Statement on Monetary Policy

MAY 2017

RESERVE BANK
OF AUSTRALIA

Statement on Monetary Policy

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Contents

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Overview

The Bank has been expecting for some time that inflation will increase gradually over the period ahead, to be above 2 per cent. Recent data have been consistent with this expectation. Headline inflation in the March quarter was a little above 2 per cent and is now expected to be between 2 and 3 per cent throughout the forecast period. Underlying inflation increased in the March quarter, to around 1¾ per cent. It is expected to increase further, to be around 2 per cent in early 2018. These forecasts are little changed from the previous *Statement on Monetary Policy*.

A number of other factors have afforded increased confidence in the central forecast that inflation will increase gradually. The December quarter national accounts confirmed that the period of weakness in the middle of 2016 was only temporary. The stronger near-term global outlook now seems fairly well in train and the terms of trade have held up for a bit longer than earlier expected, which will provide a boost to national incomes.

The expected increase in underlying inflation over the next year or two is still quite gradual, because a number of forces are continuing to hold inflation down. In particular, wage growth is low. Although it seems unlikely that wage growth will slow much further, wage pressures are expected to pick up only gradually, as the effects of structural adjustment after the mining investment boom – which have weighed on wage growth – continue to wane. The forecast for the unemployment rate implies ongoing spare capacity in the labour market; this is likely to constrain wage outcomes in the period ahead. In addition, wage outcomes have been weaker than would be suggested by a straightforward assessment of spare capacity based on the unemployment rate. The underemployment rate has been higher than its past relationship with the unemployment rate would imply, and might be exerting further downward pressure on wage growth.

Other forces on inflation are working in opposing directions. Heightened competitive pressures in the retail sector appear to have been keeping retail inflation low. Growth in rents is around its lowest rate in over 20 years. The appreciation of the exchange rate over the past year is also likely to have added some downward pressure on prices recently, though this follows a larger depreciation over the previous couple of years. Against this, the cost of new dwelling construction, which is a large component of the consumer price index, picked up noticeably in the March quarter, as did tobacco and utilities prices. Tobacco and utilities price inflation are expected to remain high in the period ahead.

The forecasts for the Australian economy have not substantively changed since the previous *Statement*, but the recent run of both domestic and international data has provided some assurance about the domestic outlook. The Australian economy grew by 2½ per cent over 2016; growth is expected to pick up to 2¾–3¾ per cent by early 2018. The period of adjustment that has followed the end of the mining investment boom now appears to be well advanced. The drag from the fall in mining investment, and the negative spillover effects on non-mining investment and other aspects of non-mining activity, continues to ease. Consistent with this, further signs are emerging that the slowdowns in the Queensland and Western Australian economies are coming to an end.

The expansion in liquefied natural gas (LNG) exports is expected to contribute about ½ percentage point to growth in each of 2017 and 2018. As has been noted previously, LNG production requires little employment, which means that spare capacity in the labour market will be absorbed more slowly than the forecast for GDP growth would typically imply.

Consumption growth picked up a little late last year. Given low wage growth, household income growth is likely to remain quite weak, though not as weak as the December quarter national accounts data would suggest. This makes it hard to be certain about the future pace of consumption growth, particularly in the context of ongoing high levels of household debt. Recent indicators suggest that consumption growth might have eased again in the March quarter, but the expectation is that consumption growth will broadly track income growth in the period ahead.

It is difficult to know if and when a stronger and durable recovery in non-mining business investment might take hold. Non-mining business investment has shown some signs of recovery in New South Wales and Victoria but has been relatively weak in Queensland and Western Australia. Some forward-looking indicators suggest non-mining business investment is unlikely to pick up substantially in the near term, though these indicators do not capture all industries. The level of residential investment is likely to remain high, because of low interest rates and the large pipeline of construction projects to be worked off. However, it will contribute less to growth in the period ahead than it did in the recent past.

Conditions in the established housing market have been mixed. Housing price inflation and other indicators have remained strong in Sydney and Melbourne, but weak in Perth. Increases in apartment supply in Brisbane, and to a lesser extent in Melbourne, have led to noticeable differences in the growth rates of apartment prices and prices of detached houses in those cities. Greater supply has also weighed on rental growth in these cities; falling rents in Perth instead reflect weaker economic conditions and slower population growth.

The Board has continued to monitor risks posed to household balance sheets, given the context of high and rising household debt. In the past couple of months, both the Australian Prudential Regulation Authority and the Australian Securities and Investments Commission have announced further measures to reinforce sound lending practices that are appropriate to borrowers' circumstances. These measures can be expected to mitigate risks that have been building in household balance sheets. Along with the recent increases in interest rates for some types of housing loans, including those announced in March and April, these measures are likely to lead to some slowing in housing credit growth. Increases in interest rates late last year that were focused on investor lending are likely to have dampened demand for credit, after growth in investor credit picked up in the second half of 2016. Housing credit growth overall has been relatively steady over the past few months.

The Board has also been monitoring the labour market closely. Although the unemployment rate increased in the past couple of months, a gradual decline from here remains the most likely outcome. Employment growth strengthened a little in recent months; this is consistent with the signal from forward-looking indicators, which have been pointing to moderate employment growth for a while.

There have been some minor changes in the near-term outlook for GDP growth to account for the effects of Cyclone Debbie. Coking coal exports are expected to be lower, while coking coal prices will be temporarily higher. Beyond the next couple of quarters, prices of bulk commodities are expected to decline, unwinding much of the recent increase in the terms of trade; prices are nonetheless expected to remain above the lows of early 2016. Consistent with previous forecasts, iron ore prices have already fallen significantly in the past few weeks. At this stage, higher commodity prices are not expected to add materially to domestic demand, given their temporary nature and because some of the income accrues to foreign shareholders. But if commodity prices do not fall as far as currently anticipated, the impact on growth and employment could be greater than currently assumed in the forecasts.

Strong Chinese demand for steel has helped support iron ore and coal prices, although the sustainability of this demand is uncertain. Conditions in China improved during 2016, largely because of domestic factors; economic growth in China appears to have retained its momentum in early 2017. Property construction and government spending on infrastructure have been significant drivers of growth; how conditions in the property market evolve will help determine how much of this momentum will be sustained. The Chinese authorities continue to use a range of policies to achieve their economic targets. While financial conditions remain accommodative, they have tightened slightly, consistent with actions by the authorities to address high and rising leverage. It remains to be seen how the authorities will balance their objectives for economic growth and financial stability.

More broadly, the outlook for major trading partner growth was revised up late last year, and recent data have generally confirmed the stronger outlook. The improvement appears to have begun in the second half of 2016; it was first evident in commodity prices and various measures of business and consumer confidence but subsequently became apparent in a broad-based pick-up in global merchandise trade late last year, as well as industrial production. More recently, there have been signs of stronger business investment in a selection of countries. The pick-up in global trade has been particularly important for the more trade-dependent economies in the Asian region. Outside Australia's major trading partners, the growth outlook for some larger emerging economies has recovered somewhat after a period of declining output.

The major advanced economies are all expanding at rates that are fast enough to continue absorbing spare capacity. Unemployment rates have declined and in the United States, Japan and Germany they have reached low levels. Although weak growth in consumption detracted from growth in the United States in the March quarter, business investment appears to be picking up. The US administration is yet to announce detailed tax reform proposals, but any fiscal stimulus will add to demand; given that the economy is already close to full employment, this would add to inflationary pressures. Growth is also expected to continue to exceed potential growth rates in the euro area and Japan in 2017. Core inflation in the major advanced economies generally remains low, however, and headline inflation rates are starting to decline, as the earlier effects of higher oil prices diminish. Nonetheless, underlying inflationary pressures should pick up gradually over coming quarters as spare capacity continues to decline.

International financial markets have been relatively quiet in recent months. The main source of volatility has been market reactions to various political risks and events, and even these reactions have been relatively small. Volatility and bond spreads in some euro area markets have fallen back since the first round of the French presidential election. Funding conditions globally remain very accommodative. Consistent with the generally stronger tone in economic indicators and the inflation outlook in some economies, market participants are pricing in further tightening in monetary policy in the United States and are also no longer expecting further monetary easing in other major advanced economies. Developments in domestic financial markets have broadly mirrored those in markets overseas. Domestic funding conditions remain accommodative.

Overall, developments over the past three months have tended to be consistent with the forecasts published in the previous *Statement*, in which inflation and output growth were both expected to increase gradually. Taking account of the available information and having eased monetary policy in 2016, the Board has judged that holding the stance of policy unchanged at recent meetings would be consistent with sustainable growth in the economy and achieving the medium-term inflation target.

1. International Economic Developments

Global economic conditions have picked up since the middle of 2016 and appear to be stronger in early 2017 than they have been in recent years (Graph 1.1). Major trading partner growth is forecast to be around its long-run average this year before easing slightly in 2018.

The strengthening in economic activity has been broad based. Economic growth in China has retained its earlier momentum in 2017, supported by accommodative financial conditions and fiscal policy. Growth in the major advanced economies picked up throughout 2016, to be around or above their potential growth rates; accommodative monetary policies and less contractionary fiscal policies should support growth being above potential in these economies over the period ahead. Growth in east Asia increased in late 2016 supported by stronger conditions in China and the major advanced economies, and the associated increase in global trade.

Graph 1.1
Global Economic Activity*

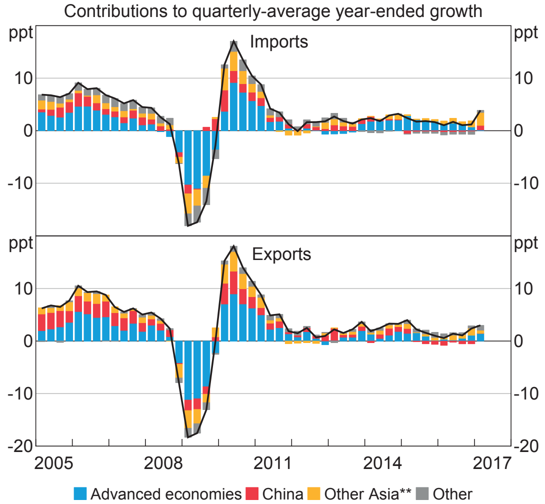
* Major trading partners (MTP) GDP is export-weighted; sentiment is PPP GDP-weighted; industrial production is weighted by world IP shares at market exchange rates
** Deviation from post-2005 average
Sources: ABS; Bloomberg; CEIC Data; IMF; Markit Economics; OECD; RBA; Thomson Reuters

Consumer sentiment and survey measures of business conditions have both increased sharply since late 2016. Growth in industrial production has also edged higher, especially in Asia. Consumption growth in Australia's major trading partners has been relatively stable and investment growth has picked up in some economies.

Merchandise trade growth has increased further in 2017. The pick-up in both exports and imports has been broad based (Graph 1.2). China has been an important source of increased demand, while imports by commodity-exporting emerging economies have stabilised recently after having declined for several years. This expansion in global trade could be derailed, however, if protectionist policies are introduced.

Headline inflation in the advanced economies rose sharply in late 2016 and early 2017,

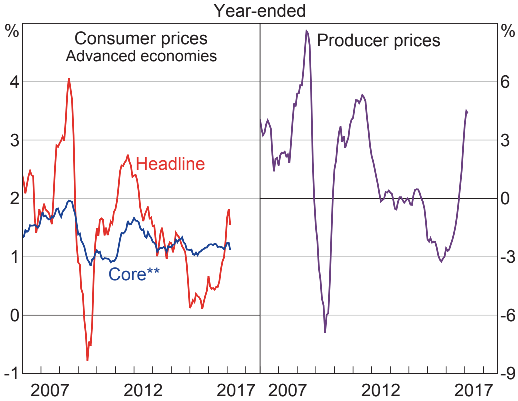
Graph 1.2
Merchandise Trade Volumes*
Contributions to quarterly-average year-ended growth



* March quarter 2017 is an estimate
** Excludes Japan and China
Sources: CBP Netherlands; CEIC Data; RBA

following the increase in oil prices during 2016 (Graph 1.3). However, with oil prices now declining, headline inflation also appears to have peaked recently and is likely to decline in coming quarters. Core inflation measures generally remain low. However, a number of factors suggest underlying inflationary pressures are likely to pick up in the period ahead, including the ongoing tightening in labour markets in the major advanced economies, which has seen some measures of wage growth edge higher. The sharp rise in producer price inflation since mid 2016 has largely been driven by the increase in oil and other commodity prices over this period and should contribute to some increase in upstream price pressures. Stimulatory fiscal policy in the United States at a time of limited spare capacity would also be likely to add to inflationary pressures there.

Graph 1.3
Global Inflation*
Year-ended

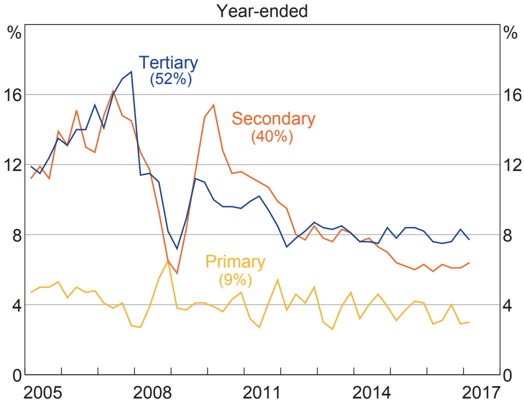


* Selected economies; PPP GDP-weighted
** Excludes food and fuel
Sources: CEIC Data; Eurostat; IMF; RBA; Thomson Reuters

China and Asia-Pacific

In March, the Chinese Government announced a GDP growth target for 2017 of 'around 6.5 per cent or higher if possible', similar to the 6.5–7 per cent objective in 2016. In related policy documents, the authorities emphasised a focus on stable growth, maintaining employment and preventing financial stability risks. Growth in China picked up in the second half of 2016 and looks to have retained this momentum into 2017. Overall, year-ended growth was supported by resilient growth in the services (tertiary) sector and a modest pick-up in growth in the industrial (secondary) sector (Graph 1.4). On the expenditure side, there was further evidence of rebalancing: the contribution of investment to growth declined noticeably, while the contribution of consumption rose.

Graph 1.4
China – GDP Growth by Sector*
Year-ended



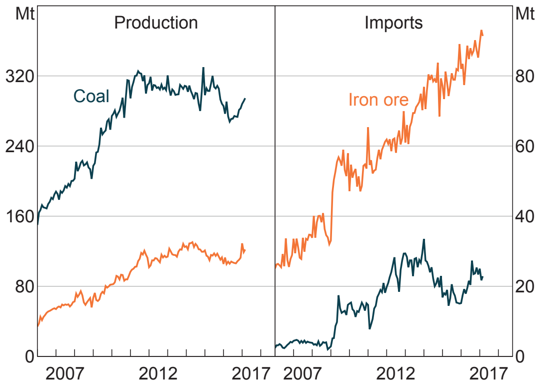
* Numbers in parentheses show 2016 shares of GDP
Sources: CEIC Data; RBA

The pick-up in growth since mid 2016 has been supported by property construction and infrastructure investment. Demand from these end-use sectors has boosted steel production, which in turn has driven demand for iron ore and coking coal. Chinese production of coal and iron ore, as well as imports of iron ore, continue to rise (Graph 1.5). Rapid increases in commodity prices over the past year have flowed through to Chinese producer price inflation, which remains elevated in year-ended terms despite slowing in recent months. Underlying consumer price inflation measures have also increased a little over the past year, but headline consumer price inflation remains subdued because of declining food prices.

The Chinese residential property market has remained a driver of growth in 2017 (Graph 1.6).

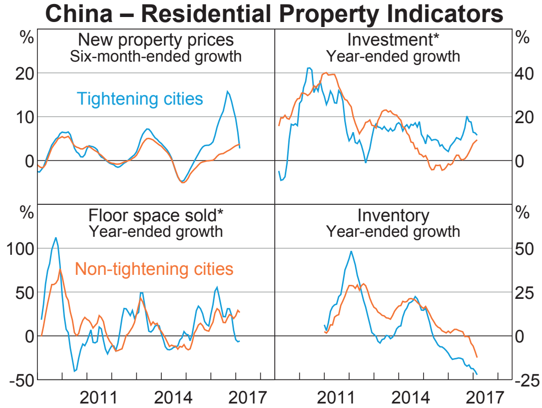
Following rapid increases in property prices in 2016, more cities have introduced tightening measures (such as restrictions on purchase and reduced loan-to-value ratios) and others have tightened existing policies further to dampen speculative activity and slow growth in property prices. While price growth had been slowing sharply in cities with tightening measures, there was a broad-based rise in property price growth in March. The area of floor space sold has remained at a high level in recent months and inventory levels have declined further. This has reduced inventory-to-sales ratios in most regions, which could provide scope for further residential construction.

Graph 1.5
China – Iron Ore and Coal



Sources: CEIC Data; RBA; WIND Information

Graph 1.6
China – Residential Property Indicators

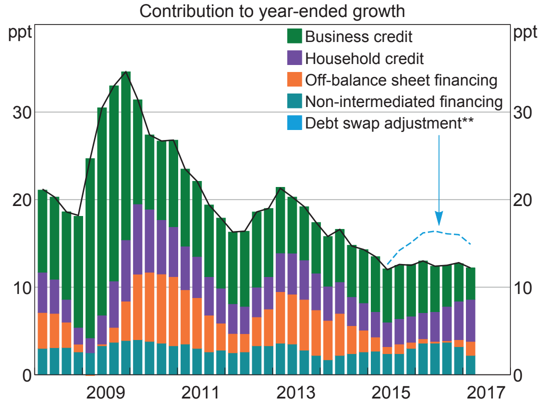


* Smoothed

Sources: CEIC Data; CRIC; RBA

Financial conditions in China remain accommodative. Total social financing (TSF) continues to grow at a rapid pace, despite some easing recently. Growth in bank lending to households (mainly mortgages) has increased further, while growth in corporate credit has fallen (Graph 1.7). A target of 12 per cent for TSF growth in 2017 has been announced, which is slightly below the target of 13 per cent growth for 2016.

Graph 1.7
China – Total Social Financing*
Contribution to year-ended growth



* Seasonally adjusted by RBA

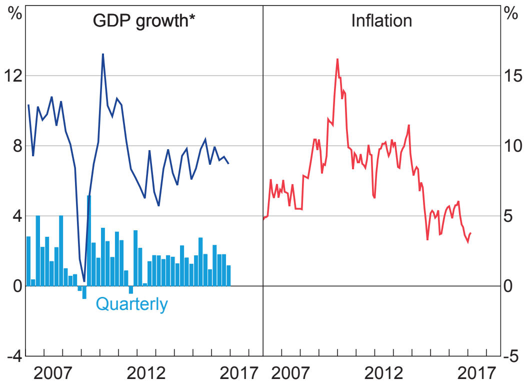
** Upper bound estimate of year-ended growth adjusting for the impact of local government bond issuance to pay off debt previously included in TSF

Sources: CEIC Data; RBA

In November 2016, the Indian Government replaced its two highest-denomination banknotes in an effort to combat counterfeiting and the use of 'black money'. The demonetisation scheme caused some temporary cash shortages and was widely expected to detract from growth in the December quarter. However, the impact was lower than anticipated (Graph 1.8). Falling food prices have weighed on consumer price inflation since mid 2016, which remains below the Reserve Bank of India's medium-term inflation target of 4 per cent.

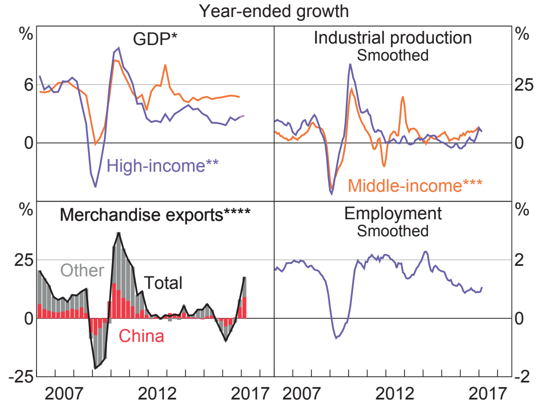
The pick-up in global trade since late 2016 has supported stronger growth in the east Asia region, particularly in the more trade-dependent high-income economies; consistent with this,

Graph 1.8
India – GDP Growth and Inflation
Year-ended



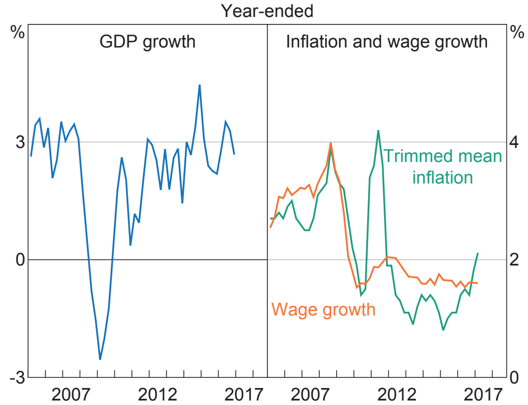
* Seasonally adjusted by RBA
Sources: CEIC Data; RBA

Graph 1.9
East Asia – Economic Indicators
Year-ended growth



* Estimate for March quarter 2017
** Hong Kong, Singapore, South Korea and Taiwan
*** Indonesia, Malaysia, Philippines and Thailand
**** Values; excludes intraregional trade; estimate for March quarter 2017
Sources: CEIC Data; IMF; RBA; UN

Graph 1.10
New Zealand – Economic Indicators
Year-ended



Sources: RBA; Thomson Reuters

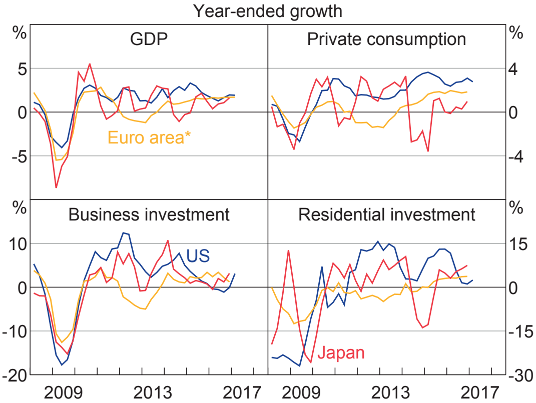
industrial production has increased noticeably in these economies since late 2016. While the increase in the region's exports has been broad based by destination, it has been especially pronounced in exports to China (Graph 1.9). This increase in activity brings growth in the high-income east Asian economies to around estimates of potential, following below-trend growth over recent years. Growth in domestic final demand has improved recently, as a result of higher investment, although consumption growth remains weak and employment growth has slowed. In the middle-income east Asian economies, growth has been stable over recent years, supported by resilient domestic demand. Monetary and fiscal policies across the region remain accommodative, which is also expected to continue to support economic activity.

The New Zealand economy grew at an above-average pace in 2016, driven by record-high immigration and accommodative monetary policy (Graph 1.10). Growth slowed in the second half of 2016 because of a temporary fall in exports following adverse weather conditions and an easing in growth in residential investment. Employment growth remains strong and the unemployment rate is low. Despite this, the additional labour supply from rising participation and record-high net immigration are keeping wage pressures contained. Inflation has been increasing since early 2016, reflecting higher oil prices and capacity pressures in some parts of the economy and it returned to the Reserve Bank of New Zealand's target band in late 2016.

Major Advanced Economies

GDP growth in the major advanced economies has been at or above estimates of potential growth over recent years, supported by accommodative monetary policy and, more recently, less contractionary fiscal policies (Graph 1.11). That said, potential growth rates across most advanced economies have declined relative to previous decades because of population ageing, lower productivity growth and slower capital accumulation. During 2016 there was a further gradual absorption of spare capacity; as a result, the United States, Japan and some euro area countries are now around estimates of full employment.

