

# Statement on Monetary Policy

AUGUST 2018



RESERVE BANK OF AUSTRALIA

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# Overview

The Australian economy remains on track to achieve lower unemployment and higher inflation over time. Supported by accommodative domestic monetary policy and a positive international outlook, GDP growth is expected to be a little above 3 per cent in both 2018 and 2019, which will reduce spare capacity. The unemployment rate is therefore forecast to decline, reaching around 5 per cent by end 2020. As the labour market tightens, wages growth and inflation should increase gradually. Temporary factors affecting administered prices are likely to hold inflation down in the very near term. Beyond the next quarter or so, the inflation outlook is essentially unchanged from three months ago.

The global economic outlook remains positive, despite the recent increase in trade tensions. Output growth has been quite strong in a number of key trading partners in the June quarter. Global growth is expected to slow a little, but remain above trend, over coming years. At present, central banks in the major advanced economies are at different stages of their monetary policy cycles, with some reducing policy accommodation and others adding to it.

The major advanced economies continue to grow above trend. Labour markets are tight, especially in the United States and Japan. Unemployment rates have reached multi-decade lows in some countries. As spare capacity has continued to be absorbed, wages growth has been picking up. However, the increase in wages growth to date has been modest compared with past experience. Tight labour market conditions

have contributed to higher inflation in the United States, where it is now close to the central bank's policy target. In the euro area and Japan, the rise in inflation has been largely driven by oil prices.

Tax cuts and higher government spending are contributing to the strong growth outcomes in the United States. Fiscal stimulus of this magnitude is unusual in times of limited spare capacity. It is therefore possible that both growth and inflation in the United States could pick up by more than expected. In that case, US monetary accommodation might be withdrawn more quickly than currently projected. The US dollar could then be expected to appreciate against other currencies, including the Australian dollar, in an environment of strong global growth. On a trade-weighted basis, the Australian dollar remains in the range it has been in for some time.

Trade tensions between the United States and China have increased in recent months, with the US administration announcing further protectionist measures, and China and some other economies responding. The direct effects of the measures enacted or announced so far are likely to have only a minor effect on global trade and output. The risk is that uncertainty and the threat of further measures could weigh on growth through lower investment.

Financial market pricing in the major markets has been little affected by the increase in trade tensions. Strong earnings and ongoing expansionary policy settings have supported equity valuations; corporate bond spreads

remain narrow and financial volatility is low. Money market rates in Australia have eased somewhat since the end of June, after having risen significantly over the previous month or so, but remain higher than last year. However, retail deposit rates are little changed, which has ameliorated the effect of higher money market rates on overall funding costs for banks.

Over the course of this year, some emerging markets have experienced capital outflows, depreciating exchange rates and widening bond spreads because of country-specific concerns about their institutional settings and economic outlook. These external pressures have continued to build in Turkey and Pakistan, but have abated across Latin America more recently.

Emerging economies in east Asia have been less affected by these financial market pressures. Growth in east Asia (excluding China and Japan) has remained broadly steady at an above-trend rate. Domestic demand has become an increasingly important driver of growth. These emerging economies could face headwinds from further trade protection measures, however, given their high trade exposure and integration with global supply chains that often include China.

Growth in China has slowed a little. The Chinese authorities have been balancing their objectives of controlling financial risk and reducing pollution against the need to support near-term growth. In doing so, they have responded to the recent weakness in some sectors with targeted easing in monetary and fiscal policy to support the economy. The Chinese renminbi has depreciated to be back around the level it was in trade-weighted terms mid last year.

Australia's terms of trade have held up a bit higher than had been expected a few quarters ago, in part because Chinese steel production has remained strong. This is likely to continue for the

next couple of quarters or so as well. Beyond that, Australia's terms of trade are projected to decline moderately, as growth in Chinese steel demand slows and additional global supply of bulk commodities comes on line.

Growth in the Australian economy picked up in the March quarter. Growth is likely to have remained solid in the June quarter, despite the effect of drought conditions on the rural sector. Rural exports have been boosted in the short term because some farmers are still experiencing good conditions, while others have responded to dry weather by raising slaughter rates and thus increasing meat production.

Resource export volumes increased strongly over the first half of 2018, as new production capacity continued to come on line and previous supply disruptions were resolved. Resource exports are forecast to contribute to growth over the next two years, after which they are expected to stabilise at a high level as major projects reach their targeted production levels. Mining investment is still expected to reach its trough in late 2018 or early 2019. Further out, it should increase moderately as companies invest to sustain production at current levels.

Business conditions remain positive. Surveyed business conditions are above average, especially for goods-related sectors. Non-mining business investment increased by 10 per cent over the year to the March quarter. It is expected to continue to grow over the next few years, but at a more moderate pace. In the near term, non-residential building activity is likely to be supported by the existing pipeline of work yet to be done, even though new building approvals have trended down. Private infrastructure investment has also increased of late, led by investment in electricity projects (including renewable energy). Machinery and equipment investment is forecast to pick up as the economy continues to expand.

Spillovers from public sector infrastructure spending have contributed to the positive conditions in the private sector, especially for the construction and business services industries. More generally, public demand has supported output growth over recent quarters. State and federal budget forecasts imply that this is likely to continue over the period ahead. The rollout of the National Disability Insurance Scheme has supported growth in public sector consumption.

Dwelling investment has remained high, driven by ongoing high levels of activity in the south-eastern states. Dwelling investment is likely to remain at a high level over the next couple of years, supported by a large pipeline of work still to be done. Capacity constraints in the building industry, especially in Sydney, are likely to constrain the pace at which this pipeline can be worked through.

Conditions in the established housing markets in Sydney and Melbourne continue to ease, but the declines in prices from their peaks remain modest overall. Housing prices remain subdued in the other mainland capitals. Demand for housing credit has eased, particularly from investors, with lending to owner-occupiers slowing only slightly. Lenders continue to compete strongly for low-risk borrowers. Although a few lenders have increased advertised mortgage rates recently, citing the increase in money market rates, others have announced rate reductions on selected loan products. The average rate paid across all mortgages has drifted down over the past year.

Household consumption growth was relatively low in the March quarter, but the weakness was narrowly based; consumption is still expected to grow at a solid pace in the June quarter. Further out, consumption is expected to increase steadily, at a rate a little above the average of recent years. Weak growth in household income

has posed a risk to the consumption outlook for some time. Consumption could be particularly sensitive to unexpected weakness in income given the context of high household debt. More recently, though, growth in labour income has recovered somewhat. Growth in income from other sources has remained soft.

Labour market conditions have improved. Although employment growth has not been as fast as in 2017, it exceeded growth in the working-age population over the first half of 2018 and has been sufficient to see the unemployment rate decline a touch in recent months. Labour force participation has increased and is now around its historical high. Leading indicators of employment growth point to above-average growth in the period ahead; job vacancies have reached a high level relative to the size of the labour force. Above-trend GDP growth should result in a gradual decline in the unemployment rate to 5 per cent in 2020.

