Statement on Monetary Policy

NOVEMBER 2018

RESERVE BANK OF AUSTRALIA

Statement on Monetary Policy

NOVEMBER 2018

Contents

The material in this *Statement on Monetary Policy* was finalised on 8 November 2018. The next *Statement* is due for release on 8 February 2019.

The *Statement* is published quarterly in February, May, August and November each year. All the *Statements* are available at www.rba.gov.au when released. Expected release dates are advised ahead of time on the website. For copyright and disclaimer notices relating to data in the *Statement*, see the Bank's website.

The graphs in this publication were generated using Mathematica.

Statement on Monetary Policy enquiries

Secretary's Department
Tel: +61 2 9551 8111
Fax: +61 2 9551 8033
Email: rbainfo@rba.gov.au

ISSN 1448–5133 (Print)
ISSN 1448–5141 (Online)

Overview

The Australian economy is performing well, and a little stronger than earlier expected. GDP growth is running above 3 per cent. The unemployment rate has declined noticeably, reaching 5 per cent in the month of September. As flagged three months ago, inflation declined in the September quarter, largely because childcare prices fell and utilities price inflation moderated. More generally, inflation remains low and stable. Stronger growth and labour market conditions can be expected to generate a gradual lift in wages growth and inflation over time. The Bank's forecasts for growth and inflation have been upgraded slightly in light of recent data. GDP growth is now expected to be around 3½ per cent on average over 2018 and 2019, but to ease in the latter part of the forecast period as production of some resource commodities stabilises at high levels. Headline and underlying inflation are both expected to rise to be a little above 2¼ per cent by the end of 2020.

The global economic outlook remains positive. Although growth has slowed in some economies, it remains above trend in the major advanced economies. Spare capacity in these economies is likely to diminish further, putting upward pressure on global inflation. Rising trade tensions are expected to weigh a little on growth in the United States and a few economies in east Asia, but the US fiscal stimulus and still-accommodative monetary policy remain supportive of continued economic expansion. Growth in Australia's major trading partners is expected to slow slightly over the next couple of years.

Further US–China tariff measures came into effect in the past few months, and trade restrictions appear to be weighing on export orders for some economies. The possibility of trade protectionism escalating further presents a significant downside risk to global growth, especially if tensions spread to involve other economies or if business investment decisions are affected.

Growth in China has slowed a little over the past year. Conditions in the industrial sector, in particular, have weakened. Some of the slowing is related to measures taken by the Chinese authorities to contain financial risk and improve the transparency of local government finances. The authorities have, for some time, been balancing these objectives with the need to support growth. As such, they have eased policies in a targeted way to ensure that growth does not slow too much and to offset the effects of rising tariffs.

Elsewhere in Asia, growth has remained relatively strong in 2018 to date. Many economies in this region could be affected by rising trade tensions between the United States and China, because of their position in global supply chains. Export orders had slowed earlier in the year but have been broadly stable in recent months. Meanwhile, domestic demand has supported growth, especially in India, where growth has strengthened recently.

Growth in the major advanced economies remains above the growth in productive capacity. Spare capacity is therefore diminishing and unemployment rates have continued to decline to multi-decade lows in a number of economies. As labour market conditions have tightened, wages growth has increased. This has been contributing to increased inflationary pressures in the United States and some smaller advanced economies, but is yet to do so in the euro area or Japan. These capacity pressures could lead to a faster pick-up in global inflation, a scenario that is not currently being priced in by financial market participants.

Financial conditions in the major advanced economies have tightened somewhat recently but remain accommodative overall. Sovereign bond yields have edged up a bit from low levels. Equity prices declined across most major markets in recent weeks, though corporate earnings remained strong. Credit and money market spreads generally remain narrow, despite widening a little in October. Central banks are at different stages of their monetary policy cycles. A number of central banks in advanced economies are expected to continue to raise policy rates, most notably the US Federal Reserve. In contrast, the European Central Bank and the Bank of Japan are expected to retain their highly expansionary policy stances for some time.

Financial conditions have stabilised recently for several emerging market economies that have been experiencing difficult external financing conditions this year, including Argentina and Turkey. Nevertheless, for some emerging markets, the external financing environment is likely to remain challenging for some time.

Money market rates in Australia remain a little higher than the average in 2017. The overall effect of higher money market rates on banks' funding costs and profits has been fairly small. Rates on banks' retail deposits have not risen and banks have increased interest rates on a large share of their lending, including for mortgages. Despite these increases, lending rates are relatively low and competition by lenders for high-quality mortgage borrowers remains vigorous. In particular, the rates on offer for new home loans are typically lower than the average for outstanding loans.

On a trade-weighted basis, the Australian dollar remains in the fairly narrow range it has been in for some time. Although rising commodity prices would normally be associated with a tendency for the Australian dollar to appreciate, an offsetting development has been the decline in the yield differential between bonds in Australia and those in major markets.

Australia's terms of trade continue to exceed earlier expectations, because prices of energy and other bulk commodities have been stronger than projected over the past year. Global energy demand has supported oil, liquefied natural gas (LNG) and thermal coal prices, while ongoing strong demand for steel in China and, increasingly, India, has supported the prices of iron ore and coking coal; supply disruptions have also boosted coking coal prices in recent quarters. Beyond the next few quarters, Australia's terms of trade are still expected to decline gradually, as commodity prices moderate and global prices of imported goods pick up along with global inflation. However, this adjustment is now expected to take a bit longer than previously thought.

Domestically, growth was broad based in the June quarter. Recent indicators suggest that further solid growth is likely to have occurred in the September quarter. If so, that would continue the above-trend growth that has prevailed for the past several quarters.

Growth in household consumption has been resilient, despite ongoing slow growth in household income. Year-ended consumption growth is expected to remain around current rates over the period ahead. The outlook for household income remains a key uncertainty around this forecast, especially in the context of high household debt and a slowing housing market.

Dwelling investment has remained high and the large pipeline of work yet to be done suggests that construction should remain at a high level for the next year or so. Leading indicators of housing demand have slowed, however, implying that dwelling investment could fall more sharply beyond that. Finance has become harder to obtain for some developers. Substantial additions to the dwelling stock in the east coast capital cities is placing downward pressure on rents and prices, and rental price inflation remains soft nationwide.

Demand has clearly slowed in the established housing markets of Sydney and Melbourne, with housing prices continuing to decline steadily. Housing prices have also declined further in Perth and Darwin in recent months. Conditions have been stable, though still fairly subdued, in the other major cities. Growth in housing credit has eased over recent months, with lending to investors flat, although credit growth for owner-occupiers remains robust.

Public spending has been supporting GDP growth for some time. State and federal budgets indicate that public infrastructure investment should remain at a high level over coming years. This should, in turn, continue to have positive spillover effects on private sector investment activity and spending.

Business conditions remain positive and investment in non-mining sectors has been growing strongly in recent years. Non-residential construction has been supported by high levels of underlying demand for office space and other properties. Private sector spending on infrastructure has also been increasing of late. Non-mining investment should continue to be underpinned by the ongoing economic expansion and supportive financial conditions.

Mining investment is likely to reach its trough late this year or early next year, as the construction of remaining LNG projects is completed. Beyond that point, mining investment is expected to grow as firms continue to invest to sustain production. The scale of this increase will nonetheless remain far below that seen during the mining investment boom of prior years.

Export growth remains solid, supported by strong global demand conditions and the ongoing ramp-up of LNG production and exports. Although drought conditions have continued in some parts of the country, this has yet to reduce rural exports materially, partly because producers are increasing meat production. The near-term outlook for rural production has clearly weakened, however.

Conditions in the labour market have been stronger than earlier expected. Employment growth was strong in the September quarter, and the unemployment rate declined. Some spare capacity is likely to remain in the labour market at these unemployment rates, but less than prevailed a year ago. Leading indicators of labour demand suggest that this positive momentum could be sustained in the near term. Further out, employment is forecast to continue to increase faster than growth in the working-age population, consistent with above-trend growth in GDP. The unemployment rate is expected to decline gradually, reaching 4¾ per cent by the end of 2020.

As the labour market tightens, wages growth is likely to drift upwards. Some measures of wages growth picked up a touch in the June quarter, and a further boost could occur in the September quarter as the effects of the Fair Work Commission's minimum wage decision flow through. That said, wages growth has been slower to pick up than its historical relationship with indicators of spare capacity in the labour market would imply. The Bank's forecasts assume that this departure from past experience will persist for a while yet.

Inflation in the September quarter declined, as expected. CPI inflation was 1.9 per cent over the year, while underlying inflation was 1¾ per cent. Slow wages growth and a lack of domestic retail pricing pressures have continued to limit the overall inflation impulse in the economy. In addition, the quarterly outcome was affected by the changes to the funding of child care, as had previously been flagged. Utilities price inflation also slowed in the quarter, reversing some of the price increases that had occurred a year earlier. Housing-related price inflation was also weak, with a small increase in home building costs compounding the ongoing slow growth in rents.

Further out, inflation is still expected to increase gradually. The forecasts for inflation have been revised slightly higher, consistent with the recent stronger outcomes and upgraded forecasts for GDP growth and the labour market. Against this, there is some chance that the recent unusually slow growth in administered prices could persist if governments introduce further initiatives to reduce cost-of-living pressures.

The Reserve Bank Board has maintained the cash rate at 1½ per cent since August 2016. This stimulatory setting of monetary policy has supported the economy and resulted in progress towards full employment. Inflation has also increased over the past couple of years, although it is currently slightly below the target range. The steady setting of monetary policy has supported stability and confidence in the Australian economy.

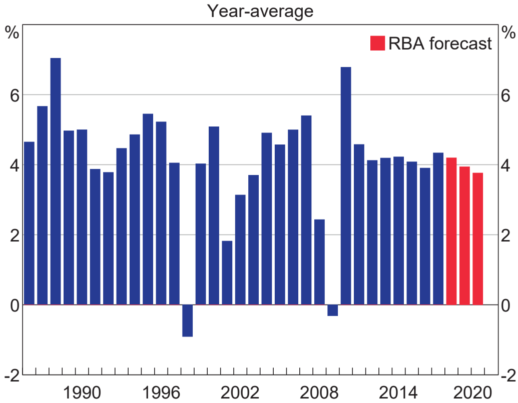
At its recent meetings, the Board has paid close attention to trends in wages growth and household spending. A gradual pick-up in wages growth is expected as the economy continues to improve and is likely to be necessary for inflation to be sustainably within the target range. There remains considerable uncertainty about how soon and how quickly this might occur. Household spending has been growing steadily for some time and is expected to continue to do so. The Board is continuing to assess the impact of slow growth in household incomes in an environment of high debt and declines in housing prices.

The Board is expecting further progress in reducing unemployment and ensuring inflation is consistent with the target. If that progress is made, higher interest rates are likely to be appropriate at some point. However, given the expected gradual nature of that progress, the Board does not see a strong case to adjust the cash rate in the near term.

1. The International Environment

Global economic conditions remain robust. Major trading partner growth has continued at a bit above the average of recent years. While growth has eased in some economies, in the United States the recent fiscal stimulus has contributed to a further strengthening in growth. The outlook for major trading partner growth is for a gradual easing over the next two years (Graph 1.1). Trade tensions have escalated over recent months and represent a downside risk to the global outlook.

Graph 1.1
Australia's Trading Partner Growth*
Year-average



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

Labour markets have continued to tighten, particularly in the major advanced economies, and this has helped push wages growth up. Core inflation has increased and is close to inflation targets in some economies, including the United States, but remains low and little changed in other advanced economies. There has been a broad-based pick-up in headline inflation this year because oil prices have moved higher.

The major central banks are at different stages of their monetary policy cycles, reflecting differences in the amount of spare capacity in these economies and/or the outlook for inflation. Policy stimulus has continued to be withdrawn gradually in a few economies, particularly in the United States. For other advanced economy central banks, policy is expected to remain very accommodative and little changed for some time.

More broadly, financial conditions in advanced economies remain supportive of economic growth. Sovereign bond yields and the cost of corporate debt financing remain low and short-term money market spreads are generally narrow. However, recently conditions tightened somewhat as equity prices declined sharply and credit spreads widened slightly. A number of risks could prompt a significant further tightening of conditions. Moreover, while financial conditions have stabilised of late in the few emerging market economies with external financing vulnerabilities and/or relatively weak institutional frameworks, challenges remain.

Growth in China has moderated over the past year, partly because policymakers have sought to mitigate risks to financial stability by tightening the supply of riskier forms of finance and improving the transparency of local government finances. More recently, the authorities have taken steps to ease fiscal and monetary policy in a targeted fashion to support growth without undermining broader efforts to address risks in the financial sector. Growth elsewhere in Asia has been relatively resilient, particularly given the more difficult external financing environment faced by a few other emerging markets of late.

Trade tensions have escalated

Trade tensions have increased since the previous *Statement on Monetary Policy*. As a result of measures imposed over recent months, nearly half of US imports from China and around three quarters of Chinese imports from the United States have become subject to higher tariffs. The effective US tariff rate on imports from China has increased from around 3 per cent to around 8 per cent, and the effective Chinese tariff rate on imports from the United States has increased from around 6 per cent to around 14 per cent.

The trade tensions appear to be having some effect on the global economy. Survey indicators of new export orders have weakened sharply this year in a number of economies, although the downward trend started ahead of the tariffs being introduced. Business surveys suggest that US manufacturers are concerned about rising input prices and the impact of this on their competitiveness. The uncertainty generated by the trade disputes could already be affecting investment decisions in some economies. A number of US companies noted in recent earnings reports that trade tensions pose a risk to their future earnings, although earnings growth has been strong in recent quarters.

The Chinese authorities have announced a number of initiatives to support their trade-exposed firms to counter the effect of the higher US tariffs. Export tax rebates have been increased, banks have been encouraged to provide liquidity support to both importing and exporting firms, and import tariffs on goods from other economies have been reduced.

Still, the outlook for trading partner growth remains positive

Overall, the outlook for growth in Australia's major trading partners is little changed from the August *Statement on Monetary Policy*. A modest easing in growth is expected over the next two years, in part because monetary policy accommodation is expected to be gradually removed in some economies as spare capacity is absorbed.

Growth is expected to remain above potential in most of Australia's trading partners. Growth in the United States is expected to be well above potential, partly because of the substantial fiscal stimulus. Nevertheless, the recent escalation in trade tensions has resulted in some small downward revisions to the growth outlook for the United States and some of the more trade-exposed east Asian economies in 2019.

The GDP growth forecasts for the euro area and Japan have also been revised a little lower to reflect recent data. Growth in the euro area is expected to remain a little above potential over the next two years. Growth in Japan is expected to remain above potential next year and to ease to well below potential in 2020 as fiscal policy is tightened through the increase in the consumption tax rate in late 2019.

The outlook for Chinese activity is marginally weaker following the recent downward revisions to the official GDP figures. While the trade conflict with the United States is expected to weigh on Chinese exports, this negative impulse is expected to be largely offset by policy efforts to support growth in other sectors of the economy.

On the other hand, growth in India and New Zealand is expected to be higher than previously forecast in 2018, reflecting stronger-than-expected GDP growth in the first half of the year. Growth in New Zealand is expected to be above potential over the next two years.

The effects of a further escalation in trade tensions are an important source of uncertainty for the global outlook (see 'Economic Outlook' chapter for a more detailed discussion). The US

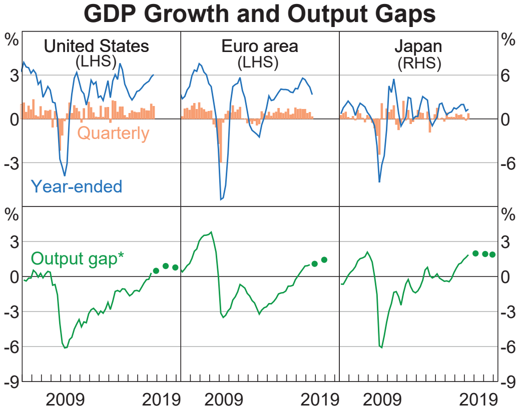
Administration is planning a further tariff rate increase early next year if no progress is made on its trade negotiations with China. On a more positive note, the United States has made some progress towards resolving some of its other trade grievances, including a renegotiated US-Mexico-Canada trade agreement and agreement to have trade discussions with Japan and the European Union.

Growth in the major advanced economies remains above potential …

GDP growth in the major advanced economies has been above potential for some time (Graph 1.2). Output gaps appear to have closed and survey measures of capacity utilisation and supplier delivery times remain elevated, suggesting that inflationary pressures are likely to be building.

In the United States, private consumption growth has picked up, supported by lower personal income taxes and strong labour market conditions (Graph 1.3). The outlook for consumption growth is strong because both wages growth and household wealth have been

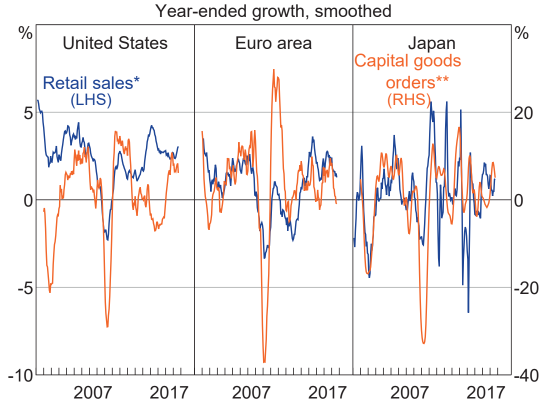
Graph 1.2
Major Advanced Economies – GDP Growth and Output Gaps



* Actual GDP relative to estimated potential GDP from national sources; output gap projections based on central bank forecasts and potential GDP growth estimates; euro area projections are annual averages of quarterly estimates

Sources: Bank of Japan; ECB; FOMC; RBA; Refinitiv

Graph 1.3
Major Advanced Economies – Consumption and Investment Indicators
Year-ended growth, smoothed



* PCE for the United States

** Core capital goods orders for the United States, core machinery orders for Japan and capital goods orders for Germany

Sources: Bundesbank; RBA; Refinitiv

increasing. Business investment growth picked up in the first half of the year, supported by the reduction in corporate tax rates, but slowed sharply in the September quarter. Elevated investment intentions and increasing capacity constraints suggest that strong investment growth is likely to resume. US exports to China declined considerably in the September quarter, suggesting that the increase in US-China trade tensions could be having some effect, although growth in imports from China has held up so far. The increased trade tensions are expected to weigh on consumption and business investment over the medium term because they will increase import prices, reduce US competitiveness, and could also result in US monetary policy tightening more quickly than otherwise.

Japanese GDP growth remains above trend, although it is likely to have moderated temporarily in the September quarter due to disruptions from natural disasters. Over the past year, activity has shifted towards domestic demand. Business investment has picked up strongly, partly to address severe labour shortages. Surveys suggest that investment growth will remain high over the next few quarters. Japanese growth will also get a near-term boost from consumption being brought forward ahead of a scheduled consumption tax increase in late 2019. However, export growth has slowed and the decline in export orders suggests that export growth is likely to remain subdued in the near term.

Growth in the euro area has eased in 2018. The slowing in year-ended growth has been broadly based across countries and most expenditure components. External demand, particularly from China, has weakened. Forward-looking indicators, such as new export orders, suggest that export growth is unlikely to pick up again in the short term. Business survey indicators and consumer sentiment have also drifted lower. Nevertheless, year-ended growth has remained above potential, and broader conditions – including strong labour markets and increased capacity utilisation – are still supporting growth.

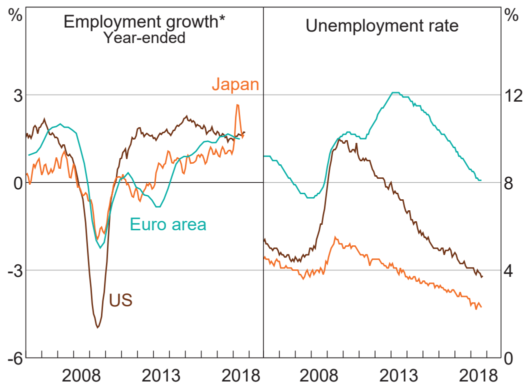
… so labour markets are tightening and wages growth is increasing

Labour market conditions in the major advanced economies have tightened further (Graph 1.4). Employment growth has remained higher than the growth in working-age populations. Unemployment rates are at multi-decade lows and have continued to edge lower in recent months, particularly in the United States and the euro area. Measures of underemployment have also declined and job vacancies have increased. The labour force participation rate has increased further in Japan, especially for females, and remains steady in the United States and the euro area.

Unemployment rates have been below conventional estimates of full employment in these economies for some time, but wages growth has been slow to pick up. Although wages growth has gained momentum over the past year, it remains low by historical standards given the apparent tightness in these labour markets (Graph 1.5).

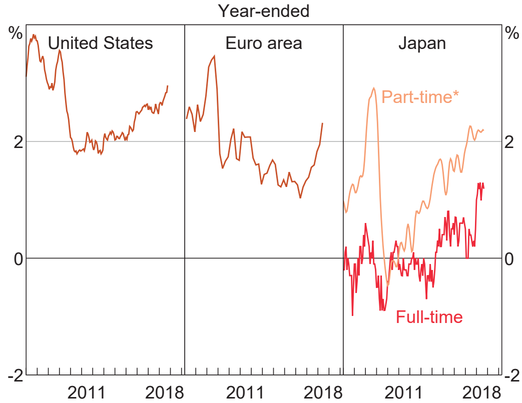
In the United States, wages growth has picked up this year. Labour turnover has increased as the labour market has tightened and is now above its pre-crisis rate. The increase in labour turnover is relevant to the outlook for wages growth because much of the increase in wages growth over the past three years has been for workers who have switched jobs; more recently, there have also been significant increases for the

Graph 1.4
Major Advanced Economies – Labour Market



* Three-month moving average for Japan
Sources: Eurostat; RBA; Refinitiv

Graph 1.5
Major Advanced Economies – Wages Growth
Year-ended



* Smoothed
Sources: CEIC Data; ECB; RBA; Refinitiv

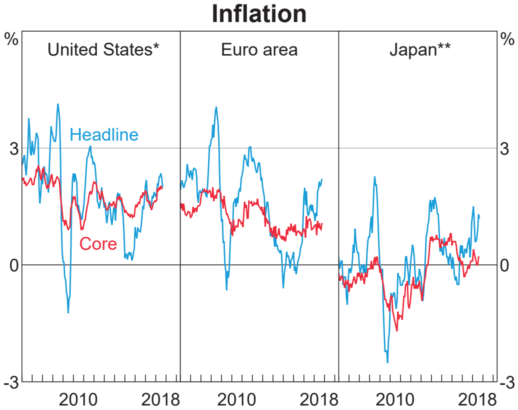
much larger group of workers who have stayed with the same employer. In the euro area, wages growth picked up considerably in the June quarter, continuing the upward trend of the past two years. In Japan, full-time wages growth has picked up this year and part-time wages growth has been increasing strongly for a few years now.

Several advanced economies, including New Zealand and Korea, have implemented significant minimum wage increases in 2018, and further increases are planned over coming years. More broadly, tightening labour markets and more-pronounced capacity pressures are expected to contribute to further increases in nominal wages growth and hence CPI inflation over time.

Core inflation has increased in some economies

Core inflation has increased in the United States and has been around the Federal Reserve's (Fed's) inflation target since March (Graph 1.6). Core inflation has also increased in Canada, Norway, Sweden and the United Kingdom to be around their respective inflation targets, but it remains low and below inflation targets in other advanced economies. Headline inflation has

Graph 1.6
Major Advanced Economies – Inflation



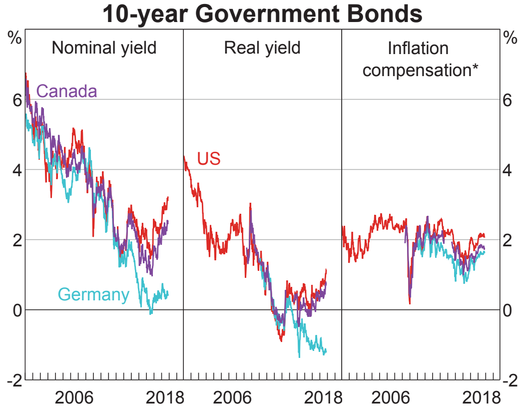
* PCE inflation
** Excludes effect of the consumption tax increase in April 2014
Sources: RBA; Refinitiv

increased in most advanced economies this year as a result of the pick-up in oil prices. Inflationary pressures are expected to increase with the continued build-up in capacity pressures.

Inflation expectations remain well anchored

Despite recent rises in inflation, market-implied and survey-based measures of inflation expectations in advanced economies have remained stable, around levels consistent with central bank policy targets. In line with this, the rise in nominal bond yields for those economies where capacity pressures are building have mostly reflected a rise in real yields, rather than inflation compensation or term premiums (Graph 1.7). Nominal bond yields could rise further if real yields continue to increase or if inflation expectations and/or term premiums begin to rise.

Graph 1.7
10-year Government Bonds



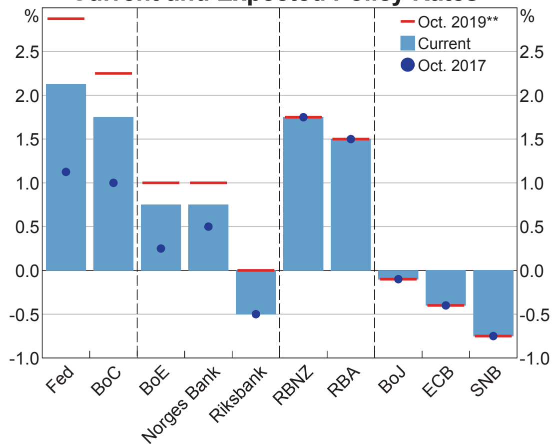
* Difference between nominal yield and real yield
Sources: Bloomberg; RBA

The major central banks are at different stages of their monetary policy cycles

Globally, monetary policy settings remain expansionary. However, financial market pricing implies that the policy settings of some central banks are expected to gradually become less accommodative over the coming year, while for other central banks, policy is expected to remain very accommodative and little changed for some time (Graph 1.8). These differences in expected policy paths reflect differences between the amount of spare capacity in these economies and/or the outlook for inflation:

- The Fed and the Bank of Canada (BoC) are progressively increasing their policy rates. The Fed's balance sheet is expected to continue to decline at a gradual pace but remain above pre-crisis levels.
- The Bank of England (BoE) and Norges Bank are in the early stages of raising their policy rates from very low levels (with the Riksbank expected to do the same in coming months). The BoE and Riksbank have also ceased their net asset purchases (the Norges Bank never pursued an asset purchase program).
- Financial market participants expect the Reserve Bank of New Zealand (RBNZ) to leave its policy rate on hold for some time, although it never lowered its rate to the levels observed in other advanced economies (nor increased its balance sheet). The situation is similar for the Reserve Bank of Australia.
- The Bank of Japan (BoJ), European Central Bank (ECB) and Swiss National Bank (SNB) are expected to maintain negative policy rates for some time. The BoJ and ECB continue to provide monetary stimulus by expanding their balance sheets, although the ECB expects to cease net asset purchases at the end of this year.
- In China, the People's Bank of China (PBC) has taken measures to selectively ease financial conditions to support growth without adding to financial sector vulnerabilities.