Graph 1.11
Major Advanced Economies – GDP and Components
Year-ended growth



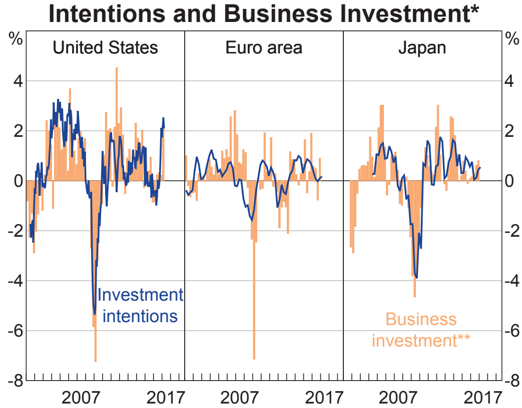
* For euro area, business investment is public and private non-residential investment; data exclude Ireland due to measurement issues

Sources: RBA; Thomson Reuters

Private consumption has been a key driver of growth in the United States and the euro area over recent years, despite temporary weakness in US consumption growth in the March quarter. Consumption growth has been supported by robust employment growth, low borrowing costs, recovering housing prices and above-average consumer confidence. In Japan, private consumption growth has been generally subdued. Consumer confidence has increased in all three economies in recent months, to be above average. Residential investment growth has also picked up across the major advanced economies.

Surveyed business confidence and conditions have been very strong in recent months in the major advanced economies and business investment is showing signs of recovery, following several years of weak growth (Graph 1.12). In the March quarter, US business investment increased strongly, with much of this increase concentrated in the energy sector. US corporate investment intentions have increased since late 2016, which has been largely attributed to an expectation of tax reforms and a roll-back of regulations, as well as the expected recovery in the energy sector. In the euro area, business investment has grown a little since early 2015, driven by growth in machinery and equipment investment. While this marks the first period of sustained growth since the global financial crisis, both residential and business investment remain well below pre-crisis levels and muted investment intentions suggest investment will continue to grow only modestly. Japanese business investment is only a touch above its pre-crisis level. The Japanese economy has been supported by the increase in global trade, and has recorded its largest merchandise trade surplus in seven years.

Graph 1.12
Major Advanced Economies – Capex Intentions and Business Investment*



* Investment intentions mapped to national accounts investment growth

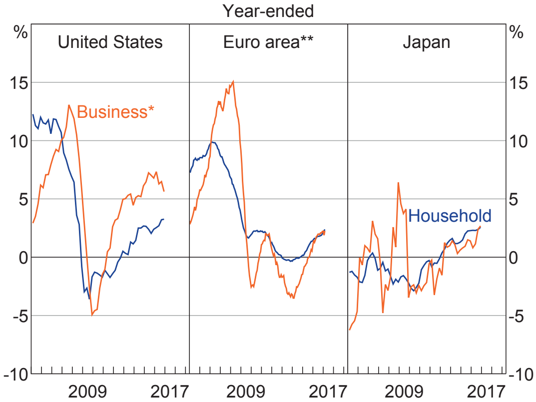
** Quarterly growth; euro area excludes Ireland due to measurement issues; smoothed for Japan

Sources: RBA; Thomson Reuters

Household and business sector credit growth has generally increased in the major advanced economies in recent years, consistent with the increasing durability of the recovery (Graph 1.13). In 2016, credit to euro area non-financial corporations saw its first full year of growth since the height of the euro area sovereign debt crisis. Japanese household credit has grown at its fastest pace in around two decades.

Graph 1.13
Major Advanced Economies – Credit Growth

Year-ended



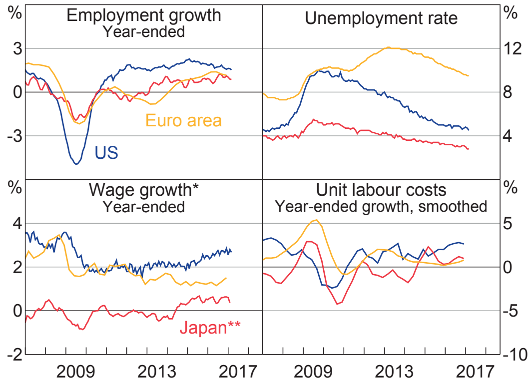
* Private non-financial corporations

** Adjusted for loan sales and securitisation

Sources: ECB; RBA; Thomson Reuters

Labour markets in the major advanced economies continue to improve; employment growth has been robust and there have been some increases in labour force participation (Graph 1.14). There has been some moderate pick-up in wage growth in the United States and Japan; this includes part-time wages in Japan, where tighter labour market conditions are likely to manifest first given the greater flexibility of that sector. Survey data in the United States and recent negotiations between labour unions and large employers in Japan suggest that wage growth is not expected to increase much further over the coming year. Unit labour costs, on the other hand, have grown at above-average rates in the United States and Japan in line with low productivity growth. The improvement in the euro area labour market has

Graph 1.14
Major Advanced Economies – Labour Markets



* Average hourly earnings for the US; compensation per employee for the euro area; full-time base wages for Japan

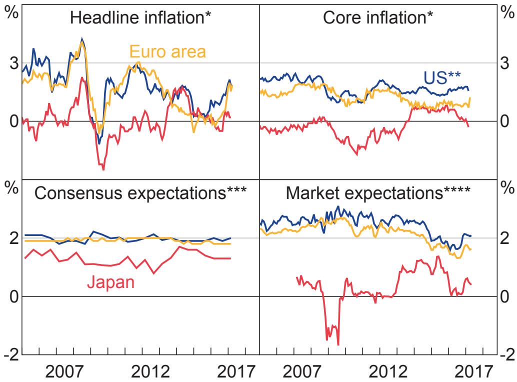
** Smoothed for employment growth and wage growth

Sources: ECB; Eurostat; RBA; Thomson Reuters

been more gradual, but unemployment has still declined to its lowest rate in nearly eight years.

As discussed above, headline inflation in the United States and the euro area and, to a lesser extent, Japan, increased in late 2016 reflecting higher oil prices, though with oil prices now declining, the effect on headline inflation is starting to dissipate (Graph 1.15). Core inflation has remained low, particularly in the euro area and Japan; idiosyncratic factors appear to have contributed to some volatility in the latest figures. Market-based measures of inflation expectations rebounded in the United States and the euro area in 2016, reflecting the rise in oil prices and prospects of stimulatory fiscal policy in the United States. Economists' longer-term measures of inflation expectations have been more stable at levels close to each central bank's inflation target, suggesting they are relatively well anchored. In Japan, inflation expectations remain low; short-term expectations are around levels that prevailed before the Bank of Japan started its quantitative easing and announced its inflation target in 2013, although long-term market expectations have moved a little higher since late 2016.

Graph 1.15
Major Advanced Economies – Inflation and Long-run Expectations
Year-ended



* PCE inflation for the US; CPI for the euro area and Japan; Japan data exclude the effects of the consumption tax increase in April 2014
** US expectations adjusted to reference PCE inflation
*** Euro area series is from the Survey of Professional Forecasters
**** Monthly average of inflation expectations from five and ten-year inflation swaps; latest observation is an average of the month to date
Sources: Bloomberg; Consensus Economics; ECB; RBA; Thomson Reuters

In the United Kingdom, growth since the mid-2016 vote to leave the European Union has been more resilient than expected. While investment growth has slowed somewhat, consumption growth has picked up and net exports have made a strong positive contribution. Surveyed business conditions and consumer confidence are at or above average, suggesting continued moderate growth. The sharp depreciation of the sterling has put upward pressure on inflation and is expected to continue to do so for a while. Formal negotiations on the terms of the withdrawal from the European Union began in late March.

Commodity Prices

Developments in global commodity prices have been varied since the previous *Statement*, reflecting a range of commodity-specific factors. The prices of iron ore and oil have declined, while coking coal prices have risen sharply (Table 1.1; Graph 1.16). The prices of rural commodities and base metals are little changed. Notwithstanding recent developments, commodity prices increased over 2016 and early 2017, resulting in a sizeable rise in Australia's terms of trade, but are expected to decline over the forecast period (see the 'Economic Outlook' chapter).

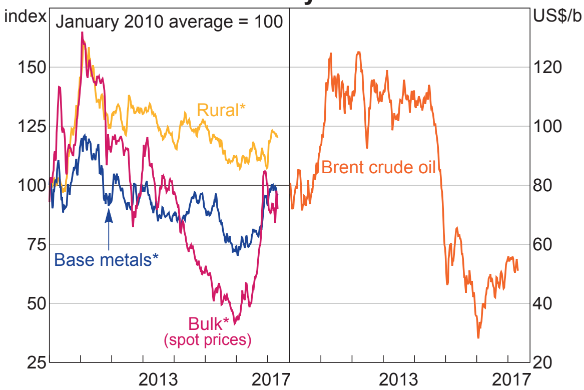
The spot price of iron ore has fallen sharply since the previous *Statement*, but remains well above its trough in late 2015; a fall has been expected for some time (Graph 1.17). Prices were supported through late 2016 and into 2017 by Chinese infrastructure spending and property construction. Prices declined alongside reports that Chinese steel mills started to draw down on inventories, which reduced activity in the spot market. Further

Table 1.1: Commodity Price Growth(a)
SDR, per cent

	Since previous *Statement*	Over the past year
Bulk commodities	–4	47
– Iron ore	–22	9
– Coking coal	29	130
– Thermal coal	0	64
Rural	1	11
Base metals	–1	26
Gold	0	0
Brent crude oil(b)	–9	12
RBA ICP	–5	40
– Using spot prices for bulk commodities	–3	33

(a) Prices from the RBA Index of Commodity Prices (ICP); bulk commodities prices are spot prices
(b) In US dollars
Sources: Bloomberg; IHS; RBA

Graph 1.16
Commodity Prices



* RBA Index of Commodity Prices (ICP) sub-indices; SDR

Sources: Bloomberg; RBA

Graph 1.17
Chinese Steel and Iron Ore Spot Prices

* Average of hot rolled steel sheet and steel rebar prices

** Free on board basis

Sources: Bloomberg; RBA

declines in the iron ore price are widely expected as low-cost global supply continues to come online over the next year or so and because demand from China is expected to wane.

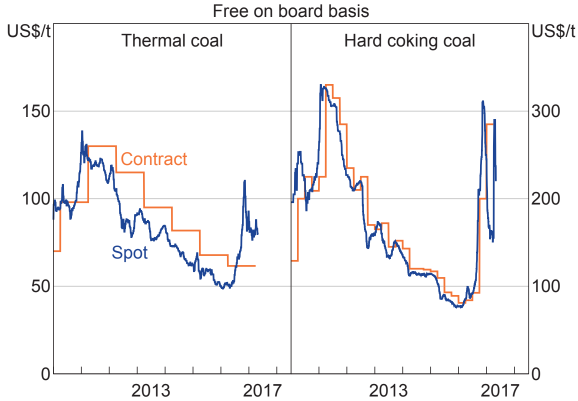
The spot price of premium hard coking coal has been volatile over the past six months (Graph 1.18). Earlier this year, prices declined from their mid-November peak as seaborne supply returned to more normal levels following supply disruptions in late 2016. More recently, prices increased sharply after Cyclone Debbie damaged key railway networks and shut down coal shipping ports in the Bowen Basin in Queensland, although trading in the spot market at that time was very limited. The region is estimated to account for more than half of the global seaborne coking coal market and around one-third of Australia's coal exports. Coking coal contract negotiations for the June quarter have been delayed, as producers wanted to assess the impact of the cyclone before agreeing to a price.

The spot price of thermal coal has been relatively stable in the year to date. In March, Chinese authorities announced that the '276 working day policy' would not be reintroduced, but that they would still target a reduction in overcapacity in the Chinese coal industry. Thermal coal exports are expected to be less affected by Cyclone Debbie. A benchmark price for the 2017 Japanese fiscal year contract is yet to be agreed. However, the majority of Australia's thermal coal exports are understood to be sold on the spot market.

Oil prices are lower since the previous *Statement*, but remain well above their low level in early 2016 (Graph 1.16). Since the start of the year, members of both the Organization of the Petroleum Exporting Countries (OPEC) and non-OPEC countries have been generally implementing the agreed production cap. However, increases in US crude oil production have weighed on oil prices.

Graph 1.18
Coal Prices

Free on board basis



Sources: Department of Industry, Innovation and Science; IHS; RBA

2. International and Foreign Exchange Markets

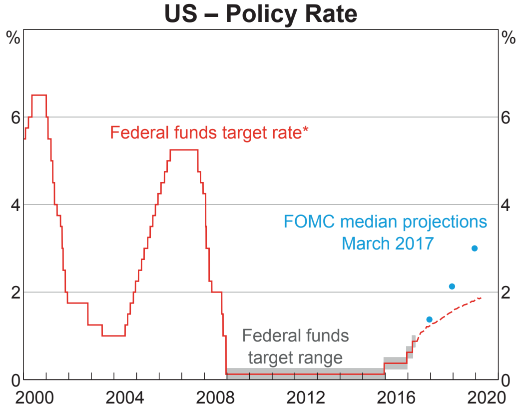
Financial market sentiment remains generally buoyant, supported by expectations of a sustained pick-up in economic growth globally and receding concerns of disruptive political developments. Against the backdrop of the more favourable economic outlook, the US Federal Reserve raised its policy rate in March and market expectations for further monetary stimulus from other central banks have been scaled back. Nonetheless, policy rates remain very low historically and some central banks continue to purchase large quantities of assets. Moreover, financial conditions remain very favourable. Yields across a range of markets are low and credit spreads are narrow, equity market valuations are at relatively high levels and measures of market volatility are generally low.

Central Bank Policy

The Federal Open Market Committee (FOMC) has continued to gradually increase its policy rate. In March, it voted to raise its target range for the federal funds rate by 25 basis points to 0.75–1 per cent, citing a strengthening labour market and inflation having moved closer to its 2 per cent goal. The median projection of FOMC members is for two more increases in interest rates (of 25 basis points) this year, which is a somewhat faster pace of tightening than that anticipated by the market (Graph 2.1). Minutes from the March FOMC meeting indicated that, if the economy evolves as expected, the Federal Reserve is likely to start reducing its balance sheet in late 2017 by ceasing or at least limiting the reinvestment of maturing securities. The Federal Reserve currently holds around US$4.5 trillion in assets, of which an estimated US$600 billion matures or will be otherwise repaid within a year (Graph 2.2).

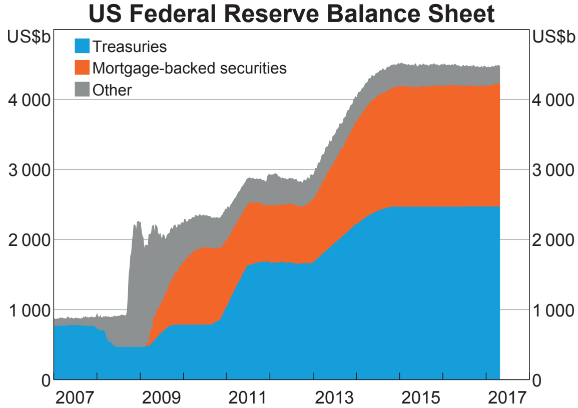
The European Central Bank (ECB) has left its policy settings unchanged since announcing an extension of its asset purchase program in December. Since then it has noted that the

Graph 2.1
US – Policy Rate



* Dashed line shows current market expectations
Sources: Bloomberg; Board of Governors of the Federal Reserve System

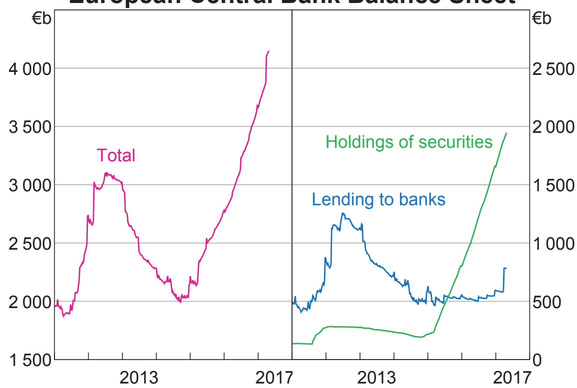
Graph 2.2
US Federal Reserve Balance Sheet



Source: Thomson Reuters

economic recovery has gained momentum and that the risk of deflation has receded. However, it has also noted that underlying inflation has remained subdued and a substantial degree of monetary accommodation is still appropriate. Market prices suggest that the ECB is likely to keep the deposit rate at its current level over the coming year or so, which stands in contrast to the likelihood of a further reduction suggested by market pricing during much of 2016. The final targeted long-term refinancing operation took place in March. Banks borrowed a net €215 billion from the ECB, the largest take-up since the program began, increasing the outstanding amount borrowed by around 40 per cent (Graph 2.3).

Graph 2.3
European Central Bank Balance Sheet



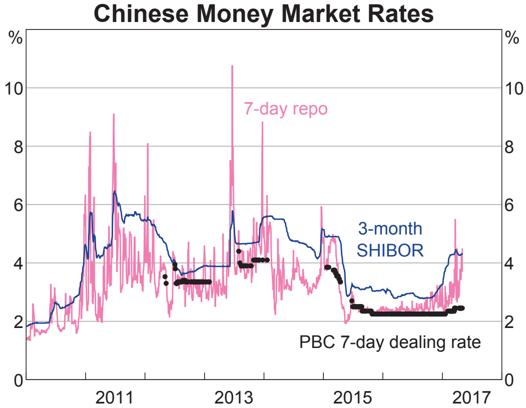
Sources: European Central Bank; Thomson Reuters

The Bank of England (BoE) has left policy unchanged since August last year and, while it has reiterated that the next move in interest rates could be in either direction, its current economic forecasts imply a modest withdrawal of stimulus in the coming years. The BoE has almost completed its scheduled purchases of UK government and corporate bonds and the program is not expected to be extended.

The Bank of Japan (BoJ) has left both its deposit rate and its 10-year Japanese government bond yield target of around zero per cent unchanged since September and has continued to purchase assets at close to the pace seen last year. The BoJ has noted that the domestic economy continues to recover and reiterated its view that inflation will increase steadily towards its target. However, it has said that risks to the outlook – particularly from global developments – remain skewed to the downside and that very accommodative monetary policy remains appropriate. The BoJ has also noted that it does not believe that higher US Treasury yields compel it to increase its target for Japanese yields.

In China, money market interest rates have increased in 2017 (Graph 2.4). The rise has been accompanied by two 10 basis point increases to the interest rates on a number of the People's Bank of China's (PBC's) lending facilities, which reflect the PBC's desire to reduce leverage in the financial system. In March, money market rates rose noticeably for a time following news that some small financial institutions had defaulted on money market loans. These were the first defaults in this market and followed reports that larger banks have become more hesitant to provide funding to smaller institutions because of regulators' increasing scrutiny of banks' balance sheet growth.

Graph 2.4
Chinese Money Market Rates



Source: CEIC Data

Elsewhere, the Bank of Mexico increased its policy rate, citing the need to keep inflation expectations anchored (Table 2.1). Conversely, the Swedish Riksbank extended its asset purchase program, and several emerging market central banks eased monetary policy, including the central banks of Brazil, Chile and Russia, which all reduced their policy rates in response to softer domestic activity and a decline in rates of inflation.

Table 2.1: Monetary Policy

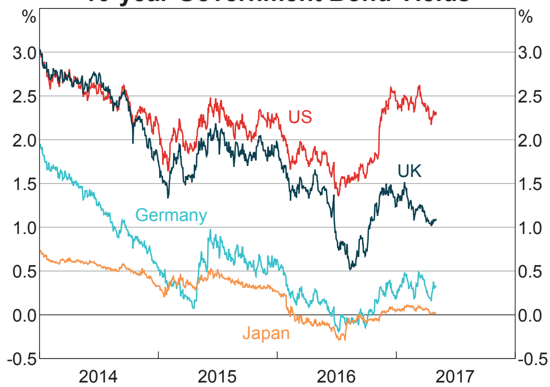
	Policy rate Per cent		Most recent change
Euro area[(a)]	–0.40	↓	Mar 16
Japan[(a)]	–0.10	↓	Jan 16
United States[(b)]	0.875	↑	Mar 17
Australia	1.50	↓	Aug 16
Brazil	11.25	↓	Apr 17
Canada	0.50	↓	Jul 15
Chile	2.75	↓	Apr 17
India	6.25	↓	Oct 16
Indonesia	4.75	↓	Oct 16
Israel	0.10	↓	Feb 15
Malaysia	3.00	↓	July 16
Mexico	6.50	↑	Mar 17
New Zealand	1.75	↓	Nov 16
Norway	0.50	↓	Mar 16
Russia	9.25	↓	Apr 17
South Africa	7.00	↑	Mar 16
South Korea	1.25	↓	Jun 16
Sweden	–0.50	↓	Feb 16
Switzerland[(b)]	–0.75	↓	Jan 15
Thailand	1.50	↓	Apr 15
Turkey	8.00	↑	Nov 16
United Kingdom	0.25	↓	Aug 16

(a) Marginal rate paid on deposits at the central bank
(b) Midpoint of target range
Sources: Central banks; RBA; Thomson Reuters

Sovereign Debt Markets

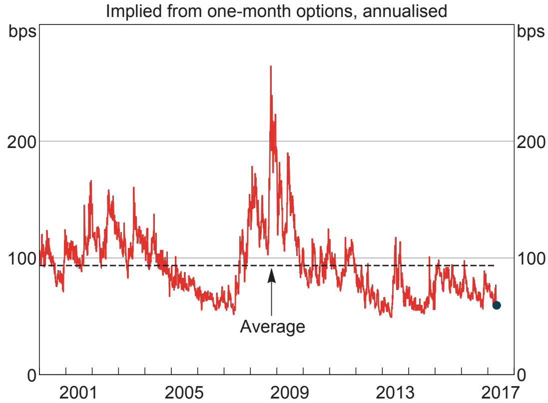
With economic data and central bank policy evolving largely as expected, movements in major market sovereign bond yields have been modest, on balance, since late 2016 (Graph 2.5). Measures of bond market volatility remain low (Graph 2.6).

Graph 2.5
10-year Government Bond Yields



Source: Bloomberg

Graph 2.6
US Bond Market Volatility
Implied from one-month options, annualised

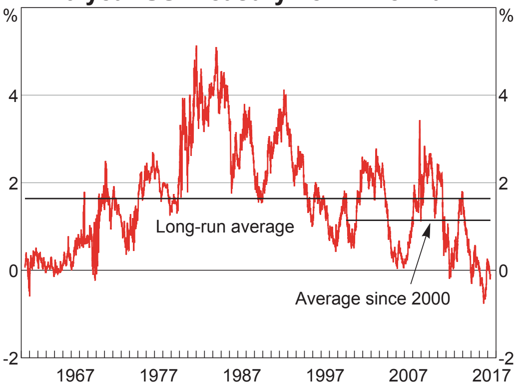


Source: Bloomberg

In the United States, 10-year Treasury yields have declined a little from their early 2017 levels. This may in part reflect waning expectations for fiscal stimulus. Nonetheless, yields remain close to the levels established following the US election. While long-term yields have declined, short-term yields have risen alongside the increase in the US Federal Reserve policy rate, resulting in a flatter yield curve.

