

# Statement on Monetary Policy

MAY 2019



RESERVE BANK OF AUSTRALIA



# Statement on Monetary Policy

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# Overview

Growth in the Australian economy has slowed and inflation remains low. Subdued growth in household income and the adjustment in the housing market are affecting consumer spending and residential construction. Despite this, the labour market is performing reasonably well, with the unemployment rate steady at around 5 per cent. Underlying inflation has been lower than expected, at 1½ per cent over the year to the March quarter, with pricing pressures subdued across much of the economy.

GDP growth is expected to be around 2¾ per cent over both 2019 and 2020. This is lower than previously forecast, reflecting the revised outlook for household consumption spending and dwelling activity. Stronger growth in exports and, further out, work on new mining investment projects are expected to support growth. Forecasts for inflation have also been revised lower. Trimmed mean inflation is expected to be around 1¾ per cent over 2019 and then increase gradually to 2 per cent in 2020 and a touch above 2 per cent by early 2021. In the near term, CPI inflation is expected to run a little above the rate for trimmed mean inflation, driven by the recent increase in petrol prices.

Global growth moderated in the second half of 2018 and looks to have continued at a similar pace into 2019. The moderation was partly driven by a sharp slowing in global trade, related to slower domestic demand in China and a turn in the cycle in the global electronics industry. The resulting shift in economic momentum has been most evident in the

trade-oriented economies in parts of Asia and the euro area. Investment and investment intentions have also weakened in some of these economies. Trade tensions remain a downside risk to the global outlook.

In China, the authorities have continued their efforts to support growth through targeted policy easing. GDP growth eased in China in the March quarter, but there are some signs in the most recent monthly data that momentum has picked up again. The authorities have been mindful of the need to ensure that measures to support the economy do not increase financial stability risks.

In contrast to externally focused sectors, consumption growth in the United States, euro area and Japan has been relatively resilient, supported by tight labour markets. Unemployment rates are at very low levels in all three economies and wages growth has increased. As yet, though, this has added little to inflation. Core inflation is now below central banks' targets in all three major advanced economies.

Global financial market conditions have eased further in recent months. Conditions have become more accommodative since the beginning of the year, unwinding the sharp tightening that occurred at the end of 2018. Major central banks have been signalling that they are likely to maintain more accommodative monetary policy than had previously been expected. These revised expectations have flowed through to market pricing, taking sovereign bond yields to low levels. Credit

spreads and other risk premia are also low, which has held down the overall cost of financing for corporations. The easing in financial conditions has also been evident for most emerging market economies, including in China. However, risks remain for some economies, including Argentina and Turkey, that have specific vulnerabilities.

Conditions have also eased in domestic financial markets, with government bond yields falling to historically low levels and equity prices having risen strongly. In addition, pressures in short-term money markets have eased, reducing banks' funding costs. Bank bill spreads are now at their lowest levels since late 2017, though this has not flowed through to most advertised mortgage rates. Although lending practices remain considerably tighter than they were a few years ago, banks continue to compete strongly for lower-risk borrowers among both households and large businesses. Demand for housing credit remains soft.

The Australian dollar is currently around the low end of the narrow range it has been in for some years. Sovereign bond rates in Australia have continued to decline relative to those in the major economies. This has tended to counteract the upward pressure on the exchange rate that would otherwise have come from rising prices for Australia's key commodity exports.

Higher prices for some commodity exports, particularly iron ore, have boosted the outlook for Australia's terms of trade. This follows the supply disruptions arising from mine closures in Brazil, as well as some disruptions in Australia. Oil prices have also increased in recent months, which will feed through to prices of liquefied natural gas (LNG) over time. The terms of trade are still expected to decline over the period ahead, as supply increases and Chinese demand for bulk commodities eases, but to remain above the levels recorded in 2016.

GDP growth was softer than expected over the second half of 2018, after a strong first half of the year. Consumption growth has slowed noticeably, especially for those discretionary items that tend to be correlated with housing conditions. Residential construction activity has declined from its very high level over recent years. Some temporary factors also weighed on growth: drought conditions constrained rural production; supply disruptions affected resource exports; and the winding down of near-complete LNG projects weighed on mining investment. Consumption and dwelling investment are expected to remain soft in coming quarters, but non-rural exports and, further out, a moderate pick-up in mining investment are expected to support growth.

Recent data suggest that retail spending was weak in the March quarter, with retail sales volumes declining in most states. The near-term outlook for consumption growth has been revised lower because weaker housing market conditions and income growth are likely to continue to drag on spending. Further out, though, the anticipated pick-up in income growth should provide some support. Although the pipeline of residential construction work underway should support activity in the near term, dwelling investment is still expected to decline significantly over the next couple of years. Pre-sales activity has been weak, so further downward revisions to the outlook are possible.

Conditions in the established housing market remain soft. Housing prices have continued to decline in the largest cities, although the pace of decline has eased a bit recently. Some other indicators, including auction clearance rates, have improved a little since the end of last year, but generally point to continued soft conditions. Prices have also been declining in many other cities and regional areas. Other than

in Sydney, rental vacancy rates generally remain below average levels.

Growth in non-mining business investment picked up in the December quarter, supported by spending on equipment and construction of private infrastructure. In the near term, non-residential construction is likely to be supported by the elevated level of work underway. Mining investment is likely to start increasing once the final LNG projects are completed and as new investment projects commence.

Public demand growth has been robust in recent quarters, with spending on investment and a range of services provided to households both increasing significantly. Taxation revenue has also grown strongly. While this has helped improve the government sector's financial position, it has tended to offset the support that public demand has given to overall growth.

In contrast to the signal coming from the national accounts, a number of labour market indicators remain positive. Employment growth was strong in the March quarter, following similar outcomes over much of 2018. The vacancy rate remains high and there are ongoing reports of skill shortages for selected occupations.

The unemployment rate has been steady since September at around 5 per cent. Consistent with leading indicators of labour demand, employment growth is expected to grow at around the same rate as the working-age population over the next six months, and then to pick up a little as GDP growth increases. The unemployment rate is forecast to remain around 5 per cent this year and next year, before reaching 4¾ per cent in 2021.

Wages growth has increased gradually over the past couple of years, most clearly in the private sector. Fewer private-sector workers are subject to wage freezes than in recent years. Firms generally expect wages growth to remain

unchanged or increase a little this year. Public sector wages have been affected by policies designed to keep average wages growth contained.

Despite strong employment growth and some recovery in growth of average hourly earnings, growth in household income was very low over 2018. Non-labour sources of income have been subdued and are likely to remain so for a while, given the effects of the drought on farm incomes and of soft housing market conditions on the earnings of many other unincorporated businesses. Strong growth in tax payments has also subtracted from disposable income growth over recent years.

Weak growth in household income poses a key risk to the outlook for household consumption, especially in the context of falling housing prices and the need for many households to service high levels of debt. Some recovery in income growth is likely, because employment growth is expected to remain solid, wages are expected to increase and the tax offset for low- and middle-income taxpayers is set to come into effect in the second half of this year.

Inflation was weaker than expected in the March quarter. Trimmed mean inflation was 0.3 per cent in the quarter and in year-ended terms declined to 1.6 per cent; other measures of underlying inflation were generally lower. Inflation was subdued across a broad range of domestic prices, and this more than offset the effects of the drought on some food prices and the pass-through of the earlier exchange rate depreciation to prices of retail goods. Headline inflation was lower than trimmed mean inflation, at 1.3 per cent over the year, largely because of the earlier fall in petrol prices.

Housing-related inflation, including for rents and the prices of newly built homes, has been soft and is likely to remain so in the near term. Slow growth in labour costs and other business costs

has also contributed to low inflation in a range of market services. Administered price inflation has been below average because of a range of policy decisions designed to address cost-of-living pressures. Further initiatives in this area could constrain inflation in utilities and other administered prices; this represents a key uncertainty around the inflation outlook.

Headline inflation will be boosted in the June quarter by the recent increase in petrol prices. Underlying inflation is meanwhile expected to remain low in coming quarters, largely because the weakness in housing-related items is expected to persist for a while. Further out, the forecast for inflation has also been reduced a little, as the softer growth outlook feeds through to the inflation outlook with a lag.

The Reserve Bank Board has maintained the cash rate at 1½ per cent since August 2016. This expansionary setting of monetary policy has helped support growth and create the conditions for the decline in the unemployment rate that occurred over 2018. The lower unemployment rate has led to a modest pick-up in wages growth, and a further increase is expected. Inflation remains subdued, however, with the adjustment in the housing market contributing to weakness in both household spending and the overall rate of inflation.

At its recent meeting, the Board focused on the implications of the low inflation outcomes for the economic outlook. It concluded that the ongoing subdued rate of inflation suggests that a lower rate of unemployment is achievable while also having inflation consistent with the target. Given this assessment, the Board will be paying close attention to developments in the labour market at its upcoming meetings. ✎



# 1. The International Environment

Growth in a number of our trading partners eased in the second half of 2018, and growth looks to have broadly continued at this more moderate rate into 2019. The slowing has been partly the result of a sharp slowing in global trade. This has been particularly evident in trade-exposed sectors such as manufacturing and trade-oriented economies in Asia and the euro area. Export orders data suggest that trade growth could remain subdued in the near term. However, in many economies, domestically focused sectors such as services and retail trade have been more resilient than externally focused sectors, with strong labour market conditions and accommodative financial conditions providing support.

The sharp slowing in trade is related to slowing growth in China, as well as developments in trade policies and a turn in the cycle in the electronics industry. Chinese authorities are continuing their efforts to support domestic growth in a manner that does not increase financial stability risks, by easing fiscal and monetary policy. Recent data in China show that growth in industrial production, fixed asset investment and total social financing has increased, suggesting momentum has picked up. Overall, growth in Australia's major trading partners is expected to be around 3¾ per cent in 2019 and 2020, which is at, or a little below, potential.

Despite tight labour market conditions and a pick-up in wages growth in advanced economies, inflationary pressures remain subdued. Core inflation has been weaker than

expected and is below central banks' inflation targets in most advanced economies. Headline inflation has declined because of the fall in oil prices in late 2018, although oil prices have risen over 2019 to date. More generally, commodity price outcomes have been mixed. Supply disruptions in Brazil and, to a lesser extent, Australia have boosted iron ore prices significantly; this has resulted in the outlook for Australia's terms of trade being stronger than expected at the time of the February *Statement on Monetary Policy*.

Major central banks have revised down their forecasts for growth and inflation over recent months, and have highlighted the downside risks. Moreover, central banks see little, if any, upside risks to inflation despite increasingly tight labour markets. Accordingly, they have signalled that policy is likely to be more accommodative than previously anticipated. As a result, financial conditions have eased in recent months, largely unwinding the sharp tightening that occurred at the end of 2018. Sovereign bond yields have declined to very low levels and the spread between long- and short-term yields is low. At the same time, credit spreads and equity risk premiums have generally declined or remained steady, leaving the overall cost of financing for corporations low.

The accommodative outlook for policy in advanced economies and China has also contributed to a general improvement in financial conditions for emerging market economies. In emerging Asia, a more subdued

inflation outlook and stabilisation in capital flows have allowed central banks that tightened policy last year to generally pause of late.

## Global trade growth has slowed

Global trade growth has fallen further in early 2019 and data on new export orders suggest that trade growth will remain subdued in the near term (Graph 1.1). The impact of slower trade growth has been particularly evident in manufacturing; in some trade-oriented economies, particularly in east Asia, conditions in the manufacturing sector have eased to below their post-crisis averages.

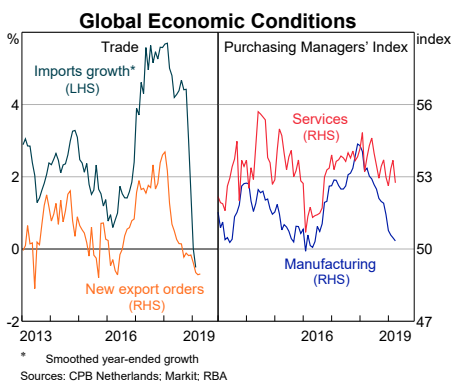
One of the factors behind the sharp slowing in trade is the slowing in domestic demand growth in China. US protectionist measures that have already been enacted and their supply chain effects are also likely to have contributed to the broad-based slowing in trade (Graph 1.2). The outlook for trade policy remains uncertain. Bilateral trade negotiations between the United States and China are continuing. While there had been reports of progress in recent months, the US administration has recently threatened additional tariffs in the near term. There is also a risk that the US administration increases automotive tariffs; this would particularly affect US trade with the European Union and Japan

which have significant automotive sectors. Any negative developments on trade policy could harm global growth.

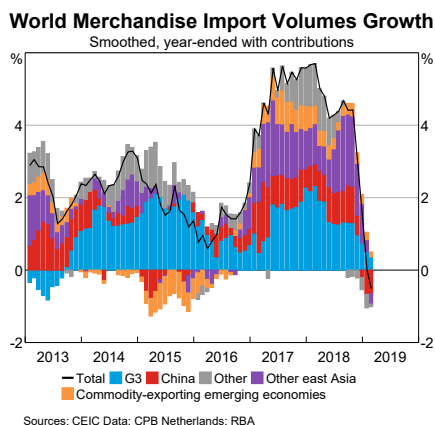
## A decline in Chinese domestic demand growth has been one factor behind the slowdown in trade ...

In China, real GDP growth eased in the March quarter, in quarterly and year-ended terms (Graph 1.3). Subdued growth in investment in the quarter was partly offset by a pick-up in consumption growth and a lift in net exports. The Chinese Government lowered the 2019 GDP growth target at their annual congress in March to 6–6.5 per cent, down from a target of around 6.5 per cent in 2018. This recognises the structural decline in growth that has been apparent for some time and the additional downward pressure on growth in the past year that has arisen from regulatory measures to address financial risk. The government also changed the target for the urban unemployment rate from ‘below’ 5.5 per cent to ‘around’ 5.5 per cent, and emphasised the need to support employment. Authorities reiterated their focus on supporting growth through measures to support smaller and private firms.

**Graph 1.1**



**Graph 1.2**



## ... but monthly activity indicators suggest momentum in China has strengthened more recently ...

A range of disaggregated Chinese activity indicators have picked up in recent months (Graph 1.4). Growth in industrial production increased in March. Some of this represented a bringing forward of activity ahead of value-added tax changes in April, but some of the pick-up is likely to persist. The number of industrial products for which output is falling has declined, manufacturing purchasing managers indexes (PMIs) have strengthened and growth in industrial sector profits rebounded in March. Growth in fixed asset investment has also increased in recent months, driven by infrastructure investment (which has been supported by fiscal policy) and real estate. Growth in retail sales has increased in both nominal and real terms in the March quarter.

Conditions in Chinese property markets are also improving. Growth in real estate investment has been relatively stable, but has been supported by a pick-up in spending on construction and fittings rather than land purchases by developers (Graph 1.5). Housing prices rose in most cities in the March quarter. Housing sales have increased strongly in recent months, absorbing some of the inventory that has built

up over the past year. Authorities have reiterated their commitment to limiting speculative activity, but recently announced reforms to loosen restrictions on rural–urban and inter-city migration that are likely to support prices and investment in smaller cities in the medium term.

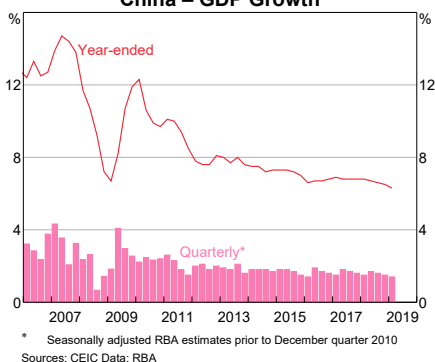
Producer price inflation has declined over the past year, reflecting subdued conditions in the industrial sector and low fuel price inflation (Graph 1.6). Core consumer price inflation has been relatively stable recently. In contrast, headline consumer price inflation has increased, mainly due to a sharp increase in fresh

### Graph 1.4



### Graph 1.3

**China – GDP Growth**



### Graph 1.5

**China – Residential Property Indicators**



vegetable and pork prices; the recovery in pork prices is partly due to supply shortages stemming from the spread of the African swine flu.

Chinese merchandise exports were little changed in the March quarter, while imports declined. Trade with the United States has weighed on Chinese exports and imports, as a result of tariff increases from late last year and front-loading in 2018 to avoid these tariffs. Shipments of Australian coal have been taking longer to clear customs in recent months. While this has weighed on Chinese imports of Australian coal, the effect on overall coal imports has been largely offset by increased coal imports from other countries.

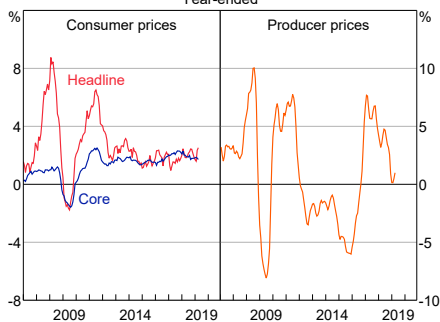
### ... supported by targeted policy easing

The Chinese authorities are continuing their efforts to support growth in a manner that does not increase financial stability risks, through a targeted easing of fiscal and monetary policy. In early March, the Chinese Government announced additional measures to increase spending on infrastructure, as well as an increase in the quota for local government 'special bonds' (see Box A: China's Local Government Bond Market). Authorities also announced

significant cuts to the value added tax rate. As a result, the general government budget deficit is projected to widen slightly in 2019, in both headline and underlying terms.

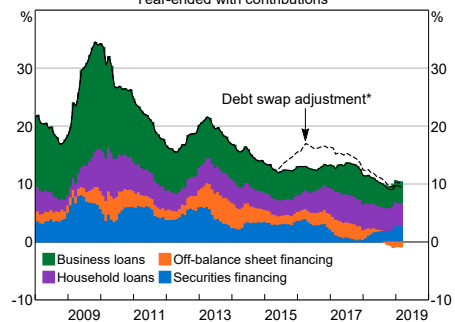
Growth in total social financing has picked up slightly since the start of 2019 because strong growth in bank credit has offset the continued contraction of off-balance sheet financing (Graph 1.7). Chinese authorities have reiterated their commitment to keeping the ratio of debt-to-GDP stable. Meanwhile, the authorities have continued to support financing conditions for private businesses, in particular micro- and small-sized enterprises (MSEs); official estimates suggest that private firms account for more than 60 per cent of GDP and over 80 per cent of urban employment. Financial regulators have instructed large state-owned banks to increase the stock of lending to MSEs by at least 30 per cent in 2019. The authorities have also announced further targeted cuts to reserve requirement ratios for some small and medium-sized banks. They also stated that the resulting release of funds should be directed towards lending to MSEs.

**Graph 1.6**  
China – Inflation\*  
Year-ended



\* Seasonally adjusted by RBA  
Sources: CEIC Data; RBA

**Graph 1.7**  
China – Total Social Financing Growth  
Year-ended with contributions



\* Upper bound estimate after including local government bond issuance to pay off debt previously included in TSF  
Sources: CEIC Data; RBA

## Elsewhere in east Asia the decline in trade has weighed on investment

In most economies in east Asia, export growth has eased sharply and survey measures of new export orders are below average (Graph 1.8). Industrial production growth has slowed and surveyed business conditions have also eased to below average levels in many economies in the region.

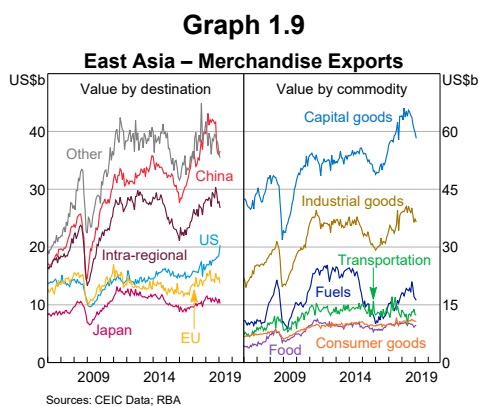
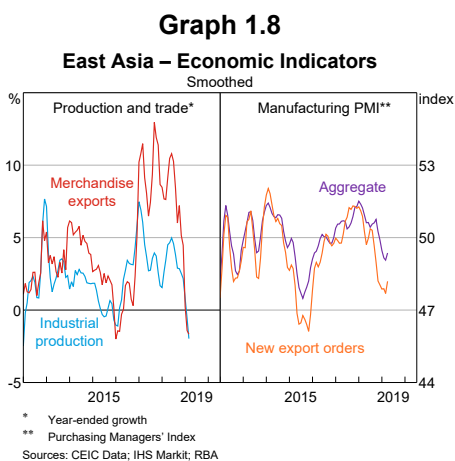
The fall in export growth has been most pronounced in exports to China, consistent with slowing domestic demand in China (Graph 1.9). The effects of US–China trade tensions on supply chains in the region are also apparent in intra-regional exports. However, lower-cost economies in the region, such as Vietnam, the Philippines and Thailand, could potentially benefit from production shifting away from China to avoid higher US tariffs. Export growth to the major advanced economies has been relatively resilient; export growth has picked up to the United States and has moderated only a little to the European Union and Japan.

The slowing in trade and the recent weakness in industrial production in east Asia has been evident in capital and industrial goods exports, particularly in the semi-conductor sector. This

follows very strong growth in this sector in 2016. The slowdown reflects a cyclical downturn in global demand for semi-conductors, driven by lower smartphone demand in China and a shift to less frequent device upgrades by consumers. The impact on the region has been amplified by the fall in semi-conductor prices over 2018, after they rose strongly in 2017. Business investment contracted in the economies with sizable semi-conductor sectors, such as South Korea, largely because of the completion of earlier investment to add to productive capacity in the electronics sector.

While the declines in export growth have been similar across economies, those most exposed to global trade, such as South Korea and Singapore, have been more adversely affected in other respects. In particular, business investment growth slowed sharply in these economies, while it has held up in the less trade-exposed economies (Graph 1.10). South Korean GDP fell in the March quarter because investment and exports contracted; consumption growth slowed but remained positive.

In Indonesia, growth has been more resilient because consumption and investment growth have eased only slightly (Graph 1.11). The significant monetary policy tightening in Indonesia in 2018 has had limited effect on



domestic demand because the pass-through to banks' lending rates has been limited.

## In India, growth remains relatively robust

In India, which relies less on merchandise trade than most economies in the region, economic growth edged higher in the December quarter, but over the year the pace has declined (Graph 1.12). Investment and export growth remained robust in the quarter, while growth in private and public consumption slowed. Growth in other parts of the economy, such as industrial and steel production, have also eased in recent

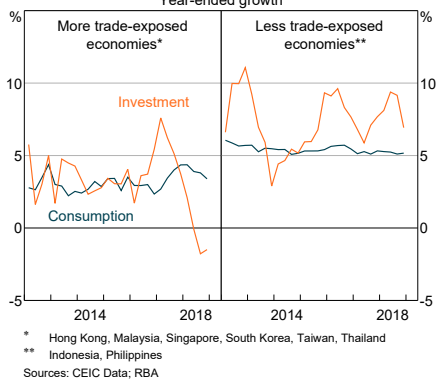
months. Core inflation (which excludes food and fuel) continues to moderate. Headline inflation picked up in February and March, but remains low, primarily due to weak food price inflation.

## Growth in the major advanced economies has generally eased from above potential

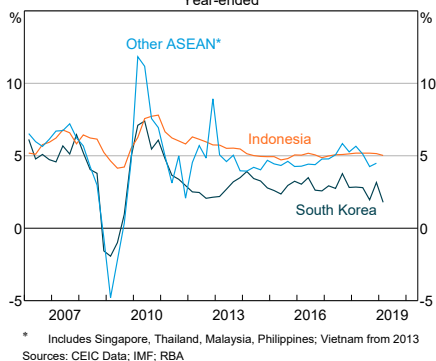
Growth momentum has generally moderated across the major advanced economies from rates that were well above potential in 2017 and early 2018. Weaker external demand and policy uncertainty have weighed on growth to varying degrees (Graph 1.13). Manufacturing sectors have been particularly affected while service sectors and consumption have been relatively resilient.

