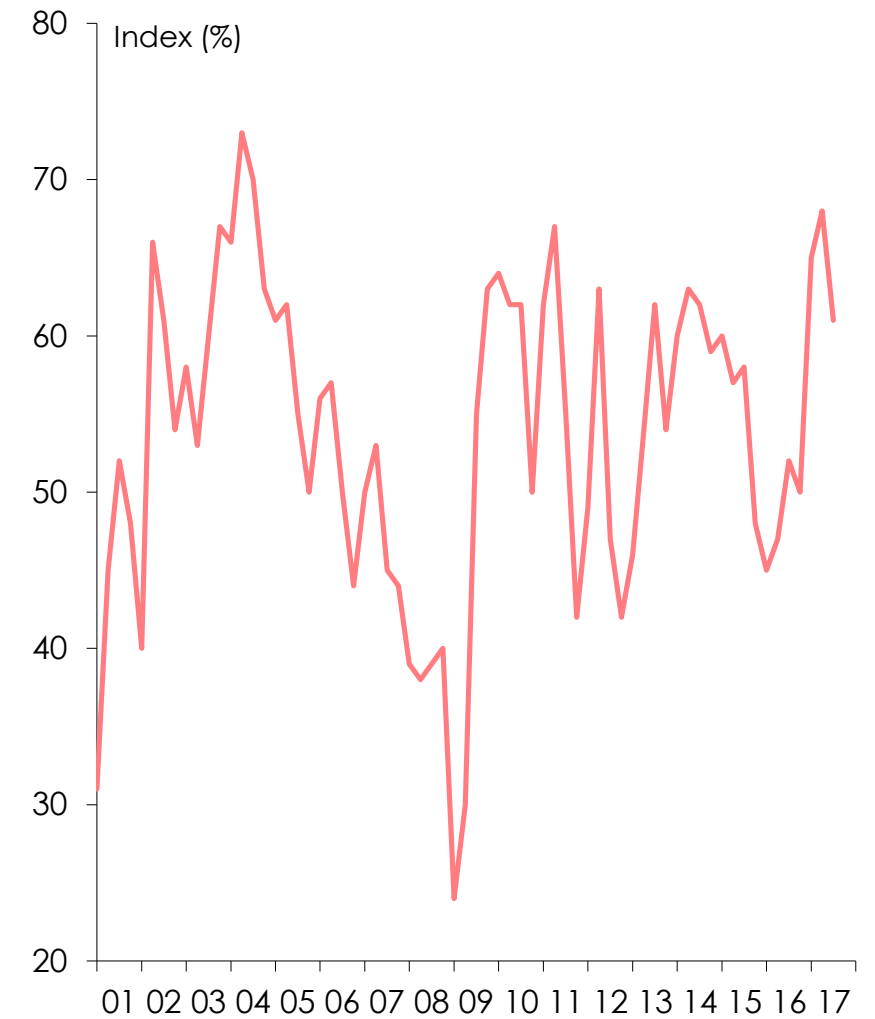
Consumer confidence



Small business optimism



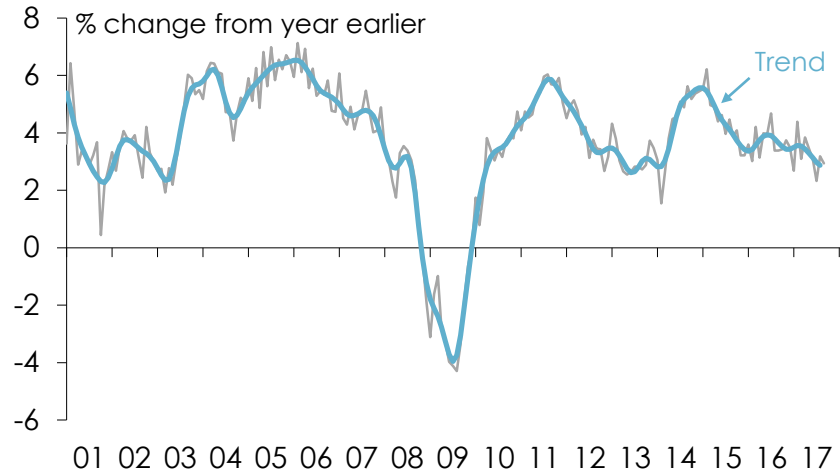
CEO confidence



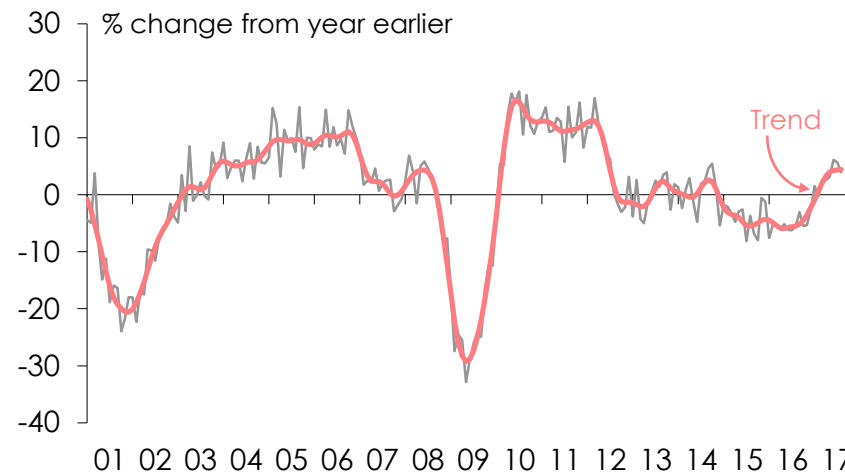
Sources: The Conference Board; University of Michigan Survey Research Center; National Federation of Small Businesses.

... haven't really been reflected in an upswing in US economic activity

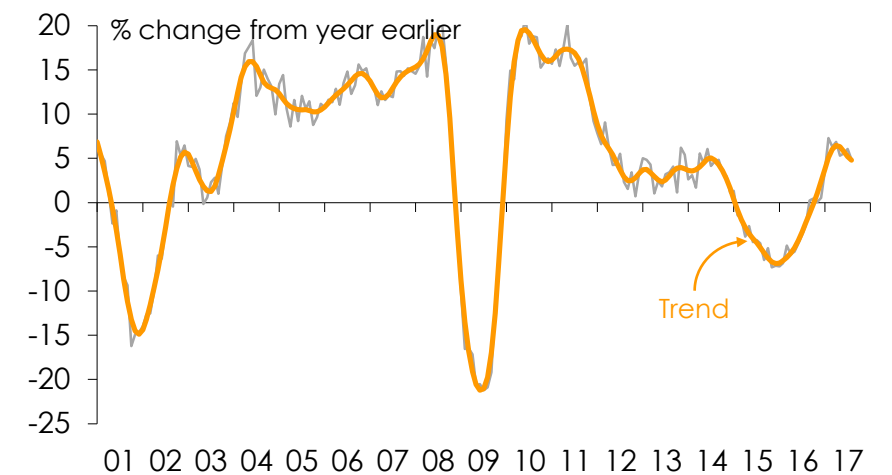
'Core' retail sales



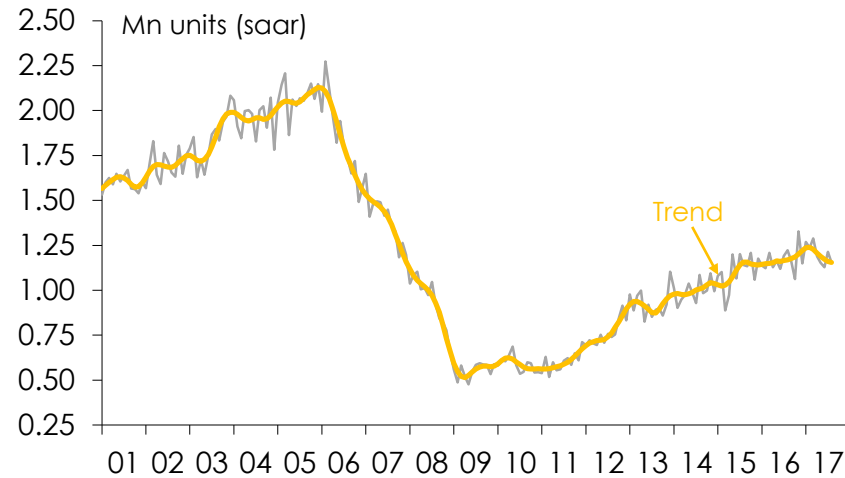
'Core' capital goods orders



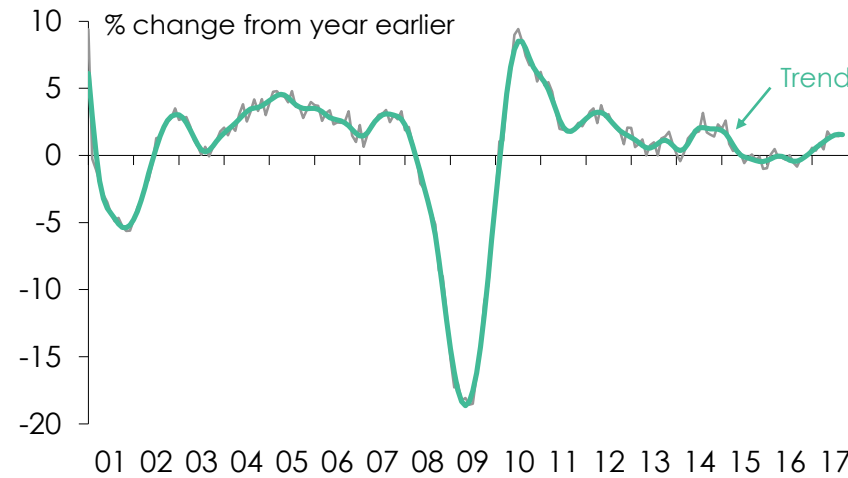
Exports of goods & services



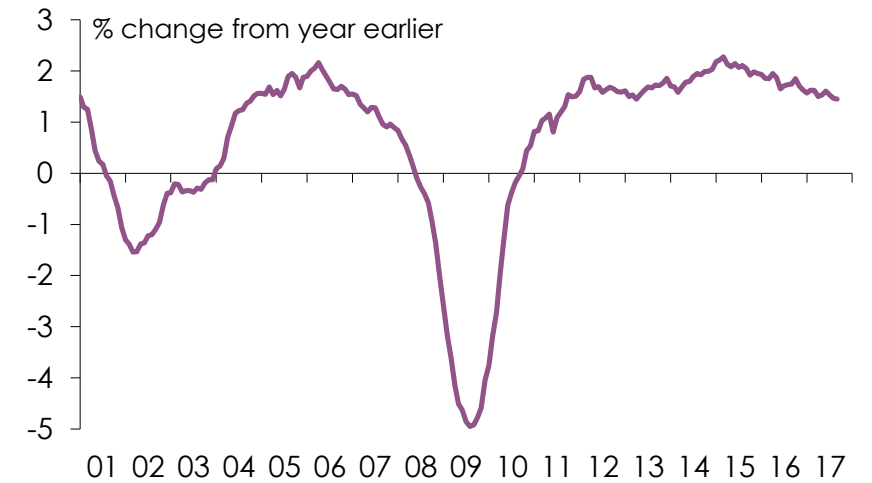
Housing starts



Industrial production excl. energy



Non-farm payroll employment



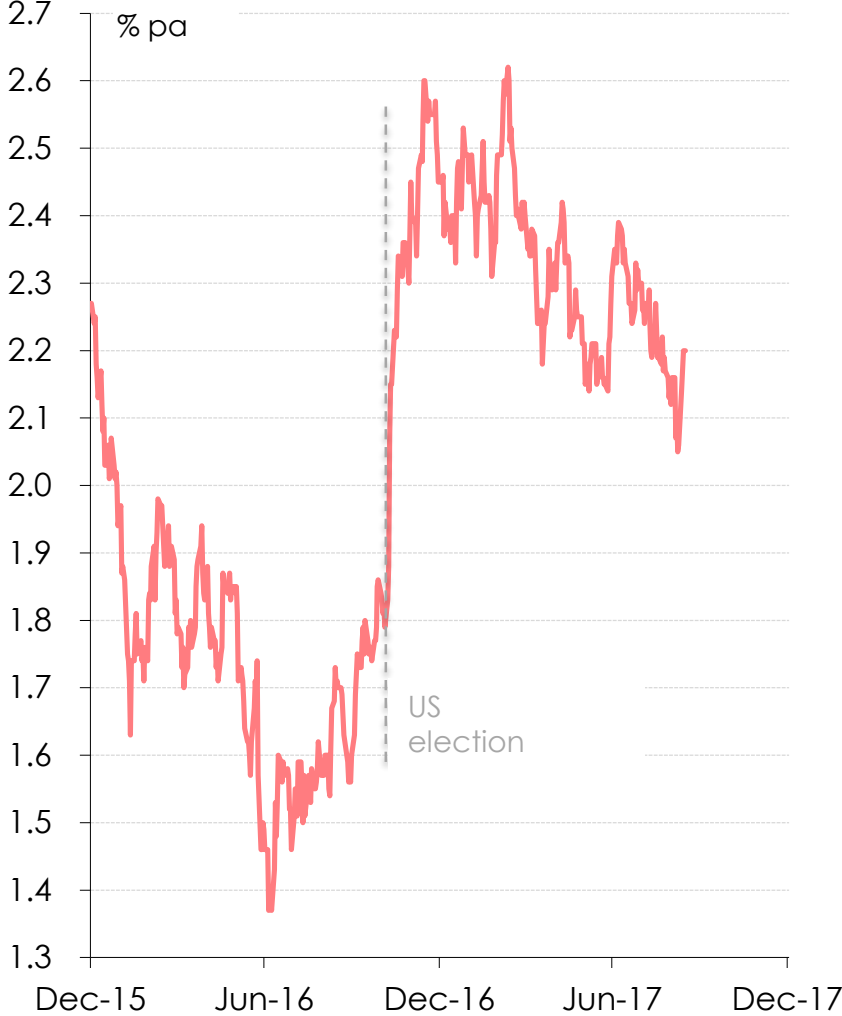
Note: 'Core' retail sales excludes motor vehicles and parts, automotive fuel and building materials; 'core' capital goods orders excludes defence equipment and aircraft. Sources: US Commerce Department; Federal Reserve Board; Bureau of Labor Statistics.

The share market remains optimistic about prospects for the US economy under Trump – but other financial markets are now much less convinced

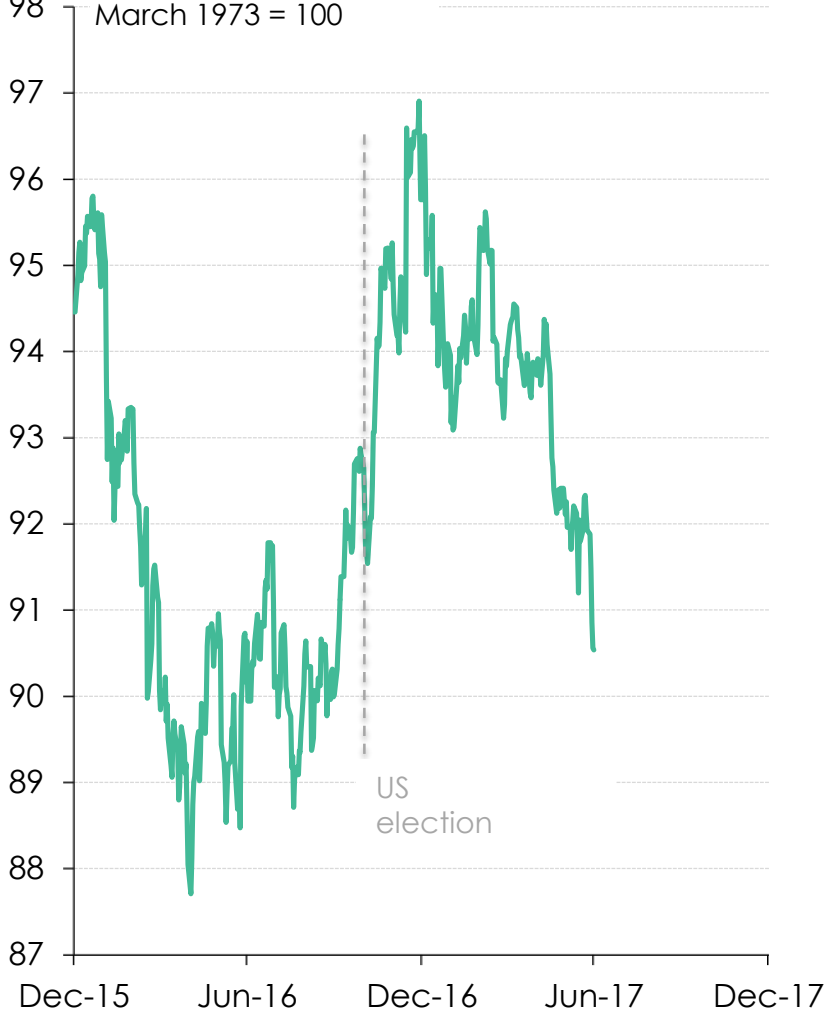
US stockmarket (S&P 500)



US 10-year bond yield



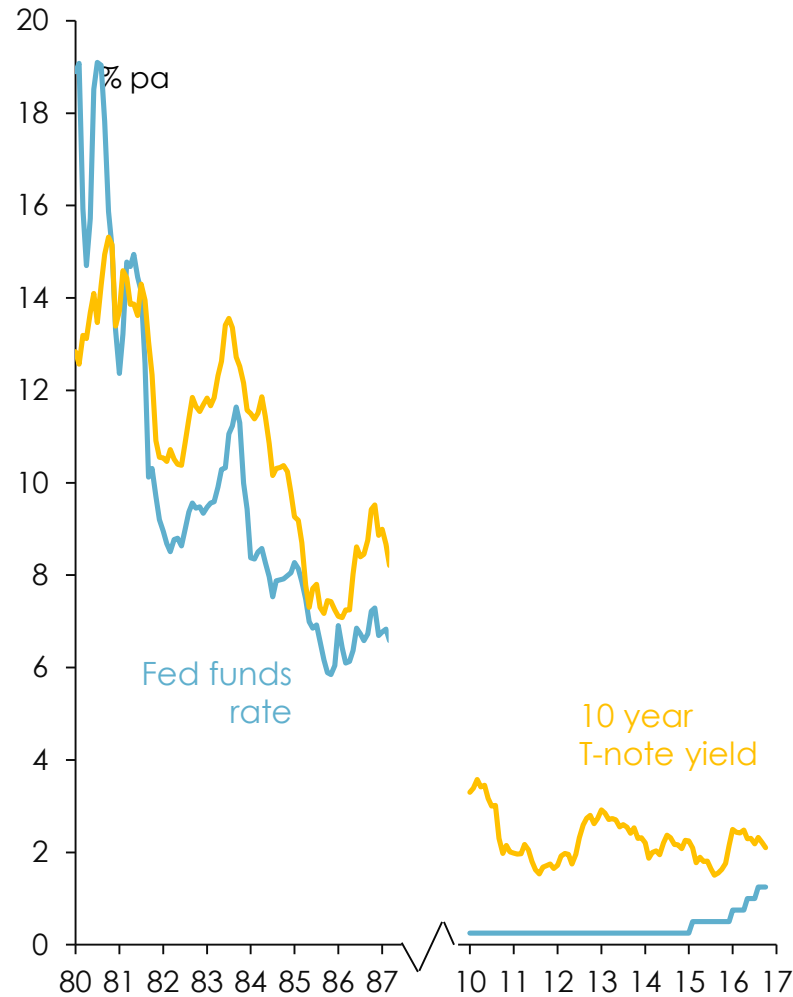
US dollar



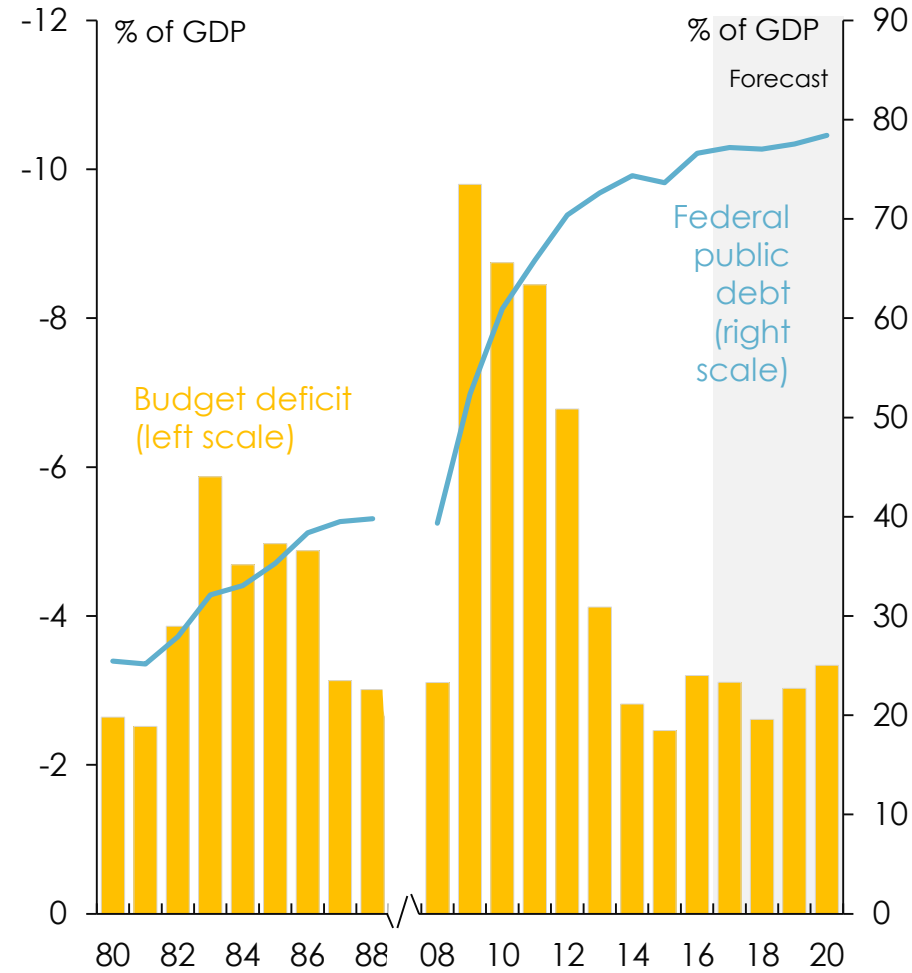
Source: Thomson Reuters Datastream.