Graph 1.8
Current and Expected Policy Rates*



* US Federal Reserve (Fed), Bank of Canada (BoC), Bank of England (BoE), Reserve Bank of New Zealand (RBNZ), Reserve Bank of Australia (RBA), Bank of Japan (BoJ), European Central Bank (ECB), Swiss National Bank (SNB); rounded to the nearest policy increment

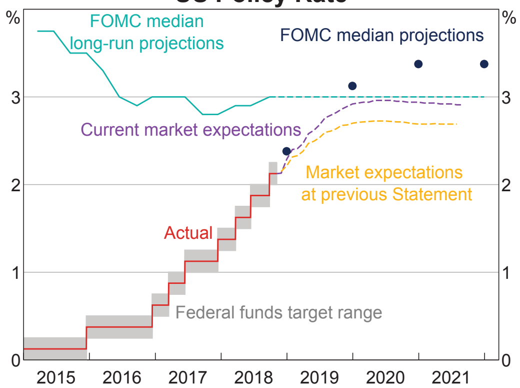
** Market-implied, except for Norges Bank, Riksbank and Swiss National Bank, which are based on central bank guidance

Sources: Bloomberg; central banks; Refinitiv; Tullet Prebon (Australia) Pty Ltd

This year, financial markets have become increasingly confident that the Fed will pursue its projected path of gradual policy tightening. The Federal Open Market Committee (FOMC) has raised the federal funds rate target range three times this year, each time by 25 basis points, and a fourth increase is expected in December. The FOMC projections suggest that the federal funds rate will be increased three more times in 2019 and once in 2020, to a level that the FOMC members assess will be a slightly contractionary stance of monetary policy (Graph 1.9). However, interest rate pricing continues to suggest that the market does not expect the policy rate to increase by as much as the FOMC is projecting.

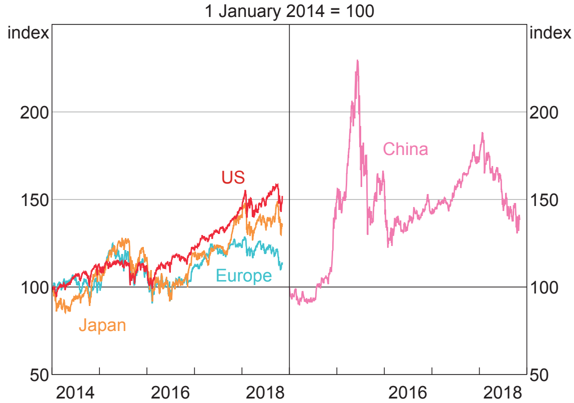
Consistent with the divergence in monetary policy stances and widening differentials between yields on US sovereign debt and those of other advanced economies, the US dollar has appreciated by around 5 per cent on a trade-weighted basis since the beginning of the year (Graph 1.10).

Graph 1.9
US Policy Rate



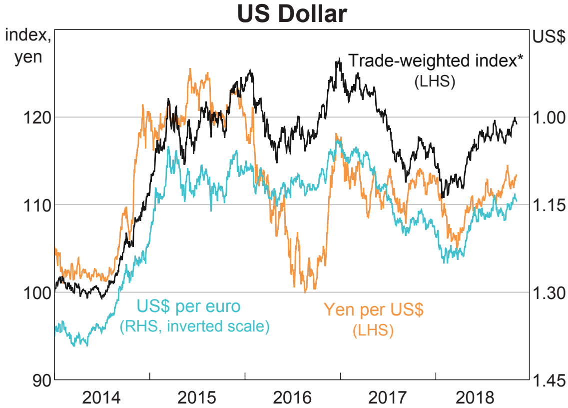
Sources: Bloomberg; Board of Governors of the Federal Reserve System; Refinitiv

Graph 1.11
Global Equity Prices
1 January 2014 = 100



Source: Bloomberg

Graph 1.10
US Dollar



* 1 January 2014 = 100; against a basket of advanced economy currencies

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

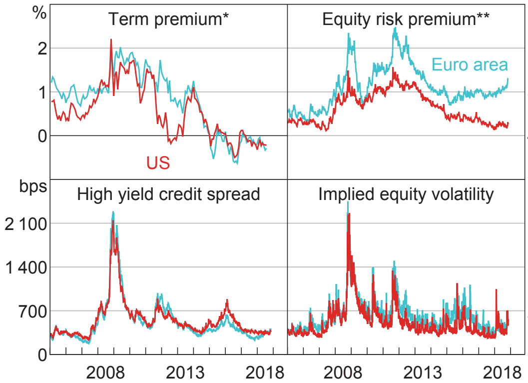
Financial conditions have tightened somewhat but remain supportive of growth

Financial conditions in the major advanced markets have tightened somewhat recently, but remain supportive of economic growth overall.

Global equity prices fell sharply in October (Graph 1.11). Analysts cited a range of factors as having contributed to the declines, including concerns that earnings growth will decline due to the imposition of trade tariffs and rising cost pressures more broadly, higher bond yields and elevated valuations (most notably for the United States). Nonetheless, third-quarter corporate earnings have been robust, particularly in the United States. Chinese equity prices also fell sharply, to around their trough in 2016, before stabilising after regulators announced measures to support the market. While large in absolute terms, relative to the size of the economy, China's equity market is smaller than those in many advanced economies, and it accounts for a small share of household assets and corporate financing.

Despite the recent volatility in equity markets, the cost of long-term finance for corporations issuing debt in advanced economies remains low relative to history (Graph 1.12). In part, this reflects expectations that central bank policy rates will remain relatively low for some time. More generally, low financing costs imply that investors are demanding little compensation for risk; for example, this can be seen in low premiums for the risk of financing corporations relative to governments (the credit risk premium) and for long-term interest rate risk (the term premium). This is consistent with expectations of low future corporate default rates and low levels of uncertainty over future inflation and policy rate outcomes.

Graph 1.12
Financial Market Indicators

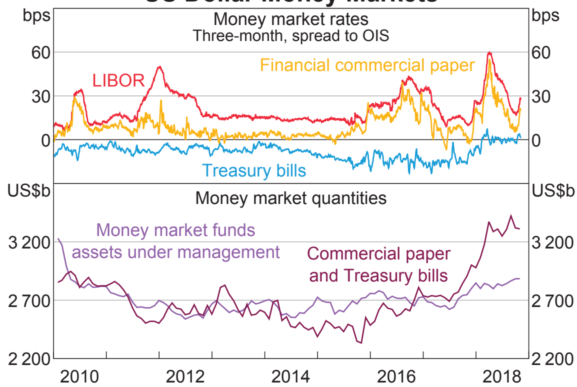


* The additional compensation investors receive for lending at longer terms compared to a sequence of shorter term lending

** The additional compensation investors receive for taking on equity market risk compared to an estimate of the risk free rate

Sources: BIS; Bloomberg; ICE Data is used with permission; RBA; Refinitiv

Graph 1.13
US Dollar Money Markets



Sources: Bloomberg; Refinitiv

While there has been a modest widening in spreads in short-term US dollar money markets recently (over and above expected policy rates), spreads remain significantly lower than earlier in the year (Graph 1.13). The overall easing in funding pressures since the first quarter may be partly due to investors responding to the earlier rise in short-term interest rates by increasing their allocations to money market funds, which invest in such instruments. Further, unlike in the first quarter of this year, episodes of increased issuance of US Treasury bills, while still significant, have been smaller and better anticipated by the market.

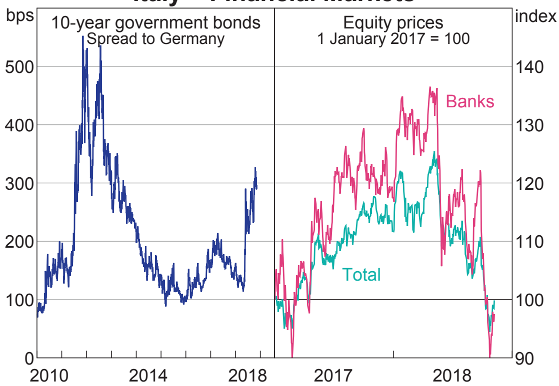
Several key risks could prompt a significant tightening of global financial conditions if they were to materialise. A further increase in trade tensions could generate uncertainty around the outlook for economic growth and corporate earnings. An unexpected increase in inflationary pressures in the United States could prompt the Fed to increase the federal funds rate by more, or more quickly, than currently anticipated. The tightening in financial conditions that has been seen in some vulnerable emerging markets this year could spill over to other emerging markets. In addition, an increase in political and policy uncertainty in Europe could also see risk premiums in global financial markets widen in a disruptive manner.

Italian bond yields remain high as markets have focused on fiscal sustainability

The sustainability of Italy's public finances remains a key concern for financial markets. The government's draft budget was released in October and incorporated some expansionary fiscal measures, increasing the size of the deficit to levels that are in breach of European Commission rules. The budget also projected a gradual decline in the debt-to-GDP ratio over the next few years, but this may not eventuate if market interest rates are higher or if economic growth is lower than assumed.

The spread between yields on Italian government bonds and German Bunds has therefore remained elevated in recent months, although still below the levels of the European sovereign debt crisis in 2012 (Graph 1.14). Italian equity prices have declined sharply, particularly in the banking sector. This is largely because of concerns about the implications of rising government bond yields and/or a sovereign

Graph 1.14
Italy – Financial Markets



Source: Bloomberg

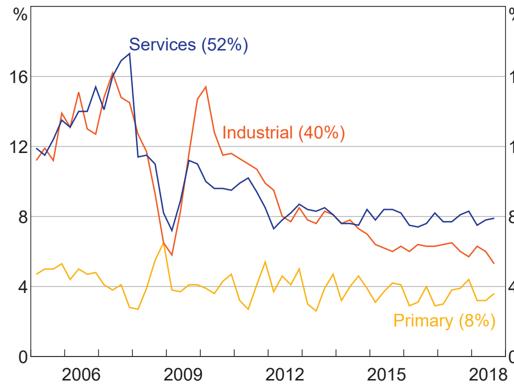
credit downgrade for bank solvency, liquidity and profitability, and the resilience of the domestic financial system more broadly (reflecting the fact that Italian banks own one quarter of Italian sovereign debt).

Spillovers to other bond markets in the euro area have so far been limited. However, the euro exchange rate has been responsive to changes in sovereign credit risk. Conflict between the new Italian Government and the European Commission over the Italian budget, or a downgrade of Italian sovereign debt to non-investment grade by the major rating agencies, could lead to further pressures on Italian banks and a broad-based increase in risk premiums across the euro area.

Chinese growth has moderated

In China, real GDP growth has eased a little over the past year following the tightening of financial conditions (partly induced by policy initiatives) through late 2017 and early 2018 (Graph 1.15). Restrained public spending on infrastructure continues to have flow-on effects to activity in parts of the manufacturing sector; output of a wide range of industrial products has been flat or falling for most of the past year, and survey measures of Chinese manufacturing conditions have declined in recent months. Nonetheless,

Graph 1.15
China – GDP Growth by Sector*
Year-ended



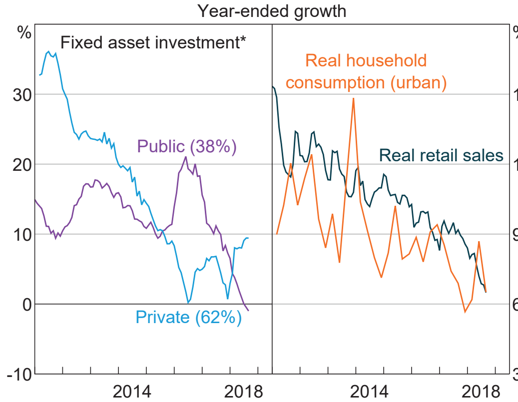
* Numbers in parentheses show 2017 shares of GDP; services and industrial sector GDP estimates correspond to the official 'Tertiary' and 'Secondary' categories

Sources: CEIC Data; RBA

resilient growth in service sector activity has largely offset weak conditions in the industrial sector.

Real investment growth moderated in the September quarter, as public investment continued to be constrained by authorities' efforts to control growth in local government debt and reduce financial risks (Graph 1.16). However, the value of new projects approved by the government has increased strongly, which should support public investment in

Graph 1.16
China – Activity Indicators
Year-ended growth



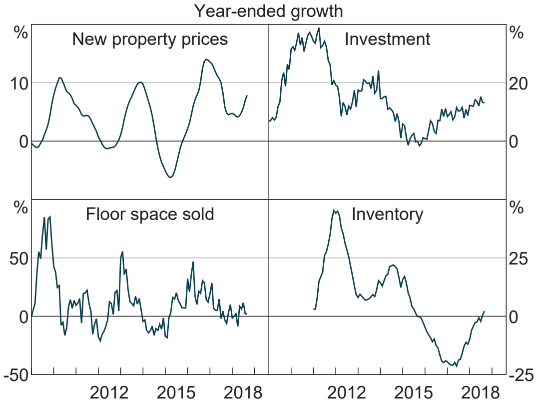
* Seasonally adjusted by RBA; three-month moving average; share of 2017 total FAI in parentheses

Sources: CEIC Data; RBA

the period ahead. Private investment growth has also strengthened in recent months. Real consumption continues to grow at a slightly faster pace than investment, underpinned by consumption of services, although sales of consumer goods have slowed.

Conditions in Chinese property markets across the country have been mixed of late (Graph 1.17). Housing prices have increased further in most cities, but real estate investment growth has been broadly stable and growth in new sales has eased, especially in smaller cities; as a result, inventory levels have increased a little recently. Measured growth of real estate investment continues to be driven almost entirely by growth in spending on land purchases. Construction completions have declined, while advance sales of apartments and new commencements have both eased in recent months, which is likely to weigh on construction activity (and thus demand for steel) in the near term.

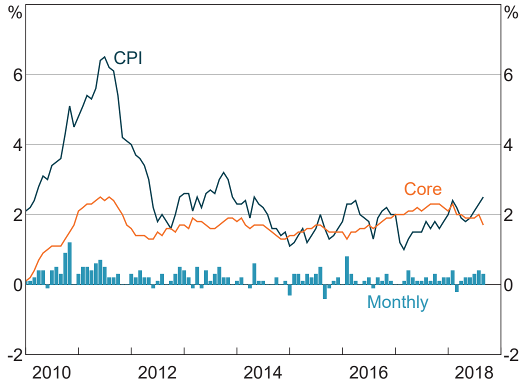
Graph 1.17
China – Residential Property Indicators
Year-ended growth



Sources: CEIC Data; RBA

Producer price inflation has continued to ease, reflecting weaker growth in manufacturing, mining and raw material prices. Core inflation has been broadly unchanged but headline inflation has increased a little, led by a pick-up in food prices (Graph 1.18). This has been driven partly by a rise in pork prices, associated with an outbreak of African swine flu in August. Flooding in eastern China resulting from recent tropical cyclones has also contributed to higher vegetable prices.

Graph 1.18
China – Consumer Price Inflation*
Year-ended

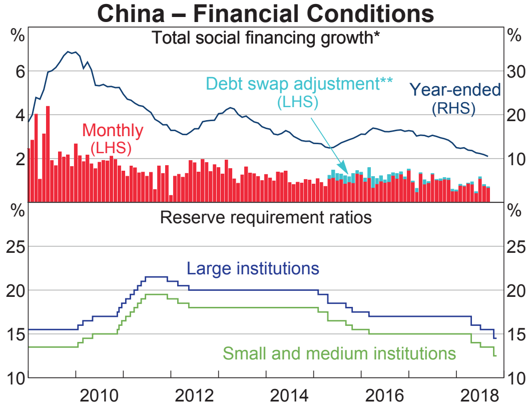


* Seasonally adjusted by RBA
Sources: CEIC Data; RBA

Chinese authorities have responded to softer growth with targeted policy easing

In response to weaker growth in parts of the economy and concerns about escalating trade tensions, the Chinese authorities have continued to implement a targeted easing of policies. This easing has been modest in scale relative to previous episodes, partly because it has been highly targeted. The authorities also remain mindful about the need to contain financial stability risks and to discourage shadow banking activities (see 'Box A: Evolving Financial Conditions in China'). Measures have included a series of cuts to the reserve requirement ratios for banks by the PBC to ensure that money market rates remain low and that ample liquidity is available to the banking system (Graph 1.19). Credit growth (which is an important component of total social financing) has remained strong in recent months, partly driven by bank lending to businesses. But limited access to credit for

Graph 1.19
China – Financial Conditions



* Seasonally adjusted by the RBA

** Upper bound estimate after including local government bond issuance to pay off debt previously included in TSF

Sources: CEIC Data; RBA

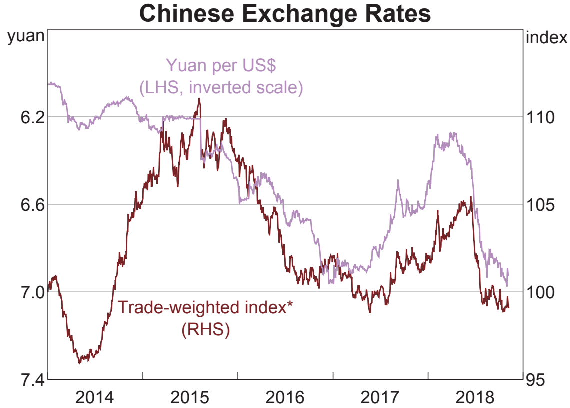
smaller private sector enterprises remains a key concern for policymakers and, as a result, officials continue to urge banks to increase their lending to smaller firms.

The government also remains committed to broadening fiscal support for growth. In August, the Ministry of Finance directed local governments to accelerate their issuance of special bonds to fund infrastructure projects, and the available data suggest that local governments are broadly on track to meet their issuance quotas for 2018.

Alongside these efforts, the Chinese authorities have continued to introduce measures to contain the build-up of financial risks. Recent government directives have focused on reducing the leverage of state-owned enterprises (SOEs); SOEs with debt-to-asset ratios that exceed certain thresholds will be subject to more intrusive government oversight. Regulators have also taken steps to prevent instability arising from the collapse of hundreds of online peer-to-peer (P2P) financing platforms in recent months, although some consolidation in the P2P market was an intended consequence of recent measures. To help smooth the adjustment, the four large majority state-owned asset management companies have reportedly been instructed to assist with the liquidation and restructuring of distressed P2P assets.

The Chinese renminbi has depreciated modestly in each of the past seven months to be around the same level against the US dollar as its trough in late 2016 (Graph 1.20). So far, there have been no substantive signs of direct intervention by the Chinese authorities in the spot foreign exchange market, and limited evidence of large-scale private capital outflows. This is in contrast to 2015 and 2016, when expectations for depreciation of the renminbi prompted significant intervention and a noticeable tightening of capital controls on outbound investment.

Graph 1.20
Chinese Exchange Rates



* Indexed to 1 January 2014=100

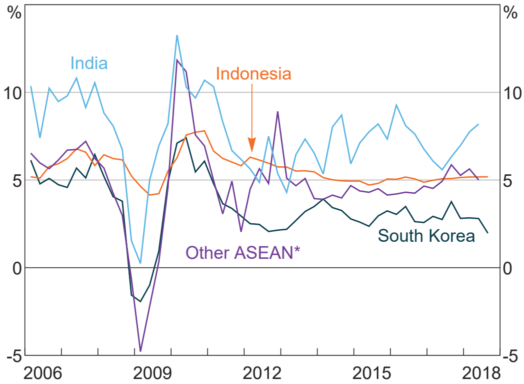
Sources: Bloomberg; China Foreign Exchange Trade System; RBA

Growth elsewhere in Asia has been relatively resilient

GDP growth in Asia (excluding China and Japan) has remained relatively strong in 2018 to date (Graph 1.21). Growth has picked up in India, has been steady in Indonesia, but has eased in Korea and the other ASEAN economies.

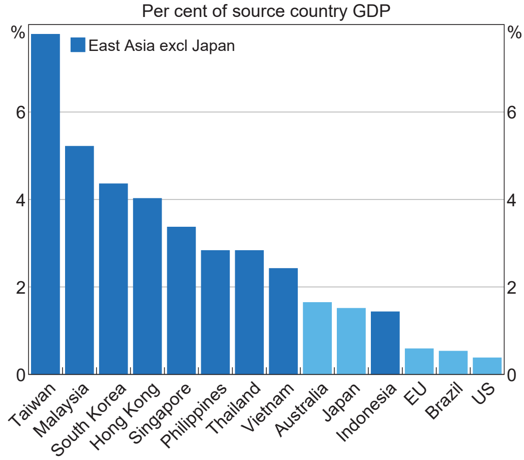
Many of the economies in east Asia are particularly exposed to rising trade tensions between the United States and China because

Graph 1.21
Asia – GDP Growth
Year-ended



* Includes Singapore, Thailand, Malaysia, Philippines; Vietnam from 2013
Sources: CEIC Data; IMF; RBA

Graph 1.22
Contribution to Chinese Exports*
Per cent of source country GDP



* Origin of value added in Chinese gross exports
Sources: OECD; Refinitiv

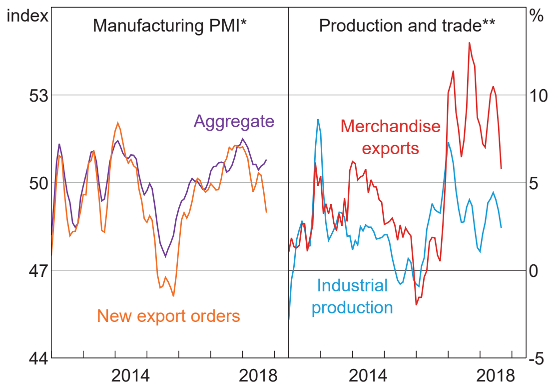
they produce intermediate goods used in the production of Chinese exports as a part of integrated supply chains across Asia (mainly for electronics products); for example, the Korean content of Chinese gross exports is around four per cent of Korean GDP (Graph 1.22).

In east Asia overall, industrial production growth has declined in recent months (Graph 1.23). Surveyed business conditions in the manufacturing sector have also declined this year, as have new export orders.

However, it is also possible that, over a longer timeframe, some of the lower-cost economies in the region could benefit from rising trade tensions if production is relocated to avoid US tariffs on Chinese goods; there have been growing anecdotal reports of such business considerations in recent months.

In Korea, business investment has declined this year, as previous investment initiatives to increase productive capacity in the electronics sector have been completed. Although consumption growth in Korea has remained strong, consumer confidence has declined considerably in recent months to around its average level. This may reflect the sharp fall in employment growth

Graph 1.23
East Asia – Economic Indicators
Smoothed



* Purchasing managers index
** Year-ended growth
Sources: CEIC Data; RBA

in response to the substantial increase in the minimum wage earlier in the year.

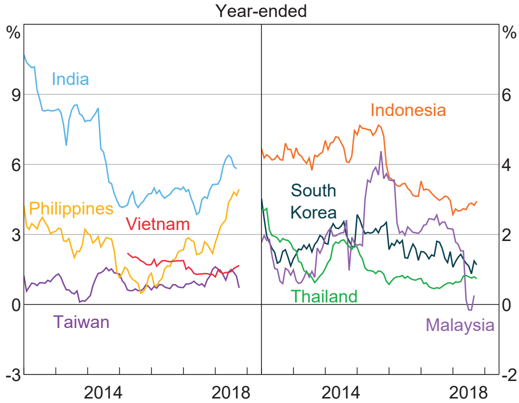
Growth in India strengthened further in the June quarter, underpinned by robust growth in investment and private consumption. Consumption growth is expected to remain strong, following the reduction in the goods and services tax on a number of white goods, televisions and other household appliances.

Strong growth in investment continues to support crude steel production, which has increased a little further in recent months, and is driving elevated levels of coking coal imports (including from Australia). Indian exports also grew strongly in the June quarter, although not at a fast enough pace to prevent the trade deficit from widening further.

GDP growth in Indonesia has remained resilient, despite a significant monetary policy tightening this year related to financial developments. Consumption continues to be the key driver of growth, while growth in investment has remained elevated.

Inflation remains subdued in most of the region (Graph 1.24). Inflation has declined sharply in Malaysia due to changes in consumption taxes. Indian CPI inflation has eased in recent months, falling below the Reserve Bank of India's medium-term inflation target of 4 per cent, due to a noticeable moderation in food price inflation; however, core inflation (which excludes food and fuel) remains elevated. In the Philippines, inflation has increased sharply due to strong domestic demand pressures and higher excise taxes implemented earlier in the year.

Graph 1.24
Asia – Core Inflation
Year-ended



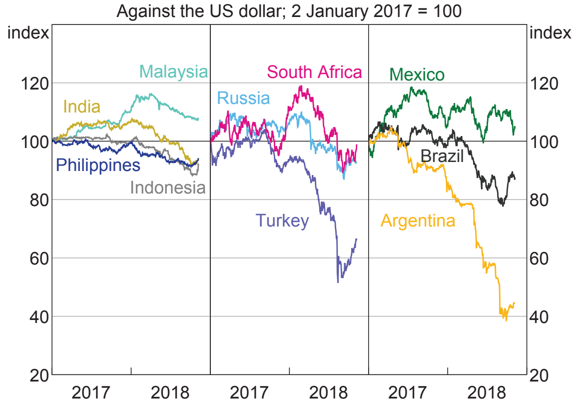
Sources: CEIC Data; RBA

Some emerging market economies continue to face a challenging external financing environment …

A number of emerging market economies have experienced large exchange rate depreciations and higher funding costs this year (Graph 1.25). This is particularly so for economies with significant fiscal and/or current account financing requirements, significant foreign currency-denominated debts, and/or policy frameworks that are perceived to be weak.