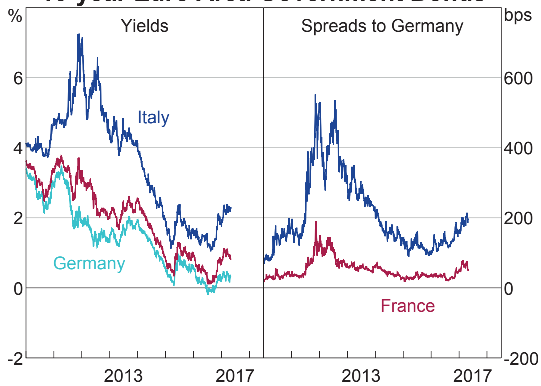
Estimates of the US term premium – the additional compensation investors require for holding long-term bonds – have remained around zero this year after rising a little from the lows reached in mid 2016 (Graph 2.7). One factor that has contributed to this low level

Graph 2.7
10-year US Treasury Term Premium



Source: Federal Reserve Bank of New York

Graph 2.8
10-year Euro Area Government Bonds



Source: Bloomberg

of the premium is strong foreign demand for US Treasuries. In particular, Japanese and euro area residents made sizeable purchases of US Treasuries over 2016 in response to the influence of BoJ and ECB purchases in their respective domestic sovereign bond markets. Since late 2016, however, Japanese residents have been net sellers of US Treasuries and net purchases by euro area residents have slowed substantially.

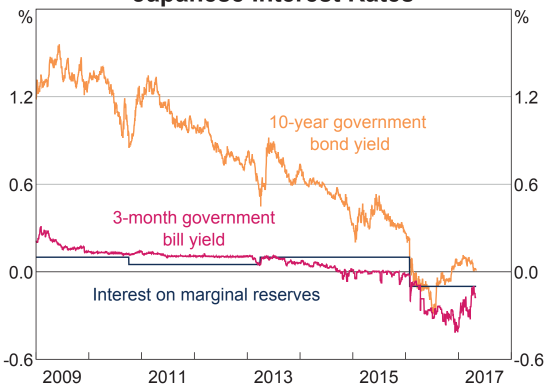
In Europe, movements in yields on 10-year German government bonds have largely reflected changing market expectations of ECB policy settings and shifting perceptions of the prospects of euro-sceptic candidates in national elections in several European countries (Graph 2.8). The uncertainty around election outcomes resulted in yields on many European government bonds rising and spreads to German government bonds widening since the start of the year, though more recently spreads have narrowed following the results of the first round of the French election.

In the United Kingdom, yields on 10-year government bonds have gradually declined since the beginning of the year, as some weaker-than-expected economic data of late has renewed concerns over economic growth prospects following the United Kingdom's decision to exit the European Union. Nonetheless, day-to-day developments relating to the exit, including the formal triggering of Article 50 in late March and the April announcement of an early election, have had little effect on the UK sovereign bond market.

Yields on 10-year Japanese government bonds have remained close to the BoJ's target of around zero per cent, consistent with its yield curve control policy (Graph 2.9). However, yields on short-term Japanese government debt have risen over recent months, largely because of a reduction in BoJ purchases of short-term debt securities and an increase in the BoJ's lending of these securities through its market operations in the lead-up to the end of the fiscal year.

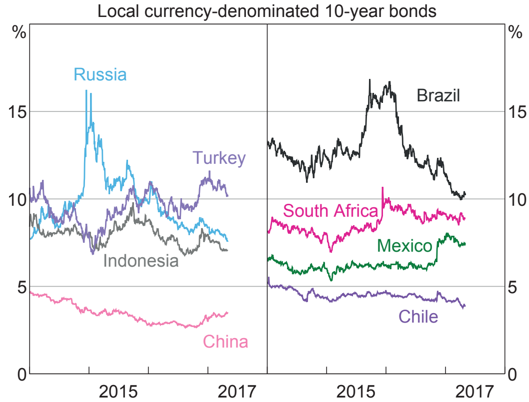
In emerging markets, yields on local currency-denominated sovereign bonds have generally declined since the beginning of 2017 and foreign capital has flowed back into emerging economy bond markets following large outflows after the US election (Graph 2.10). This reflects a further improvement in the outlook for global growth and reduced expectations of protectionist US trade policy.

Graph 2.9
Japanese Interest Rates



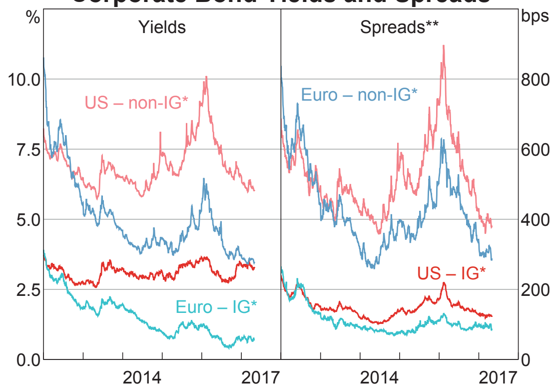
Sources: Bank of Japan; Bloomberg

Graph 2.10
Emerging Market Government Bond Yields
Local currency-denominated 10-year bonds



Sources: Bloomberg; Thomson Reuters

Graph 2.11
Corporate Bond Yields and Spreads



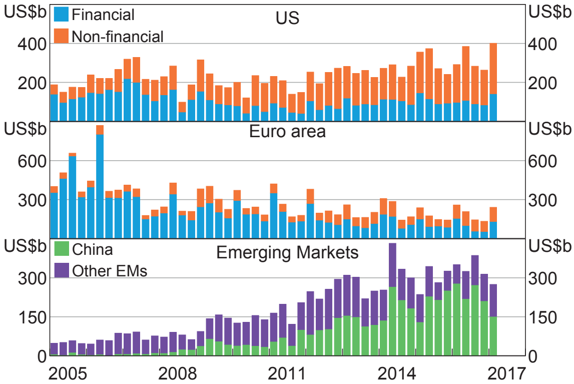
* IG refers to investment grade
** To equivalent government bonds
Source: Bloomberg

Credit Markets

Investor appetite for corporate fixed income securities has remained robust in 2017 and borrowing conditions in credit markets continue to be very favourable, despite the rise in the US policy rate and a scaling back of expectations for further monetary stimulus elsewhere. Yields on US dollar- and euro-denominated investment grade bonds remain at low levels by historical standards and spreads to government bonds have narrowed (Graph 2.11). Yields on non-investment grade bonds – having declined sharply in 2016 – have declined further over the year to date. The positive sentiment has extended to US dollar-denominated bonds issued by emerging market corporations, for which yields have declined and spreads have narrowed since the beginning of 2017. The favourable conditions are due to a range of factors, including the positive outlook for growth and the gradual approach to monetary tightening by the US Federal Reserve. Reflecting these factors, corporate bond issuance has been strong, particularly in the United States where 2017 issuance by US corporations has been the highest on record (Graph 2.12). Issuance by euro area and emerging market firms has also increased relative to late 2016. Conversely, credit market conditions have tightened somewhat in China. Yields on Chinese corporate bonds have been rising since the start of the year and corporate bond issuance has been weak compared with 2016, partly as a result of tighter interbank funding conditions and regulatory measures aimed at reducing leverage and speculative activity in financial markets.

Funding conditions in other markets have also become more accommodative this year. The cost of borrowing US dollars in exchange for other currencies has fallen considerably from its peak in late 2016, particularly in exchange

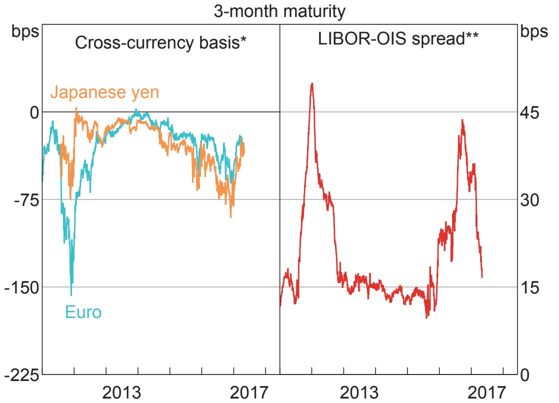
Graph 2.12
Corporate Bond Issuance
Gross Issuance



Sources: Dealogic; RBA

for Japanese yen (Graph 2.13). This reflects both demand and supply factors. There has been a reduction in the demand for US dollar-denominated assets from non-US investors and a reduction in demand for funding such assets via the foreign exchange swap market. On the supply side, investors have been more willing to lend US dollars due to a reduction in US Treasury bill issuance after the temporary

Graph 2.13
US Dollar Funding Costs
3-month maturity



* Negative value represents an additional cost to borrow US dollars

** Difference between the London Interbank Offered Rate and the Overnight Index Swap rate

Source: Bloomberg

suspension of the debt ceiling expired.[1] The cost of borrowing US dollars in money markets relative to risk-free rates has also declined, as has the cost of borrowing US dollars in repo markets that use Treasury securities as collateral.

Equities

Sentiment in global equity markets has remained buoyant in recent months, supported by the positive outlook for economic growth, which in turn has supported earnings expectations. Despite waning somewhat recently, expectations for corporate tax reform and infrastructure spending in the United States, as well as low interest rates more generally, have also helped to support equity prices (Table 2.2). According to a range of measures, valuations are elevated on a historical basis and, like other financial markets, equity markets have proved resilient in the face of rising geopolitical tensions (Graph 2.14). While measures of equity market volatility, like those for bond markets, have picked up at times, they remain at very low levels (Graph 2.15).

US bank share prices are little changed since the start of the year but valuations still suggest that the US financial sector will ultimately benefit from the administration's deregulatory agenda (Graph 2.16). March quarter earnings for the largest US banks were generally higher than a year ago. Earnings were supported by a rise in net interest income, fixed income trading revenue (due to increased client activity) and investment banking revenue, as well as lower

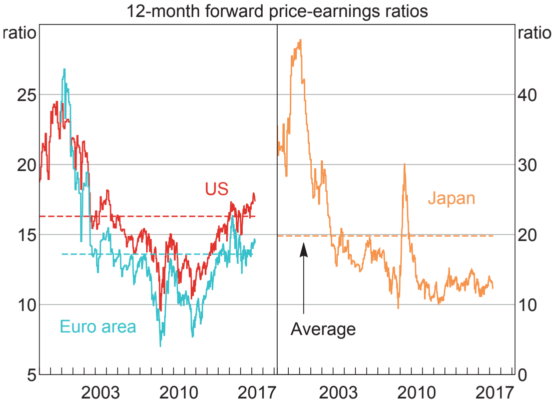
1 The US Government must regularly pass appropriations bills in order to fund many of its activities. If appropriation bills are not passed, many government functions and departments are shut down. In order to *borrow* to fund its appropriations bills, the US Government regularly raises the debt ceiling (which otherwise would be a binding constraint on the gross amount of federal debt outstanding). The debt ceiling was last suspended in November 2015. This suspension expired on 15 March 2017 and the debt ceiling is once again binding. The US Treasury is currently employing 'extraordinary measures' to fund existing government expenditure without increasing the level of federal debt outstanding.

Table 2.2 Changes in International Share Prices
Per cent

	2017 to date
United States – S&P 500	7
Euro area – STOXX	10
United Kingdom – FTSE	1
Japan – Nikkei	2
Canada – TSE 300	2
Australia – ASX 200	4
China – MSCI All China	8
MSCI indices	
– Emerging Asia	13
– Latin America	8
– Emerging Europe	0
– World	**7**

Source: Bloomberg

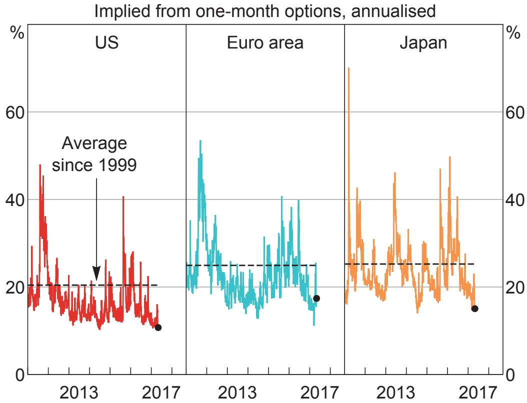
Graph 2.14
Equity Valuations
12-month forward price-earnings ratios



Source: Thomson Reuters

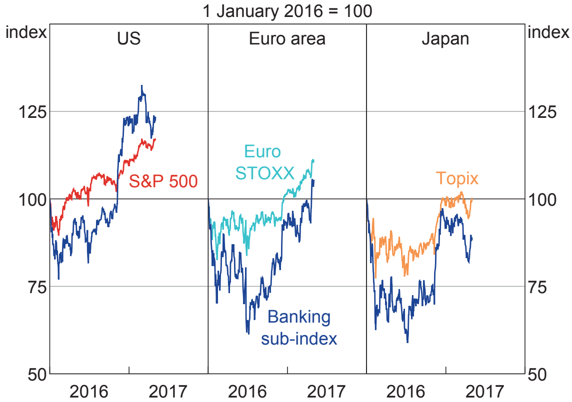
loan-loss provisions stemming from the improved performance of energy portfolios. European bank share prices rose sharply following the result of the first round of the French election and are around their highest level since December 2015. European bank results for the first quarter were also higher than a year ago, supported by higher trading revenues and lower loan-loss provisions, which reflects the improving euro area economy. Japanese bank share prices have declined this

Graph 2.15
Equity Market Volatility
Implied from one-month options, annualised



Source: Bloomberg

Graph 2.16
Major Market Bank Share Prices
1 January 2016 = 100

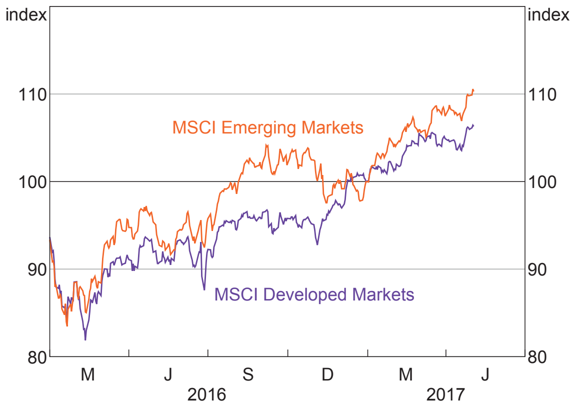


Source: Bloomberg

year reflecting concerns around some of their large corporate exposures.

Share prices in most emerging market economies have more than recovered from their late 2016 declines, as capital has returned to emerging market equity funds in response to the improving global economic outlook and receding expectations of a protectionist US trade agenda (Graph 2.17). Chinese share prices have risen, in part due to a relaxation of futures trading regulations that were imposed by Chinese authorities to counter falling stock prices in mid 2015.

Graph 2.17
Developed and Emerging Market Share Prices
30 December 2016 = 100

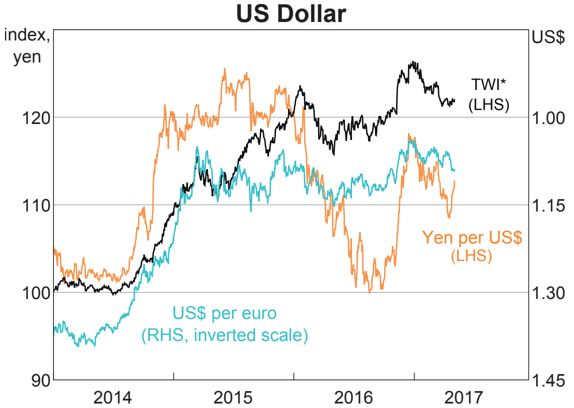


Source: Bloomberg

Foreign Exchange

The US dollar has depreciated since the start of the year on a trade-weighted (TWI) basis, as market participants have pared back expectations that the US administration will be able to enact their proposed fiscal stimulus in a timely manner and have come to believe that the administration may not pursue protectionist trade measures as much as earlier anticipated (Graph 2.18). The US dollar is now around its level immediately prior to the US election. The depreciation has been most pronounced against the currencies of economies likely to be particularly affected by any changes to US trade policies (Table 2.3). Indeed, the Mexican peso has appreciated by around 15 per cent against the US dollar since its trough in mid January, retracing its post-election depreciation.

Graph 2.18
US Dollar



* 1 January 2014 = 100

Sources: Bloomberg; Board of Governors of the Federal Reserve System

The US dollar has also depreciated against the Japanese yen since the start of the year, reflecting a narrowing in the differential between the yields on US sovereign bonds and those in Japan (consistent with the BoJ's policy of yield curve control, which has limited the movements in longer-term Japanese sovereign bond yields). Notwithstanding its recent depreciation, the

Table 2.3: Changes in the US Dollar against Selected Currencies
Per cent

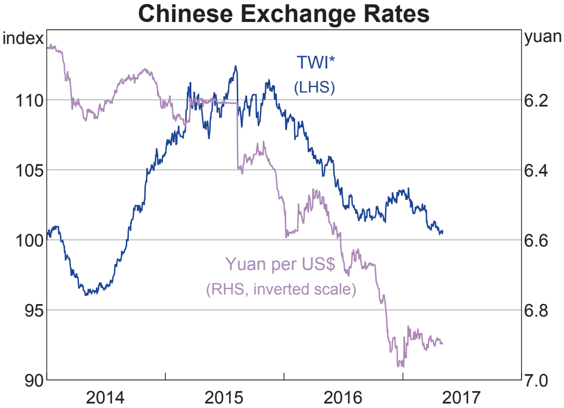
	Over 2016	2017 to date
Canadian dollar	–3	2
Philippine peso	6	1
New Zealand dollar	–1	1
Chinese renminbi	7	–1
Indonesian rupiah	–2	–1
Swiss franc	2	–2
Brazilian real	–18	–3
Swedish krona	8	–3
Australian dollar	1	–3
European euro	3	–3
Singapore dollar	2	–3
Thai baht	–1	–4
Japanese yen	–3	–4
Malaysian ringgit	5	–4
UK pound sterling	19	–4
Indian rupee	3	–5
South Korean won	3	–6
Russian rouble	–14	–7
New Taiwan dollar	–1	–7
Mexican peso	21	–9
Trade-weighted index	**4**	**–3**

Sources: Bloomberg; Board of Governors of the Federal Reserve System

US dollar has appreciated significantly over the past few years alongside divergent paths for monetary policy in the United States and other advanced economies. The US dollar remains around its highest level in over a decade on a trade-weighted basis.

The Chinese renminbi (RMB) has appreciated modestly against the US dollar over 2017 to date (Graph 2.19). However, since the appreciations of the currencies of many of its major trading partners against the US dollar have been more pronounced, the RMB has depreciated noticeably on a trade-weighted basis. These moves are in contrast to those in the second half of 2016 when the RMB depreciated against the US dollar – reflecting the broad-based US dollar appreciation over that period – but was broadly unchanged on a trade-weighted basis.

Graph 2.19
Chinese Exchange Rates

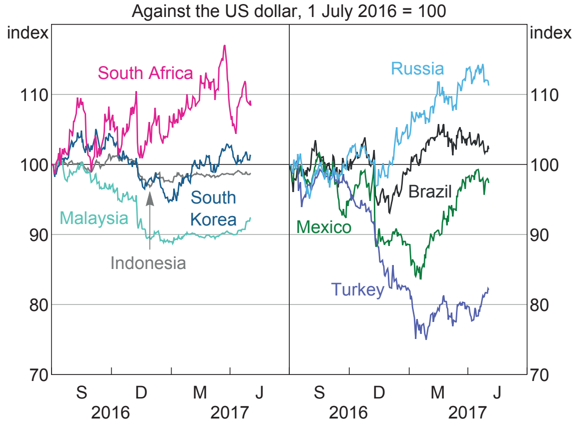


* Indexed to 1 January 2014 = 100
Sources: BIS; Bloomberg; RBA

The euro appreciated following the outcome of the first round of voting in the French presidential election. Over the past few months the euro has fluctuated alongside evolving expectations for European election outcomes and the path of monetary policy in the euro area. The currency is little changed on a trade-weighted basis since the start of the year. Emerging European currencies have moved broadly in line with the euro, including the Czech koruna, which appreciated only a little against the euro following the removal of its exchange rate cap of CZK 27/euro in early April. The UK pound appreciated a little following the announcement of the early UK general election, but remains noticeably lower than its level prior to the referendum on leaving the euro area.

Outside of the currencies exposed to US trade policy developments and emerging European currencies, other emerging market currencies have been mixed (Graph 2.20). Commodity prices have generally stabilised or declined in recent months, which has weighed on the currencies of some commodity exporters. Political developments have also been important. The South African rand has depreciated noticeably against the US dollar since its peak in late March following the removal of the country's finance minister (by the President) and the associated downgrade to its credit rating.

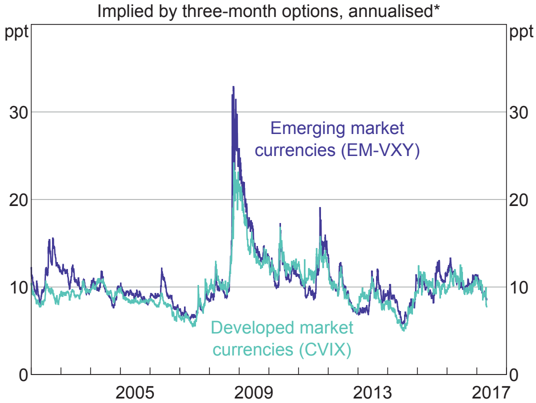
Graph 2.20
Asian and Emerging Market Currencies
Against the US dollar, 1 July 2016 = 100



Source: Bloomberg

Consistent with bond and equity market volatility, observed and forward-looking measures of volatility have generally fallen since the start of the year for both major and emerging market currencies (Graph 2.21).

Graph 2.21
Foreign Exchange Market Volatility
Implied by three-month options, annualised*



* Selected currencies, weighted by turnover
Source: Bloomberg

The gross foreign currency reserves of most emerging market economies have increased since the end of December 2016 (Table 2.4), alongside US dollar weakness in the March quarter. The introduction of a new foreign exchange hedging instrument by the Mexican Foreign Exchange Commission aimed at reducing volatility in the peso has not affected the Bank of Mexico's level of foreign currency reserves because the instrument is settled in pesos.

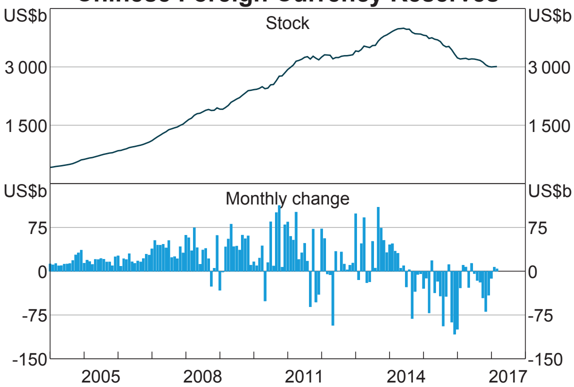
The value of the PBC's foreign currency reserves has been broadly unchanged over 2017 at around US$3 trillion (27 per cent of GDP; Graph 2.22). Partial data indicate that the pace of net private capital outflows has declined, consistent with the greater scrutiny of capital outflows by the Chinese authorities over the past few months and the depreciation of the US dollar. The Chinese authorities have given foreign financial institutions access to the onshore foreign exchange derivative market to hedge the foreign currency exposure associated with their purchases of Chinese bonds. The authorities have also announced their intention to start a 'Bond Connect' scheme with Hong Kong this year, which would allow

Table 2.4: Gross Foreign Currency Reserves[a]

	Percentage change: End March 2016 to latest	Percentage change: End December 2016 to latest	Level US$ equivalent (billions)
China	–6	0	3 009
Saudi Arabia	–13	–5	499
Taiwan[b]	1	1	438
Hong Kong	10	3	385
South Korea	1	1	365
Brazil	4	1	359
India	3	3	347
Russia	2	5	323
Singapore	5	5	257
Thailand	3	5	172
Mexico	–1	1	170
Indonesia	14	5	116
Malaysia	0	2	89
Turkey	–11	–7	84

(a) Data to end March for China, Hong Kong, Indonesia, Mexico, Saudi Arabia, Singapore, South Korea, Taiwan, and Thailand; to 14 April for Malaysia; to 21 April for India, Russia and Turkey; to end April for Brazil
(b) Foreign exchange reserves (includes foreign currency and other reserve assets)
Sources: Bloomberg; CEIC Data; central banks; IMF; RBA

Graph 2.22
Chinese Foreign Currency Reserves



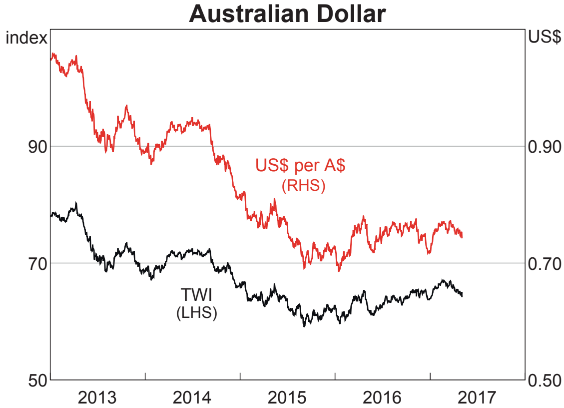
Source: CEIC Data

foreign residents to buy bonds in the mainland via Hong Kong (without a mainland settlement agent) and vice versa.