Three reasons why Trump's fiscal policies – if they are ever legislated – wouldn't have the same effect as Reagan's

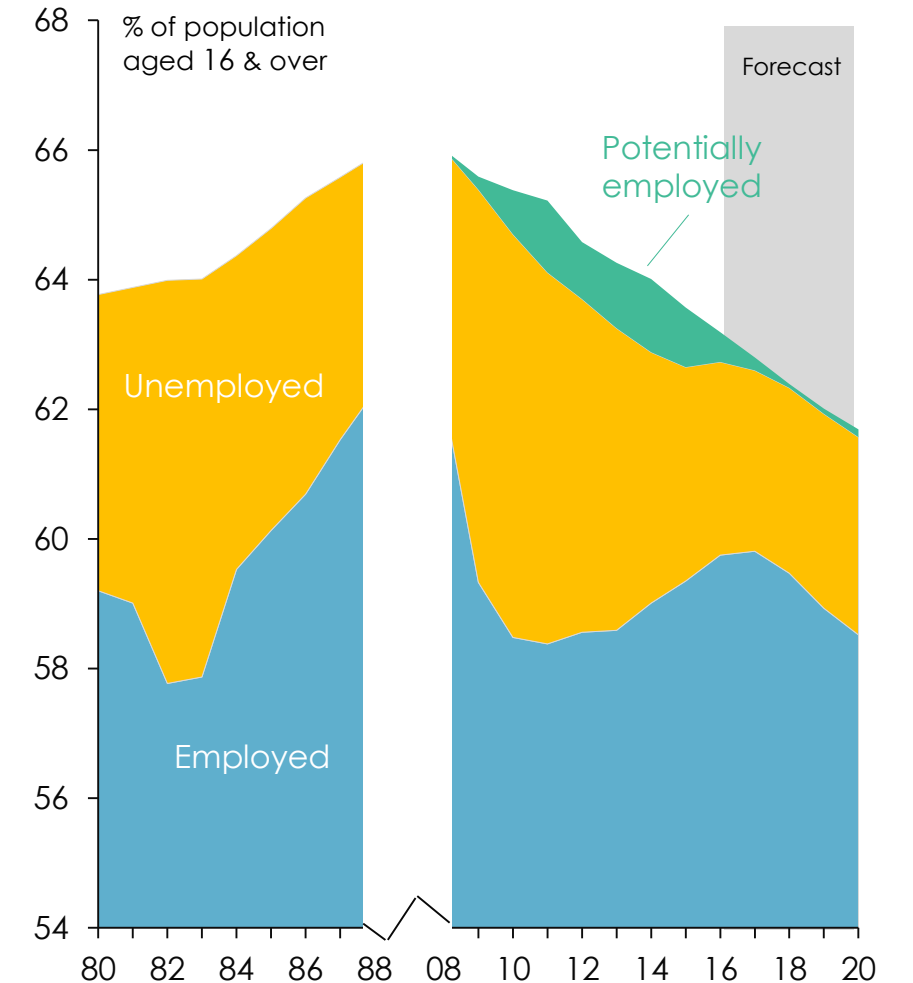
Interest rates



Federal budget and debt



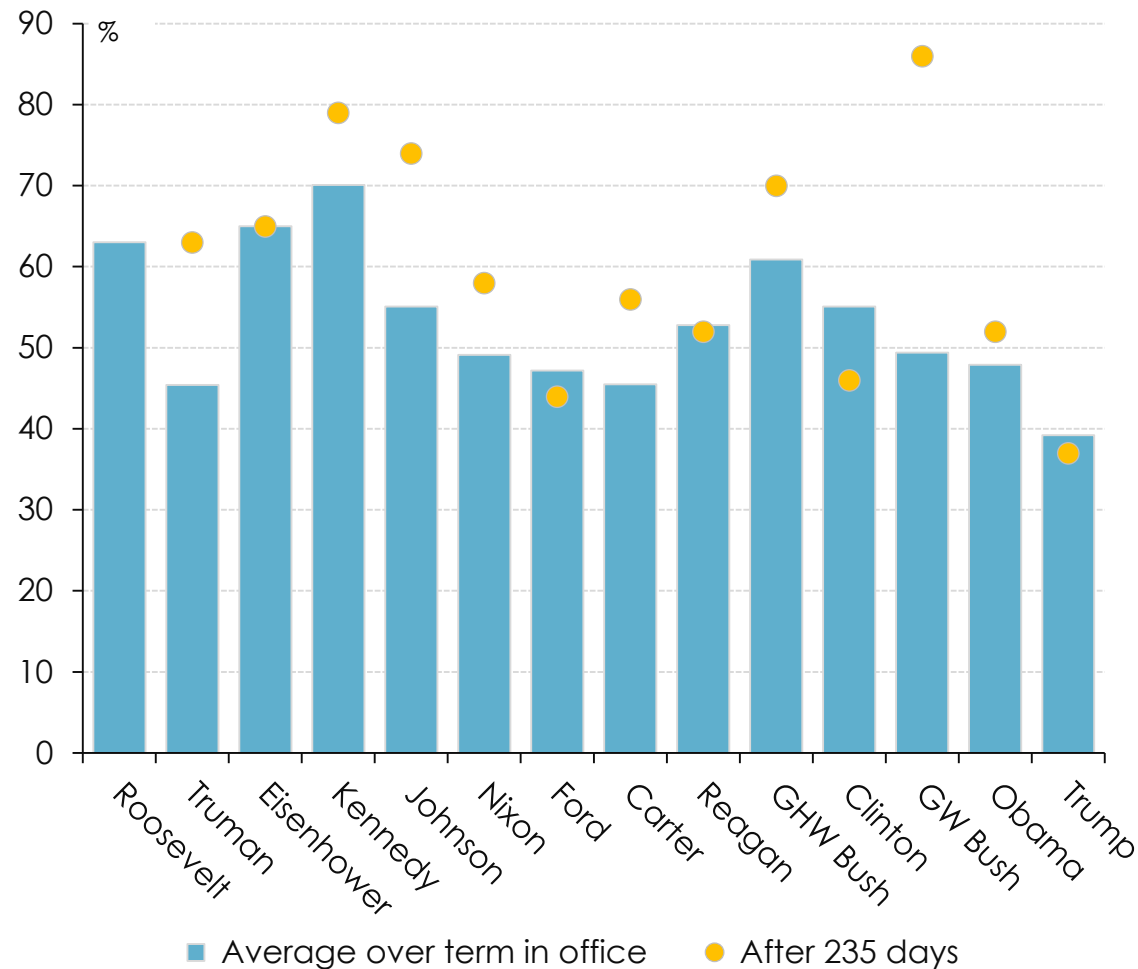
Labour supply



Sources: US Federal Reserve; US Congressional Budget Office.

Will Donald Trump last his full term?

Presidential approval ratings



Note: Roosevelt approval ratings are from 1937 to 1943.

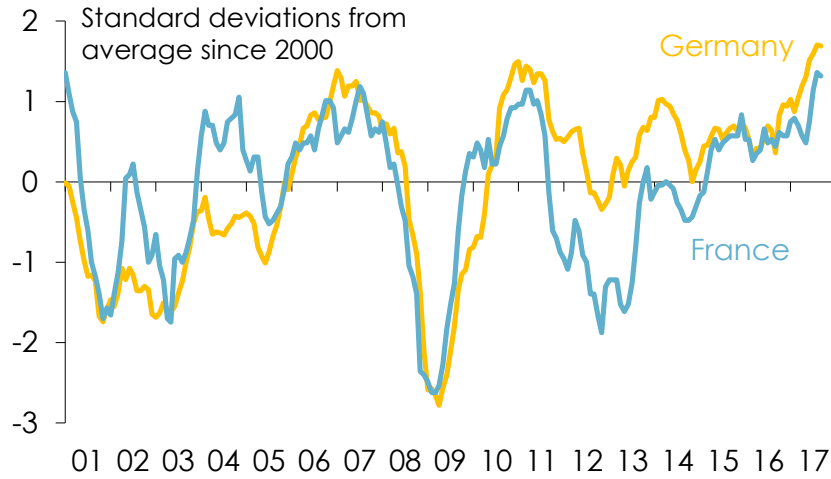
Source: John Woolley and Gerhard Peters, *The American Presidency Project*, University of California at Santa Barbara.

How a US president can be removed

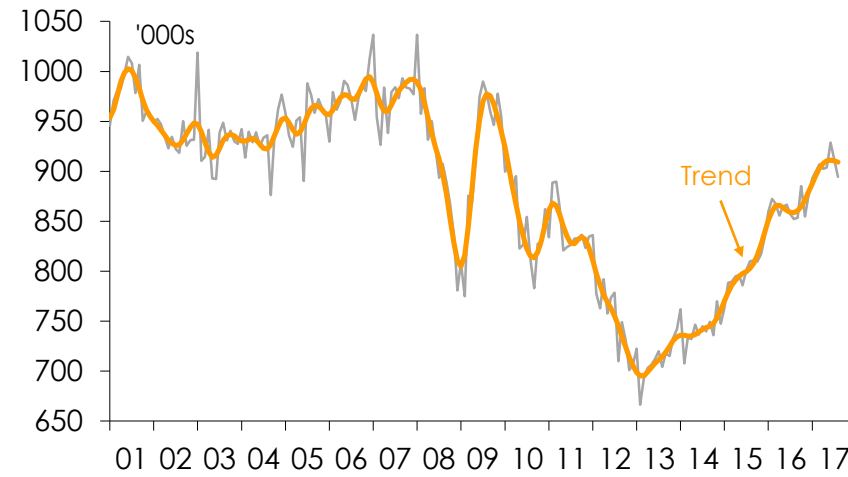
- ❑ **Under Article II, Section 4 of the Constitution after conviction by the Senate upon impeachment by the House of Representatives for 'Treason, Bribery or other high Crimes and Misdemeanours'**
 - impeachment requires a simple majority in the House but conviction requires a two-thirds majority in the Senate
 - only two previous presidents have been impeached (Johnson 1868 and Clinton 1998) but neither was convicted
 - unlikely that sufficient House Republicans would support impeachment unless they came to the view that Trump was toxic to their mid-term (November 2018) election prospects
 - outcome of Mueller investigation into Russian interference in 2016 election may have some bearing
- ❑ **Under Section 4 of the 25th Amendment, if the Vice-President and a majority of Cabinet declare in writing that the President is 'unable to discharge the powers and duties of his office'**
 - amendment inserted in 1967 (after the Kennedy assassination)
 - ultimately provides for Congress to resolve any dispute between a President and his VP & Cabinet over his continuing fitness for office
 - unlikely to be invoked simply because Trump is unpopular

Sentiment has improved markedly in the euro area this year, mainly for political reasons – but the economy is clearly picking up as well

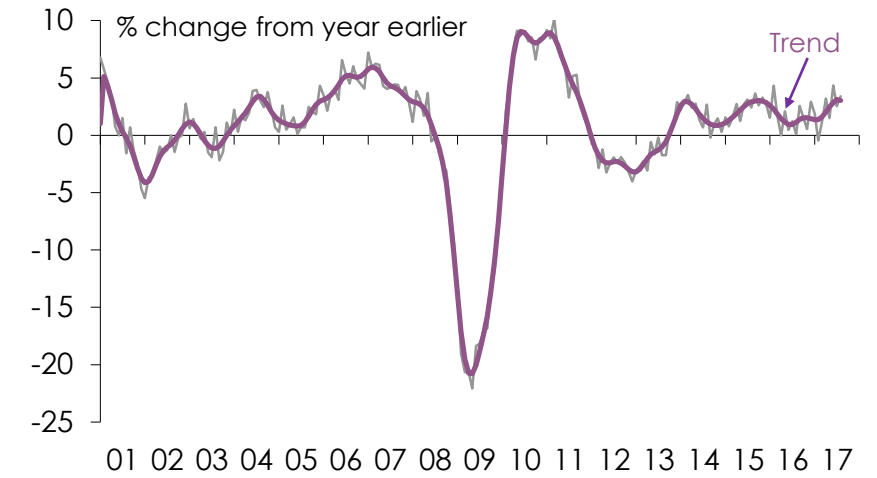
Business sentiment



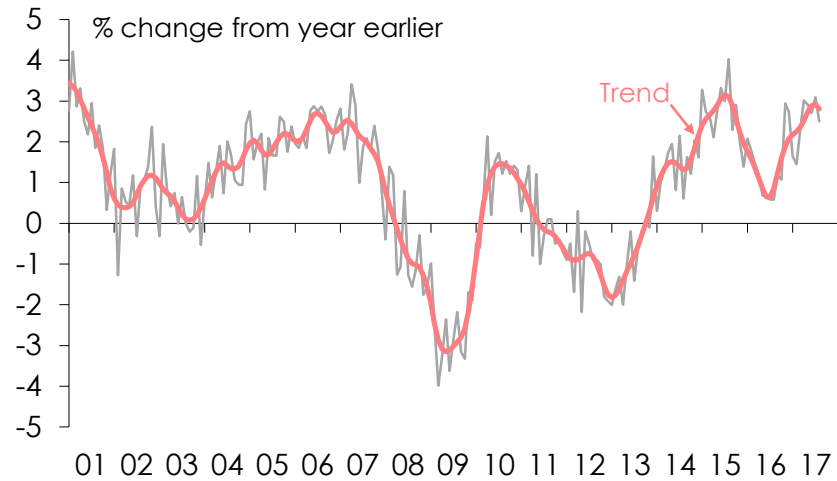
Motor vehicle registrations



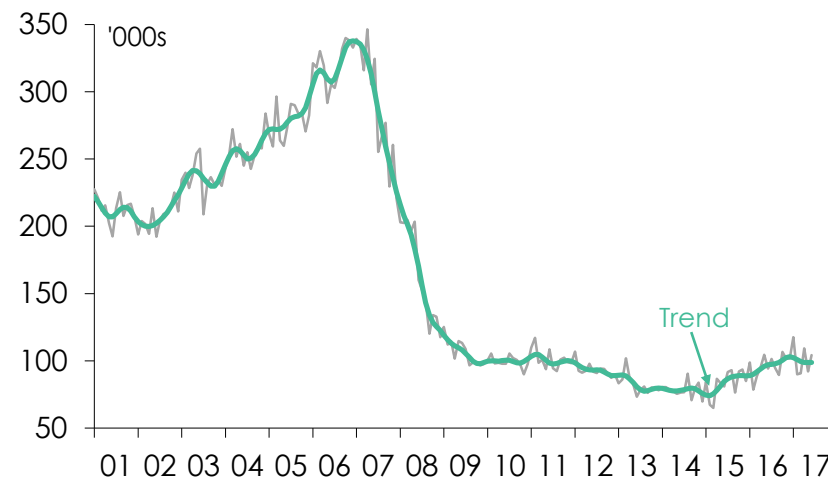
Manufacturing production



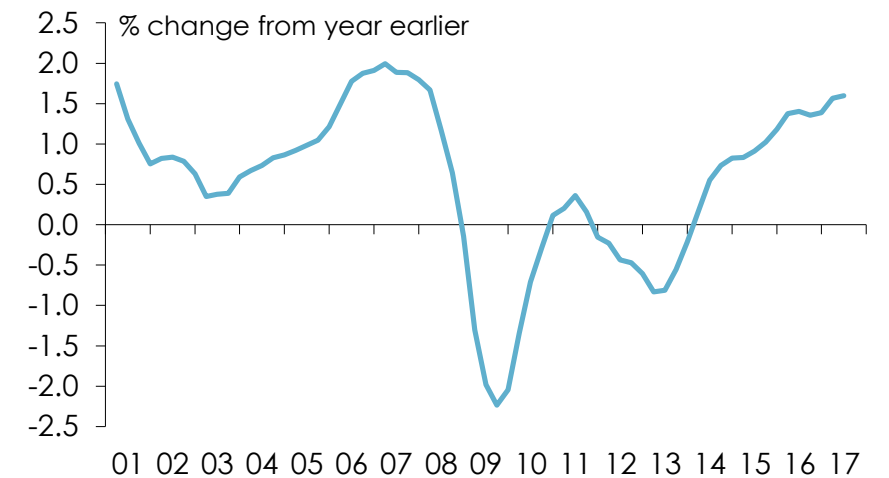
Retail sales volume



Residential building permits



Employment



Sources: Ifo Institut; INSÉE; Eurostat.