The central banks of Turkey and Argentina have raised their policy rates sharply in recent months, in response to fears that further exchange rate depreciations would lead to an acceleration in (already high) inflation and make servicing foreign currency-denominated debts more difficult. In Argentina, the authorities negotiated a revised agreement with the International Monetary Fund to increase the size and accelerate the disbursement of the financial assistance package in exchange for a larger fiscal tightening next year and other reforms. Thus far, these developments appear to have been well received by financial markets, though asset price and exchange rate volatility remains somewhat elevated.

Graph 1.25
Emerging Market Exchange Rates
Against the US dollar; 2 January 2017 = 100

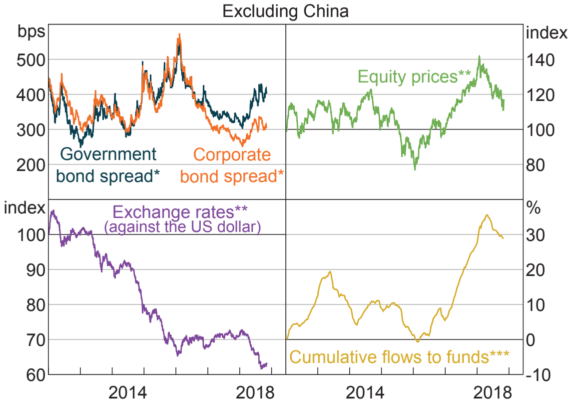


Source: Bloomberg

… but there are no signs yet of significant spillovers to other emerging market economies

So far, there has been limited evidence of significant spillovers to less vulnerable emerging market economies. Timely proxies of non-resident capital movements suggest that outflows have been more modest than during other episodes of significant capital outflow over the past decade. Recently, emerging market asset prices, currencies and capital movements have shown some signs of stabilisation (Graph 1.26).

Graph 1.26
Emerging Financial Markets
Excluding China



* US dollar-denominated bonds, spread to equivalent US government bond
** 1 January 2012 = 100
*** Includes flows to bond and equity funds
Sources: Bloomberg; EPFR Global; IMF; JP Morgan; RBA

The Asian region has remained relatively resilient to the more difficult external financing environment, reflecting generally strong economic conditions and institutional frameworks.[1] Within the region, the currencies of India, Indonesia and the Philippines have depreciated the most this year against the US dollar, possibly reflecting that these are the largest economies in Asia with current account and fiscal deficits. Partly in response, central banks in all three of these economies have recently increased policy rates. The authorities in India and Indonesia have also intervened in currency markets and announced plans to reduce their current account deficits.

Nonetheless, there remains a risk that capital outflows from emerging markets broaden and intensify, prompting a more significant tightening of financial conditions. This might occur, for example, if the Fed were to increase the federal funds rate by more, or more quickly, than currently anticipated, or if key commodity prices were to move unfavourably (for example, higher oil prices for oil importers or lower prices faced by commodity exporters). Were these factors to eventuate, the emerging markets most at risk would include those with larger current account and fiscal deficits, larger foreign currency-denominated debts and less well-anchored inflation expectations. For emerging economies in Asia, a significant increase in trade protectionism and/or a sharp slowdown in Chinese economic growth continue to represent risks to regional economic growth and asset prices.

Bulk commodity prices have risen considerably in recent months

Bulk commodity prices have risen strongly since the previous *Statement*, while movements in other commodity prices have been mixed. Oil prices are little changed, while base metal and rural prices have declined (Table 1.1; Graph 1.27).

The benchmark iron ore spot price has risen strongly since the previous *Statement*, supported by ongoing strength in Chinese steel production and market expectations that the Chinese winter production restrictions may not be as severe as last year. The iron ore market has shown pronounced quality-related price differentials over the past year or so, mostly reflecting a shift by Chinese steel producers towards more

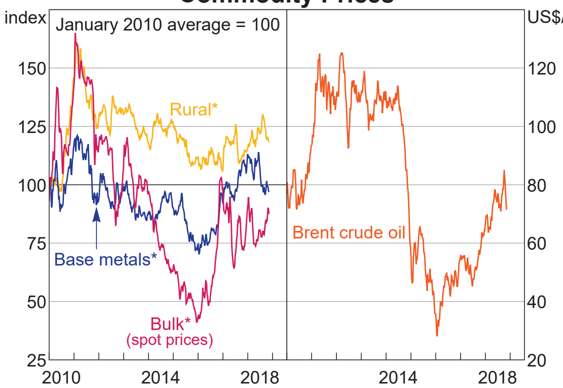
1 See RBA (2018), 'Box A: Financial Market Resilience of Emerging Asia', *Statement of Monetary Policy*, August, pp 22–24.

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

	Since previous *Statement*	Over the past year
Bulk commodities	9	18
– Iron ore	12	21
– Coking coal	22	23
– Thermal coal	–13	4
Rural	–10	4
Base metals	–3	–12
Gold	2	–3
Brent crude oil[(b)]	0	12
RBA ICP	3	12
– Using spot prices for bulk commodities	5	14

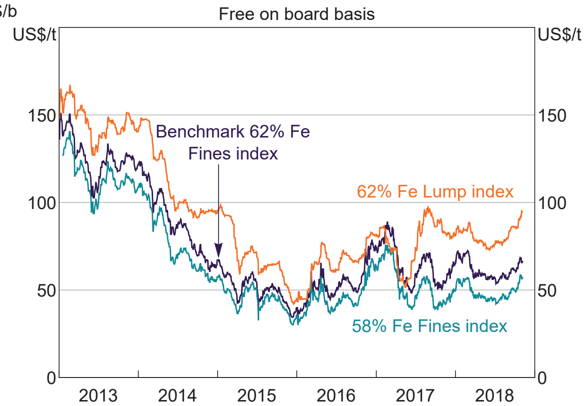
(a) Prices from the RBA Index of Commodity Prices (ICP); bulk commodity prices are spot prices
(b) In US dollars
Sources: Bloomberg; IHS; RBA

Graph 1.27
Commodity Prices



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

Graph 1.28
Iron Ore Prices
Free on board basis

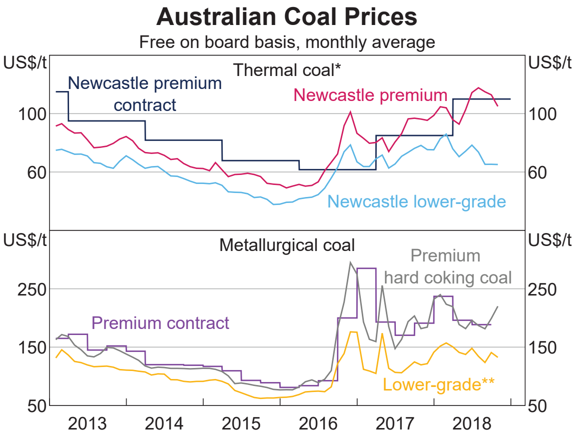


Source: Bloomberg

efficient and less-polluting steel production that demands higher-quality ore (Graph 1.28). Demand for higher quality inputs and recent restrictions on some Chinese iron ore processing have also contributed to higher premiums for lump and pellet ore. Around 40 per cent of Australia's iron ore exports are estimated to be of lower-grade than the benchmark and subject to discounts to the benchmark index, while almost 25 per cent of exports are lump products and receive a premium over the relevant fines index.

The spot price for premium hard coking coal has also increased strongly since the previous *Statement*, partly reflecting supply-side disruptions in Australia, as well as robust demand – notably from China and India – for use in steel making (Graph 1.29). With demand and supply in the seaborne coking coal market finely balanced over recent years, supply-side disruptions have tended to have a large impact on spot prices. The spot price of Newcastle premium thermal coal remains elevated reflecting ongoing strength in demand and limited growth in supply.

Graph 1.29



* Newcastle premium energy content is 6,000 kcal/kg; Newcastle lower-grade energy content is 5,500 kcal/kg

** Low volatile pulverised coal injection

Sources: IHS; RBA

Oil prices are little changed since the previous *Statement*. Increased global demand as well as supply disruptions in several oil-producing economies have supported oil prices over recent years. However, prices have eased over recent weeks following expectations of increased supply from some of the major producers, and downward revisions to the global economic outlook by the IMF. Oil prices remain around their highest level since late 2014.

Base metal prices in aggregate have declined modestly since the previous *Statement*. Prices have fallen by around 15 per cent since June 2018, reflecting concerns around the outlook for global industrial production amid heightened trade tensions. Meanwhile rural prices have declined since the previous *Statement* led by falls in global wheat and beef prices.

Australian export prices are expected to increase further over coming quarters, before declining gradually as Chinese demand for bulk commodities eases and further low-cost global supply comes on line. Consequently, the terms of trade are expected to remain around their recent high levels before declining further out in the forecast horizon, but will remain above their trough in early 2016 (see 'Economic Outlook' chapter).

Box A

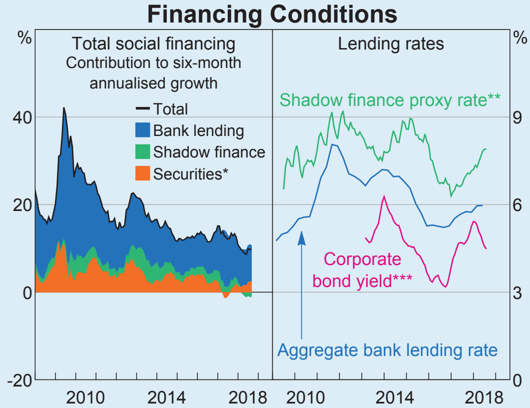
Evolving Financial Conditions in China

The Chinese authorities have long acknowledged that the growth of the financial system contributes to both the growth of economic activity and to the build-up of systemic risks.[1] Over the past couple of years, efforts to contain the build-up of systemic risks have increased.[2] These measures have successfully slowed the growth of overall total social financing (TSF), which declined to a decade-low earlier this year. Also, interest rates on bank lending, corporate bond financing and shadow financing rose and growth softened in some sectors of the economy.

Over the past year or so, Chinese regulators took a number of actions to encourage the rebalancing of TSF towards bank lending and capital market issuance, and away from shadow banking channels. This reflected the concern that shadow banking is subject to less stringent regulation and supervisory oversight than the banking sector, and makes use of complex and opaque structures. This can result in weaker lending standards, facilitate an excessive build-up of leverage, raise the number of interconnections between financial institutions, and reduce capital and liquidity buffers within the financial system. The authorities discouraged shadow financing by improving regulatory coordination across different agencies, introducing more stringent asset management regulations and restricting bank lending to the shadow banking sector. These actions have helped to constrain some of the key financing channels available for shadow banking activity.

In recent months, the Chinese authorities have responded to signs of slower growth in parts of the economy and a more challenging outlook by easing financial conditions in a number of ways. However, the effect of the current round of policy easing has been relatively small, including because it has been quite targeted. For instance, while the growth in TSF has picked up recently, to date this has been modest compared with earlier episodes (Graph A1). Moreover, this pick-up has occurred in the absence of a contribution from shadow financing. Indeed, a number of new regulations and even more stringent oversight have seen shadow financing contract.[3]

Graph A1
Financing Conditions



* Sum of corporate bond financing, equity financing and bank-accepted bills
** Yield on a < one-year trust loan product
*** Corporate five-year AAA
Sources: Bloomberg; CEIC Data; RBA; WIND Information

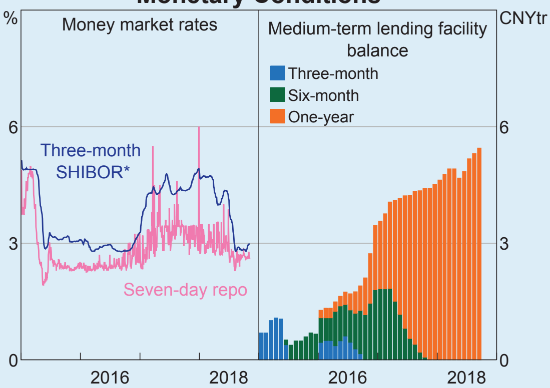
1 Lowe P (2018), 'Australia's Deepening Economic Relationship with China: Opportunities and Risks', Address to the Australia-China Relations Institute, Sydney, 23 May.

2 RBA (2018), 'Box A: Ongoing Financial Regulatory Reform in China', *Financial Stability Review*, October, pp 19–22.

3 Bowman J, M Hack and M Waring (2018), 'Non-bank Financing in China', RBA *Bulletin*, March, viewed 11 October 2018. Available at <https://www.rba.gov.au/publications/bulletin/2018/mar/non-bank-financing-in-china.html>.

The recent loosening in policies has focused on easing conditions for the banking sector, with an emphasis on the importance of banks increasing their lending to smaller private firms. The People's Bank of China (PBC) has ensured that banks have access to ample liquidity by cutting reserve requirement ratios and extending longer-term liquidity operations (such as the medium-term lending facility (MLF)). These measures have helped to guide money market rates to their lowest levels since late 2016 (Graph A2). The PBC has lowered the collateral requirements for assets that can be pledged against MLF funding to include highly rated corporate bonds, thereby encouraging banks to hold the bonds of small- and medium-sized firms. Banks have also been encouraged to use some of the funds provided by the PBC to support the debt-for-equity swap program, which aims to reduce the debt burden of companies in industries with excess productive capacity. These measures have also been complemented with 'window guidance', which is intended to directly influence bank lending.

Graph A2
Monetary Conditions



* SHIBOR is an average of the rate at which large banks say they will lend unsecured funds to other banks.

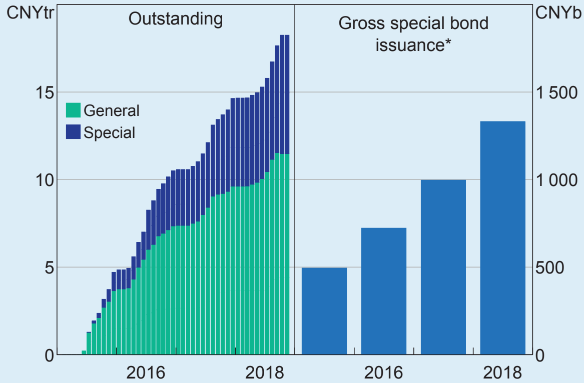
Sources: CEIC Data; RBA

The Chinese authorities have also announced measures to encourage some borrowing by local governments, following concerns over the extent to which infrastructure spending had slowed. At the same time, the authorities have sought to improve the transparency of local government financing. In earlier years, a large share of local government spending had been funded via opaque off-balance sheet entities known as local government financing vehicles (LGFVs), which were widely assumed to benefit from implicit government guarantees. The proliferation of LGFVs followed restrictions on borrowing from banks during the lending boom in China that followed the global financial crisis. However, this 'back door' financing channel has more recently been actively discouraged by the Chinese authorities in favour of a more transparent 'front door' capital markets policy. After slow issuance earlier in the year, in August the Ministry of Finance directed local governments to accelerate their bond issuance over the remainder of the year. The Chinese banking regulator is reportedly also considering regulatory changes to encourage banks to purchase local government debt.

The measures taken, together with the easing in money market conditions this year, have supported local government bond financing. There has been a sharp increase in the issuance of 'special' (mostly project-based) bonds, the proceeds of which are supposed to finance specific infrastructure projects rather than general government expenditure (Graph A3). In coming quarters, this may support a rise in infrastructure investment, which has weakened sharply over the past year. Along with residential construction, infrastructure at times has made an important contribution to demand for Australian bulk commodity exports.

Recent changes in funding costs for local government should also facilitate a rebalancing in credit intermediation towards more transparent funding channels. Spreads on local government bonds have narrowed in recent months and remain at a low level, whereas

Graph A3
Local Government Bonds



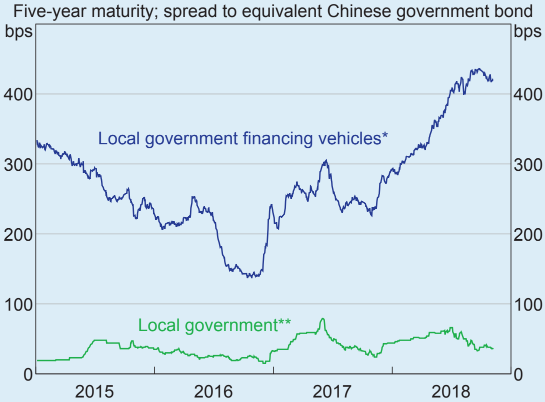
* Excludes issuance of debt-swap special bonds

Sources: RBA; WIND Information

spreads on low-rated LGFV bonds have widened considerably (Graph A4). Investors have repriced the credit risk on low-rated LGFV bonds, in part reflecting efforts by the Ministry of Finance to eliminate perceptions of implicit government guarantees on LGFV debt.

Graph A4
Local Government Bond Spreads

Five-year maturity; spread to equivalent Chinese government bond



* Based on AA- domestically rated urban infrastructure bonds

** Based on AAA domestically rated municipal bonds

Sources: Bloomberg; RBA; WIND Information

Taken in sum, these developments suggest that the authorities continue to be mindful of financial stability risks, even as they look to the financial system to support infrastructure and overall economic activity in the coming quarters. ✠

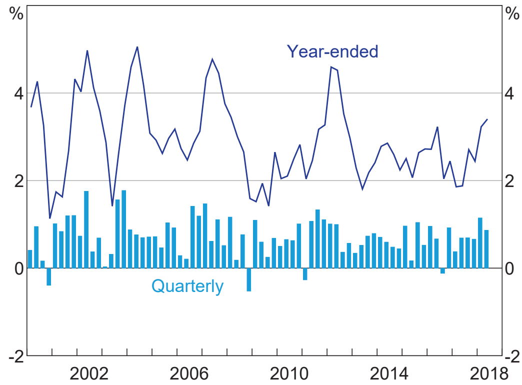
2. Domestic Economic Conditions

Domestic economic conditions have improved over the past year and continue to be supported by low interest rates and a strong global economy. GDP growth has picked up to its fastest year-ended rate since 2012, which was around the peak of the mining investment boom. The unemployment rate is at its lowest level since that time and overall labour market conditions remain positive.

Growth in economic activity has strengthened

Real GDP increased by 0.9 per cent in the June quarter and by 3.4 per cent over the year (Table 2.1; Graph 2.1). This is above estimates

Graph 2.1
GDP Growth



Source: ABS

Table 2.1: Demand and Output Growth
Per cent

	June quarter 2018	March quarter 2018	Year to June quarter 2018
GDP	0.9	1.1	3.4
Domestic final demand	0.6	1.0	3.4
– Consumption	0.7	0.5	3.0
– Dwelling investment	1.7	3.6	3.8
– Mining investment	5.1	–6.4	–9.7
– Non-mining investment	–1.7	2.8	8.8
– Public consumption	1.0	1.6	5.1
– Public investment	–1.0	0.9	2.5
Change in inventories[(a)]	0.0	0.2	0.5
Exports	1.1	3.0	3.7
Imports	0.4	1.7	6.2
Mining activity[(b)]	2.0	3.3	8.3
Non-mining activity[(b)]	0.7	0.9	2.8
Farm GDP	1.1	–0.5	–9.7
Non-farm GDP	0.9	1.2	3.7
Nominal GDP	1.0	2.4	5.5
Terms of trade	–1.3	3.5	2.1

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

of potential growth, which implies that spare capacity in the economy is being absorbed. Growth was broadly based. Household consumption, dwelling investment, public demand and exports all contributed to growth in the quarter and over the year. Business investment also increased over the year, with strong growth in non-mining investment only partially offset by a decline in mining investment.

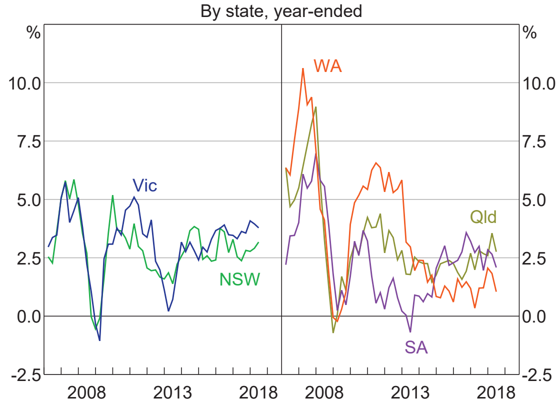
Household consumption growth has been resilient …

Household consumption growth has been stable at around 3 per cent over the past year or so (Graph 2.2). Goods consumption grew by 3.5 per cent over the year to the June quarter; strong growth in expenditure on food and clothing more than offset a decline in motor vehicle sales. Consumption of services grew by 2.6 per cent, supported by growth in the consumption of recreation and communication services.

There have been some sizeable upward revisions to consumption growth in recent quarters, notably to consumption of overseas travel services, which has become more complicated to measure after the discontinuation of outgoing passenger cards in mid 2017. By state, consumption growth continues to be strongest in New South Wales and Victoria (Graph 2.3).

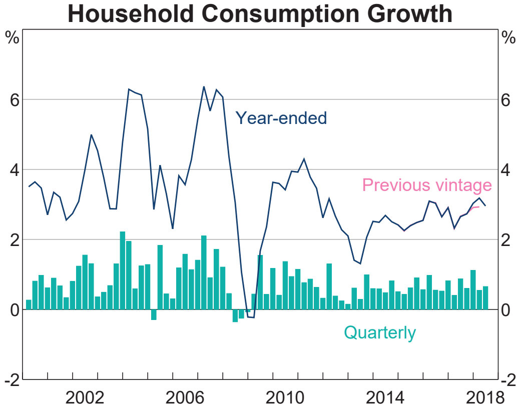
Indicators for the September quarter on balance point to continued steady growth in household consumption. Liaison with retailers suggests that underlying trading conditions have remained stable in recent months. Surveys suggest that household sentiment towards their own finances remains above average. The volume of retail sales increased by 0.2 per cent in the September quarter and were 2¼ per cent higher over the year (Graph 2.4). Online retail sales continued to grow strongly.

Graph 2.3
Household Consumption Growth
By state, year-ended



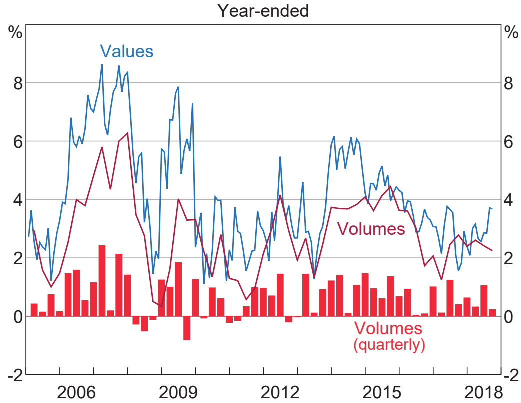
Sources: ABS; RBA

Graph 2.2
Household Consumption Growth



Sources: ABS; RBA

Graph 2.4
Retail Sales Growth
Year-ended



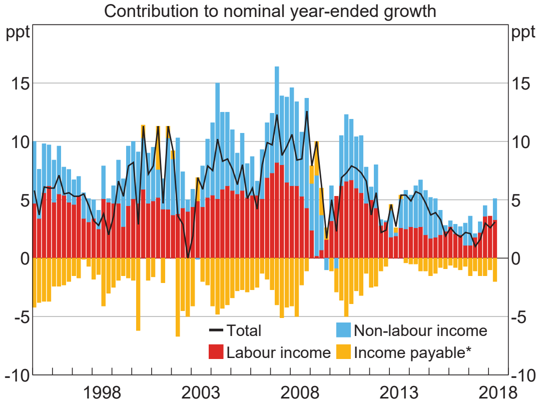
Sources: ABS; RBA

… despite the slow growth in household income

Growth in household income remains low, although it has picked up a little since early 2017 to around 3 per cent. This pick-up has been driven by labour income, which is growing at around its fastest year-ended rate since 2012, but is still below its long-run average (Graph 2.5). Growth in other sources of household income, such as social assistance payments, has remained weak. Income payable – which subtracts from disposable income – has increased, partly reflecting tax payments, which have grown more quickly than income. Meanwhile, recent declines in housing and equity prices will weigh on household wealth. In the recently released annual national accounts, household income was revised up over the past two years. This included upward revisions to gross mixed income and labour income, and downward revisions to payable transfers.

In recent years, consumption growth has been relatively resilient and has generally exceeded income growth: the household saving ratio has declined. The prospect of continued low growth in household income remains a risk to the outlook for household consumption, especially given high levels of household debt. In this respect, the recent pick-up in labour income growth has been a welcome development, and consumption growth is anticipated to remain relatively steady at current levels.

Graph 2.5
Household Disposable Income
Contribution to nominal year-ended growth

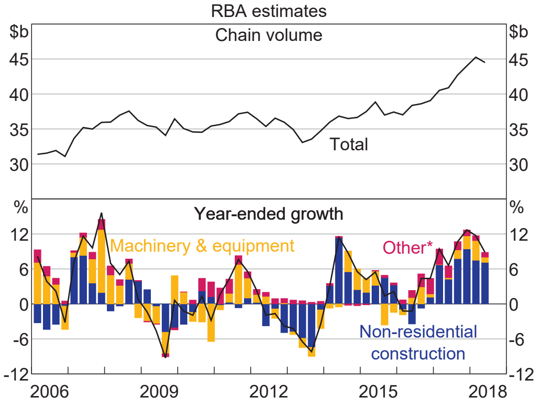


* Includes tax and interest payments
Sources: ABS; RBA

Non-mining business investment has grown strongly over recent years

Private non-mining business investment declined in the June quarter, but grew by 9 per cent over the year (Graph 2.6). This increase was led by non-residential construction activity, which includes non-residential building and infrastructure-related projects. Office construction was the largest driver of non-residential building investment. This is consistent with strong tenant demand in Sydney and Melbourne, and has occurred against a backdrop of relatively little new supply being added and some large withdrawals of stock in recent years. Construction of aged-care facilities as well as short-term accommodation also contributed to growth. Private sector spending on infrastructure-related projects also grew over the past year, led by

Graph 2.6
Private Non-mining Business Investment
RBA estimates

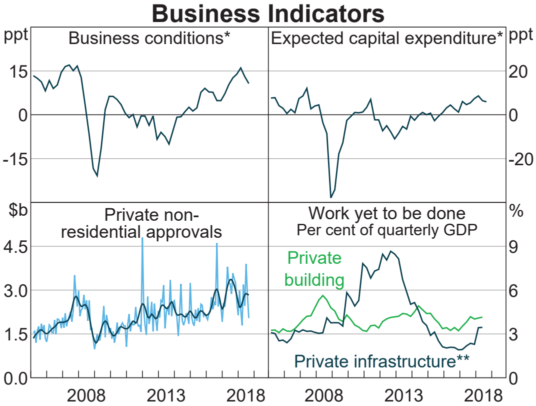


* Includes cultivated biological resources (mainly livestock, vineyards, and orchards), computer software, research & development and artistic originals
Sources: ABS; RBA

electricity projects (including renewable energy), as well as road and water projects.