Australian Dollar

Over the past couple of years, the Australian dollar has traded in a fairly narrow range (Graph 2.23; Table 2.5). This followed a significant depreciation in nominal and real exchange rates from 2013 alongside a decline in Australia's terms of trade (see 'Box A: Australia's Real Exchange Rate'). Recently, the Australian dollar has depreciated a little reflecting a fall in the price of iron ore. Volatility in the Australian dollar remains below average.

Graph 2.23
Australian Dollar



Sources: Bloomberg; RBA

Table 2.5: Changes in the Australian Dollar against Selected Currencies
Per cent

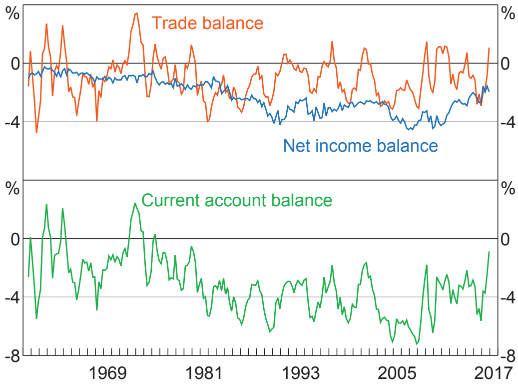
	Over 2016	2017 to date
Canadian dollar	–4	5
New Zealand dollar	–3	4
US dollar	–1	3
Chinese renminbi	6	2
Indonesian rupiah	–3	2
South African rand	–12	1
Swiss franc	1	1
European euro	2	0
Singapore dollar	1	0
Thai baht	–2	–1
Japanese yen	–4	–1
Malaysian ringgit	3	–1
UK pound sterling	18	–1
Indian rupee	1	–3
South Korean won	1	–3
Trade-weighted index	**2**	**0**

Sources: Bloomberg; RBA

Capital Flows

With a narrowing in Australia's saving and investment imbalance, the current account deficit and associated net capital inflows narrowed in the December quarter to their lowest levels since 1980. The trade balance increased in the quarter to register a surplus, largely reflecting higher export revenues from the increase in commodity prices (Graph 2.24). From a longer-term perspective, the narrowing in the current account deficit also reflects a narrowing in the net income deficit, which largely comprises payments made on Australia's net foreign liabilities (which are currently around 60 per cent of GDP). In the past few years, the decline in the net income deficit was mainly the result of higher receipts from foreign equity assets owned by Australian entities. This largely reflects continued flows into offshore equity by Australian superannuation funds and the

Graph 2.24
Current Account Balance
Per cent of nominal GDP

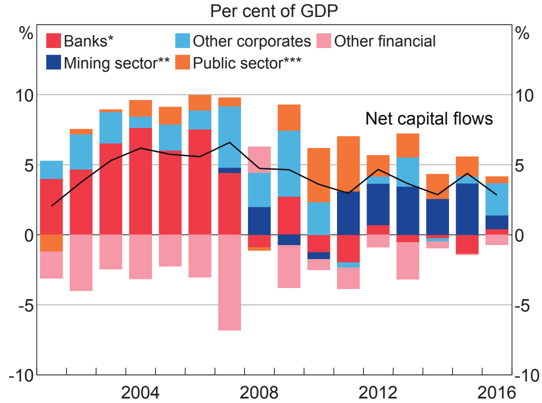


Sources: ABS; RBA

depreciation of the exchange rate, which increases the Australian dollar value of dividend receipts.

The narrowing in net capital inflows to Australia has largely reflected a reduction in net capital inflows to the mining sector (Graph 2.25). This follows the gradual transition of a number of large liquefied natural gas projects from the investment phase (which had been largely funded offshore) to the production and export phase. ✠

Graph 2.25
Net Capital Flows
Per cent of GDP



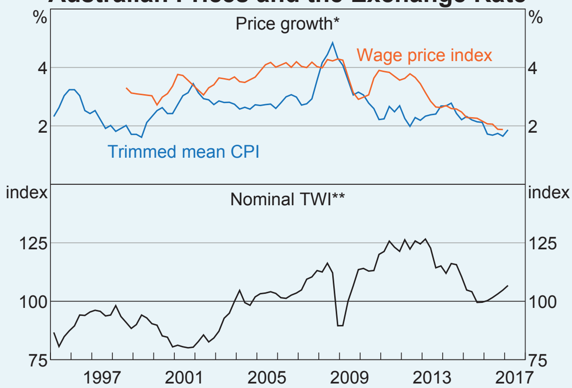
* Adjusted for the US dollar swap facility in 2008 and 2009
** Available from 2007 onwards
*** Excludes RBA
Sources: ABS; RBA

Box A

Australia's Real Exchange Rate

Over the past 15 years or so, the mining boom and its aftermath have led to large movements in Australia's real exchange rate. As has been widely documented, the significant rise in global commodity prices over the decade or so to 2011 resulted in both a significant appreciation of the Australian dollar and a pick-up in general price and wage inflation (Graph A1).[1] This increased the prices of the goods and services the country produced compared with those in other countries. It also increased Australia's relative labour costs, reducing the attractiveness of Australia as a place to invest in productive capacity. In other words, there was a reduction in Australia's international competitiveness. This encouraged resources to move from the non-mining sector to the mining sector, which was benefiting from the higher global commodity prices. So, while the non-mining trade-exposed industries were adversely affected, the real appreciation contributed to more stable macroeconomic outcomes – output growth closer to potential and inflation closer to target – than would have been the case otherwise. Since commodity prices peaked in 2011 and the nominal exchange rate started to depreciate in 2013, Australia's competitiveness has improved. The extent of these swings in the real exchange rate depends on the different measures used.

Graph A1
Australian Prices and the Exchange Rate



* Year-ended
** Post-float average = 100
Sources: ABS; RBA

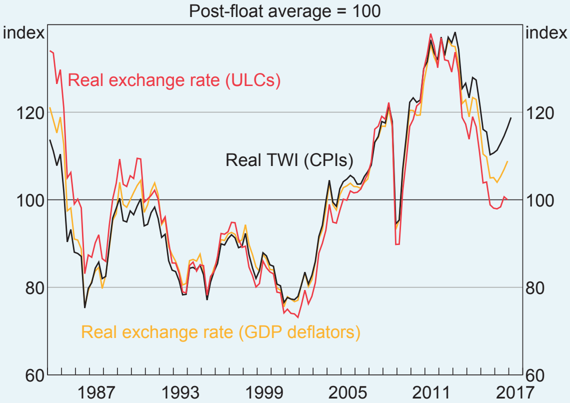
Real exchange rates are often based on the relative prices of a basket of goods and services across countries (expressed in a common currency); measures of consumer price indices or GDP deflators are frequently used for this purpose. Most real exchange rates are measured as a (geometric) average of real bilateral exchange rates for the country's major trading partners, weighted by their trade shares (real *effective* exchange rates).[2] The measure most commonly used by the Reserve Bank is based on core CPIs and is referred to as the real trade-weighted index, or real TWI.

For Australia, the real TWI peaked in March 2013. Since then, Australia's real TWI has depreciated by as much as 20 per cent, reversing up to one-third of the move over the previous decade (Graph A2). Although inflation in Australia has

1 See, for example, Davis K, M McCarthy and J Bridges (2016), 'The Labour Market during and after the Terms of Trade Boom', RBA *Bulletin*, March, pp 1–10.

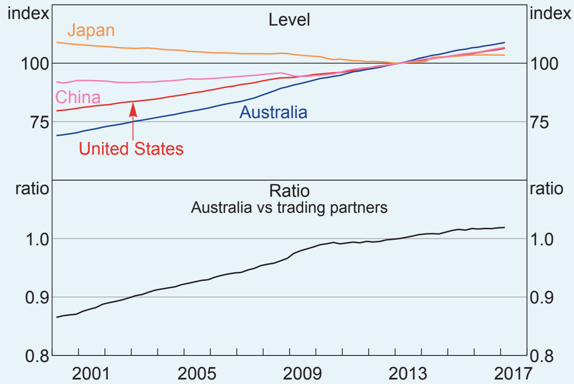
2 Australia's real effective exchange rate based on unit labour costs includes a newly constructed estimate of Chinese unit labour costs.

Graph A2
Australian Real Exchange Rates
Post-float average = 100



Sources: CEIC Data; OECD; RBA; Thomson Reuters

Graph A3
Core Consumer Price Indices
March 2013 = 100

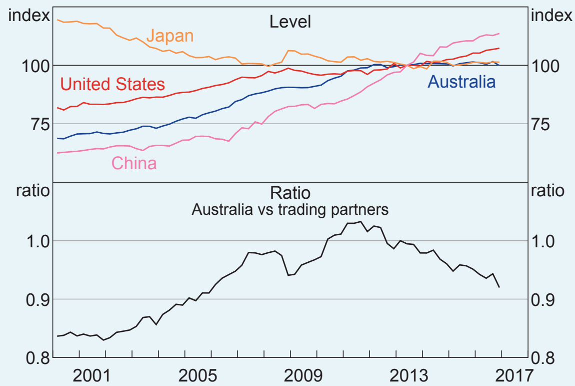


Sources: ABS; CEIC Data; RBA; Thomson Reuters

been relatively low since 2013, inflation has also been low in most of Australia's trading partners, as a number of advanced economies have been slowly absorbing the spare capacity created by the global financial crisis (Graph A3). Hence, all of the real depreciation in this measure has occurred via the depreciation in the nominal exchange rate. The real exchange rate based on GDP deflators has depreciated by a little more than the real TWI over this period (consistent with the large fall in prices of Australia's commodity exports).

Another way to measure the real exchange rate is to base it on the relative cost of labour required to produce a unit of output, that is, unit labour costs. In contrast to the broadly similar rates of inflation in goods and services prices in Australia's major trading partners over the past few years, trends in unit labour costs have diverged somewhat (Graph A4). Unit labour costs in Australia have been little changed since the terms of trade peaked in 2011, largely reflecting historically low wage growth since that time. In contrast, unit labour costs in most of our major trading partners have risen since then, and Chinese unit labour costs have increased noticeably. This is consistent with continued

Graph A4
Nominal Unit Labour Costs
March 2013 = 100



Sources: CEIC Data; OECD; RBA

strong growth in Chinese labour income, which has more than doubled on a per employee basis since 2010 (compared with productivity growth of about 50 per cent over the same period).

These differences in the growth rates of Australia's unit labour costs versus those of its trading partners have led to a more marked improvement in Australia's labour market competitiveness than in the competitiveness of the prices of its goods and services. Australia's real effective exchange rate based on unit labour costs has depreciated by around 25 per cent since March 2013. The latest observation

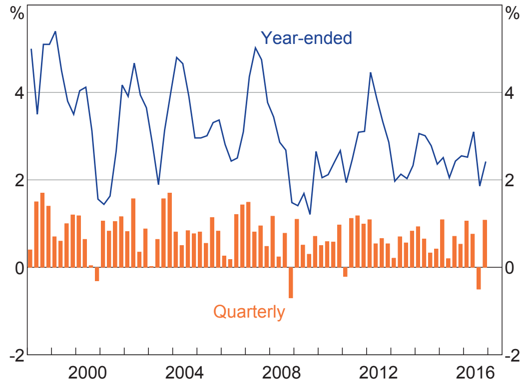
(December quarter 2016) was around its average since the Australian dollar floated in 1983 and at a level last seen in early 2005 (excluding the global financial crisis period). In contrast, the real TWI is noticeably above its post-float average and in the December quarter 2016 was at a level last seen in late 2007.

By any measure, Australia's real exchange rate has depreciated since the end of the terms of trade boom. This has helped the economy adjust to the significant reduction in income from the terms of trade decline and the associated fall in mining investment by boosting activity in the tradeable sector. An appreciating real exchange rate would complicate that adjustment.

3. Domestic Economic Conditions

The Australian economy grew by 2½ per cent over 2016, which is a bit below central estimates of potential growth (Table 3.1; Graph 3.1). GDP growth rebounded to 1.1 per cent in the December quarter, confirming that the weak outcome in the September quarter largely reflected temporary factors. Recent data are consistent with moderate growth in early 2017. Employment growth was fairly subdued over 2016, but picked up to be around average in early 2017. Looking ahead, economic growth is expected to pick up gradually to be a bit above potential growth, supported by the low level of interest rates and the ongoing recovery in the global economy.

Graph 3.1
GDP Growth



Source: ABS

The economic adjustment to the end of the mining investment boom is well advanced. Activity in the mining sector (net of

Table 3.1: Demand and Output Growth
Per cent

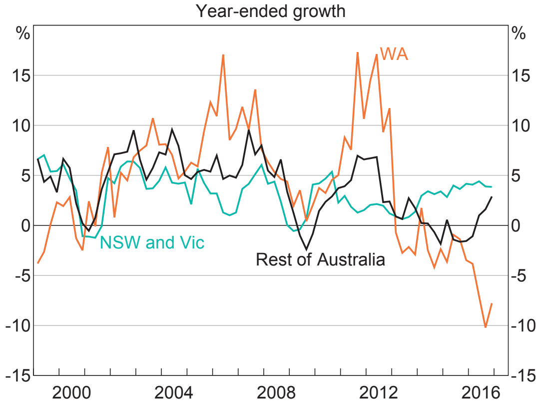
	December quarter 2016	September quarter 2016	Year to December quarter 2016
GDP	1.1	–0.5	2.4
Domestic final demand	1.2	–0.4	2.1
– Consumption	0.9	0.4	2.6
– Dwelling investment	1.2	–1.3	5.6
– Mining investment	2.5	–11.3	–24.0
– Non-mining investment	1.7	–0.9	3.6
– Public demand	1.4	0.0	4.9
Change in inventories[(a)]	–0.2	0.1	0.2
Exports	2.2	1.0	8.9
Imports	1.4	1.2	3.3
Mining activity[(b)]	1.3	–1.4	3.4
Non-mining activity[(b)]	1.0	–0.4	2.3
Nominal GDP	3.0	0.7	6.1
Real gross domestic income	2.9	0.5	5.4
Terms of trade	9.1	5.1	15.6

(a) Contribution to GDP growth
(b) RBA estimates
Sources: ABS; RBA

imports) contributed to growth over 2016, as the increase in resource exports more than offset the decline in mining investment. Outside the mining sector, household spending, business investment and dwelling investment have all contributed to growth, supported by low interest rates. Public demand has also been strong.

Economic conditions continue to vary across the states. Recently, growth in final demand has been strongest in New South Wales and Victoria, weakest in Western Australia and has picked up in the rest of the country (Graph 3.2). There are some signs that economic conditions are stabilising in the mining-exposed states. Final demand growth has picked up in Queensland over the past 18 months or so, and liaison suggests that business sentiment has improved recently in Western Australia. Labour market conditions across the states have generally been consistent with patterns in final demand, although employment growth in New South Wales has been subdued.

Graph 3.2
State Final Demand
Year-ended growth

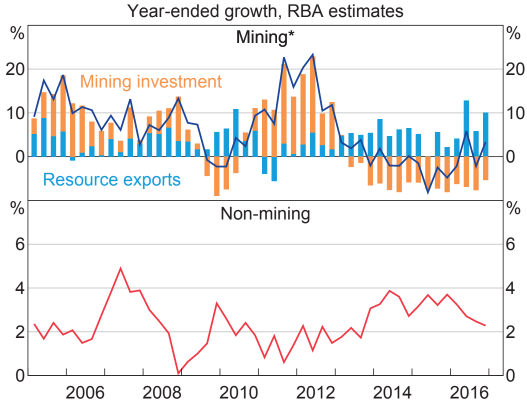


Sources: ABS; RBA

Mining Activity

Mining activity (net of imports) increased in the December quarter, as resource exports increased further and mining investment rose unexpectedly (Graph 3.3). Despite the quarterly increase, mining investment continued to decline

Graph 3.3
Mining and Non-mining Activity
Year-ended growth, RBA estimates



* Net of mining-related imports; components are contributions to year-ended mining activity growth; contribution from changes in inventories not shown

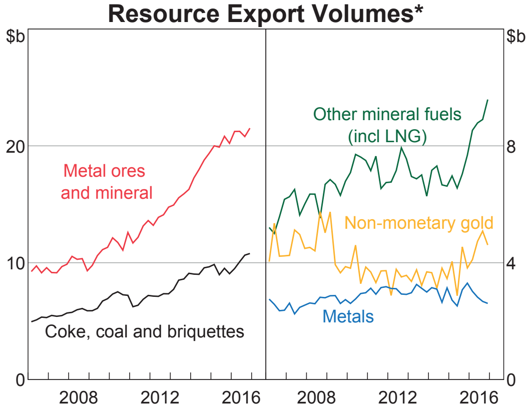
Sources: ABS; RBA

over 2016 as work on liquefied natural gas (LNG) facilities was completed and few new projects were commenced. However, most of the decline in mining investment looks to have occurred already, such that the drag on GDP growth will dissipate over the next couple of years. Both the ABS capital expenditure (Capex) survey of investment intentions and Bank liaison point to smaller declines in mining investment over this period. In addition, much of the remaining decline is expected to be in LNG investment, which is import intensive and uses relatively little labour. This suggests that the flow-on effects to the domestic economy are likely to be small.

The increase in commodity prices since late 2015 has boosted the profitability of firms in the mining sector. However, this has not led to a material increase in new investment or employment in the sector, partly because the increase in prices is not expected to be sustained. Information from the Bank's liaison and company announcements have indicated that firms have used the additional income to pay down debt, pay out dividends and increase share buybacks. At the margin, some mining firms have reportedly been able to make small-scale investments such as upgrades to machinery and equipment. Consistent with expectations, the prices of some commodities, including iron ore, have fallen noticeably over recent weeks.

Resource export volumes have increased strongly over the past year (Graph 3.4). The ramp-up in LNG production has been underway for the past year or so and LNG exports are expected to continue to grow strongly over the next few years. Iron ore export volumes are likely to be supported by increased production from Australia's low-cost producers. Coal exports are likely to be lower in the next few quarters than had been expected, because of the effects of Cyclone Debbie in Queensland in late March. The cyclone damaged coal rail infrastructure in the Bowen Basin region, which is one of the largest coking coal producing regions in the world and accounts for around one-third of Australia's coal exports.

Graph 3.4
Resource Export Volumes*

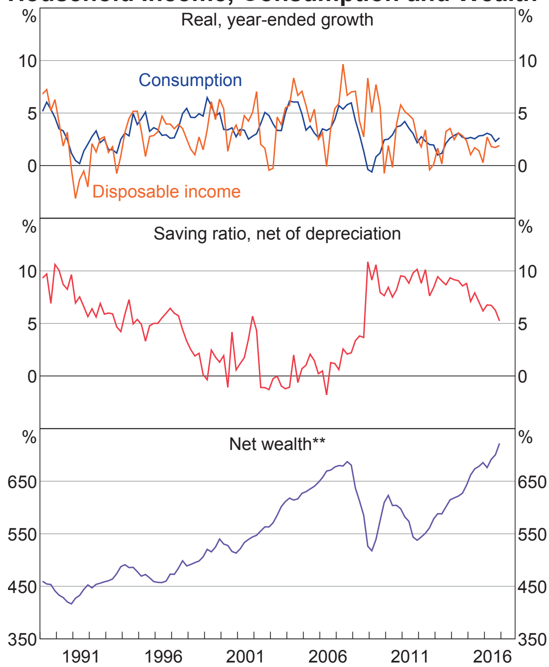


* Reference year is 2014/15
Source: ABS

Household Sector

Household consumption growth picked up in the December quarter, following a period of modest growth in mid 2016. A marked increase in goods consumption contributed to the pick-up. Low interest rates and ongoing growth in household net wealth have continued to support spending (Graph 3.5). However,

Graph 3.5
Household Income, Consumption and Wealth*

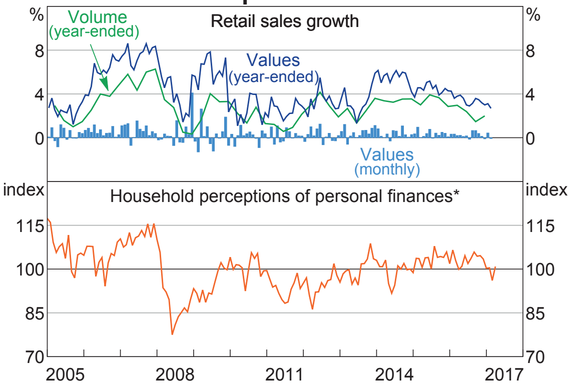


* Household sector includes unincorporated enterprises; disposable income is after tax and interest payments, and has been smoothed between March quarter 2000 and March quarter 2002
** Per cent of annual household disposable income, before the deduction of interest payments
Sources: ABS; RBA

household income growth has remained weak, and there has been a further decline in the household saving ratio. Indicators in early 2017 suggest that consumption growth has moderated since late last year (Graph 3.6). The volume of retail sales is expected to be little changed after growth picked up in the December quarter.

Low growth in household disposable income continues to weigh on spending. In the December quarter, real household disposable income was unchanged, held down by the fall in labour income. Households' perceptions of their personal finances have declined since late 2016. Surveys indicate that households believe that paying off debt is currently a wiser place for saving than investing in real estate (Graph 3.7); while this might seem consistent with more cautious behaviour, the

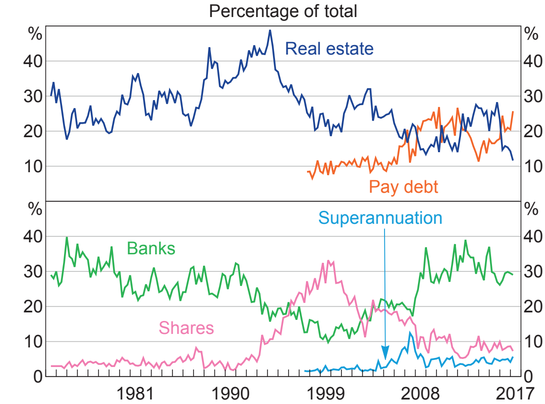
Graph 3.6
Consumption Indicators



* Average of the ANZ-Roy Morgan and Westpac-Melbourne Institute consumer sentiment measures of respondents' perceptions of their personal finances relative to the previous year; average since 1980 = 100

Sources: ABS; ANZ-Roy Morgan; RBA; Westpac and Melbourne Institute

Graph 3.7
Allocation of Household Savings*
Percentage of total



* Based on responses to survey on consumers' perceived 'wisest place for savings'

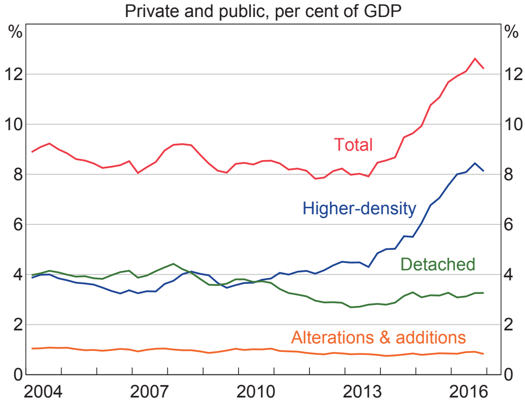
Source: Westpac and Melbourne Institute

overall household debt-to-income ratio has been on an upward trend for the past couple of years.