The political landscape in Europe isn't as bad as it could have been ... but there are still things to worry about

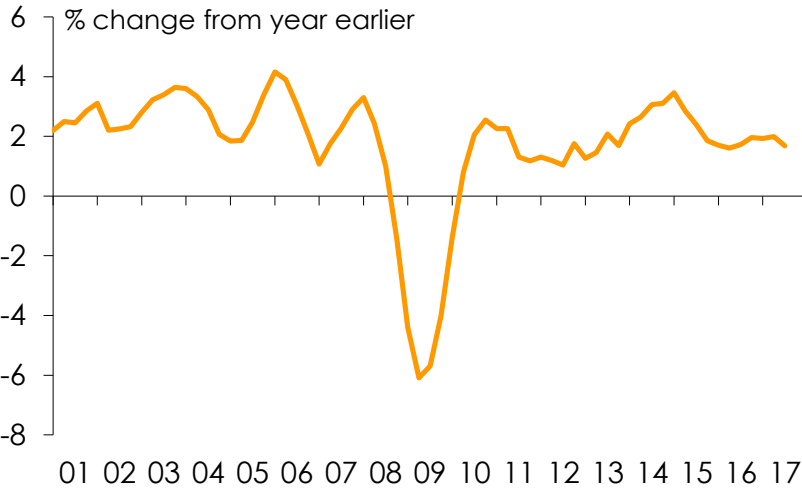


Last year's Brexit hit sterling and confidence, but so far the dire warnings about economic consequences have not been borne out

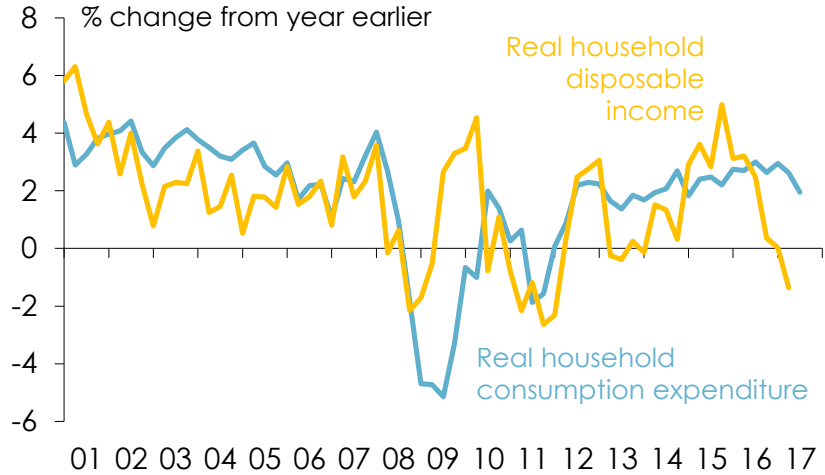
Sterling vs US\$



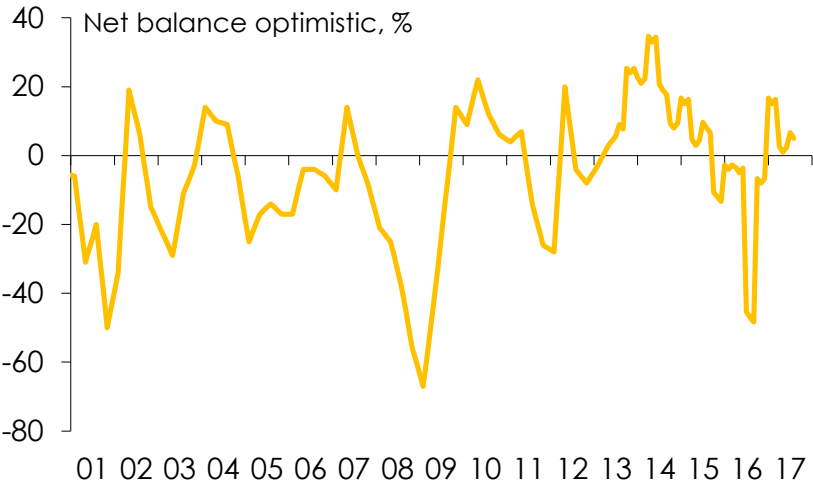
Real GDP



Household income and spending



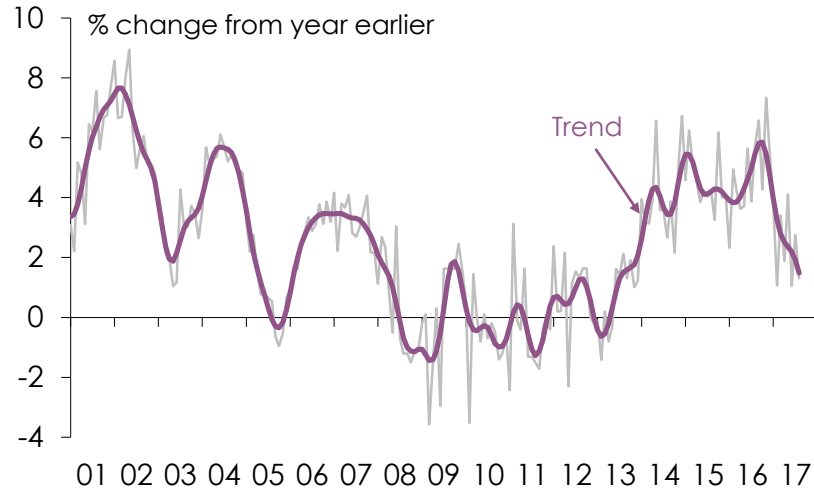
Business confidence



Wage and price inflation

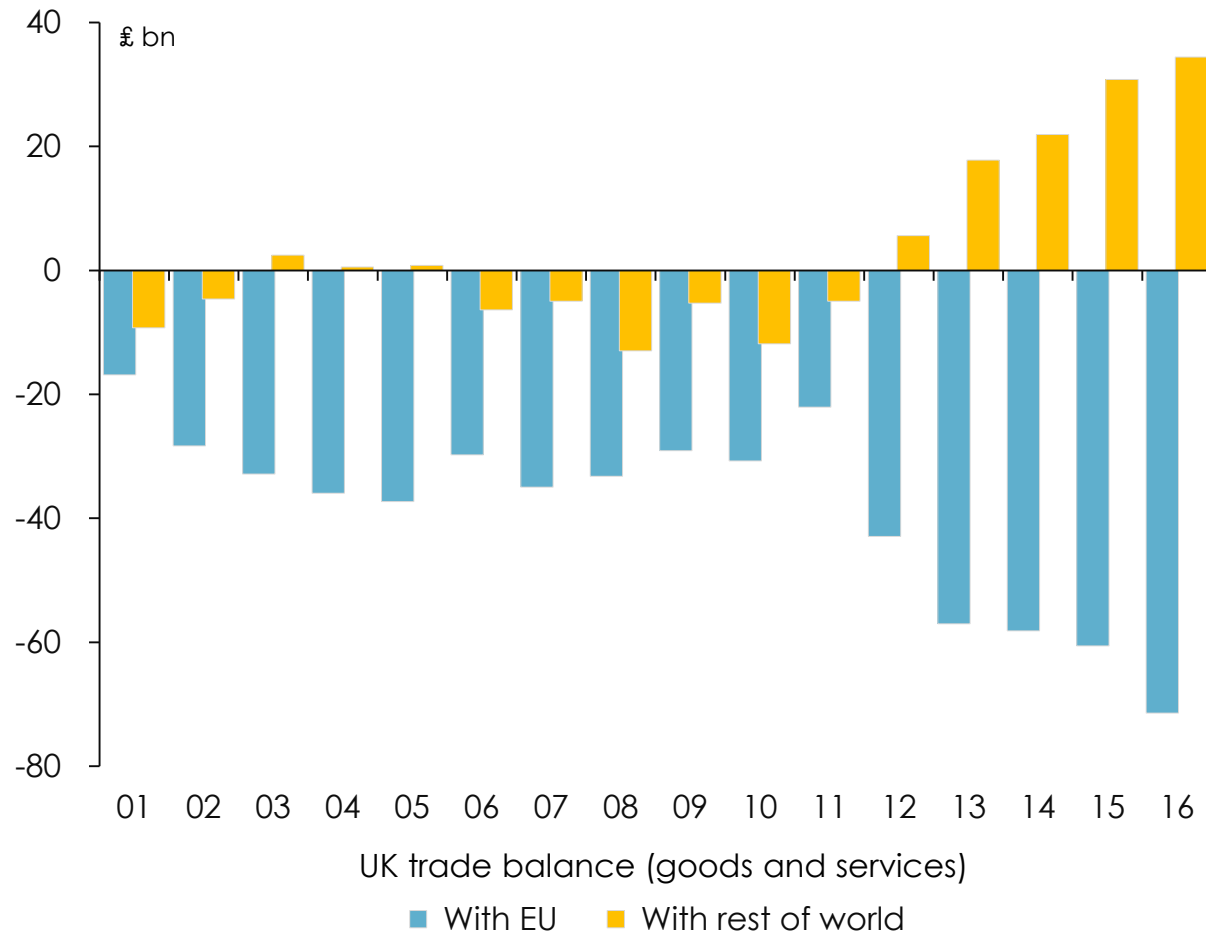


Retail sales volume

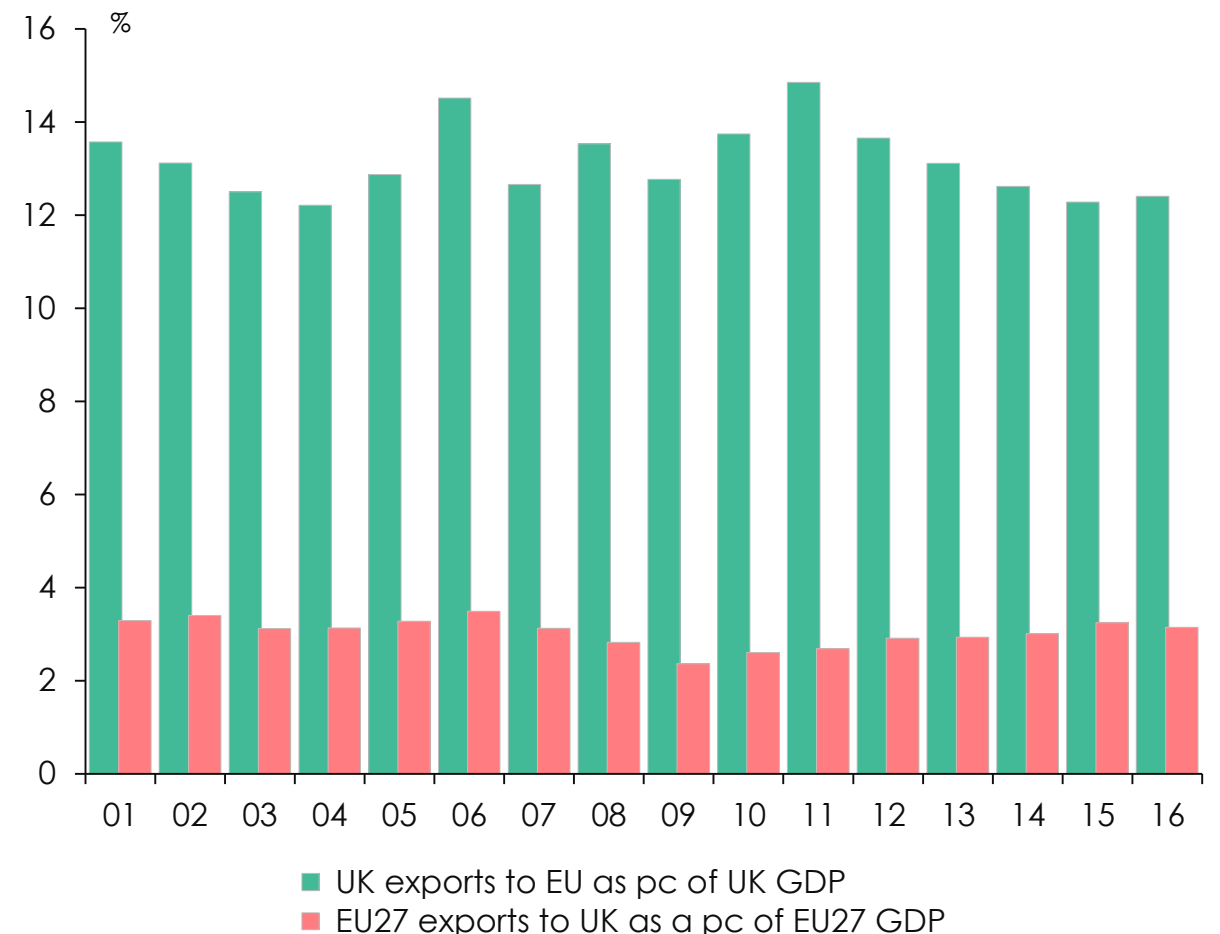


'Brexiters' think that the EU 'needs' the UK more than the UK 'needs' the EU – but in fact UK-EU trade matters more to the UK than to the rest of the EU

UK balance of trade on goods and services – EU and rest of the world



UK-EU trade as a pc of UK and EU ex-UK GDP

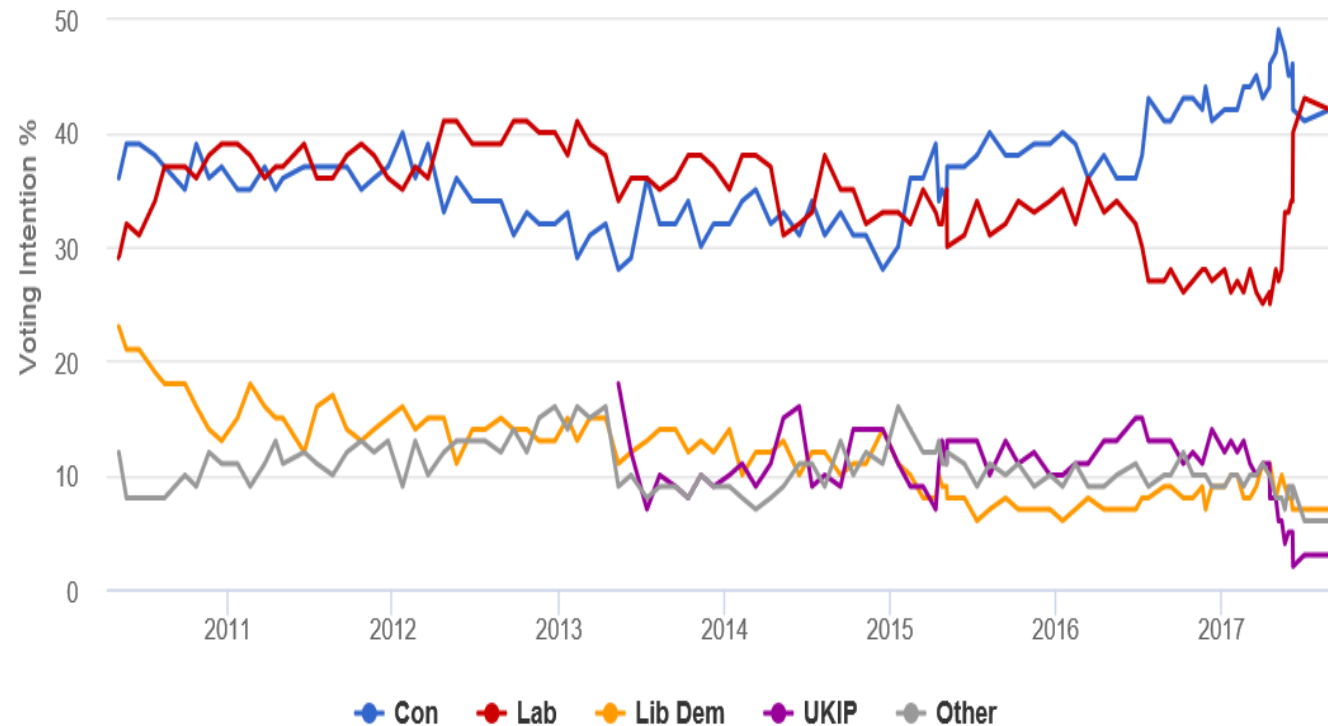


Sources: UK Office for National Statistics; Eurostat.

There are so many unknowns ahead for the UK – including who will be running the country – and what the terms of ‘Brexit’ will be



UK opinion polls



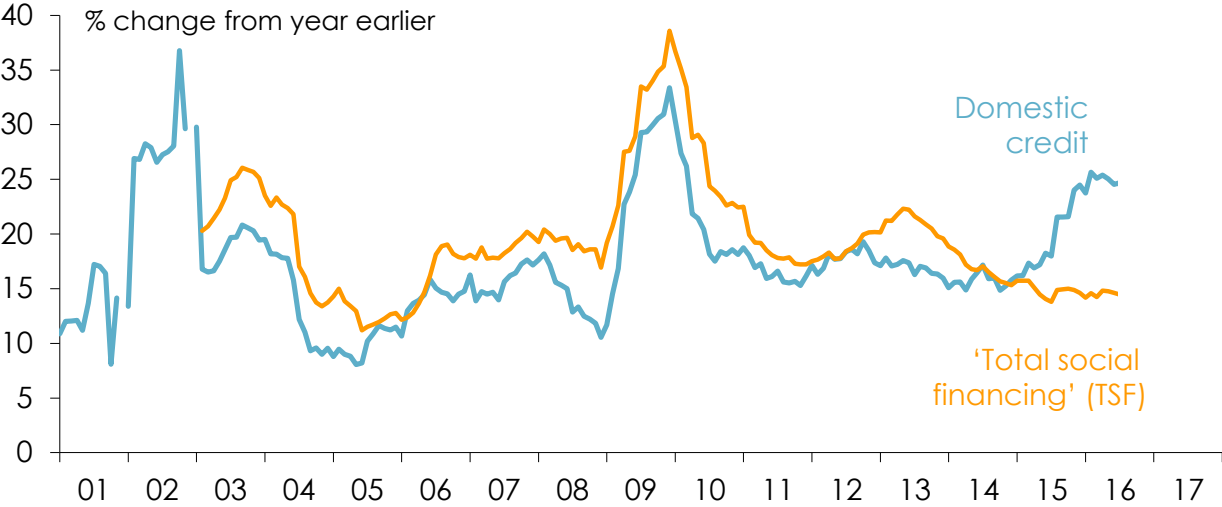
Source: UK Political Info (ICM Research for *The Guardian*).

Still to be determined ...

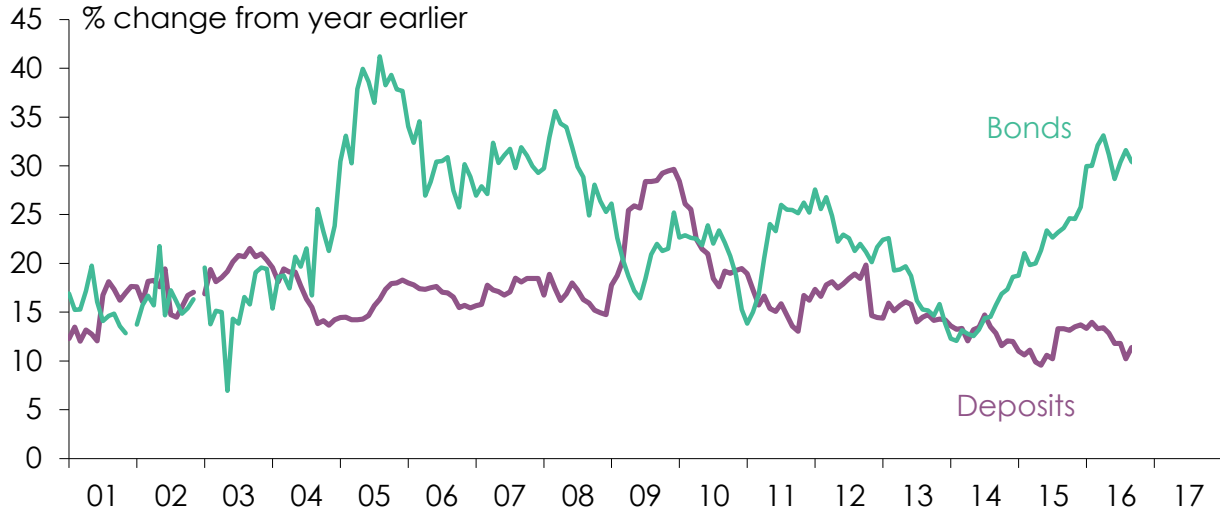
- The size of the UK's 'divorce bill'**
 - £40bn (UK 'offer') is ~ 2% of GDP
 - EU reportedly wants at least £75bn
- Border arrangements between Ireland and Northern Ireland**
- What preferential access (if any) the UK will have to the 'single market'**
 - difficult to see the EU offering (or UK accepting) the arrangements applying to Switzerland, Norway and Iceland
- What (if any) special arrangements will apply to UK-based financial institutions doing business in the EU**
- Whether any 'deal' will be put to another referendum (especially if it is seen as a 'bad' deal)**
- What happens if there is 'no deal' by 29th March 2019**

From late 2015 through late 2016 the Chinese authorities undertook another round of monetary stimulus