As the labour market tightens, wages growth can be expected to pick up gradually from current low rates. The Fair Work Commission handed down an increase of 3.5 per cent in minimum and award wage rates from 1 July in its annual review. Average wages growth in new collective agreements has also partly recovered from its recent trough. However, the recent experience of other economies highlights the uncertainty about estimates of spare capacity and the pace of any pick-up in wages growth.

Inflation in the June quarter was as expected at the time of the *May Statement on Monetary Policy*. Both CPI and underlying inflation were around ½ per cent in the quarter. In year-ended terms, CPI inflation increased a little to 2.1 per cent, while underlying inflation was close to 2 per cent.

A number of factors have been combining to keep inflation low. Slow growth in labour costs has tended to hold down domestic price

pressures across a range of items, and ongoing strong competition in the retail sector has also contributed to weakness in retail prices. Growth in rents remained around its lowest year-ended rate since the mid 1990s, consistent with the recent large expansion in rental housing supply and ongoing weak housing market conditions in Perth. In contrast, growth in the cost of building new housing has picked up a little, but by less than might have been assumed, given reported capacity pressures in the construction sector. Increases in tobacco excise have also added to headline inflation.

CPI inflation is expected to be quite low in the September quarter. Utilities prices have reversed some of the previous year's increases in some states, and a range of policy initiatives by governments are likely to reduce the effective prices of child care and some TAFE courses. The central forecast assumes that these price changes are one-offs and will not affect quarterly inflation in later quarters. These changes will reduce headline CPI inflation to a greater extent than underlying inflation.

Beyond the September quarter, the forecasts for quarterly inflation are essentially unchanged, consistent with the unchanged outlook for the real economy and labour market. The Bank's forecasts are for CPI inflation to pick up to be around 2¼ per cent in both 2019 and 2020. Underlying inflation is also expected to increase, from close to 2 per cent over the year to June 2018 to around 2¼ per cent in 2020.

Overall, the Australian economy remains on the path it has been for at least the past year and a half. Although inflation is likely to be a bit lower in the near term, this is expected to be temporary. Further gradual progress on both lowering unemployment and bringing inflation closer to the midpoint of the target is expected over coming years. The current accommodative stance of monetary policy will assist this outcome.

The Reserve Bank Board has for some time been of the view that holding the cash rate steady at 1½ per cent would support the gradual progress being made on unemployment and inflation, with steady monetary policy promoting stability and confidence. Higher interest rates are likely to be appropriate at some point, if the economy continues to evolve as expected. Given the gradual nature of the improvement, however, the Board does not see a strong case to adjust the cash rate in the near term. ✖



# 1. The International Environment

Global economic conditions generally remain positive. GDP growth in many of Australia's major trading partners – particularly in the major advanced economies – has been above estimates of potential growth for a number of years, and is expected to remain so over the next couple of years (Graph 1.1). This has led to a reduction in spare capacity in the advanced economies and a pick-up in wages growth.

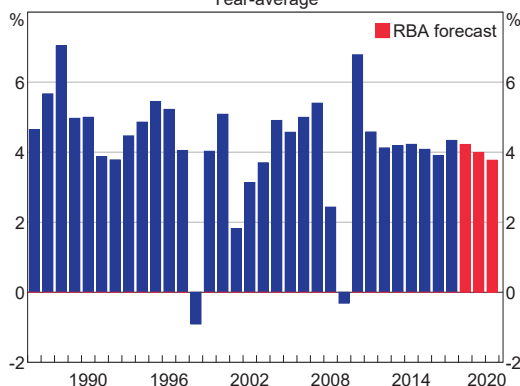
Headline inflation has also increased a little since the start of the year, driven by higher energy prices. Core inflation is close to the inflation target in a number of advanced economies, including in the United States where it has increased over the course of this year. However, core inflation remains little changed and below the inflation target in other advanced economies, including in the euro area and Japan. Nevertheless, inflationary pressures are expected to increase as spare capacity continues to be absorbed.

The major central banks are at different phases of their monetary policy cycles. Policy stimulus has gradually been reduced in the United States and to a lesser extent in Canada and the United Kingdom. Elsewhere, monetary policy settings have been little changed over the past year. The balance sheets of the Bank of Japan (BoJ) and the European Central Bank (ECB) continue to expand, although the ECB has announced that it will cease its program of net asset purchases at the end of this year. Overall, financial conditions remain supportive of economic growth in the major advanced economies.

Growth in the Chinese economy has eased a little since last year. In part, this reflects efforts by the Chinese authorities to make growth more sustainable by addressing risks in the financial system and reducing pollution. In recent months, the authorities have responded to the slowing in growth by easing fiscal policy and taking targeted measures to ensure there is ample liquidity in the banking system.

Against this positive backdrop for the global economy, risks around trade protectionism have increased. This has weighed on equity prices in Asia and some industries. In addition, in a few emerging market economies that have significant political and economic vulnerabilities, currencies have depreciated, equity prices have declined and bond spreads have risen.

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

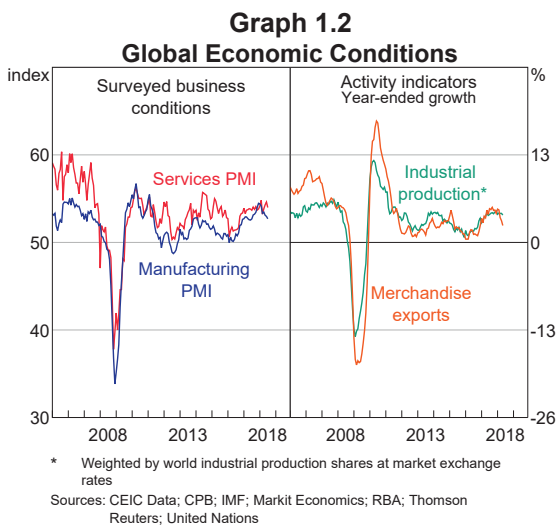


\* Aggregated using total export shares  
Sources: ABS; CEIC Data; RBA; Thomson Reuters



## Global economic growth remains solid ...

Global GDP growth remained solid in the first half of 2018. GDP growth in the major advanced economies has remained above estimates of potential growth – notwithstanding some divergence in conditions of late – and spare capacity continues to be absorbed. GDP growth in China was quite strong in the June quarter, but conditions overall have eased a little since last year. Growth in the rest of east Asia has picked up over the past two years to be a little above potential. Survey measures of global activity remain at high levels, although they have eased in the euro area this year, and growth in global industrial production and trade has remained relatively high (Graph 1.2).



## ... and the outlook for trading partner growth remains positive ...

Overall GDP growth in Australia's major trading partners is expected to be little changed in 2018, supported by accommodative financial conditions, strong labour markets in the advanced economies and the US fiscal stimulus. Some easing in growth is expected over the

forecast period, however, as economies adjust to the build-up in capacity pressures and monetary policy accommodation is gradually removed. US growth is expected to ease as financial conditions tighten. Growth in Japan is likely to be temporarily lower in late 2019 and early 2020 following the increase in the consumption tax. Fiscal policy and accommodative monetary policy are expected to continue supporting growth in the euro area.