Private dwelling investment remained at a high level in the December quarter and is expected to continue to contribute to economic growth over the next year or so, particularly given the large volume of new apartment construction in the pipeline (Graph 3.8). However, the contribution to growth from dwelling investment is expected to decline gradually from mid 2017 because residential building approvals, especially higher-density dwelling approvals, have declined over recent months. If housing approvals remain at current levels, the pipeline will be worked off gradually to more normal levels. The decline in higher-density approvals has been concentrated in New South Wales (where housing activity has been quite strong of late) and Queensland (where conditions have been less favourable) (Graph 3.9).

Conditions in the established housing market continue to vary, both across cities and between different types of dwellings. Across the capital cities, housing conditions remain strongest in Sydney and Melbourne and weakest in Perth. This is true across a range of measures, from growth in housing prices and advertised rents to vendor

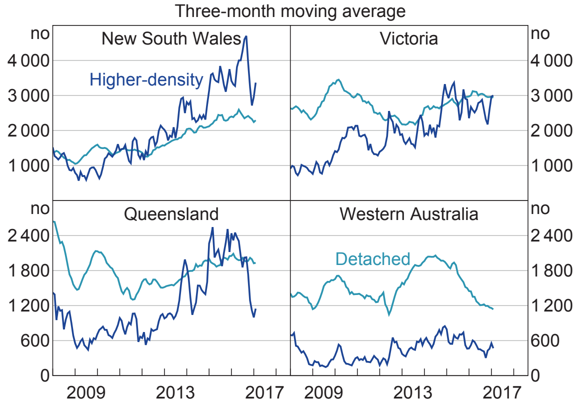
Graph 3.8
Residential Construction Pipeline*
Private and public, per cent of GDP



* Dwelling units under construction or approved but not yet commenced

Sources: ABS; RBA

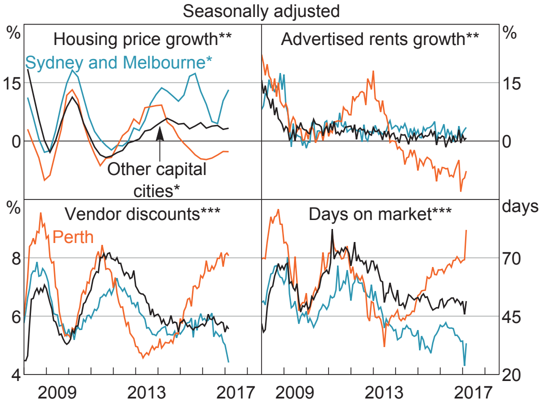
Graph 3.9
Private Residential Building Approvals
Three-month moving average



Sources: ABS; RBA

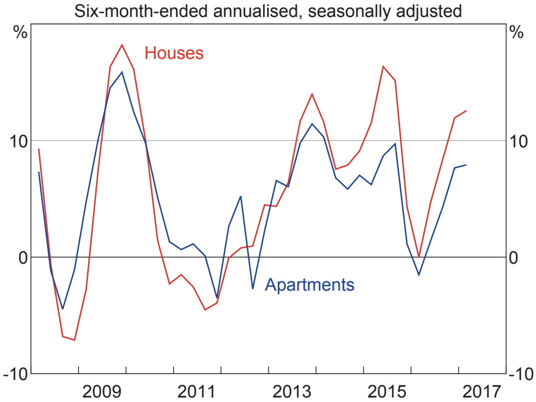
discounts and days on market (Graph 3.10). Across the types of dwellings, price growth for detached houses has outpaced that for apartments, most obviously in cities where the increase in the supply of apartments has been large relative to the existing stock, such as Brisbane and Melbourne (Graph 3.11). Rents continue to decline in Perth and the vacancy rate remains elevated. In the other capital cities, rent inflation remains subdued and vacancy rates have been stable around their long-run averages for some time.

Graph 3.10
Housing Market Indicators
Seasonally adjusted



* Capital city dwelling stock weighted; advertised rents exclude Hobart before August 2008 and Adelaide; vendor discounts exclude Hobart before March 2008; days on market exclude Hobart before June 2008
** Year-ended
*** Median for private treaty sales only
Sources: ABS; APM; CoreLogic; RBA

Graph 3.11
National Housing Price Growth by Dwelling Type*
Six-month-ended annualised, seasonally adjusted



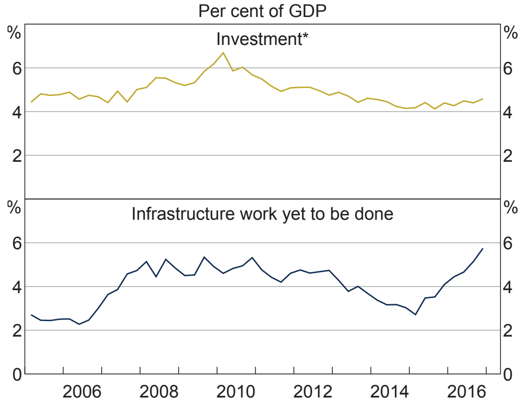
* Capital cities only; excludes Darwin and Hobart
Sources: APM; RBA

Looking ahead, low interest rates should continue to provide support to housing demand. Total housing loan approvals remain around record highs, although new prudential measures are expected to lead to some tightening in lending standards and to slow the rate of growth in credit (see 'Domestic Financial Markets' chapter).

Government Sector

Public demand grew at an above-average rate in the December quarter, driven by a rise in public investment, while public consumption was little changed. Recent strong growth in the pipeline of public infrastructure projects is likely to support public investment growth over coming years (Graph 3.12).

Graph 3.12
Public Sector
Per cent of GDP



* Adjusted for second-hand asset transfers between the public and other sectors
Sources: ABS; RBA

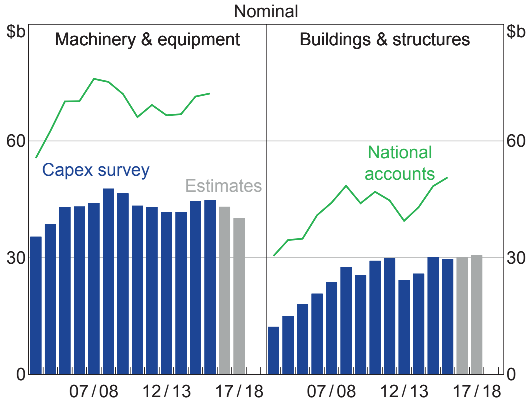
Non-mining Business Sector

Non-mining business investment increased by around 3½ per cent over 2016, although it has been subdued for several years and remains low as a share of GDP. Non-mining investment has picked up in New South Wales and Victoria, but has been relatively weak in Queensland and Western Australia over the past few years.

Looking ahead, indicators of non-mining business investment are somewhat mixed.

Investment intentions in the ABS Capex survey and forward-looking indicators of private non-residential building activity indicate that non-mining investment is unlikely to pick up substantially over the next year or so (Graph 3.13).[1] For example, the stock of private non-residential building work yet to be done remains at a low level and building approvals have been low in early 2017 (Graph 3.14). The Capex survey also points to subdued machinery and equipment investment. In contrast, survey measures of business conditions have remained above average over the past 2½ years, with conditions improving significantly in the non-mining states. Measures of capacity utilisation have increased, particularly for goods-producing firms. Non-mining profits grew strongly in the December quarter.

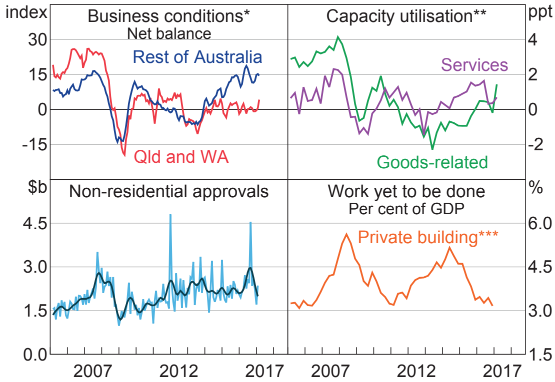
Graph 3.13
Non-mining Capital Expenditure*



* Estimates are firms' expected capital expenditure, adjusted for past average differences between expected and realised spending

Sources: ABS; RBA

Graph 3.14
Business Indicators



* Three-month moving average

** Deviation from long-run average; goods-related includes manufacturing, construction, wholesale and retail; includes business and household services

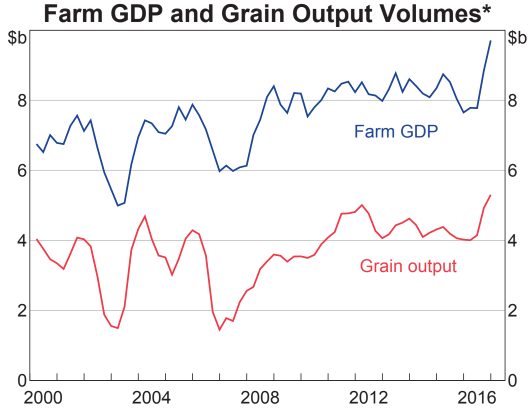
*** Non-residential

Sources: ABS; NAB; RBA

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimate that the volume of farm production has increased strongly over 2016/17, as favourable weather conditions during winter supported a record crop harvest. Farm GDP rose by almost 10 per cent in the December quarter, led by record wheat and barley production (Graph 3.15). More recently, some sugarcane, fruit and vegetable crops in Queensland have been damaged by Cyclone Debbie, but the impact on national farm production is likely to be small. Overall, farm production is forecast by ABARES to decline in 2017/18, as crop production returns to normal levels and livestock production continues to decline while farmers rebuild their herds.

The depreciation of the exchange rate since early 2013 has supported non-mining exports

Graph 3.15
Farm GDP and Grain Output Volumes*



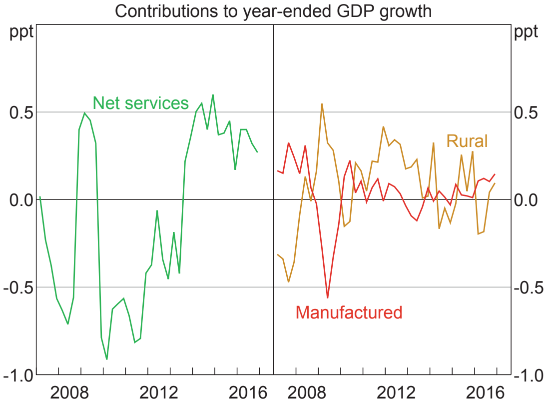
* Reference year is 2014/15

Source: ABS

1 The Capex survey only covers about half of the non-mining business investment captured by the more comprehensive national accounts measure; it does not cover certain industries, such as some service industries that have seen relatively strong investment over recent years, and it also doesn't cover certain types of investment, such as in software and research & development.

(Graph 3.16). Service exports, which include tourism, education and business services, have made a significant contribution to GDP growth over this period. Over 2016, manufactured exports increased and rural exports also rose following a record crop harvest.

Graph 3.16
Non-mining Exports
Contributions to year-ended GDP growth



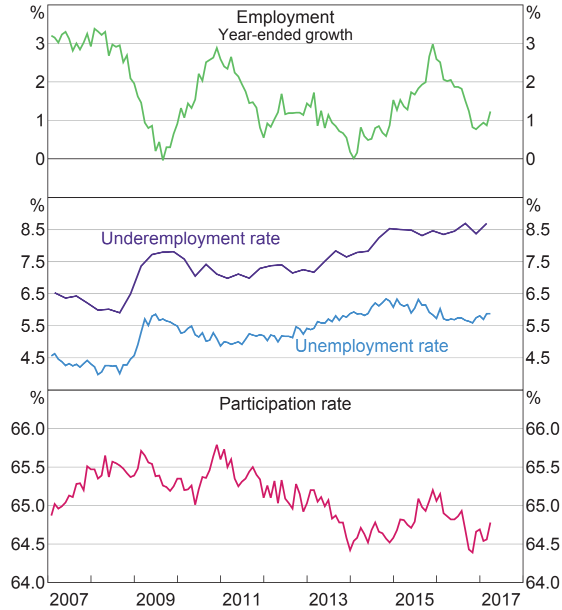
Sources: ABS; RBA

Labour Market

Conditions in the labour market have been mixed recently. Employment growth picked up in the March quarter, but the unemployment rate has edged higher over recent months to 5.9 per cent (Graph 3.17). After declining over much of 2016, the level of full-time employment has increased over the past six months; growth in part-time employment nonetheless remains strong. Consequently, average hours worked remain at a historically low level. Measures of underemployment have edged higher, as a relatively high proportion of part-time workers would like and are able to work additional hours.

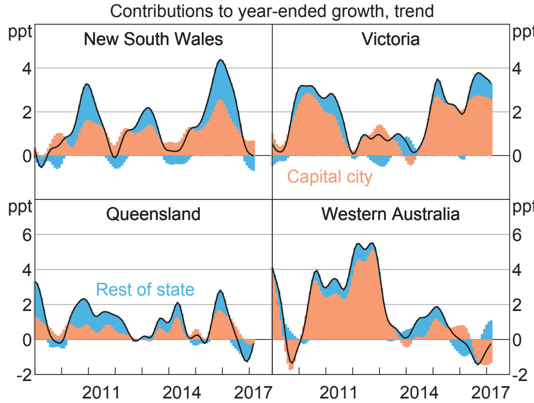
Labour market conditions continue to diverge across the states (Graph 3.18). Employment growth over the past year has been concentrated in Victoria due to solid demand and population growth. Victorian employment growth has been fairly broad based across household and business services industries, and in both Melbourne and

Graph 3.17
Labour Market



Source: ABS

Graph 3.18
Employment by State
Contributions to year-ended growth, trend



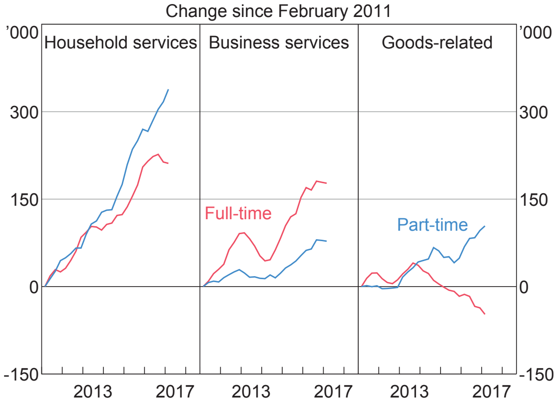
Sources: ABS; RBA

regional areas. While employment in Sydney continues to trend higher, employment has fallen across the rest of New South Wales following particularly strong growth in 2015. The level of employment has picked up a little in Western Australia and Queensland since late 2016. Population growth has slowed sharply in these mining-exposed states following the end of the mining investment boom, partly reflecting a net outflow of people from Western Australia to other states.

In trend terms, employment growth over the past year has been concentrated in services industries, while goods-related employment has been largely unchanged (Graph 3.19). Within household services, employment increased strongly in education and declined a little in health care, where it had expanded strongly in the previous couple of years. Within business services, there has been an increase in professional, scientific & technical employment and administrative & support employment; the latter covers labour hire firms and may be capturing demand across a range of industries. The unchanged level of goods-related employment over the past year masks divergences within the sector; growth in construction and manufacturing employment has been largely offset by weakness in the wholesale and retail industries.

Part-time employment is now around one-third of total employment (up from one-quarter two decades ago). Over time, Australian firms have shown a greater tendency to respond to changes in demand by adjusting the hours

Graph 3.19
Employment by Sector*
Change since February 2011



* Seasonally adjusted by RBA; does not remove the effects of changes in the timing of ABS supplementary surveys; four-quarter moving average

Sources: ABS; RBA

worked by their existing employees (compared with changing the number of employees).[2] This could reflect increased labour market flexibility, possibly related to the shift towards a more service-based economy, labour market deregulation and technological change. Cyclical factors are likely to have been important in the concentration of employment growth in part-time jobs over the past year or so. For example, over that period, full-time employment declined in the mining-exposed states of Western Australia and Queensland and in the retail industry (which has been affected by heightened competitive pressures). Full-time youth employment also declined, which tends to occur in periods where there is spare capacity in the labour market. The participation rate for this group has fallen a little over the past year, and the youth unemployment rate remains high.

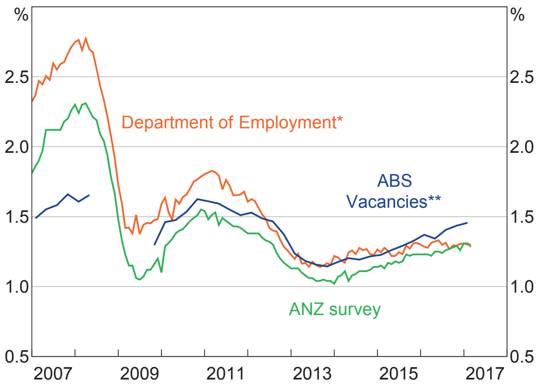
Analysis of the movement of individuals between different labour market categories can help to explain recent changes in the composition of employment growth between part-time and full-time employment. On average, there tends to be a net flow of workers moving from part-time work to full-time work. However, over the past two years, fewer part-time workers have moved to full-time work than normal. This is consistent with the higher level of underemployment as many part-time workers want to, and are available to, work additional hours. The net flow of workers from full-time employment to outside the labour force has also picked up; over the medium term, this trend will be partly driven by demographic changes, as more workers move into retirement age, but there also appears to be a cyclical component.

Forward-looking indicators of labour demand point to further moderate growth in employment over the next couple of quarters (Graph 3.20).

2 See Bishop J, L Gustafsson and M Plumb (2016), 'Jobs or Hours? Cyclical Labour Market Adjustment in Australia', RBA Research Discussion Paper, No 2016-06.

Vacancies data remain strongest for household services, in particular, in the health care industry, and in New South Wales and Victoria.

Graph 3.20
Job Vacancies and Advertisements
Share of labour force



* Count of internet job advertisements
** Survey was suspended between May 2008 and November 2009
Sources: ABS; ANZ; Department of Employment

Labour Costs

Wage growth remains low. A number of factors have contributed to low wage growth, including spare capacity in the labour market as well as lower inflation outcomes and inflation expectations. However, these factors cannot fully explain the recent weakness.[3] Lower wage growth is also part of the adjustment in the economy to the earlier decline in the terms of trade and the end of the mining investment boom; the decline in wage growth has been most pronounced in mining and mining-exposed states and industries (see 'Box A: Australia's Real Exchange Rate'). Information from firms in the Bank's liaison program as well as a survey of union officials suggests that wage growth is likely to remain unchanged over the next year.

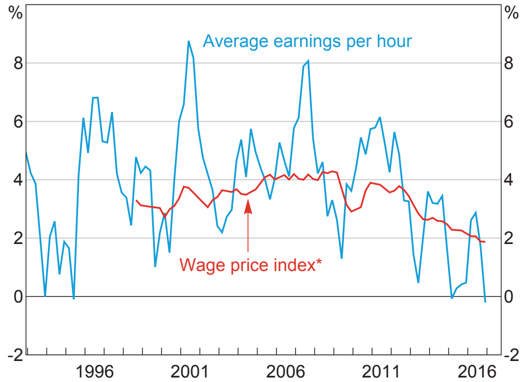
The wage price index (WPI) increased by 1.9 per cent over 2016 (Graph 3.21). Private sector WPI growth was slightly softer at 1.8 per cent. The slowing in wage growth over recent years has been evident across all industries, but is most pronounced in mining and mining-exposed industries including construction and professional services. Wage growth has been strongest in the health and education industries, where employment growth has been relatively strong. The public sector WPI increased by 2.3 per cent over 2016, but public sector wages in the Australian Capital Territory and Western Australian grew by less than 2 per cent over the year.

The amount of spare capacity in the labour market is an important determinant of wage growth, although spare capacity is difficult to measure. One measure is the unemployment 'gap'; that is, the difference between the current unemployment rate and an estimate of the rate of unemployment associated with a stable rate of inflation (often referred to as the non-accelerating inflation rate of unemployment or NAIRU) (Graph 3.22). The current unemployment gap estimate suggests that there is spare capacity in the labour market, although less than there was in 2015. However, wage growth has continued to slow over this period. It may be the case that there is currently more spare capacity in the labour market than suggested by the unemployment gap, as the underemployment rate has edged higher. That is, part-time workers who want and are available to work additional hours could also be putting downward pressure on wage growth. It is also possible that the relationship between wage growth and spare capacity in the labour market may have been affected by structural changes in the economy; for example, due to new work arrangements enabled by technological change or increased competitive pressures from the internationalisation of services trade. However, any resulting changes to workers' bargaining power is difficult to observe directly.

Recent analysis of the job-level WPI data suggests that the share of 'large' wage rises (more than 4 per cent) declined from over

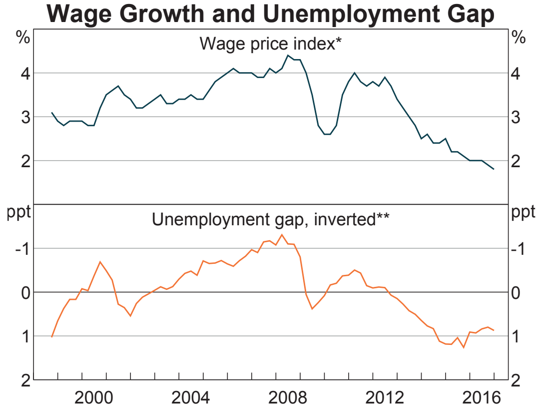
3 See Bishop J and N Cassidy (2017), 'Insights into Low Wage Growth in Australia', RBA *Bulletin*, March, pp 13–20.

Graph 3.21
Labour Costs
Year-ended growth



* Total pay excluding bonuses
Sources: ABS; RBA

Graph 3.22
Wage Growth and Unemployment Gap



* Private sector; year-ended growth
** Difference between the unemployment rate and RBA estimate of the 'non-accelerating inflation rate of unemployment'
Sources: ABS; RBA

one-third in the late 2000s to less than 10 per cent in 2016, and that this reduced overall wage growth (Graph 3.23). This has been particularly pronounced for mining and mining-exposed industries. The share of WPI outcomes between 2 and 3 per cent has increased noticeably to now account for almost half of all wage changes.

CPI inflation outcomes might also have contributed to recent low wage growth. Information on enterprise bargaining agreements (EBAs) from the Department of Employment suggests that around 6 per cent of employees covered by EBAs have wage outcomes linked to the CPI, while two-fifths of a selection of firms in the Bank's liaison program indicated that the CPI was a primary determinant of wage setting. Furthermore, survey evidence from unions suggests that inflation outcomes and expectations are an important consideration for wage bargaining.