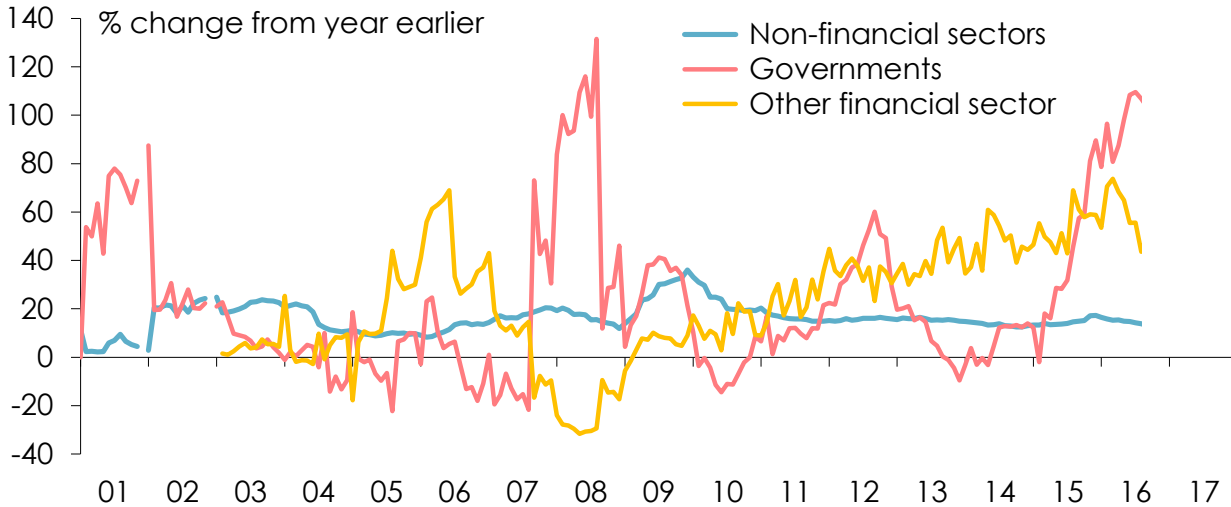
Credit growth - total



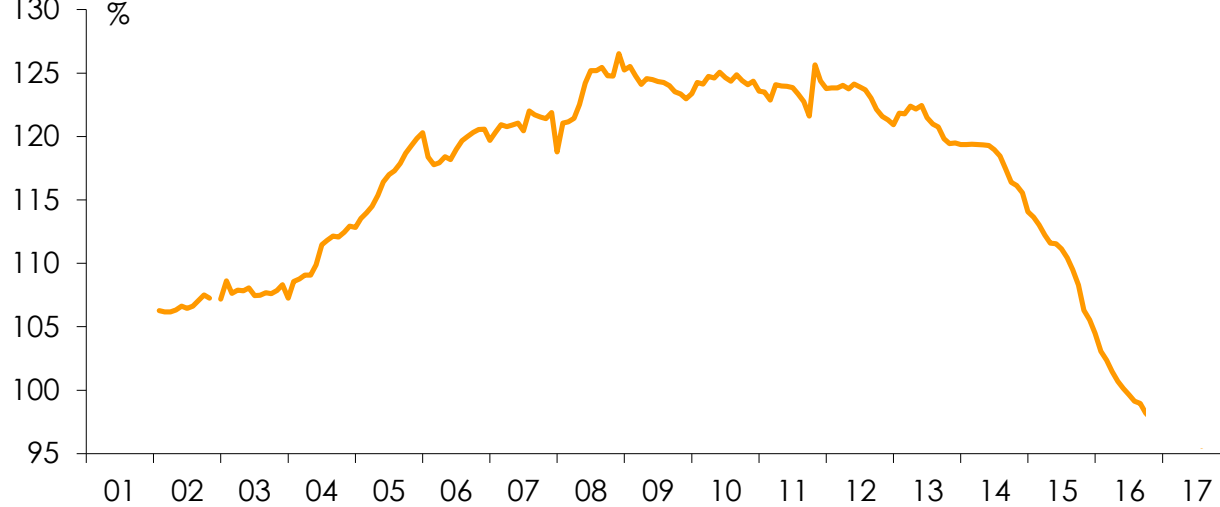
Banking system liabilities



Credit growth – by sector



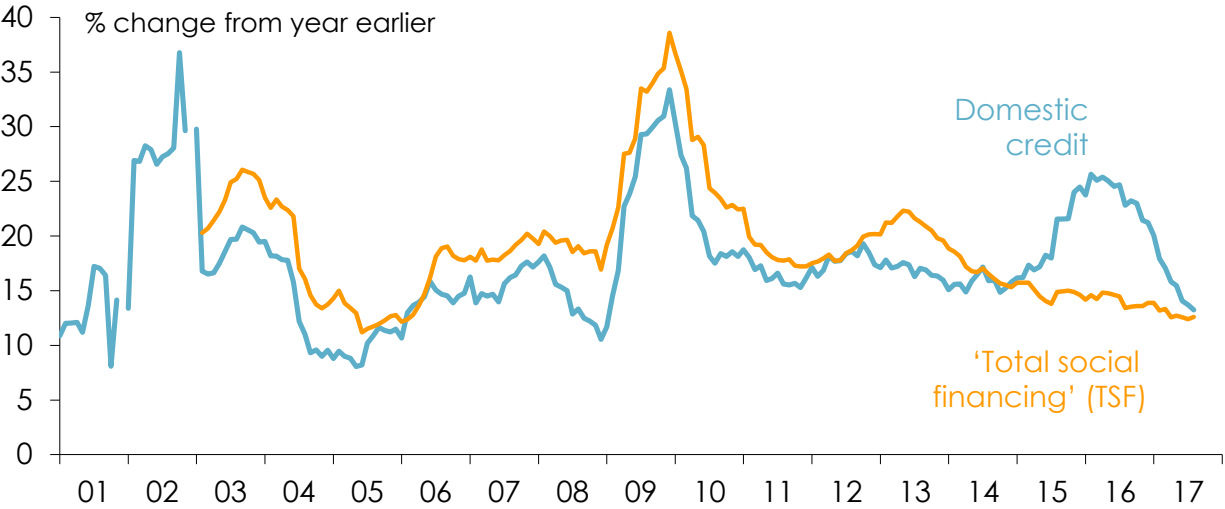
Banking system deposits-to-loans ratio



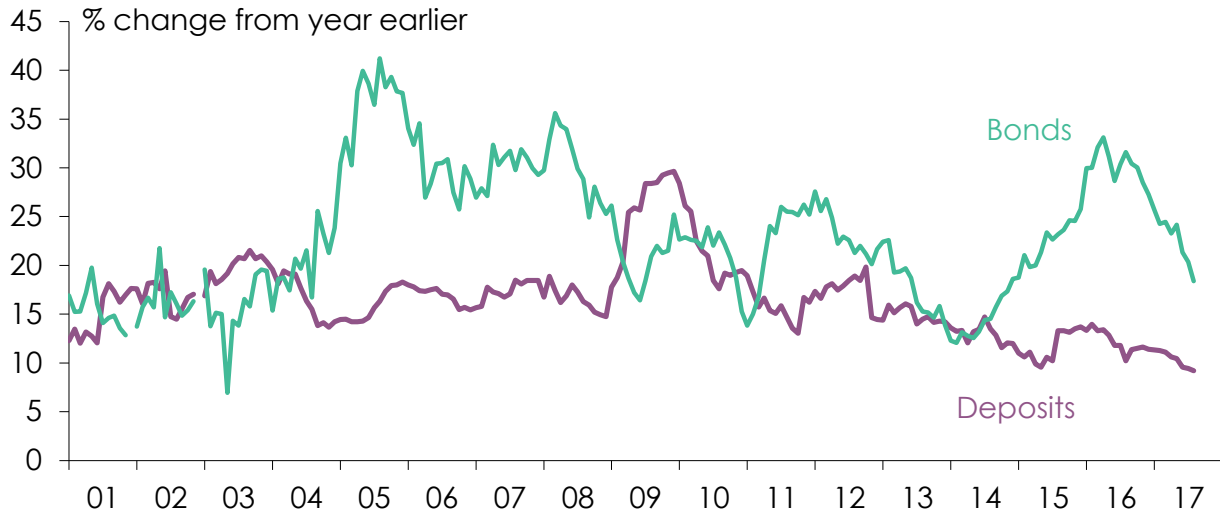
Sources: People's Bank of China.

From late 2015 through late 2016 the Chinese authorities undertook another round of monetary stimulus – but that came to an abrupt halt in December

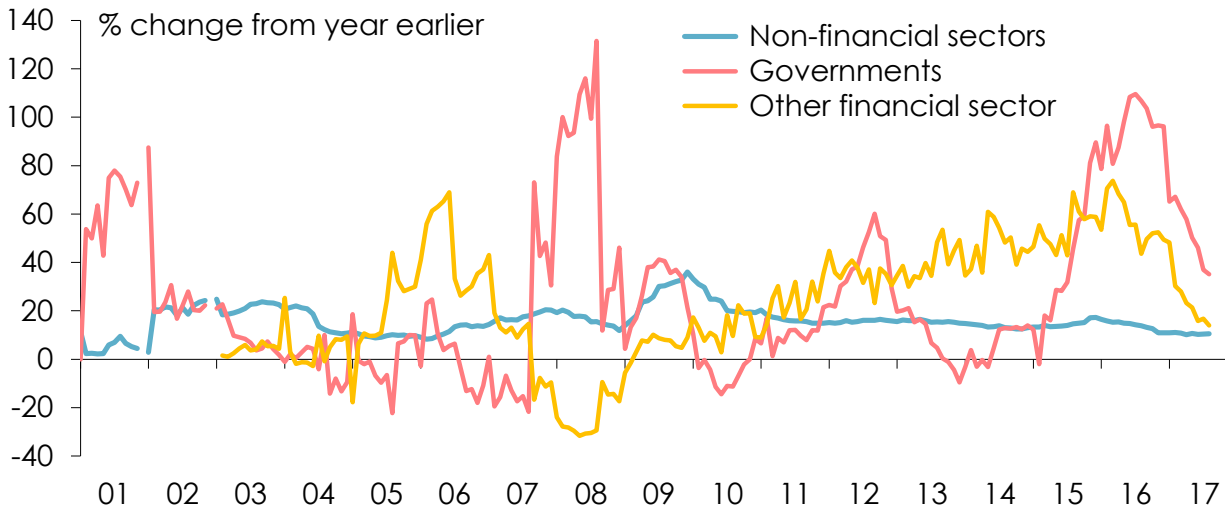
Credit growth - total



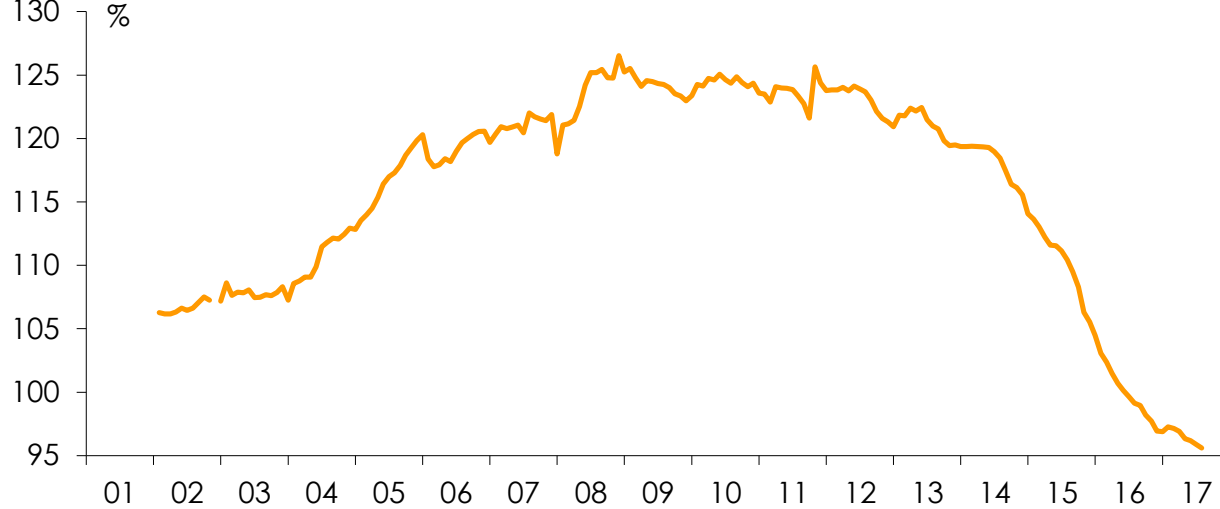
Banking system liabilities



Credit growth – by sector



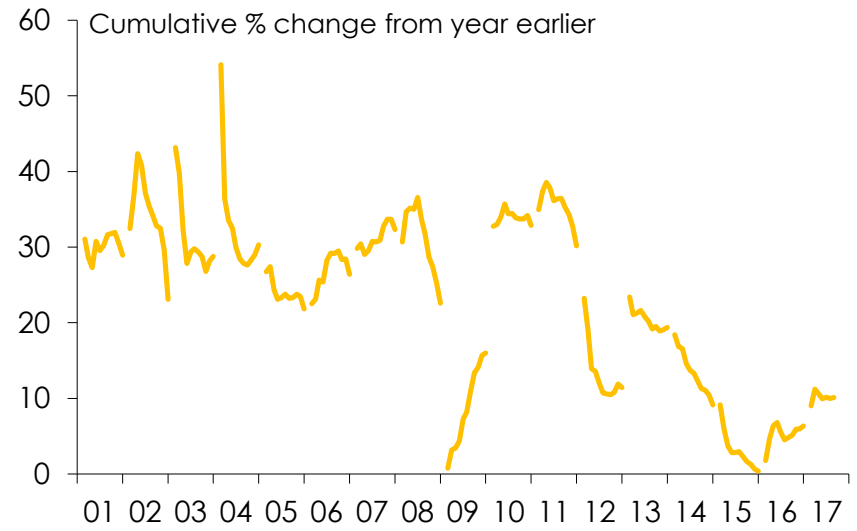
Banking system deposits-to-loans ratio



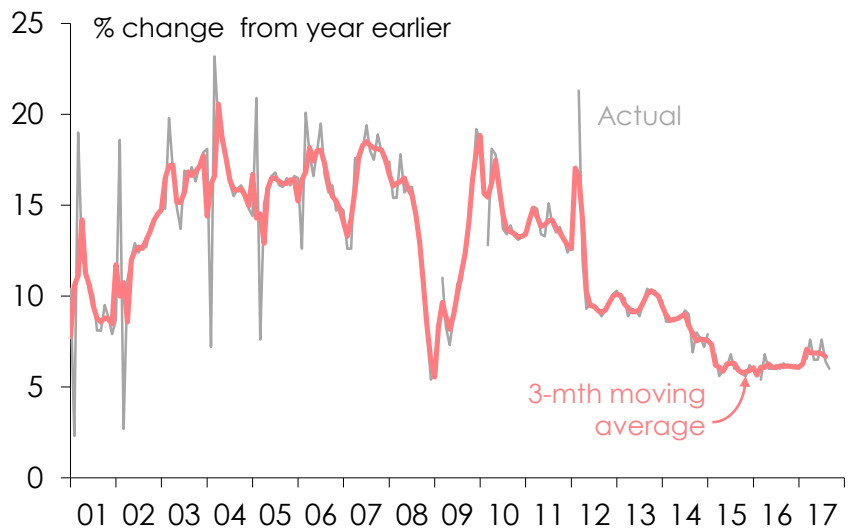
Sources: People's Bank of China.

Hence China's latest investment cycle has probably peaked – although consumer spending and exports are still holding up