In the United States, domestic demand continued to slow in early 2019 although a fall in imports contributed to stronger-than-expected GDP growth in the March quarter. Over the past year, growth in exports and business investment has slowed. Investment intentions have also eased but remain relatively high (Graph 1.14). The protracted US Government shutdown and severe weather dampened domestic activity around the turn of the year; consumption growth was weak while residential investment contracted further. A number of

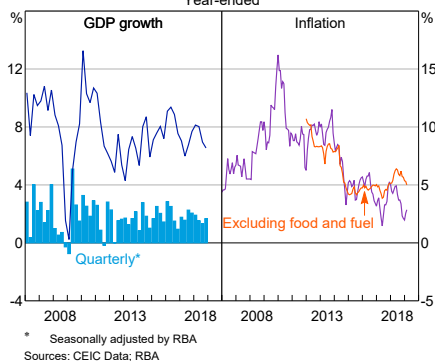
**Graph 1.10**  
East Asia – Investment and Consumption  
Year-ended growth



**Graph 1.11**  
East Asia – GDP Growth  
Year-ended



**Graph 1.12**  
India – GDP Growth and Inflation  
Year-ended



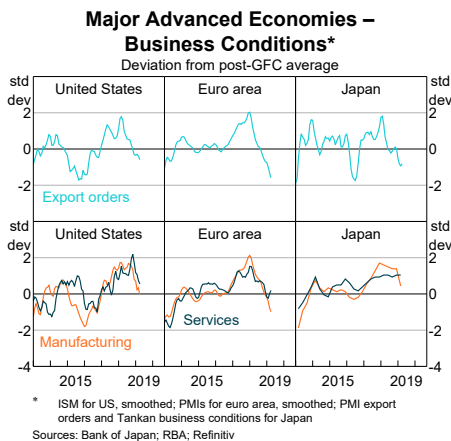
factors are likely to support consumption growth in the near term, although at a slower pace than during the past year when consumption was buoyed by tax cuts. Consumer sentiment is elevated, the labour market remains strong and wages growth has picked up.

In the euro area, growth picked up a little in the March quarter. New export orders suggest that the external demand weakness that has been dampening recent growth is likely to persist into the June quarter. Investment growth slowed in 2018 and investment intentions have eased

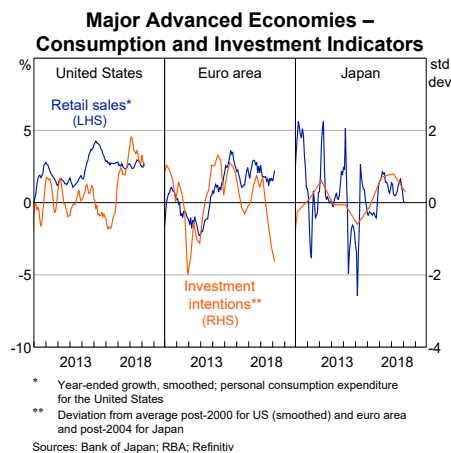
further this year because of the weaker external conditions and the ongoing uncertainty about trade policies and the United Kingdom's exit from the European Union. More positively, temporary factors that disrupted the automotive industry and key transportation channels in late 2018 and into early 2019, appear to have been largely resolved. Moreover, retail sales growth and consumer confidence remain above average in 2019, supported by strong employment growth.

Japanese GDP growth appears to have slowed abruptly in early 2019, driven by external demand. Exports to China and the rest of Asia were weak, new export orders have been subdued and surveyed conditions in the manufacturing sector have declined sharply. Business investment appears to have held up in the March quarter but investment intentions have moderated. In contrast, business conditions in the services sector remain buoyant, consistent with the above-average growth in domestic demand.

**Graph 1.13**



**Graph 1.14**



## Tight labour markets in advanced economies are supporting consumption and wages growth has increased ...

Employment growth remains high and above working-age population growth in the major advanced economies in 2019 (Graph 1.15). While employment growth has slowed a little in some of these economies since mid 2018, it has held up well relative to the slowing in GDP growth, which is similar to the experience in Australia. Unemployment rates are at multi-decade lows in many advanced economies. Tight labour markets have also encouraged higher participation rates. Employment intentions have declined a little in the United States and the euro area but remain at a high level. Vacancy rates remain very high and firms

continue to report widespread difficulties in filling jobs. This labour market strength is supporting ongoing growth in household income and consumption.

Wages growth increased notably over 2018 in the major advanced economies, continuing the trend of recent years (Graph 1.16). US wages growth is around the highest of the current expansion. Wages growth in the euro area in late 2018 was around the highest since 2010, although it has softened a little recently. In Japan, it appears that full-time wages growth remains positive and wages in the more cyclically sensitive part-time sector have continued to grow at a very high rate relative to the past decade. In some advanced economies such as New Zealand, Spain and South Korea substantial increases to minimum wages will also contribute to wages growth.

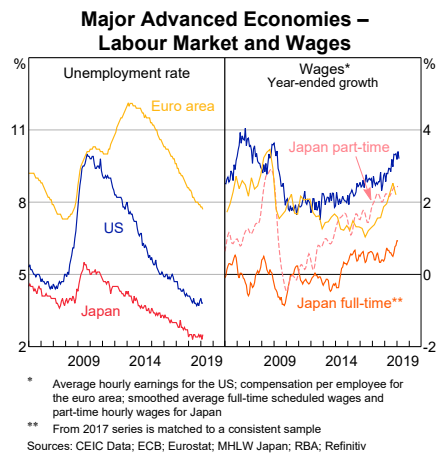
### ... but global inflation remains subdued

Core inflation is low in the three major advanced economies, despite ongoing capacity constraints. It is also now below central bank targets in each of these economies, given the easing in the US Federal Reserve’s preferred core inflation measure in recent months (Graph 1.17). Headline inflation has fallen because of the oil

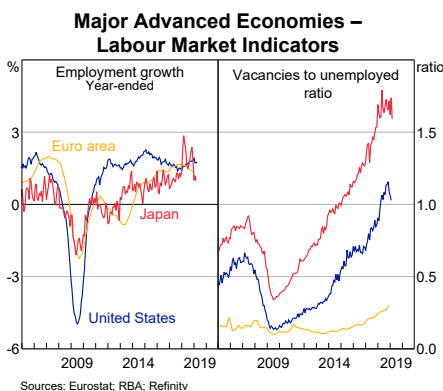
price decline in late 2018; oil prices have retraced some of this fall more recently. Higher US–China tariffs have increased costs for some producers in these economies. Inflation expectations of professional forecasters and measures derived from financial markets have generally declined over the past six months; consumer expectations have also eased, except in Japan.

Core inflation also remains generally subdued in the east Asian region, while headline inflation has declined because of the fall in oil prices in late 2018 (Graph 1.18). In the Philippines, inflation has returned to the central bank’s

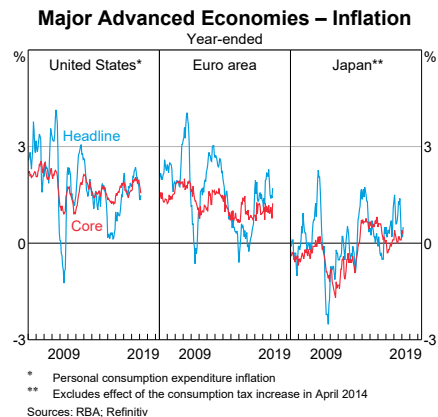
**Graph 1.16**



**Graph 1.15**



**Graph 1.17**





target range following substantial policy tightening over 2018. Inflation continues to be low in Malaysia because of changes in consumption taxes.

## Trading partner growth has moderated and is expected to continue at a similar rate in 2019 and 2020

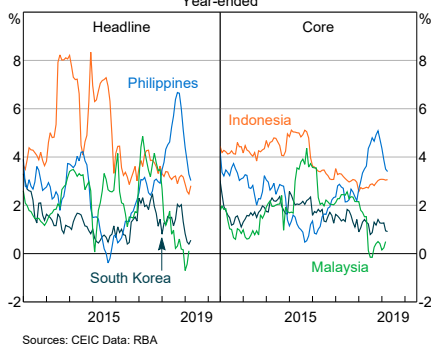
Growth in Australia’s major trading partners is expected to be around 3¾ per cent in 2019 and 2020 (Graph 1.19). This is noticeably slower than the relatively fast pace of growth in 2017 and in the first half of 2018, but remains at, or a little below, potential. Recent data have led to some small downward revisions to the global growth outlook, mainly because of lower growth in parts of Asia as a result of the more pervasive slowing in global trade. Global inflation is expected to be a little lower, and monetary policy is expected to be more accommodative over the forecast period than at the time of the February *Statement*, in line with financial market expectations. Risks around trade and other policies remain and could weigh on growth more than currently expected. In contrast, the risks around the global impetus from Chinese demand are more balanced, in light of

emerging signs that policy stimulus is supporting growth in China.

In China, near-term growth is expected to be supported by targeted policy-easing measures, but continue to moderate further out because of longer-term structural factors such as the declining working-age population. In the United States, GDP growth is expected to moderate from its very strong rate in 2018 to be around estimates of potential by 2020. Some of this moderation can be explained by the waning effects of the recent fiscal stimulus, although markets expect monetary policy to be more accommodative than previously.

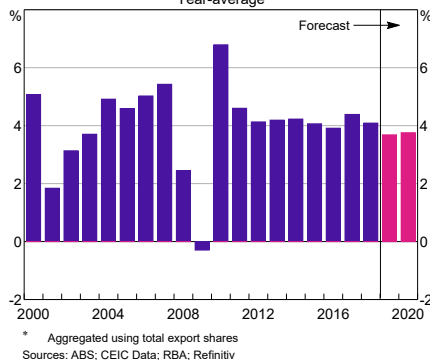
In 2019, the moderate growth expected in most other regions reflects a mix of subdued external demand being counterbalanced by resilient domestic demand. In parts of east Asia, trade effects on manufacturing and investment have been particularly evident. In Japan, the slowing in external demand and the related easing in manufacturing sector conditions are expected to be offset by the boost from consumption being brought forward ahead of an October 2019 increase in the consumption tax, leaving growth around potential. In the euro area, GDP growth is expected to be below potential in 2019 because of weaker external demand and its effects on investment; the investment

**Graph 1.18**  
East Asia – Inflation  
Year-ended



**Graph 1.19**

Australia’s Trading Partner Growth\*  
Year-average



weakness is expected to be compounded by the effects of continuing political uncertainty about the United Kingdom's exit from the European Union. Consumption is expected to remain supported by tight labour markets.

Fiscal policy will provide support in 2019 in a number of countries, with the exception of Japan (Graph 1.20); structural deficits are set to increase in 2019 in the United States, and in the euro area led by Germany. Monetary policy in trading partner economies is also expected to be more accommodative over the forecast period than at the time of the February *Statement*.

### Central banks have signalled that accommodative policy is likely to persist for longer

A number of major central banks have signalled that policy settings are likely to remain more accommodative than earlier expected. This shift has reflected lower projections for growth and inflation, and policymakers have highlighted increased downside risks. Market participants have further revised their expectations for policy rates lower since the previous *Statement* (Graph 1.21). Market pricing implies that monetary policy rates in most advanced

economies are expected to remain at, or below, current levels through to mid 2020.

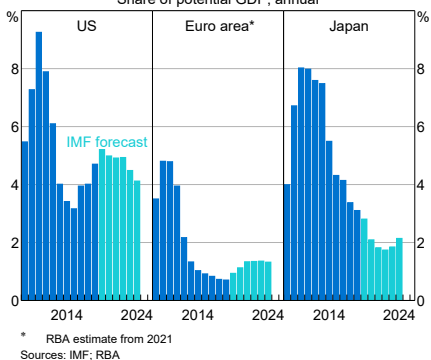
In the United States, the Federal Reserve (Fed) has lowered its projections for the path of its policy rate and continued to state that it will take a patient and flexible approach to setting policy. In its most recent forecast update, the Fed revised its central projections for growth down modestly, while indicating the upside risks to inflation are limited despite ongoing tightness in the labour market. The Federal Open Market Committee (FOMC) now projects its policy rate is most likely to remain unchanged in 2019, followed by one increase in 2020 (in December, officials projected two increases in 2019 and one in 2020) (Graph 1.22). By contrast, market pricing suggests that the FOMC is expected to lower its policy rate by the end of this year, in part reflecting a perception that risks to growth and inflation are skewed to the downside.

The Fed has also announced that the decline in its asset holdings will slow from May and cease from the end of September, sooner than market participants had expected (Graph 1.23). Based on this guidance, the Fed's securities portfolio will settle higher than market participants had expected a few months ago.

The European Central Bank (ECB) expects to leave its policy rate unchanged until at least the

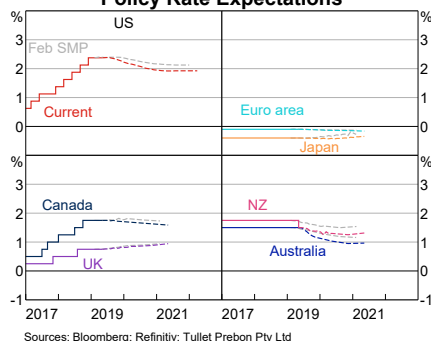
**Graph 1.20**

**Major Advanced Economies – Structural Fiscal Deficits**  
Share of potential GDP, annual



**Graph 1.21**

**Policy Rate Expectations**

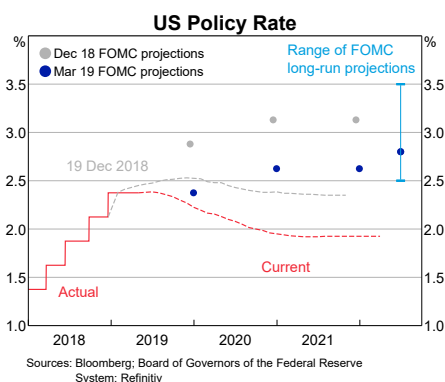


end of 2019, three months later than previously signalled. This reflects noticeable downward revisions by the ECB to its near-term economic growth and inflation forecasts, and its view that risks are tilted to the downside. Market pricing is broadly consistent with this policy guidance. The ECB also announced a third series of lending operations to euro area banks on favourable terms, beginning in September (labelled ‘Targeted Long-term Refinancing Operations’, TLTRO-III). The new program addresses concerns that financial conditions might otherwise have tightened unhelpfully for current monetary policy settings as loans from the previous program are repaid in the year ahead.

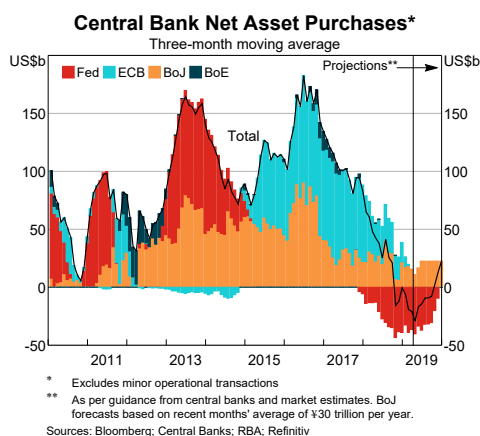
The Bank of Japan (BoJ) has continued to provide monetary stimulus by maintaining very low interest rates and expanding its balance sheet. At its April meeting, the BoJ stated that it expects to leave its policy settings unchanged until at least the second quarter of 2020. Market participants expect the current policy stance to be maintained for an extended period. Inflation forecasts have been consistently revised lower in the past year, with inflation now expected to reach 1.3 per cent by 2020 compared with expectations of 1.8 per cent a year ago (and against a target of 2 per cent).

A number of other central banks have signalled a more accommodative outlook for policy settings, citing the weaker outlook for growth and downside risks. The Bank of Canada stated that their monetary policy settings are expected to remain more accommodative than previously anticipated, though officials have stated that the next move is more likely to be up than down. Market pricing suggests that the policy rate will remain unchanged for some time. At its May meeting, the Reserve Bank of New Zealand (RBNZ) lowered its policy rate by 25 basis points to 1.5 per cent, and noted that the outlook for policy is now more balanced. The RBNZ lowered its forecasts for activity and employment growth, and noted that inflation is expected to return to the 2 per cent midpoint of its target range by mid-2021, a little later than previously indicated. Market pricing suggests that the policy rate is expected to be lowered again by early next year. Bank of England (BoE) officials continue to point to the outcome of Brexit as a significant source of uncertainty, and note that it is likely to shape the next move in the BoE’s policy rate, which could be up or down. Market participants expect that the policy rate will be increased around the middle of 2021, a little later than previously expected.

**Graph 1.22**



**Graph 1.23**



## Government bond yields have fallen to low levels ...

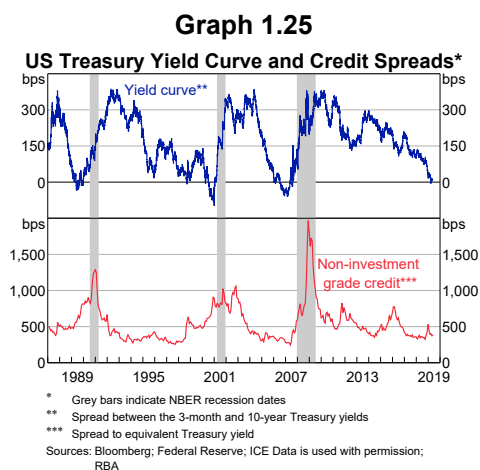
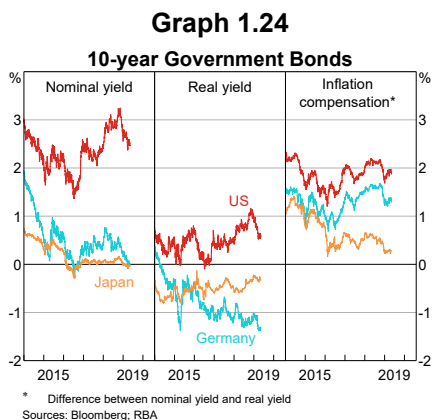
In recent months, the yields of long-term government bonds have declined to be near historically low levels (see 'Box B: Why Are Long-term Bond Yields So Low?'). In Germany and Japan, long-term yields are again close to the record low levels seen in 2016 (Graph 1.24). The declines in bond yields since late last year have reflected a noticeable fall in real yields and lower inflation compensation. This is consistent with the downward revisions to macroeconomic projections by central banks and market participants, and the lowering of policy rate expectations. In addition, term premiums – the compensation that investors demand for the additional risk of holding long-term rather than short-term bonds – have declined to be around record low levels.

Yield curves have also flattened in recent months. For a short period, long-term bond yields in the United States were below those of some short-term interest rates (Graph 1.25). This so-called 'inversion' of the yield curve attracted attention from market participants, as persistent inversions have tended to precede economic downturns in the United States by 12–18 months. However, this signal from the yield curve is likely to be distorted by the very

low term premium, which is around 200 basis points below its long-term average. Also, other market indicators for future economic conditions are not currently pointing to an economic downturn. For example, credit spreads on high-yield corporate bonds in the United States remain low. Credit spreads tend to increase when market participants perceive a rise in the risk that borrowers will default on their debt obligations, as is commonly seen in an economic downturn.

## ... and the cost of financing for corporations has declined

Corporate bond yields have declined since the start of the year, more than reversing the increase experienced in late 2018. Over the year to date, the decline has mostly reflected lower credit spreads – the premium above government bond yields that investors demand as compensation to invest in corporate bonds. This improvement in conditions has encouraged non-financial firms to increase their issuance of bonds, particularly those firms with lower credit ratings (Graph 1.26). By contrast, issuance of leveraged loans has remained subdued. This may reflect ongoing concerns that investors have about credit quality in this market or that



the shift in the outlook for monetary policy has reduced the demand for securities like leveraged loans with floating interest rate coupons.

Equity prices globally have risen strongly since the start of the year and are now close to, or above, their levels in September last year (Graph 1.27). In the United States, equity prices are around record highs. Increases globally largely reflect changes in investors' appetite for, or perceptions of, risk, and expectations that central bank policy will be more accommodative than previously anticipated. This has more than offset the effect on equity prices of modest downward revisions to expected corporate earnings in 2019. Measures of equity market valuations, such as the price-earnings ratio, remain around their long-term averages after declining notably in the final quarter of 2018.

Spreads in short-term money markets (over and above expected policy rates) have declined substantially this year (Graph 1.28). In US dollar markets, conditions have eased following the tightness associated with the regulatory constraints on banks' balance sheets that bind at the end of the calendar year. Also, there have been strong inflows to money market funds that invest in short-term securities issued by banks and corporations. In addition, the US Treasury

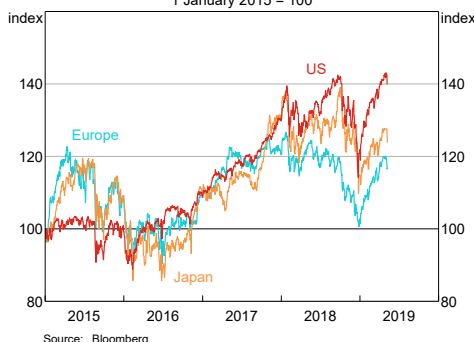
has shifted some of its issuance from short-term bills toward longer-term bonds.

## The US dollar is little changed and currency volatility is low

The US dollar remains a little below its levels of late 2018 on a trade-weighted (TWI) basis (Graph 1.29). Following a sustained appreciation over much of 2018, from mid December the US dollar depreciated alongside a more pronounced shift in the outlook for monetary policy in the United States than in other major economies. The euro has depreciated slightly since the start of the year on a TWI basis alongside weaker-than-expected macroeconomic data and expectations that the

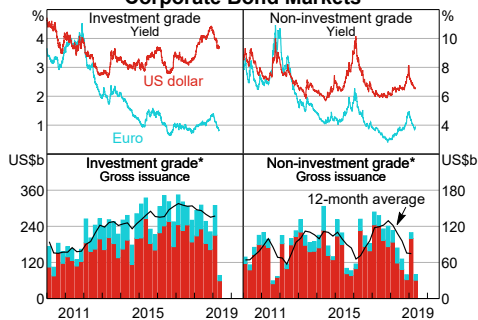
**Graph 1.27**

**Equity Prices**  
1 January 2015 = 100



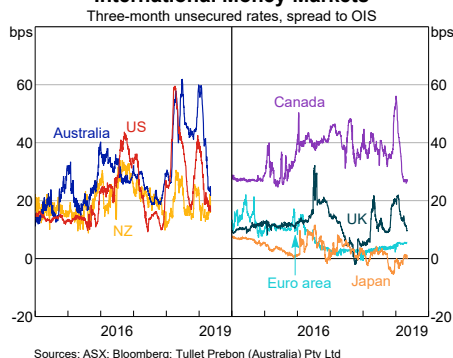
**Graph 1.26**

**Corporate Bond Markets**



**Graph 1.28**

**International Money Markets**



ECB's monetary policy settings will remain more accommodative than previously anticipated. The Japanese yen has appreciated of late, to be back around its levels of late 2018. Volatility in the currencies of advanced economies has declined since the start of the year to be around its lowest level of the past several years.

### In China, financial markets have reacted to stronger-than-expected economic data and an increase in trade uncertainty

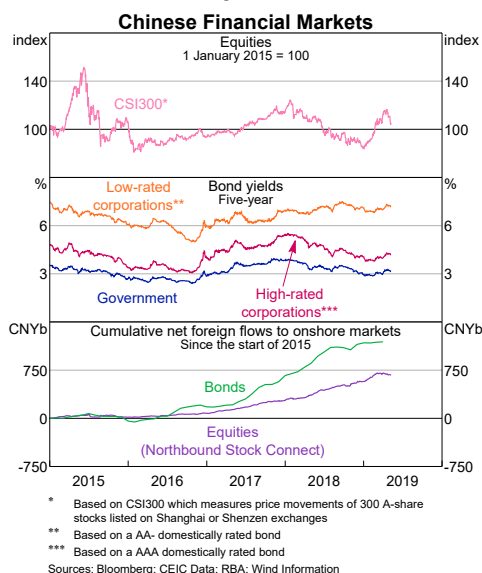
The pick-up in Chinese activity indicators in recent months has led to some paring back of market participants' expectations for the pace of further monetary easing by the People's Bank of China. Accordingly, yields on Chinese government and corporate bonds have increased, although for the government and high-rated corporations, yields remain at low levels (Graph 1.30). Equity prices have increased by a bit more than 20 per cent since the start of the year although have declined a little of late because of renewed concern regarding US-China trade negotiations.

The Chinese renminbi has depreciated recently amid renewed trade uncertainty (Graph 1.31). However, more broadly, the renminbi has continued to be supported by ongoing strong

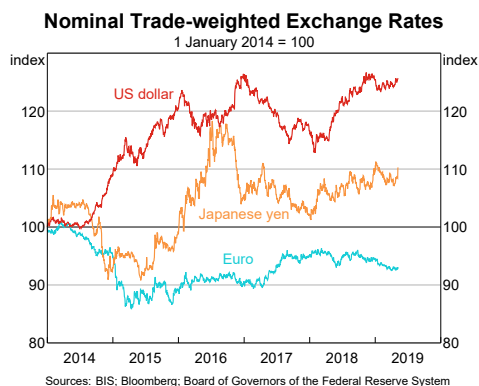
private capital inflows and a rise in bond yields in China relative to those in advanced economies. Chinese foreign currency reserves have remained stable at a little above US\$3 trillion.