The gradual moderation in Chinese growth is expected to continue. The authorities appear willing to accommodate a slowing in growth, so long as it is gradual, as they pursue other policy objectives, such as reducing pollution and managing financial stability risks. In east Asia (excluding China and Japan), GDP growth is also expected to moderate a little from the strong rates recorded last year, but to remain above trend growth.

## ... but the risks from trade protectionism have increased

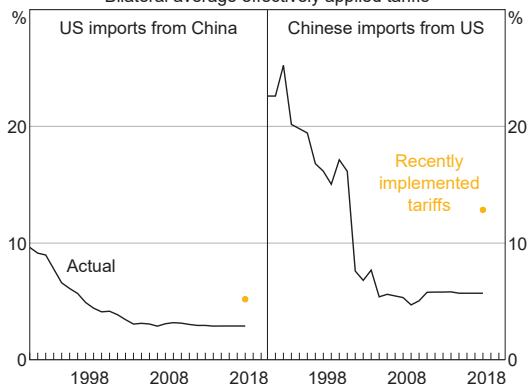
While the outlook is largely unchanged from the May *Statement on Monetary Policy*, the downside risks to global growth from trade protectionism have increased. The direct impact on global GDP growth of the measures implemented so far is expected to be minor, because the affected goods are only a small share of global trade. However, the growth forecasts for some more trade-exposed economies, such as Korea, have been scaled back a little. An intensification of protectionist measures could materially weaken the investment outlook and weigh on confidence and financial market conditions more generally.

The United States has increased tariffs on US\$34 billion of imports from China since early July, and tariffs will be increased on a further US\$16 billion of imports in late August. China has responded with tariff measures on a similar value

of imports from the United States. The United States has also increased tariffs on steel and aluminium imports from almost all economies. The European Union, Canada and Mexico have responded with similarly sized tariff increases on a broad range of US imports.

The recently announced tariff measures would nearly double the average effective tariff on US imports from China (Graph 1.3). While China is applying the increases in tariffs to the same nominal amount of imports, that amount represents a larger share of their imports from the United States. As a result, the average effective tariff applied on Chinese imports from the United States would more than double, to around the level that prevailed before China joined the World Trade Organization.

**Graph 1.3**  
**US – China Tariff Rates**  
Bilateral average effectively applied tariffs



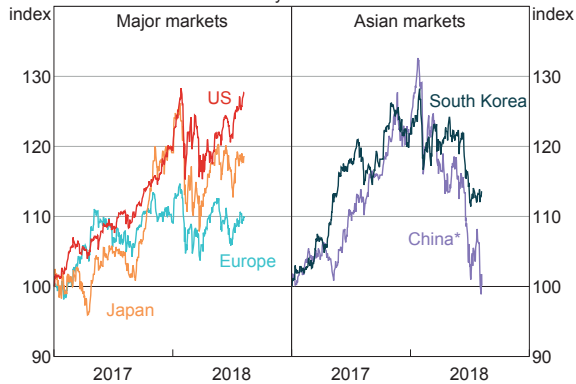
Sources: RBA; United Nations; World Bank; WTO

Moreover, the US administration has begun a process that could lead to higher tariffs on an additional US\$200 billion of imports from China; China has indicated that it would respond. The United States has also mooted an increase in tariffs on automotive imports from a range of countries and is continuing to pursue the renegotiation of key trade agreements on what it considers to be more favourable terms for the United States. If these additional tariffs

are implemented, and if US trading partners responds, the direct impact on global GDP growth will be larger but still relatively modest. However, if such an escalation significantly affected business decisions, the adverse effects on the real economy could be more significant.

These developments have weighed on asset prices in economies and industries that are more exposed to trade with the United States. In China and some other Asian economies, asset prices have declined and currencies have depreciated, reflecting the importance of trade for the region and its integration into global supply chains. In Europe, the automotive sector has been particularly affected by trade developments. In the United States, equity prices have been little affected by trade developments (Graph 1.4).

**Graph 1.4**  
**Global Equity Prices**  
1 January 2017 = 100

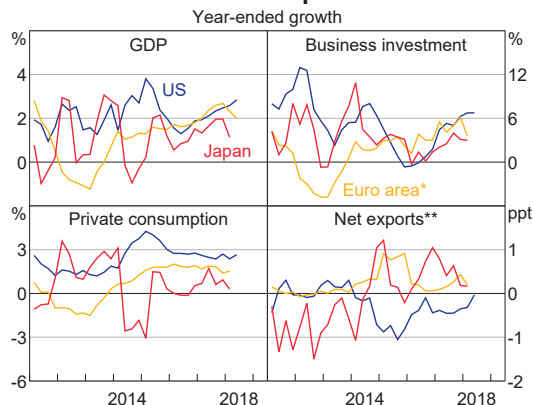


\* Onshore Chinese equity markets  
Source: Bloomberg

## Growth in the major advanced economies continues to absorb spare capacity ...

In the major advanced economies, GDP growth remains above estimates of potential growth (Graph 1.5). GDP growth in the United States has gained significant momentum, while growth in Japan is likely to have picked up in the June

**Graph 1.5**  
Major Advanced Economies –  
GDP and Components



\* Business investment is public and private non-residential investment; all euro area series exclude Ireland due to data measurement issues

\*\* Contribution to year-ended growth

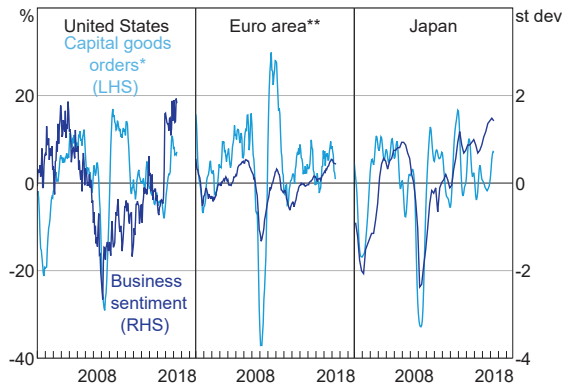
Sources: RBA; Thomson Reuters

quarter, following a weak March quarter outcome. Growth in the euro area has moderated somewhat from the relatively strong rates of last year. In all three economies, strong labour market conditions have supported growth in household spending and business conditions remain positive.

In the United States, GDP growth and labour market conditions have been strong for some time. The recently enacted tax cuts have contributed to growth in household and business spending of late. Consumption growth increased in the June quarter and is expected to remain strong in the period ahead. Business investment growth has continued at a fast pace as spare capacity in the economy continues to be absorbed; survey measures of investment intentions point to further strong investment growth in the near term (Graph 1.6).