Average earnings per hour from the national accounts (AENA) is a broader measure of labour costs than the WPI: it includes non-wage costs, such as redundancy payments and superannuation, as well as the effect of compositional changes in the labour market. The AENA measure, which is volatile, has tended to grow at a slower pace than the WPI over recent years. This is partly because it is capturing the movement of workers from highly paid jobs in mining-related activity to lower-paid jobs in other parts of the economy. There is also some evidence that mining and mining-related firms have been replacing workers who are leaving with new employees on lower salaries. Information from the Bank's liaison program suggests that the movement of workers from the mining sector to other parts of the economy is well advanced, and its effect on AENA should be diminishing.

Graph 3.23
Wage Changes of Different Sizes
Share of jobs that experience a wage change*

* Smoothed using a four-quarter trailing average
Sources: ABS; RBA

4. Domestic Financial Markets

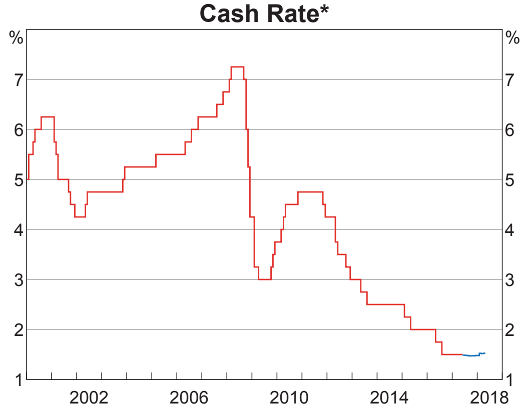
Australian financial markets have been relatively quiet in recent months. The cash rate target has remained at 1.5 per cent since last August and financial market prices suggest that it is likely to remain unchanged over the period ahead. In line with developments in global markets, Australian government bond yields have declined over recent months, partly reversing the increase observed during 2016. Conditions for obtaining funding remain favourable for banks and non-financial corporations, with spreads of corporate bond yields to government bonds narrowing to relatively low levels. Despite this, growth in credit extended to businesses has slowed and non-financial corporate bond issuance has remained low. This has been particularly the case for the resources sector, where corporations have been using increased cash flows from higher resource prices to reduce debt. Housing credit growth has been stable in recent months; investor credit growth steadied after accelerating late last year. The major banks and a number of smaller banks have announced increases to lending rates for housing investors and interest-only loans, largely associated with measures introduced by the financial regulators to reinforce sound housing lending practices. Equity prices have increased since the start of the year, reflecting both global developments and a positive reaction to domestic corporate profit announcements.

Money Markets and Bond Yields

The Reserve Bank has maintained the cash rate target at 1.5 per cent since August last year. Rates on overnight indexed swaps (OIS) suggest that the cash rate is likely to remain unchanged over the remainder of this year (Graph 4.1).

Short-term interest rates in the repurchase agreement (repo) market remain high relative to OIS rates. Over the past couple of years, the repo rates at which the Reserve Bank conducts its open market operations have moved from being close to OIS rates to around 30 basis points above OIS rates. The wider spreads reflect heightened demand for secured funding from market participants, particularly non-residents, and appear to be related to developments in the foreign exchange swap market and the bond futures market.[1] In particular, in the foreign exchange swap market, Australian dollars can be lent against yen at a relatively high implied Australian dollar interest rate; as a result, some investors have been borrowing Australian dollars under repo to use them for such foreign exchange swap transactions.

Graph 4.1
Cash Rate*



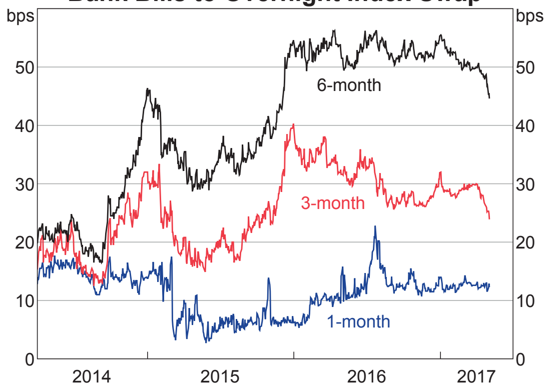
* Data from June 2017 onwards are expectations derived from interbank cash rate futures

Sources: ASX; Bloomberg

1 For more information, see Becker C, A Fang and J C Wang (2016), 'Developments in the Australian Repo Market', RBA *Bulletin*, September, pp 41–46.

Despite the elevated repo rates, short-term interest rates more closely related to bank funding costs have remained low. In particular, the unsecured interbank overnight interest rate – the cash rate – has continued to trade at the Reserve Bank's target and spreads on bank bill rates have narrowed (Graph 4.2).

Graph 4.2
Bank Bills to Overnight Index Swap



Sources: ASX; Tullett Prebon (Australia)

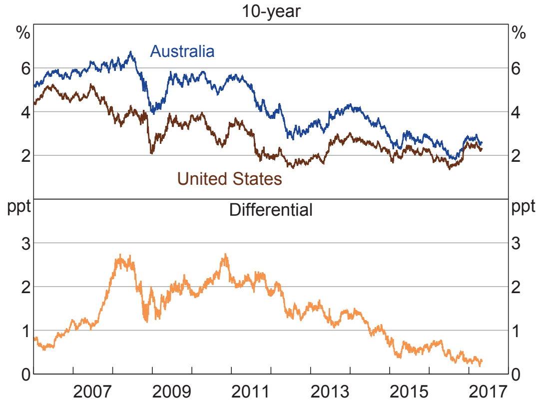
Yields on 10-year Australian Government Securities (AGS) followed movements in US Treasury yields and have declined by 40 basis points since early March (Graph 4.3). The spread between 10-year AGS and US Treasury yields has been around 30 basis points, which is close to its lowest level since 2001.

Demand for AGS remains strong and recent bond tenders have generally been well received. In addition, the Australian Office of Financial Management (AOFM) issued $11 billion of a new 10-year bond in February, which was the largest AGS syndication to date.

The level of outstanding semi-government bonds has been stable at around $240 billion so far this year, with issuance by Western Australia and Queensland offset by maturities from New South Wales.

There has been a large volume of bonds issued by non-residents in the domestic market

Graph 4.3
Government Bond Yields



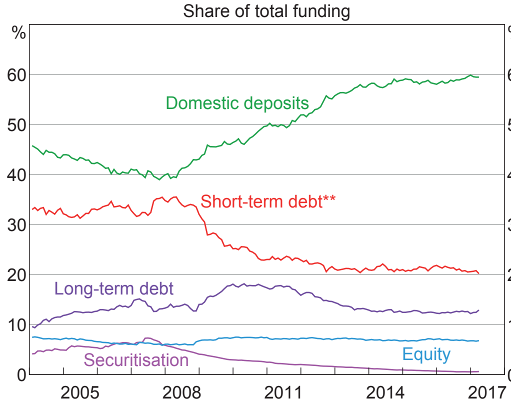
Sources: Bloomberg; RBA

('Kangaroo' issuance) since the beginning of the year. Issuance was mainly from supranational agencies and offshore banks and generally for longer maturities than in previous years, continuing the trend from 2016. By converting the Australian dollars they raise into foreign currency using the foreign exchange swap market, Kangaroo issuers indirectly assist Australian corporations looking to hedge funding raised offshore back into Australian dollars. Secondary market spreads of AAA-rated Kangaroo bonds to AGS have been stable over the past few years.

Financial Intermediaries

The funding composition of banks has been little changed in recent months (Graph 4.4). There has been a noticeable pick-up in the share of term deposits since 2015. These deposits are treated more favourably than other types of funding under the net stable funding ratio (NSFR), which will be introduced by the Australian Prudential Regulation Authority (APRA) in 2018. Banks have indicated that competition for funding continues to be focused on these deposits, although the major banks have all indicated that their NSFRs are at or above the regulatory minimum.

Graph 4.4
Funding Composition of Banks in Australia*
Share of total funding

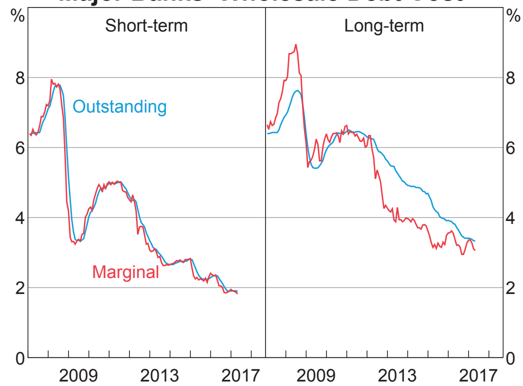


* Adjusted for movements in foreign exchange rates; tenor of debt is estimated on a residual maturity basis

** Includes deposits and intragroup funding from non-residents

Sources: APRA; RBA; Standard & Poor's

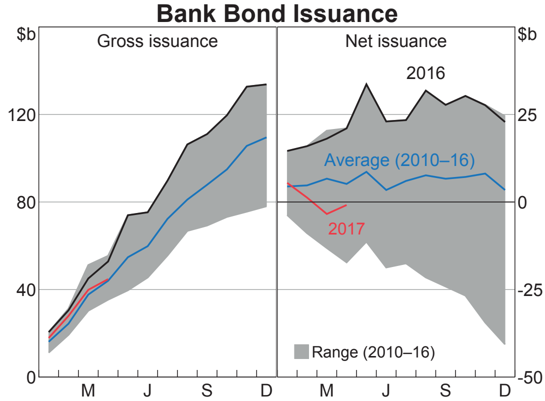
Graph 4.5
Major Banks' Wholesale Debt Cost*



* RBA estimates; rates do not include interest rate hedges

Sources: Bloomberg; RBA

Graph 4.6
Bank Bond Issuance



Source: RBA

Overall, deposit funding costs are also estimated to have been stable in recent months. The ongoing shift in the composition of deposits towards term deposits has added to funding costs, with the rates on term deposits remaining elevated in comparison to other deposit rates. This compositional effect has been offset by a decline in interest rates on some at-call and term deposit products. Furthermore, the average cost of term deposits has declined a little, reflecting maturities of deposits that were entered into at higher interest rates in mid 2016.

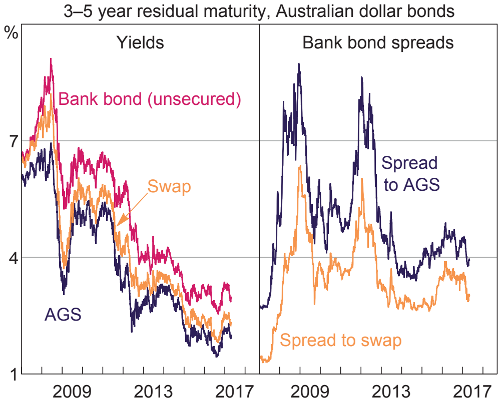
Estimates of the average cost of the major banks' debt funding have been little changed over recent months. The cost of issuing new long-term wholesale debt has declined a little, and is back below the cost of outstanding issuance (Graph 4.5). Short-term wholesale debt costs have been relatively stable.

Bond issuance by Australian banks has continued in recent months at around the average pace seen over recent years (Graph 4.6). The total level of outstanding bonds is little changed since the start of the year, as issuance has roughly matched bond maturities over that period.

Secondary market yields on the major banks' bonds have declined since the start of the year. Spreads to benchmark rates have also narrowed, to be around their lowest levels for a couple of years (Graph 4.7).

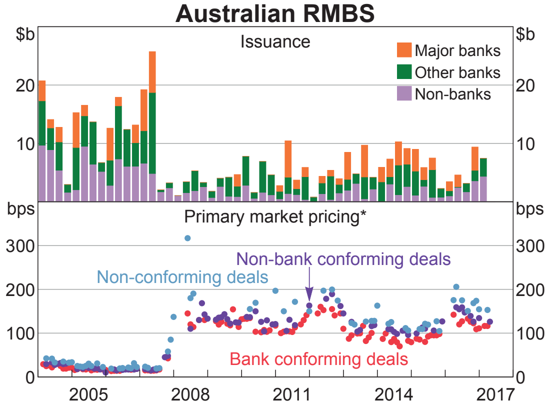
Issuance of asset-backed securities has been strong since late last year, with non-bank mortgage originators issuing a large volume of residential mortgage-backed securities (RMBS) (Graph 4.8). This includes a $1.7 billion single issuance, which was the largest RMBS by a non-bank mortgage originator since 2007. Overall, the characteristics of the mortgages underlying these securities have been of similar quality to previous RMBS deals issued in Australia.

Graph 4.7
Major Banks' Bond Pricing
3–5 year residual maturity, Australian dollar bonds



Sources: Bloomberg; UBS AG, Australia Branch

Graph 4.8
Australian RMBS



* Face-value weighted monthly average of the primary market spread to bank bill swap rate

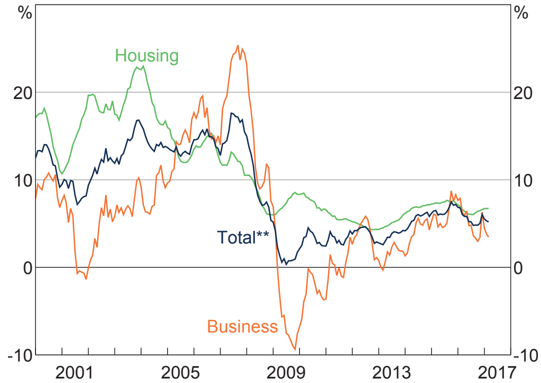
Source: RBA

There has also been sizable issuance backed by other types of loans, including car and credit card loans. Primary issuance spreads on RMBS are little changed since the start of the year.

Financial Aggregates

Total credit growth has slowed in recent months, largely due to a decline in business credit growth, while housing credit growth has remained stable (Graph 4.9). Broad money has grown faster than total credit over the past year (Table 4.1).

Graph 4.9
Credit Growth by Sector*
Six-month-ended annualised



* Seasonally adjusted and break-adjusted; including securitisation

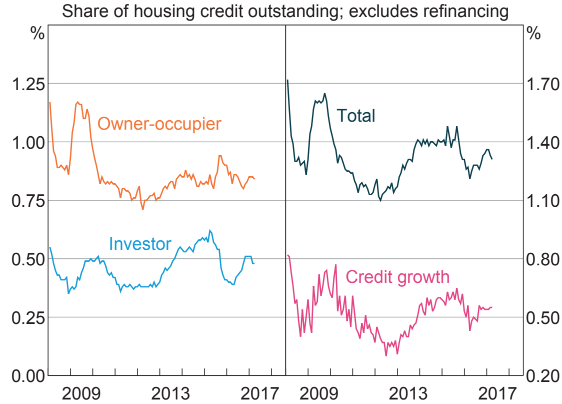
** Includes housing, personal and business credit

Sources: ABS; APRA; RBA

Household Financing

Housing credit growth was stable in recent months at an annualised rate of around 6½ per cent. Growth in credit extended to investors has steadied at an annualised pace of around 8 per cent, after accelerating through the second half of 2016. This stabilisation in investor credit growth is consistent with the slight reduction in investor loan approvals and may have been partly driven by the increases in interest rates for investors in late 2016 along with further tightening in lending standards by lenders around that time (Graph 4.10).

Graph 4.10
Housing Loan Approvals*
Share of housing credit outstanding; excludes refinancing



* Seasonally adjusted and break adjusted

Sources: APRA; RBA

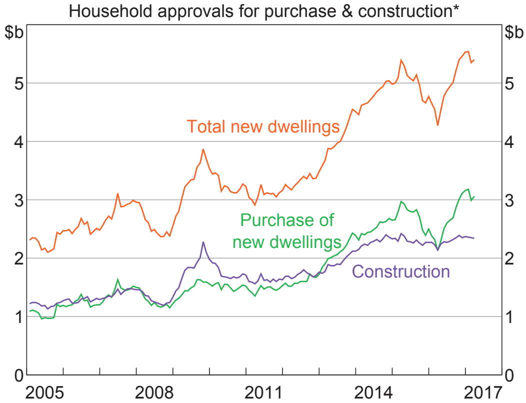
Table 4.1: Financial Aggregates
Percentage change(a)

	Three-month ended		Year-ended
	Dec 2016	Mar 2017	Mar 2017
Total credit	1.7	0.8	5.0
– Housing	1.6	1.7	6.5
– Owner-occupier	1.4	1.5	6.2
– Investor	2.2	2.0	7.1
– Personal	–0.3	–0.5	–1.5
– Business	2.2	–0.5	3.4
Broad money	2.2	1.9	6.7

(a) Growth rates are break adjusted and seasonally adjusted
Sources: APRA; RBA

The decline in loan approvals in recent months has been driven by a decline in approvals in Victoria, while loan approvals in New South Wales have remained near record highs (Graph 4.11). Housing finance for new dwellings has been little changed recently following rapid growth through 2016; housing finance for the construction of new homes has remained stable (Graph 4.12). Overall, loans for new dwellings or dwellings under construction are estimated to have contributed more than half of credit growth over the past year. This contribution is expected to rise, based on the pipeline of residential construction work under way.

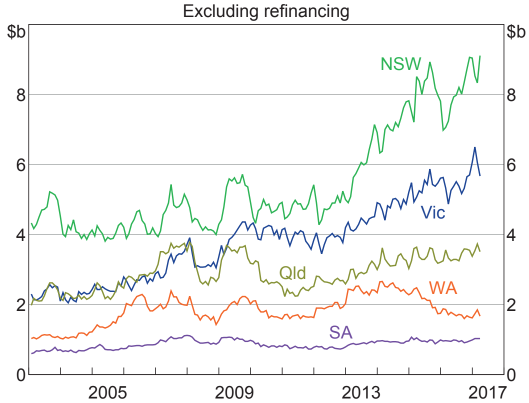
Graph 4.12
Housing Finance Approvals for New Dwellings
Household approvals for purchase & construction*



* Investor shares are RBA estimate
Sources: APRA; RBA

The major banks' share of housing loan approvals has fallen in recent months to its lowest level since 2008. Most of this reduction appears to have been absorbed by other Australian and foreign banks (Graph 4.13). Housing credit issued by entities that are not licensed by APRA as authorised deposit-taking institutions (ADIs) is estimated to have increased slightly in recent quarters, but at around 3 per cent remains a very small share of housing credit.

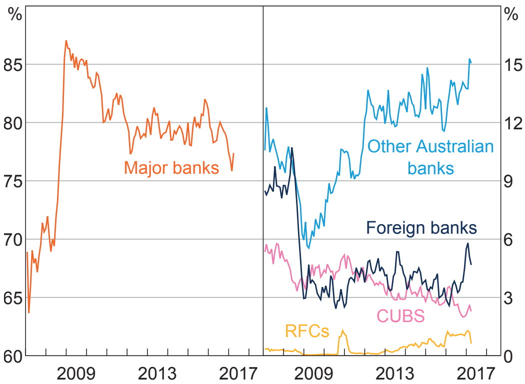
Graph 4.11
Housing Loan Approvals*
Excluding refinancing



* Seasonally adjusted
Sources: APRA; RBA

The further increases in housing interest rates announced by some lenders in March and April and prudential guidance from APRA and ASIC regarding interest-only lending can be expected to affect housing credit growth over the months ahead.

Graph 4.13
Housing Loan Approvals*
Share of total



* Seasonally adjusted; CUBS are credit unions and building societies; RFCs are registered financial corporations

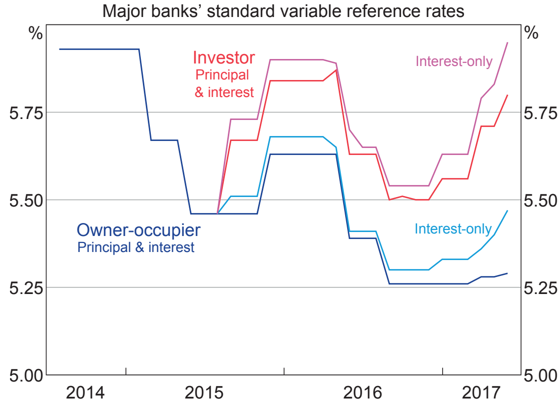
Sources: APRA; RBA

As outlined in the April *Financial Stability Review*, the Council of Financial Regulators (CFR) has been monitoring and evaluating the risks to household balance sheets. APRA announced further measures in March 2017 to reinforce sound housing lending practices. ADIs will be expected to limit new interest-only lending to 30 per cent of total new residential mortgage lending and, within that, to tightly manage new interest-only loans extended at loan-to-value ratios above 80 per cent. APRA also reinforced the importance of banks: managing their lending so as to comfortably meet the existing investor credit growth benchmark of 10 per cent; using appropriate loan serviceability assessments, including the size of net income buffers; and continuing to exercise restraint on lending growth in higher risk segments. APRA also announced that it would monitor the growth in warehouse facilities provided by ADIs. These facilities are used by non-bank mortgage originators for short-term funding of loans until they are securitised.

In addition, the Australian Securities and Investments Commission (ASIC) announced in April further steps to ensure that interest-only loans are appropriate for borrowers' circumstances and that remediation can be provided to borrowers who suffer financial distress as a consequence of shortcomings in past lending practices.

Since February, the major banks have announced an average cumulative increase to their standard variable rates of around 25 basis points for investors and a few basis points for owner-occupiers. Also, borrowers will pay an additional premium for interest-only loans of around 15 basis points for investors and 20 basis points for owner-occupiers (Graph 4.14).

Graph 4.14
Variable Housing Interest Rates
Major banks' standard variable reference rates



Sources: Banks' websites; RBA

The rates actually paid on new variable rate loans are likely to differ from the major banks' standard variable rates. The major banks and other lenders offer discounts to their standard variable rates, which can vary through time particularly for new borrowers; for example, in 2015, increases in interest rates on existing borrowers were reportedly accompanied by larger unadvertised discounts for new borrowers.

Overall, the increases that have been announced to date by lenders are expected to raise the average variable rate paid on outstanding housing loans by around 15 basis points. The average outstanding rate on all housing loans is expected to increase by slightly less than the variable rate since interest rates on new fixed-rate loans remain below those on outstanding fixed-rate loans (Table 4.2).

Table 4.2: Intermediaries' Lending Rates

	Interest rate Per cent	Change since November 2016 Basis points	Change since April 2016 Basis points
Housing loans			
– Variable principal-and-interest rate[(a)(b)]			
– Owner-occupier	4.48	3	–30
– Investor	4.97	28	–4
– Variable interest-only rate[(a)(b)]			
– Owner-occupier	4.66	10	–19
– Investor	5.12	35	3
– Average outstanding rate[(d)]	4.63	11	–22
Personal loans			
– Variable rate[(e)]	11.62	17	25
Small business			
– Term loans variable rate[(f)]	6.43	4	–32
– Overdraft variable rate[(f)]	7.31	4	–32
– Fixed rate[(c)(f)]	5.27	–3	–15
– Average outstanding rate[(d)]	5.34	–2	–35
Large business			
Average outstanding rate[(d)]	3.50	0	–46

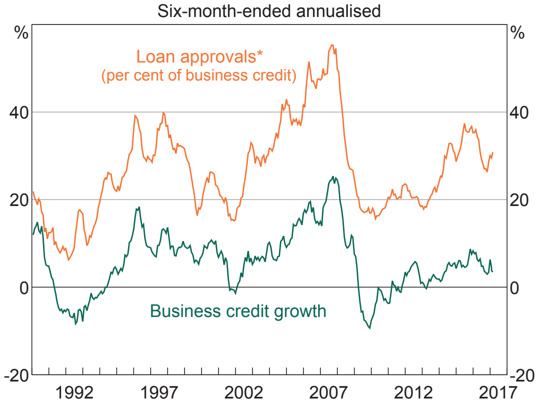
(a) Includes announced changes to new lending to May 2017
(b) Average of the major banks' discounted package rates on new, $500 000 full-doc loans
(c) Average of the major banks' 3-year fixed rates
(d) RBA estimates, includes variable and fixed rates
(e) Weighted average of variable rate products
(f) Residentially secured, average of the major banks' advertised rates
Sources: ABS; APRA; Canstar; RBA

Business Financing

Business credit growth has slowed recently after a pick-up at the end of 2016 associated with the financing of several large infrastructure deals. The slowdown in business credit growth is partly due to maturities of large loans in recent months; meanwhile business loan approvals have increased recently (Graph 4.15).