Announced increases in the weights of Chinese securities in major global financial indices have supported strong capital inflows into China's onshore bond and equity markets. The Chinese authorities have been seeking to expand foreign investors' access to its capital markets in recent

**Graph 1.30**



**Graph 1.29**



**Graph 1.31**



years, including by enhancing investment channels between Mainland China and Hong Kong. The authorities have stated their intention to further expand market access for foreign investors, especially to its financial services sector.

## Financing conditions have improved in many emerging economies, but risks remain

In many emerging market economies, asset prices and exchange rates have been relatively stable in recent months (Graph 1.32). There have been inflows into emerging market mutual and exchange traded funds, and emerging market governments have increased their issuance of US dollar bonds. The more stable conditions reflect lower policy rate expectations in the United States and elsewhere, measures adopted by the authorities to support growth in China, and tighter monetary and/or fiscal policies implemented in some emerging market economies in response to market stresses during 2018.

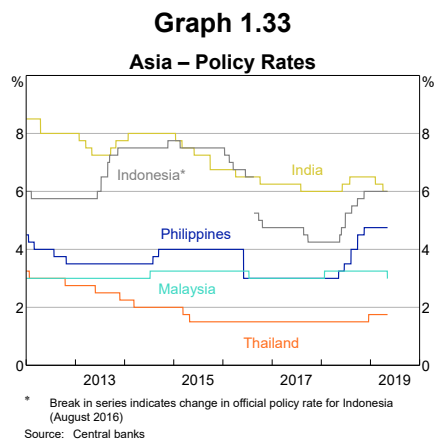
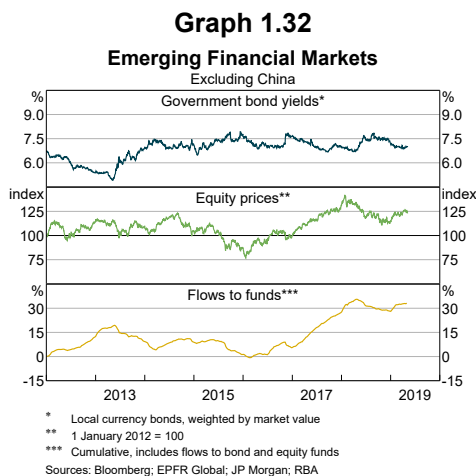
A number of central banks in emerging market economies have shifted their policy rate guidance in recent months as financial market conditions have stabilised. In Asia, the central

banks that had tightened policy last year have generally paused of late (Graph 1.33). The shift in stance has reflected downward revisions to global growth forecasts, subdued domestic inflationary pressures and an easing of current account and financial stability risks since last year. The central banks of India and Malaysia have both eased policy this year.

Although financial conditions in emerging markets have been generally stable in 2019, risks remain for some economies with specific macrofinancial and/or political vulnerabilities. In Turkey and Argentina, currencies have again depreciated and central banks have further tightened monetary policy in recent months alongside persistently high inflation and political uncertainty associated with recent and upcoming elections (Graph 1.34). To date, these developments have not spilled over in any noticeable way to other emerging markets, including in Asia.

## There have been some large movements in commodity prices in recent months

The benchmark iron ore spot price has increased since the previous *Statement* to be around its highest level since early 2017 (Graph 1.35; Table 1.1). Prices rose sharply in late



**Table 1.1: Commodity Price Growth<sup>(a)</sup>**

	Since previous Statement	Over the past year
Bulk commodities	3	31
– Iron ore	8	55
– Coking coal	2	19
– Thermal coal	–10	–12
Rural	2	2
Base metals	–2	–14
Gold	–2	0
Brent crude oil <sup>(b)</sup>	15	–7
RBA ICP	2	11
– Using spot prices for bulk commodities	0	14

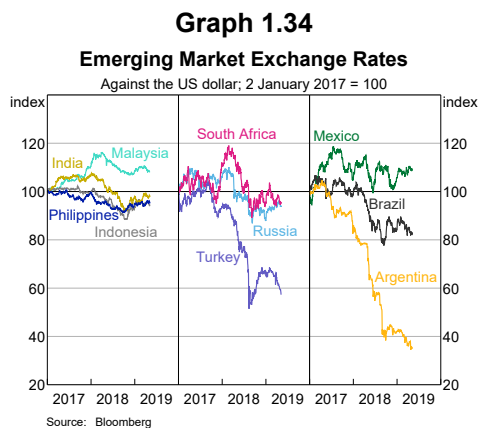
(a) Prices from the RBA Index of Commodity Prices (ICP); bulk commodity prices are spot prices

(b) In US dollars

Sources: Bloomberg; IHS Markit; RBA

January following the collapse of a tailings dam in Brazil and subsequent mine closures, and have increased further since. Around 6 per cent of global seaborne supply has been affected by the Brazilian mine closures. However, increased production at other Brazilian mines and draw-downs of stockpiled ore are expected to partly offset the lost production. An extended period of high iron ore prices may also encourage higher-cost production in other countries to come back online. More recently, supply side

disruptions at Australian ports as well as a pick-up in Chinese steel production following the end of Chinese winter production restrictions, have also supported prices. Nevertheless, significant uncertainty remains around the outlook for iron ore seaborne supply and prices. After an extended period of pronounced price differentials in the iron ore market, the discount for lower-grade ore has narrowed substantially relative to the benchmark price in recent months. This narrowing has been driven by steel





makers substituting towards lower-grade ore to support margins in response to lower steel prices in late 2018, and because of a reduction in higher-quality Brazilian supply. The smaller discount should provide some support to Australia’s iron ore export values because lower-grade products account for around 40 per cent of Australia’s iron ore exports.

Oil prices have increased considerably since the previous *Statement*, but remain around 18 per cent below their peak in October 2018 (Graph 1.36). The increase in prices reflects reduced supply since December 2018. Saudi Arabia has cut production by more than its commitment under the December OPEC+ agreement and production has declined for some countries exempt from the agreement, including Iran, Venezuela and Libya. These supply reductions have offset continued increases in US production.

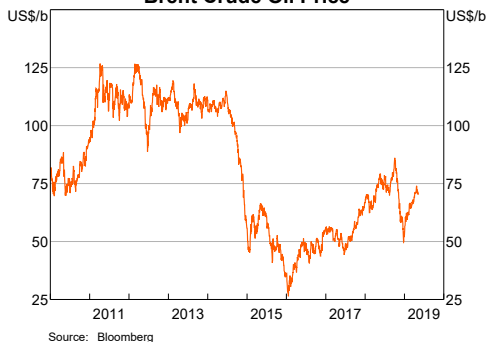
Australian thermal coal prices have declined sharply since the previous *Statement* (Graph 1.37). A reported softening in Chinese demand over the past couple of months has weighed on prices, and customs clearance times for Australian coal at some Chinese ports have lengthened. Weaker demand from Asia more broadly and increased supply from Russia, the United States and more recently Australia have also weighed on prices. Just prior to a large

decline in the spot price in early April, the 2019 Japanese fiscal year benchmark price was agreed at 14 per cent lower than the 2018 benchmark price; around one-quarter of Australia’s thermal coal exports are sold on contract based on the benchmark price. Coking coal prices have increased slightly since the previous *Statement* reflecting a pick-up in Chinese demand because of increased steel production.

Base metal prices are generally lower since the previous *Statement* (Graph 1.38). Price movements in recent months have been driven by sentiment regarding the outlook for global demand, as well as an easing of supply concerns.

**Graph 1.36**

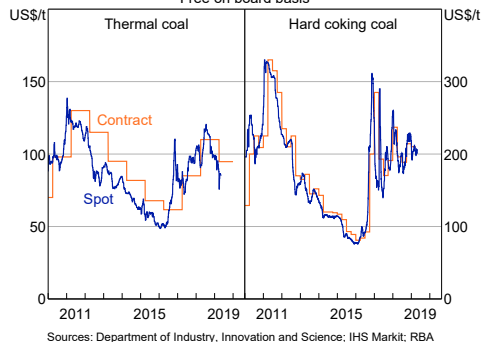
**Brent Crude Oil Price**



**Graph 1.37**

**Coal Prices**

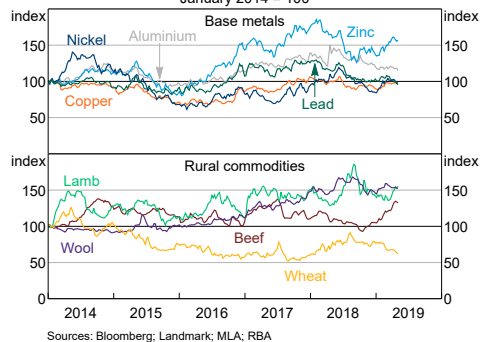
Free on board basis



**Graph 1.38**

**Base Metal and Rural Prices**

January 2014 = 100



Prices for Australian rural exports have increased slightly since the previous *Statement* because higher beef prices have been only partly offset by lower global wheat prices. Beef prices have increased by more than 40 per cent since their October trough, supported by strong global demand and, to some extent, a moderate slowing in Australian beef production rates in recent months. Meanwhile, the decline in wheat prices over recent months follows the improved outlook for northern hemisphere wheat production.

Australian export prices (including the prices of non-commodity exports) are expected to have increased in the March quarter, largely reflecting higher iron ore prices. Export prices are still likely to decline over the next few years as Chinese demand for bulk commodities moderates and global supply increases (see 'Economic Outlook' chapter). ✖

## Box A

# China's Local Government Bond Market

The local government bond market in China has grown rapidly in recent years and is now China's largest bond market (Graph A1). It is also the largest municipal bond market in the world. The emergence of China's local government bond market reflects regulatory changes in 2014 that encouraged local governments to raise debt directly from bond markets (subject to annual quotas).<sup>[1]</sup> Before these changes, most local governments had no direct access to bond financing and, instead, raised funds by forming off-balance sheet entities known as local government financing vehicles (LGFVs). These LGFVs sourced credit, in large part, from outside the regular banking system. Such funding is known as 'shadow financing' and is subject to limited prudential oversight. In recent years, the authorities have actively discouraged the use of LGFVs in favour of more transparent financing through the local government bond market, with a view to reducing financial stability risks. In addition, the authorities have allowed local governments to convert the debt of LGFVs into bonds as part of a local government 'debt-swap' program, which concluded recently.<sup>[2]</sup>

At the National People's Congress in March, in order to support infrastructure investment, the Chinese authorities significantly increased the quota for local government bond issuance in 2019. The authorities set the quota at CNY3.1 trillion (approximately 3 per cent of GDP), almost one-third larger than for 2018 (Graph A2).<sup>[3]</sup> This reflected a sharp increase in the quota for 'special bonds' that finance infrastructure

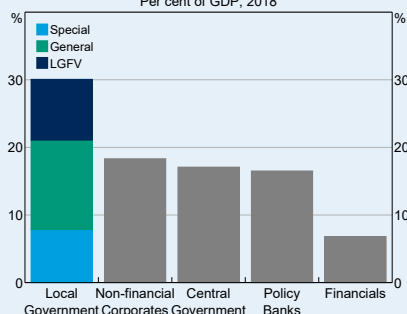
investments, and a small increase in the quota for 'general bonds' that finance general government spending. The authorities have been encouraging local governments to increase their infrastructure investment, which had slowed over the course of the past year or so. Local governments undertake the bulk of public infrastructure investment in China and are responsible for around 85 per cent of total government spending.<sup>[4]</sup>

Despite the recent rapid growth in issuance, the local government bond market in China is still developing in some key respects:

- There tends to be little difference in market pricing of credit risk, both across types of bonds (special and general bonds) and across issuers. In particular, spreads of local government bonds to Chinese government bonds (CGBs) are similar across Chinese provinces, despite significant variation in provincial debt burdens and risk profiles (Graph A3). The

### Graph A1

Chinese Bond Market  
Per cent of GDP, 2018



Sources: RBA; WIND Information

lack of discrimination in pricing for different levels of credit risk is likely to reflect the widely held expectation that, if needed, the central government will intervene to prevent local governments from missing bond payments. This implicit guarantee reduces borrowing costs for some local governments but could also contribute to moral hazard over the medium term.

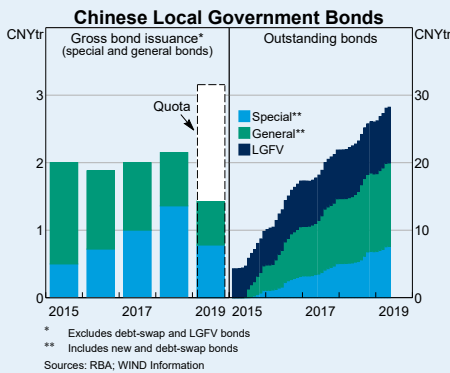
- The local government bond market has a narrow investor base, with China’s commercial banks holding almost

80 per cent of outstanding securities (Graph A4). This can be attributed to bank purchases under the debt-swap program and also capital regulations that assign lower risk weights to local government bonds than other types of credit exposures, such as residential and commercial loans.<sup>[5]</sup> Accordingly, Chinese commercial banks have significant exposure to local government bonds, which represent around 7 per cent of their total assets, on average.<sup>[6]</sup>

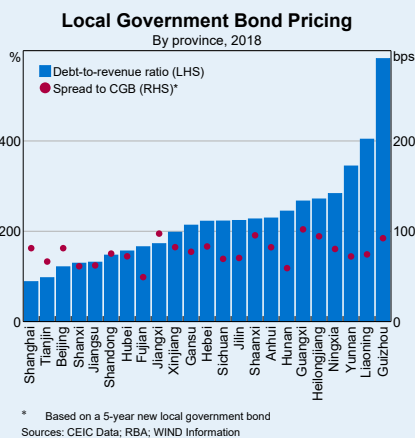
- Local government bonds tend to trade infrequently in the secondary market and are relatively illiquid. In 2018, average turnover was equivalent to around 25 per cent of outstanding local government bonds, compared with around 75 per cent for US municipal bonds and 50 per cent for Japanese municipal bonds (Graph A5). Bid-ask spreads are typically also wider for Chinese local government bonds. In part, the lack of market liquidity reflects the tendency of China’s commercial banks to buy local government bonds with the intention of holding the securities to maturity. This is likely to be due to the perceived low risk of default by local governments, as well as the low risk weights assigned to local government bonds under China’s capital regulations.

In recent years, partly in response to these issues, the Chinese authorities have sought to improve the functioning of the local government bond market. The authorities have attempted to reduce implicit guarantees and encourage risk-based pricing of local government bonds. For example, they have prohibited local governments

**Graph A2**



**Graph A3**



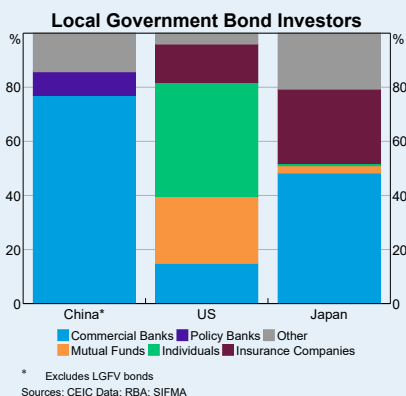
from guaranteeing LGFV debt and encouraged the use of special bonds that have repayments linked explicitly to the revenues of the relevant project, as opposed to local government budgets.<sup>[7]</sup> The authorities have also tried to expand the

investor base and improve liquidity by: encouraging greater disclosure of issuers' financial positions; permitting issuance of longer-term bonds; opening the market to retail investors; and developing an over-the-counter market for local government bonds.

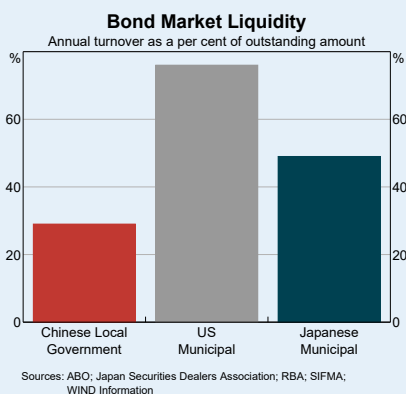
While seeking to enhance market functioning in these various ways, the authorities also have been conscious of minimising the risk of significant market disruptions. Given their significant holdings of local government bonds, China's commercial banks could be adversely affected by abrupt changes in policy (however unlikely) that allows defaults by local governments or causes a revaluation of implicit guarantees (to the extent that securities are revalued in banks' books). Higher funding costs for some local governments could also weigh on infrastructure investment.

The local government bond market is likely to continue to grow, given the decentralised nature of China's fiscal arrangements, and in line with the authorities' efforts to reduce moral hazard and make local government borrowing more transparent. This is expected to be supported by further policy measures aimed at facilitating the development of what is an increasingly important segment of China's fast-growing capital markets. ❖

**Graph A4**



**Graph A5**



## Endnotes

[1] This followed a pilot program that permitted limited bond issuance by several provincial governments from 2011 onward.

[2] 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>.

- [3] Historically, local governments have used their full quota for bond issuance.
- [4] See Wilkins K and A Zurawski (2014), 'Infrastructure Investment in China', *RBA Bulletin*, June, viewed 21 March 2019. Available at <<https://www.rba.gov.au/publications/bulletin/2014/jun/pdf/bu-0614-4.pdf>>.
- [5] Local government bonds in China are subject to a risk weighting of 20 per cent, compared with 50 per cent
- [6] for residential mortgages and 100 per cent for corporate loans.
- [6] In contrast, US commercial bank holdings of municipal bonds represent approximately 2 per cent of total assets.
- [7] RBA (2018), 'Box A: Evolving Financial Conditions in China', *Statement on Monetary Policy*, November, pp 21–23. Available at <<https://www.rba.gov.au/publications/smp/2018/nov/box-a-evolving-financial-conditions-in-china.html>>.

## Box B

# Why Are Long-term Bond Yields So Low?

Long-term bond yields in major advanced economies have fallen noticeably over the past six months. In many cases, yields are close to, or have reached, historic lows, and in some cases are negative (Graph B1). The most recent declines have been largely driven by cyclical factors: global growth has eased, many central banks have revised down their growth and inflation forecasts, and market participants have lowered their expectations for central bank policy rates (see the 'International Environment' chapter).

However, these developments have occurred against the backdrop of a long-run decline in yields that has extended for several decades. This trend has been driven by slow-moving but significant structural changes in the global economy and financial markets. It can be better understood by decomposing long-term nominal bond yields into three components:

- expected real short-term interest rates (i.e. nominal rates adjusted for expected inflation);

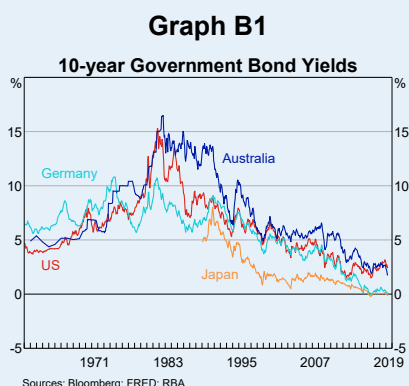
- expected inflation; and
- a term premium, which is the extra return that investors require to hold a longer-term bond instead of investing in a series of short-term securities.

Understanding how these individual components have contributed to the overall decline in bond yields can also provide a lens through which to interpret what the financial markets might be implying about the outlook for policy rates, growth, inflation and economic uncertainty more generally.

## Expected real short-term interest rates

Financial markets currently expect central bank policy rates to be much lower on average in the future than they have been in earlier decades. This is true of policy rates when expressed in either nominal or real terms. This, in turn, primarily reflects the trend decline in estimates of the so-called 'neutral' rate of interest – the policy rate that is considered to be neither stimulatory nor contractionary for an economy over the medium term (Graph B2). Although it cannot be observed directly, estimates of the neutral rate can provide a useful guide for both central banks and financial market participants in determining the policy rate required to maintain full employment and stable inflation.

The long-run decline in neutral interest rates reflects the interaction of slow-moving fundamental factors that appear prevalent



across many advanced economies, including Australia. A rise in desired savings, or a fall in desired investment, as a share of income, will tend to reduce an economy's neutral rate of interest. These factors have been widely discussed in both Australian and international literature.<sup>[1]</sup>

## Inflation expectations

Since its peak in the 1970s, inflation in advanced economies has declined to very low levels, and is expected to remain low for some time (Graph B3). As a result, investors currently demand less compensation for the erosion of the purchasing power of their savings. This decline in inflation and the emergence of stable inflation expectations that began in the early 1980s (when high real interest rates contributed to recession in many advanced economies) was reinforced with the adoption of inflation targeting by many central banks in the early 1990s.<sup>[2]</sup> In more recent years, a period where realised inflation outcomes have been below central bank targets in several major economies, despite unprecedented monetary stimulus, may also have contributed to a reduction in inflation expectations.

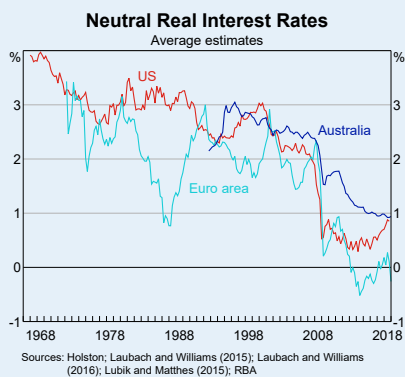
## The term premium

Finally, the low level of long-term bond yields also reflects unusually low 'term premiums'. The term premium is the extra return that compensates investors for lending at a fixed rate of interest; this exposes the investor to the risk that interest rates might rise, in which case they would forego higher returns, including in the event that inflation is higher than expected. Historically, term premiums have tended to be positive but, on some measures, they are currently negative (Graph B4). The low level of term premiums can be traced to two factors: low uncertainty about future macroeconomic outcomes, and an increased presence of price-insensitive buyers for long-term government securities.

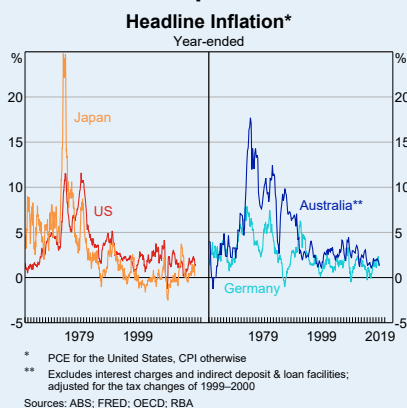
## Macroeconomic influences on the term premium: the role of uncertainty

Where investors believe that *uncertainty* about the future level of real interest rates and inflation is low, the term premium will also be low (all else being equal). One indicator suggesting that investors' uncertainty is low can be seen in the price of options used to hedge against, or speculate

**Graph B2**



**Graph B3**





on, interest rate movements. The level of expected volatility implied by the prices of these options has been well below its historical average for a number of years and is currently close to all-time lows (Graph B5). This may also partly reflect technical factors in financial markets.<sup>[3]</sup>

Uncertainty around future real interest rates has declined for several reasons. As nominal rates are lower than in the past, they are more likely to encounter the effective lower bound in many economies. That implies that the distribution of future policy rates is truncated on the downside, which, in turn, narrows the range of uncertainty around future real rates. In addition, a number of

central banks have provided more explicit guidance for future policy rates, which has lessened uncertainty about the path of policy rates to the extent that market participants view this guidance as credible. Finally, uncertainty around key determinants of real interest rates may have also declined, in particular economic growth rates.<sup>[4]</sup>

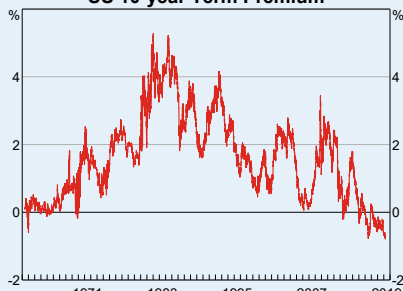
Similarly, uncertainty about future inflation appears to have declined, particularly over the past decade. A range of measures supports this: for example, the dispersion of CPI forecasts by market participants has narrowed steadily since 2010 (Graph B6). This greater certainty about future inflation in part reflects declines in actual, or ‘realised’, inflation volatility, and can be explained by the tendency for inflation volatility of the recent past to influence expectations about future inflation uncertainty (Graph B7).