Leading indicators point to continued growth in non-mining business investment over the next year or so. The stock of work yet to be done on private buildings has increased over the past couple of years, and private non-residential building approvals have trended higher since the start of 2018, driven by approvals for office buildings in Sydney and Melbourne (Graph 2.7). Information from the Bank's liaison program suggests that tenant demand for new office space remains strong and is likely to support further expansions in office supply over the next couple of years. The pipeline of work yet to be done on private infrastructure projects has also risen over the past year or so, led mainly by road and electricity projects.

Graph 2.7
Business Indicators

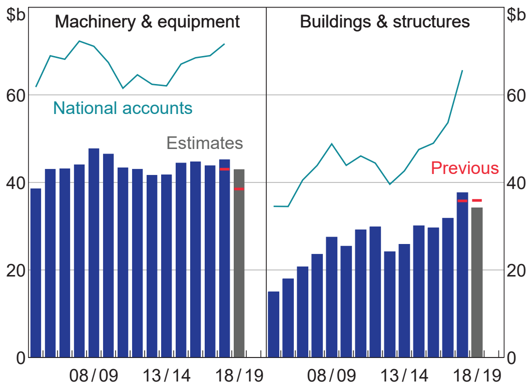


* Non-mining; NAB survey; net balance, deviation from long-run average
** Excludes resources and other heavy industry
Sources: ABS; NAB; RBA

Profits have grown across many non-mining sectors over the past year, which should support firms' ability to finance new investments. Survey measures of business conditions and expected capital expenditure remain well above average, although both measures have eased a little since earlier in the year.

In contrast, the most recent Australian Bureau of Statistics (ABS) capital expenditure (Capex) survey is pointing to subdued outcomes for non-mining investment in 2018/19 (Graph 2.8). Expected spending was revised up for machinery & equipment, but revised down for buildings & structures. However, the Capex survey excludes some industries, and also some types of investment, such as investment in software, which liaison suggests remain an ongoing focus for many firms.

Graph 2.8
Non-mining Capital Expenditure*
Nominal

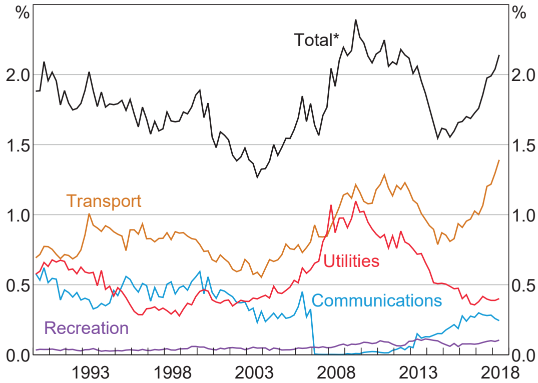


* Estimates are firms' expected capital expenditure; adjusted for past average differences between expected and realised spending
Sources: ABS; RBA

Public spending has been supporting growth

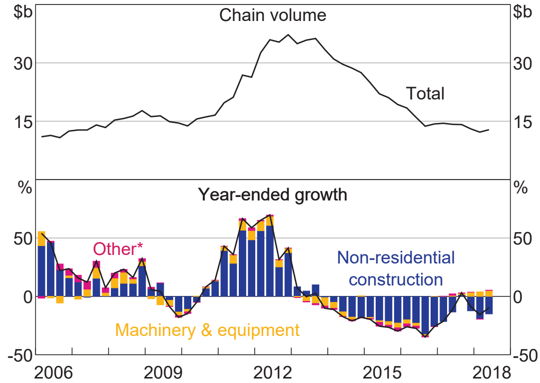
Public infrastructure work done remains high as a share of GDP (Graph 2.9). Work done on telecommunications projects has started to decline as the National Broadband Network gets closer to completion. However, work on transport projects has increased. The pipeline of work to be completed remains large and recent state and federal budgets also indicate that infrastructure spending will remain strong.

Public consumption grew by 5.1 per cent over the year to the June quarter. Recent data from the annual national accounts show that the



* Excludes work related to resources, other heavy industry, pipelines and some other projects

Sources: ABS; RBA



* Includes mineral exploration, computer software and research & development

Sources: ABS; RBA

recent strength in public consumption has been broad based at both the state and federal levels.

The final federal budget outcome for 2017/18 indicated that the underlying cash deficit was $10 billion or 0.6 per cent of GDP. This was $8 billion lower than expected in the May budget. Payments were $7 billion lower than projected, driven mainly by social security and welfare expenditure, while receipts were $1 billion dollars higher. The budget document indicated that lower payments relative to last year's forecasts were due in part to a slower uptake of the National Disability Insurance Scheme and lower expenses for aged pensions, family tax benefits and unemployment benefits (reflecting the impact of the increased retirement age and better economic conditions).

Mining sector investment is stabilising as LNG projects are completed

Mining investment grew strongly in the June quarter, but was 10 per cent lower over the year as construction on the remaining liquefied natural gas (LNG) projects continued to wind down (Graph 2.10). Some further decline in mining investment is expected over the coming quarters as these large LNG projects are completed, but cost overruns could mean that the overall decline in mining investment may be smaller than previously anticipated. Consistent with this, in the most recent Capex survey, expected spending on buildings & structures in 2018/19 was revised modestly higher.

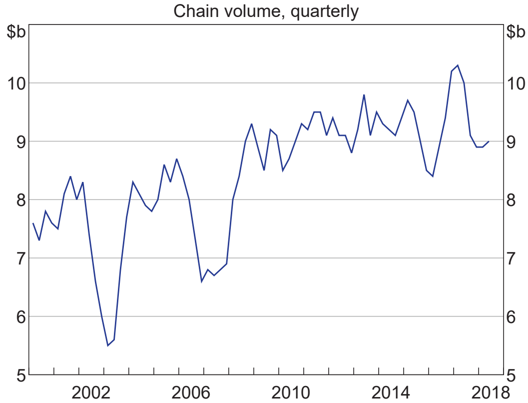
The Capex survey, information from the Bank's liaison program and company announcements indicate that mining firms have been increasing spending on machinery & equipment over the past year and further growth is anticipated over 2018/19. ABS data and liaison with firms also suggest that mineral exploration activity has picked up over the past year, in part in response to stronger commodity prices.

Drought conditions in some regions have affected rural output

Drought conditions have persisted in some regions since the beginning of the year, notably in New South Wales and bordering regions in other states. This has adversely affected some agricultural production. While conditions in Western Australia remain more favourable than those in the eastern states, frost in August and September has limited grain production in some parts of the state. Farm GDP and rural exports decreased by around 10 per cent over the year to the June quarter, partly reflecting unfavourable weather conditions and also a return to lower crop levels following the record winter crop harvest in 2016/17 (Graph 2.11).

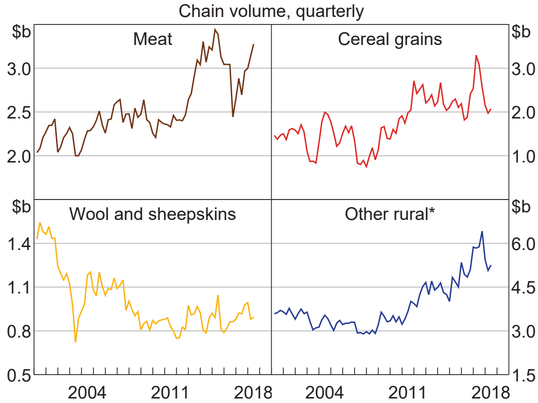
Rural exports increased in the June quarter, driven by growth in exports of meat and other rural goods (Graph 2.12). Meat exports have continued to grow in recent quarters as producers have cut herd sizes because drought conditions have raised the costs of retaining livestock; solid overseas demand is helping to absorb the increase in supply. Growth in meat exports is expected to continue in the near term, while exports of cereal grains are expected to decline. If drier-than-average weather conditions persist, rural output (particularly crop production) is likely to fall further in coming quarters.

Graph 2.11
Farm GDP
Chain volume, quarterly



Source: ABS

Graph 2.12
Rural Exports
Chain volume, quarterly

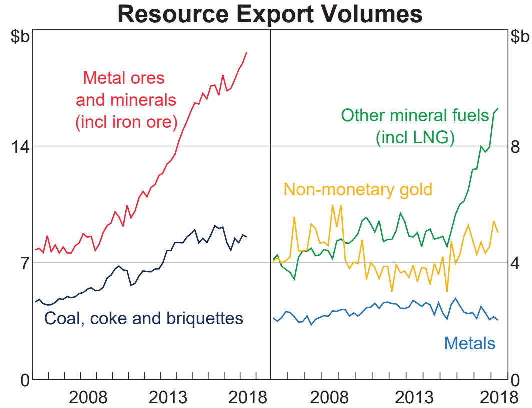


* Includes horticulture and dairy exports
Sources: ABS; RBA

Export growth remains solid

Export volumes grew at a solid rate in the June quarter and the increase was broadly based. In addition to the increase in rural exports, resource exports rose modestly in the quarter. This was led by exports of iron and copper ore to China, and follows a strong increase in resource exports in the March quarter. LNG exports continue to grow steadily, while coal export volumes have remained around a high level for the past five years, notwithstanding quarter-to-quarter volatility (Graph 2.13).

Graph 2.13
Resource Export Volumes



Sources: ABS; RBA

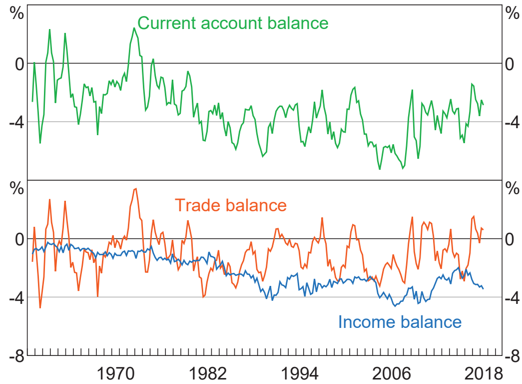
Resource exports have contributed materially to GDP growth over recent years as additional production capacity has come online. Further increases in resource exports are expected over the next year as production from the final LNG projects in Western Australia ramps up. Iron ore volumes are expected to increase a little further over the next few years, driven by productivity improvements from Australia's major producers. Other resource commodities are also expected to contribute modestly to GDP growth over the coming year as new projects are completed and existing mines increase production. Coal and iron ore exports are expected to be a little weaker in the near term, however, as maintenance and other disruptions affect supply.

Service and manufactured exports have grown steadily over recent years, supported by the continued economic expansion in Australia's major trading partners. Service exports are expected to remain a significant contributor to total export growth over the next couple of years. In particular, rising enrolments of overseas students in Australia are expected to support education exports.

Solid growth in domestic demand has been associated with steady growth in imports in recent quarters. Imports grew by 6 per cent over the past year, led by capital imports, consistent with the growth seen in business and public investment (which are relatively more import-intensive components of demand).

The increase in resource export volumes, together with increases in bulk commodity prices, saw the trade balance remain in surplus in the June quarter (Graph 2.14). This has offset some recent widening in the net income deficit, and has supported the current account deficit around its relatively low levels. The widening in the net income deficit over the past couple of years is consistent with a pick-up in dividend payments to non-residents as revenues in the (largely foreign-owned) mining sector have increased.

Graph 2.14
Current Account Balance
Per cent of nominal GDP



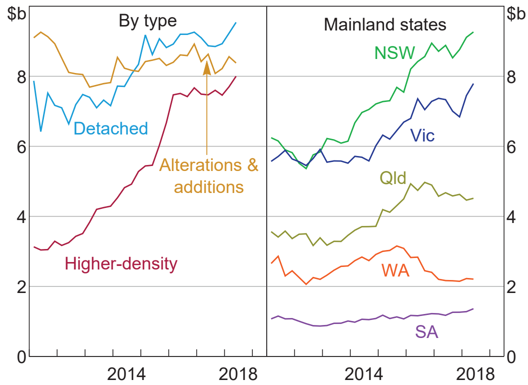
Sources: ABS; RBA

Dwelling investment is likely to be close to its peak

Dwelling investment rose by 1.7 per cent in the June quarter. Both detached and higher-density dwelling investment increased in the quarter and there were upward revisions to the level of dwelling investment in earlier quarters, lifting year-ended growth to 3.8 per cent. Growth was relatively broad based by state, but was particularly strong in New South Wales and Victoria, supported by unusually dry weather (Graph 2.15). Investment in alterations and additions declined in the quarter, driven by ongoing measured weakness in New South Wales.

Overall, it appears that dwelling investment is close to its peak in the current cycle. The number of private residential building approvals declined in the September quarter and were 11 per cent lower than a year ago. Liaison contacts continue to report that demand for new, off-the-plan apartments in Sydney and Melbourne has declined significantly since mid 2017, driven by a pull-back in demand from domestic investors and foreign buyers. Off-the-plan sales typically precede the issuance of a building approval, suggesting that higher-density residential

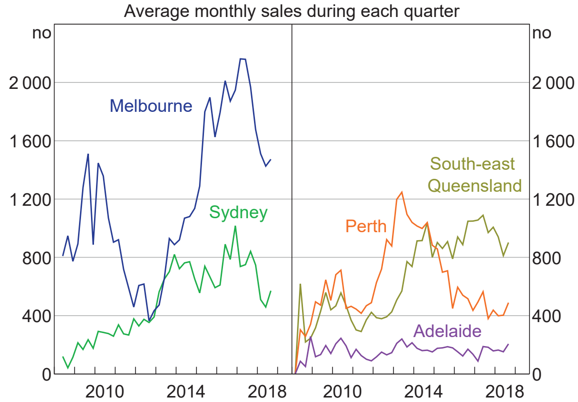
Graph 2.15
Dwelling Investment*
Chain volume



* Reference year is 2015/16
Source: ABS

approvals are likely to moderate further. Lot sales for new detached housing have also declined sharply in Sydney and Melbourne since late 2017, but were little changed in the June quarter (Graph 2.16).

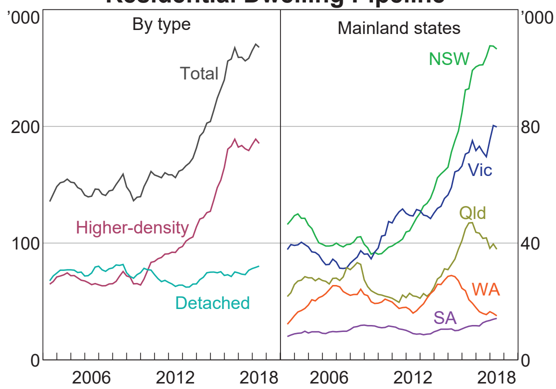
Graph 2.16
Greenfield Lot Sales
Average monthly sales during each quarter



Source: Research4

Despite the moderation in residential building approvals and pre-sales, dwelling investment is expected to remain at a high level for some time yet. The pipeline of work yet to be done was little changed in the June quarter, and should support a high level of dwelling investment for at least the next year (Graph 2.17). Part of the reason

Graph 2.17
Residential Dwelling Pipeline*



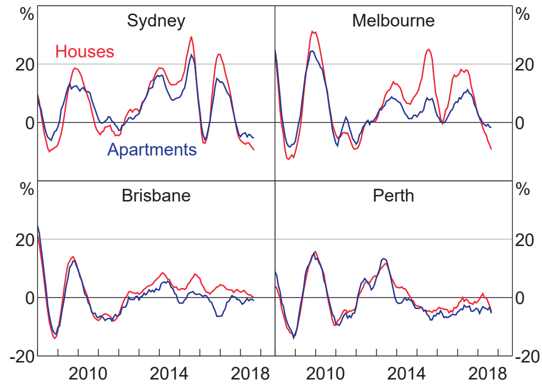
* Includes dwellings approved but not yet commenced and private dwellings under construction
Sources: ABS; RBA

that the pipeline has increased in recent years is that there has been an increase in the average time between approval and commencement of higher-density dwellings, along with somewhat longer completion times. While the increase in commencement times could, in principle, indicate an increased risk that some projects could be abandoned, recently published ABS data indicate that the abandonment rate remained stable at around 2½ per cent of building approvals in 2017/18.

Housing prices have fallen in some cities after strong rises over previous years

Conditions in a number of the established housing markets have continued to ease gradually, including in Sydney and Melbourne. Nationally, established housing prices have declined by 4½ per cent since their September 2017 peak, following an increase of around 45 per cent over the previous five years. In Sydney, prices are around 8 per cent below their peak, while in Melbourne prices are around 5 per cent lower. In both cities, detached housing prices have declined by more than established apartment prices (Graph 2.18). Non-price indicators have also

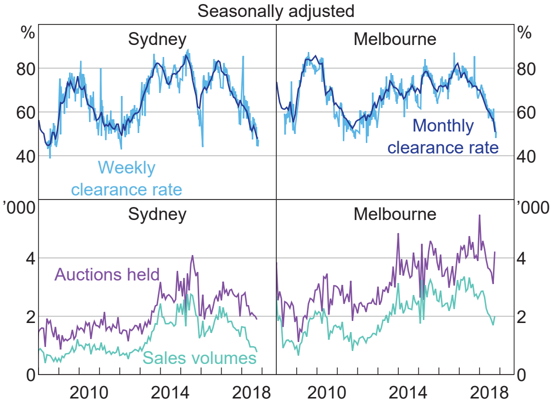
Graph 2.18
Housing Price Growth by Dwelling Type
Six-month-ended annualised



Sources: CoreLogic; RBA

eased, with auction clearance rates and sales volumes falling and days on market increasing (Graph 2.19). In Perth, housing prices declined in the September quarter after stabilising somewhat in early 2018. Prices in other state capitals have been broadly stable of late.

Graph 2.19
Auction Market Indicators*
Seasonally adjusted



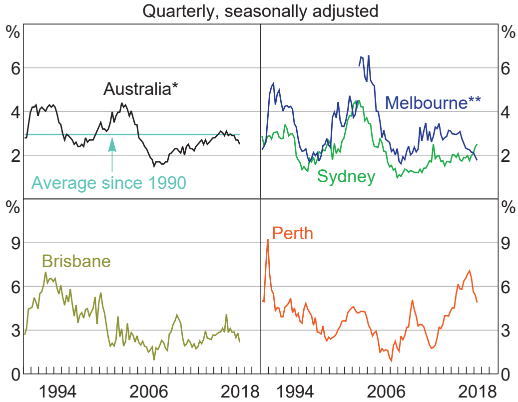
* Weekly clearance rates are not seasonally adjusted

Sources: APM; CoreLogic; RBA; REIV

The easing of housing prices in Sydney and Melbourne reflects a range of factors. On the demand side, sentiment towards the housing market has become more cautious and this has been reflected in a slowing in demand for housing finance, particularly from investors (see 'Domestic Financial Conditions' chapter). The slowing in demand for investor housing credit has been reinforced by stricter lending conditions as a result of actions by regulators over the past few years, notably on investor, interest-only and high loan-to-valuation loans. Meanwhile, affordability constraints following several years of strong price growth and subdued income growth are also likely to have weighed on demand. Demand from foreign buyers has also declined, though this will have mainly affected demand for new properties, given restrictions on purchases of established dwellings by foreigners. The large supply of new dwellings is also likely to have weighed on housing prices and rents. That being said, population growth in Sydney and Melbourne has been supporting underlying demand for new dwellings in these cities, and is expected to continue to do so for some time yet.

In the rental market, vacancy rates are a little below average nationally and rent inflation is subdued (Graph 2.20). In Perth, rental vacancy rates have declined further and advertised rent inflation has stabilised following an extended period of falling rents. In Sydney, advertised rents

Graph 2.20
Rental Vacancy Rates
Quarterly, seasonally adjusted



* Capital cities excluding Adelaide, Darwin and Hobart

** Series break December quarter 2002

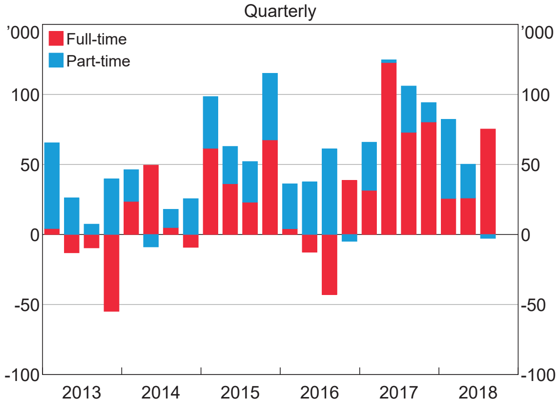
Sources: RBA; REIA; REIV

have declined of late and the rental vacancy rate has crept up as new supply has come online. Meanwhile, in Melbourne, population growth continues to absorb the supply of new dwellings and so vacancy rates have declined.

Employment has grown strongly over recent months

Employment grew by around 75,000 in the September quarter, to be 2¼ per cent higher over the year. This remains above growth in the working-age population and extends the recent period of strong employment growth since the start of 2017. Full-time employment accounted for most of the growth both in recent months and over the past two years (Graph 2.21). It is common for full-time employment growth to be relatively strong during periods of improvement in the labour market. Despite the recent strength in full-time employment growth, average hours worked have not risen; average hours worked by full-time workers have continued their long-standing downward trend. In contrast, the average hours worked by part-time workers have continued to increase gradually.

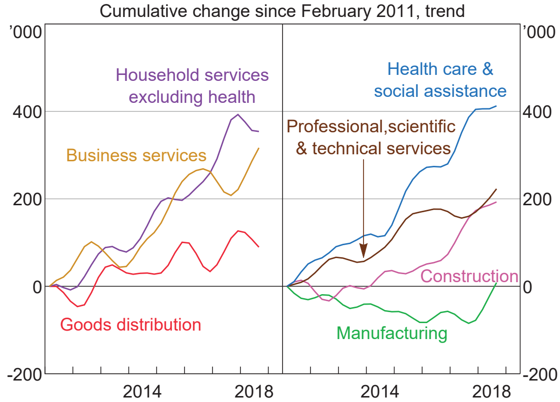
Graph 2.21
Change in Employment
Quarterly



Source: ABS

Much of the employment growth over the past year was in the manufacturing, construction and professional, scientific & technical industries (Graph 2.22). The increase in manufacturing employment is in line with the increase in manufacturing output over the past year; the industry has been supported by strong growth in export demand for food products, strong demand related to building activity in the eastern states, investment in defence and a modest increase in demand from the mining sector.

Graph 2.22
Employment by Selected Industry
Cumulative change since February 2011, trend



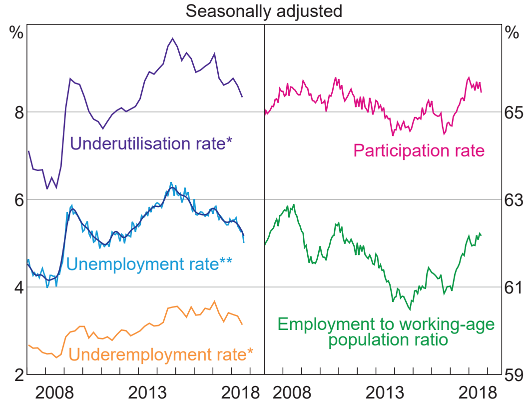
Sources: ABS; RBA

The increase in construction employment over the past year was concentrated in heavy and civil engineering, consistent with the elevated level of public infrastructure building activity. Employment in residential construction has declined a little recently but remains at a relatively high level.

The participation rate remained at a high level in the September quarter after rising sharply over 2017. The participation rates of males and females across most broad age categories have been little changed or declined a little this year. One exception is men over the age of 65, who have recorded a further increase in participation; this is likely to be related to the increase in the age of pension eligibility to 65½ years in mid 2017.

Overall, the labour demand indicators monitored by the Bank suggest that above-average growth in labour demand will continue over the remainder of this year (see 'Box B: Indicators of Labour Demand'). Job vacancies as a share of the labour force remain at a very high level in New South Wales and Victoria, and have continued to increase sharply in Western Australia in recent quarters. Nationally, the ratio of job vacancies to unemployed persons has increased further over the past year, consistent with a decline in spare capacity in the labour market.

Graph 2.23
Labour Market
Seasonally adjusted



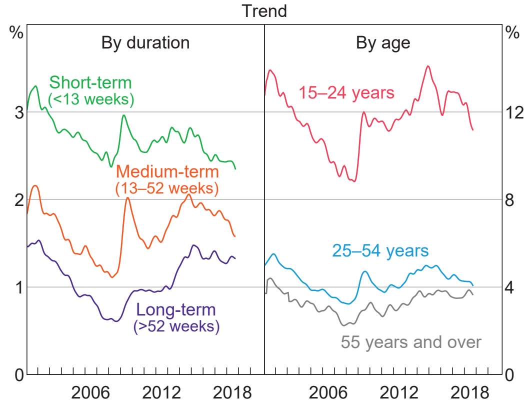
* Hours-based measure
** Trend unemployment in dark blue
Sources: ABS; RBA

The unemployment rate has continued to decline, but some spare capacity remains

The unemployment rate fell to 5 per cent in September, from 5¼ per cent in the previous two months (Graph 2.23). While the labour force data can be volatile from month to month, the unemployment rate has declined by around ¾ percentage point since early 2017. A broader measure of labour market underutilisation – which captures the additional hours that underemployed people would like to work as well as hours sought by the unemployed – has also declined further over recent months.