GDP growth in Japan is likely to have recovered somewhat recently – following the weak outcome at the start of the year – driven by a strong pick-up in investment. Business investment intentions have continued to strengthen and point to a further pick-up in investment growth this year. Labour shortages appear to be especially severe

**Graph 1.6**  
Major Advanced Economies –  
Investment Indicators



\* Year-ended growth; smoothed

\*\* Germany used as proxy for capital goods orders

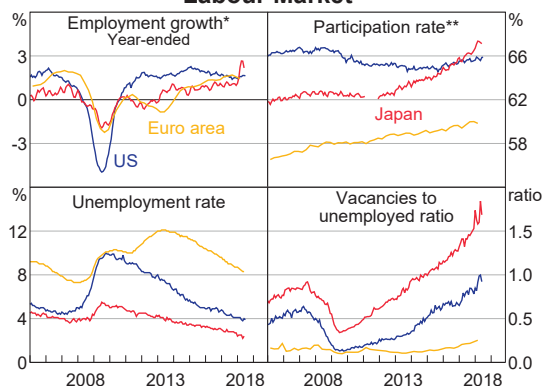
Sources: Bundesbank; RBA; Thomson Reuters

in Japan; this is likely to be contributing to the strength in business investment, as companies increase capital to supplement their workforce.

In contrast, growth in the euro area has slowed a little relative to a year ago. The near-term prospects for business investment growth in the euro area have eased a little; survey measures of business conditions and new capital goods orders have fallen from the very high levels of late 2017. However, conditions remain supportive of further above-potential growth in GDP: labour markets are strong, business sentiment remains quite high and capacity utilisation is increasing.

Labour markets in the major advanced economies have strengthened further as the economic expansion has continued (Graph 1.7). Employment growth remains high and faster than the growth in working-age populations. This has been associated with steady declines in unemployment rates, which in many economies are at multi-decade lows. Measures of underemployment also continue to move lower. Job vacancies have increased strongly in the United States and Japan in recent years, where they are around record highs.

**Graph 1.7**  
Major Advanced Economies –  
Labour Market



\* Three-month moving average for Japan

\*\* Age-adjusted: population age distribution held constant from 2000; March to November 2011 Japan data not reported

Sources: CEIC Data; Eurostat; MHLW; RBA; Thomson Reuters

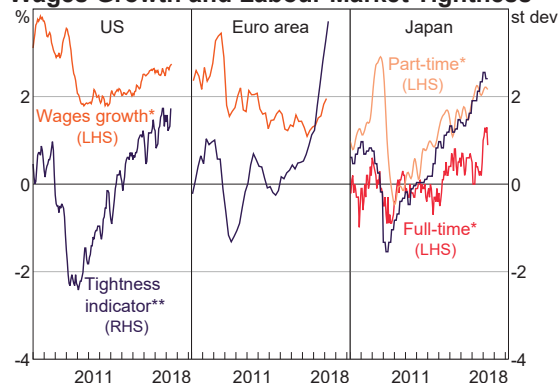
Survey measures of capacity utilisation have increased and supplier delivery times have lengthened considerably across major advanced economies. An increasing number of firms are reporting that labour shortages are limiting their ability to increase production, even though labour supply – in the form of increased labour participation – has also increased significantly in some economies. In the euro area, manufacturers are also increasingly reporting lack of equipment as a factor limiting production.

## ... so wages growth is expected to increase further

Nominal wages growth has increased in the major advanced economies as spare capacity in labour markets has been absorbed (Graph 1.8). In the United States, wages growth is around the highest level in this economic expansion. In Japan, part-time hourly wages growth has increased steadily over recent years and is around its highest level in over a decade; full-time wages growth has picked up since the start of the year. Wages growth in the euro area has picked up noticeably over the past two years and the increase has been broad based across member countries.

**Graph 1.8**

## Wages Growth and Labour Market Tightness



\* Year-ended growth

\*\* US businesses reporting few or no qualified applicants for job openings; euro area businesses reporting labour as a constraint on output; share of Japanese businesses reporting excessive employment less the share reporting insufficient employment (inverted); deviation from post-1996 average; US series is smoothed

Sources: Bank of Japan; CEIC Data; ECB; RBA; Thomson Reuters

Further increases in nominal wages growth are anticipated in these three economies as capacity pressures become more pronounced. US consumers and firms are expecting higher wages growth, and wage negotiations between labour unions and employers in the euro area and Japan over the past year have resulted in higher outcomes.

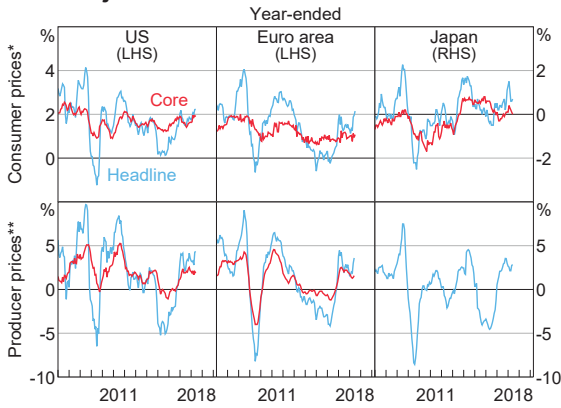
Notwithstanding the recent pick-up, nominal wages growth in the United States and the euro area is still fairly low by historical standards. However, growth in unit labour costs is currently around or above the post-crisis average in both economies, as growth in labour productivity has been modest.

## Core inflation has picked up in some economies

Headline inflation has increased with the pick-up in oil prices this year and core inflation has increased to be around the inflation target in a few economies, including the United States, United Kingdom, Canada and Sweden (Graph 1.9). However, core inflation remains low and is below the inflation target in other

**Graph 1.9**

**Major Advanced Economies – Inflation**



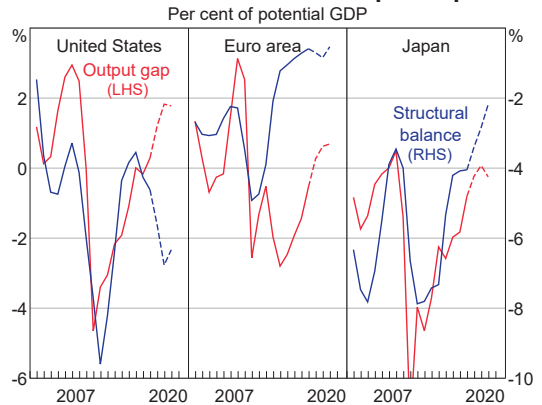
\* US PCE inflation; Japan CPI data exclude effect of the consumption tax increase in April 2014

\*\* Core excludes energy for US, and energy and construction for euro area

Sources: Eurostat; RBA; Thomson Reuters

**Graph 1.10**

**Major Advanced Economies – Structural Balance and Output Gap\***



\* Dotted lines represent forecasts

Sources: IMF; RBA

advanced economies. Services inflation has been particularly low in the advanced economies during the post-crisis period.

Increasing capacity pressures in product and labour markets across major advanced economies are expected to add to inflationary pressures. Producer price inflation has picked up over the past year or so and is running at around its highest rate for several years. The US fiscal stimulus is expected to add to inflationary pressures because it is coming at a time when capacity constraints are increasingly binding (Graph 1.10).