### Other influences on the term premium: the role of price-insensitive buyers

The rising influence of price-insensitive buyers (relative to the supply of long-term debt securities) will also have suppressed term premiums. Most notably, quantitative easing (QE) programs in the wake of the

**Graph B4**

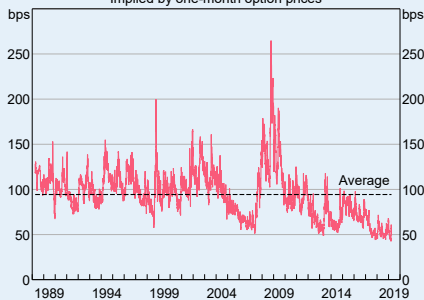
**US 10-year Term Premium**



Source: Refinitiv

**Graph B5**

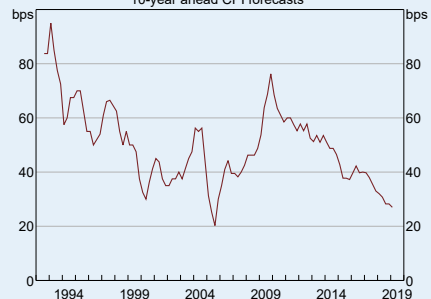
**US Treasury Volatility**  
Implied by one-month option prices



Sources: RBA; Refinitiv

**Graph B6**

**Dispersion of US Inflation Forecasts**  
10-year ahead CPI forecasts\*

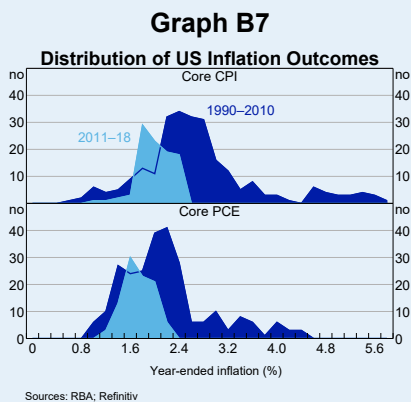


\* Based on survey of professional forecasters, four-quarter moving average, dispersion is the 75th less 25th percentile  
Sources: RBA; Refinitiv

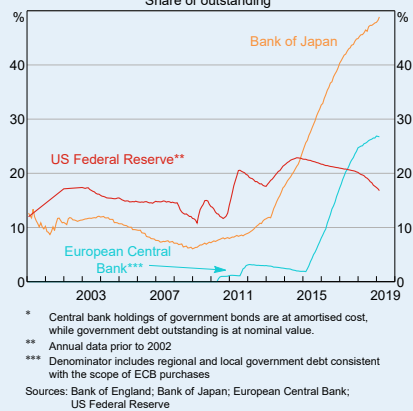
Global Financial Crisis absorbed part of the supply of long-term government bonds available to the private sector (Graph B8). The Federal Reserve's QE program alone is estimated to have compressed the US 10-year term premium by around 100 basis points, although this is likely to have partly unwound of late.<sup>[5]</sup> In addition, there has been ongoing demand for long-term government bonds from other price-insensitive buyers, such as insurers and defined benefit pension funds, despite very low or negative interest rates.<sup>[6]</sup> These firms often have significant long-term liabilities with maturities that are longer than those of many financial assets. The resulting maturity gap means that the decline in bond yields increases the present value of these firms' liabilities by more than the present value of

their assets. As a result, these firms have an incentive (and are often required by regulation) to purchase additional long-term assets to hedge interest rate risk. Finally, financial institutions have also increased their holdings of such assets, partly to meet requirements under stricter liquidity regulations in the wake of the financial crisis.

So, while the bond market may provide useful information about expectations for neutral interest rates, inflation and economic uncertainty, this is less the case when movements in government bond yields largely reflect the impact of price-insensitive buyers. ✎



**Graph B8**  
Central Bank Holdings of Government Bonds  
Share of outstanding\*



## Endnotes

[1] For an overview of the drivers of global neutral interest rates see Rachel L and T Smith (2015), 'Secular drivers of the global real interest rate', Bank of England Working Paper No 571. For a discussion on Australia's neutral rate see McCririck R and D Rees (2017), 'The

Neutral Interest Rate', RBA *Bulletin*, September. Available at <<https://www.rba.gov.au/publications/bulletin/2017/sep/pdf/bu-0917-2-the-neutral-interest-rate.pdf>>.

[2] Sánchez J and H Kim (2018), 'Why is Inflation so Low?', Federal Reserve Bank

of St Louis Regional Economist, First Quarter 2018.

- [3] Market participants suggest that there has been an increase in the selling of instruments that protect against a rise in volatility (like US Treasury options) to generate additional returns in the low-yield environment. An increase in the supply of volatility insurance would reduce its price and therefore lower the expected volatility implied by these instruments. For more information, see RBA (2018), 'Box A: The Period of Low Volatility in Financial Markets', *Statement on Monetary Policy*, February, pp 25–26. Available at <<https://www.rba.gov.au/publications/smp/2018/feb/box-a-the-period-of-low-volatility-in-financial-markets.html>>.
- [4] RBA (2018), 'Box A: The Period of Low Volatility in Financial Markets', *Statement on Monetary Policy*, February, pp 25–26. Available at <<https://www.rba.gov.au/publications/smp/2018/feb/box-a-the-period-of-low-volatility-in-financial-markets.html>>.
- [5] Bonis B, J Ihrig and M Wei (2017), 'The Effect of the Federal Reserve's Securities Holdings on Longer-term Interest Rates', FEDS Notes, Washington: Board of Governors of the Federal Reserve System, 20 April. Available at <<https://doi.org/10.17016/2380-7172.1977>>.
- [6] RBA (2015), 'Box A: Effects of Low Yields on Life Insurers and Pension Funds', *Financial Stability Review*, October, pp 16–18. Available at <<https://www.rba.gov.au/publications/fsr/2015/oct/box-a.html>>.



## 2. Domestic Economic Conditions

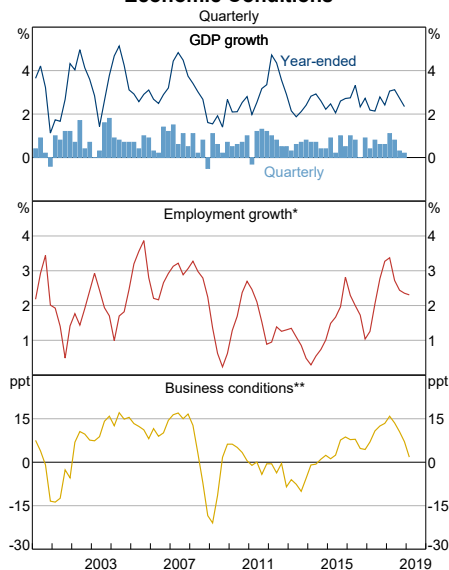
Growth in the Australian economy slowed in the second half of 2018 (Graph 2.1). This largely reflected slower-than-expected growth in consumption, although a number of temporary factors have also weighed on growth in recent quarters. Partial indicators of domestic economic activity suggest growth was moderate in the first quarter of 2019. Employment growth has remained solid in recent months and the unemployment rate has been stable after declining by more than expected over 2018.

### The domestic economy slowed over the second half of 2018 ...

GDP increased by 0.2 per cent in the December quarter and by 2.3 per cent over 2018 (Table 2.1). Growth in household consumption remained soft in the December quarter, and dwelling investment declined sharply. Both these components of domestic demand are likely to have been affected by persistently slow growth in household incomes and declining housing prices. Temporary factors, including weakness in mining sector activity and the effect of the drought on the farm sector, also contributed to slower GDP growth in the second half of 2018. In contrast, public demand and non-mining investment grew relatively strongly in the quarter and over the year.

**Graph 2.1**

#### Economic Conditions



\* Year-ended  
 \*\* NAB survey; deviation from long-run average  
 Sources: ABS; NAB

### ... while employment growth has been resilient

Although GDP growth has moderated, employment has continued to expand by enough to reduce spare capacity in the labour market over the past year. This pattern of weaker growth of economic activity and resilient labour markets has also been evident in a number of other advanced economies. In Australia, a decrease in GDP growth is typically associated with employment growth also decreasing in the same period or sometime within the following nine months, but it is also not unusual for trends in GDP growth and the labour market to diverge for sustained periods.

Employment grew by 0.6 per cent in the March quarter to be 2½ per cent higher over the year

**Table 2.1: Demand and Output Growth**

Per cent

	December quarter 2018	September quarter 2018	Year to December quarter 2018
GDP	0.2	0.3	2.3
Domestic final demand	0.3	0.5	2.5
– Consumption	0.4	0.3	2.0
– Dwelling investment	–3.4	0.5	2.5
– Mining investment <sup>(a)</sup>	–5.5	–8.0	–13.5
– Non-mining investment <sup>(a)</sup>	2.4	0.8	4.0
– Public consumption	1.8	1.2	5.6
– Public investment	0.8	7.4	8.7
Change in inventories <sup>(b)</sup>	0.2	–0.3	0.0
Exports	–0.7	–0.1	4.7
Imports	0.1	–1.0	1.5
Mining activity <sup>(a)</sup>	–2.5	–2.6	0.3
Non-mining activity <sup>(a)</sup>	0.6	0.7	2.6
Farm GDP	–4.0	–2.4	–5.8
Non-farm GDP	0.3	0.3	2.5
Nominal GDP	1.2	1.0	5.5
Terms of trade	3.2	0.8	6.1

(a) RBA estimates

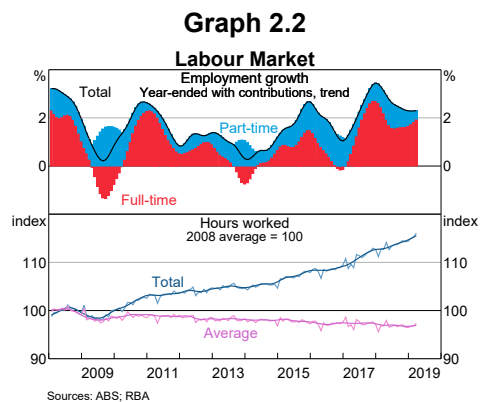
(b) Contribution to GDP growth

Sources: ABS; RBA

(Graph 2.2). This is above the rate of growth in the working-age population. Full-time employment has accounted for most of the growth over the year, partly driven by a pick-up in the rate at which workers are moving from part-time to full-time hours. Average hours worked have been relatively stable over the past year despite the relative strength in full-time employment growth; this is partly because fewer full-time workers are working more than 45 hours per week.

The employment growth over 2018 was largely in three industries: health care & social assistance; construction; and professional, scientific & technical services (Graph 2.3). These industries make up around 30 per cent of total

employment. Continued strong growth in health-related jobs reflects both longer-term trends, such as the ageing of the population, as



well the rollout of the National Disability Insurance Scheme (NDIS) across Australia. Construction employment growth has been supported by both residential and non-residential construction activity. Growth in professional, scientific & technical services employment has been broad based across occupations.

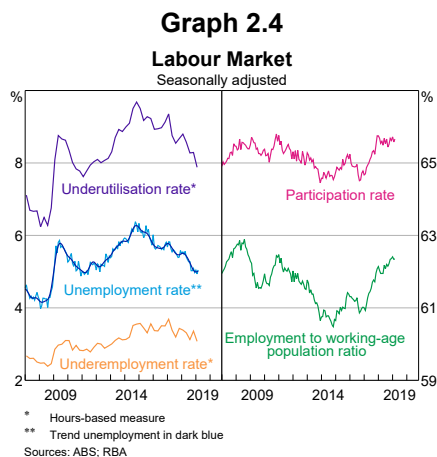
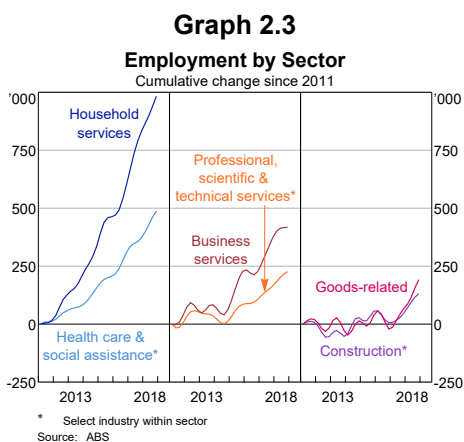
There was a strong increase in the number of people with a second job (defined as jobs worked by people in addition to their first job) over 2018. These second jobs are around 7¼ per cent of total filled jobs in the economy. Secondary jobs are most often in the household services sector, such as the health care & social assistance and education industries, and in the administrative & support services industry. It is common for secondary jobs to be in the same industry as the first job. Less timely data suggest that secondary job holders are more likely to be female, in professional occupations, and receiving relatively low incomes from their first job.

By state, employment growth has been concentrated in New South Wales and Victoria over the past year. Employment is historically high as a share of the working-age population in both states, even though population growth has remained strong. In contrast, in other states

employment has been broadly unchanged or trended lower as a share of their working-age populations, consistent with relatively more subdued economic conditions across those states.

## The unemployment rate has declined but some spare capacity remains

After declining by 0.6 percentage points over 2018, the unemployment rate was little changed in the March quarter at 5 per cent (Graph 2.4). This is the lowest level since mid 2011 and lower than expected a year ago. The share of underemployed workers – who want and are available to work additional hours – has also declined a little. As a result, a broader measure of labour market underutilisation, which captures both the hours sought by the unemployed and the additional hours that underemployed people would like to work, declined over the past year, and is also around its lowest rate since 2011. The labour force participation rate was little changed over the past year at just under 66 per cent of the working-age population, which is around historical highs.



A number of other indicators suggest that labour market conditions remain positive and that spare capacity is being absorbed. There has been a notable decline in the rate of medium-term unemployment (between 13 weeks and one year; Graph 2.5). The share of the labour force that has been unemployed for over a year has also started to decline, having been little changed for a number of years. The trend unemployment rates for most age groups have declined over the past year. The youth unemployment rate (workers aged between 15 and 24 years) has declined notably to 11½ per cent; this rate tends to be more sensitive to economic conditions than the unemployment rate of other age groups.

Despite the decline in the unemployment rate over the past year, it is likely that the labour market still has some capacity to absorb additional labour demand before anything more than gradual upward pressure is generated for wage and price inflation. This judgement is based on the historical behaviour of wage and price inflation, as well as the Bank's estimates that, as in a number of other economies, the rate of unemployment consistent with full employment has trended down over several decades.

Consistent with a long period of economic expansion, the share of employed persons

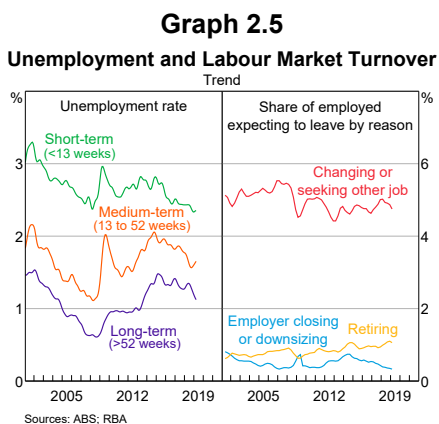
expecting to leave their employer over the next year because the employer was closing or downsizing has continued to trend lower. The share of employed persons expecting to leave their current employer voluntarily over the period ahead has declined a little recently. The slow rate of voluntary job turnover is likely to be contributing to low wages growth.

## Leading indicators suggest some near-term moderation in employment growth

There continue to be mixed signals from the different leading indicators of labour demand. Job vacancies have continued to increase and are at a record high as a share of the labour force (Graph 2.6). In recent quarters there has been particularly strong growth in vacancies in the health care and construction industries. Business employment intentions remain above average according to the NAB quarterly survey and the Bank's liaison program. However, the rate of increase in vacancies has slowed since the first half of 2018 and hiring intentions have declined more recently. The number of job advertisements has also declined in recent months. Overall, the leading indicators point to a moderation in employment growth in the near term.

## Household income growth has remained low, which remains a key source of risk for the economic outlook

Growth in household disposable income slowed to 2 per cent over the year to the December quarter 2018, well below its long-run average (Graph 2.7). Labour income grew by 4.3 per cent through 2018, reflecting the ongoing strength in labour market conditions. Growth in non-labour income was subdued. The drought has led to falls in farm sector unincorporated profits.





Softer conditions in the residential construction sector and slower housing turnover are also likely to have weighed on income growth for unincorporated businesses that support activity in the housing market. Strong growth in households' tax payments has subtracted from growth in disposable income over recent years.

Consumption growth has remained stronger than income growth in recent years and the household saving ratio has declined as a result (Graph 2.8). The prospect of continued low growth in household disposable income remains a key risk to the outlook for household consumption, especially given high levels of

household debt and the need to service that debt.

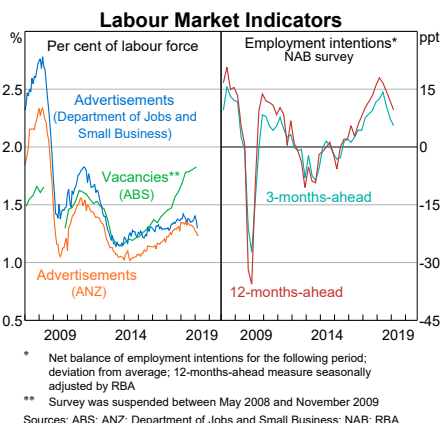
## Housing prices have declined further

Established housing prices have continued to decline in Sydney, Melbourne and Perth; they are down by around 3 per cent since the previous *Statement* and are around 10 per cent lower over the past year (Graph 2.9; Table 2.2). While the pace of decline in some large cities appears to have moderated somewhat, housing price declines have become more widespread geographically since the start of 2019; prices have contracted a little in most other capital cities and in a larger number of regional areas. Capital city housing prices have now retraced to mid 2016 levels but remain 15 per cent higher than five years ago.

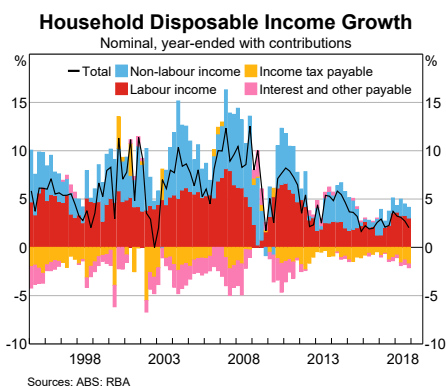
Other indicators of housing market conditions have generally remained weak in recent months. Vendor discounts and days on the market have remained elevated and housing turnover has continued to decline. In contrast, Sydney and Melbourne auction clearance rates have increased over 2019, although they remain low, as do auction volumes (Graph 2.10).

Rental vacancy rates in December 2018 were below their long-run average in most cities

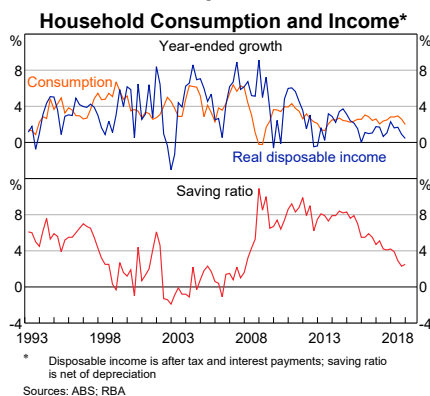
**Graph 2.6**



**Graph 2.7**



**Graph 2.8**



**Table 2.2: Growth in Housing Prices**

Percentage change to April 2019, hedonic

	Three-month-ended <sup>(a)</sup>	Year-ended	Fall since peak <sup>(b)</sup>	Growth over previous 5 years
Sydney	-2.9	-10.9	-15	21
Melbourne	-2.5	-10.0	-11	24
Brisbane	-1.4	-1.9	-2	9
Perth	-2.9	-8.3	-18	-18
Adelaide	-0.2	0.3	-1	12
Canberra	-0.1	2.5	na	23
Hobart	0.0	3.8	na	35
Darwin	-3.9	-7.1	-28	-28
8 Capital City Aggregate	-2.5	-8.4	-10	15
Regional	-1.4	-2.6	-3	12
National	-2.2	-7.2	-8	14

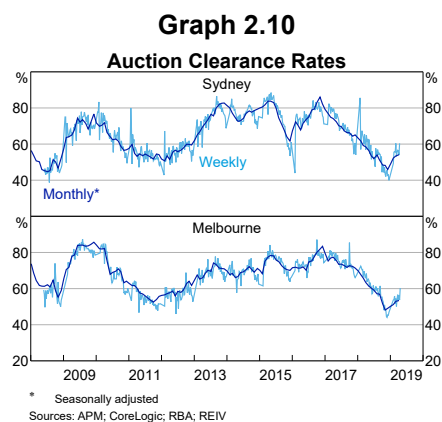
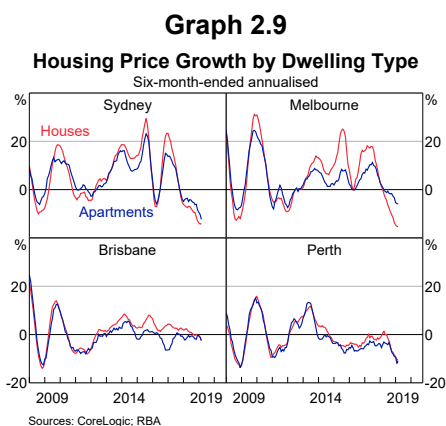
(a) Seasonally adjusted by the RBA

(b) Fall since peak for each city

Sources: CoreLogic; RBA

(Graph 2.11). In contrast, rental vacancies in Sydney have risen, particularly in regions where the supply of new apartments has increased significantly, and advertised rents in Sydney have declined over the past year. Following a sharp decrease in the vacancy rate in Perth, advertised rents have increased over the past year.

Declines in housing prices drove a fall in household net wealth in the second half of 2018 (Graph 2.12). Although further declines in housing prices since the start of 2019 will have weighed further on household net wealth, this should be partially offset by growth in the value of financial assets because equity prices have increased in recent months. As discussed in the



‘Domestic Financial Conditions’ chapter, growth in household credit has slowed further.

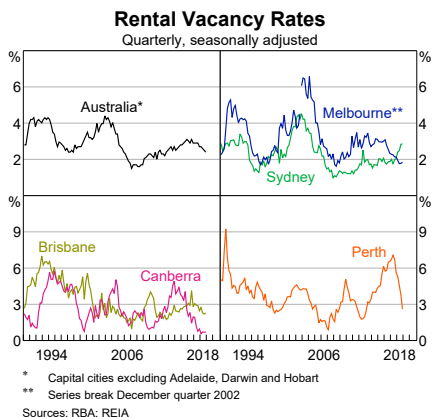
## Growth in household spending on discretionary consumption has slowed

Household consumption growth slowed over 2018, to be 0.4 per cent in the December quarter and 2 per cent in year-ended terms (Graph 2.13). Consumption growth slowed most noticeably for discretionary items that tend to have the strongest relationship with housing-related activity, such as furnishing & household equipment. Contacts in the Bank’s liaison program have also noted that the deterioration

in housing market conditions is weighing on consumption. Growth in other types of discretionary consumption, such as eating out and recreational activities, has also slowed. In contrast, consumption of ‘essential’ items continued to grow at a steady pace in the December quarter.

More recent indicators suggest household consumption growth has remained soft in recent months. Retail sales volumes contracted slightly in the March quarter, reflecting a broad-based slowing in growth across categories and states. Sales of new cars to households have increased a little since the start of the year, but remain much lower than a year ago. Households’ sentiment towards their own finances has declined over the past year to be below their long-run average level.

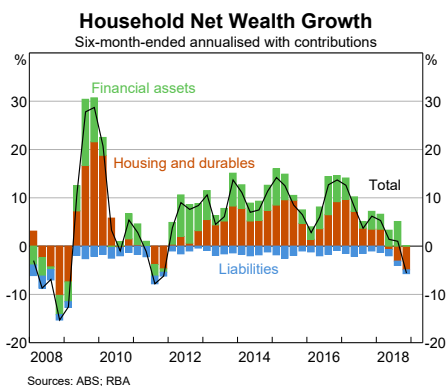
**Graph 2.11**



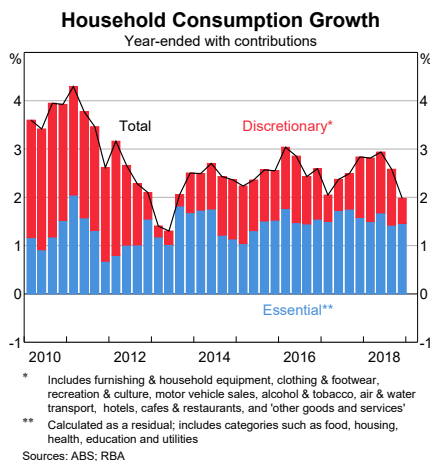
## Dwelling investment is likely to have passed its peak for this cycle

Dwelling investment declined sharply in the December quarter, and looks to have peaked in the September quarter 2018 (Graph 2.14). Investment in both new dwellings and alterations & additions declined by similar magnitudes. Most of the decline in investment

**Graph 2.12**



**Graph 2.13**



in new dwellings was accounted for by higher-density investment in New South Wales and detached dwelling investment in Queensland.

Leading indicators suggest the level of dwelling investment will decline markedly over coming years, although it is difficult to assess the timing of this decline. The pipeline of work to be done remains very large, which should continue to support a high level of dwelling investment in the near term, particularly in Sydney and Melbourne (Graph 2.15). This is consistent with information from firms in the Bank’s liaison program that expect construction activity to remain elevated for the next few quarters. However, commencements of new dwelling projects fell sharply in the December quarter. Building approvals have been trending lower for more than a year and imply a much lower level of activity once the current pipeline of work is completed.