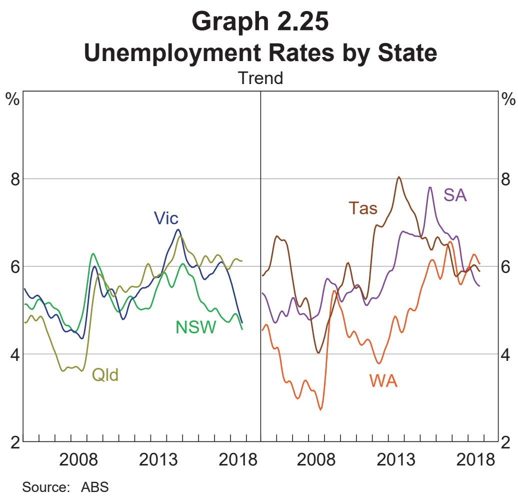
There has been a notable decline in unemployment this year among those unemployed for between 13 weeks and one year (Graph 2.24). So far, there has been little reduction in the share of the labour force that has been unemployed for more than one year, but this measure of long-term unemployment should begin to decline noticeably if the labour market continues to improve as expected. The youth unemployment rate – defined here as the unemployment rate for 15–24 year olds – remains high but has declined sharply this year.

Graph 2.24
Unemployment Rates
Trend



Sources: ABS; RBA

The unemployment rate in Victoria has declined by almost 1½ percentage points over the past year while the trend unemployment rates in South Australia and New South Wales have also declined a little in recent months (Graph 2.25). The unemployment rate in New South Wales is now at its lowest level in over a decade, and the state's participation rate is around its highest level in the series' history. Labour market conditions in Western Australia and Queensland appear to have stabilised in recent months, following a notable improvement last year. ✠



Box B

Indicators of Labour Demand

Bank staff monitor a range of indicators to assess conditions in the labour market. Some of these indicators contain information about the demand for workers, and therefore can inform forecasts for employment growth in the near term.[1] These indicators include:

- *Job vacancies:* estimates the number of vacant positions in the economy that are ready to be filled, based on a quarterly survey by the ABS
- *Job advertisements:* counts the number of job advertisements on recruitment websites and in newspapers. Separate indicators are published monthly by ANZ and the Department of Jobs and Small Business; they have slightly different coverage
- *Employment intentions:* the net balance of firms expecting to increase employment over both the next 3 and 12 months, based on the NAB business survey.

These indicators of labour demand should capture changes in labour market conditions before the official ABS employment data. For example, a firm will typically have a vacancy and engage in recruitment activities, such as advertising jobs, before hiring new employees. Also, firms might be expected to reduce recruitment activities before retrenching existing employees in a downturn.[2]

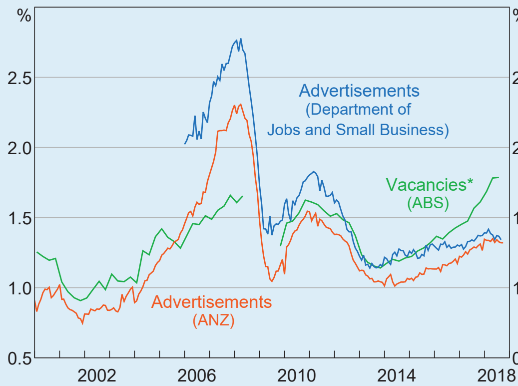
1 For a comprehensive summary of these data, see Edwards K and L Gustafsson (2013), 'Indicators of Labour Demand' RBA *Bulletin*, September, pp 1–12.

2 For a discussion of the lags between GDP growth and growth in labour market variables, see RBA (2014), 'Box B: Lags from Activity to the Labour Market', *Statement on Monetary Policy*, May, pp 39–41.

The Bank often presents advertisements and vacancies as a share of the labour force (Graph B1). This helps to make these indicators more comparable over time by adjusting for growth in the size of the labour market. In considering the implications of these indicators for employment growth, Bank staff examine both the level and the growth in advertisements and vacancies. Statistical analysis shows a stronger correlation of changes in advertisements and vacancies with future employment growth.[3] Examining changes can also reduce the impact of any structural changes that may have affected the relative levels of these indicators caused, for instance, by differences in coverage.

Over the past few years, each of the indicators has pointed to an increase in labour demand (Graph B1 and Graph B2). However, the number of

Graph B1
Advertisements and Vacancies
Per cent of labour force

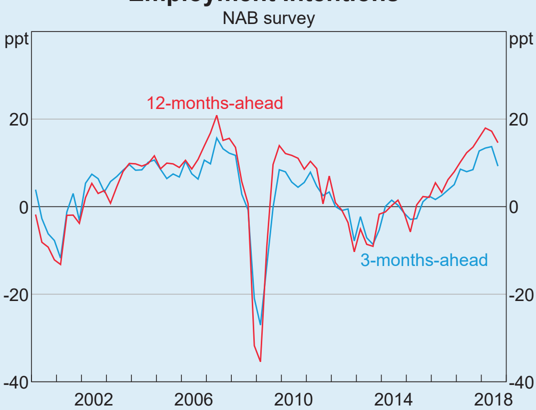


* This survey was suspended between May 2008 and November 2009
Sources: ABS; ANZ; Department of Jobs and Small Business; RBA

3 This is discussed in Edwards K and L Gustafsson (2013), 'Indicators of Labour Demand' RBA *Bulletin*, September, pp 1–12.

job vacancies – and, to some degree, employment intentions – has increased more than job advertisements. It is common for the signal from these indicators to diverge for brief periods, but it is less common for differences to persist.

Graph B2
Employment Intentions*



* Net balance of employment intentions for the following period; deviation from average; 12-months-ahead measure seasonally adjusted by RBA

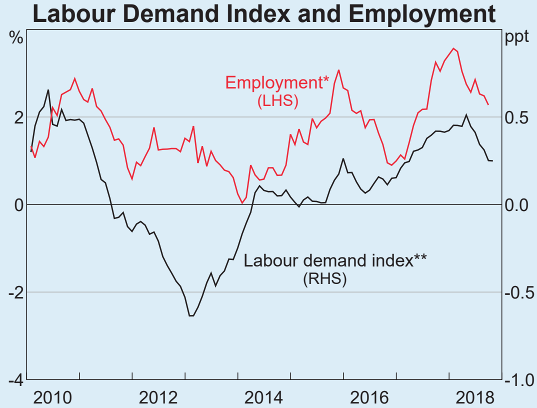
Sources: NAB; RBA

The slower growth in job advertisements recently (relative to job vacancies) may reflect differences in coverage. Neither of the job advertisement indicators are designed to represent the population of advertisements: they count advertisements on some websites and major newspapers, but have not captured new entrants into the recruitment market over recent years or any increase in the use of corporate websites for recruitment. In contrast, job vacancies should capture vacant positions regardless of which recruitment approach is taken, as the ABS surveys businesses about their vacancies directly. The relationship between vacancies and advertisements is further complicated because there is not always a one-to-one relationship between a job and an advertisement; there can be single advertisements for multiple jobs and multiple advertisements for a single job. Firms can also use 'expression of interest' databases.

Notwithstanding the differences, each of these indicators of labour demand has a relationship with future employment growth; the highest correlations are typically one or two quarters ahead. However, the strength of these correlations has varied over time, declining after 2012, but picking up again since 2016.[4] In addition, there has been no single 'best' indicator of near-term employment growth because the indicator with the highest correlation with employment growth has changed over time.

As an adjunct to monitoring each of these indicators separately, they can be combined into a single measure, or 'Labour Demand Index' (LDI), using statistical techniques (Graph B3).[5] A positive LDI points to above-average employment growth over the next one or two quarters, while a negative LDI points to below-average employment growth. Analysis by Bank staff has

Graph B3
Labour Demand Index and Employment



* Year-ended growth

** Shifted forward three months

Sources: ABS; ANZ; Department of Jobs and Small Business; NAB; RBA

4 Based on five-year rolling correlations between quarterly employment growth and the one-quarter lag of: growth in job vacancies; growth in job advertisements; and the level of employment intentions (net balance).

5 The LDI is a statistically filtered index that aggregates information from the component indicators (which all differ in frequency and timeliness). The Bank has previously used the same method to construct estimates of Australian GDP, see Rees D, D Lancaster and R Finlay (2014), 'A State-space Approach to Australian GDP Measurement', RBA Research Discussion Paper No 2014-12.

found that the forecast accuracy for near-term employment growth is improved by using the LDI, compared with using any one of its component indicators. However, to understand movements in the LDI, it remains important to monitor and understand each of the component indicators.

On balance, the LDI and its component indicators point to above-average employment growth over the next quarter or two. This is consistent with recent above-trend GDP growth and our expectation that it will continue to be above trend over the near term. ✠

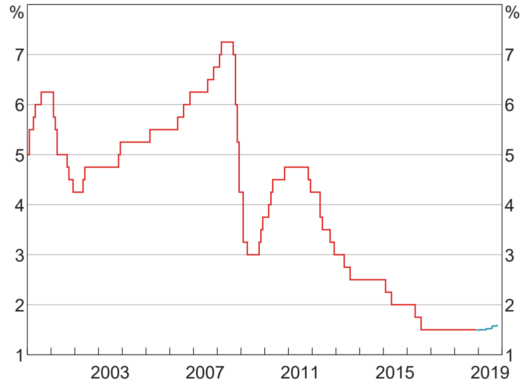
3. Domestic Financial Conditions

Domestic financial conditions remain accommodative for households and businesses. Financial market prices suggest that the cash rate is expected to remain unchanged over the year ahead. Money market interest rates have been a little higher this year than over 2017 and this has resulted in a small increase in funding costs for banks. Banks have responded by passing on a small increase in interest rates to business and housing loans. Nevertheless, borrowing rates remain low by historical standards. Growth in housing credit has eased, most notably for credit extended to investors. While housing credit conditions are tighter than they have been for some time, growth in the demand for credit has also slowed. Indeed, the average rate on housing loans has declined over much of the past year or so, suggesting that lenders have been competing vigorously for new borrowers who are low risk. Growth in business credit has picked up and is currently above that of housing credit. The notable fall in Australian equity prices recently was in line with developments in global equities markets. The Australian dollar remains within its fairly narrow range of the past couple of years.

Investors expect the cash rate to remain unchanged over the year ahead

The Reserve Bank has maintained the cash rate target at 1.5 per cent since August 2016. Financial market prices imply that the cash rate is expected to remain unchanged in 2018 and 2019, and increase to 1.75 per cent in 2020 (Graph 3.1).

Graph 3.1
Cash Rate*



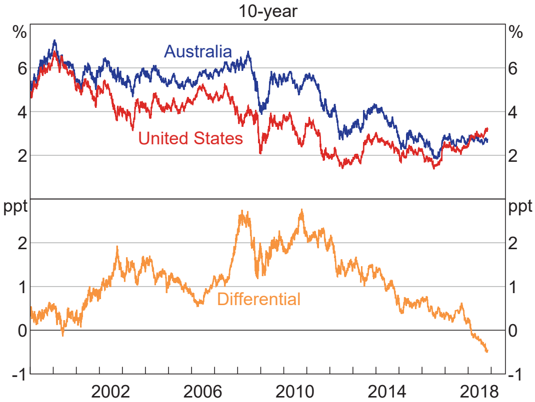
* Data from December 2018 onwards are expectations derived from interbank cash rate futures

Sources: ASX; Bloomberg

Government bond yields have been little changed

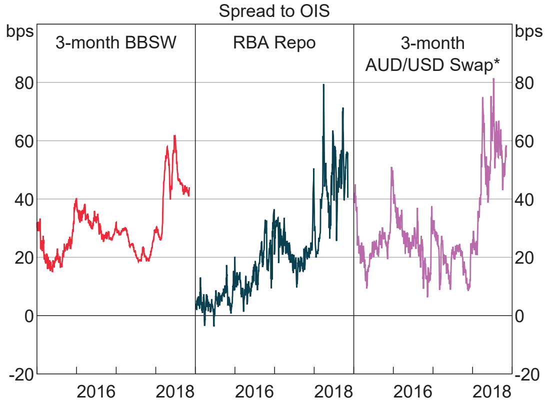
Yields on 10-year Australian Government Securities (AGS) have increased slightly over recent months to be around 2.7 per cent. With US Treasury yields moving higher over this period, the difference between US Treasury and AGS yields has widened further, and is now around 50 basis points (Graph 3.2). In September, Standard and Poor's changed the outlook for Australia's AAA sovereign credit rating from negative to stable in response to the narrowing of the budget deficit. Issuance from the Australian Government and state borrowing authorities has continued to be met by strong demand from the markets. The pace of net issuance by the Australian Government is expected to decline over 2018/19, reflecting the narrowing in the forecast budget deficit. The stock of bonds issued by the state borrowing authorities is expected to be little changed over 2018/19.

Graph 3.2
Government Bond Yields
10-year



Sources: Bloomberg; RBA

Graph 3.3
Australian Dollar Money Market Spreads
Spread to OIS



* Implied cost of offshore issurance in US dollars swapped back to Australian dollars

Sources: ASX; Bloomberg; RBA

Short-term money market rates remain higher than in 2017

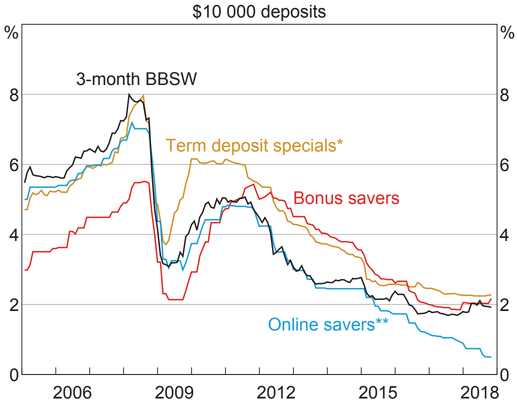
Money market rates remain higher than in 2017 despite little change in market expectations for the future path of the cash rate. Spreads on 3-month bank bills relative to overnight indexed swaps (OIS) remained around 20 basis points higher than their average over 2017 (Graph 3.3). In contrast, US dollar money market rates have increased recently. The cost of raising US dollar funding and then converting these funds into Australian dollars in the foreign exchange (FX) swap market has also remained higher than a year earlier. Bank bill and FX swap markets have been less volatile in recent months than they were in the first half of the year. However, repurchase agreement (repo) rates rose sharply at the end of the September quarter before easing subsequently, repeating a pattern seen at the ends of the previous three quarters. In contrast to other money markets, conditions in the overnight interbank markets have remained stable and the cash rate has continued to trade at the Reserve Bank Board's target.

The higher spreads and increased volatility in money markets this year appear to be, at least in part, related to some structural developments in these markets. Banks have become more reluctant to supply liquidity in money markets. This is likely to be partly the consequence of changes in banking regulation following the global financial crisis, along with the greater focus on bank conduct in money markets and changes in the risk appetite of banks. Also, demand to borrow Australian dollars in money markets remains strong.

Banks' funding costs are a little higher than in 2017 but remain low

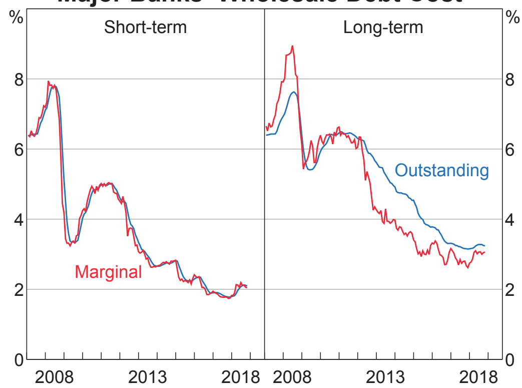
While banks' funding costs are a little higher than they were in 2017, funding costs remain low by historical standards. Banks' funding costs have increased by significantly less than money market rates. This is partly because interest rates on retail deposits – which account for around a third of banks' funding (excluding equity) – have declined since the start of the year. This largely reflects a decline in the interest rates on online saver accounts at the major banks (Graph 3.4).

Graph 3.4
Major Banks' Retail Deposit Rates
$10 000 deposits



* Average of 1–12, 24-, 36- and 60-month terms
** Excludes temporary bonus rates
Sources: ASX; Canstar; RBA

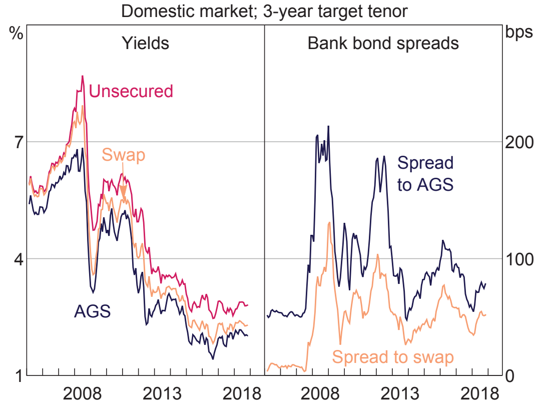
Graph 3.5
Major Banks' Wholesale Debt Cost*



* RBA estimates; rates exclude interest rate hedges
Sources: Bloomberg; RBA

The increase in money market rates earlier this year exerted upward pressure on the cost of banks' wholesale funding, which accounts for around two-thirds of their funding. Australian banks ultimately pay rates that are linked to Bank Bill Swap (BBSW) rates on most of their wholesale debt. In particular, in addition to issuing variable rate Australian-dollar denominated debt, banks swap much of their fixed-rate or foreign-currency denominated debt into Australian-dollar floating-rate exposures by using derivatives. This aligns the nature of the rates for their funding with those of their assets, which consist largely of variable interest rate loans (denominated in Australian dollars). Despite the increase in money market rates earlier in the year, the cost of short-term and long-term wholesale debt for banks generally remains at a low level (Graph 3.5). Rates on wholesale deposits (for example, deposits from large corporations, pension funds and the government) also tend to be closely linked to BBSW rates, so the cost of these deposits has risen a little since 2017. Spreads to benchmark rates for the major banks' bonds are also a bit higher than a year ago (Graph 3.6).

Graph 3.6
Major Banks' Bond Pricing
Domestic market; 3-year target tenor



Source: Bloomberg

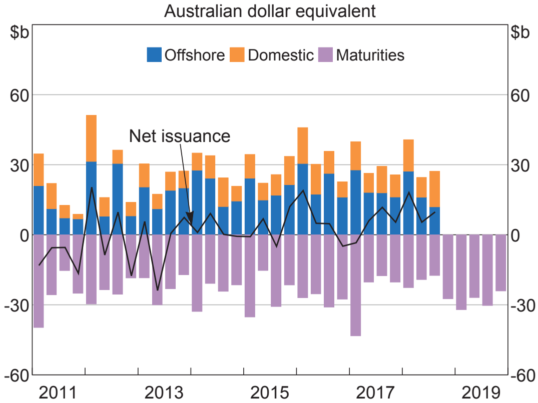
The increase in BBSW rates also directly affected interest rates on some bank assets, such as large business lending rates and yields on banks' liquid asset holdings that reference BBSW rates. This has dampened the impact that higher funding costs have had on banks' net interest margins (NIM).[1] Banks have also decided to pass the funding cost increase on to other borrowers. In particular, most banks have increased their standard variable rates (SVRs) on housing loans in recent months (discussed further below).

1 The NIM is a measure of the difference between the interest income earned by banks, for example, on loans and other assets, and the amount of interest they pay out on their liabilities, for example, on deposits and other sources of funding.

Banks and non-bank lenders have maintained good access to wholesale funding markets

Australian banks have issued bonds at a similar pace to previous years, with around $95 billion raised in the first three quarters of 2018. Net issuance, which takes account of bond maturities, has been well above average over the same period given the relatively limited volume of bonds maturing (Graph 3.7). While most of the banks' long-term wholesale funding has typically been raised in offshore markets, the September quarter was an exception, with a higher proportion of domestic issuance.

Graph 3.7
Australian Banks' Bond Issuance
Australian dollar equivalent

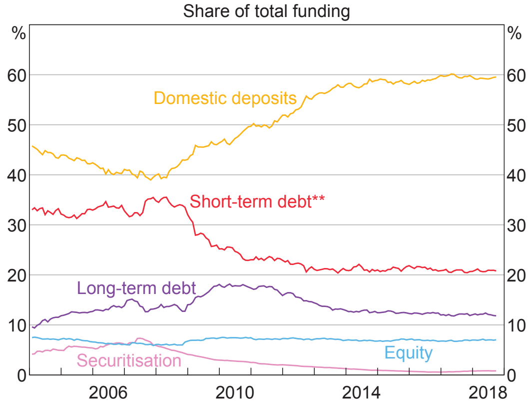


Sources: Bloomberg; KangaNews; RBA

Overall, the composition of banks' funding has been little changed since the beginning of the year and growth in banks' balance sheets remains subdued (Graph 3.8).

The share of residential mortgage-backed securities (RMBS) issued by non-bank lenders has been relatively high over the past year, with these lenders issuing around $4 billion of RMBS each quarter (Graph 3.9). While issuance for the market as a whole remains lower than in 2017, this has been largely driven by decreased issuance by banks. Prices for new deals – expressed as a spread to BBSW rates – have been higher than the low levels seen at the start of the year.

Graph 3.8
Funding Composition of Banks in Australia*
Share of total funding

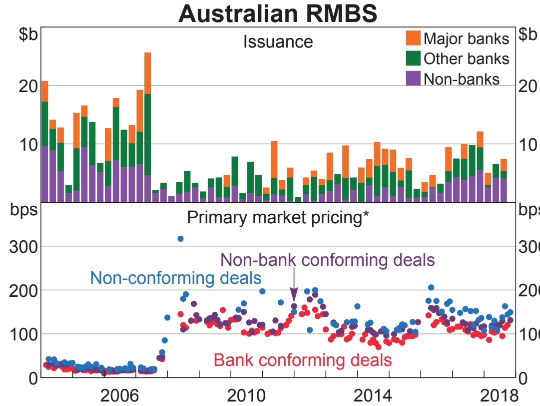


* Adjusted for movements in foreign exchange rates; tenor of debt is estimated on a residual maturity basis

** Includes deposits and intragroup funding from non-residents

Sources: APRA; RBA; Standard & Poor's

Graph 3.9
Australian RMBS



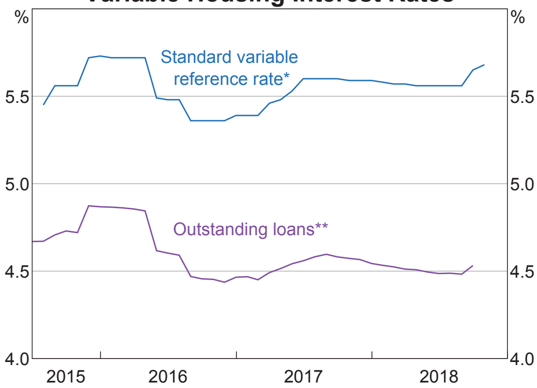
* Face-value weighted monthly average of the primary market spread to bank bill swap rate for AAA rated notes

Sources: Bloomberg; KangaNews; RBA

Most lenders increased their standard variable rates on housing loans …

Most banks have increased their SVRs on housing loans by around 10–15 basis points in recent months (Graph 3.10). These banks generally linked the increases to higher funding costs. Around two-thirds of the entire stock of housing loans is affected by the changes in SVRs at these banks.

Graph 3.10
Variable Housing Interest Rates



* Average across major banks' rates; data to October 2018
** Data to September 2018
Sources: RBA; Securitisation System

There is preliminary evidence that the increases in SVRs have been flowing through to the actual housing rates paid by households. Data from the Securitisation Dataset suggest that the average outstanding variable rate increased a little in September 2018 (which is the latest data available; Table 3.1).[2] There are several reasons why the measured increase in actual rates so far has been smaller than the announced increase in SVRs by some banks. In part, this reflects the fact that not all lenders increased their SVRs, while some of the SVR increases were not yet effective in September. In addition, interest rates on new loans continue to be significantly lower than interest rates on outstanding loans and some existing borrowers are likely to have refinanced at these lower rates

Table 3.1 Intermediaries' Fixed and Variable Lending Rates

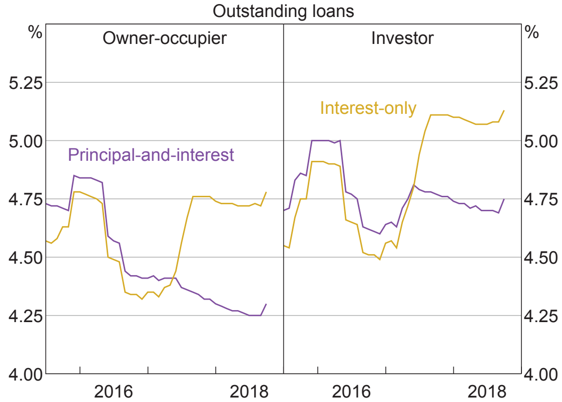
	Interest rate Per cent	Change since August 2018 Basis points	Change since September 2017 Basis points
Housing loans(a)			
– Variable principal-and-interest rate			
– Owner-occupier	4.30	5	–4
– Investor	4.75	6	–2
– Variable interest-only rate			
– Owner-occupier	4.78	6	2
– Investor	5.13	5	2
– Fixed rate			
– Owner-occupier	4.17	–1	–13
– Investor	4.33	0	–8
– Average outstanding rate	4.50	4	–5
Personal loans			
– Variable rate(b)	11.49	1	–10

(a) Average rates from Securitisation Dataset, updated for end September 2018
(b) Weighted average of advertised variable-rate products
Sources: ABS; APRA; banks' websites; Securitisation System; RBA

2 The Securitisation Dataset covers around a quarter of the market for housing loans and includes information on the loans underlying both marketed securitisations and ADIs' self-securitisations. These data provide useful indicators of developments in home lending, although loans in the dataset may have different characteristics from those not covered by the dataset. See Kent C (2017), 'Some Innovative Mortgage Data', Speech at Moody's Analytics Australia Conference 2017, Sydney, 14 August. See also Kohler M (2017), 'Mortgage Insights from Securitisation Data', Speech at Australian Securitisation Forum, Sydney, 20 November.

with a different lender or renegotiated the rate of their existing loan with their current lender. By September, variable rates for borrowers making principal-and-interest (P&I) payments were a little below the levels of a year ago, whereas variable rates for interest-only (IO) borrowers were marginally higher than a year ago (Graph 3.11).