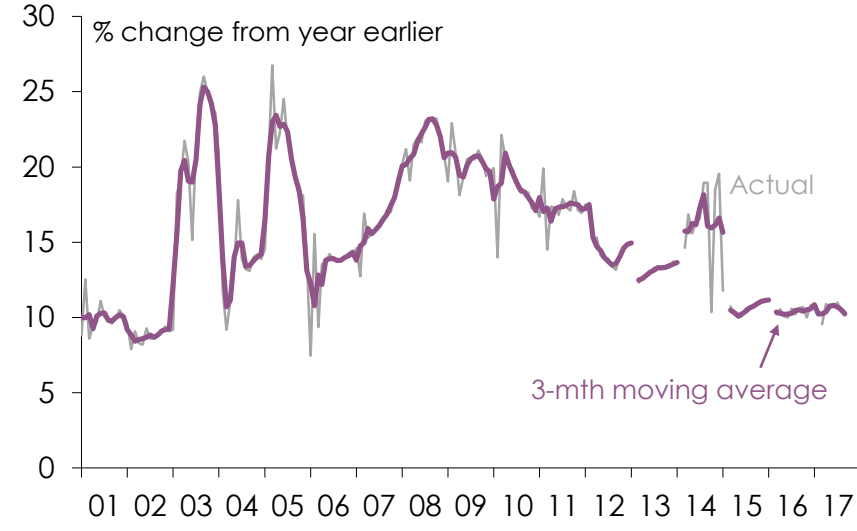
Real estate investment



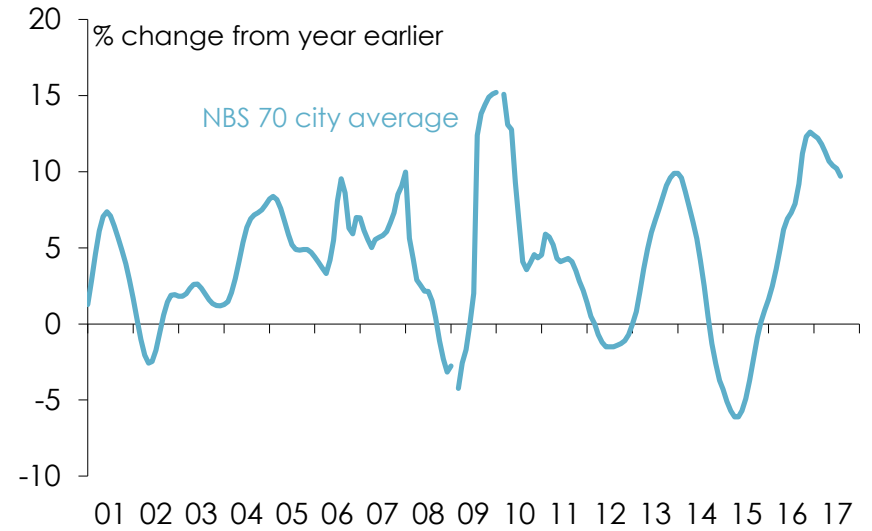
Industrial production



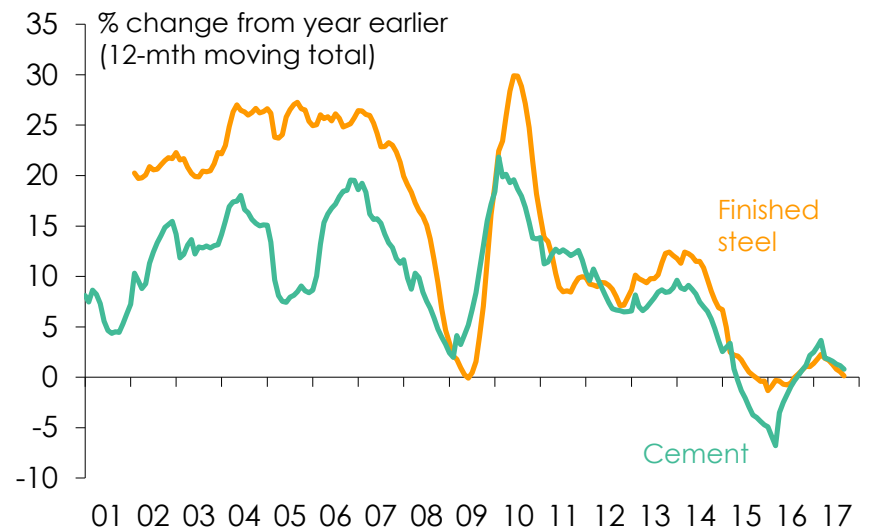
Retail sales



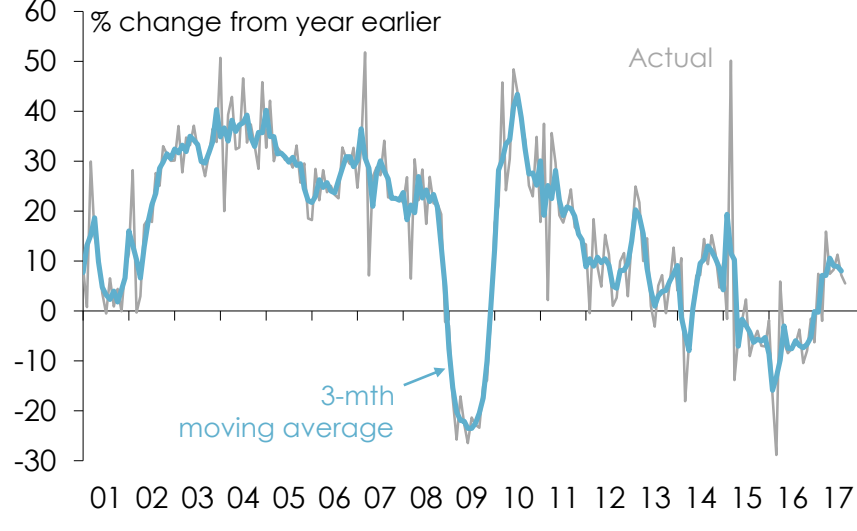
Urban property prices



Steel and cement production

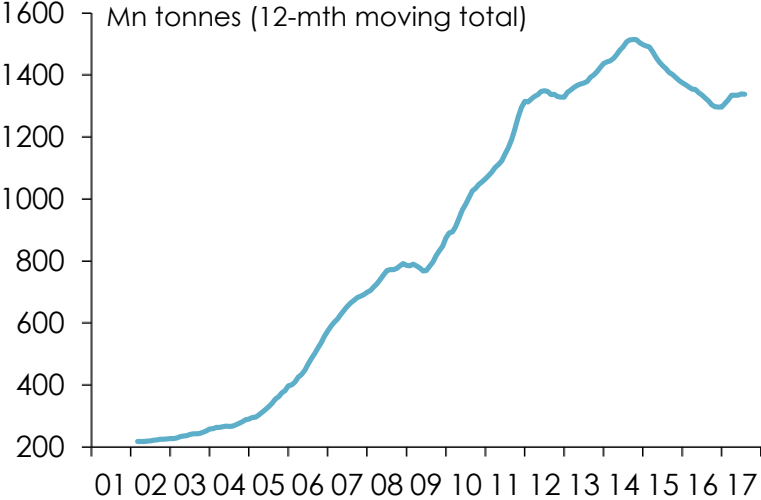


Exports

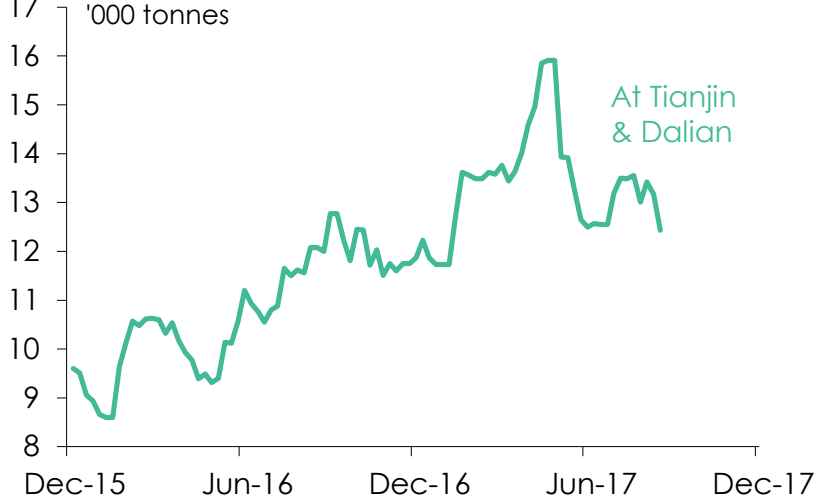


So the 'mini-boom' in iron ore prices of the past 18 months is probably over

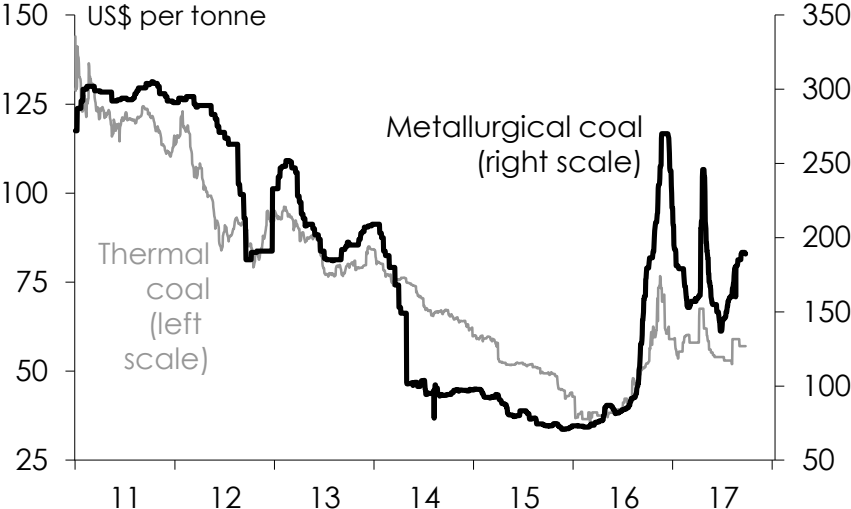
Chinese iron ore production



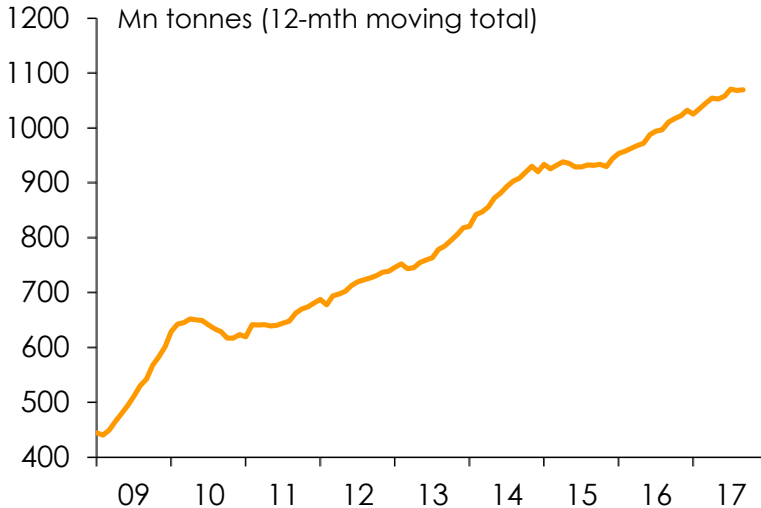
Chinese iron ore inventories



Coal spot prices



Chinese iron ore imports



Iron ore spot prices



Sources: China National Bureau of Statistics; China Customs Information Centre; Thomson Reuters Datastream.

The forthcoming 19th Chinese Communist Party Congress will indicate how much power Xi Jinping has amassed



Zhang Dejiang



Wang Qishan



Yu Zhengshen



Zhang Gaoli



Liu Yunshan



Xi Jinping
President, Chair
Central Military
Commission &
CCP General
Secretary



Li Keqiang
Premier

These five are
all over 68
and are thus
due to retire
from the
Standing
Committee of
the Politburo

Who will be promoted to the Politburo Standing Committee for 2017-2022



Sun Zhengcai



Li Zhanshu



Wang Yang



Chen Min'er



Wang Huning

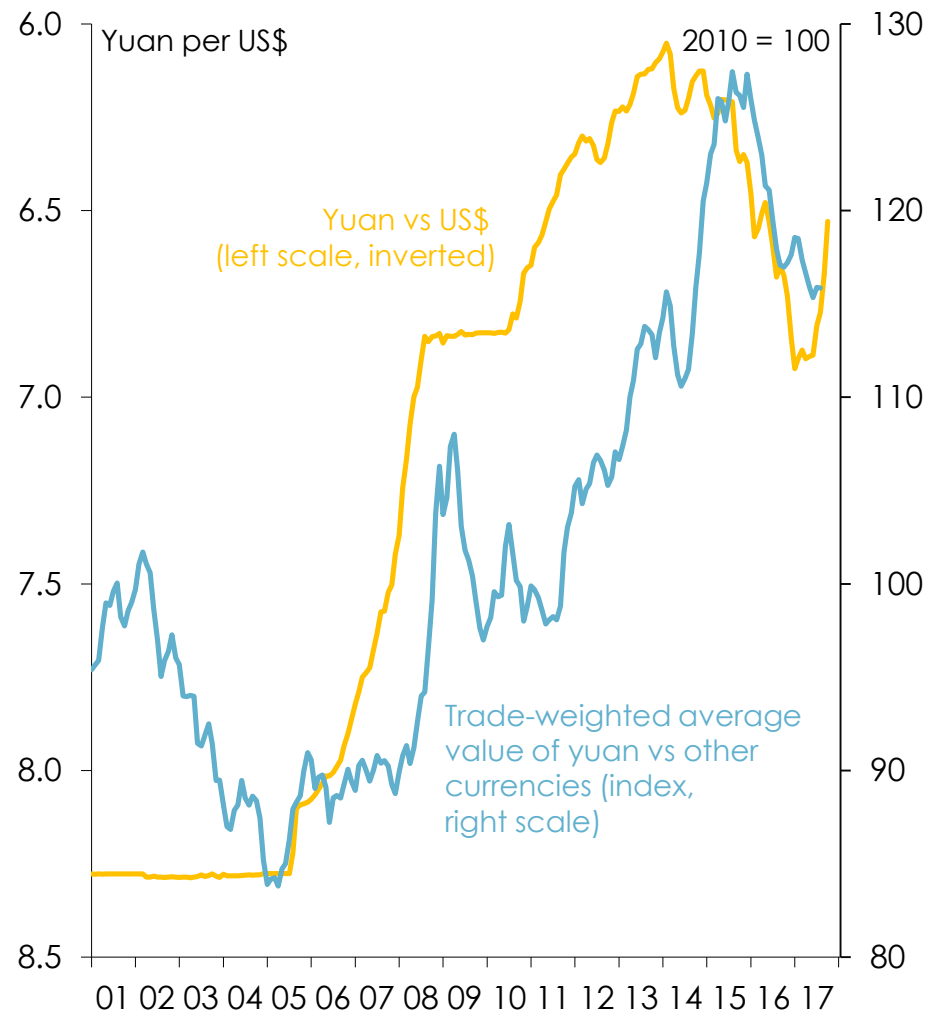


Hu Chunhua

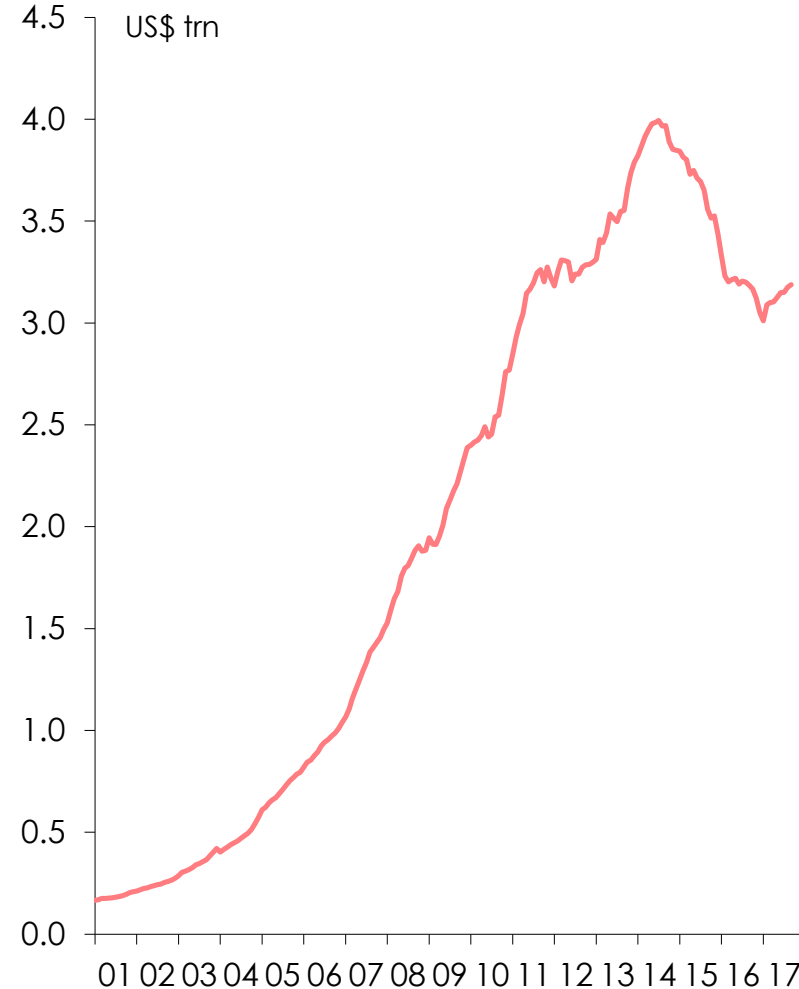
Will Xi Jinping's Collected Works be elevated
to 'Theory' (like Deng Xiaoping or Jiang Zemin)
or 'Thought' (like Mao Zedong)?

China has become more concerned about a sharp fall in its own currency – prompting it to impose tighter controls on capital outflows

Chinese yuan



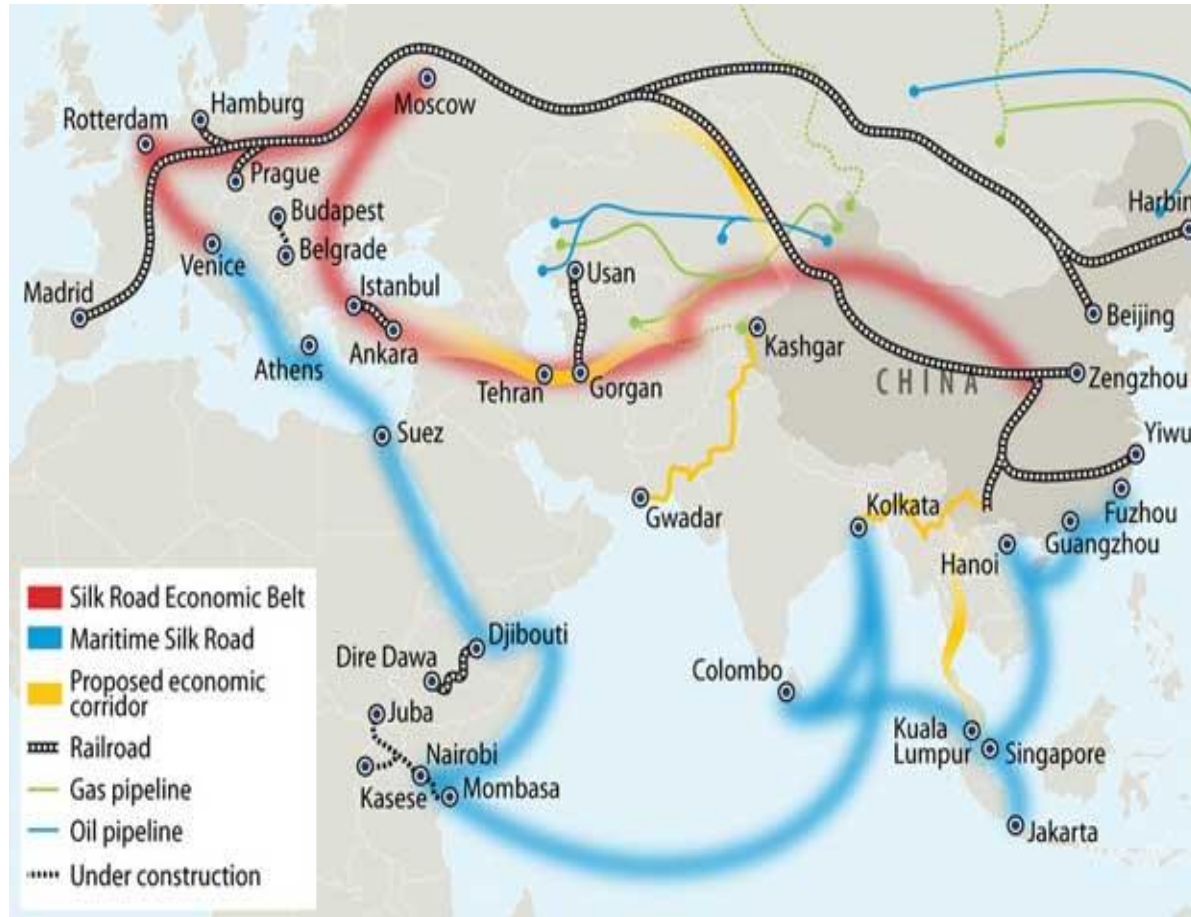
China's FX reserves



- ❑ **Stemming capital outflows between mid-2014 and end-2016 cost China almost US\$1 trn (25%) of its FX reserves**
- ❑ **During 2016, China increased scrutiny of and tightened restrictions on capital outflows**
 - individuals limited to US\$50,000 pa
 - banks have to 'report' transfers over Y200,000
- ❑ **In August the State Council and NDRC announced new controls on outward foreign investment**
 - 'banned' (sex and gambling industries, and 'core military technology')
 - 'restricted' (property, film, entertainment, sports, hotels and 'obsolete equipment')
 - 'encouraged' (deals which support the 'Belt and Road' Initiative)

Xi Jinping's signature 'Belt and Road Initiative is (potentially) the world's largest ever infrastructure project

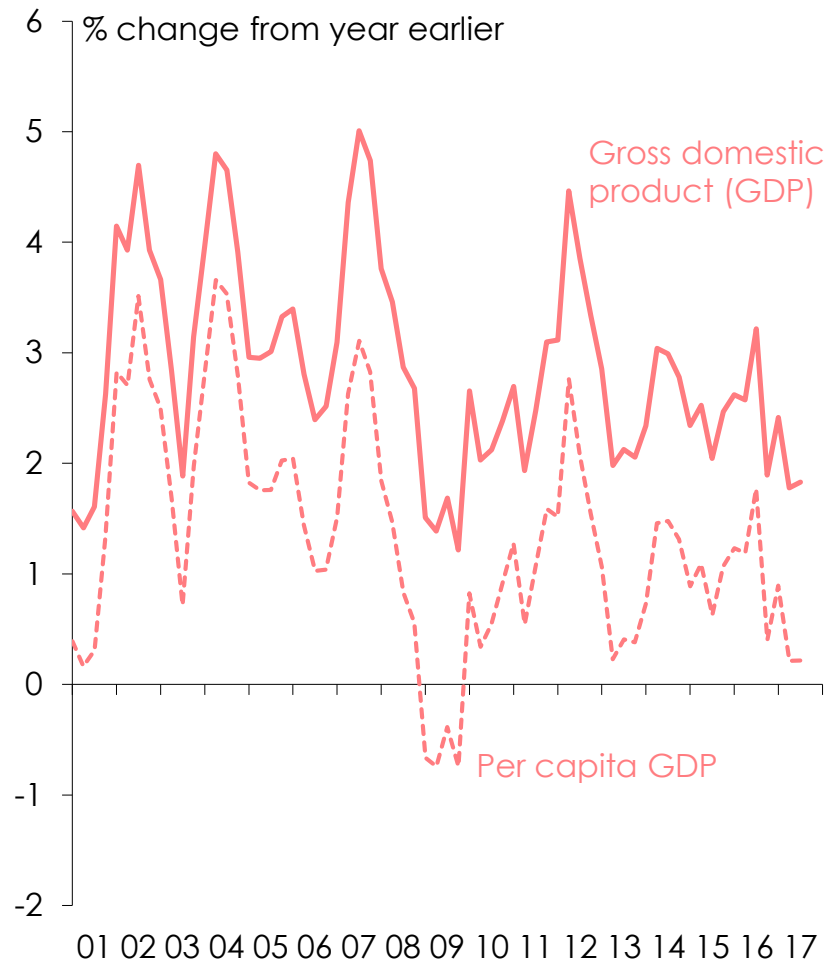
China's 'Belt and Road' Initiative



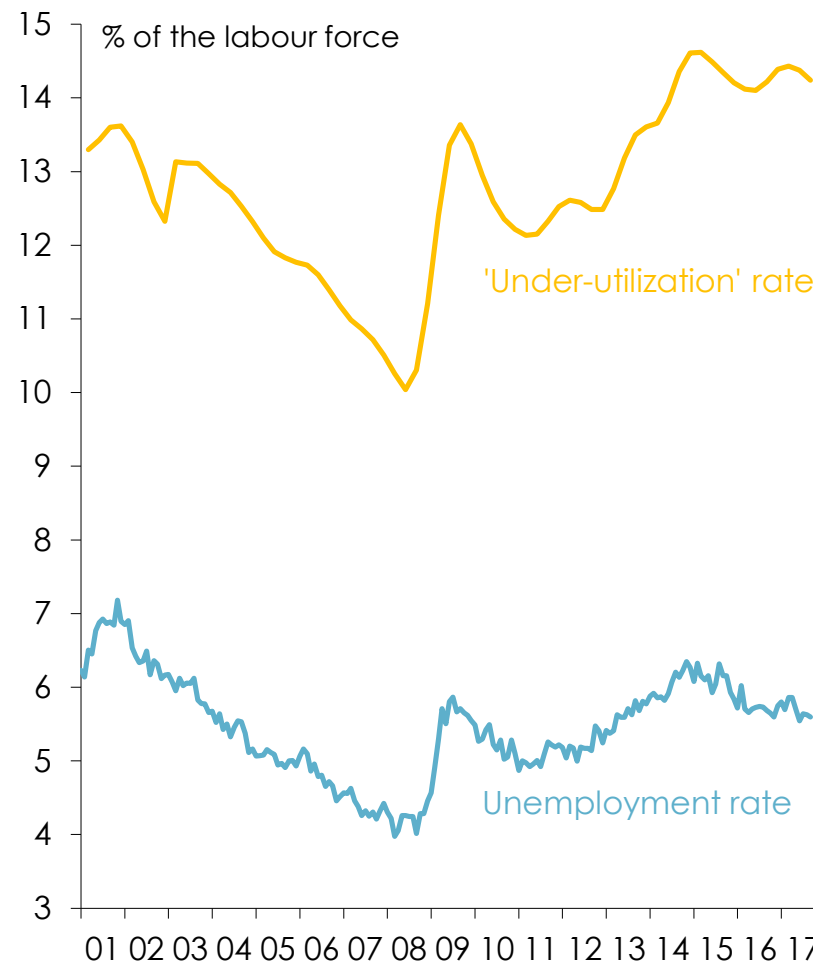
- ❑ 'One Belt, One Road' – or 'Belt and Road Initiative' as it is now called – was proposed by Xi Jinping in a series of speeches in the second half of 2013
- ❑ 40 countries (including New Zealand but not Australia) have signed Belt & Road 'co-operation agreements' with China
- ❑ Belt & Road projects have been mooted in 60 countries
- ❑ Estimates of the total amount to be spent on Belt & Road Projects run to between \$US 1 and 4 trillion
 - although total spending thus far is less than US\$100bn
- ❑ China says the Belt & Road Initiative aims to foster policy co-ordination, infrastructure connectivity, free trade, financial integration and 'people-to-people bonds'
- ❑ Almost certainly, Belt & Road is also intended to provide new markets for Chinese firms, more secure pathways for critical imports, wider acceptance of Chinese technical standards, and greater use of the renminbi
 - and to further Chinese geo-strategic objectives