### Public demand has been robust ...

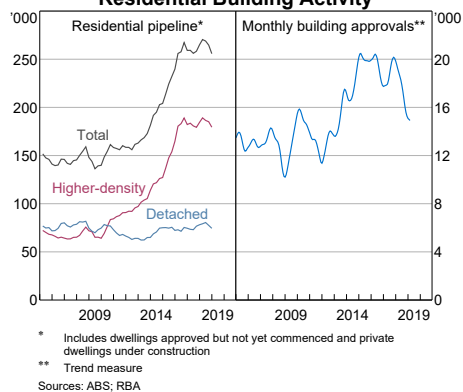
Public demand was 6.3 per cent higher over 2018, and accounted for around half of the growth in domestic final demand over the year (Graph 2.16). Public consumption grew strongly, led by increased spending on the NDIS, aged-

care services and other health benefits. Growth in public investment was also strong, in part due to continued investment in infrastructure.

### ... accompanied by stronger tax revenue

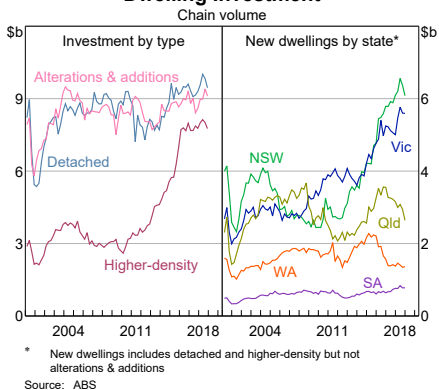
Taxes on household income grew by almost 10 per cent over the year to the December quarter 2018, reflecting very strong growth in tax payments in the June and September quarters, which has weighed on household disposable income growth. The relatively strong growth in household income tax revenue in recent years is likely to have reflected a number

**Graph 2.15**  
**Residential Building Activity**



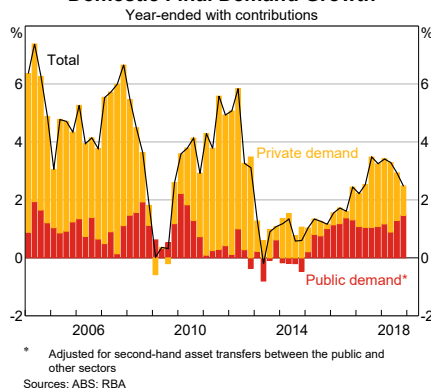
**Graph 2.14**

**Dwelling Investment**



**Graph 2.16**

**Domestic Final Demand Growth**



of factors, including improved compliance, smaller claims for deductions and increased capital gains tax payments. Household income tax revenue as a share of nominal GDP was 12.1 per cent in the December quarter 2018, up from 11.7 per cent a year earlier (Graph 2.17). Corporate income tax revenue as a share of GDP has also increased in recent years, in part because of higher commodity prices increasing corporate profits. Stronger growth in tax revenue has supported an improvement in the financial position of the government sector.

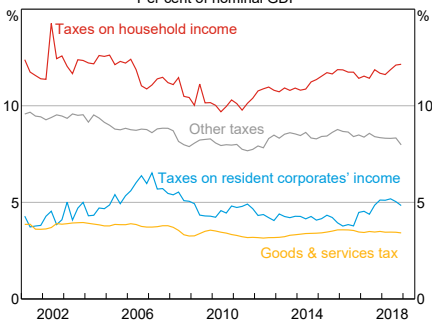
## Non-mining investment, including spending on infrastructure, has supported growth

Private non-mining business investment grew by 2.4 per cent in the December quarter to be 4 per cent higher over the year (Graph 2.18). Growth in non-residential construction slowed over the year as building construction eased, but this was partly offset by growth in private infrastructure projects, including roads and renewable energy projects.

Leading indicators point to continued growth in non-mining business investment over the next year or so. The pipeline of work yet to be done

on private infrastructure projects has remained elevated over the past year, supported by roads and electricity projects (Graph 2.19). Private non-residential building approvals remain around their average since 2016 and the stock of work yet to be done on private buildings has increased a little further, largely reflecting work underway on offices, short-term accommodation and warehouses. Survey measures of expected capital expenditure and business conditions remain at or above average levels, despite easing over the past year. Recent growth in non-mining profits should support conditions for firms to invest.

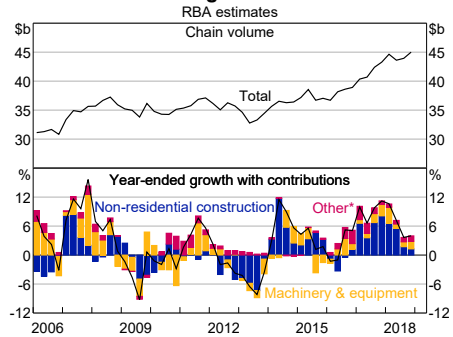
**Graph 2.17**  
**Taxation Revenue\***  
Per cent of nominal GDP



\* National accounts basis; income includes capital gains  
Source: ABS

**Graph 2.18**

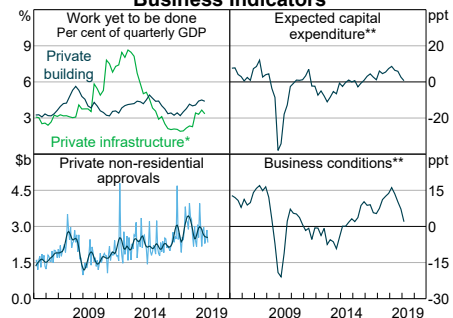
### Private Non-mining Business Investment



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

**Graph 2.19**

### Business Indicators



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

Investment intentions for 2018/19 reported by non-mining firms in the Australian Bureau of Statistics (ABS) Capital Expenditure (Capex) survey point to further growth in both machinery & equipment and buildings & structures investment (Graph 2.20). The first estimate of investment intentions for 2019/20 from the Capex survey suggest that firms expect investment in buildings & structures will increase modestly, while investment in machinery & equipment is expected to ease. However, the first Capex estimate has historically been subject to a large degree of uncertainty.

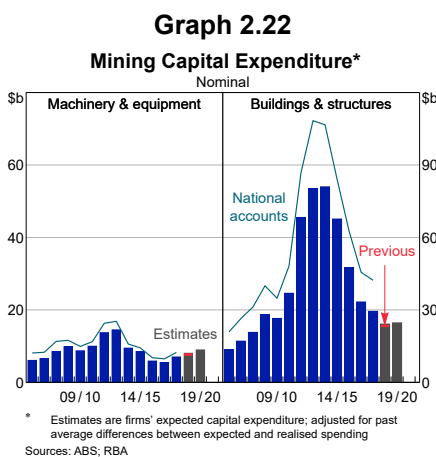
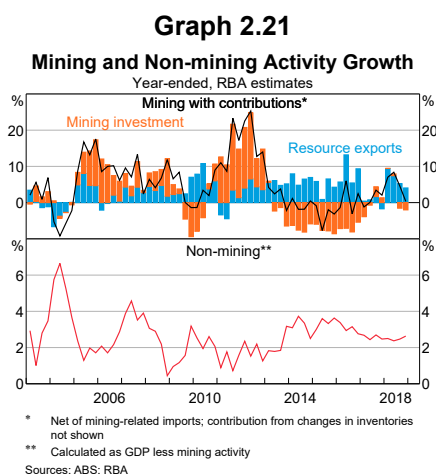
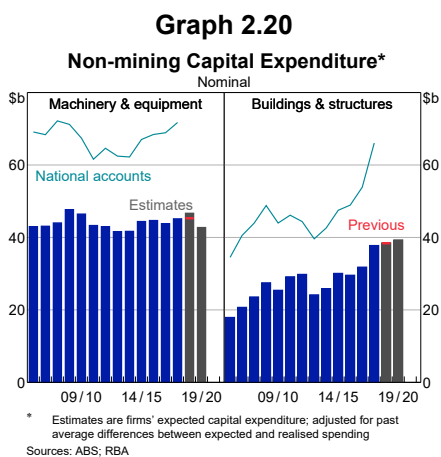
## Mining investment and resource exports are expected to pick up

The mining sector weighed on GDP growth in recent quarters as mining investment declined further and growth in resource exports slowed (Graph 2.21).

Mining investment declined in the December quarter as construction on the remaining liquefied natural gas (LNG) projects continued to wind down. The decline in the quarter, taken together with the recent Capex survey for 2018/19, suggests that mining investment is around its trough (Graph 2.22). Information from

the Capex survey for 2019/20, the Bank's liaison program and recent company announcements suggest that mining investment will pick up gradually over the next year or so as mining firms invest to sustain production levels and, in some instances, expand productive capacity.

Resource exports have increased considerably in recent years because mining investment has increased productive capacity in this sector (Graph 2.23). In particular, LNG exports continue to grow strongly and are expected to increase further over the next year or so as production from the final LNG projects in Western Australia continues ramping up. However, aggregate



resource exports declined in the second half of 2018, in part reflecting supply disruptions to iron ore and a sharp decline in non-monetary gold exports. Partial trade data for the March quarter suggest that non-monetary gold exports, which can be volatile from quarter to quarter, are likely to have retraced much of their recent decline.

Iron ore exports are expected to have declined in the March quarter, largely because of disruptions arising from Tropical Cyclone Veronica affecting ports in Western Australia. Looking ahead, major miners have recently lowered their annual production guidance for iron ore, and export volumes are likely to pick up gradually over coming quarters. Coal exports have also been affected by weather-related disruptions in Queensland in recent months, which resulted in a port closure for a couple of weeks, and are expected to have declined a little in the March quarter. Increases in customs clearance times at some Chinese ports since early 2019 have added some uncertainty to the medium-term outlook for Australian coal exports.

## Unfavourable weather conditions have weighed on the farm sector

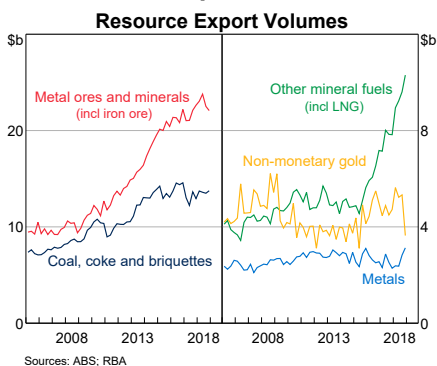
Over the past few quarters, drought conditions in south-eastern Australia and flooding in

northern Queensland have adversely affected the rural sector, which has experienced lower crop production, large livestock losses and rising input costs. Since the middle of 2018, when drought conditions started intensifying, farm output has declined by around 6 per cent and farm profits (both incorporated and unincorporated business income associated with the farm sector) have declined by 26 per cent (Graph 2.24).

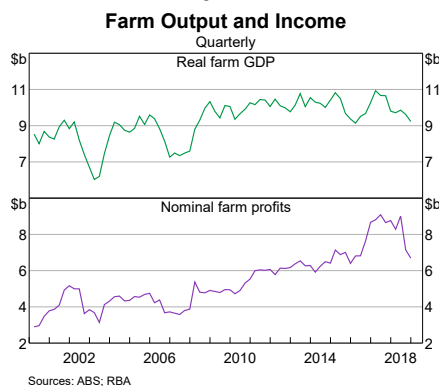
The unfavourable conditions have also weighed on rural exports. Cereal grain exports have continued to decline in recent quarters as drought conditions have both lowered crop production and seen more domestic production used for feed. In contrast, meat-related exports increased over the year to December 2018, reflecting both drought-induced herd reductions and strong overseas demand.

The most recent climate outlook published by the Bureau of Meteorology indicates that around-average conditions are expected over the next three months across eastern and southern Australia. The 2018 *State of the Climate* report by the Bureau of Meteorology and the Commonwealth Scientific and Industrial Research Organisation presents evidence that seasonal variations in rainfall are occurring against the backdrop of a trend towards drier conditions in the south-west and south-east of

**Graph 2.23**



**Graph 2.24**



the country, which will affect the farm sector over the longer term.

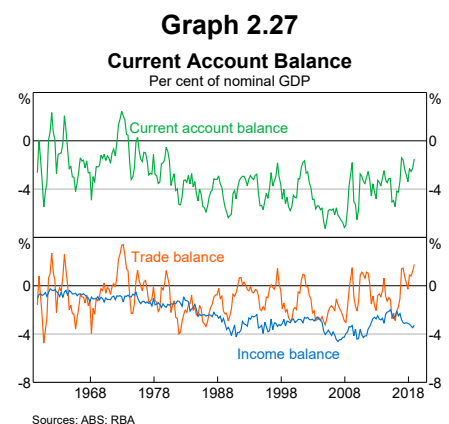
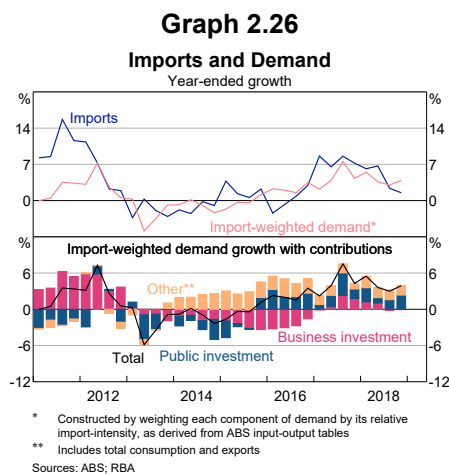
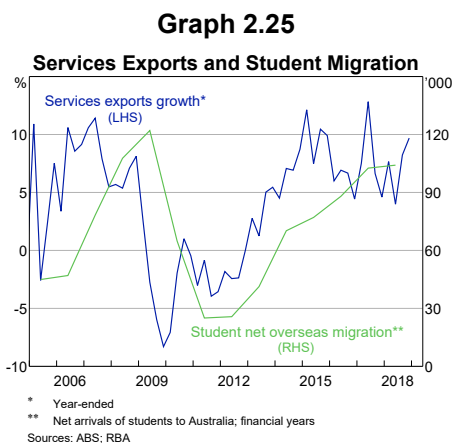
## Service and manufactured exports continue to grow steadily

Service and manufactured exports have grown steadily over recent years, supported by the economic expansion in Australia’s major trading partners and a modest depreciation of the Australian dollar. Increasing enrolments of overseas students and visitor arrivals should support growth in service exports over the next couple of years (Graph 2.25).

Import volumes increased a little in the December quarter, consistent with continued growth in investment (a relatively import-intensive component of expenditure) but growth in imports moderated over the year (Graph 2.26). Available indicators suggest import volumes are likely to have moderated further in the March quarter.

Higher export prices in the December quarter, which offset lower export volumes and a small increase in the value of imports, saw the trade surplus increase further to its highest level as a share of GDP in 45 years (Graph 2.27). Available data suggest another sizeable trade surplus is expected in the March quarter. Recent increases

in the trade surplus have offset some widening in the net income deficit, leaving the current account deficit at 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 because revenues in the largely foreign-owned mining sector have increased. ✎





# 3. Domestic Financial Conditions

Domestic financial conditions remain accommodative for most households and large businesses. Financial market prices suggest that the cash rate is expected to be lowered by 25 basis points later this year, with another 25 basis points reduction expected by early next year. Government bond yields have declined since the beginning of 2019 to be around record lows, contributing to a reduction in corporate bond yields. Money market rates and spreads to overnight index swaps (OIS) have also fallen since the start of the year. As a result, banks' funding costs have declined. While housing and business interest rates are very low, growth in housing credit slowed further, consistent with weak demand for housing and the decline in dwelling prices. Growth in business debt remains higher than the average of recent years, driven entirely by lending to large businesses. In contrast, borrowing conditions for small businesses remain tight. Australian equity prices have risen across all sectors since the start of the year, broadly in line with overseas markets. The Australian dollar is around the lower end of its narrow range of the past few years.

## Investors expect the cash rate to be lowered later this year

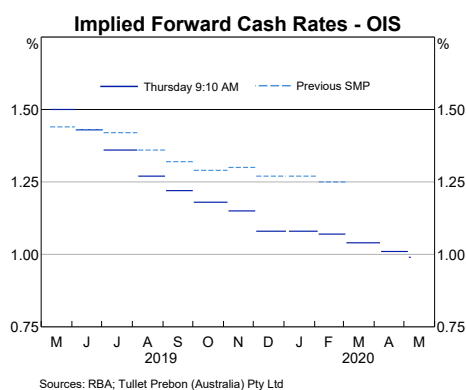
The Reserve Bank has maintained the cash rate target at 1.5 per cent since August 2016. Weaker-than-expected economic data released since late 2018 have led investors to reassess their cash rate expectations. Financial market prices imply that the cash rate is expected to be

lowered by 25 basis points later this year, with another 25 basis points reduction expected by early next year (Graph 3.1).

## Government bond yields have declined to historically low levels

Yields on Australian Government Securities (AGS) declined since the start of the year across all maturities, with 10-year AGS yields moving close to historical lows and currently around 1.75 per cent. This partly reflected a decline in government bond yields internationally, but also followed weaker-than-expected domestic economic data. The slope of the yield curve, as measured by the spread between 10-year and 2-year AGS yields, has remained positive at around 40 basis points. AGS yields have fallen by more than US Treasury yields, resulting in the difference between 10-year US Treasury and AGS yields widening to around 75 basis points (Graph 3.2).

**Graph 3.1**



## Short-term money market rates have fallen

Interest rates in the markets for bank bills, repurchase agreements (repo) and foreign exchange (FX) swaps have fallen since the beginning of the year. The spread of 3-month bank bills relative to OIS fell from a peak of around 60 basis points around the turn of this year to around 25 basis points, its lowest level since late 2017 (Graph 3.3). Similarly, the cost of raising US dollar funding and then converting these funds into Australian dollars for a short term in the foreign exchange swap market declined by about 40 basis points since the beginning of the year, to around 35 basis points over OIS. Repo rates also declined to be around 20 basis points over OIS. Meanwhile, the cash rate has continued to trade at the Reserve Bank Board’s target.

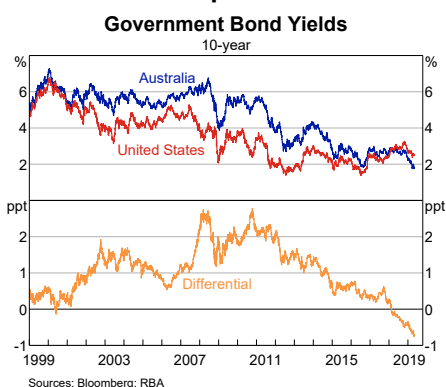
## Banks’ funding costs have declined

The increase in banks’ wholesale funding costs in 2018 has been fully unwound given the decline in interest rates in short-term funding markets over the course of this year. Also, the interest rates at which banks raise long-term debt funding have declined to record lows, as these yields have followed the decline in

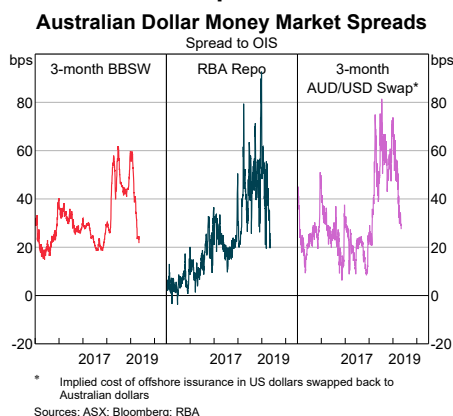
government bond yields (Graph 3.4). The spreads of major bank bond yields to reference rates have also narrowed in recent months; secondary market spreads on 3-year bonds issued in the Australian market are currently around 20 basis points tighter than at the start of the year.

Moreover, banks have reduced interest rates on retail deposits, which account for around a third of banks’ non-equity funding. Over the past year, the major banks have reduced their retail deposit rates for some at-call deposits and for term deposits for terms longer than one year. On average, retail deposit rates are at a low level,

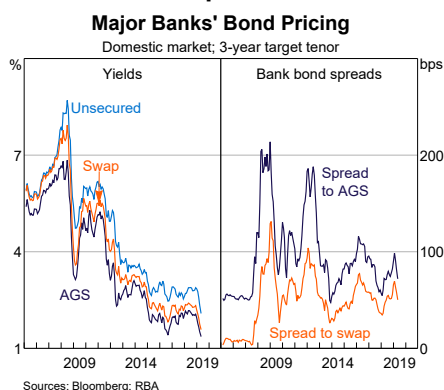
**Graph 3.2**



**Graph 3.3**



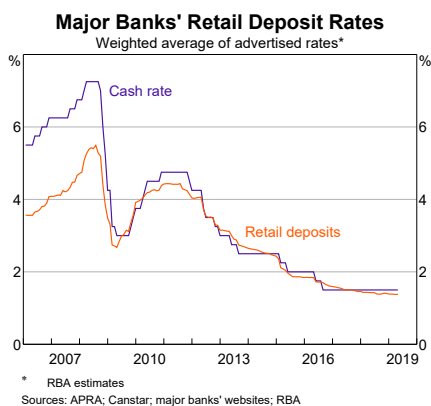
**Graph 3.4**



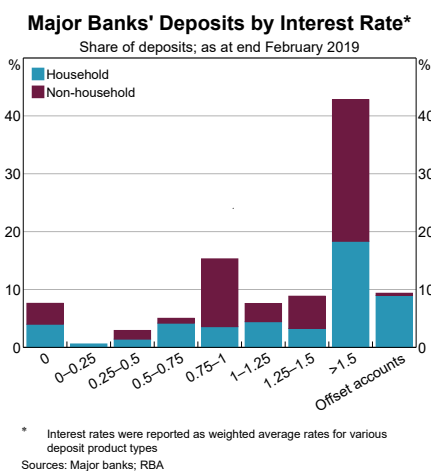
consistent with the low level of market interest rates (Graph 3.5).

The bulk of the major banks' deposits (including both retail and wholesale deposits) are estimated to receive an interest rate of over 1 per cent; less than 10 per cent of deposits receive no interest (Graph 3.6). Most of the deposits that receive an interest rate that is below the cash rate (of currently 1.5 per cent) are at-call deposits, while most of the deposits that receive an interest rate above this rate are term deposits.

**Graph 3.5**



**Graph 3.6**



## Banks continue to issue bonds at low yields

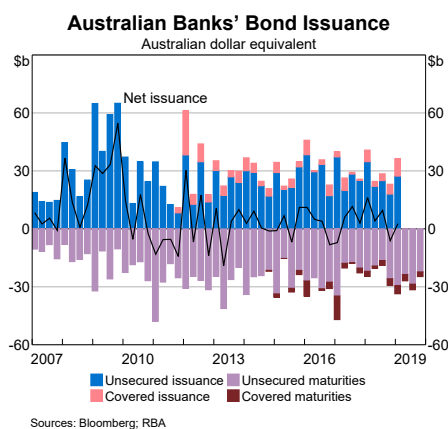
Australian banks continued to issue bonds at a similar pace to previous years, with around \$40 billion issued in the first four months of the year (Graph 3.7). However, net issuance has been lower than in 2018 because the volume of scheduled maturities is higher. Issuance since the start of the year has featured a relatively high share of domestic issuance and covered bonds. This was associated with the period of higher volatility in global financial markets around the turn of the year.

Issuance of residential mortgage-backed securities (RMBS) over the year to date has been in line with the average of recent years, but a little lower than the high level seen in 2017 (Graph 3.8). Recent issuance has been driven by non-bank lenders and the major banks, while the non-major banks have been absent from the market this year.

## Interest rates on housing loans are little changed at low levels

Average housing interest rates are little changed from the levels seen in August 2018, despite increases in most lenders' standard variable

**Graph 3.7**



rates (SVRs) of around 15 basis points since that time (Table 3.1). Most authorised deposit-taking institutions (ADIs) increased their SVRs at least once between mid 2018 and early 2019, citing that this was in response to higher funding costs at the time. Despite the rise in SVRs, data from the Reserve Bank's Securitisation Dataset suggest that outstanding variable interest rates increased by only a few basis points from their trough in August 2018 to March 2019, with marginally higher increases for investor and interest-only loans (Graph 3.9 and Graph 3.10). The smaller rise in average rates actually paid relative to the increase in SVRs reflects the fact that new loan rates remain well below the rates on outstanding loans. Banks' profit reports and liaison confirm that the SVR increases have not fully flowed through to average housing interest rates because customers have refinanced or switched from interest-only loans to principal-and-interest loans with lower interest rates.