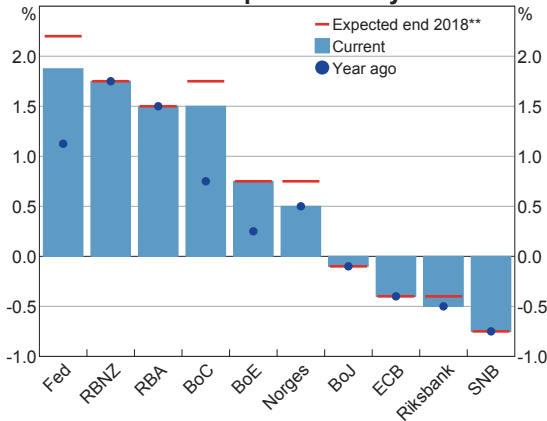
Consumer and market-based inflation expectations have increased in the United States over the past six months, but have been unchanged in the euro area and Japan. Consensus forecasts are for inflation to remain around target in the United States and below target in the euro area and Japan over the next 18 months.

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

Monetary policy settings across advanced economies remain expansionary. But the major central banks are at different phases of their monetary policy cycles, reflecting differences in the amount of economic slack and the outlook for inflation across economies (Graph 1.11).

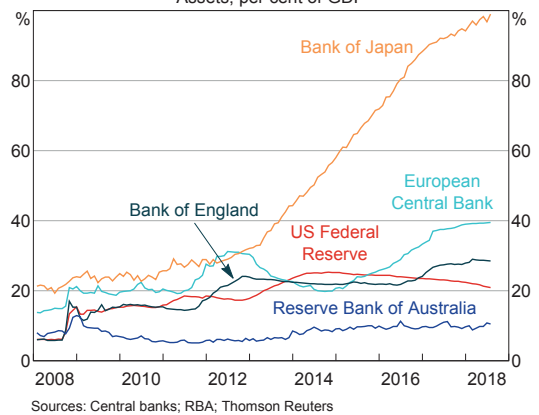
After a prolonged period of monetary easing after the global financial crisis, US policy rates have increased gradually in recent years and the Federal Reserve’s balance sheet has declined by around 4 per cent of GDP. The median of Federal Open Market Committee (FOMC) member projections suggests that the federal funds rate will be increased six more times by the end of 2020, to be around ½ percentage point above the level that members judge to be neutral for the economy (Graph 1.12). However, market pricing suggests both a slower pace of rate increases and a lower terminal rate for the cycle. The Federal Reserve’s balance sheet is expected to continue to decline at a gradual pace but remain well above pre-crisis levels.

**Graph 1.11**  
**Current and Expected Policy Rates\***



\* US Federal Reserve (Fed), Reserve Bank of New Zealand (RBNZ), Reserve Bank of Australia (RBA), Bank of Canada (BoC), Bank of England (BoE), Norges Bank (Norges), Bank of Japan (BoJ), European Central Bank (ECB), Riksbank (Riksbank), Swiss National Bank (SNB)  
\*\* Market-implied, except for Norges Bank, Riksbank and Swiss National Bank, which are based on central bank guidance  
Sources: Bloomberg; central banks; Thomson Reuters

**Graph 1.13**  
**Central Bank Balance Sheets**  
Assets, per cent of GDP

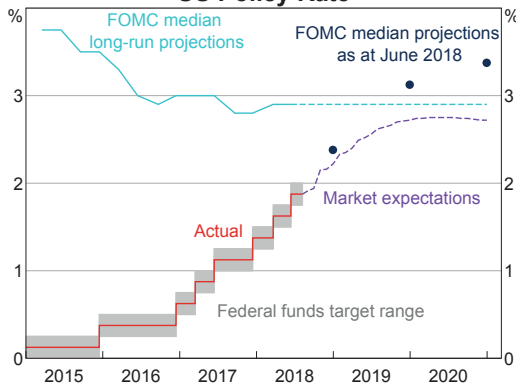


thereby contribute to accommodative financial conditions. Market participants expect the ECB policy rate to remain unchanged until the second half of 2019.

The BoJ introduced additional flexibility to its yield curve control framework at its July meeting. While the BoJ maintained its target of ‘around zero’ for 10-year government bond yields, it increased the tolerance for deviations from this target from 10 to 20 basis points. The BoJ also introduced forward guidance, stating that it intends to maintain extremely low interest rates for an extended period. In the update to the economic outlook, the BoJ lowered its inflation projections and extended the time horizon it expects for inflation to reach target.

Elsewhere, policy settings remain broadly expansionary. While policy rates have increased in Canada and the United Kingdom, and are expected to rise in Norway and Sweden by the end of the year, policy rates remain very low overall and mostly well below rates of inflation. Central banks in other advanced economies – such as New Zealand and Switzerland – are expected to remove monetary stimulus at a more gradual pace.

**Graph 1.12**  
**US Policy Rate**



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

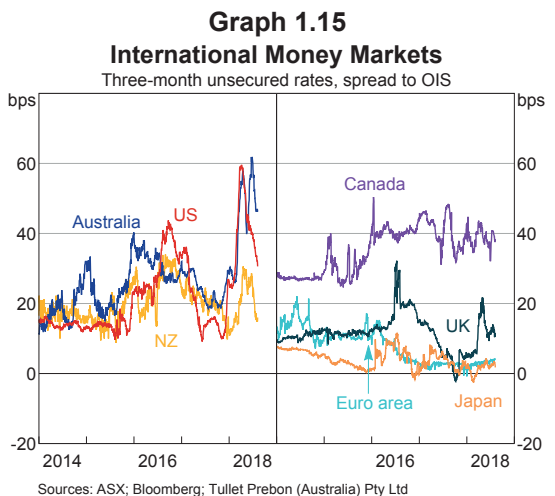
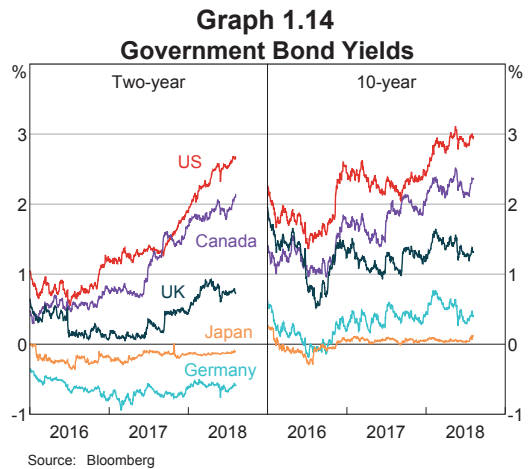
In Europe and Japan, monetary policy settings continue to be very expansionary. Negative policy rates are expected to remain in place for some time yet, and balance sheets have continued to expand (Graph 1.13). The ECB plans to reduce its net asset purchases in October and end this program by December 2018. However, it will continue to reinvest the proceeds of maturing securities for an extended period, so its balance sheet will remain large and

## Broader financial conditions remain supportive of economic activity

More generally, financial conditions remain accommodative in the major advanced markets. Yields on government bonds are low, and spreads on corporate bonds and leveraged loans are narrow. In the United States, equity valuations are above their historical averages. Measures of interest rate, exchange rate and equity volatility remain below their long-run averages.