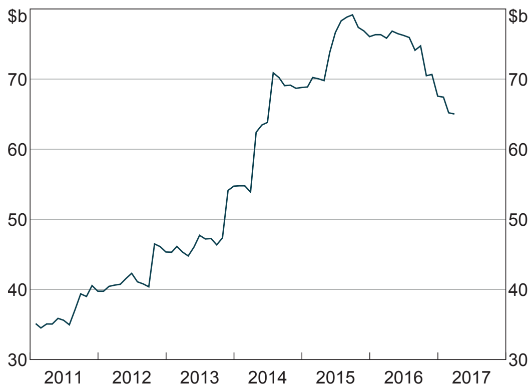
The slowdown in business credit growth partly reflects deleveraging by the mining sector following strong cash flows in the second half of 2016. Resource companies have reduced their debt levels through this period, including by repaying debt and refinancing loans for smaller amounts. This has been reflected in a fall in the stock of syndicated lending to the materials sector over the past six months equivalent to a decline in total business credit of ½ per cent (Graph 4.16).

Graph 4.15
Business Loan Approvals and Credit
Six-month-ended annualised



* Net of refinancing and reductions
Sources: ABS; APRA; RBA

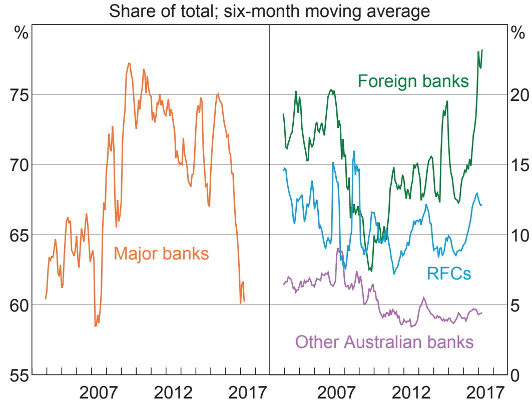
Graph 4.16
Syndicated Lending to Materials Sector



Sources: RBA; Thomson Reuters

Graph 4.17
Gross Business Loan Approvals

Share of total; six-month moving average



Sources: APRA; RBA

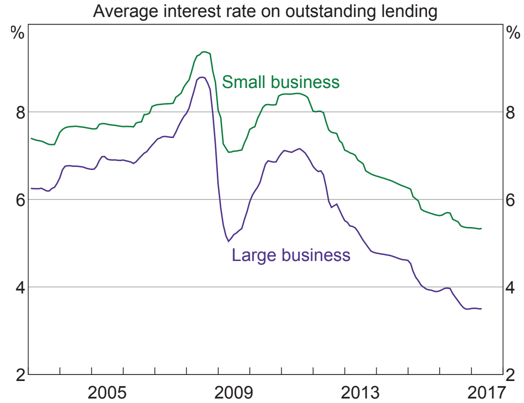
Outside of the mining sector, demand for credit is uneven across industries. Lending to the manufacturing sector has declined, while according to liaison with banks, there has been stronger demand for credit from the infrastructure, agriculture, health and tourism sectors. Loan approvals for the construction of residential property have declined, although this follows very strong growth through 2016. In contrast, loan approvals for the purchase or construction of commercial property have risen recently.

The major banks' share of new business loan approvals has fallen to relatively low levels, partly reflecting their efforts to reduce exposures to selected industries and larger companies (Graph 4.17). At the same time, foreign banks have increased their share of approvals. Asian banks have lower funding costs than many Australian banks and their increased market share is likely to partly reflect this competitive advantage. To date, most of the lending by the Asian banks has been to large businesses.

The major banks have announced increases in small business variable interest rates of up to 8 basis points. Outside of this, business lending rates have been broadly steady (Graph 4.18).

Graph 4.18
Average Business Lending Rates*

Average interest rate on outstanding lending



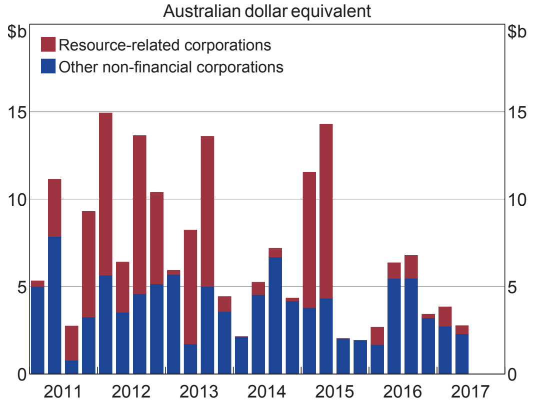
* RBA estimates

Sources: APRA; RBA

There continues to be limited bond issuance by resource companies as they have sought to reduce debt levels further (Graph 4.19). Bond issuance by other non-financial corporations has continued at a steady pace. Secondary market corporate bond spreads have continued to tighten for both resource and non resource companies back towards levels last seen in 2014 (Graph 4.20).

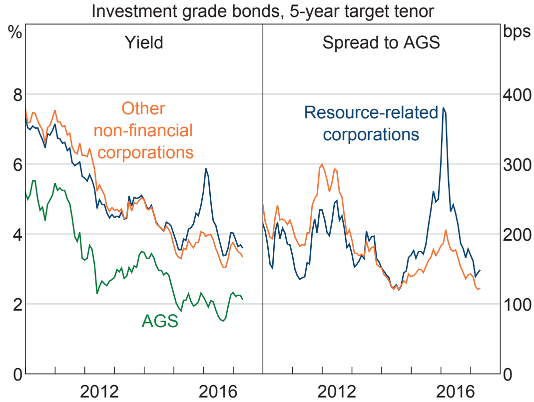
Net equity raisings by non-financial corporations was subdued in the March quarter, with no sizeable transactions of note. Following a large pick-up towards the end of 2016, merger and acquisition activity has been more modest in the year to date, with activity concentrated in the consumer discretionary, resources and industrials sectors.

Graph 4.19
Australian Corporate Bond Issuance*
Australian dollar equivalent



* Latest quarter issuance to date
Source: RBA

Graph 4.20
Australian Corporate Bond Pricing
Investment grade bonds, 5-year target tenor



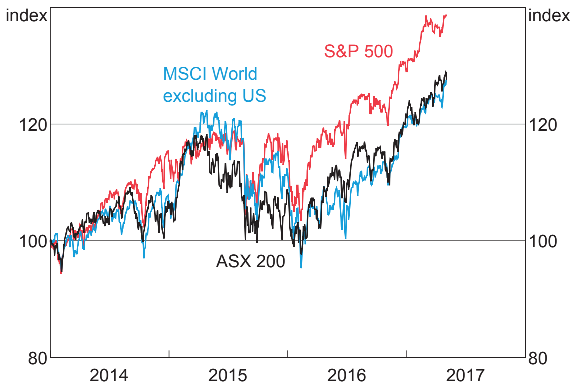
Sources: Bloomberg; RBA; S&P Capital IQ

Equity Markets

Australian equity prices have largely followed global developments in recent months to be around 4 per cent higher since the start of the year (Graph 4.21). There was also a positive reaction to domestic company profit results.

Resources sector share prices have fallen since the start of the year, alongside a large fall in iron ore and oil prices. Financial sector share prices have continued their upward trend to be around 5 per cent higher since the start of the year.

Graph 4.21
Share Price Accumulation Indices
End December 2013 = 100

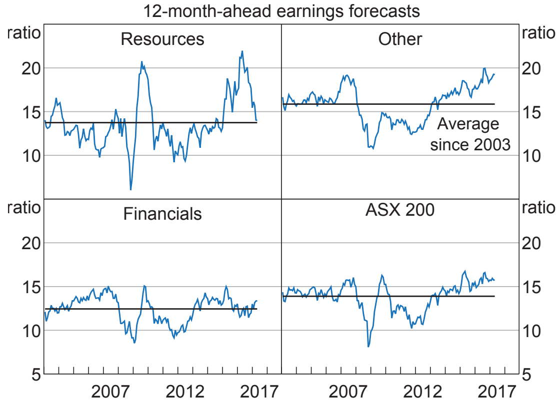


Sources: MSCI; Thomson Reuters

Equity prices for companies outside the financial and resources sectors have increased, reflecting large increases for the healthcare and utilities sectors. Telecommunication stocks declined after lower-than-expected profit results and with the prospect of increased competition in the mobile phone market.

Following the latest round of company profit results, analysts' earnings expectations for coming years were again revised higher. The sharp increase in resources sector earnings expectations has seen valuations (measured by forward price-earnings ratios) fall back towards their long-term average (Graph 4.22).

Graph 4.22
ASX 200 Price-earnings Ratios
12-month-ahead earnings forecasts

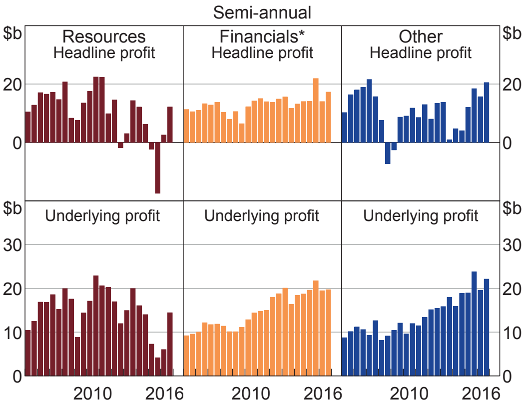


Source: Thomson Reuters

Profit Reporting

Aggregate headline profits for ASX 200 companies rose substantially over the second half of 2016 compared with the same period in 2015, largely reflecting fewer asset write-downs in the resources sector (Graph 4.23). Abstracting from these one-off items, aggregate underlying profits were 15 per cent higher compared with the same period a year earlier, driven by a sharp turnaround in resources sector profits.

Graph 4.23
ASX 200 Profits



* The results of the major banks and Macquarie Group that reported in October/November are rolled forward.

Sources: Company reports; Morningstar; RBA

Underlying profits in the resources sector more than tripled compared with the same period last year, largely due to higher commodity prices. A number of resource companies used the increased cash flows to pay down debt, boost their cash holdings and increase shareholder dividends.

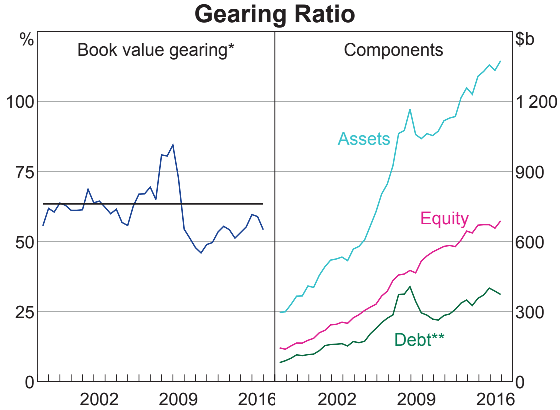
Financial companies' underlying profits declined, largely driven by profit declines for the major banks that reported in October/November. By contrast, banks that reported more recently have recorded more positive results. Profits for diversified financial companies declined, while insurers' profits rose.

Underlying profits for companies outside the resources and financial sectors declined compared with the same period last year. Increased competition and margin pressure continued to adversely affect earnings for the major supermarket chains. Meanwhile, strong residential construction and tourism activity continued to support earnings for some companies.

Aggregate shareholder distributions increased by 10 per cent in the second half of 2016 compared with the same period last year driven by the major miners paying higher dividends. Overall, dividends paid by companies outside the resources sector rose slightly.

The assets of Australian listed non-financial corporations increased by 3 per cent over the second half of 2016 (Graph 4.24). The expansion reflected an increase in resources sector assets, partly due to higher cash holdings, as well as asset growth in the healthcare and real estate sectors reflecting externally financed acquisitions and positive asset revaluations. This overall expansion in assets, together with a reduction in debt, resulted in gearing (the ratio of total debt to equity based on book values) declining by 5 percentage points to 54 per cent.

Graph 4.24
Listed Non-financial Corporations' Gearing Ratio



* Ratio of gross debt to equity; excludes foreign-domiciled companies

** Debt only includes short-term and long-term loans and bonds payable; not equivalent to total liabilities

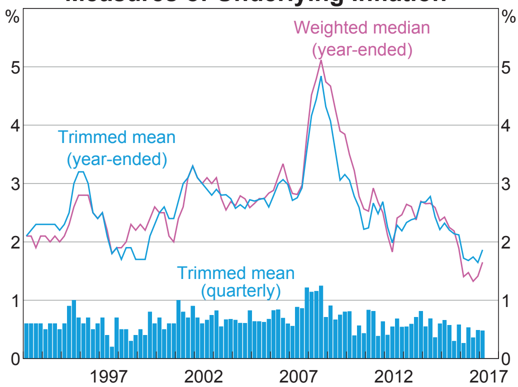
Sources: Morningstar; RBA

5. Inflation

The March quarter inflation data were in line with the forecasts in the February *Statement*. Measures of underlying inflation were steady at around ½ per cent in the quarter, and picked up to 1¾ per cent over the year (Graph 5.1; Table 5.1). Headline inflation was also unchanged in the quarter at 0.5 per cent, and increased to 2.1 per cent over the year (Graph 5.2).

Domestic cost pressures remain subdued. Growth in labour costs has remained low, competitive conditions in the retail sector continue to put downward pressure on consumer prices and rent inflation remains low. Some of this downward pressure has been offset by a pick-up in inflation in fuel and utilities prices and in the cost of new dwelling construction.

Graph 5.1
Measures of Underlying Inflation*



* Excludes interest charges prior to the September quarter 1998; adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

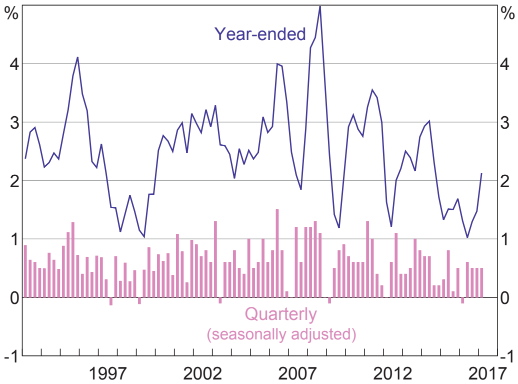
An increase in the tobacco excise also boosted headline inflation over the year.

Table 5.1: Measures of Consumer Price Inflation
Per cent

	Quarterly[a]		Year-ended[b]	
	March quarter 2017	December quarter 2016	March quarter 2017	December quarter 2016
Consumer Price Index	0.5	0.5	2.1	1.5
Seasonally adjusted CPI	0.5	0.5		
– Tradables	0.5	0.0	1.3	0.1
– Tradables (excl volatile items)[c]	–0.1	–0.6	–0.9	–0.5
– Non-tradables	0.7	0.8	2.6	2.1
Selected underlying measures				
Trimmed mean	0.5	0.5	1.9	1.6
Weighted median	0.4	0.4	1.7	1.4
CPI excl volatile items[c]	0.4	0.3	1.5	1.3

(a) Except for the headline CPI, quarterly changes are based on seasonally adjusted data; those not published by the ABS are calculated by the RBA using seasonal factors published by the ABS
(b) Year-ended changes are based on non-seasonally adjusted data, except for the trimmed mean and weighted median
(c) Volatile items are fruit, vegetables and automotive fuel
Sources: ABS; RBA

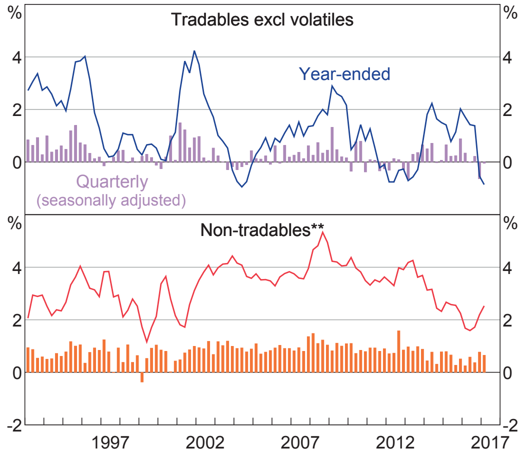
Graph 5.2
Consumer Price Inflation*



* Excludes interest charges prior to the September quarter 1998; adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

Graph 5.3
Tradable and Non-tradable Inflation*



* Adjusted for the tax changes of 1999–2000

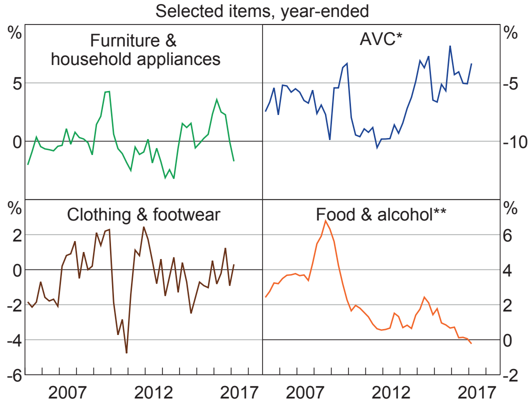
** Excludes interest charges and deposit & loan facilities

Sources: ABS; RBA

Prices of tradable items (excluding volatiles) fell a little in the March quarter to be almost 1 per cent lower over the year (Graph 5.3). The 7 per cent appreciation of the trade-weighted index over the year to the March quarter is likely to have contributed a little to the downward pressure on tradable prices. Inflation in prices for food and clothing & footwear has been low as a result of efforts from both established retail firms and new entrants to gain market share by competing on prices (Graph 5.4). Low growth in labour costs and retail rents has also contributed to weak inflationary pressure. Recent inflation outcomes suggest that some of these competitive forces may be increasing in some retail segments, such as furniture & household appliances. The arrival of further new foreign retailers will be an important influence on final retail prices over the next few years.

Fruit & vegetable prices increased in the March quarter and inflation for these items remains high over the year. There was little impact from Cyclone Debbie in the March quarter CPI because it occurred so late in the quarter. However, the cyclone caused damage to the crops of some specific fruit and vegetables, which will boost their prices in the next couple of quarters.

Graph 5.4
Retail Inflation
Selected items, year-ended



* Includes audio, visual and computing equipment & services

** Excludes fruit and vegetables

Sources: ABS; RBA

Non-tradable inflation was little changed at 0.7 per cent in the quarter and rose to 2.6 per cent over the year. Inflation in this group has been boosted by both higher tobacco and utilities prices over the year.[1] Apart from these components, non-tradable inflation has been

1 Following an ABS review of the international trade exposure of CPI components, the December quarter 2016 CPI release contained a reclassification of a number of expenditure classes between tradables and non-tradables. The most notable was the reclassification of tobacco from tradable to non-tradable.

relatively subdued. Inflation in market services remains low, consistent with low growth in unit labour costs (Graph 5.5). Technology-driven price declines for telecommunication equipment & services also continues to put downward pressure on non-tradable inflation (Graph 5.6). Declines in prices in this component have subtracted an average of 0.2 percentage points from annual non-tradable inflation since the beginning of 2015. Nevertheless, deflation in this component has slowed over the past two quarters.

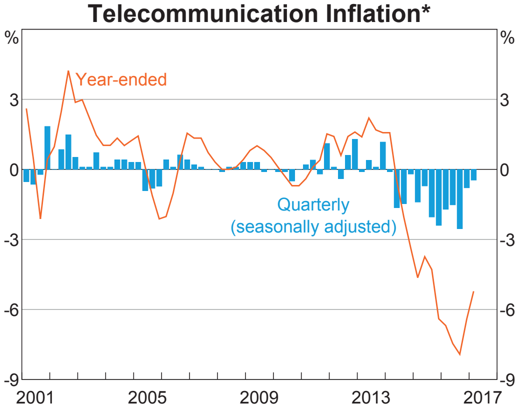
Graph 5.5
Market Services Inflation
Year-ended

* Excludes telecommunications equipment & services; domestic travel, housing services, interest charges and deposit & loan facilities; adjusted for the tax changes of 1999–2000

** Non-farm; moved forward by four quarters

Sources: ABS; RBA

Graph 5.6
Telecommunication Inflation*

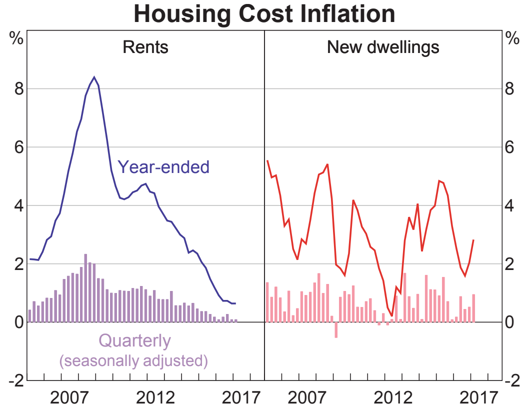


* Includes telecommunication equipment & services

Sources: ABS; RBA

New dwelling cost inflation increased in the March quarter (Graph 5.7). This was a result of higher materials costs; reports of wage pressure in the construction sector are mixed. For the first time, this component now includes the cost of building apartments (as well as detached houses). Inflation in the cost of building apartments has been slightly lower than for detached houses over the past year. Rent inflation remains low, particularly in Perth. The substantial increase in supply of apartments in other cities has contributed to low rental growth, although conditions vary across capital cities, reflecting differences in the amount of new supply, population growth and vacancy rates.

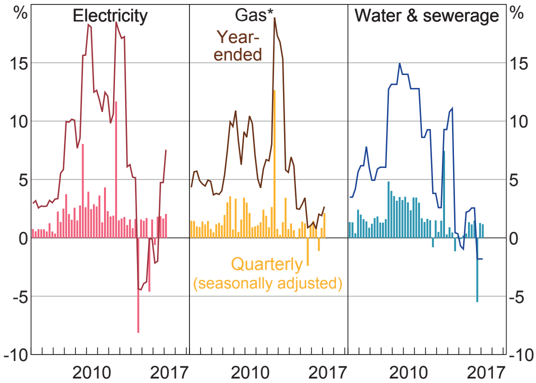
Graph 5.7
Housing Cost Inflation



Sources: ABS; RBA

Inflation in utilities prices picked up in the March quarter, and year-ended inflation for these items reached its fastest pace since 2014 (Graph 5.8). Wholesale gas and electricity prices have increased strongly over the past year, largely reflecting an increase in demand for gas for liquefied natural gas production. Furthermore, the recent closure of coal-powered electricity plants will continue to boost electricity prices in the near term. This has started to flow through to retail prices, and will also increase input costs for businesses. Previous Bank estimates suggest that

Graph 5.8
Utilities Price Inflation

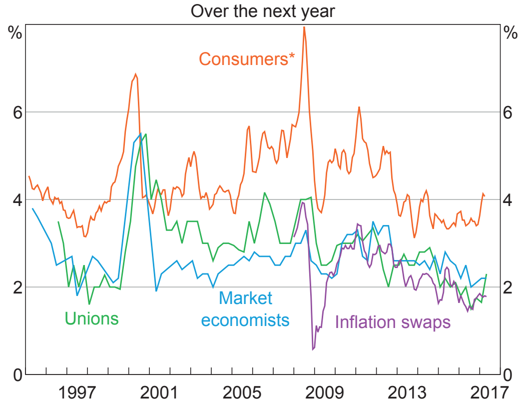


* Includes other household fuels

Sources: ABS; RBA

Graph 5.9
Short-term Inflation Expectations

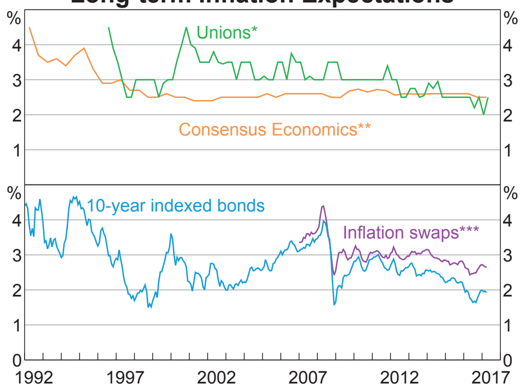
Over the next year



* Smoothed

Sources: Australian Council of Trade Unions; Bloomberg; Melbourne Institute of Applied Economic and Social Research; RBA; Workplace Research Centre

Graph 5.10
Long-term Inflation Expectations



* Average over the next five to ten years

** Average over six to ten years in the future

*** Five-to-ten-year forward

Sources: Australian Council of Trade Unions; Bloomberg; Consensus Economics; RBA; Workplace Research Centre; Yieldbroker

a 10 percentage point increase in utilities price inflation is associated with a 0.3–0.4 percentage point increase in underlying inflation, over and above the direct effects.[2] Excluding utilities, inflation in administered prices slowed in the quarter, partly due to falls in education fees and public transport fares.