In recent months, several lenders decreased their advertised rates on fixed-rate housing loans, consistent with declines in fixed interest rates in wholesale markets in response to lower market expectations for the cash rate. Data from the Securitisation Dataset suggest that average interest rates on outstanding fixed-rate mortgages have decreased by around 10 basis points over the past year. Housing loans with

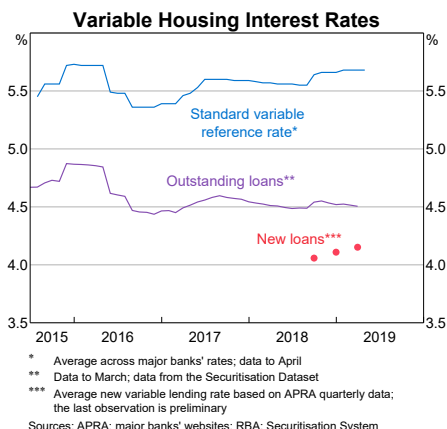
fixed interest rates account for around 20 per cent of outstanding housing credit.

## Credit growth has slowed, driven by slower housing credit growth

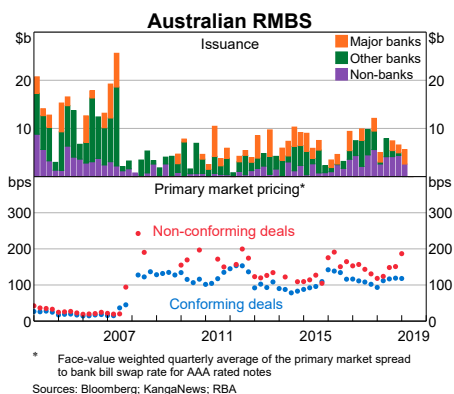
Total credit growth has slowed to 3¼ per cent on a six-month annualised basis, driven largely by a slowing in housing credit growth (Table 3.2 and Graph 3.11). Business credit growth has also eased of late, but it remains around 4½ per cent on a six-month annualised basis.

Growth in credit extended to owner-occupiers has declined to 4½ per cent on a six-month

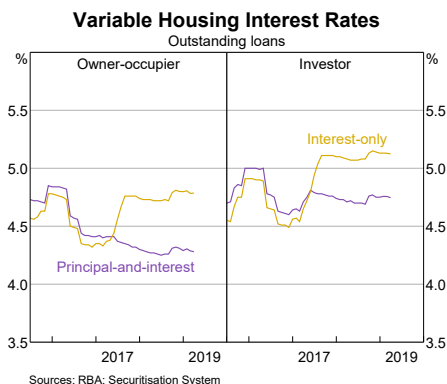
**Graph 3.9**



**Graph 3.8**



**Graph 3.10**



**Table 3.1: Intermediaries' Housing Lending Rates**

March 2019

	Interest rate Per cent	Change since August 2018 Basis points	Change since March 2018 Basis points
Variable principal-and-interest rate			
– Owner-occupier	4.28	2	1
– Investor	4.75	5	3
Variable interest-only rate			
– Owner-occupier	4.79	6	6
– Investor	5.12	5	5
Average outstanding variable rate	4.51	2	–1
Fixed rate			
– Owner-occupier	4.07	–11	–14
– Investor	4.26	–7	–9
Average outstanding rate (fixed and variable)	4.46	0	–2

Sources: RBA; Securitisation System

**Table 3.2: Financial Aggregates**Percentage change<sup>(a)</sup>

	Three-month ended annualised		Six-month ended annualised	
	Dec 2018	Mar 2019	Sep 2018	Mar 2019
Total credit	3.6	3.1	4.6	3.3
– Housing	3.5	3.1	4.7	3.3
– Owner-occupier housing	5.0	4.3	6.7	4.7
– Investor housing	0.5	0.5	0.9	0.5
– Personal	–3.9	–4.0	–1.6	–3.9
– Business	4.8	4.2	5.4	4.5
Broad money	1.1	9.9	2.4	5.4

(a) Seasonally-adjusted and break-adjusted

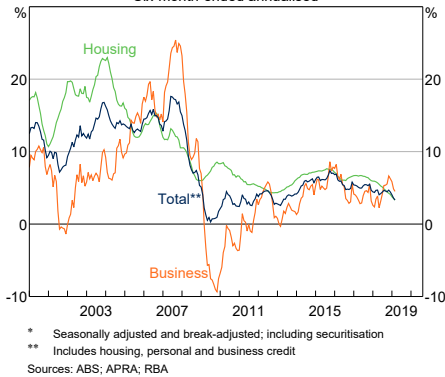
Sources: ABS; APRA; RBA

annualised basis, driven by a slowing in the growth of credit extended by the major banks and to a lesser extent by other Australian ADIs (Graph 3.12). However, monthly growth in credit extended to owner-occupiers has stabilised over recent months. Housing loan approvals for owner-occupiers remain well below their mid-2017 peak (Graph 3.13).

Housing credit growth for investors has also stabilised over recent months at low levels. Credit extended by the major banks to investors has contracted since mid 2018, consistent with a decline in investor housing loan approvals by these banks. However, investor credit extended by other financial institutions has been a little stronger and more than offset the reduction of

**Graph 3.11**

**Credit Growth by Sector\***  
Six-month-ended annualised

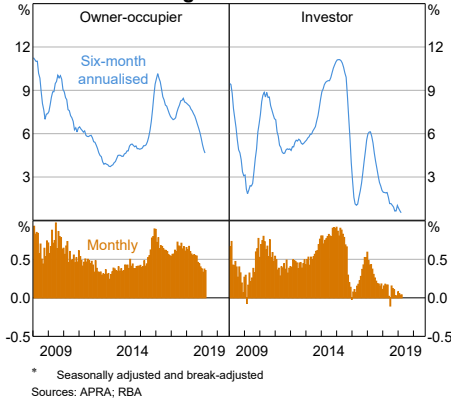


## Demand for housing credit remains weak ...

The slowing in credit growth is consistent with less demand for housing finance. The fall in housing prices has reduced the demand for credit, particularly from potential investors who are especially sensitive to expectations of capital losses. Liaison with major banks and mortgage brokers indicates that they have been receiving significantly fewer loan applications over the past year.

**Graph 3.12**

**Housing Credit Growth\***

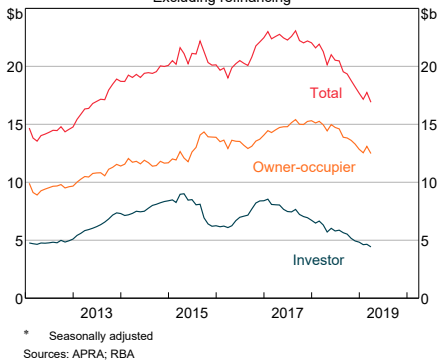


## ... but credit conditions are also tighter than they have been for some time

Housing credit conditions are tighter than they have been for some time following the strengthening of lending policies and practices over recent years. Over the past year or so, lenders have focussed on verifying expenses in loan applications more thoroughly. This has reduced the maximum loan size available to many households, though only a small share of households borrow close to the maximum amount that they are offered. Liaison with banks suggests that it generally takes a few days longer for loans to be approved compared with earlier years, but that most people who apply for a loan can still obtain the amount they want to borrow.

**Graph 3.13**

**Housing Loan Approvals\***  
Excluding refinancing



More recently, the transition to comprehensive credit reporting (CCR) is providing banks with more complete information on borrowers' debts and credit limits. CCR was introduced for credit cards from late 2018, and additional information on personal credit and mortgages will be made available to lenders over 2019. On the one hand, CCR could be expected to reduce maximum

loan sizes for some prospective borrowers by better identifying applicants' other debts or debt limits that may not have been disclosed. On the other hand, CCR will provide lenders with greater information about applicants' credit history, and this reduction in uncertainty could support banks' willingness to lend.

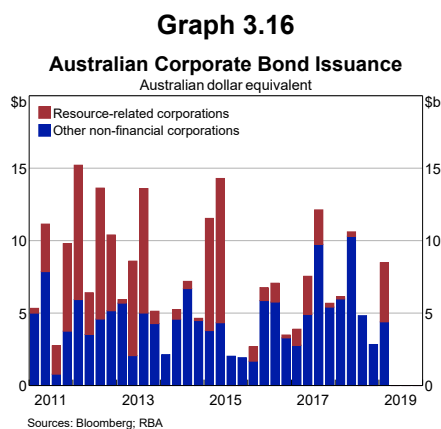
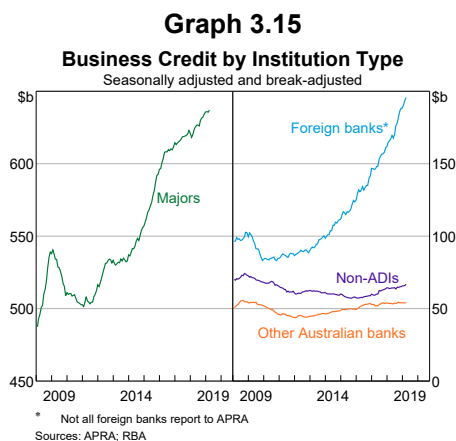
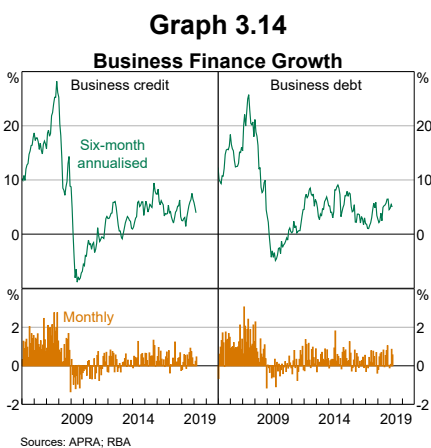
## Large business funding conditions remain accommodative ...

Growth in a broad measure of business debt has been higher than the average of recent years, reflecting an increase in credit extended by foreign banks and the major Australian banks (Graph 3.14 and Graph 3.15). All of the growth in business debt over the past year or so has been accounted for by large businesses, with lending to small businesses declining over this period.

After increasing last year, business loan approvals have eased back over the past six months. This has been driven by a decline in business loan approvals by the major banks. Business loan approvals for the purchase of existing residential property have fallen since late 2017, particularly in NSW and Victoria. This is consistent with banks tightening their lending standards for residential property investment. In

contrast, loan approvals for the purchase of commercial property have picked up, primarily for the purchase of office and other non-residential buildings.

The pace of bond issuance by non-financial corporations has increased compared with the second half of 2018 (Graph 3.16). This reflects an increase in issuance by resource-related corporations, particularly those in the energy and utilities sectors. Overall, funding conditions for large corporations remain accommodative, with secondary market yields remaining around historically low levels.



## ... but credit conditions for small businesses have tightened

Small businesses are reporting in surveys that they are finding it more difficult to obtain finance (Graph 3.17). Liaison with banks suggested that the heightened verification of expenses for lending to consumers (including lending for housing) has been extended to many small businesses given the difficulty in separating personal from business finances for many small businesses. This appears to have impinged on small business lending, given that small businesses find it harder to provide evidence that they can service a loan as their income tends to be volatile. In addition, lower housing prices are likely to weigh on lending to small businesses, since around half of small business loans are estimated to be secured with residential property. In addition to these supply-side constraints, liaison with banks suggests that demand for loans from small businesses has decreased, with applications for loans falling over the past year.

## Interest rates on business loans are low

Interest rates for loans to large businesses decreased a little in the March quarter since

around three-quarters of such loans are closely linked to bank bill swap rates (BBSW). Large business interest rates are at low levels (Graph 3.18 and Table 3.3).

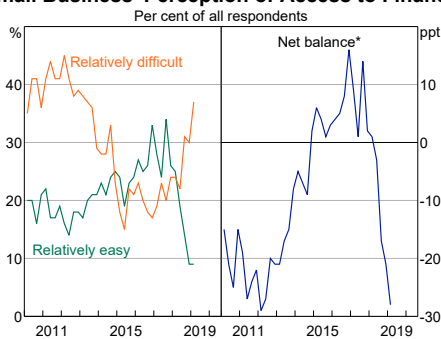
Lending rates on outstanding loans to small businesses have been little changed for much of the past year, as small business rates are generally not directly linked to BBSW rates. Small business lending rates are noticeably higher than interest rates for large businesses. While this partly reflects the higher default rates associated with small business loans, the difference between small and large business loan rates increased following the global financial crisis and has been maintained since then.

## Australian equity prices have increased this year

The ASX 200 equity index is around 11 per cent higher than at the end of 2018, and has performed broadly in line with overseas markets when dividend payments are taken into account (Graph 3.19). Market volatility picked up at the start of the year, but has since declined back to relatively low levels.

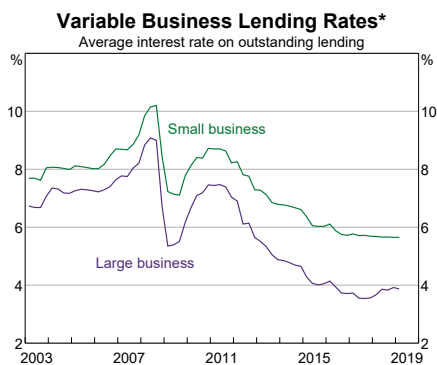
Share prices have risen across all industry sectors since the start of the year. Share prices of

**Graph 3.17**  
Small Business' Perception of Access to Finance



\* Net balance is the difference between the percentage of firms indicating access is relatively easy and the percentage of firms indicating access is relatively difficult

**Graph 3.18**



\* RBA estimates



**Table 3.3: Intermediaries' Business Lending Rates**

March 2019

	Interest rate Per cent	Change since March 2018 Basis points
Small business <sup>(a)</sup>		
– Average outstanding variable rate	5.65	–3
– Average outstanding fixed rate	5.24	0
Large business <sup>(b)</sup>		
– Average outstanding variable rate	3.87	20
– Average outstanding fixed rate	3.69	7

(a) Loans under \$2 million

(b) Loans over \$2 million

Sources: APRA; RBA

resources companies have been supported by higher iron ore prices following supply disruptions in Brazil (Graph 3.20). In contrast, banks' share prices have increased by less, following mixed profit reports from the banks and weakness in global banking stocks.

## Earnings of listed companies were little changed

Underlying earnings of listed corporations were little changed overall in the half year to December relative to the same period a year earlier (Graph 3.21). Earnings increased for energy companies, following increases in oil

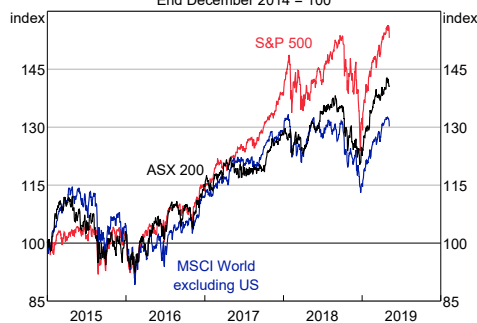
prices, and for non-bank companies in the finance sector, such as insurance companies. This was offset by lower earnings for real estate companies and in the materials sector. Results were broadly in line with analysts' expectations, although these had been downgraded in the lead-up to the profit reporting season. Headline profits increased, partly due to proceeds from asset sales in the resources sector; some of these proceeds were distributed to shareholders through special dividend payments and share buybacks.

Gearing at listed corporations increased slightly in the half year to December (Graph 3.22). This followed three years of declines in gearing,

**Graph 3.19**

### Share Price Accumulation Indices

End December 2014 = 100

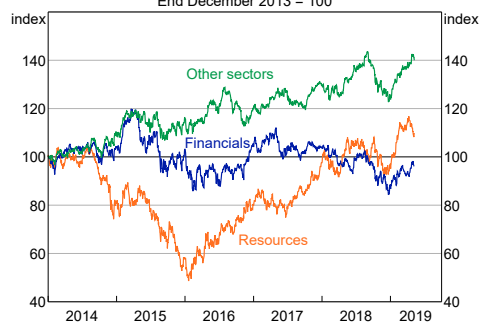


Sources: MSCI; Refinitiv

**Graph 3.20**

### Australian Share Prices

End December 2013 = 100



Source: Bloomberg

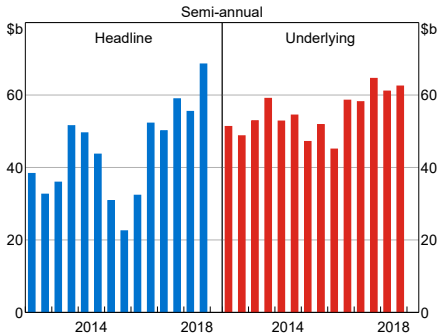
driven by deleveraging of the major miners. These companies have indicated that they intend to prioritise returning capital to shareholders over debt reduction. In contrast, gearing at real estate companies increased. This reflected relatively slow asset growth due in part to lower revaluation gains on property in a softer residential property market.

## The Australian dollar is around the lower end of its narrow range of the past few years

The Australian dollar is little changed since the start of the year on a trade-weighted (TWI) basis (Graph 3.23). Over the past couple of months, the Australian dollar has been around the lower end of its narrow range of the past few years. As is the case for the currencies of other advanced economies, measures of volatility in the Australian dollar remain at a low level.

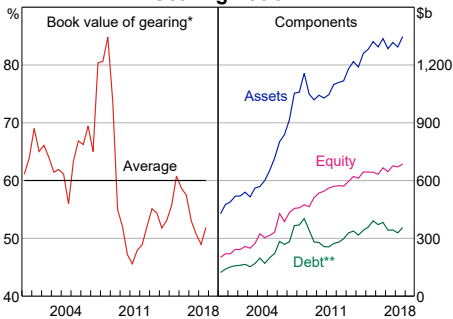
Over time, movements in the Australian dollar tend to be related to developments in commodity prices (and the terms of trade more generally) and interest rate differentials. Since the start of the year, as in recent years, these two forces have been working in offsetting directions; the RBA Index of Commodity Prices has increased while Australian Government bond yields have declined relative to those in major markets. Over the past couple of years the decline in Australian Government bond yields has been most pronounced relative to the United States, although more recently it has become broadly based (Graph 3.24). The net effect of commodity prices and interest rate differentials has been consistent with the

**Graph 3.21**  
**ASX 200 Profits\***



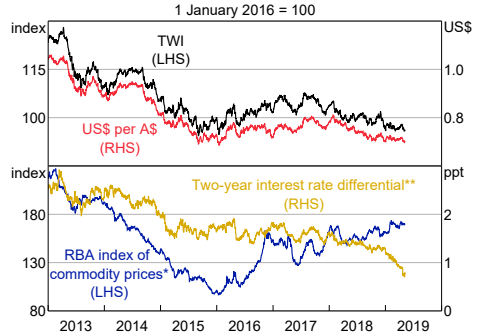
\* Results for companies with reporting dates in the half are rolled forward.  
Sources: Bloomberg; Company reports; Morningstar; RBA

**Graph 3.22**  
**Listed Non-financial Corporations' Gearing Ratio**



\* Ratio of gross debt to equity, excludes foreign-domiciled companies  
\*\* Debt only includes short-term and long-term loans and bonds payable; not equivalent to total liabilities  
Sources: Morningstar; RBA

**Graph 3.23**  
**Australian Dollar**



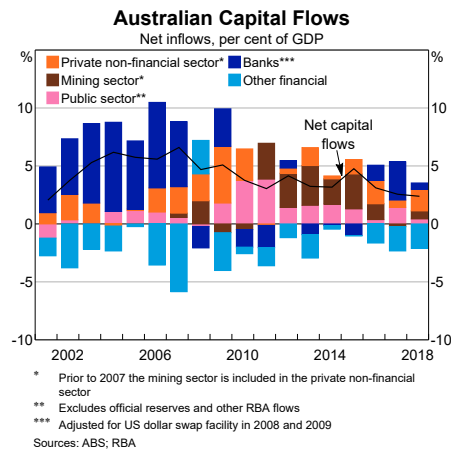
\* With spot bulks  
\*\* Spread to equally weighted nominal yields in Germany, Japan, the United Kingdom and the United States  
Sources: Bloomberg; RBA

Australian dollar remaining within a narrow range over the past few years on a TWI basis. Net capital inflows to Australia continue to be modest (Graph 3.25), consistent with the relatively low level of the current account deficit (see ‘Domestic Economic Conditions’ chapter). At the sectoral level, there have been increased flows of foreign investment to the non-mining corporate sector in the past few years, partly offsetting a decline in flows to the mining sector. The banking sector experienced modest inflows in 2018. This largely reflected bond inflows in the first half of the year, in line with positive net offshore bond issuance by Australian banks; more recently both have slowed. In contrast, the ‘other’ financial sector has continued to experience capital outflows, largely driven by flows from superannuation funds. This is consistent with their ongoing accumulation of foreign assets, in particular, foreign equities.

Australia’s net foreign liability position has declined as a share of GDP over recent years, to be around its lowest level since 2002 (Graph 3.26). This reflected a decline in net capital inflows at a time when the nominal value of output has been increasing. The value of the net foreign liability position is little changed since mid 2016. The accumulation of liabilities resulting from net capital inflows has been

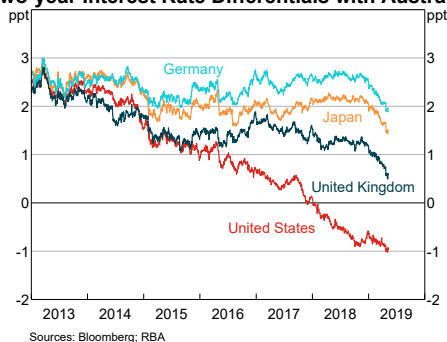
largely offset by asset valuation effects, whereby the value of Australian assets held abroad has increased relative to Australia’s liabilities with the rest of the world. Over the past year, the depreciation of the Australian dollar has also increased the value of Australia’s foreign assets (which are largely unhedged) relative to foreign liabilities (which are mostly denominated in Australian dollars or hedged against a depreciation of the Australian dollar). ✎

**Graph 3.25**

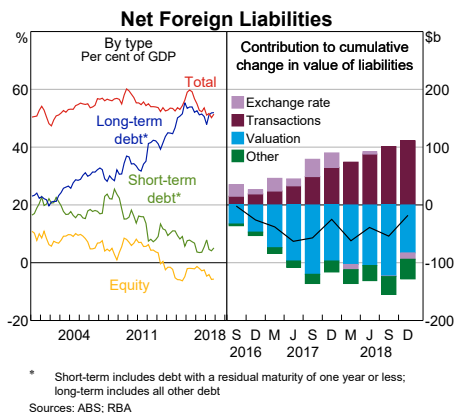


**Graph 3.24**

**Two-year Interest Rate Differentials with Australia**



**Graph 3.26**





# 4. Inflation

## Underlying inflation declined in the March quarter

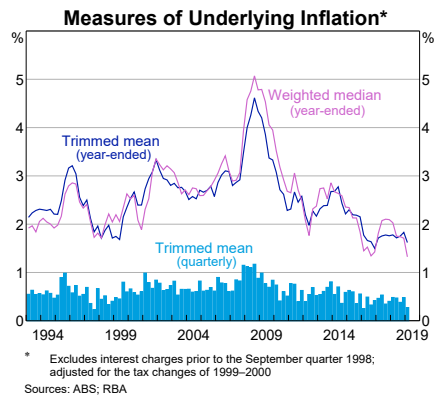
Underlying inflation declined to ¼ per cent in the March quarter and 1½ per cent over the year (Table 4.1; Graph 4.1). This was lower than expected both at the time of the February *Statement on Monetary Policy* and more recently by market forecasters. The deceleration in inflation in the quarter was broad based, but the slowing in the housing market and government cost-of-living initiatives were particularly important factors. The Bank’s assessment is that the March quarter inflation data suggest that domestic price pressures are more subdued than previously thought.

Headline inflation was 0.1 per cent (seasonally adjusted) in the quarter and 1.3 per cent over the year (down from 1.8 per cent) (Graph 4.2). Fuel prices fell by 9 per cent in the quarter. More recently, though, fuel prices have increased sharply and are likely to boost headline inflation in the June quarter.