Short- and long-term government bond yields in advanced economies generally remain low. While long-term yields in a number of advanced economies have moved in a relatively narrow range over the past year, those in the United States have increased along with a notable rise in short-term yields (Graph 1.14). This divergence across countries partly reflects differences in expected policy stances of the major central banks. Recent adjustments to the BoJ's operational framework prompted a rise in Japanese government bond yields to their highest levels in a couple of years but they remain low. Political developments in Italy (see below) and a moderation in the pace of euro area growth this year have also contributed to a decline in bond yields in northern Europe.

The cost of borrowing US dollars unsecured at short terms remains elevated relative to policy rate expectations (as indicated by Overnight Index Swaps (OIS)), but this spread has decreased in recent months (Graph 1.15). Some funding pressures have subsided; in the second quarter the US Treasury reduced its net issuance of Treasury bills from the high levels earlier this year, although issuance is expected to pick up again later in the year. However, other pressures persist, partly related to ongoing shifts in the size and composition of the cash and securities portfolios of US corporations in response to changes to US tax laws, and the gradual reduction in the size

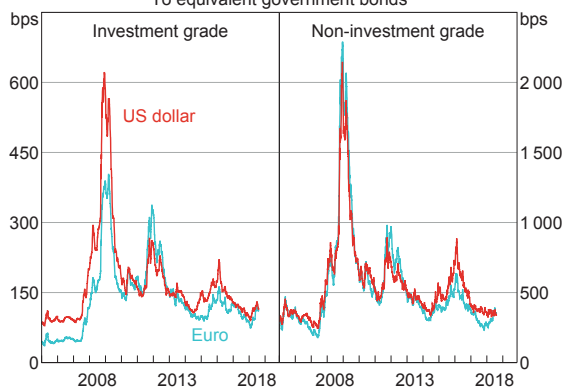


of the Federal Reserve's balance sheet. Money market conditions in other jurisdictions have been little changed recently, with the exception of Australian dollar markets (see 'Domestic Financial Conditions' chapter).

A positive earnings environment for corporations continues to underpin equity prices and low spreads on corporate bonds (Graph 1.16). In the United States, share prices have also been supported by recent changes to corporate tax laws and increased merger and acquisition activity. Current market pricing suggests only a modest impact of trade-related uncertainty on corporate profitability in the advanced



**Graph 1.16**  
**Corporate Bond Spreads**  
 To equivalent government bonds



Source: ICE Data is used with permission

economies. Increased debt issuance to fund merger and acquisition activity by large, highly rated firms has contributed to a modest widening in investment grade corporate bond spreads this year, but corporate borrowing costs remain low.

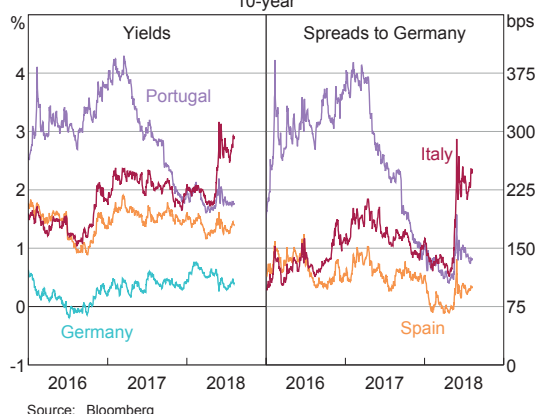
While financial conditions in advanced economies remain supportive of growth, a number of risks could see them become less stimulatory. These include an escalation in trade tensions between the United States and its key trading partners, an increase in Italian sovereign risk premia and higher-than-expected US inflation, which could prompt market participants to price a faster withdrawal of monetary policy accommodation by the US Federal Reserve (see 'Economic Outlook' chapter).

## Developments in Italy have been a focus of financial markets

In Italy, concerns related to fiscal policy and spillovers to the domestic financial system have increased after a populist coalition government took office in late May. The new administration has proposed a program of tax cuts and spending increases which, if enacted, could substantially widen Italy's budget deficit. Concerns over the sustainability of Italy's already large government debt burden and the possibility of a sovereign

credit rating downgrade have contributed to a material increase in the spread between Italian government bonds and German Bunds (Graph 1.17). This has weighed on equity and bond prices of Italian banks, which have significant holdings of Italian government bonds. While broader spillovers across the euro area have so far been limited, Italian sovereign bond spreads are likely to remain elevated and volatile over coming months as markets await further details on the Italian Government's budget plans.

**Graph 1.17**  
**Euro Area Government Bonds**  
 10-year



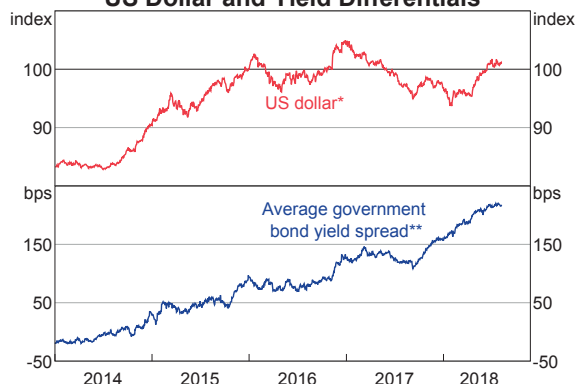
Source: Bloomberg

## The US dollar has appreciated against most currencies

The US dollar has appreciated against a broad range of currencies in recent months, and is about 4 per cent higher than it was at the beginning of the year on a trade-weighted basis (Graph 1.18). The appreciation of the US dollar against the currencies of advanced economies has occurred in the context of relatively firmer prospects for US economic growth and inflation, and commensurately higher short-term interest rate differentials. A moderation in euro area growth and political developments in Italy have also contributed to a modest depreciation of the euro against the US dollar this year.

**Graph 1.18**

**US Dollar and Yield Differentials**



\* Trade-weighted exchange rate; 31 December 2015 = 100  
 \*\* Average 2 year government bond yield spread between the United States and selected countries, using US TWI weights  
 Sources: Bloomberg; RBA

**Financial conditions have tightened in some emerging markets**

Emerging market asset prices have generally declined and currencies have depreciated against the US dollar since earlier this year as a number of emerging market economies have experienced sizeable capital outflows (Graph 1.19). The shift in market sentiment has occurred against a backdrop of more difficult external conditions for some emerging markets, exacerbated by domestic policy settings in some cases. For oil-importing economies, higher oil prices have contributed to a widening in current account deficits.