Graph 3.11
Variable Housing Interest Rates
Outstanding loans

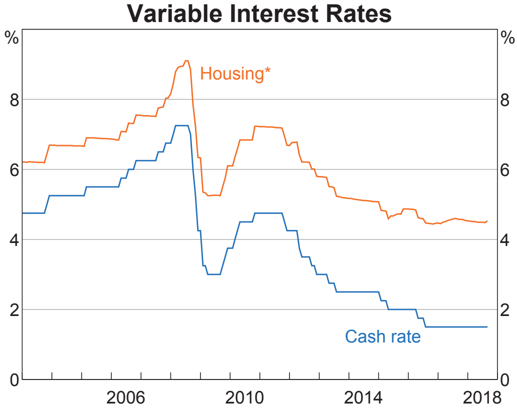


Sources: RBA; Securitisation System

… but average housing interest rates remain low

Even taking the recent increases in mortgage rates into account, variable housing interest rates remain at very low levels historically (Graph 3.12).

Graph 3.12
Variable Interest Rates



* Average variable outstanding rate; before June 2015, RBA estimates based on advertised rates; data from Securitisation System thereafter

Sources: APRA; banks' websites; RBA; Securitisation System

Advertised fixed rates have declined since the middle of the year across a range of lenders, including some major banks, and are at low levels relative to history. Housing loans with fixed interest rates account for around 20 per cent of outstanding housing credit, and the rates paid on the stock of these loans adjust only gradually.

… and competition for new housing loans remains strong

Interest rates for new loans continue to be significantly lower than for outstanding loans, reflecting continued strong competition for new customers. Several smaller lenders that raised their SVRs in recent months also decreased their advertised variable rates for new loans. Data from the Securitisation Dataset suggest that, on average, rates for new borrowers have decreased over much of the past year, although it is a little too early to assess the impact of the recent increases in standard variable rates on interest rates paid for new loans.

Liaison suggests that competition is particularly strong for borrowers with high-quality credit profiles seeking owner-occupier P&I loans. Competition for investor loans has also increased, particularly among some smaller authorised deposit-taking institutions (ADIs). Overall, the decline in the rates for new loans has been somewhat more pronounced for investors than for owner-occupiers for much of the past year.

Housing credit growth has slowed but business credit growth has picked up

While the growth of housing credit has slowed, the growth of business credit has picked up over the past year and is currently above that of housing credit in six-month annualised terms (Table 3.2; Graph 3.13).

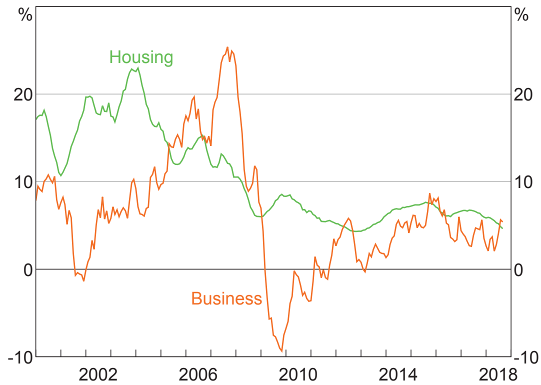
Table 3.2: Financial Aggregates

Percentage change[(a)]

	Three-month ended annualised		Year-ended
	Jun 2018	Sep 2018	Sep 2018
Total credit	3.6	5.5	4.6
– Housing	4.6	4.7	5.2
– Owner-occupier housing	7.1	6.4	7.3
– Investor housing	0.1	1.4	1.4
– Personal	–1.7	–1.4	–1.5
– Business	2.6	8.3	4.4
Broad money	1.2	3.3	2.1

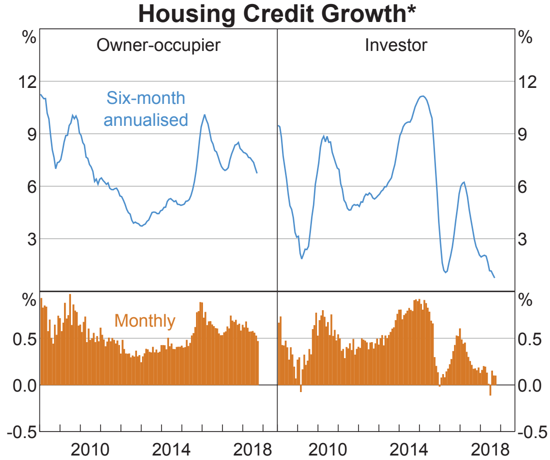
(a) Seasonally adjusted and break-adjusted
Sources: ABS; APRA; RBA

Graph 3.13
Credit Growth*
Six-month-ended annualised



* Seasonally adjusted and break-adjusted
Sources: APRA; RBA

Graph 3.14
Housing Credit Growth*



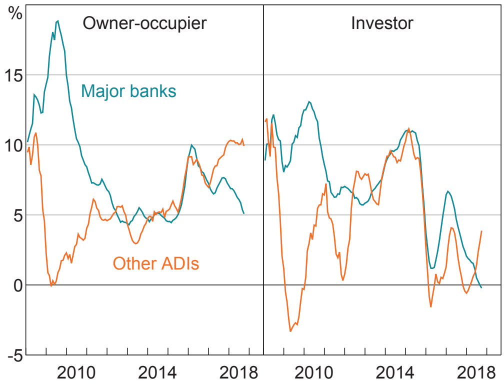
* Seasonally adjusted and break-adjusted
Sources: APRA; RBA

The slowing in housing credit growth largely owes to investor credit

Housing credit growth has slowed since mid 2017, to be around 4½ per cent in six-month annualised terms. The slowing was most pronounced for investors (Graph 3.14).

Over the past three months, investor credit increased only a little, by around 1 per cent in six-month annualised terms; this compares to average annualised growth of around 6 per cent over the past decade. Housing credit extended by the major banks to investors contracted over recent months, but this was more than offset by continued growth in lending from other institutions. Growth in investor credit extended by ADIs other than the major banks has picked up recently (Graph 3.15). Liaison with financial institutions also indicates that non-ADIs have been lending to some borrowers who may otherwise have borrowed from ADIs in the absence of earlier regulatory measures (discussed further below). This includes some investors and IO borrowers, as well as some borrowers who may have been offered smaller loan sizes by ADIs or had difficulty meeting their tighter lending criteria. Consistent with this, the available data suggest that a rising

Graph 3.15
Housing Credit Growth*
Six-month-ended annualised

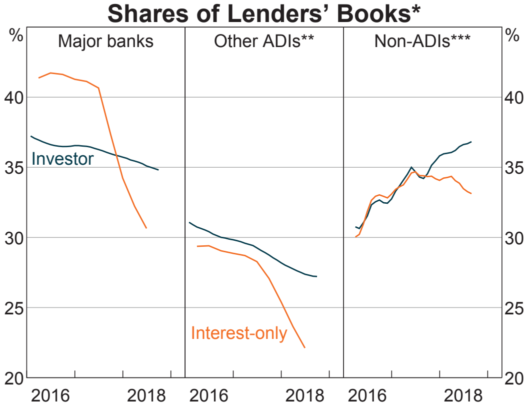


* Seasonally adjusted and break-adjusted
Sources: APRA; RBA

share of non-ADI lending has been to investors (Graph 3.16). Furthermore, the share of non-ADIs' loans extended on IO terms appears to have remained relatively stable, while the share of ADI loans on IO terms has declined significantly. While non-ADIs' housing lending has been growing rapidly, the non-ADI share of total housing credit is estimated to remain low, at less than 5 per cent.

Growth in owner-occupier credit has eased a little recently, but it has grown at around 6½ per cent in annualised terms over the past six months. The recent easing reflects some slowing

Graph 3.16
Shares of Lenders' Books*



* For example, the investor share of major banks' outstanding housing loans
** ADIs with greater than $1 billion in total housing assets
*** Share of RMBS outstanding in the Securitisation System; 3-month moving average
Sources: APRA; RBA; Securitisation System

in the growth of owner-occupier credit at the major banks, while owner-occupier credit growth at other ADIs remains strong at around 10 per cent over the year.

Housing credit conditions are tighter than they have been for some time …

Over the past few years, the increase in standard variable housing loan rates and a range of changes to lending standards prompted by regulatory actions suggest that the supply of credit has tightened. Credit conditions tightened, particularly for investors, as regulators implemented a range of measures from late 2014 onwards to mitigate the risks associated with certain forms of housing lending. These included: a benchmark for investor lending growth, with supervisors paying particular attention to institutions with annual investor credit growth exceeding 10 per cent; a benchmark limiting the share of IO loans to less than 30 per cent of an ADI's new lending; tightening loan serviceability assessment criteria; and guidance aimed at limiting lending at high loan-to-valuation ratios.[3] Collectively, these measures reduced risk by changing the composition of housing lending. They also contributed to the slowing in investor credit growth. Over the same period, financing conditions tightened for foreign investors leading to a reduction in demand for housing from this source.[4] The tightening in the supply of IO loans will have prevented some borrowers from extending their IO period and required them to switch to higher P&I payments; this is likely to have made a very small contribution to the overall slowing in credit growth.[5]

3 For further details see RBA (Reserve Bank of Australia) (2018), 'Assessing the Effects of Housing Lending Measures', *Financial Stability Review*, October, pp 75–88.

4 Lending to non-residents is not included in housing credit, so this has not affected the measures of housing credit growth.

5 Liaison with ADIs suggests that while some borrowers have encountered repayment difficulties after switching to P&I repayments at the end of their IO terms, many have subsequently been able to adjust to higher payments within a year. See RBA (2018), *Financial Stability Review, October*.

The supply of housing credit is also likely to have been influenced by some more recent developments. Banks may have become less willing to extend credit due to heightened public scrutiny, partly as a result of the Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry. Moreover, in response to regulatory actions by Australian Prudential Regulatory Authority (APRA) and Australian Securities & Investments Commission (ASIC), banks have been more thoroughly assessing loan applicants' expenses when deciding how much to lend and it is taking longer for many borrowers to get a loan than in the past. While these delays may have contributed to a slowing in credit growth over recent months, some of this slowing is likely to be temporary as banks transition to new processes. Other developments potentially affecting credit supply include: greater focus on banks' responsible lending obligations; the introduction of limits on lending with high debt-to-income ratios by bank boards;[6] and the introduction of comprehensive credit reporting that will improve the visibility of borrowers' overall debt obligations. The cumulative effect of these changes is to reduce the maximum loan size available to some households. However, only a small share of households had previously borrowed close to the maximum amount that they were offered. So, even noticeable reductions in maximum loan sizes will not be binding for most households. The prospective borrowers most affected will be those who are least able to afford loans and these borrowers account for only a small share of new credit. These changes are therefore not expected to reduce the overall availability of credit by much.[7] In addition, growth in credit to investors by lenders other than the major banks has picked up, providing an alternative source of credit supply. Furthermore, it is possible that credit conditions for investors may ease somewhat in coming months to the extent that banks are successful in applying for their investor lending benchmark to be lifted by the regulator.

… but growth in demand for housing loans has also declined

Growth in the demand for credit also appears to have slowed noticeably over the past year or so, particularly for investors. The fall in housing prices in major markets is likely to have weighed significantly on demand for credit. Investors are likely to have been especially sensitive to expectations of capital losses associated with declines in housing prices. The fact that average variable lending rates drifted down over most of the past year suggests that banks have been responding to this weakness in credit demand by competing more vigorously to supply housing loans to high-quality borrowers. Indeed, there is some evidence that average variable interest rates on new loans declined by more for investors than owner-occupiers, which is consistent with a noticeable decline in growth in demand for investor credit.

Business funding conditions are generally accommodative

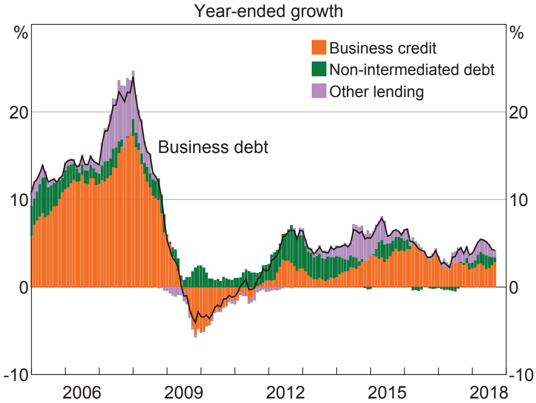
Funding conditions remain accommodative for many businesses. Growth in business credit has picked up in recent months, alongside an increase in mergers and acquisitions activity (see below). However, growth in a broader measure of business debt remains moderate due to a slowing in non-intermediated debt issuance this year (Graph 3.17).

The increased scrutiny of conduct in the financial services sector has extended to lending to small businesses. Market participants have highlighted

6 Subject to this, and confirmation that banks' lending policies are sufficiently strong, banks can apply to have the 10 per cent investor lending benchmark lifted.

7 For further details see RBA (2018), 'Box B: The Impact of Lending Standards on Loan Sizes', *Financial Stability Review*, October, pp 32–36.

Graph 3.17
Business Debt*
Year-ended growth

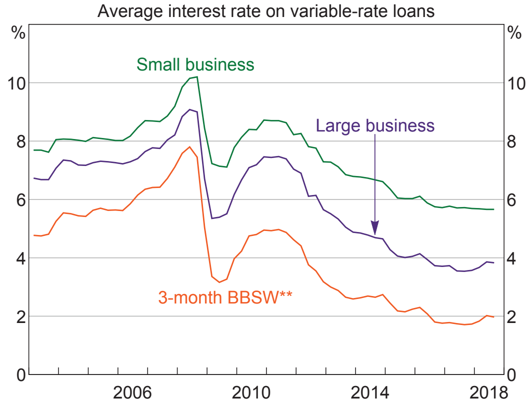


* Break-adjusted; not seasonally adjusted
Sources: APRA; Bloomberg; RBA; Refinitiv

that there is a trade-off between providing more protections for small business borrowers and the willingness of banks to lend. There is often a blurred line between the business and personal finances of entrepreneurs, so banks can find it operationally easier to also apply the responsible lending rules for consumers to small businesses. This could be contributing to a tightening in access to finance for small businesses.[8]

As discussed earlier, interest rates on loans to many businesses have risen, reflecting the rise in banks' funding costs. Rates on outstanding variable-rate loans to large businesses increased by around 30 basis points over the past year, as most of these loans are linked to BBSW rates (Table 3.3; Graph 3.18). Nevertheless, lending rates for large businesses remain near historical lows. Lending rates on outstanding loans to small businesses were little changed over the past year, as small business rates are generally not directly linked to BBSW rates. However, a few banks have increased advertised interest rates for their residentially secured small business loans alongside the increase in their SVRs on residential mortgages. A few banks have also increased

Graph 3.18
Variable Business Lending Rates*
Average interest rate on variable-rate loans



* RBA estimates
** 3-month trailing average
Sources: APRA; ASX; RBA

Table 3.3 Intermediaries' Fixed and Business Lending Rates

	Interest rate Per cent	Change since September 2017 Basis points
Small business[(a)]		
– Average outstanding variable rate	5.66	–6
– Average outstanding fixed rate	5.27	4
Large business		
– Average outstanding variable rate	3.83	30
– Average outstanding fixed rate	3.74	23

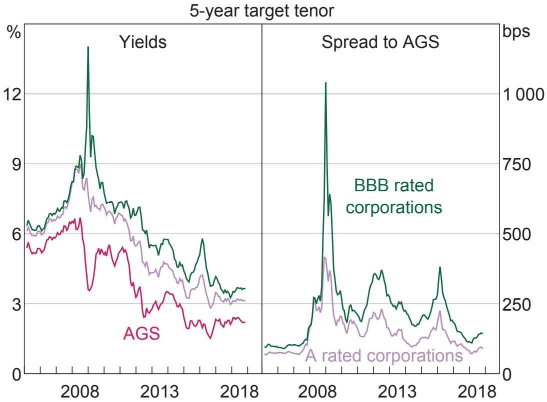
(a) Loans under $2 million
Sources: APRA; RBA

8 For further details, see Connolly E and J Bank (2018), 'Access to Small Business Finance', RBA *Bulletin*, September.

their fixed rates for small business loans during 2018, though these rates also remain low by historical standards.

Yields on bonds issued by non-financial corporations have been little changed over recent months and remain at very low levels (Graph 3.19).

Graph 3.19
Australian Corporate Bond Pricing
5-year target tenor



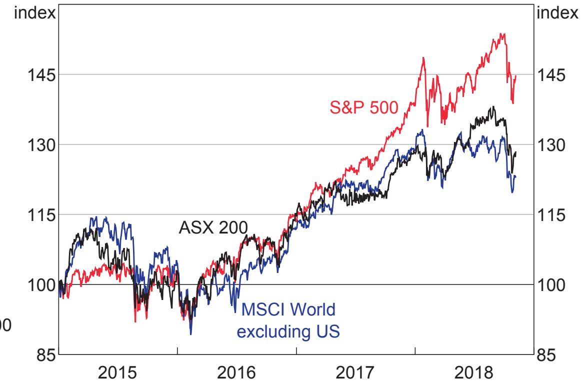
Sources: Bloomberg; RBA; S&P Capital IQ

Australian equity prices have decreased …

Australian equity prices fell sharply in October in line with global developments. Taking account of dividend payments, the Australian equity market has underperformed relative to the US market but outperformed other markets since the start of the year (Graph 3.20). After an extended period of low market volatility, the equity market decline in October generated a pick-up in volatility to around the average of recent years.

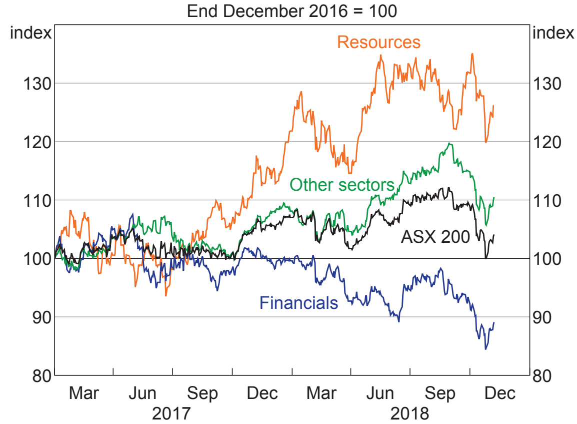
As a result of the recent price falls, share prices for a number of sectors are below their levels at the beginning of the year. Financial sector share prices have experienced some of the largest declines over this period (Graph 3.21). In particular, bank share prices are 12 per cent lower over the year, with their performance in recent months influenced in part by developments associated

Graph 3.20
Share Price Accumulation Indices
End December 2014 = 100



Sources: MSCI; Refinitiv

Graph 3.21
Australian Share Prices
End December 2016 = 100



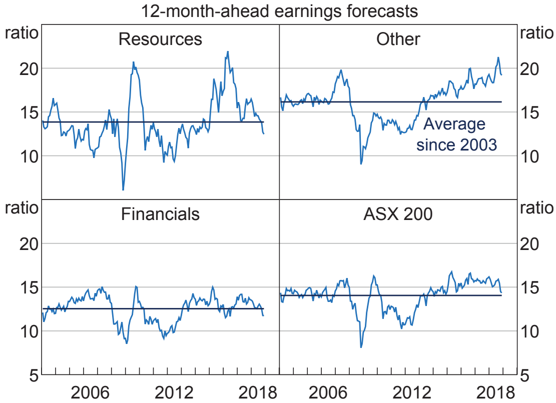
Source: Bloomberg

with the Royal Commission. While the healthcare and information technology sectors have underperformed the market over the past month, share prices for these sectors are still above their levels at the start of the year.

Analysts' expectations for listed company earnings in aggregate have been broadly unchanged in recent months, while those for the resources sector have been revised up slightly. Recent falls in equity prices have led to a decline in price-to-earnings ratios; on this measure, the valuations of resources and financials companies are around their long-run averages, but the valuations of other sectors remain above their long-run average (Graph 3.22).

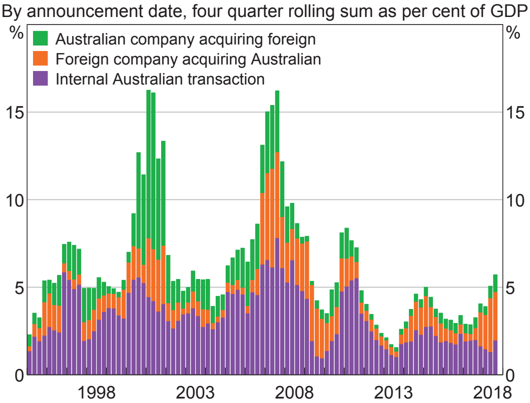
Merger and acquisition (M&A) activity has continued to be robust in recent months (Graph 3.23). The largest recent M&A deal was the privatisation of the WestConnex motorway by the NSW Government for $9 billion.

Graph 3.22
ASX 200 Price-earnings Ratios
12-month-ahead earnings forecasts



Sources: RBA; Refinitiv

Graph 3.23
Australian Mergers and Acquisitions*
By announcement date, four quarter rolling sum as per cent of GDP



* Includes all announced deals
Sources: ABS; RBA; Refinitiv

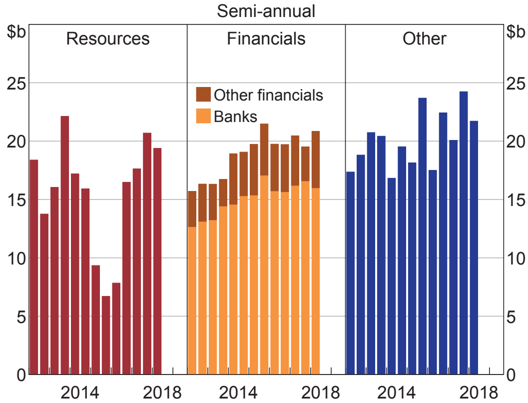
… although profits of listed companies are higher than a year ago

Aggregate underlying profits of ASX 200 companies were 5 per cent higher in the first half of 2018 compared to the same period in 2017, and were slightly above consensus expectations (Graph 3.24). The increase in underlying profits was largely driven by the resources sector, reflecting higher commodity prices. Resources firms continued to pay down debt and return capital to shareholders, though several companies indicated that their focus in coming periods is likely to be a move away from debt reduction in favour of higher dividends.

Underlying profits for the financial sector were little changed relative to the first half of 2017, with a small decline in banks' profits – driven by a narrowing in net interest margins – offset by an increase in earnings at diversified financials. Banks' underlying profits declined a little further recently, reflecting a narrowing of net interest margins.

Underlying profits for listed companies outside the resources and financial sectors rose modestly compared with the same period last

Graph 3.24
ASX 200 Underlying Profits
Semi-annual



Sources: Bloomberg; Morningstar; RBA

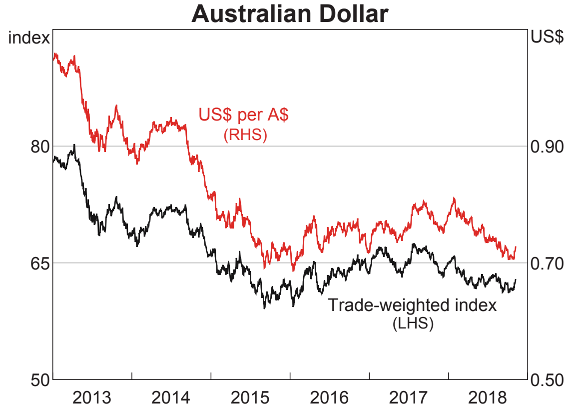
year, and were generally a bit stronger than market expectations. The real estate and utilities sectors, along with some internationally focused companies, reported strong profit results; profits at telecommunications and consumer discretionary companies declined.

The Australian dollar is within the narrow range of the past few years

The Australian dollar has depreciated a little since the start of the year on a trade-weighted (TWI) basis, but remains in the fairly narrow range of the past few years (Graph 3.25). The depreciation this year has been more pronounced against the US dollar than on a trade-weighted basis. This is consistent with the appreciation of the US dollar against a number of Australia's key trading partners (see 'The International Environment' chapter).

Movements in the Australian dollar tend to be related to developments in commodity prices (and the terms of trade more generally) and interest rate differentials over time. Those two forces have been working in offsetting directions over recent years. The RBA Index of Commodity Prices has increased while Australian government bond yields have declined relative to those in major markets. Over the past 18 months or so,

Graph 3.25
Australian Dollar

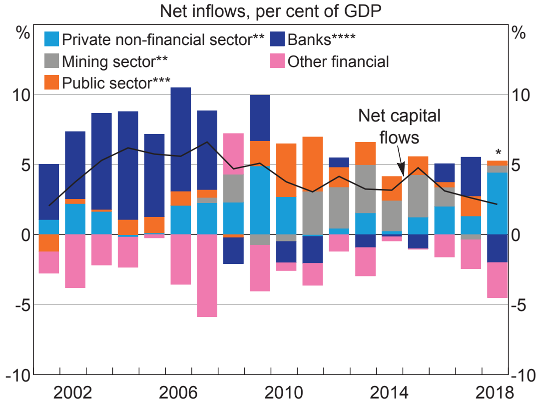


Sources: Bloomberg; RBA

the net effect of these two forces has been consistent with the Australian dollar having depreciated a bit but still within a relatively narrow range.

Net capital inflows to Australia have remained modest, consistent with the relatively low level of the current account deficit (Graph 3.26). Underlying this, there have been increased inflows to the non-mining corporate sector in the past few years, partly offsetting a decline in flows to the mining sector and, more recently, outflows from the banking sector. While the banking sector has continued to experience bond inflows, in line with positive net offshore bond issuance by Australian banks, this has been more than offset by outflows in the form of deposits, loans and commercial paper. In turn, this may reflect a decline in short-term Australian bank securities held by US corporations with large cash holdings, such as those in the technology sector, in light of recent tax changes that provide an incentive for the repatriation of funds to the United States.