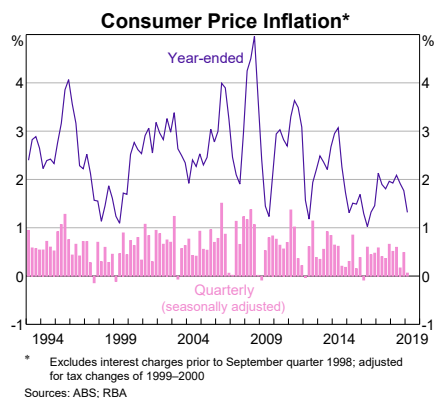
Non-tradable inflation declined to 0.2 per cent in the quarter to be 1.8 per cent over the year (Graph 4.3). Inflation in the prices of new dwellings and administered items, including utilities, has declined over the past year. In contrast, there has been some upward pressure on inflation as a result of the decline in labour market spare capacity. This is clearest among the components of the Consumer Price Index (CPI) basket that have demonstrated a clear statistical relationship with the unemployment rate during the inflation targeting period; on

average, inflation in these components has increased gradually over the past two years but remains at a low level. The prices of tradable items (excluding volatile items) rose in the quarter, consistent with some pass-through to retail prices from the exchange rate depreciation over the past year. The ongoing drought in eastern Australia and recent floods in northern

**Graph 4.1**



**Graph 4.2**



**Table 4.1: Measures of Consumer Price Inflation**

Per cent

	Quarterly <sup>(a)</sup>		Year-ended <sup>(b)</sup>	
	March quarter 2019	December quarter 2018	March quarter 2019	December quarter 2018
Consumer Price Index	0.0	0.5	1.3	1.8
Seasonally adjusted CPI	0.1	0.4	–	–
– Tradables	–0.4	0.0	0.4	0.6
– Tradables (excl. volatile items) <sup>(c)</sup>	0.2	0.2	0.3	–0.1
– Non-tradables	0.2	0.8	1.8	2.4
<i>Selected underlying measures</i>				
Trimmed mean	0.3	0.5	1.6	1.8
Weighted median	0.1	0.4	1.2	1.6
CPI excl. volatile items <sup>(c)</sup>	0.2	0.6	1.3	1.6

(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

Queensland have also boosted food price inflation.

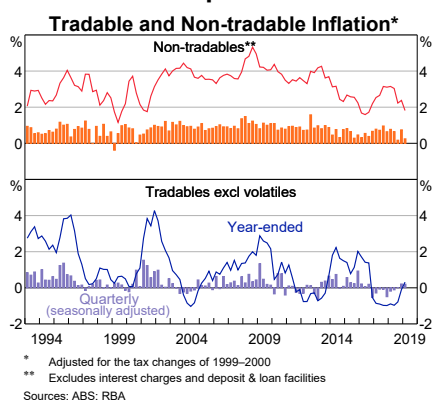
## Price pressures related to housing are weak

Weaker conditions in the housing market have exerted downward pressure on inflation (see ‘Box C: Housing in the Consumer Price Index’).

Rent inflation declined a little to 0.4 per cent over the year to March (Graph 4.4). Rent inflation is at its lowest pace since 1993, although conditions continue to vary noticeably across capital cities in line with the divergence in housing market conditions. Rents are 5 per cent lower over the year in Perth, and have been falling since 2015. However, the pace of these falls has eased since mid 2017 as the Perth rental vacancy rate has declined significantly. Rent inflation has continued to decline in Sydney, reflecting further increases in the vacancy rate and declines in newly advertised rents. In contrast, rent inflation in Melbourne has been fairly stable implying that the substantial additions to the housing stock have been absorbed by the relatively fast pace of population growth in that city. Hobart rents have risen sharply over the past year.

New dwelling inflation slowed to 1.2 per cent over the year to March, its lowest rate since 2012 (Graph 4.5). The slowing in inflation over the past two years has occurred despite the high

**Graph 4.3**



level of residential construction activity. The cost of a newly built dwelling declined in Melbourne and Brisbane in the quarter because the slowing in housing market activity has led developers to offer larger purchase incentives. These incentives typically take the form of including appliances at no charge or direct ‘cash-back’ offers. In comparison, new dwelling inflation has been higher in Sydney; information from liaison suggests that strong demand and competition from infrastructure projects have contributed to higher material prices and subcontractor rates over the past few quarters.

## Inflation in market services is also weak

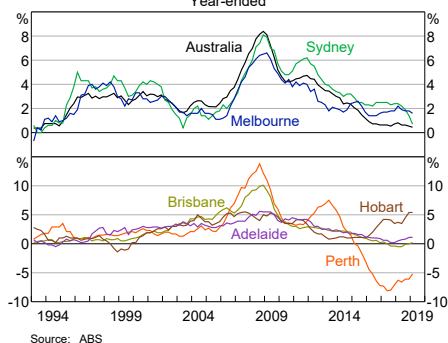
Inflation in the prices of market services, which include household services such as hairdressing, as well as financial services and meals out & takeaway, also declined in the quarter (Graph 4.6). Prices of market services have been growing at or below 2 per cent in recent years. The prices of these services are generally driven by domestic factors such as labour costs and commercial rents, which have experienced slower growth in recent years.

## Administered price inflation has slowed over the year

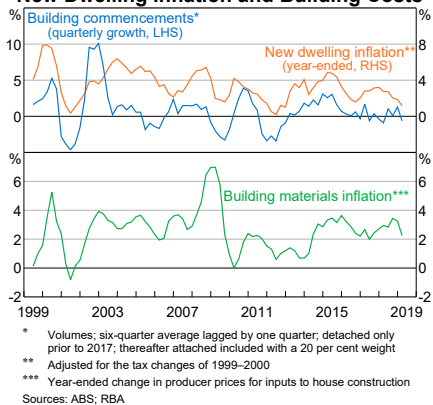
Utilities inflation has slowed considerably over the past year (Graph 4.7). Wholesale gas and electricity prices increased strongly from 2015–17, and the pass-through of these increases to final retail prices is now complete. Utilities prices fell by 0.4 per cent in the March quarter owing to declines in market offer gas and electricity prices in several states, as well as some scheduled reductions in standing offer prices.

Inflation in other administered prices has also declined since early 2018. These declines are the

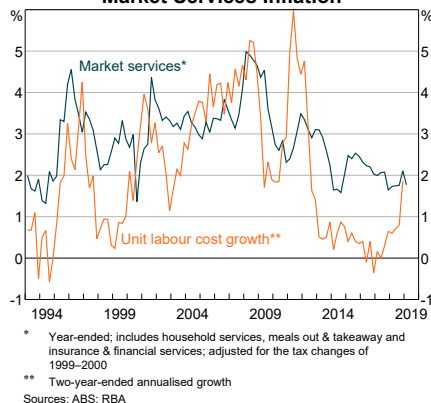
**Graph 4.4**  
**Rent Inflation**  
Year-ended



**Graph 4.5**  
**New Dwelling Inflation and Building Costs**

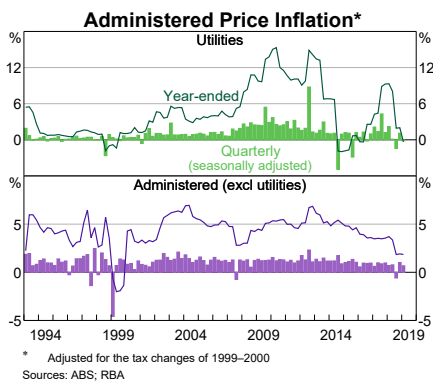


**Graph 4.6**  
**Market Services Inflation**

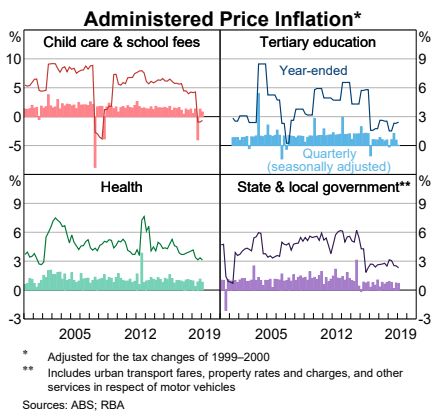


result of several pricing decisions, including below-average increases in state and local government charges and health insurance premiums, and the introduction of the new child care subsidy payment (Graph 4.8). Price increases for items that typically have their prices reset in the March quarter, such as education fees and some state government charges, were a little below average this year. The introduction of free TAFE courses for some students in Victoria and Queensland contributed to a decline in tertiary education inflation in the quarter.

**Graph 4.7**



**Graph 4.8**



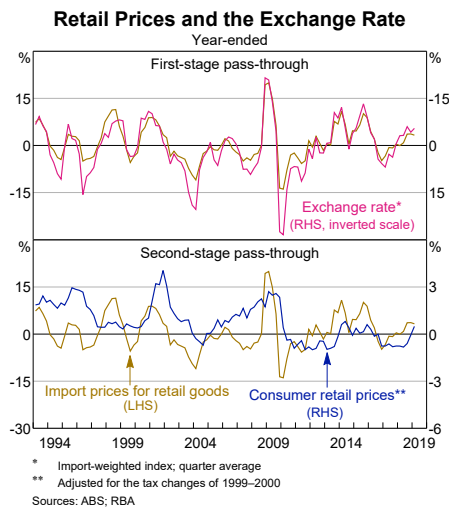
## The earlier exchange rate depreciation is flowing into higher retail prices

Retail prices rose a little in the March quarter, to be 0.5 per cent higher over the year. This was the second consecutive quarter of price rises following a number of years of retail price deflation. The recent increase in retail inflation is consistent with the small depreciation of the exchange rate over the past two years (Graph 4.9). Retail price increases have been most noticeable for consumer durable items such as furniture, clothing and household appliances. Nonetheless, retail inflation remains low because an environment of elevated competition continues to place downward pressure on prices in the industry.

## Unfavourable weather has led to higher grocery prices

Food prices have increased noticeably in the past couple of quarters (Graph 4.10). Fruit and vegetable price inflation increased in the March quarter because of supply shortages associated with flooding in northern Queensland and

**Graph 4.9**





heatwaves in Victoria. The ongoing drought in eastern Australia has also contributed to rising retail meat prices, particularly for beef and lamb, while the drought-related increase in grain input costs has put upward pressure on final prices for bread. Milk prices were also higher over the year following the introduction of drought-relief levies on supermarket milk in late 2018. Reports from liaison suggest that the once-off deflationary impact of the transition to ‘every day low price’ strategies on grocery prices may be abating.

### Inflation expectations have declined a little, in line with other advanced economies

Short-term and long-term market-based measures of inflation expectations have declined in recent months (Graph 4.11; Graph 4.12). The recent declines have also occurred in other advanced economies, and appear to reflect a decline in expectations for global growth and hence inflation. While the initial decline in market-based measures of inflation expectations coincided with a sharp fall in oil prices, expectations have continued to drift lower as oil prices have increased more recently. Some survey-based measures of long-

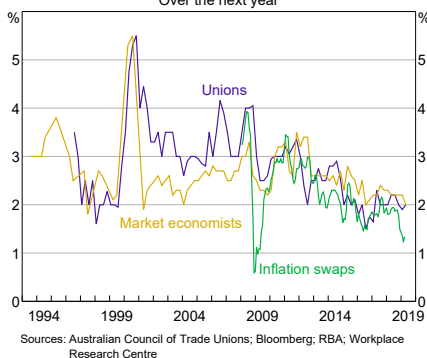
term inflation expectations for Australia have also declined a little recently.

### Wages growth has picked up, but remains low

Growth in the Wage Price Index (WPI) was 0.5 per cent in the December quarter and remained steady at 2.3 per cent over the year. The pick-up in growth is stronger in the private sector, and when bonuses and commissions are included (Graph 4.13). Analysis of highly disaggregated WPI data on wage changes in individual jobs suggests that the recent strength in bonuses and commissions has been limited

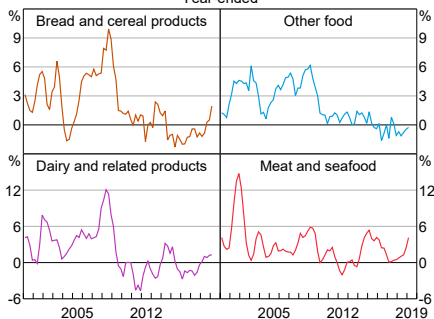
**Graph 4.11**

**Short-term Inflation Expectations**  
Over the next year



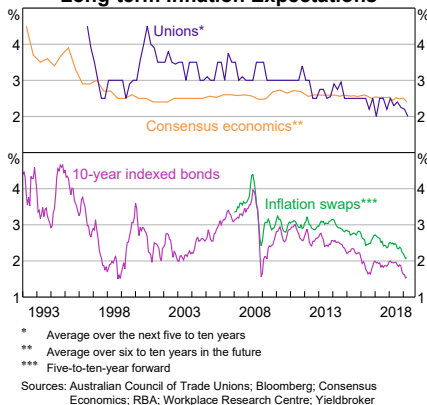
**Graph 4.10**

**Grocery Price Inflation\***  
Year-ended



**Graph 4.12**

**Long-term Inflation Expectations**



to a very small fraction of jobs, although the share of workers receiving bonuses has increased. Wages growth is higher than it was a year ago in most industries (Graph 4.14). It remains highest in the healthcare & social assistance industry and relatively low in the mining and retail trade industries. The small pick-up in wages growth since 2016 is consistent with the gradual tightening of the labour market over that period. Real wages growth increased a little over 2018, but remains well below average.

Growth in average earnings per hour in the national accounts (AENA) had been low for some time, but over 2018 it increased to a

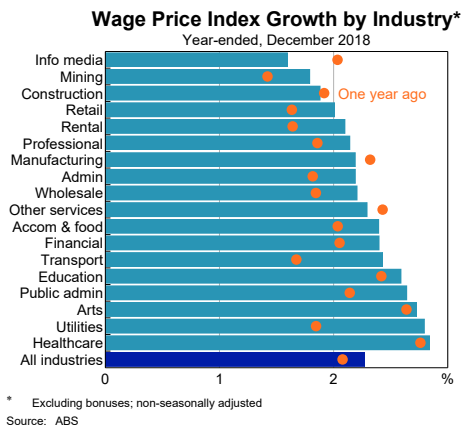
similar pace as growth in the WPI (Graph 4.15). AENA is a more volatile but broader measure of labour costs than the WPI because it captures non-wage payments such as allowances, superannuation and redundancy payments, as well as changes in the composition of employment. This includes employees who had moved from high-wage jobs in mining-exposed industries to lower-wage jobs in other industries. Both the rate of voluntary job turnover and employees' expectations of switching jobs have remained fairly stable despite relatively strong labour market conditions over the past year. As workers tend to receive an increase in pay when transferring jobs, the low level of voluntary job turnover in recent years is likely to have also contributed to subdued growth in AENA. At the same time, the rate of promotions within firms has remained fairly stable at a lower level since the global financial crisis.

The pick-up in wages growth since 2016 has been most evident for employees covered by awards and individual agreements. Meanwhile, wages growth for the average worker on an enterprise bargaining agreement (EBA) has remained fairly stable at low levels (see 'Box D: Trends in Wages Growth by Pay-setting Method'). While wage 'freezes' (no change in

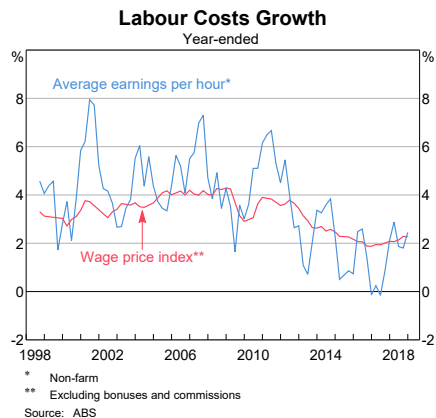
**Graph 4.13**



**Graph 4.14**



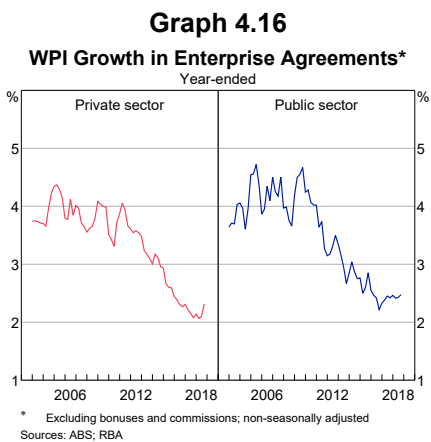
**Graph 4.15**



wages for one year or more) have become less common, the share of EBA-reliant employees receiving no change in wages remains elevated in industries such as construction and retail trade. Government policies have kept average wages growth in public sector EBAs stable at around 2½ per cent in recent years (Graph 4.16). There has been some pick-up in average wages growth in new federally registered private sector EBAs to around 3 per cent; however this will take some time to flow through to an increase in average EBA wages growth.

## Expectations continue to point to a modest increase in wages growth

Information from the Bank’s business liaison program continues to point to a modest increase in private sector wages growth in the near term. More than three-quarters of firms surveyed expect wages growth at their firm to remain broadly stable over the year ahead, which is a little higher than a year ago. Other surveys of consumer and firm wage expectations are broadly consistent with liaison information; all have increased gradually over the past few years but remain subdued. This may in part reflect the low and stable price inflation recorded in recent years. ✎





## Box C

# Housing in the Consumer Price Index

The two largest housing components of the Consumer Price Index (CPI) basket are rents and new dwelling purchases by owner-occupiers, which together account for around one-sixth of the CPI basket.<sup>[1]</sup> Price inflation in these two components is influenced by conditions in local housing and construction markets and can vary considerably by city. Inflation in rents and new dwellings have each averaged a little over 3 per cent in year-ended terms since 2002. Over the past year these two components have been much weaker than average and have contributed notably less to CPI inflation; rent inflation was 0.4 per cent and new dwelling cost inflation was 1.2 per cent (Graph C1).

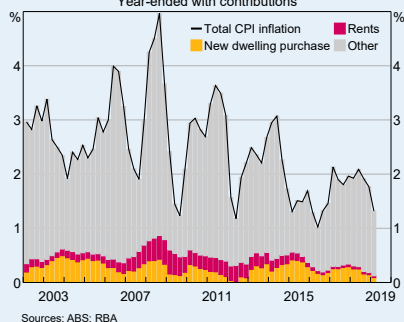
The new dwelling purchase component of the CPI captures the cost of adding to the housing stock – newly built dwellings and major renovations. It is measured as the price of a *new* dwelling, excluding the value of the land.<sup>[2]</sup> Purchases of *established* dwellings are not captured in the CPI, because they are

treated as transfers of existing assets. As a result, the price of established dwellings has no direct influence on CPI inflation. For most dwelling types, the Australian Bureau of Statistics (ABS) obtains prices by surveying home builders. The types of new dwellings captured by the survey are those most commonly built in each capital city. The ABS adjusts the final prices of new dwellings to take into account first home owner grants and purchase incentives, both of which reduce the effective price faced by the consumer. Initially, only newly built detached houses were captured in the CPI; however, newly built apartments and other attached dwellings (such as townhouses) have been included since 2017.

Although the ABS does not publish CPI figures separately for houses and apartments, the closely related Producer Price Index (PPI) ‘Output of Construction’ series provides an approximation of price movements for new houses and apartments (Graph C2). Prices for new houses and new apartments do not necessarily move in tandem. One reason for this is that the materials used in construction differ substantially between houses and apartments. Timber and bricks are generally the major materials used in house construction. In contrast, steel and concrete are typically the biggest material inputs to apartment construction. Over much of the past decade, prices for new apartments have risen more slowly than prices for new houses. However, this trend has reversed over the past year. Inflation in the price of

**Graph C1**

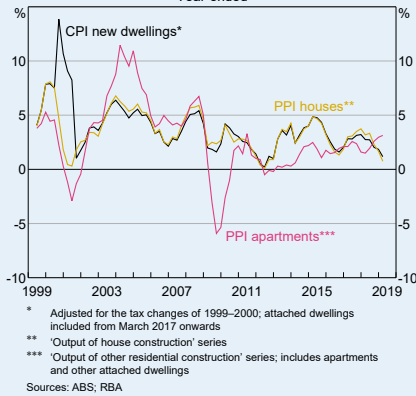
**Housing and CPI Inflation**  
Year-ended with contributions



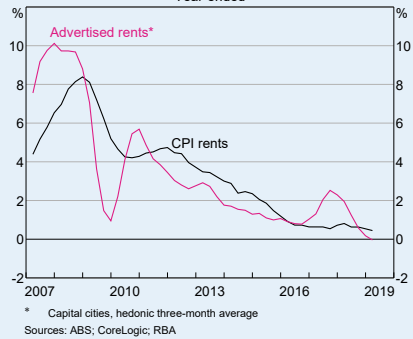
new houses has declined because home builders have increased the size of purchase incentives to encourage sales. Over the same period, new apartment price inflation has increased, driven by higher input costs, particularly for steel products. Ongoing strength in other types of construction has contributed to the pick-up in new apartment price inflation because the materials and trades used in apartment construction are similar to those used in non-residential building and infrastructure construction.

The rents component of the CPI captures payments made by households to landlords as rent. For privately owned properties, the ABS tracks the rents paid on a sample of rental dwellings in each city over time. Rents for publicly owned housing are estimated by the ABS using information collected from government housing authorities. Advertised rents are a leading indicator of CPI rents (Graph C3). However, new rents account for only a portion of the existing rental stock and so pass through to the CPI rents measure gradually. ↕

**Graph C2**  
New Dwelling Prices  
Year-ended



**Graph C3**  
Rent Inflation  
Year-ended



## Endnotes

- [1] There are a number of other housing-related components of the CPI including utilities, dwelling repairs and maintenance, and property rates and charges. Demand for housing may also exert an indirect influence on inflation, for example, by influencing prices for furniture and white goods.
- [2] The value of the land is excluded because land is treated as an

investment asset rather than a consumable item. The cost of servicing a mortgage has also been excluded from the CPI since 1998, although it is included in the ABS's Selected Living Cost Indexes. In analysis of the CPI before 1998, the RBA generally excludes the impact of mortgage interest charges.

## Box D

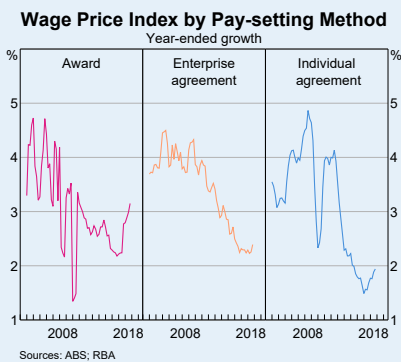
# Trends in Wages Growth By Pay-setting Method

Over recent years, low wages growth has been evident across most industries and regions in Australia. Using data on each job that underpins the Wage Price Index (WPI), this trend can also be seen across the three main pay-setting methods in Australia: awards, individual agreements and collective or enterprise bargaining agreements (EBAs) (Graph D1).<sup>[1]</sup> Different dynamics drive changes in wages across these three methods, which are relevant when assessing the outlook for wages growth. The majority of award wages are set by the Fair Work Commission (FWC) and have grown more quickly than the wages in other pay-setting methods over recent years. Wages growth in individual agreements is most responsive to changes in labour market conditions, while average wages growth in EBAs tends to respond to conditions with a lag because these agreements generally apply for several years and can be subject to delays during negotiations.

The FWC raised the national minimum and award wages by 3.5 per cent on 1 July 2018, following an increase of 3.3 per cent in the previous year.<sup>[2]</sup> Around one-fifth of all Australian employees are on minimum and award wages according to a separate Australian Bureau of Statistics (ABS) survey; award reliance is particularly high in the accommodation & food services, administrative & support services, and retail trade industries. Workers on awards tend to earn less per hour on average than workers who have their pay set by other methods, both in aggregate and within industries (Graph D2).

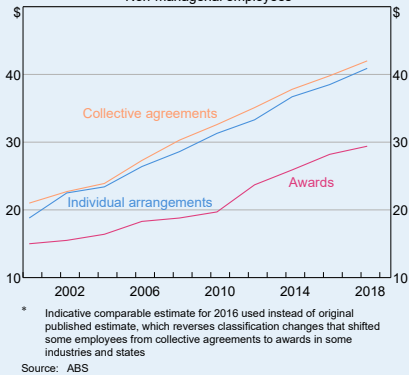
Average wages growth for workers on individual agreements has increased over the past year, but remains around 2 per cent. These agreements cover around 40 per cent of workers and tend to be more prevalent in the business services, mining and

### Graph D1



### Graph D2

**Average Hourly Earnings\***  
Non-managerial employees



construction industries. At the peak of the commodity price boom, in 2011, average wages growth for workers on individual agreements was around 4 per cent. Previous work suggests that this was because large wage rises were needed during the mining investment boom to attract workers to the mining-exposed parts of the economy.<sup>[3]</sup> Subsequently, the average size of wage increases for these workers declined and a higher-than-average share of workers experienced outright wage freezes. Over the past year, average wages growth for workers on individual agreements increased because the share of workers experiencing wage freezes declined and, more generally, labour market conditions have improved. Wages growth in a small share of individual agreements may have also been influenced by award wage increases.

Average wages growth for workers on EBAs has been little changed over recent years. A

number of factors have contributed to this stable outcome. First, EBAs set out pay rises for the duration of the agreement, which is usually around three years. This means that average WPI growth for EBA workers tends to respond to changing labour market conditions with a lag. Second, the bulk of public sector employees are on EBAs, and government policies have kept average wages growth in public sector EBAs stable at around 2½ per cent in recent years. Third, longer-than-usual delays in renegotiating EBAs have also resulted in wage freezes of one year or longer for some employees on EBAs. Over the past year, wages growth in new private sector agreements has been a little higher than wages growth in the stock of active agreements, so there is likely to be some gradual upward pressure on average wages growth for those on EBAs over time.