The shift in market conditions has been most pronounced for a few economies with significant financial, economic, political and/or institutional vulnerabilities – notably Argentina, Brazil, Turkey and Pakistan (Graph 1.20):

- In Argentina, market concerns have centred on fiscal sustainability, central bank independence and high levels of foreign currency-denominated debt. In June, the Argentine authorities negotiated a sizeable financial assistance package with the International

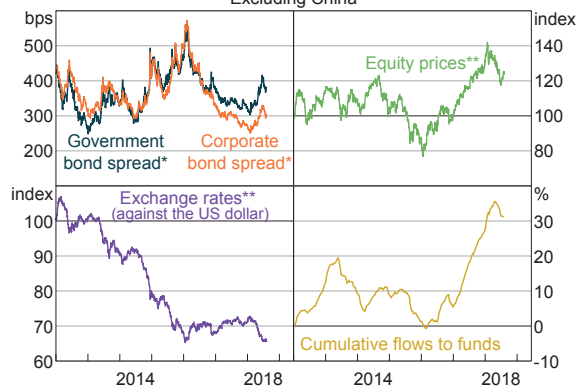
Monetary Fund. In response to financial market pressures, the Argentine central bank has substantially increased interest rates, raised bank reserve requirements and intervened in the foreign exchange market.

- In Brazil, concerns over the government’s ability to reduce the fiscal deficit, labour strikes and uncertainty around the upcoming elections in October have put downward pressure on asset prices. The central bank has intervened in recent months in response to the depreciation of the real.
- In Turkey, the lira has depreciated and bond prices have fallen sharply. This reflects concerns over central bank independence, accelerating inflationary pressures, widening current account and fiscal deficits and political tensions with the United States.
- In Pakistan, the central bank devalued the exchange rate in July for the fourth time since December 2017. The central bank has sold around 10 per cent of its foreign currency reserves since April, following a sharp widening of the current account and fiscal deficits.

**Graph 1.19**

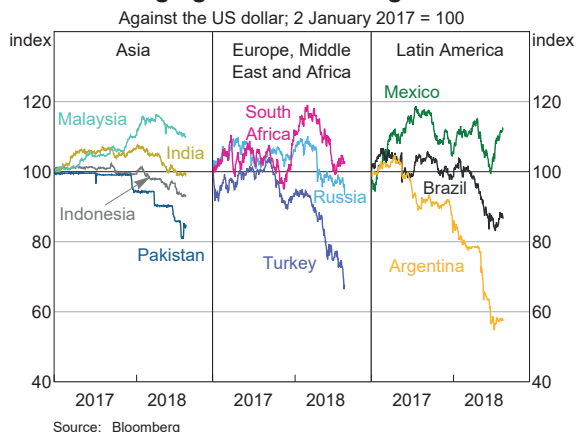
**Emerging Financial Markets**

Excluding China



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

**Graph 1.20**  
**Emerging Market Exchange Rates**



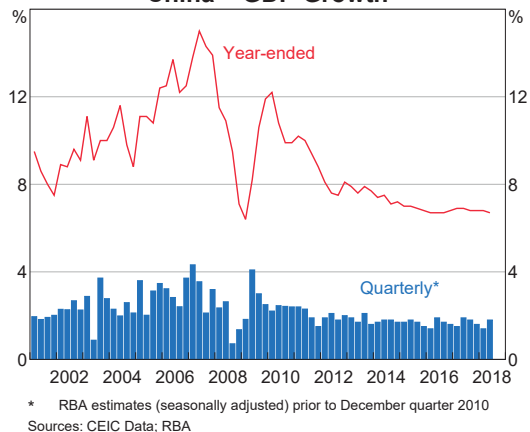
By contrast, other emerging markets in Asia have generally been more resilient to the tightening in external financing conditions this year (see 'Box A: Financial Market Resilience of Emerging Asia'). Nevertheless, the region is exposed to an escalation in international trade tensions or a more general slowing in global growth.

### Chinese growth has eased a little

In China, real GDP growth has eased a little in year-ended terms since last year, consistent with a steady tightening of financial conditions (Graph 1.21). Conditions in the industrial sector have been subdued, with industrial output flat or falling across numerous industries. Crude steel production remains elevated, however, which has continued to support Australian exports of bulk commodities in recent months (see 'Box B: An Update on China's Steel Sector'). Growth in services sector activity remains relatively strong, which the authorities have attributed to rapid growth in the information technology, software and business service industries.

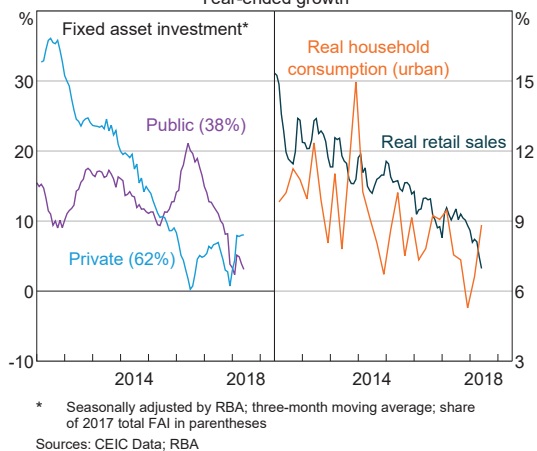
Real investment grew modestly in the June quarter. Growth in measured private fixed asset investment has continued to strengthen, reflecting increased capital spending by the

**Graph 1.21**  
**China – GDP Growth**



manufacturing sector. In contrast, growth in public investment has eased further, in line with the authorities' efforts to control growth in local government debt and reduce financial risks (Graph 1.22). Real consumption growth strengthened in the quarter, supported by growth in consumption of services. Growth in retail sales of consumer goods has fallen over the past year; the weakness has been apparent across a broad range of product categories, including cars. In June, the Chinese Government announced details of planned

**Graph 1.22**  
**China – Activity Indicators**  
Year-ended growth



personal income tax cuts (as well as new tax deductions for education, medical treatment and rent) to support household disposable income and consumption.

Conditions in Chinese property markets remain strong overall (Graph 1.23). Housing prices have increased rapidly across the country. Property sales have increased recently, partly absorbing existing inventory, which has been flat or falling in many cities. Measured residential investment growth has remained robust in recent months, mainly reflecting growth in the value of land purchases. While actual construction work has declined recently, advance sales of apartments (off-the-plan) have picked up strongly, which could support construction activity (and thus demand for steel) in the second half of the year.

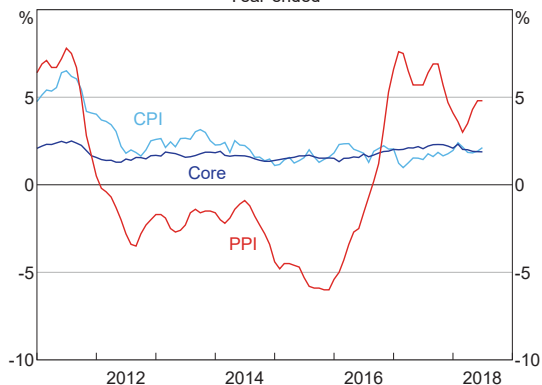
**Graph 1.23**  
**China – Residential Property Indicators**  
Year-ended growth



Sources: CEIC Data; RBA

In year-ended terms, both headline and core inflation have been little changed in recent months. After moderating noticeably over the past year, producer price inflation (PPI) has risen because of sharp increases in manufacturing, mining and raw material prices (Graph 1.24).