Graph 3.26
Australian Capital Flows
Net inflows, per cent of GDP



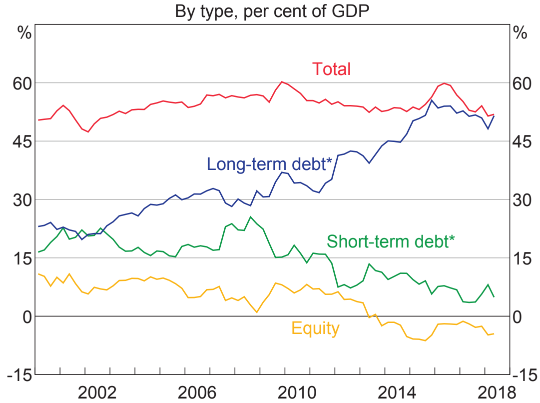
* Year to June quarter
** Prior to 2007 the mining sector is included in the private non-financial sector
*** Excludes official reserves and other RBA flows
**** Adjusted for US dollar swap facility in 2008 and 2009
Sources: ABS; RBA

Australia's net foreign liability position has declined over recent years (Graph 3.27). This partly reflects a decline in net capital inflows at a time when the nominal growth of the economy has picked up. It also reflects asset valuation effects; that is, the value of Australian assets held abroad has increased relative to Australia's liabilities with the rest of the world. This reflects foreign equities, particularly those in the United States and Japan, outperforming Australian equities over the past couple of years, and the sizeable offshore equity holdings of the Australian superannuation sector. Over the past year, the depreciation of the Australian dollar has also increased the value of Australia's holdings of foreign assets (which are largely unhedged) relative to foreign liabilities (which are mostly denominated in Australian dollars or hedged against a depreciation of the Australian dollar). ✠

Graph 3.27

Net Foreign Liabilities

By type, per cent of GDP



* Short-term includes debt with a residual maturity of one year or less; long-term includes all other debt

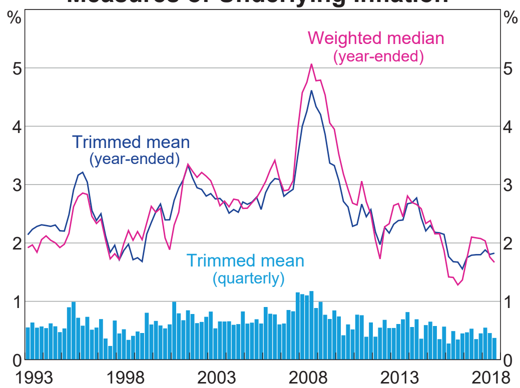
Source: ABS

4. Inflation

Inflation remains low

Underlying inflation was a bit under ½ per cent in the September quarter and 1¾ per cent over the year (Table 4.1; Graph 4.1). This was in line with the forecast in the August *Statement on Monetary Policy*. Year-ended underlying inflation has been relatively low and stable between 1¾ per cent and 2 per cent over the past couple of years. This primarily reflects the spare capacity in the economy and the associated low wages growth. As expected, headline inflation declined to 0.1 per cent (seasonally adjusted) in the September quarter to be 1.9 per cent over the year (Graph 4.2). The low quarterly outcome reflected a large decline in the price of child care and a moderation in gas, electricity and new dwelling cost inflation. This step down in headline inflation is expected to be temporary; the Bank's assessment of underlying inflation pressures in the economy is little changed as a result of the latest inflation data.

Graph 4.1
Measures of Underlying Inflation*



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

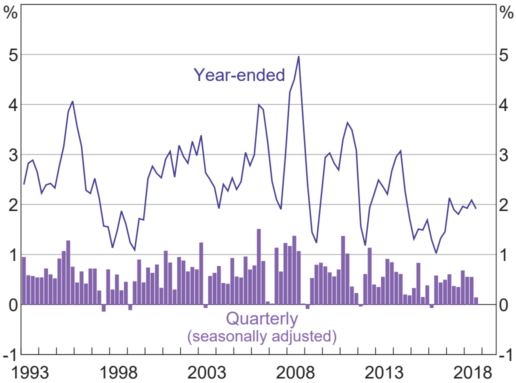
Sources: ABS; RBA

Table 4.1: Measures of Consumer Price Inflation
Per cent

	Quarterly(a)		Year-ended(b)	
	September quarter 2018	June quarter 2018	September quarter 2018	June quarter 2018
Consumer Price Index	0.4	0.4	1.9	2.1
Seasonally adjusted CPI	0.1	0.5	–	–
– Tradables	0.1	0.4	1.4	0.3
– Tradables (excl volatile items)	0.0	-0.2	-0.8	-1.0
– Non-tradables	0.2	0.7	2.2	3.0
Selected Underlying Measures				
Trimmed mean	0.4	0.4	1.8	1.8
Weighted median	0.3	0.4	1.7	1.7
CPI excl volatile items(c)	0.1	0.4	1.2	1.8

(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 4.2
Consumer Price Inflation*

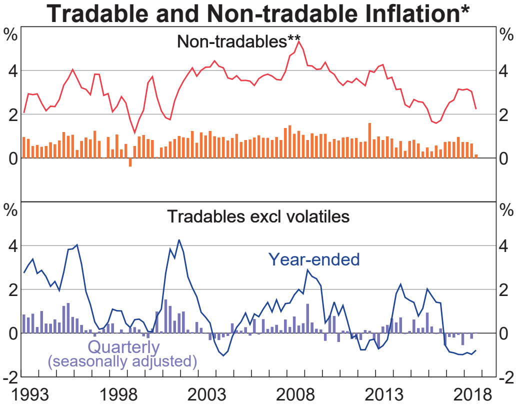


* Excludes interest charges prior to the September quarter 1998; adjusted for the tax changes of 1999–2000

Sources: ABS; RBA

The prices of tradable items (excluding volatile items) have fallen a little over the year, though they were unchanged in the recent quarter (Graph 4.3). Inflation in the prices of non-tradable items moderated in the quarter and over the year, largely due to sizeable declines in the prices of some administered services and utilities and the slowing in new dwelling cost inflation (Graph 4.4). Over the past year, the share of items for which inflation has increased has been similar to the share of items for which inflation has declined.

Graph 4.3
Tradable and Non-tradable Inflation*

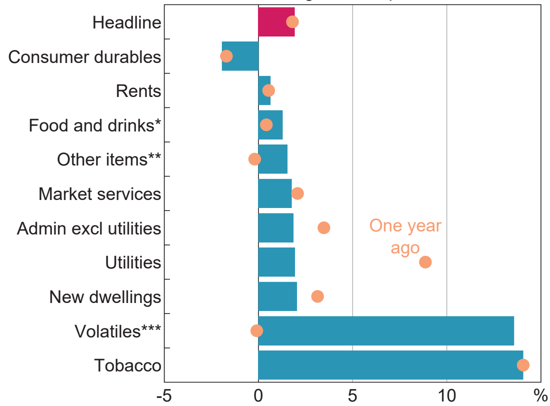


* Adjusted for the tax changes of 1999–2000

** Excludes interest charges and deposit & loan facilities

Sources: ABS; RBA

Graph 4.4
Inflation by Component
Year-ended growth, September 2018



* Excludes fruit, vegetables, meals out and takeaway

** Includes travel, telecommunications and pet products

*** Includes fruit, vegetables and automotive fuel

Sources: ABS; RBA

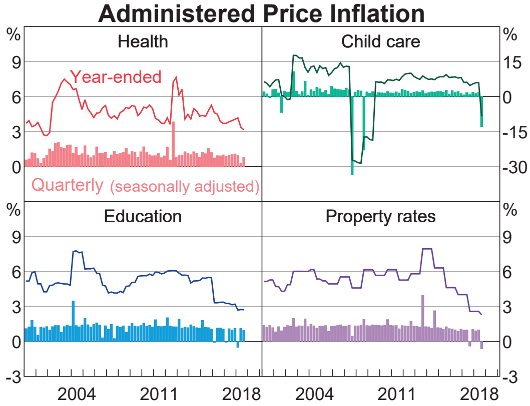
Administered price inflation has slowed

In the CPI basket, administered items have prices that are (at least partly) regulated or are items for which the public sector is a significant provider. These include services, such as health, education and child care, as well as utilities. Price inflation for administered services has generally been higher than aggregate CPI inflation for the past couple of decades, but has slowed since 2012 (Graph 4.5). The slowing has been broad based across administered items, including education and health.[1]

A number of administered prices changed in the September quarter as policies announced in state and federal budgets took effect. Childcare prices fell by 12 per cent (in non-seasonally adjusted terms) following the introduction of the government's childcare subsidy package. The CPI captures changes in the *effective* cost of child care, that is, the gross fees payable by families

1 Debelle G (2018), 'Low Inflation', Address at the Economic Society of Australia (QLD) Business Lunch, 22 August.

Graph 4.5
Administered Price Inflation



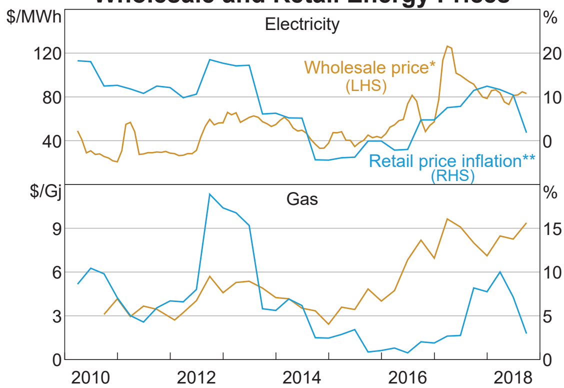
Source: ABS

less any government assistance.[2] Several other administered prices are typically reset annually on 1 July, and these price increases were a little lower this year than in 2017. The introduction of government initiatives to reduce cost-of-living pressures put downward pressure on price inflation of administered services, but also boosted household purchasing power.

The price of electricity, which represents 2 per cent of household expenditure, was little changed in the quarter, but declined by 2 per cent in seasonally adjusted terms (Graph 4.6). This follows a two-year period where electricity prices rose strongly. Wholesale prices, which account for a large share of the residential electricity bill, have also increased strongly over recent years in response to a reduction in generation capacity, though prices have now declined from their 2017 peak. Gas price inflation has also moderated in recent quarters.

2 On July 2, the Child Care Subsidy replaced the means-tested Child Care Benefit and the non-means tested Child Care Rebate payments. The changes affected several dimensions of the child care payments structure: eligibility requirements, subsidy rates, payment caps, and type of care supported.

Graph 4.6
Wholesale and Retail Energy Prices

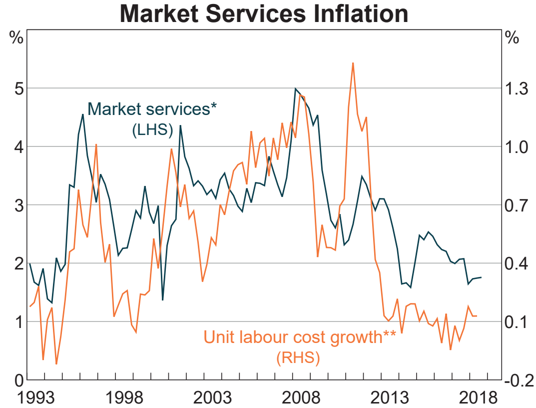


* State-level wholesale prices weighted by each state's generation capacity
** Year-ended growth
Sources: ABS; AER; Bloomberg; RBA

Domestic price pressures remain subdued

Apart from administered prices, inflation in the prices of domestic goods and services remains low (Graph 4.7). Low growth in labour costs, which make up a particularly large share of costs for market services, has been a significant factor contributing to the slower pace of inflation in this component.

Graph 4.7
Market Services Inflation

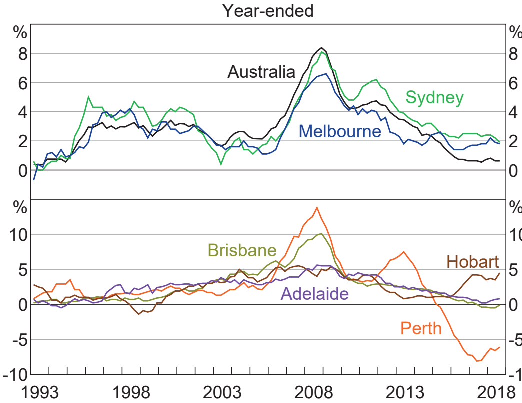


* Year-ended; includes household services, meals out & takeaway and insurance & financial services; adjusted for the tax changes of 1999–2000
** Quarterly; non-farm; eight-quarter moving average
Sources: ABS; RBA

Rent inflation was 0.6 per cent over the year, which is around its lowest rate since mid 1993 (Graph 4.8). Growth in the housing stock has outstripped population growth since 2014, which has put downward pressure on growth in rents. Conditions continue to vary noticeably across capital cities in line with the divergence in housing market conditions. Rents are 6 per cent lower over the year in Perth, and have been falling since 2015. However, the pace at which rents have been falling has eased more recently as the Perth vacancy rate has started to decline. In Brisbane, where there has been a large increase in the dwelling stock, rents were a little lower over the year. Rent inflation has been relatively steady in Sydney and Melbourne because substantial additions to the housing stock have been absorbed by the relatively fast pace of population growth in these cities; however, newly advertised rents in Sydney have declined of late as the vacancy rate has increased. In contrast, Hobart rents are growing at a solid rate.

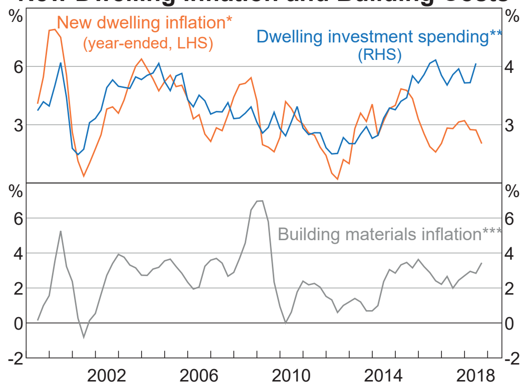
Inflation in the cost of building a new dwelling slowed to only 0.1 per cent in the quarter, and 2 per cent over the year (Graph 4.9). Despite the historically high level of activity in housing construction over recent years, inflation in the costs of constructing new dwellings has been running below its long-run average. Prices of building materials (such as steel, timber and concrete) have increased; information from liaison suggests that strong demand and competition from infrastructure and commercial projects has contributed to higher material prices in the eastern states this year. However, dwelling cost inflation overall has been contained for some time by the implementation of more efficient construction practices and relatively subdued wages growth for most construction workers; in the September quarter there was also increased use of incentives – such as the inclusion of appliances at no charge – by some home builders.

Graph 4.8
Rent Inflation
Year-ended



Source: ABS

Graph 4.9
New Dwelling Inflation and Building Costs

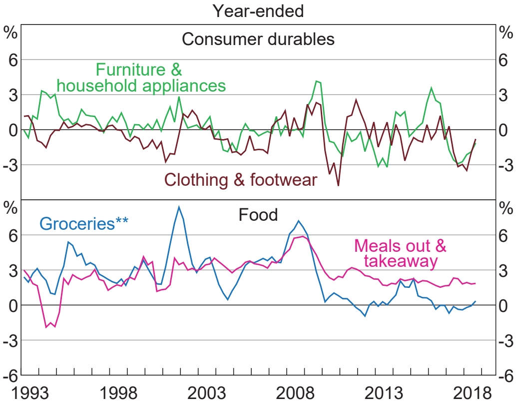


* Adjusted for the tax changes of 1999–2000
** As a share of nominal GDP
*** For houses
Sources: ABS; RBA

Higher import prices have put upward pressure on retail prices

Retail prices were little changed in the September quarter, though retail price deflation continues in year-ended terms. Grocery food inflation (excluding fruit & vegetables) has picked up a little over recent quarters, and deflation in consumer durable prices eased in the quarter (Graph 4.10). Most retail items are

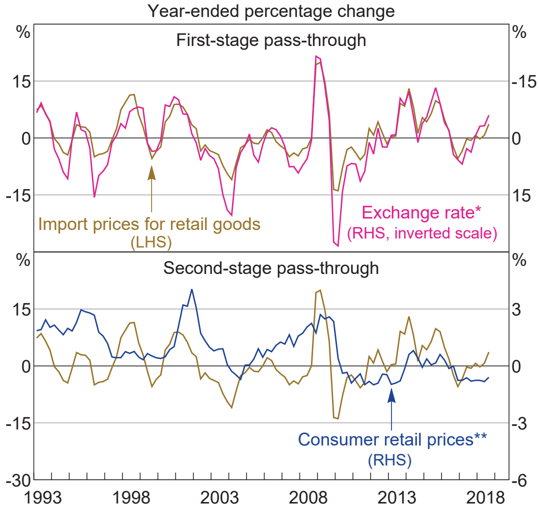
Graph 4.10
Consumer Durables and Food Inflation*



* Adjusted for the tax changes of 1999–2000
** Excludes fruit & vegetables
Sources: ABS; RBA

either fully imported, have imported inputs, or compete with imported products. This means that domestic retail prices are influenced by prices set on world markets and fluctuations in the exchange rate (Graph 4.11). The depreciation in the import-weighted exchange rate over the year has put a little upward pressure on retail price inflation, while growth in other input

Graph 4.11
Retail Prices and the Exchange Rate



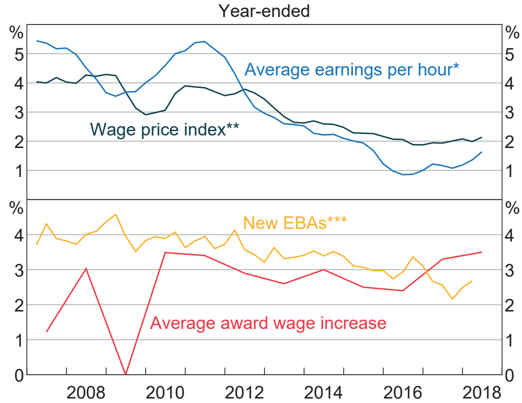
* Import-weighted index; quarter average
** Adjusted for the tax changes of 1999–2000
Sources: ABS; RBA

costs has been subdued. Retail rents have been little changed for some time, and, as noted earlier, growth in labour costs has been slow and wholesale electricity prices have declined. Ongoing competitive pressures in the retail industry have limited the upward adjustment in final consumer prices to date.

Wages growth has picked up a little, but remains low

Wages growth remains low, though it has picked up slightly over the past two years across a range of measures (Graph 4.12). The low level of wages growth reflects a number of factors, including spare capacity in the labour market and low inflation expectations. However, wages growth has been persistently lower than what the usual relationships with these factors would typically imply. The process of adjustment to the end of the mining investment boom can account for some of this, but the common experience of low wages growth in a number of other advanced economies suggests a role for common factors, such as a decline in labour's relative bargaining power, and the effects of technological change

Graph 4.12
Wages Growth

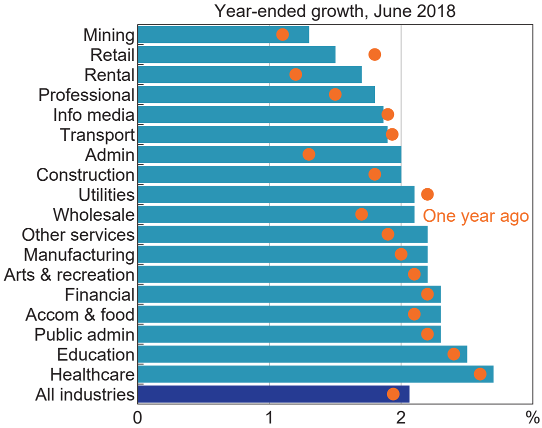


* 9-quarter centred moving average, non-farm
** Excluding bonuses
*** Average annualised wage increase, federally registered
Sources: ABS; Department of Jobs and Small Business; FWC; RBA

and globalisation. Labour costs adjusted for productivity have been little changed over recent years. Given that labour costs are the largest component of business costs, this has contributed to low inflation outcomes.

The wage price index (WPI) increased by 0.6 per cent in the June quarter to be 2.1 per cent higher over the year. The small increase in wages growth over the past two years has occurred in most states. Year-ended WPI growth was higher than it was one year ago in about three-quarters of industries, though the increases have been modest (Graph 4.13).

Graph 4.13
Wage Price Index by Industry*
Year-ended growth, June 2018



* Excluding bonuses; not seasonally adjusted
Sources: ABS; RBA

Growth in the national accounts measure of average earnings per hour (AENA) has risen a little recently in trend terms, but remains below growth in the WPI. AENA captures a broader range of labour costs borne by businesses than the WPI. AENA is also affected by changes in the composition of employment. As workers tend to receive higher income when transferring jobs, the low level of voluntary job turnover in recent years is likely to be contributing to subdued growth in AENA. The flow of employees from higher-paid mining-related jobs to lower-paid jobs in other sectors, as well as strong growth in household services occupations that pay below-average rates of pay are also likely to have been factors.

There are small differences in wages growth across industries

Over the past two years, wages growth has been strongest in the education & training and health care & social assistance industries. This is consistent with relatively strong employment gains in these industries over recent years and also reflects that the majority of these employees are on collective agreements. Wages growth in collective agreements across all industries has adjusted relatively slowly to reflect the period of spare capacity in the labour market, in large part because the typical agreement is only renegotiated every three years. Although wages growth in new agreements has picked up more recently, average wages growth for employees on enterprise bargaining agreements (EBAs) is likely to continue to slow in the short term.

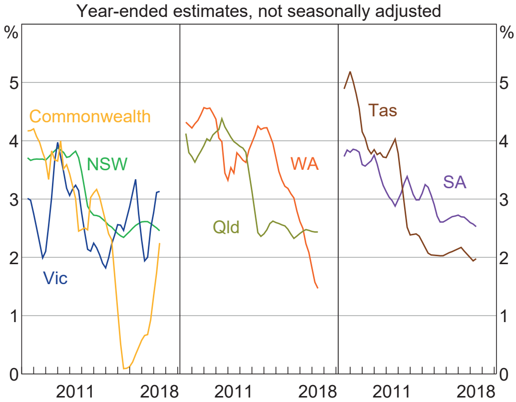
Wages growth in the public sector remains steady at around 2.5 per cent over the year. Policies to limit public sector wages growth have been in place in most jurisdictions in recent years. While aggregate public sector wages growth has been low and stable, there are some clear differences in outcomes across jurisdictions (Graph 4.14). Commonwealth government wages growth has picked up recently, following a period in which there were widespread wage freezes due to protracted negotiations over new EBAs. In contrast, Western Australian government wages growth has declined to be the lowest across the state governments, following a period around five years ago when it had been well above public sector wages growth elsewhere in the country.

The Fair Work Commission's decision to raise the national minimum and award wages by 3.5 per cent from 1 July 2018, will boost measures of

Graph 4.14

Wages Growth by Government

Year-ended estimates, not seasonally adjusted



Source: RBA

wages growth in the forthcoming September quarter data. The increase was a little larger than last year's increase of 3.3 per cent. Nearly one-quarter of all employees, accounting for around 15 per cent of the national wage bill, are covered by awards. Award coverage is particularly high in the accommodation & food, administrative & support, and retail trade industries. Although about one-third of retail employees are covered by awards, a similar share of employees have their wages determined by EBAs. Over the past three years, there have been lengthy delays in the negotiation of new EBAs at many large retailers during which many employees have experienced wage freezes. This has caused average wages growth in the retail trade industry to decline in the past year. As some of these EBA negotiations are now completed, or getting closer to completion, more retail employees will be returning to positive wages growth and this should boost aggregate retail wages growth.

Wages growth has increased a little across a range of industries in the business services and goods-related sectors, including in construction and professional, scientific & technical services. Wages growth has also picked up a little in the mining industry, with the removal of a number of wage freezes that had been in place for several years. A large share of employees in these industries are on individual arrangements, for which wages growth is typically most responsive to prevailing labour market conditions.

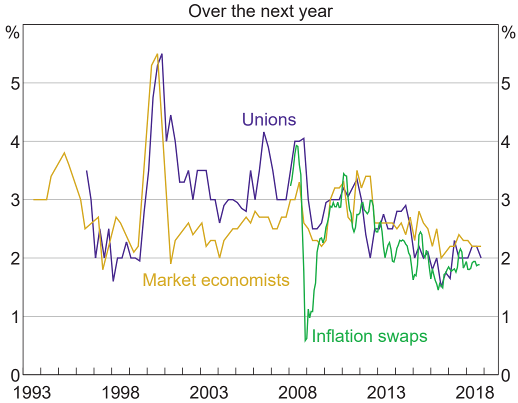
Wages growth expectations have picked up, but remain low

Information from the Bank's liaison program continues to point to a modest increase in private sector wages growth in the near term in line with a tightening labour market. The share of firms reporting wage outcomes above 3 per cent in the liaison program has increased a little this year, but the majority of these reports are concentrated in construction and IT-related business services. Firms also report that they are using a range of strategies to both contain labour costs and retain employees amid tightening labour markets. These include performance bonuses and non-wage incentives such as flexible work arrangements and additional annual leave. About three-quarters of firms expect private sector wages growth to remain stable over the year ahead, although an increasing minority expect wages growth to strengthen. Other measures of short-term wage expectations have also picked up recently.

Inflation expectations are unchanged

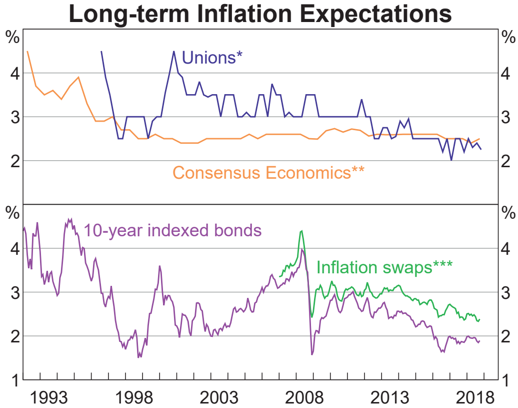
Inflation expectations are generally consistent with the inflation target (Graph 4.15 and Graph 4.16). Measures of short-term inflation expectations are around 2 per cent, while survey-based measures of longer-run inflation expectations measures remain around 2½ per cent. ✠

Graph 4.15
Short-term Inflation Expectations
Over the next year



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

Graph 4.16
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

5. Economic Outlook

Domestic economic conditions have been a bit stronger than were expected at the time of the August *Statement on Monetary Policy*. As a result, the forecast for GDP growth has been revised a little higher and the unemployment rate forecast has been revised a little lower. Consistent with this, the forecasts for wages growth and inflation have also been revised slightly higher. In summary, GDP growth is expected to be above trend over the forecast period and inflation is expected to pick up to 2¼ per cent by late 2019 and to be a little higher in the following year.