Australian economic growth is lower than it should be, unemployment is higher than it should be, and inflation is lower than the RBA wants

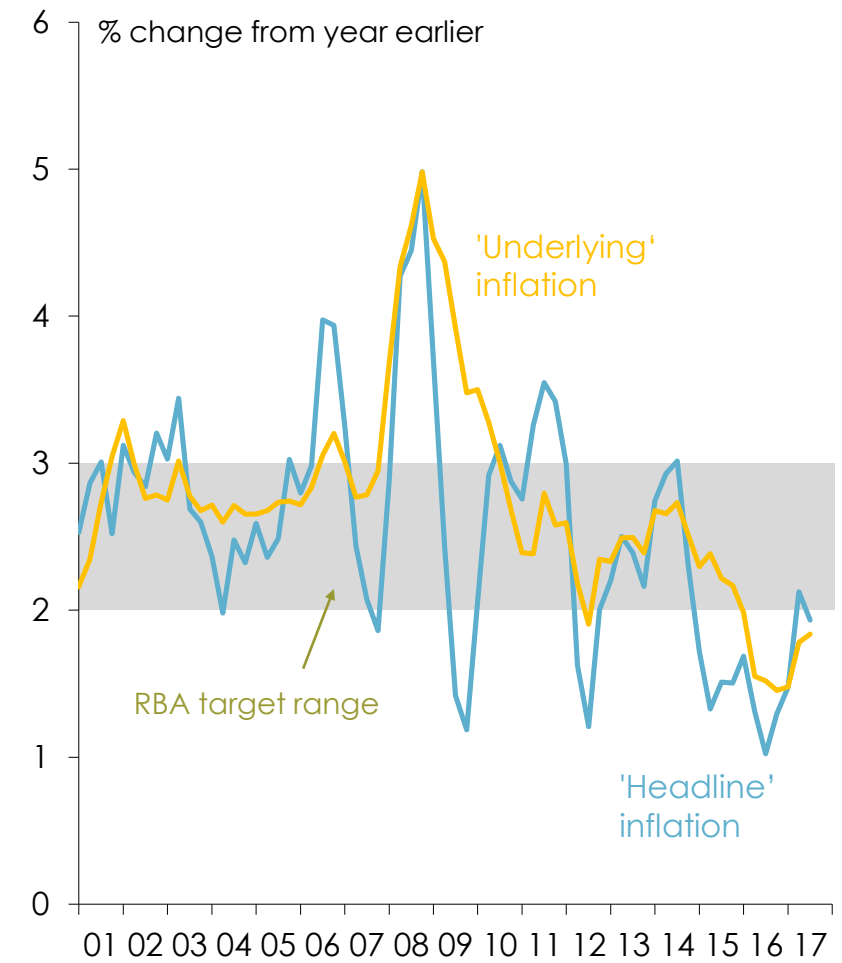
Economic growth



Unemployment and under-employment



Consumer prices

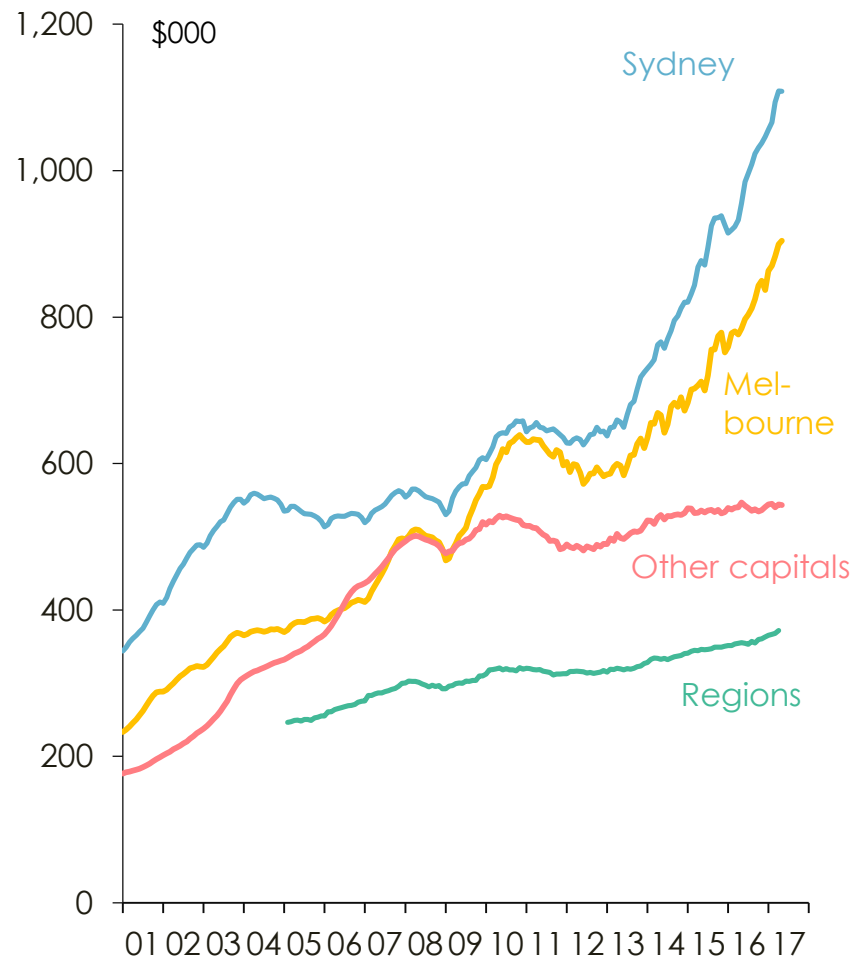


Note: The labour force 'under-utilization' rate includes people employed part-time who are willing and able to work longer hours (and weights them equally with people who are 'unemployed' in the conventional sense). 'Underlying' inflation abstracts from the impact of volatile items (typically items such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

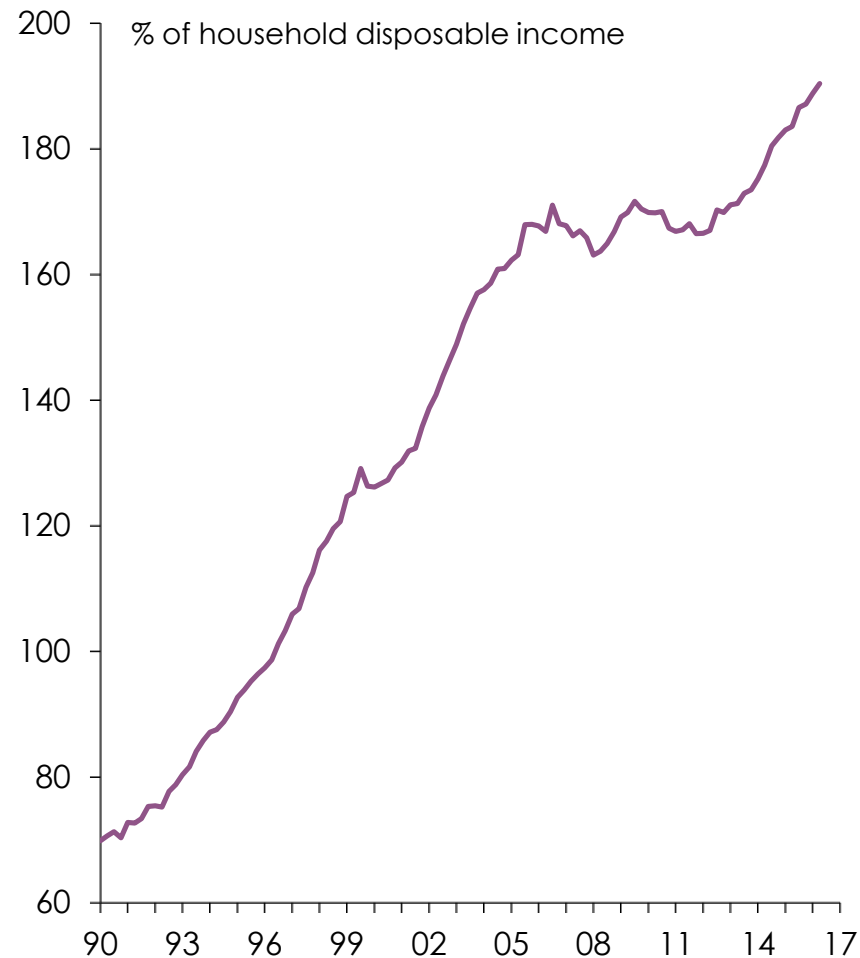
Source: Australian Bureau of Statistics.

The RBA doesn't want to cut rates any further for fear that it would only encourage further increases in house prices and household debt

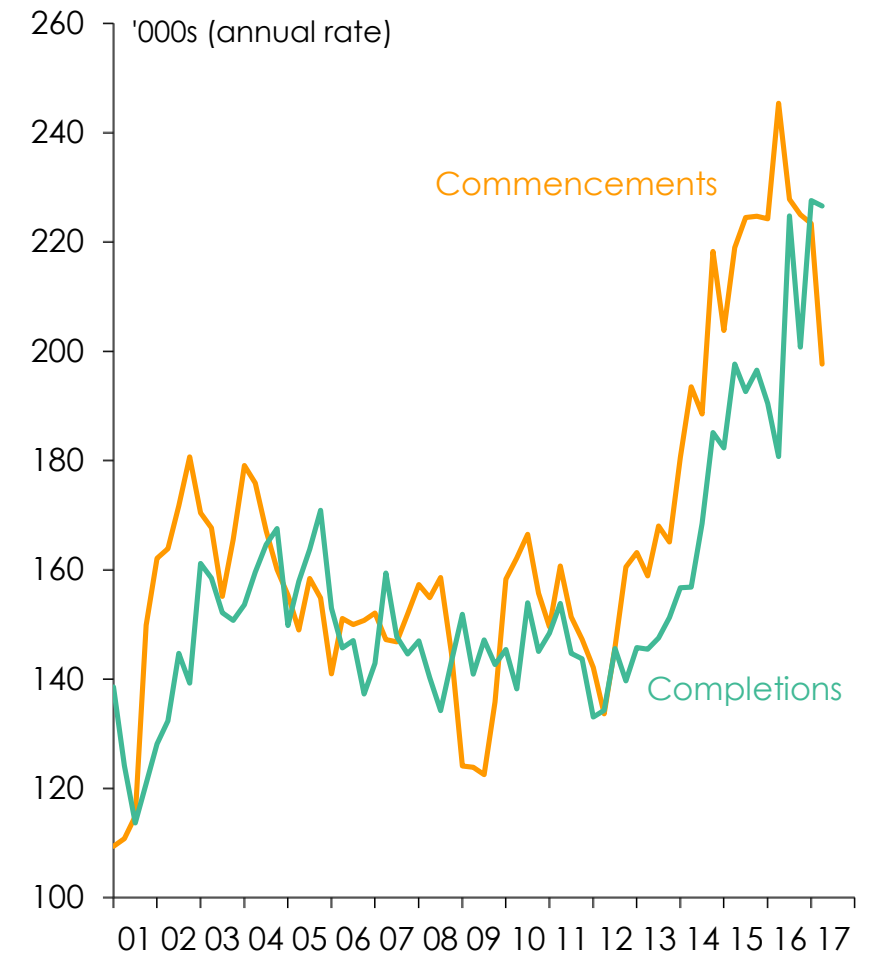
Housing prices – Sydney & Melbourne vs the rest



Household debt



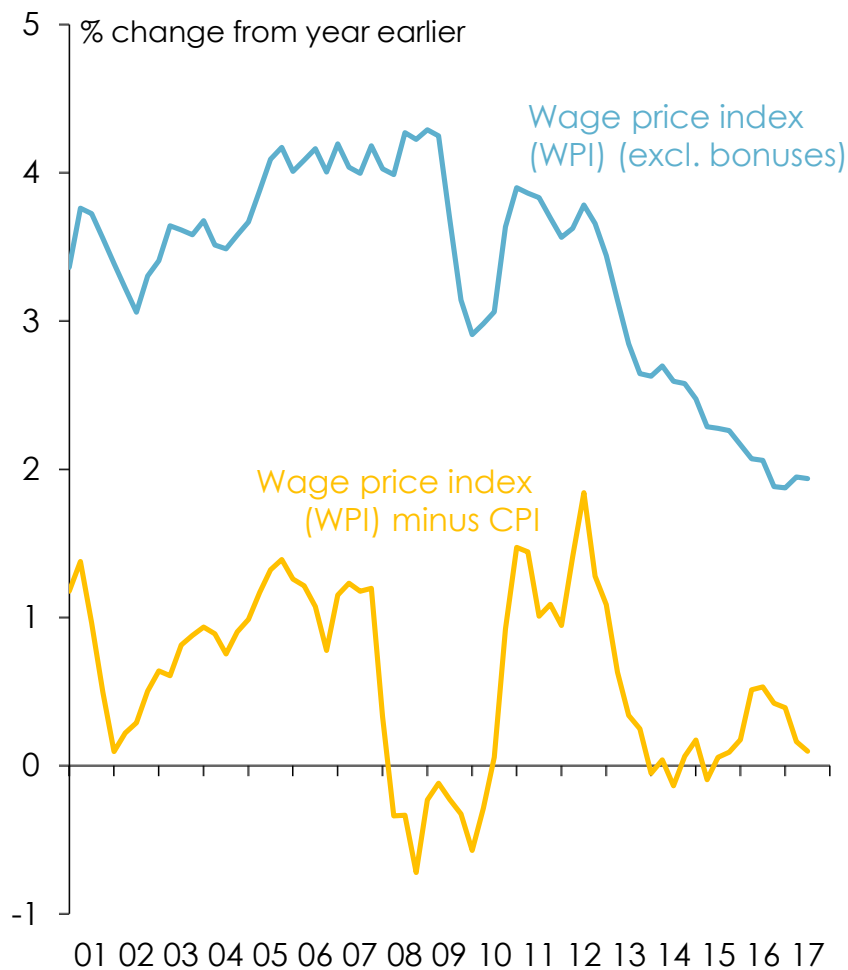
Housing construction activity



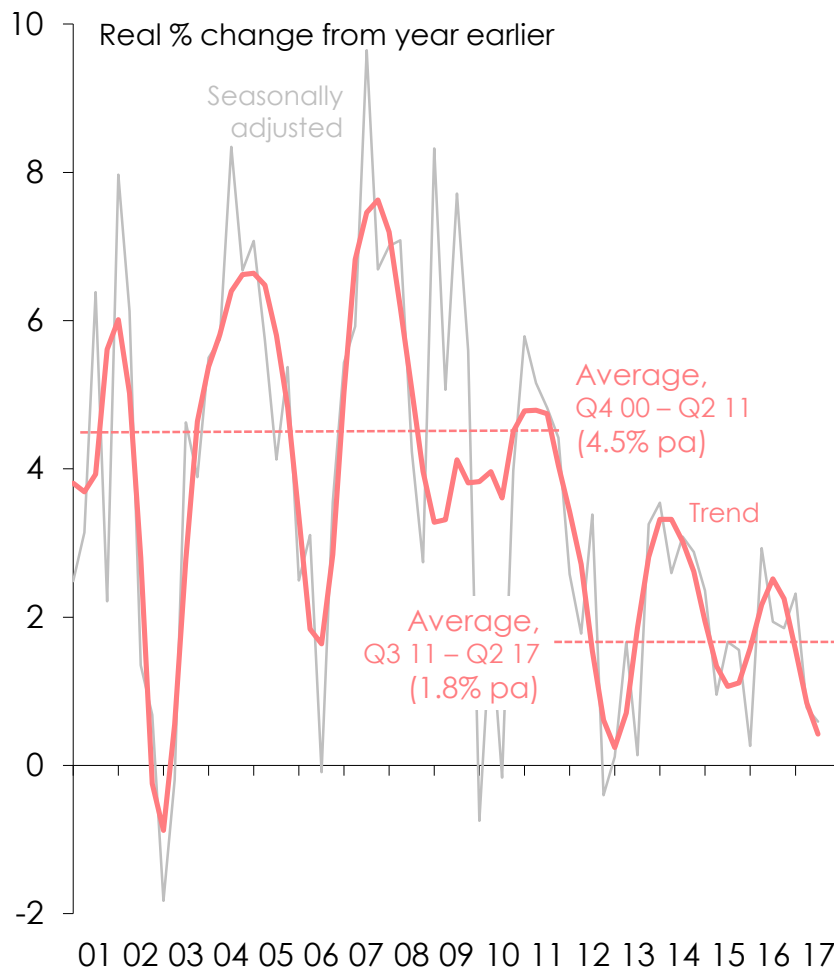
Source: CoreLogic – RP Data; Australian Bureau of Statistics; Reserve Bank of Australia.

Sluggish wages growth has meant weak growth in household incomes and depressed levels of consumer confidence