Measures of inflation expectations remain low, though most are a bit higher than the lows reached in 2016. Short-term union and consumer expectations have risen in recent months, while other short-term measures have been little changed (Graph 5.9). Long-term survey-based measures of inflation expectations are around 2.5 per cent (Graph 5.10). After increasing over the second half of 2016, financial market measures of inflation expectations have stabilised; both the bond and swap measures remain at higher levels than a year ago. ✠

2 See Plumb M and K Davis (2010), 'Developments in Utilities Prices', RBA *Bulletin*, December, pp 9–17.

6. Economic Outlook

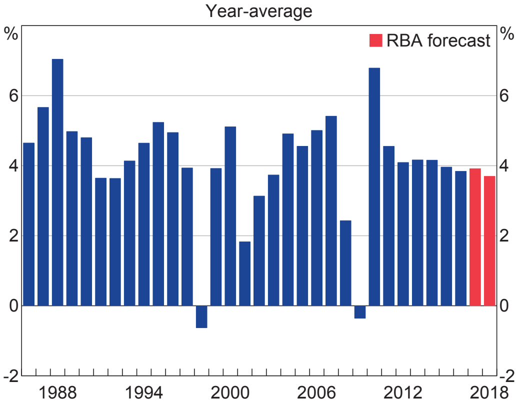
The International Economy

The outlook for growth in Australia's major trading partners is little changed since the previous *Statement*, following upward revisions to the forecast in late 2016 and early 2017. The improvement in global economic conditions last year has been maintained in early 2017, and major trading partner growth is forecast to be around its long-run average this year before easing slightly in 2018 (Graph 6.1). Global growth – which includes economies that do not have a significant trade relationship with Australia – is expected to pick up over the next couple of years to around its long-run average (Graph 6.2). Since late 2016, most forecasters have revised up their forecasts for global growth.

In China, growth in 2017 is forecast to be only a bit lower than last year as the authorities continue to support economic activity to achieve their annual GDP growth target. Growth in China is then expected to continue to ease gradually because of longer-run factors, including the decline in the working-age population and lower productivity growth. The east Asian economies (other than China and Japan) are expected to grow at around potential over the forecast period, supported by accommodative monetary and fiscal policies and the improvement in the global economy since last year. GDP growth in the major advanced economies is likely to be above potential over the next couple of years, partly because monetary policies are expected to remain accommodative and US fiscal policy is expected to be expansionary. Potential growth rates in these economies are lower than their long-term average growth rates owing to lower growth in the working-age population, the capital stock and productivity.

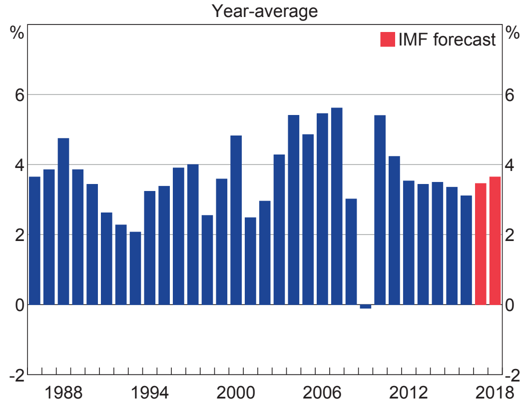
Considerable uncertainty remains about the economic policies of the US administration,

Graph 6.1
Australia's Trading Partner Growth*
Year-average



* Aggregated using total export shares
Sources: ABS; CEIC Data; RBA; Thomson Reuters

Graph 6.2
World GDP Growth*
Year-average



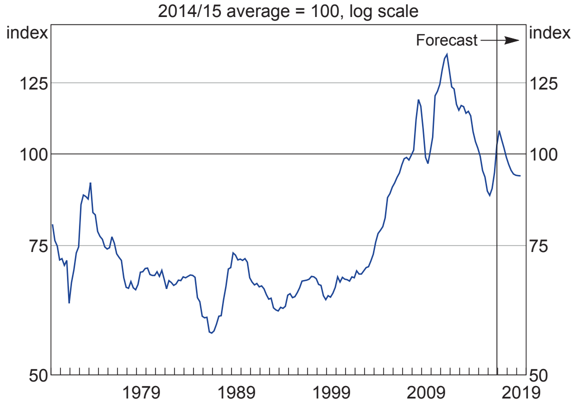
* PPP-weighted; forecasts from April 2017
Source: IMF

which recently announced a proposal for tax reform involving substantial cuts in personal and corporate taxes. The proposal faces significant hurdles in passing through Congress, and so the magnitude and timing of any policy changes is uncertain. Changes in fiscal policy are expected to increase growth in the United States at a time when there is limited spare capacity in the US labour market, thereby increasing inflationary pressures. This could have spillovers to higher growth and inflation in other economies, depending on how exchange rates respond. However, there is a risk that more restrictive and protectionist trade and immigration policies in the United States could harm global growth prospects.

The increase in the prices of oil and other commodities in 2016 contributed to a pick-up in global headline inflation; these effects will diminish unless commodity prices rise further. Measures of wage growth in some economies have picked up, following a period of subdued growth. In the major advanced economies, wage pressures are expected to continue to increase as spare capacity in labour and product markets declines further; in the United States and Japan, growth in unit labour costs is already above average. A number of major advanced economies look to be around full employment, although this is a source of uncertainty. If there is less spare capacity than assumed, inflation could rise more quickly than currently forecast, which could lead to tighter monetary policy in some advanced economies and a depreciation of the Australian dollar.

Australia's terms of trade are estimated to have increased further in the March quarter, but are still expected to decline over the forecast period because of falls in commodity prices (Graph 6.3). The near-term forecast for the terms of trade has been revised slightly higher since the previous

Graph 6.3
Terms of Trade
2014/15 average = 100, log scale



Sources: ABS; RBA

Statement, largely because of the sharp increases in coking coal prices after Cyclone Debbie damaged key railway networks and shut down coal shipping ports in the Bowen Basin region in late March. The rail lines reopened at reduced capacity in late April. Thermal coal prices are also a little higher because of the effects of Cyclone Debbie and changes in Chinese government policies to further reduce overcapacity in the Chinese coal industry. The recent decline in the spot price of iron ore has been broadly in line with expectations. Further out, the forecast for the terms of trade is little changed from the previous *Statement*; the terms of trade are expected to decline, but to remain above the trough in early 2016.

Domestic Activity

The domestic forecasts are conditioned on a number of technical assumptions. The cash rate is assumed to move broadly in line with market pricing. This assumption does not represent a commitment by the Reserve Bank Board to any particular path for policy. The exchange rate is assumed to remain at its current level over the forecast period (trade-weighted index (TWI) at 64 and A$ = US$0.74), which is slightly lower than the assumption underlying the forecasts in the February *Statement*. The forecasts are also based on the price of Brent crude oil being US$51 per barrel over the forecast period, which is 9 per cent lower than the assumption used in February and in line with futures pricing in the near term. The population aged over 15 years is still assumed to grow by 1.6 per cent over both 2017/18 and 2018/19. This assumption draws on projections from the Department of Immigration and Border Protection.

Economic activity rebounded in the December quarter by more than had been expected, confirming that the weak outcome in the September quarter largely reflected temporary factors. The strength in the December quarter, which included a surprise increase in mining investment, is not expected to be sustained in the near term. Overall, GDP growth over 2016 was slightly below central estimates of potential output growth, consistent with subdued labour market outcomes and low inflation.

The forecasts for domestic output growth are little changed from those presented in the February *Statement*. Year-ended GDP growth is expected to pick up as the drag from mining investment comes to an end and the ramp-up in resource exports continues. GDP is forecast to increase by 2½–3½ per cent over 2017, with growth expected to remain a bit above potential throughout the rest of the forecast period (Table 6.1).

Mining activity increased strongly in the December quarter, following the weak September outcome which was affected by a number of temporary supply disruptions. In the near term, the forecast for coal exports has been revised lower because of the damage to rail infrastructure caused by Cyclone Debbie. The ramp-up in liquefied natural gas (LNG) production has been underway for the past year or so and LNG exports are expected to continue to grow strongly over the next few years, contributing around ½ percentage point to GDP growth in each of 2017 and 2018. Iron ore export volumes are likely to be supported by increased production from Australia's low-cost producers.

The increase in commodity prices since late 2015 has boosted the profitability of firms in the mining sector. However, this has not led to a material increase in investment in production capacity, partly because prices are expected to decline over the forecast period. Mining investment is still expected to fall further over the forecast period, as large resource-related

Table 6.1: Output Growth and Inflation Forecasts[(a)]
Per cent

	Year-ended					
	Dec 2016	Jun 2017	Dec 2017	Jun 2018	Dec 2018	Jun 2019
GDP growth	2.4	1½–2½	2½–3½	2¾–3¾	2¾–3¾	2¾–3¾
Unemployment rate[(b)]	5.7	5¾	5–6	5–6	5–6	5–6
CPI inflation	1.5	2	1½–2½	1½–2½	1½–2½	2–3
Underlying inflation	1½	1¾	1½–2½	1½–2½	1½–2½	2–3
	Year-average					
	2016	2016/17	2017	2017/18	2018	2018/19
GDP growth	2.5	1½–2½	2–3	2½–3½	2¾–3¾	2¾–3¾

(a) Technical assumptions include A$ at US$0.74, TWI at 64 and Brent crude oil price at US$51 per barrel; shaded regions are historical data
(b) Rate at end of period
Sources: ABS; RBA

projects are completed and few new projects are expected to commence. However, the drag on overall domestic activity from falling investment in the resources sector is expected to be limited, as most of the remaining decline is related to LNG projects, which are import intensive and use relatively little labour.

Growth in household spending in the December quarter picked up by more than had been expected. Indicators such as retail sales and consumer sentiment point to a moderation in household consumption growth in early 2017. For the remainder of the forecast period, household consumption is forecast to grow at a bit above its average since the financial crisis, as had been expected at the time of the February *Statement*. Household income is expected to grow at a similar rate to consumption, implying little change in the household saving ratio.

Dwelling investment is expected to continue to contribute to GDP growth over the next year or so, particularly given the large volume of new apartment construction in the pipeline, although the contribution to growth is likely to diminish over time. In the March quarter, growth in dwelling investment may have been affected by rain-related disruptions to construction in Sydney.

Non-mining business investment has risen modestly since mid 2015, supported by low interest rates and the earlier depreciation of the exchange rate. However, non-mining business investment as a share of GDP remains low relative to its history. The outlook over the next year or so is subdued, consistent with the Australian Bureau of Statistics (ABS) capital expenditure survey of firms' investment intentions and the downward trend in non-residential building work yet to be done. Growth in non-mining business investment is expected to pick up later in the forecast period as the spillover effects from falling mining investment dissipate and aggregate demand growth increases.

Employment growth has picked up a little since late last year, as had been expected, following below-average growth over much of 2016. Leading indicators of labour demand, such as job advertisements and vacancies, point to moderate employment growth over the next six months. Further out, employment growth is expected to be fairly steady at around its long-run average. Even though overall GDP growth is forecast to be above potential, the boost to GDP from higher LNG production is not expected to generate significant employment growth. This is because LNG production is very capital intensive and requires relatively few employees, a sizeable portion of LNG profits will flow to foreign investors and tax revenue will be constrained by deductions (such as depreciation).

Labour force participation has been a little stronger recently than expected and the unemployment rate is currently a little higher than was forecast at the time of the February *Statement*. From this higher starting point, the unemployment rate is expected to edge slightly lower over the forecast period. This suggests that spare capacity in the labour market will remain over the next few years. The participation rate is assumed to remain at around current levels over the forecast period.

Wage growth is expected to remain at around its current rate over the next year, which is consistent with information from the Bank's liaison program and a survey of union wage expectations. Wage growth is then expected to pick up gradually over 2018 and 2019, although at a slightly slower pace than had been forecast in February. The level of *real* wages is forecast to increase, having been fairly flat over the past couple of years. Spare capacity in the labour market is expected to continue to weigh on wage growth over the next few years. However, some of the other factors that have been putting downward pressure on wage growth over recent years are expected to dissipate gradually. For example, the declines in wage growth in mining-exposed states and industries are likely to be less pronounced over the next few years as the drag on economic activity from falling mining investment and the earlier decline in the terms of trade fades. Higher headline inflation should also contribute to wage pressures.

Inflation

The March quarter inflation outcome was consistent with expectations at the time of the February *Statement*. Measures of underlying inflation are expected to pick up a little further to be around 2 per cent in early 2018. Headline inflation was just above 2 per cent over the year to the March quarter; it was higher than underlying inflation because of increases in tobacco and fuel prices. Headline inflation is expected to be between 2 and 3 per cent throughout the forecast period, partly because of further tobacco excise increases and utilities price inflation. These forecasts are little changed from the previous *Statement*.

Wage growth is expected to pick up gradually over the forecast period and labour productivity growth is expected to remain around its current rate. This implies that there will be a modest pick-up in unit labour costs over the forecast period, which will tend to push up inflation, particularly for non-tradable goods and services. Prices of tradable items (excluding volatiles) have been flat or falling for most of the past five years, despite the boost from the depreciation of the exchange rate during that period. This is because heightened retail competition and low wage growth have had a disinflationary effect on prices in supermarkets and for clothing & footwear. There is some evidence that these competitive forces may have started to spread to other retail items, such as furniture. Furthermore, the entry of new foreign retailers into the Australian market over the next few years could constrain retail price inflation.

There are a number of other forces affecting inflation. Large additions to housing supply, both over recent years and over the next year or so, are expected to increase vacancy rates and keep rent inflation low over the next few years; rents have a weight of around 7 per cent in the CPI. On the other hand, new dwelling cost inflation is not expected to ease significantly and the legislated tobacco excise increases are expected to add a bit more than ¼ percentage point to headline inflation in each of the next couple of years. Following a sizeable increase in electricity and gas prices in the March quarter, utilities inflation is expected to continue to pick up in the period ahead, which will have both direct and indirect effects on inflation.

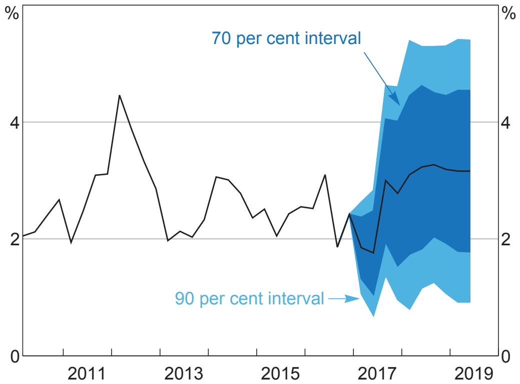
Key Uncertainties

The forecasts are based on a range of assumptions about the evolution of some variables, such as the exchange rate and the cash rate, and judgements about how developments in one part of the economy will affect others. One way of demonstrating the uncertainty surrounding the central forecasts is to present confidence intervals based on historical forecast errors (Graph 6.4; Graph 6.5; Graph 6.6). It is also worth considering the implications of different assumptions and judgements for the forecasts and the possibility of events occurring that are not part of the central forecast.

Momentum in the global economy

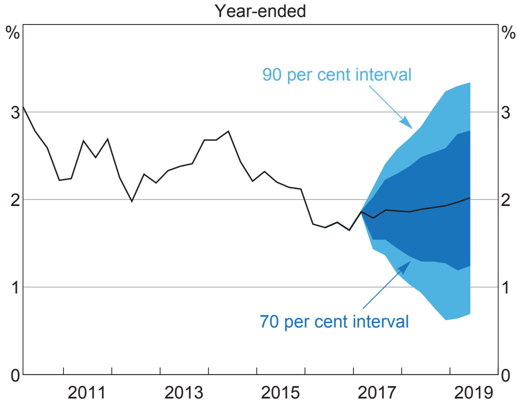
The improvement in global growth since late 2016 has been quite broad based geographically. However, it remains possible that the upswing could be derailed by geopolitical events.

Graph 6.4
GDP Growth Forecast*
Year-ended



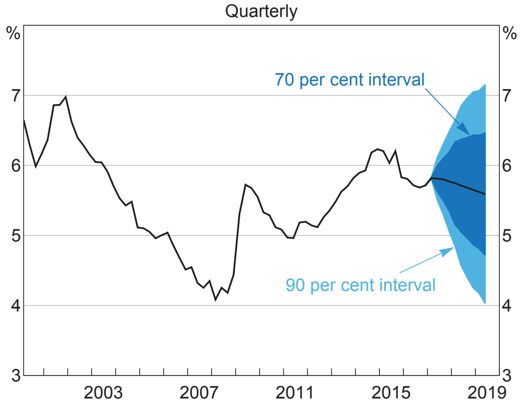
* Confidence intervals reflect RBA forecast errors since 1993
Sources: ABS; RBA

Graph 6.5
Trimmed Mean Inflation Forecast*
Year-ended



* Confidence intervals reflect RBA forecast errors since 1993
Sources: ABS; RBA

Graph 6.6
Unemployment Rate Forecast*
Quarterly



* Confidence intervals reflect RBA forecast errors since 1993
Sources: ABS; RBA

Increased trade protectionism would also lower global growth prospects. There is still considerable uncertainty about trade policy in the United States and how authorities in other economies might respond to any changes to existing arrangements. On the other hand, there is some chance that the upswing could turn into a self-sustaining expansion that is stronger than expected. The pick-up in global economic conditions since last year was more pronounced than had been anticipated, and follows a sustained period of subdued growth in global trade and investment.

The Chinese economy and commodity prices

The outlook for the Chinese economy remains an important source of uncertainty for commodity prices and Australia's exports. Conditions in the Chinese housing market have been stronger than expected, despite the sharp slowing in housing price growth in cities where tightening measures have been introduced. Continued efforts to lower price growth and reduce speculative activity in the housing market could dampen residential investment. If conditions in the Chinese housing market ease by more than expected, growth in demand for steel, and therefore iron ore and coking coal, could be lower than expected.

There is also uncertainty about how the authorities will respond to the continued rise in leverage in the Chinese economy, including in the large and somewhat opaque 'shadow banking' sector. The authorities face a difficult trade-off between supporting GDP growth to meet their short-term economic targets and preventing a further build-up of financial risks. While Chinese financial conditions overall have remained accommodative this year, conditions in money markets and the corporate bond market have tightened somewhat. Moreover, the lower target for growth in total social financing in 2017 could indicate an intention by the authorities to tighten monetary conditions modestly this year, and the authorities have also signalled that they will take a stricter regulatory approach to managing financial risks, both of which could weigh on GDP growth.

Spare capacity in the labour market

Spare capacity in the labour market over recent years has put downward pressure on wage growth and inflation. While the central forecast is for the unemployment rate to edge slightly lower over the forecast period, there is uncertainty about how much spare capacity there will be over the next few years. For example, the recent pick-up in national income from the higher terms of trade could flow through to stronger growth in economic activity and employment than assumed. The composition of GDP growth might also be associated with more employment growth than forecast. In both cases, it is likely that the unemployment rate would fall by more than expected currently.

The amount of spare capacity in the labour market can also be affected by firms adjusting the hours worked by their existing employees (rather than changing the number of employees). In 2016, firms reduced the average hours worked by their employees, which may have prevented an increase in the unemployment rate. Growth in part-time employment was relatively strong over 2016, and around one-quarter of all part-time workers indicate that they want to work additional hours. As a result, the *underemployment* rate has edged higher. It is likely that these underemployed workers have put some downward pressure on wage growth, given that they would like to work more hours, although it is uncertain how much influence they have on wage outcomes compared with the unemployed. It is possible that growth in firms' demand for labour could be met by increasing the hours of these part-time workers, which would reduce underemployment without necessarily reducing the unemployment rate.

Consumption and housing

Household consumption is influenced by households' expectations about growth in their incomes and wealth, as well as any constraints that they might face in accessing finances. On the one hand, if the terms of trade fall later or by less than anticipated, this could lead to stronger growth in household income and wealth than currently expected (via dividends and superannuation, and possibly wages in some industries). This, in turn, could generate more spending than currently envisaged. The pick-up in global economic conditions since last year might also improve households' expectations about future income growth. On the other hand, elevated levels of household debt mean that households are likely to be more sensitive to any deterioration in expected income growth. For example, if indebted households believe that their prospects for income growth have weakened, they could choose to pay down debt faster and consumption growth could be lower than forecast.

Housing prices have grown briskly in Sydney and Melbourne over the past year. In the short term, this could see more household spending and renovation activity than is currently anticipated, but a continuation of these trends would raise medium-term risks. The recent tightening in prudential standards and higher interest rates on some mortgage products are likely to weigh on credit growth, particularly for investors. Investor activity is currently strong in Sydney and Melbourne, but history shows that sentiment can turn quickly, especially if prices start to fall. A substantially weaker housing market could have broader implications, including slower growth in consumption and dwelling investment than expected. Consumer price inflation could also be lower than forecast because of weaker growth in economic activity and lower housing cost inflation.

Inflation

As has been the case for some time, there is considerable uncertainty around the timing and extent to which domestic cost pressures will rise over the next few years. As wages are the largest component of business costs, the outlook for wage growth is particularly important for the inflation outlook. The recovery in wage growth could be stronger than anticipated if conditions in the labour market tighten by more than assumed, or if employees demand wage increases to compensate for the sustained period of low real wage growth. However, it could be the case that some of the factors currently weighing on wage growth, such as underemployment in the labour market or structural forces such as technological change, are more persistent or pervasive than assumed. The path of inflation will also depend on whether the heightened competitive pressures in the retail sector continue to constrain inflation. On the other hand, the earlier increases in global commodity prices and increases in domestic utilities prices could flow through to domestic inflation (through higher business costs) by more than assumed.

Another factor affecting the outlook for CPI inflation is that the weight assigned to each expenditure class in the CPI will be updated in the December quarter 2017 CPI release. Measured CPI inflation is known to be upwardly biased because the weight assigned to each expenditure class is fixed for a number of years. This means that the CPI does not take into account changes in consumer behaviour in response to relative price changes (known as 'substitution bias'). As a result, the forthcoming re-weighting is expected to reduce measured inflation, although it is hard to predict by how much because the effects of past re-weightings have varied significantly and are not necessarily a good guide to future episodes. The ABS plans to re-weight the CPI annually in future, which will reduce substitution bias on an ongoing basis.

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