GDP growth in Australia's major trading partners is expected to be above trend over the forecast period, although a modest slowing is anticipated. In the major advanced economies, GDP growth is likely to remain above potential next year, supported by accommodative financial conditions and the US fiscal stimulus. As spare capacity diminishes, inflation is expected to increase across the advanced economies. There has been a slight downward revision to the outlook for US growth. This reflects the escalation of trade tensions over recent months, which still represents a material downside risk to the global outlook. GDP growth in the euro area and Japan has also been revised a bit lower, reflecting weakness in export orders.

Economic growth in China remains firm relative to other economies, but is slowing. The recent targeted fiscal and monetary stimulus will partly offset the slowing in growth coming from tighter financial regulation and the escalation of trade tensions. Structural factors, such as the declining working-age population and subdued productivity growth, continue to weigh on medium-term growth prospects. In east Asia (excluding China and Japan), GDP growth is also expected to moderate from the strong rates recorded last year. Some of the more trade-exposed economies in the region – such as Korea and Taiwan – are likely to be affected by the rise in trade tensions because of their integration in global supply chains. Growth in India and New Zealand is expected to be higher in 2018 than previously forecast, reflecting stronger-than-expected GDP growth in the first half of the year.

Domestic GDP growth is expected to remain above trend over the forecast period

GDP growth over the year to the June quarter was stronger than previously anticipated. This mostly reflected some large revisions to previous quarters, especially for dwelling investment, business investment and exports. Consumption growth was also revised higher, reflecting stronger growth in household expenditure on overseas travel services. However, there was no net effect on GDP because this spending is also recorded as imports. Recent partial indicators point to slightly stronger GDP growth in the September quarter than previously expected, resulting in year-ended growth of around 3½ per cent. This is above estimates of potential and consistent with further declines in the unemployment rate.

GDP growth is expected to be around 3½ per cent on average over 2018 and 2019, which is a little stronger than previously expected (Table 5.1; Graph 5.1). Growth is expected to ease in the latter

Table 5.1: Output Growth and Inflation Forecasts[(a)]

Per cent

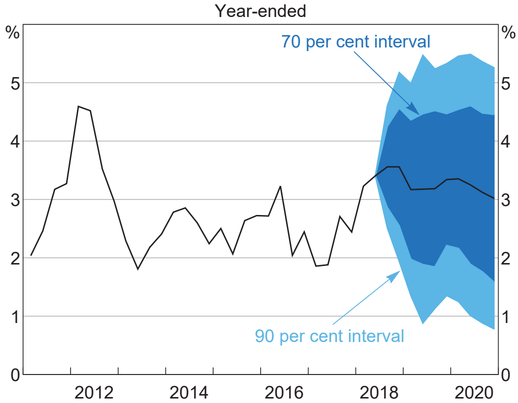
	Year-ended					
	Jun 2018	Dec 2018	Jun 2019	Dec 2019	Jun 2020	Dec 2020
GDP growth	3.4	3½	3¼	3¼	3¼	3
(previous)	(3)	(3¼)	(3¼)	(3¼)	(3)	(3)
Unemployment rate[(b)]	5.4	5	5	5	4¾	4¾
(previous)	(5.5)	(5½)	(5¼)	(5¼)	(5¼)	(5)
CPI inflation	2.1	2	2	2¼	2¼	2¼
(previous)	(2.1)	(1¾)	(2)	(2¼)	(2¼)	(2¼)
Underlying inflation	1¾	1¾	2	2¼	2¼	2¼
(previous)	(2)	(1¾)	(2)	(2)	(2¼)	(2¼)
	Year-average					
	2017/18	2018	2018/19	2019	2019/20	2020
GDP growth	2.8	3½	3¼	3¼	3¼	3¼
(previous)	(2¾)	(3¼)	(3¼)	(3¼)	(3¼)	(3)

(a) Technical assumptions include A$ at US$0.73, TWI at 63 and Brent crude oil price at US$72 per barrel; shaded regions are historical data; figures in parentheses show the corresponding forecasts in the August 2018 *Statement on Monetary Policy*

(b) Average rate in the quarter

Sources: ABS; RBA

Graph 5.1
GDP Growth Forecast*



* Confidence intervals reflect RBA forecast errors since 1993

Sources: ABS; RBA

part of the forecast period, as the contribution from liquefied natural gas (LNG) exports diminishes. The stronger near-term outlook mainly reflects the recent GDP data (including revisions), as well as indicators for the September quarter. Accommodative monetary policy and tighter-than-anticipated labour market conditions are expected to provide ongoing support to growth in household income, consumption and business investment throughout the forecast period. Mining investment is close to its trough, and sustaining investment has started to increase and is expected to contribute to growth throughout the forecast period. Dwelling investment is expected to decline gradually but remain at a high level over the next year or so, supported by a significant amount of work in the pipeline. Public infrastructure investment growth is expected to remain high. Although liaison contacts indicate that capacity constraints are affecting residential and infrastructure-related construction activity, particularly in Sydney, the economy is not expected to encounter broad-based capacity constraints for some time. The implementation of the National Disability Insurance Scheme (NDIS) is also expected to continue to boost public demand, though growth in public demand is expected to slow a little over the forecast period. LNG exports are likely to reach their targeted production levels by the end of 2019, after which they will no longer contribute materially to growth.

The domestic forecasts are conditioned on the technical assumption that the cash rate evolves broadly in line with market expectations, which is for no change until at least the end of next year. The exchange rate and oil prices are assumed to remain around their current levels. This implies a trade-weighted exchange rate that is around 1 per cent lower than was assumed in the August *Statement*, and a US dollar price of Brent crude oil that is little changed. The population aged 15 years and over is assumed to grow by 1.6 per cent per annum over the next few years.

The current rate of consumption growth is forecast to continue, but there are downside risks

To date, household consumption growth has been fairly stable at around 3 per cent in year-ended terms and is expected to continue at around this rate. Consumption growth is expected to be supported by ongoing growth in employment and a modest pick-up in wages growth. The outlook for household consumption growth continues to represent a significant uncertainty for the forecasts. This derives from uncertainty about the outlook for household income growth as well as uncertainty about how households may respond to significant housing price declines (see below).

Household disposable income will be supported by ongoing labour income growth along with changes to income taxes announced in the 2018/19 federal budget. Growth in household disposable income is expected to pick up to about the same rate as consumption growth; the household saving ratio is expected to stabilise towards the end of the forecast period.

Dwelling approvals have moderated in recent months, but are still high by historical standards, and a significant pipeline of residential building work remains to be done in New South Wales and Victoria. In addition, capacity constraints are reported to be limiting the rate at which this pipeline can be worked through. Accordingly, dwelling investment is expected to decline gradually but remain at a high level for the next year or so. Liaison contacts report that off-the-plan sales have slowed significantly, which suggests that dwelling investment could slow sharply in the future. Were this to eventuate it would likely be after the forecast period, given the usual lags from off-the-plan sales to building approvals and from approvals to construction, and would be preceded by a sharper slowdown in approvals than has been seen to date. Liaison with developers suggests that their financial conditions have tightened further over the past six to twelve months. As a result, some developers are obtaining financing from alternative sources, though at a higher cost.

Growth in non-mining business investment is expected to become more broadly based

Non-mining investment growth was 9 per cent over the year to the June quarter, led by strength in non-residential construction. Indications are that growth in construction has slowed a little recently, and will be more moderate for the next few quarters. However, the pipeline of building and infrastructure work yet to be done, as well as liaison reports of continued underlying demand, suggest that construction activity will pick up through the forecast period. Machinery & equipment investment is also expected to pick up, consistent with an ongoing economic expansion. The outlook for non-mining investment is also supported by the high level of surveyed business conditions, rising measures of capacity utilisation and solid growth in business profits.

Mining investment is expected to start rising

The overall outlook for mining investment remains little changed: the trough in mining investment is still expected to occur in late 2018 or early 2019, as the construction of the remaining LNG projects reaches completion. Over the past year or so, firms have been investing to sustain production. This investment is expected to increase steadily over the forecast period, contributing to a modest pick-up in overall mining investment.

Solid growth in public demand is anticipated

Public demand is expected to provide an ongoing impetus to growth, but to ease modestly from its current fast rate. Growth in public consumption is currently being supported by the rollout of the NDIS, which is due to be completed by mid 2020. Liaison contacts continue to report that private sector activity is being boosted by strong growth in public infrastructure investment. State and federal budgets indicate that public investment will remain at a high level for at least the next couple of years, though growth is expected to moderate.

On a consolidated basis, state and federal government budgets are expected to return to surplus over coming years. Public demand is likely to be supported by additional revenues associated with a stronger terms of trade and ongoing employment and profit growth. This may be offset to some extent by lower stamp duty revenues associated with easing housing market conditions, especially in New South Wales and Victoria.

Export growth will be supported by services

The outlook for export growth remains little changed overall. LNG exports are due to continue ramping up through to the end of 2019, after which resource exports are expected to be at historically high levels but contributing little to GDP growth. Rural exports are being affected by drought conditions in some areas: in the near term there is likely to be a boost from meat exports as producers cut herd sizes, while over the coming year smaller harvests will weigh on grain exports. Exports of services and manufactures are expected to continue growing steadily, supported by ongoing trading partner growth and the depreciation of the exchange rate since the start of 2018.

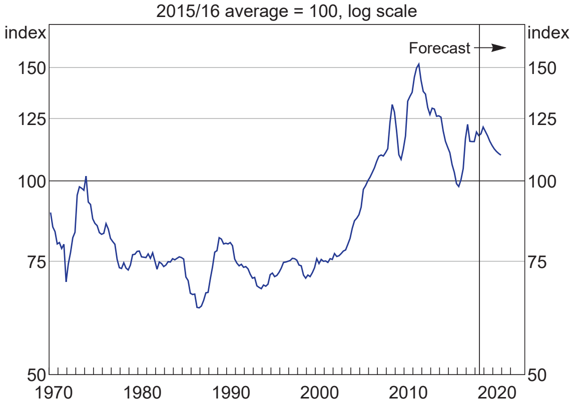
Growth in imports is likely to be slower over the remainder of 2018, reflecting the recent moderation in public and private investment (which are more import intensive than other types of spending), as well as higher import prices resulting from the earlier depreciation of the exchange rate. Further into the forecast period, import volumes should continue growing as the economy expands.

The terms of trade are still forecast to moderate

Australia's terms of trade have been revised higher relative to the August *Statement*. Higher export prices look to have offset higher import prices over recent months, and the forecast for coal prices has increased in light of ongoing strong global demand. The terms of trade are expected to remain around these higher levels for the next few quarters or so before gradually declining (Graph 5.2); Chinese demand for bulk commodities is still expected to moderate over time and global supply from low-cost producers is still expected to increase. The terms of trade are expected to remain above their trough in early 2016.

As a result of increased LNG and condensate production and related exports, Australia now earns more income from oil-related exports than it

Graph 5.2
Terms of Trade
2015/16 average = 100, log scale



Sources: ABS; RBA

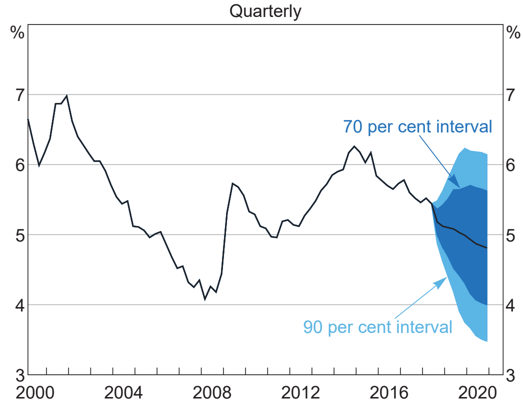
spends on oil-related imports. This means that an increase in oil prices will now boost the terms of trade, whereas in previous years an increase in oil prices would have weighed on the terms of trade.

Coal prices continue to present an upside risk to the terms of trade. Demand for premium thermal coal remains strong and growth in global supply has been limited. Coking coal prices have been affected by recent supply disruptions, and continue to be supported by ongoing strength in steel production. Despite ongoing uncertainty about the outlook for steel demand in China, the outlook for steel production in India is positive and coking coal exports to India have increased strongly over the past year.

The unemployment rate is expected to decline further

Labour market outcomes in the September quarter were better than expected at the time of the August *Statement*. Near-term indicators of labour demand continue to suggest that employment growth will remain above growth in the working-age population over the next six months. Further out, employment growth has been revised up a little, consistent with the slightly stronger outlook for GDP growth. Positive labour market conditions are expected to encourage more people to either enter or delay leaving the labour force, and the participation rate is expected to rise a little further to a record high. The unemployment rate is expected to decline gradually over the forecast period to 4¾ per cent (Graph 5.3). This amounts to more of a decline in the unemployment rate than expected at the time of the August *Statement*, reflecting the lower starting point and the slightly stronger forecast for GDP growth. However, there continues to be considerable uncertainty around how much spare capacity there is in the labour market (see below).

Graph 5.3
Unemployment Rate Forecast*
Quarterly



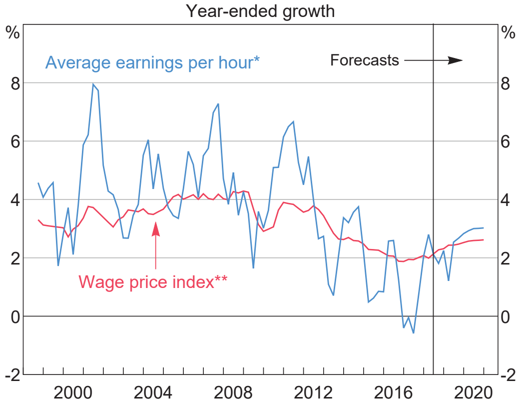
* Confidence intervals reflect RBA forecast errors since 1993
Sources: ABS; RBA

Wages growth is anticipated to pick up gradually

The decline in the unemployment rate is also expected to flow through to slightly higher wages growth than previously forecast. In addition, growth in the wage price index (WPI) in the June quarter was slightly stronger than had been expected in the August *Statement*. Wages growth is expected to be boosted a little in the September quarter as a result of the 3.5 per cent increase in award and minimum wages from 1 July. Further out, the pick-up in wages growth is still expected to be gradual, consistent with information from the Bank's liaison program and the expectation of a steady decline in labour market spare capacity (Graph 5.4).

Wage outcomes from enterprise bargaining agreements are likely to remain a drag on overall wages growth, despite picking up recently. Average earnings from the national accounts – which is a broader measure of labour costs and incorporates compositional change in the labour force – is expected to grow at a slightly faster pace than the WPI over the next few years.

Graph 5.4
Labour Costs
Year-ended growth



* Non-farm
** Excluding bonuses
Sources: ABS; RBA

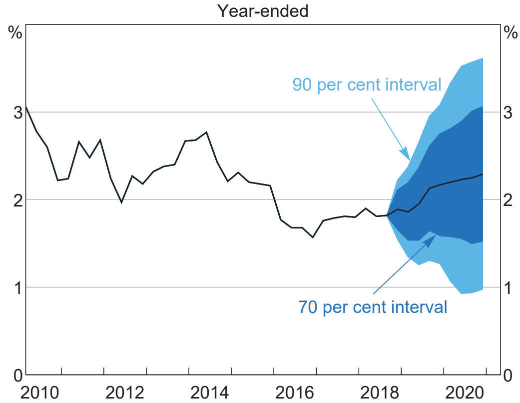
Underlying inflation is expected to pick up to above 2 per cent in 2019

The September quarter inflation outcomes were broadly in line with the forecasts in the August *Statement*. Both headline and underlying inflation moderated in the quarter as a result of sizeable declines in the prices of child care and utilities.

The inflation forecasts have been revised up a little. Underlying inflation is expected to increase in the December quarter, and then pick up to 2¼ per cent by late 2019, a little earlier than expected at the time of the August *Statement* (Graph 5.5). The upward revision reflects the faster-than-expected decline in spare capacity in the economy. Headline inflation is expected to be boosted a little in the December quarter by an increase in fuel prices. Headline inflation is expected to be a bit above underlying inflation over the forecast period as a result of the legislated tobacco excise increases.

In terms of the outlook for components of inflation, a key area of uncertainty is how long the structural changes in the retail sector will put downward pressure on retail prices. Some retail firms had indicated that they expected price competition to ease this financial year, although the arrival of new foreign entrants over the coming years may also increase retail competition. Retail prices will also be influenced by any sustained movements in the exchange rate. The outlook for rent growth, given the construction activity already underway, will partly depend on the effect of population growth on housing demand. Uncertainties specific to the outlook for utilities inflation and other administered price inflation are discussed below.

Graph 5.5
Trimmed Mean Inflation Forecast*
Year-ended



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

There are several risks to the economic outlook

The risks to global growth from trade protectionism have intensified. In light of this, and the ongoing efforts of Chinese authorities to manage slowing growth without exacerbating financial risks, there is considerable uncertainty about the outlook for China, which is a key trading partner for Australia. Another important external risk is that inflation in advanced economies, especially in the United States, could pick up faster than expected. This could lead to adjustments in financial prices, including exchange rates. Any depreciation of the Australian dollar at a time of stronger-than-expected global inflation and/or demand would be positive for the outlook for domestic growth and inflation.

In addition to risks from the global economy, there are a number of domestically sourced uncertainties for the growth and inflation outlook. On the upside, strong business profitability as a result of higher-than-expected commodity prices and generally strong domestic demand conditions could support a stronger outlook for investment, employment and wages growth than currently forecast. There continues to be uncertainty about how quickly the unemployment rate will decline and how quickly that will feed into wage pressures and inflation. The outlook for inflation also depends on how competitive pressures in the retail sector evolve, and how much downward pressure utilities and administered price changes put on overall inflation. As has been the case for some time, uncertainty about wages growth also translates into uncertainty about the outlook for household disposable income, which has a direct bearing on consumption growth, as does the evolution of housing prices through household wealth.

Escalating trade tensions are a material risk to global growth

The global growth forecasts reflect only the direct effects of tariff rate increases that have been implemented so far by the United States and China. These tariffs directly affect only a small part of global trade, so the effects on import prices, US and Chinese import demand and the related demand for the exports of other economies are expected to be relatively small. It is possible that trade tensions will escalate either through further increases in tariff rates or the imposition of higher non-tariff trade barriers. This would have further direct effects on trade, but may also affect investment and confidence, which could have more negative consequences for global growth.

Another potential source of escalation is a broadening of the trade tensions to other economies. The US administration has previously indicated its concerns about automotive imports and the possibility of increasing tariffs on such imports from a number of economies, particularly the European Union and Japan. Failure of the trade negotiations currently underway between the United States and these two economies may see an increase in tariffs, which would weaken the global growth outlook.

Chinese authorities continue to balance the need to address financial risks while maintaining growth

Chinese policymakers face several trade-offs that create uncertainty around the trajectory for the Chinese economy, demand for bulk commodities and Australia's terms of trade. Measures to restrict the growth of shadow banking activity over the past couple of years have helped lower risks to financial stability, but at the cost of weaker growth in some sectors of the economy. So far, efforts to ease fiscal and monetary policy to avert a sharper-than-desired slowing in momentum have had a modest impact, but there is a chance they could lead to growth being higher than projected. On the other hand, if these policies prove less stimulatory, or the effect of the earlier efforts to tighten shadow finance is longer lived than expected, Chinese growth could be lower than forecast.

Conditions in China's property markets pose risks in both directions to the outlook for Chinese steel demand and growth more broadly. Authorities have persisted with highly restrictive policies that may, in time, place more acute downward pressure on property prices and activity than they have to date. But any significant deterioration in conditions could lead policymakers to ease these policies. A separate, additional risk is that an entrenched trade conflict with the United States would have significant medium-term effects on China's manufacturing export sector. The impact could, however, be dampened by a further depreciation of the renminbi (should authorities allow that to occur) or policy actions that facilitate switching from external to domestic demand for the affected products.

Rising capacity constraints could result in a faster pick-up in global inflation

Spare capacity in many advanced economies has been absorbed and GDP growth is expected to remain above potential next year. Unemployment rates are unusually low in a number of economies, including the United States, Germany and Japan. Against this backdrop, it is possible that wages growth and inflation could pick up faster than expected. This risk seems especially prominent for the United States given the size of the recent fiscal stimulus and because growth in the United States could be even higher than expected if fiscal policy is expanded further, particularly in 2020.

The prices of many financial market assets imply that inflationary pressures are not expected to build up significantly. Therefore a sharp rise in inflation or inflation expectations could lead to a reassessment of the speed and extent of monetary policy tightening and prompt a significant adjustment in many asset prices, including exchange rates. A further depreciation of the Australian dollar would increase the international competitiveness of domestically produced goods and services, contributing to greater demand for Australian exports and causing some substitution away from imports towards goods and services produced domestically. The resulting increase in domestic income and employment would also support growth in business investment and consumption. Inflation would also be likely to increase by more than currently forecast, because of stronger domestic economic conditions and the increase in the prices of imported goods and services.

Domestically, strong profitability could support a stronger outlook for investment and wages

Higher commodity prices over the past one to two years have led to strong growth in mining profits, which is supporting investment in that sector. If the strength in commodity prices persists, there may be some upside risk to mining investment: mining firms may look at new plans to expand production capacity or to bring mothballed mines back on line; exploration activity may increase further; and smaller (more cash-flow sensitive) producers may increase sustaining investment. Information from liaison suggests that the increase in mining profit growth to date has already allowed for a modest pick-up in wages growth by removing wage freezes that had been in place for a number of years. Along with some reports of specialised-labour shortages, it is possible that sustained higher profitability and investment intentions over the next few years will lead to higher wages growth in mining-exposed industries. This could lead to a further reduction in the drag on overall wages growth from the decline in mining wages growth seen in recent years.

Non-mining profits have been growing steadily against the backdrop of stronger overall demand, after tracking sideways during the middle part of the decade. It is possible that the ongoing strength in the economy, and thus profits, will support stronger growth in non-mining investment than has been currently built into the forecasts.

Uncertainty remains about the amount of labour market spare capacity …

The unemployment rate has declined over the past year and is expected to decline further over the next couple of years as a result of above-trend GDP growth. Leading indicators of labour demand suggest the unemployment rate may fall faster than expected in the near term, though it is also possible that there will be a stabilisation or retracement in the unemployment rate over that period given its recent sharp decline. More broadly, the decline in the unemployment rate will depend, in part, on how much of the increase in labour demand is met by increased hours and a higher participation rate.

As spare capacity in the labour market declines, wages growth is expected to increase. How much and how quickly wages growth picks up will depend, in part, on how much labour market spare capacity has been absorbed. However, there is always uncertainty around the measurement of spare capacity. One measure the Bank uses to estimate spare capacity is the 'non-accelerating inflation rate of unemployment' (NAIRU). There is considerable uncertainty about the NAIRU estimate because it cannot be observed directly and must be inferred from other information. To complement this measure, the Bank also monitors information from business surveys and the liaison program, as well as other measures of labour market underutilisation, such as underemployment and the duration of unemployment. Despite the uncertainty about the degree of spare capacity, collectively this information suggests there is still spare capacity in the labour market.

… and how this will translate into wages growth and inflation

It is important to note that the dynamics in the labour market and wage setting do not change suddenly when the unemployment rate falls below the NAIRU, even if it was known with some certainty. The recent international experience indicates that the unemployment rate could decline well below estimates of the NAIRU based on historical experience before there is a material increase in wages growth. This suggests there are either considerable lags in the relationship between labour market strength and wages growth or that other factors have been weighing on wages growth in many economies.

Analysis at the Bank suggests that wages growth has been lower than can be explained by measures of labour market spare capacity, inflation expectations and output price inflation, and the usual lags between these variables and wages growth. It is likely that changes in competitive dynamics owing to globalisation and technological change, and changes in relative bargaining power, have played some role in lower wages growth over recent years. The central forecast for a moderate increase in wages growth over the next couple of years assumes that some of these factors will continue to weigh on wages growth for a while yet. However, the recent increases in wages growth in other advanced economies may indicate that some of these 'global' factors are starting to abate, or can be offset by sufficiently tight labour market conditions.

Any pick-up in wages growth would place upward pressure on consumer price inflation, because labour costs are the major component of business costs. However, inflation also depends on a range of other factors, such as the size and speed of the pass-through from exchange rate movements and the process of adjustment in retail margins following changes in the industry. As was flagged in the August *Statement*, there is also a risk of further declines in administered prices in the year ahead because of government initiatives to reduce cost-of-living pressures. Similarly, utilities prices could decline or remain fairly steady over the forecast period as a result of government policy changes and the large volume of renewable energy generation coming on line. However, there is sufficient uncertainty about other possible offsetting movements in prices over the forecast period that this downside risk has not been incorporated into the central forecasts.

Household consumption depends on the outlook for income growth, particularly in the context of high debt

Uncertainty about the outlook for household income and wealth gives rise to uncertainty about consumption growth.

Household income growth has increased of late and is expected to pick up further, given the outlook for employment and wages growth. Disposable income will also be supported by income tax cuts announced in the 2018/19 budget. However, if household income growth does not increase as expected, then consumption growth could be weaker. Consumption has thus far been resilient to low income growth, which has been absorbed through a lower rate of saving. Changes in the prices of goods and services that households buy – including prices administered by governments – also affect the purchasing power of household income, and therefore could affect consumption growth.

Household consumption may also be affected by declines in housing prices. While there is uncertainty about how much the earlier upswing in housing prices boosted household consumption, there is limited evidence that housing price declines have weighed on overall consumption to date. Consumption growth has been strongest in New South Wales and Victoria, where recent declines in housing prices have been the largest, although income growth has also been relatively strong in these states. It is possible that the consumption decisions of highly indebted and/or credit-constrained households could be more sensitive to an easing in housing price growth than to the previous strength, especially if income growth were to soften at the same time.

The high level of household debt remains a key consideration for household consumption. Household debt levels relative to income have continued to edge higher. A highly indebted household facing weaker-than-expected growth in income or wealth is more likely to respond by lowering consumption. Consumption growth may also be weaker for a time if households become concerned about their debt levels and choose to pay down debt more quickly. Steps taken by regulators to strengthen lending standards have led to a moderation in the growth in riskier types of lending to households, but risks remain. The ongoing high level of public scrutiny of lending decisions could see some further tightening in the supply of credit.

Household consumption accounts for just over half of nominal GDP, so if consumption growth were to be materially higher or lower than currently forecast, it would have implications for the forecasts for overall GDP growth, employment growth and inflation.