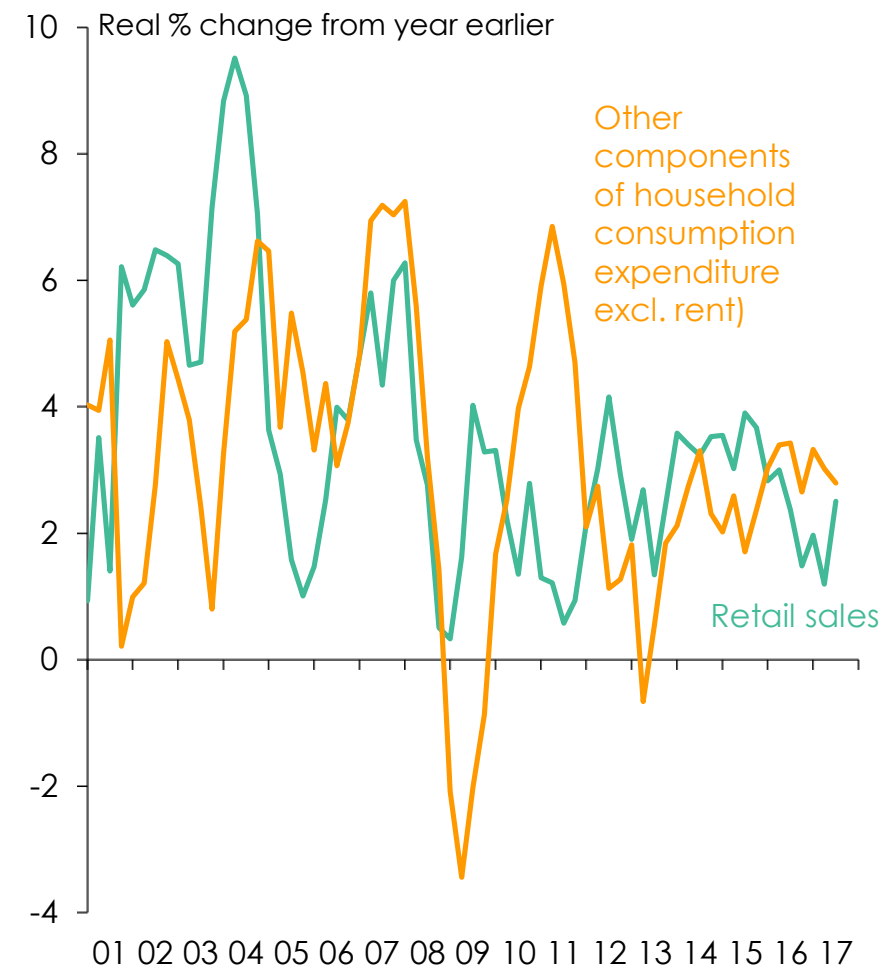
Nominal and real wages



Household disposable income



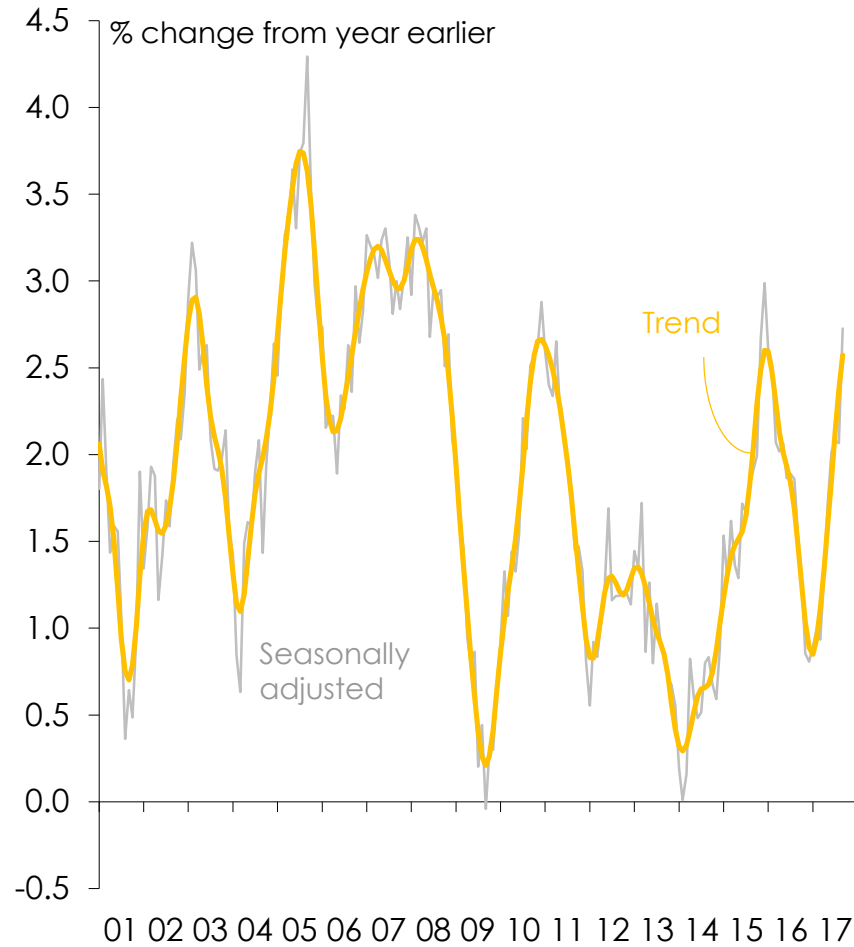
Household consumption expenditure



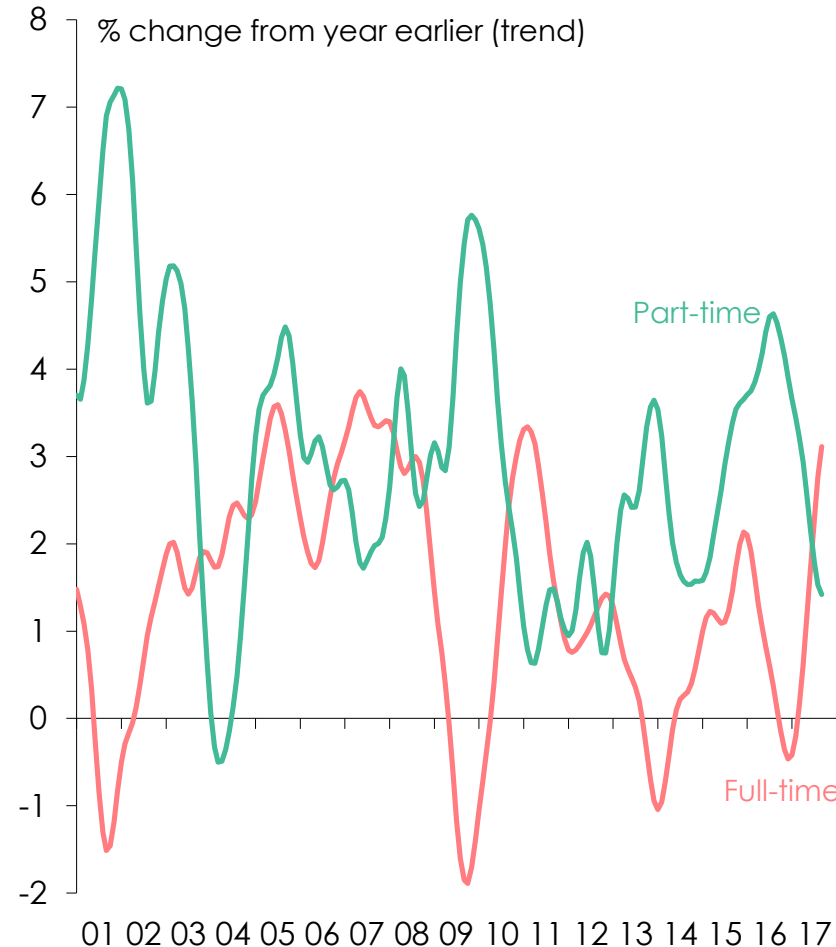
Source: ABS

Employment growth has picked up – this time led by full-time employment – and seems likely to be sustained

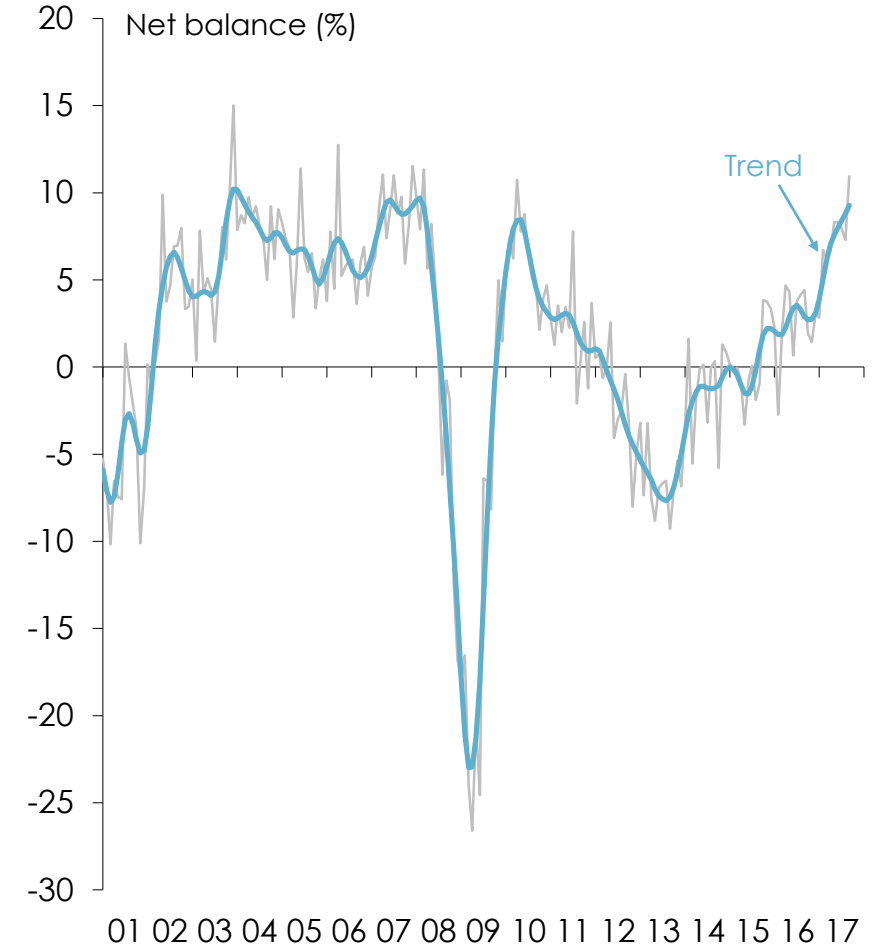
Employment growth



Full-time vs part-time employment



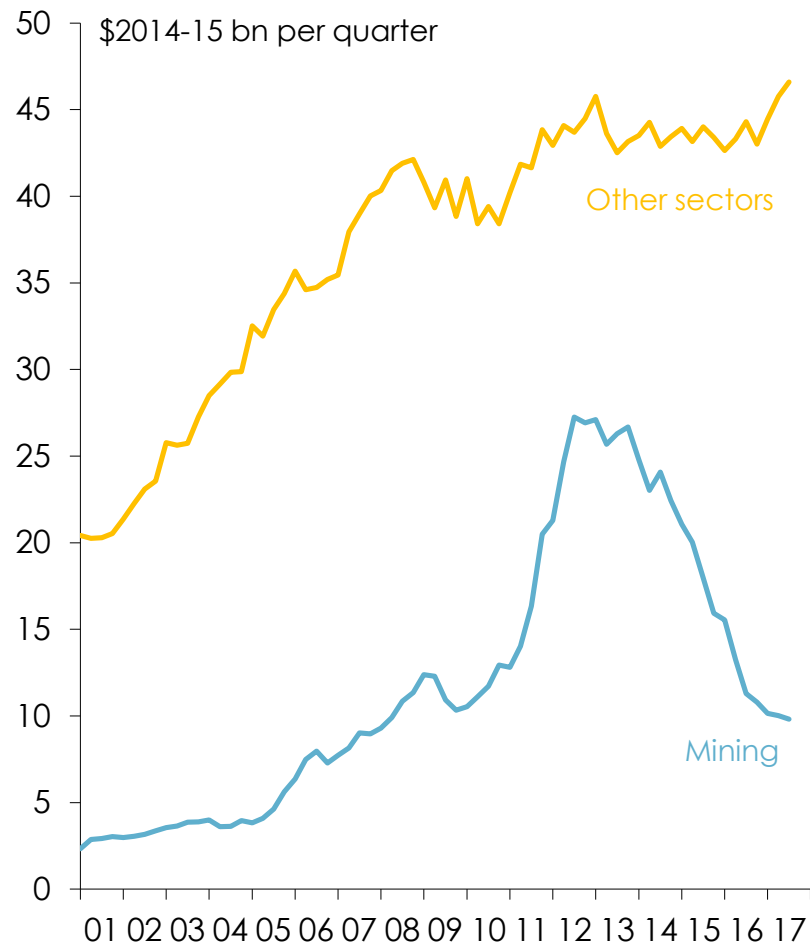
NAB business survey – employer hiring intentions



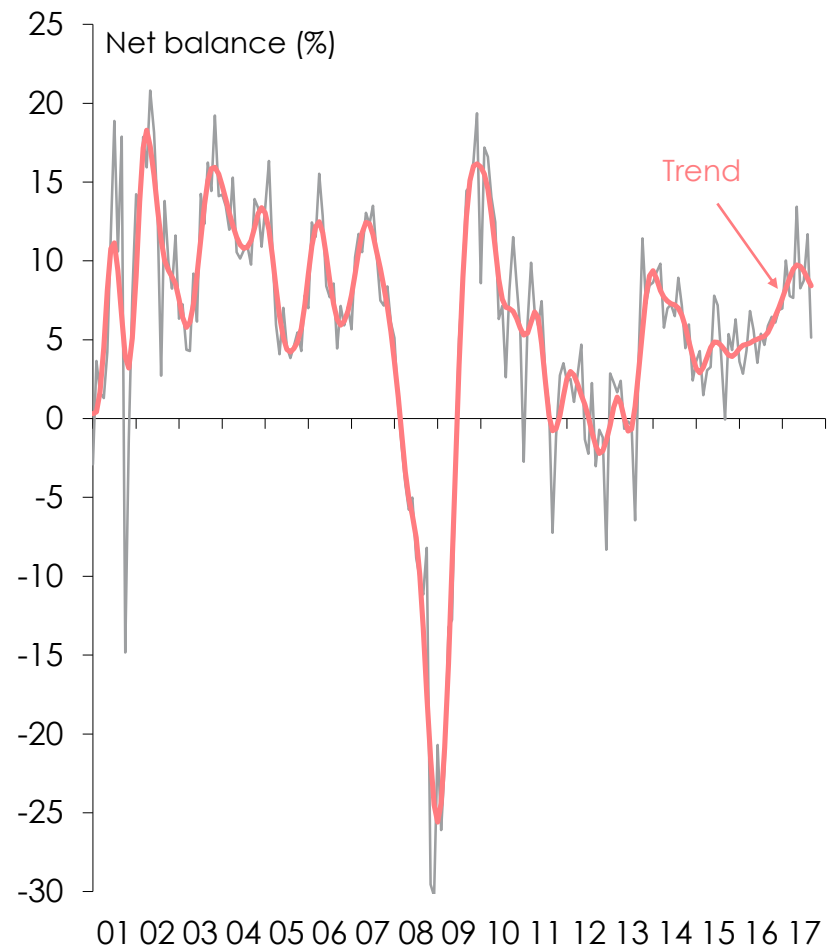
Sources: ABS; National Australia Bank.

Similarly it seems likely that business investment will 'bottom out' and start to pick up over the next year

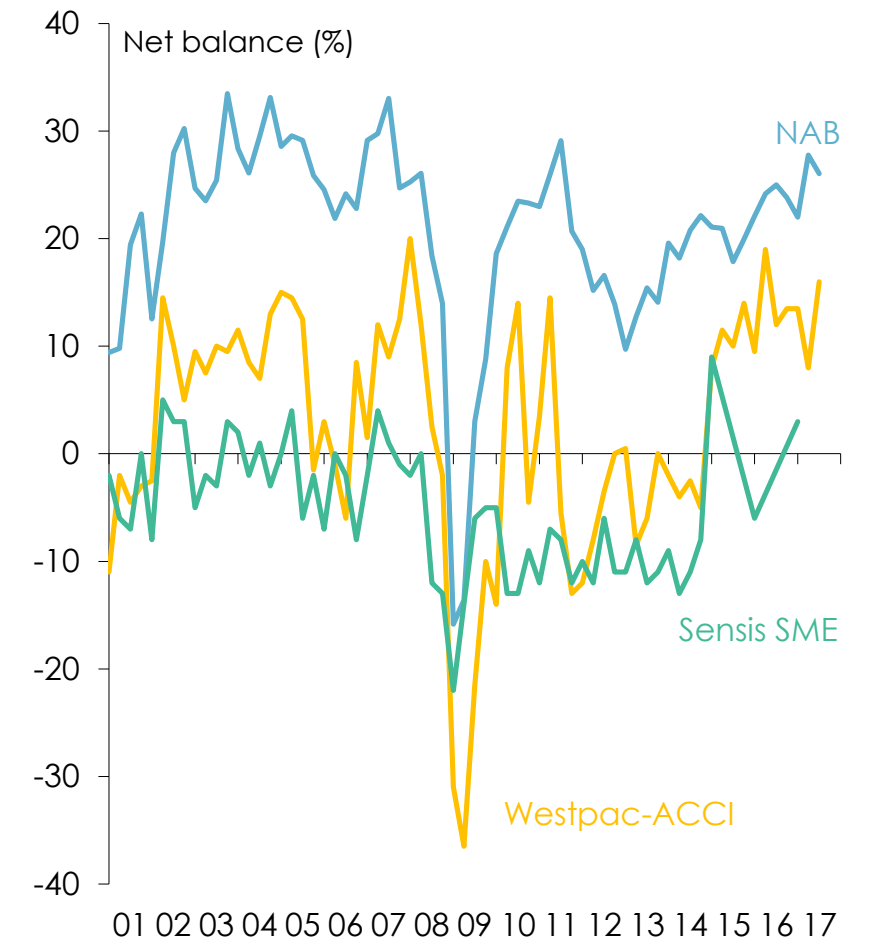
Business investment – mining vs other sectors



Business confidence



Business survey capital expenditure expectations

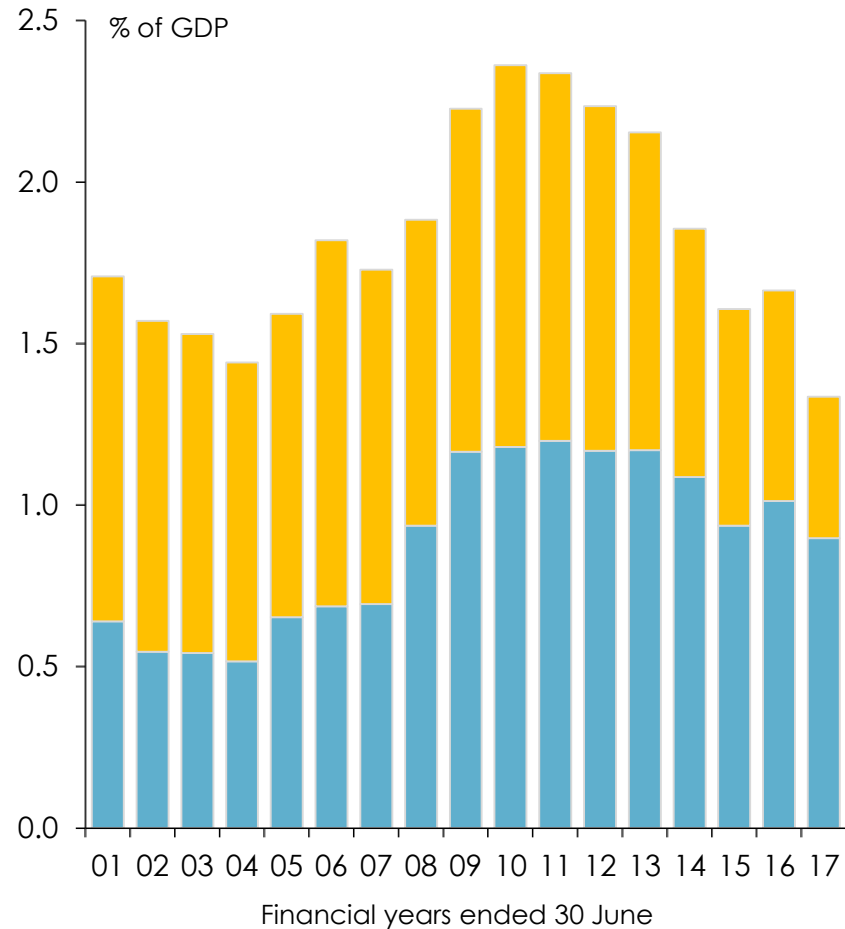


Sources: National Australia Bank; Westpac and Australian Chamber of Commerce & Industry; Sensis.

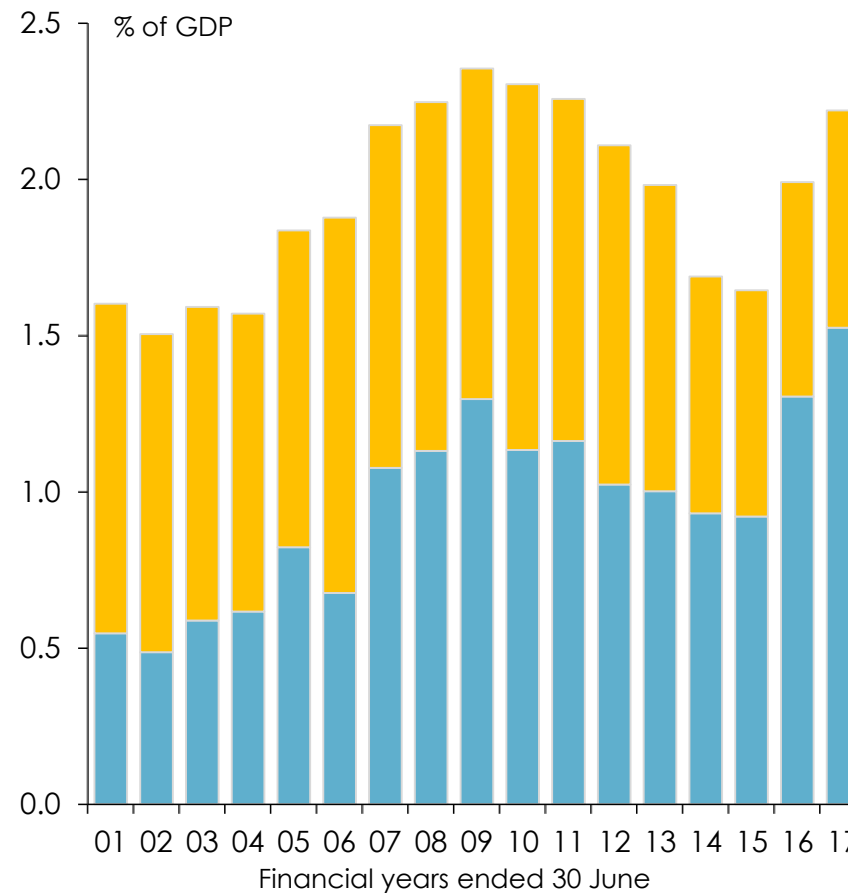
Higher levels of infrastructure investment spending will also provide some impetus to economic growth