## Endnotes

[1] This analysis is the result of a recent collaboration between the Reserve Bank and the ABS using data on wages growth for around 18,000 jobs (see Bishop and Cassidy, forthcoming). It includes data up to September quarter 2018. The underlying data are not publicly available. See also <<https://www.abs.gov.au/websitedbs/D3310114.nsf/home/ABS+Chief+Economist+-+Full+Paper+of+Wage-setting+methods+and+wage+growth+in+Australia>>.

[2] Some employees are on state awards set by state industrial tribunals or authorities, rather than the national awards set by the FWC. As a result of this, award wages growth in Graph D1 does not align exactly with recent FWC adjustments to national minimum and award wages.

[3] See J Bishop and N Cassidy (2017), 'Insights into Low Wage Growth in Australia', *RBA Bulletin*, March, pp 13–20 Available at <<https://www.rba.gov.au/publications/bulletin/2017/mar/bu-0317-2a.html>>.



# 5. Economic Outlook

Economic growth in Australia was weaker over 2018 than expected at the time of the February *Statement*. New information received over the past three months has led to some further downward revisions to the outlook for GDP growth and inflation. In summary, GDP growth is expected to be around 2¾ per cent over 2019 and 2020. Underlying inflation is expected to pick up to 2 per cent by early 2020, and to increase a little further by mid 2021.

As discussed in the chapter on 'The International Environment', growth in Australia's major trading partners eased in the second half of 2018, and growth is expected to have continued at this more moderate rate into 2019. Recent data have led to some small downward revisions to the global growth outlook, mainly because of lower growth in parts of Asia. Growth in Australia's major trading partners is expected to be around 3¾ per cent in 2019 and 2020. Global inflation is expected to be a little lower over the forecast period than was expected at the time of the February *Statement*.

There are a number of global and domestic uncertainties for the forecasts. Risks around trade policies remain and could weigh on global growth more than currently expected. In contrast, the risks around the global impetus from Chinese demand are more balanced in light of emerging signs that policy stimulus is supporting growth in China. Global financial conditions have become more accommodative since the turn of the year and could lead to stronger growth than forecast. However, there are events that could lead to both tighter

financial conditions and lower global growth. Domestically, the outlook for consumption remains a key source of uncertainty. In addition, there continues to be uncertainty about how the unemployment rate will evolve and how quickly any tightening in labour market conditions might feed into wage pressures and so inflation.

## Domestic growth has been revised lower for 2019

Over 2018, Australian GDP growth was weaker than previously anticipated (Table 5.1). Some of the drivers of the slowdown in growth in the domestic economy over the second half of 2018, particularly mining activity, are expected to have been transitory. But other drivers, such as consumption and dwelling investment, are expected to remain soft over coming quarters. Recent partial indicators point to moderate GDP growth in the March quarter.

Year-ended GDP growth is expected to be around 2¾ per cent over 2019 and 2020, supported by accommodative monetary policy and an increase in household disposable income growth (Graph 5.1). The outlook for household consumption growth continues to be an important source of uncertainty for the domestic growth forecasts, particularly given uncertainties around the outlook for income growth and how developments in housing markets will affect household decision-making. Public demand and business investment are expected to continue supporting growth over

the forecast period. The gradual increase in gross national expenditure growth over the next few years is expected to be complemented by steady export growth.

The domestic forecasts are conditioned on the technical assumption that the cash rate moves in line with market pricing, which implies two 25 basis point cuts to the cash rate. The exchange rate is assumed to be around 2 per cent below where it was at the time of the February *Statement*. The oil price is assumed to remain 8 per cent higher than at the time of the February *Statement*. The working-age population is assumed to grow by 1.7 per cent per annum over the forecast period, which is a little stronger than previously assumed.

## Consumption growth has been revised lower

Consumption growth was weak in the second half of 2018, despite the ongoing improvement in the labour market. Consumption is expected to remain soft over coming quarters because of weak household disposable income growth over the past few years and weak housing market conditions. Growth in consumption is expected to be 2 per cent over 2019, and is then forecast to increase to be 2¾ per cent by mid 2021, supported by stronger growth in

disposable income and the absence of a drag from housing market conditions.

Growth in nominal household disposable income was 2 per cent over 2018 because moderate growth in labour income and subdued growth in non-labour income was partly offset by strong growth in tax payments. Household disposable income growth is expected to increase over 2019, supported by employment growth, a gradual pick-up in wages growth and more typical growth in tax payments. Expectations that growth in tax payments will be lower partly reflect the introduction of the low- and middle-income tax offset. The forecast incorporates the increase in the offset announced in the 2019/20 budget. The total benefit to households from the offset is around 0.6 per cent of disposable income each year over the forecast period. Most of the benefit will be concentrated in the September and December quarters when those eligible receive their tax refunds.

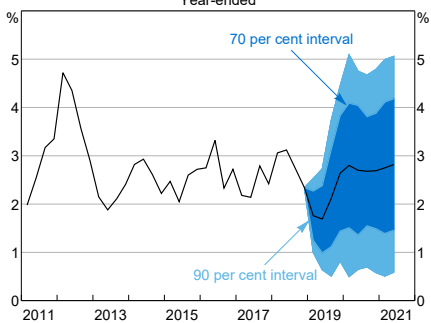
Over coming years, household disposable income growth is also expected to be supported by lower net interest payable owing to the lower cash rate assumption. By contrast, the contribution from unincorporated business income has been revised lower in the near term, reflecting downward revisions to activity in the farm and residential construction sectors. With household disposable income forecast to grow at about the same rate as consumption over the forecast period, the household saving ratio is expected to remain around its current level.

## Dwelling investment will decline over the forecast period ...

Dwelling investment is expected to decline substantially over coming years. The pipeline of work to be done on higher-density housing remains very large, which should continue to support activity in the near term. This is

**Graph 5.1**

**GDP Growth Forecast\***  
Year-ended



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

**Table 5.1: Output Growth and Inflation Forecasts<sup>(a)</sup>**

Per cent

	Year-ended					
	Dec 2018	June 2019	Dec 2019	June 2020	Dec 2020	June 2021
GDP growth	2.3	1¾	2¾	2¾	2¾	2¾
(previous)	(2¾)	(2½)	(3)	(2¾)	(2¾)	(2¾)
Unemployment rate <sup>(b)</sup>	5.0	5	5	5	5	4¾
(previous)		(5)	(5)	(5)	(4¾)	(4¾)
CPI inflation	1.8	1¾	2	2	2	2
(previous)		(1¼)	(1¾)	(2)	(2¼)	(2¼)
Trimmed mean inflation	1.8	1½	1¾	2	2	2
(previous)		(1¾)	(2)	(2)	(2¼)	(2¼)
Year-average						
	2018	2018/19	2019	2019/20	2020	2020/21
GDP growth	2.8	2¼	2	2½	2¾	2¾
(previous)	(3)	(2½)	(2¾)	(2¾)	(2¾)	(2¾)

(a) Technical assumptions include the cash rate moving in line with market pricing, TWI at 60, AS at US\$0.70 and Brent crude oil price at US\$68 per barrel; shaded regions are historical data; figures in parentheses show the corresponding forecasts in the February 2019 Statement

(b) Average rate in the quarter

Sources: ABS; RBA

consistent with messages from construction firms and developers in the Bank's liaison program. However, building approvals have been trending lower for more than a year, and building commencements have declined sharply more recently. Further, information from the liaison program points to a significant slowdown in activity in the early stages of residential development. Pre-sales of new houses and apartments have been steady at a low level in recent months, after sales slowed sharply over the second half of 2018. Liaison with developers suggests that financing conditions remain tight.

### ... but business investment is expected to support growth ...

Business investment growth is expected to continue supporting the economy over the forecast period. Non-mining business

investment was stronger than expected in the December quarter and is expected to remain at a higher level over the next year or so, although growth is expected to moderate somewhat, consistent with the recent softening in some partial indicators. However, there is still a solid pipeline of private infrastructure (particularly transport and electricity projects) and building work that should support business investment over the forecast period.

Mining investment declined in the December quarter as construction on the remaining liquefied natural gas (LNG) projects neared completion. The ABS Capital Expenditure Survey and information from business liaison suggest that mining investment is close to its trough. Mining investment should gradually pick up over the next year or two as investment to sustain production continues. Growth is expected to increase further from mid 2020 as

construction on a number of new mining projects commences. The total amount of expenditure is substantial, but is expected to be much smaller than was seen in the recent mining investment boom.

### ... along with public demand

Growth in public demand was much stronger than expected over 2018. Public demand is expected to continue to provide support to economic growth, although its rate of growth is expected to ease over the forecast period.

Public investment is expected to remain strong over coming years, supported by the large pipeline of infrastructure projects. Growth in public consumption is being supported by the rollout of the National Disability Insurance Scheme, which is due to be completed by mid 2020.

### Exports have been revised higher over the forecast period

There have been some changes to the expected timing and volume of resource exports over the forecast period. Iron ore and coal exports are expected to pick up gradually over 2019 as they recover from various disruptions that have affected volumes in recent quarters. Because of delays experienced at some LNG projects, LNG exports look likely to reach production targets over the second half of 2020 rather than in late 2019 as was previously expected. The outlook for resource exports has also been lifted by some modest increases to smaller-resource exports, including non-ferrous metals and condensate associated with LNG production.

Manufacturing exports are expected to grow steadily over the forecast period, supported by the lower exchange rate. Service exports are expected to continue to be supported by student and visitor arrivals. Rural exports are expected to decline over the next year as the

effects of unfavourable weather conditions weigh on cereal and meat production. Further out, the outlook is highly contingent on weather outcomes and is based on the assumption that seasonal conditions gradually return to their long-run average over the next couple of years.

Imports are expected to grow a little more slowly than at the time of the previous *Statement*, reflecting slower domestic demand and the recent small exchange rate depreciation.

### Commodity price movements have lifted the terms of trade

The terms of trade forecasts have been revised higher, but are still expected to moderate over the forecast period (Graph 5.2). Iron ore prices have risen considerably following mine closures in Brazil, as well as some supply disruptions in Australia. As a result, iron ore prices have been revised higher throughout the forecast period, but are still expected to decline over time as supply gradually comes back online and Chinese demand moderates; Chinese steel production forecasts are unchanged compared with the previous *Statement*.

Coking coal prices have evolved broadly in line with expectations at the time of the previous *Statement*, and the outlook for a gradual decline is unchanged. Thermal coal prices are expected to increase a little in coming months, reflecting seasonal demand in Asia. Further out, prices are forecast to moderate, partly due to the gradual transition away from coal-fired power generation and an increase in seaborne supply. LNG prices are expected to strengthen over 2019, owing to recent increases in oil prices as well as the assumption that the oil price remains at its current higher level.

## The unemployment rate is expected to remain unchanged for a while

Labour market conditions remained strong in the March quarter. However, the signal from near-term leading indicators of labour demand has softened since the February *Statement*. There continues to be some divergence in these indicators; the decline in job advertisements points to a much weaker outcome for employment in the near term than the leading indicators from business surveys. Further out, the small downward revision to the employment growth forecast is a result of the lower GDP growth profile. Employment is now expected to grow at around the same rate as the working-age population over the next six months, but then to pick up a little as GDP growth increases. The participation rate is expected to remain around its current high level.

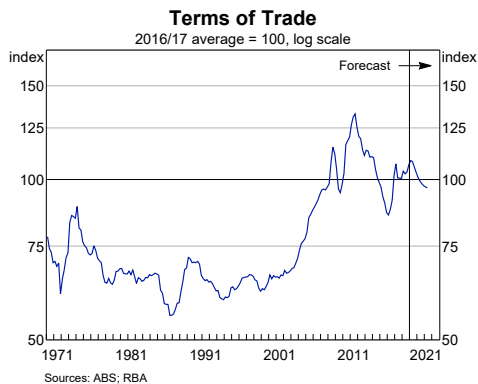
The unemployment rate is expected to remain around 5 per cent for some time, before edging lower to 4¾ per cent by mid 2021 (Graph 5.3). This suggests that there will continue to be some spare capacity in the labour market over the next few years, although there is ongoing uncertainty around its extent.

## Wages growth is expected to pick up gradually

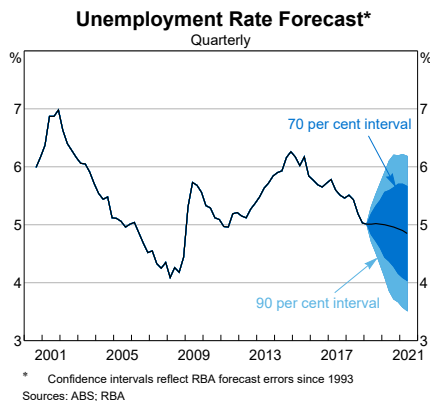
The moderate increase in wages growth forecast over the next year is consistent with information from the Bank’s liaison program, the recent pick-up in wages growth in new enterprise bargaining agreements and a cessation of wage freezes for some workers. The central forecast assumes that some of the factors that have weighed on wages growth over recent years, including low productivity growth and changes in competitive dynamics such as globalisation, will continue to put downward pressure on wages growth for some time yet. There has been a small downward revision to the wages growth profile since February, in line with the revision to the outlook for the labour market.

Average earnings from the national accounts, which is a broader measure of labour costs, is expected to grow at a slightly faster pace than the Wage Price Index (WPI) over the next few years. This assumes that whatever compositional or other changes have been holding average earnings growth below WPI growth in recent years will gradually dissipate. The extent to which this pick-up in wages growth will translate into inflationary pressures

**Graph 5.2**



**Graph 5.3**



will depend on whether there is an accompanying increase in productivity growth.

## Inflation has been revised lower

The March quarter outcome for underlying inflation was lower than expected and domestic price pressures are more subdued than previously thought. In particular, the weakness observed in the March quarter in the large housing components, which account for one-sixth of the Consumer Price Index (CPI) basket, is expected to continue as housing activity slows. The lower GDP growth profile has also contributed to a small downward revision. Nevertheless, a gradual increase in inflation is still expected to occur, reflecting the increase in wages growth, the modest depreciation of the exchange rate and some drought-related increases to food prices. Trimmed mean inflation is now expected to increase to 2 per cent by early 2020 and be a little above 2 per cent by early 2021 (Graph 5.4).

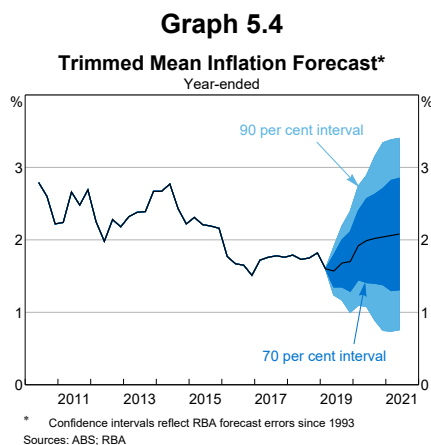
The partial rebound in oil prices in recent months has led to an upward revision to the forecast for headline inflation in the June quarter. The 12 per cent increase in fuel prices in the June quarter to date is expected to add around 0.4 percentage points to headline inflation in the quarter. Headline inflation is expected to reach 2 per cent in the second half of 2019 and increase modestly after that.

Inflation is expected to remain low across the components of the CPI. Leading indicators suggest that growth in rents will remain low in some capital cities for some time. The downturn in dwelling investment and an increased level of competition among builders is expected to keep new dwelling inflation subdued. Policy developments suggest that inflation in utilities and administered prices will remain below average in 2019. For example, health insurance premiums will increase at their slowest pace since 2001 in the June quarter. Though the

modest depreciation of the exchange rate will place some upward pressure on consumer durable prices over the year ahead, there is no clear evidence yet of an easing in retail competition. The recent increase in grocery food inflation related to the drought is likely to be temporary.

## There are a number of global and domestic uncertainties for the forecasts

Over the past three months, the global growth outlook has been revised slightly lower and the risks remain tilted to the downside. The outlook for China continues to be an important source of uncertainty for the external environment facing Australia's economy. The Chinese authorities face significant policy trade-offs and it is unclear how various policy changes will play out. The outlook for trade policy remains uncertain and negative developments could harm global growth. Global financial conditions have become more accommodative since the turn of the year and could lead to stronger growth than forecast. However, there are events that could lead to both tighter financial conditions and lower global growth.



There are also a number of domestically sourced uncertainties for the growth and inflation outlook. As has been the case for some time, uncertainty about the outlook for consumption growth is a key risk that is closely related to uncertainty about the outlook for household disposable income and the labour market. The potential for household net wealth to affect consumption decisions has increased as housing prices have fallen. Declining housing market activity could also have larger knock-on effects on other parts of the economy than assumed in the forecasts.

The increase in the terms of trade has been larger and more persistent than had been anticipated and is expected to provide a significant boost to national income over the forecast period. Although it is difficult to pinpoint how this will flow through the economy, it does represent an upside risk to domestic demand growth and inflation, particularly if commodity prices remain elevated. Recent labour market conditions suggest that economic activity may have been stronger than the GDP data have signalled. Relatedly, there continues to be uncertainty about how the unemployment rate will evolve and how quickly any tightening in labour market conditions might feed into wage pressures and so inflation. In the near term, the outlook for inflation also depends on the extent to which housing, utilities and administered price changes continue to put downward pressure on inflation.

### **It is uncertain how the policy mix in China will evolve**

The Chinese authorities face policy trade-offs that are important to the outlook for the Chinese economy, demand for bulk commodities and Australia's terms of trade. Recent policy actions appear to have contributed to a stabilisation of growth in

activity in recent months. However, the authorities are seeking to strike a delicate balance, aiming to keep growth stable without exacerbating leverage. It is possible that recent easing measures could amount to a larger stimulus than authorities intend, resulting in further increases in debt and higher GDP growth than currently projected. Additionally, recent reforms to household registration policies may spur an increase in rural-urban and intercity migration, which would pose upside risks to activity in the property sector. On the other hand, if the current mix of policy-easing measures proves less effective or durable than anticipated, Chinese growth could be weaker than forecast; in that event, weaker growth in nominal incomes could make it harder to inflate away the existing stock of debt.

The emerging configuration of policies towards China's property markets, infrastructure spending and environmental controls will be important for the growth trajectory and, in particular, the outlook for Chinese steel demand. Trade frictions with the United States remain and other aspects of the economic relationship between the two nations could affect bilateral investment and induce some production to relocate out of China. This could weigh on China's manufacturing export sector in the longer term.

### **The evolution of trade tensions and other political risks could lead to tighter financial conditions**

Bilateral trade negotiations between the United States and China are continuing. While there had been reports of progress in recent months, the US administration has recently threatened additional tariffs in the near term. There is also a risk that the US administration increases automotive import tariffs. This would have a

significant effect on economies with large automotive exports to the United States, and economies that are connected to automotive supply chains. More broadly, the consequences for global growth, investment and trade of any negative developments on trade policy could be significant.

Issues such as the United Kingdom's expected exit from the European Union and sovereign indebtedness in some euro area economies continue to pose risks to growth in the United Kingdom and euro area. These issues remain unresolved and any negative developments could have significant spillovers to other economies through trade, investment and confidence.

Global financial conditions have become more accommodative since the start of the year. As a result, global growth could strengthen by more than is currently forecast. However, global financial conditions could tighten if one or more of the trade and other political risks were to materialise. In particular, an unexpected further slowdown in global growth could increase financial market volatility and widen risk premiums, setting off a feedback loop between lower growth expectations and tighter financial conditions at a time when expectations for central bank policy rates are already low. Alternatively, the tight labour market could see US inflation pick up by more than expected, leading the Federal Reserve to raise its policy rate sooner than is currently projected, which could in turn increase bond yields and financial market volatility more generally.

## Domestically, the outlook for consumption remains a key source of uncertainty

As has been the case for some time, the outlook for consumption is a key source of uncertainty for the forecasts. Household consumption

accounts for close to three-fifths of GDP, so if consumption growth were to be materially higher or lower than currently forecast, there would be implications for the forecasts for overall GDP growth, employment growth and inflation.

Uncertainty about expected household income growth continues to be important for the outlook for consumption. Should households conclude that low income growth will be more persistent than previously expected, households may adjust their spending by more than currently projected and consumption growth could remain weak for a longer period. Real disposable income growth is expected to pick up over the forecast period, supported by a tightening in labour market conditions and income tax offsets. However, it remains uncertain how fast spare capacity in the labour market will be absorbed and translate into wage pressures. The rate of growth in non-labour sources of income is another source of uncertainty. For example, weak residential construction activity may depress profits of unincorporated businesses by more than expected, which would weigh on household income growth if the owners of these businesses are unable to find opportunities in other sectors of the economy. By contrast, growth in consumption may be stronger than expected in the second half of 2019 if households decide to spend a greater share of the tax offset payments than is currently assumed.

Developments in housing markets are also important for understanding the risks to the consumption outlook. The deterioration in housing market conditions is expected to continue to weigh on consumption in coming quarters. However, the recent falls in housing prices have followed several years of very strong growth. If households take a longer-term perspective of their wealth, they may partly look



through the recent declines. By contrast, if there are further sizeable falls in housing prices, this would be expected to result in more persistent weakness in some types of consumption, such as household appliances and furnishings.

The high level of household debt also remains a key consideration for household consumption. In general, households that are more indebted are likely to be more sensitive to changes in their expected income growth and household wealth; consumption growth may be weaker for a time if households are concerned about their debt levels and choose to pay down debt more quickly. It is also possible that households that are highly indebted or credit-constrained will be more sensitive to falling housing prices than to rising prices.

### Labour market conditions could improve by more than expected

As flagged above, the outlook for the labour market is one of the key uncertainties for the household income and consumption forecasts. Labour market conditions over the past year could imply that economic activity has been stronger than the GDP data have signalled. If this is the case, the forecasts for labour market activity may have incorporated too much signal from the recent weakness in GDP growth. To the extent that some of that weakness was temporary, the labour market could be more resilient than forecast. Stronger labour demand would be expected to lower the unemployment rate, though it could also be met to a greater extent than usual by existing workers or those who are currently outside the labour force.

If the labour market improves by more than forecast, wages growth and labour income growth may increase by more than expected. However, wages growth may also be slower to pick up than forecast. Recent international evidence indicates that it can take longer for

significant wage pressures to build than previous experience suggests. Much of the increase to date in domestic wages growth reflects a decline in the prevalence of wage freezes, rather than an increase in the typical size of wage increases when they are delivered.

### Weaker housing construction and prices could have pervasive economic effects

Developments in housing markets can affect economic activity through a number of channels other than consumption. The decline in housing prices will have a direct effect on dwelling investment, but the timing and magnitude of the effect is uncertain, particularly when the outlook for housing prices is unclear. The pipeline of work to be done is large and is expected to provide support to dwelling investment over coming quarters, but there is a risk that dwelling investment declines by more than currently forecast in the near term. This would have flow-on effects to the outlooks for employment and household income. In addition, very weak conditions in the earlier stages of residential development identified in business liaison point to downside risk to dwelling investment in 2020 and 2021. If there is a period in which additions to the dwelling stock do not keep pace with growth in the underlying demand for dwellings coming from population growth, there would eventually be upward pressure on housing prices until property developers respond; past experience has demonstrated that the lags in these responses can be considerable.

There are also a number of indirect channels through which a decline in housing prices could affect the economy. Lower housing prices limit how much small businesses can borrow when using housing as collateral. The decline in housing market turnover associated with the decline in housing prices has implications for

business and household services, such as real estate and legal services. Changes in housing prices and turnover can also affect public demand through state government stamp duty revenue.

## A number of other factors could lead to lower inflation than forecast

The gradual increase in inflation that is forecast over the next two years is underpinned by a forecast for a gradual pick-up in wages growth that is subject to its own uncertainties, as discussed above. There is also a risk that developments in some CPI components will lower inflation by more than assumed. The March quarter inflation data suggested that previous forecasts have underestimated the degree to which the forecast decline in housing activity will put downward pressure on new dwelling inflation, and the degree to which the increase in housing supply over recent years will lower growth in rents.

As flagged for some time, government initiatives to reduce cost-of-living pressures have put downward pressure on administered price inflation in recent quarters and this may continue. Relatedly, electricity prices are likely to increase at a below-average pace over the forecast period, and may decline. Wholesale costs are expected to decline on the back of a large increase in renewable energy generation capacity, while recent regulatory determinations suggest that network costs will increase only modestly over the forecast period. On 1 July, standing offer electricity prices will decline considerably in several states due to the introduction of the Default Market Offer and the Victorian Default Offer. These offers will supersede all existing standard offers.

Measures of longer-term inflation expectations have declined, but remain consistent with the

Bank's medium-term inflation target. However, an extended period of inflation below the target range could lead to a further decline in inflation expectations, potentially affecting wage- and price-setting norms. ✖