Indicators of engineering construction activity for the public sector

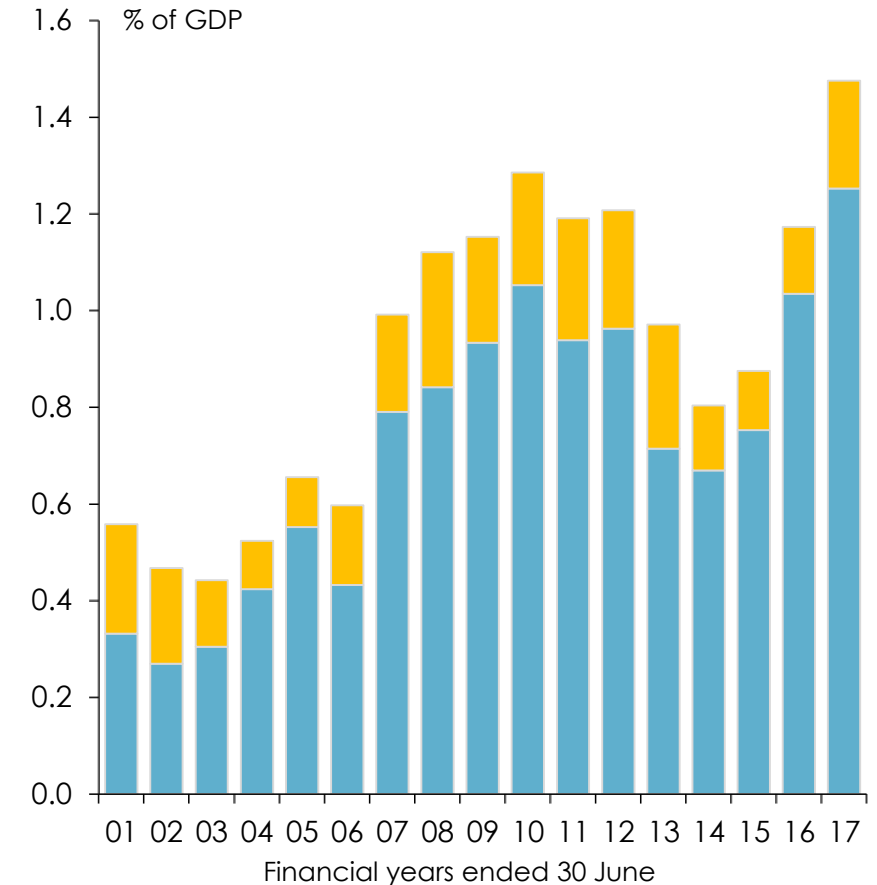
Value of work done



Commencements



Work yet to be done



■ Work by the private sector for the public sector
 ■ Work by the public sector for the public sector

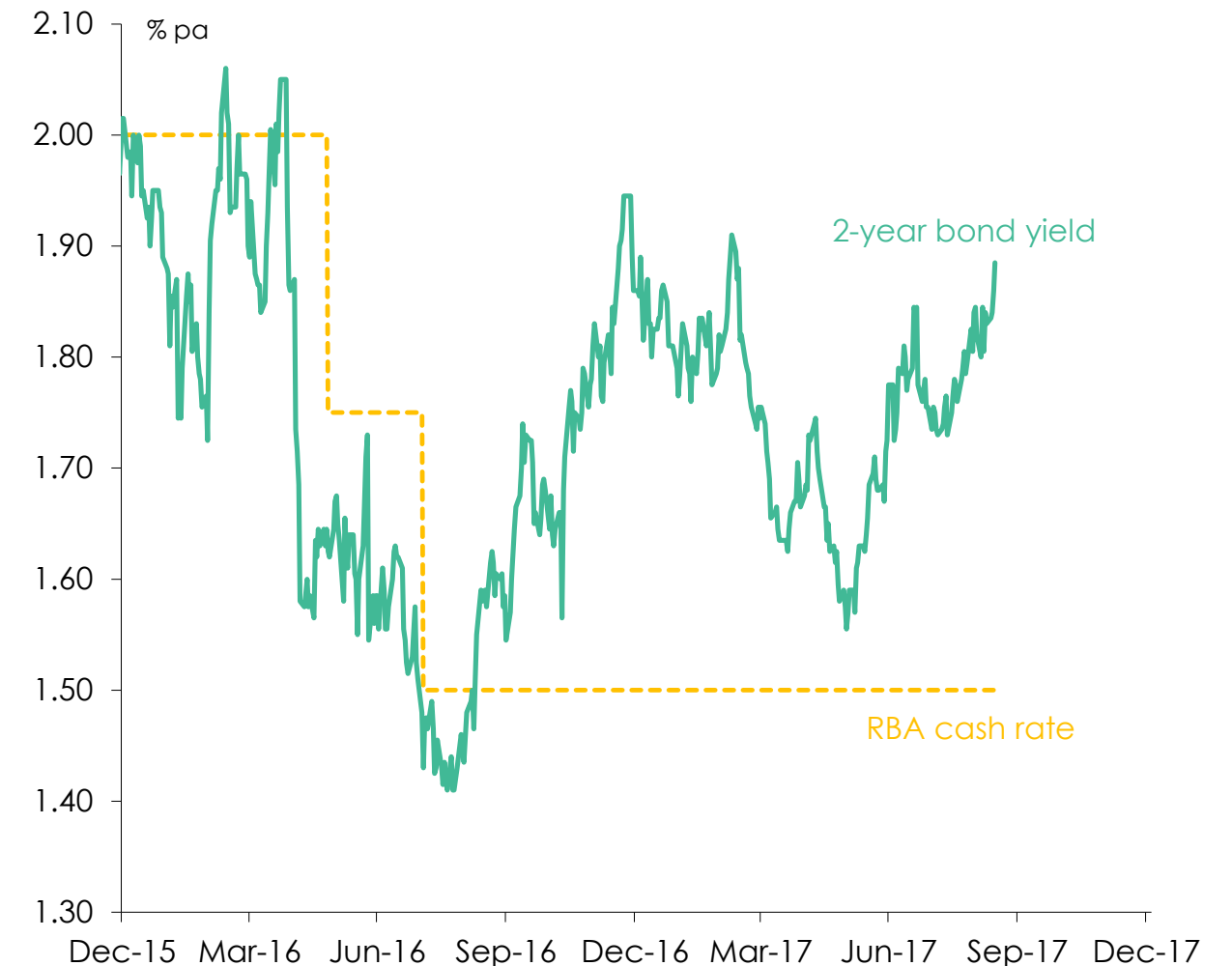
Note: 2016-17 figures for commencements and work yet to be done are for the first three quarters. Source: ABS.

The RBA will probably start raising rates in the first half of next year – but slowly, and not by very much in total

Overnight index swap (OIS) rates and the Reserve Bank cash rate



2-year Commonwealth bond yields and the Reserve Bank cash rate



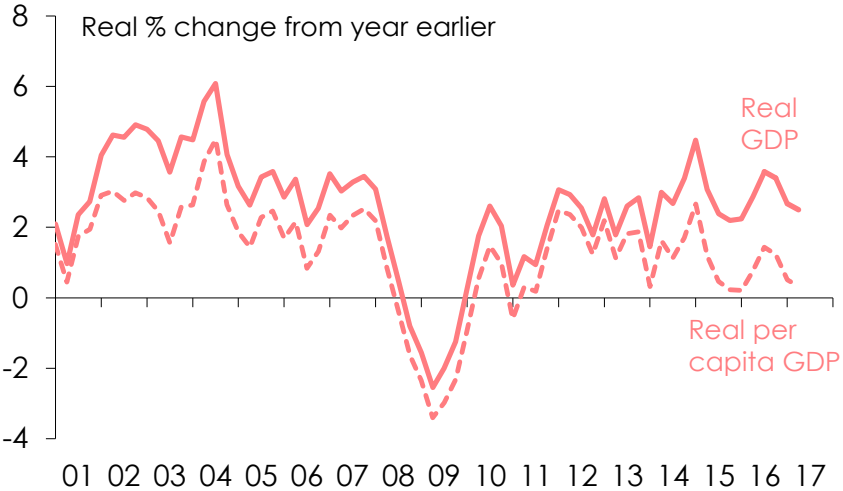
Source: Reserve Bank of Australia; Thomson Reuters Datastream.

Australian politics seems to be 'turning left'

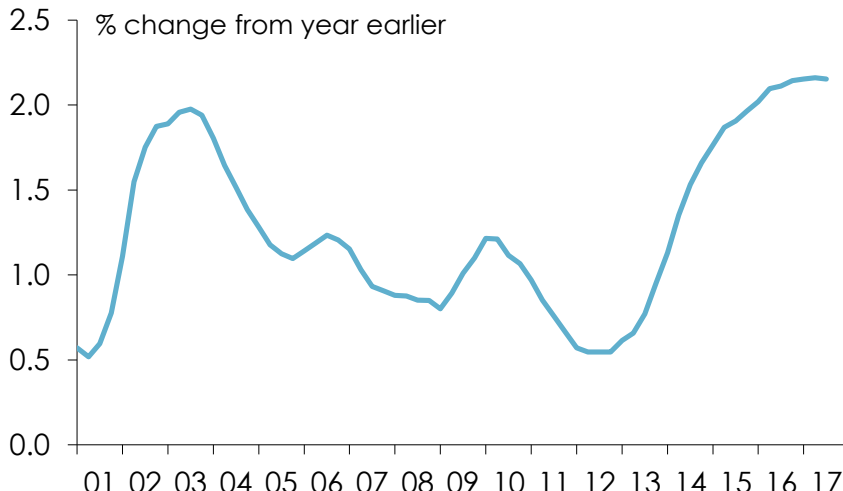
- ❑ **The Australian public has never been particularly enthusiastic about 'economic rationalism' (as it was called in the 1990s and early 2000s) or 'neo-liberalism' (as it's now called by its long-term opponents)**
 - Australia went down this path from the mid-1980s to the early 2000s because there was a bi-partisan consensus among the major political class that reforms of this type were essential to improving Australia's economic performance
- ❑ **The Australian electorate's tolerance for 'market forces' has been eroded – and its appetite for greater government intervention enhanced – by a series of trends not unique to Australia**
 - perceived deterioration in average living standards since the financial crisis / end of the 'mining boom' (reflecting stagnant wages, rising housing and living costs, increased urban congestion, lack of tax cuts and cash handouts etc)
 - perceptions of increasing inequality (especially of wealth)
 - growing sense that de-regulation, privatization, and other 'market reforms' have 'delivered' for 'top end of town' but not for 'ordinary Australians'
 - succession of business and political scandals that have fuelled 'anti-elite' sentiment
- ❑ **Both major political parties have latched on to this shift in voter sentiment**
- ❑ **The Liberal-National Government has slapped a levy on large banks ('because they can afford it'), used defence procurement to subsidize struggling industries, and intervened in energy markets**
 - "we showed no fear of vested interests that sometimes assume falsely and without basis that they are untouchables. The large Banks and multinationals are not a Coalition-protected species" (Treasurer Scott Morrison, 24th June 2017).
- ❑ **The Labor Opposition is (for the first time since the 1970s) explicitly committed to raising taxes in order to pay for increased spending**
 - "I do not think it is a sufficient and respectful enough answer to the Australian people, to hide behind some sort of philosophical objection to government intervention ... if we're going to fund ... vital investments for the future ... we need to look at whole picture: revenue and expenditure, including tax subsidies. Including reforms in the past that we might have dismissed as too hard, too politically difficult (Opposition Leader Bill Shorten, 21st July 2017)

New Zealand's economy has done better than Australia's – but largely through immigration, and other problems are similar to Australia's

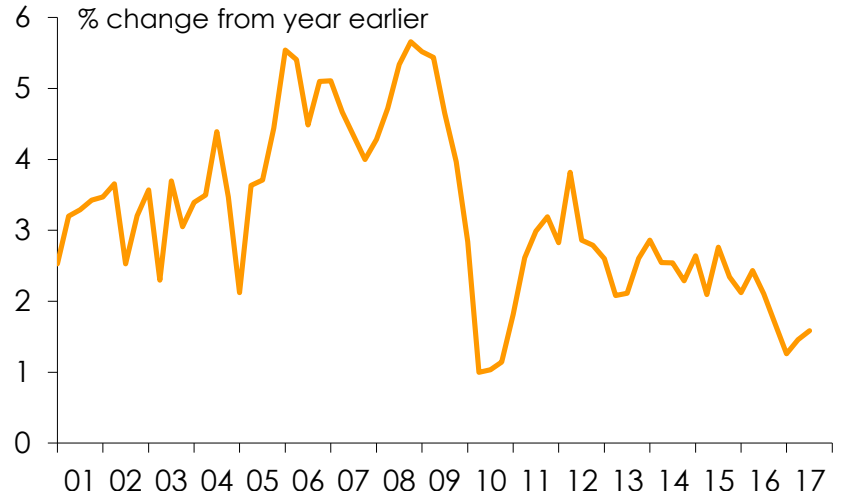
NZ real GDP growth



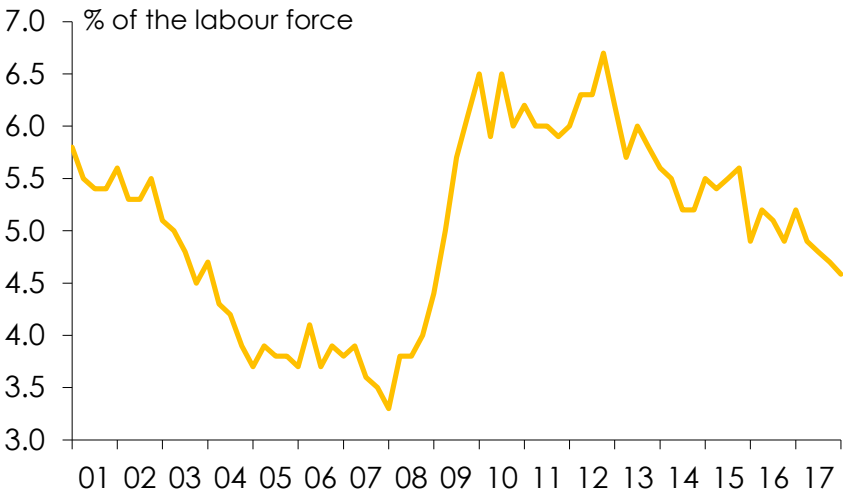
Population growth



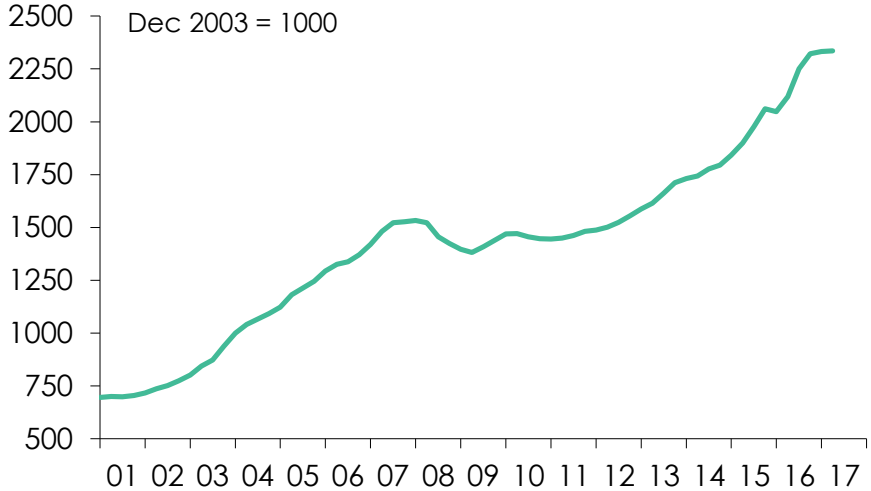
Average hourly earnings



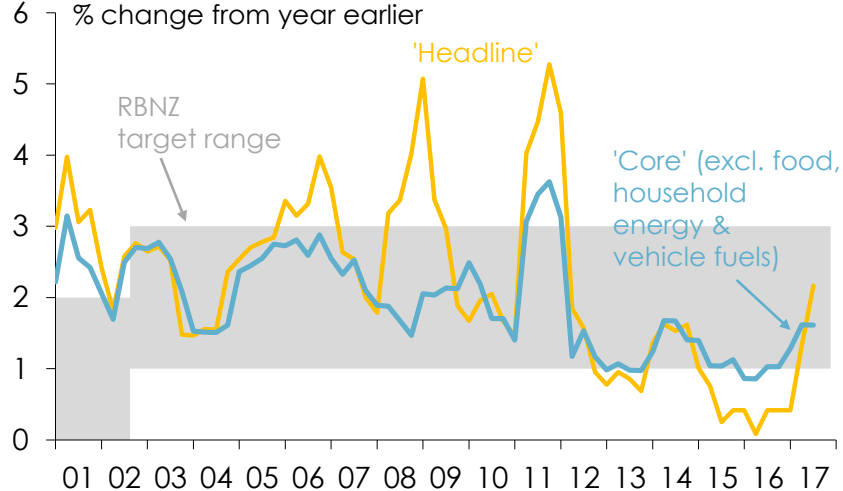
Unemployment



Median house prices



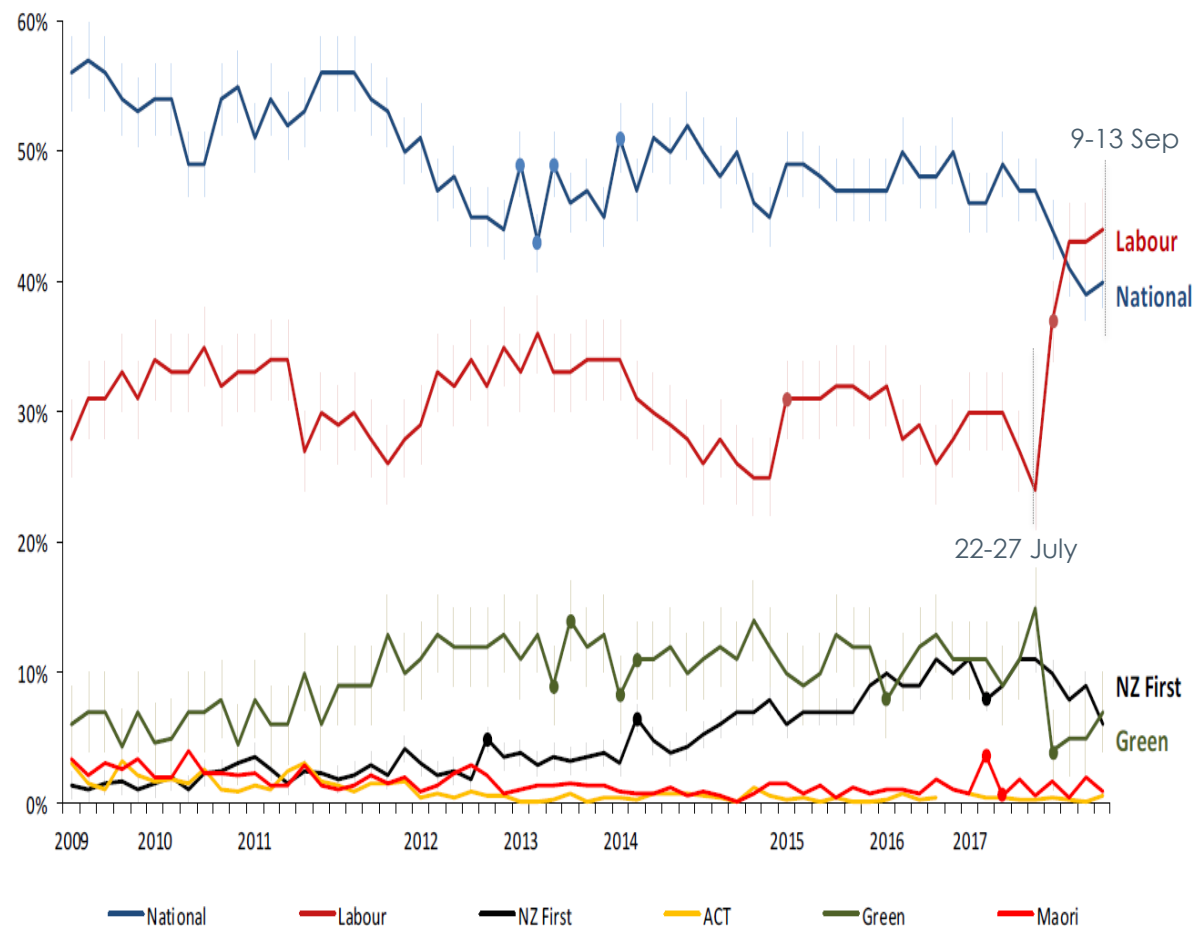
Consumer price inflation



Sources: Statistics New Zealand; CoreLogic

Will New Zealand turn left this Saturday?

New Zealand voting intentions



Note: Line markers indicate significant differences from the previous poll at the 95% confidence level, and error bars display the 95% confidence interval for each National, Labour, Green and NZ First Party result. Error bars and markers are not displayed for other parties because they would be indistinguishable on the chart. Significance testing carried out back to the 2011 general Election.

Source: Colmar Brunton.



National's Bill English, Finance Minister under John Key (2008-16), Prime Minister since December – “continuity and building on our strengths”; policy to raise super age to 67 by 2040 has been unpopular



Labour's Jacinda Arden, Opposition Leader since August – will extend capital gains tax on investment properties, impose royalty on irrigation water, and \$25 levy on international visitors, to pay for phased introduction of 'three years free' tertiary education, cutting fees for GP visits, build more social housing, light rail to Auckland airport, clean up rivers



NZ First's Winston Peters – in Parliament since 1978 (exc for 2008-2011) – right-wing populist, could hold 7 seats in new Parliament (down from 11 in old)



Greens' James Shaw – in Parliament since 2014 – held 14 seats in old Parliament, likely to lose at least six