**Graph 1.24**  
**China – Inflation\***  
Year-ended



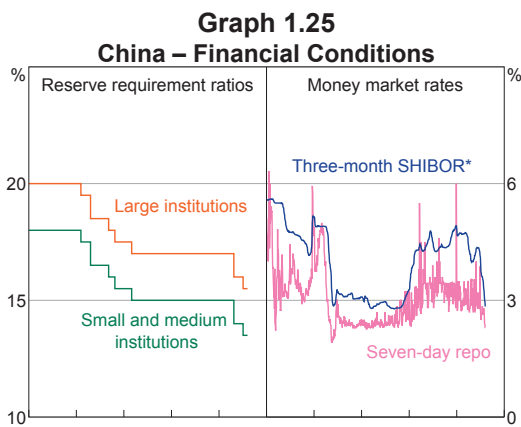
\* Seasonally adjusted by RBA  
Sources: CEIC Data; RBA

## Chinese authorities are taking measures to avoid a material slowing in growth ...

In response to weaker growth in parts of the economy and concerns about escalating trade tensions, the Chinese authorities have announced measures to avoid a material slowing in growth. The central authorities have moved to ease fiscal policy in a targeted fashion. In July, the government issued guidelines on urban transport planning to support public infrastructure investment; by ensuring investment is concentrated in locations with the capacity to meet new expenditure from budget revenues, the central authorities are also seeking to improve the sustainability of local government debt. In addition, the government announced measures to increase the scope of tax deductions for research and development spending, to progress projects in transport, gas and telecommunications industries with significant private sector involvement, and to expedite bond sales to help local governments fast track infrastructure investment projects.

The People's Bank of China (PBC) has also taken actions to ensure liquidity conditions remain

ample, which has helped guide money market rates to their lowest levels since late 2016 (Graph 1.25). In particular, the PBC reduced banks' reserve requirement ratios for the second time this year in July. In the associated guidance, the authorities indicated that they preferred the resulting release of funds to be used by small banks for loans to small and micro-sized enterprises and by large banks for debt for equity swaps. The PBC also injected liquidity through its medium-term lending facility and issued guidance to banks to ease financing conditions for small businesses.



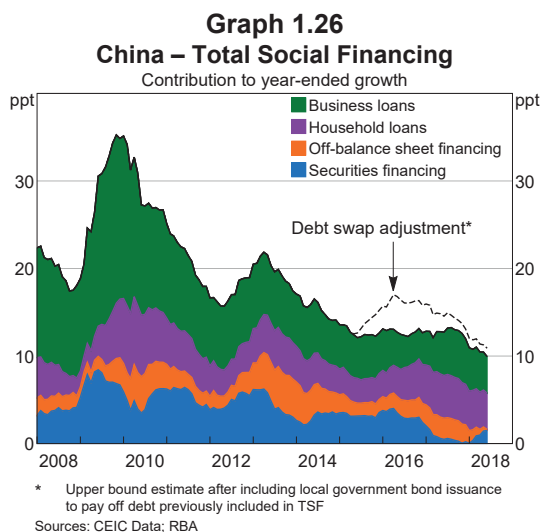
\* SHIBOR is an average of the rate at which large banks say they will lend unsecured funds to other banks  
Source: CEIC Data

### ... while responding to financial stability risks

The Chinese authorities have continued to enact measures to contain the build-up of financial risks. These measures have focused on: improving the transparency of the financial system; tightening regulations on risky forms of lending such as 'shadow banking' activity; and improving the risk and liquidity management practices of financial institutions.

The tightening of regulations has contributed to a broad tightening of financial conditions (particularly outside traditional bank lending)

over the past couple of years. This has been evident in the slowing in the growth of total social financing (Graph 1.26). Growth in bank lending remains relatively strong, but has eased a little since the start of 2018. Growth in mortgage lending to households has declined this year in response to further steps taken by the authorities to control property purchases. Growth in overall business lending has also eased somewhat.

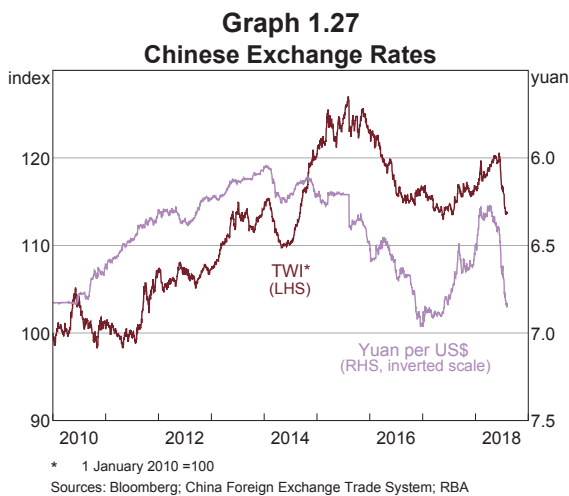


\* Upper bound estimate after including local government bond issuance to pay off debt previously included in TSF  
Sources: CEIC Data; RBA

Over the same period, a decline in shadow banking activity has been partly offset by a modest pick-up in the growth of securities financing (particularly corporate bond financing), which had been weak for most of 2017. An uptick in corporate bond defaults (albeit from very low levels) and a reduction in credit intermediated through shadow banks have contributed to an increase in corporate borrowing costs, particularly for lower-rated borrowers. Chinese equity prices have declined sharply in recent months, reflecting some uncertainty over growth in China against the background of tighter (non-bank) credit conditions and rising trade tensions with the United States.

## The Chinese currency has depreciated

The Chinese renminbi has depreciated in recent months, after appreciating earlier in the year. The depreciation has been larger against the US dollar than on a trade-weighted basis, reflecting the broad-based appreciation of the US dollar (Graph 1.27). Rising trade tensions with the United States, the moderation in economic growth and signs of monetary policy easing in China are also likely to have contributed.

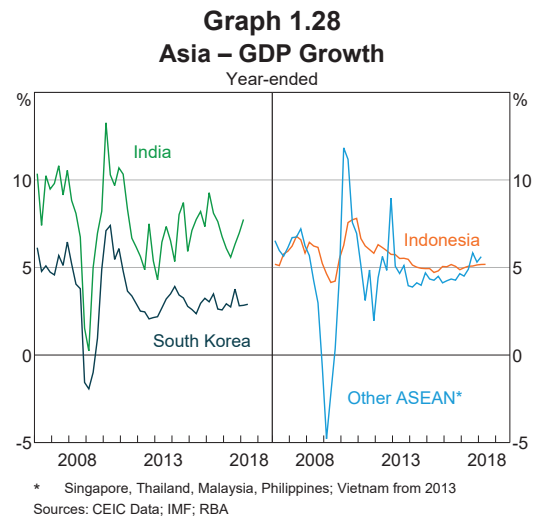


There is little evidence to date of a notable pick-up in private capital outflows from China and China's foreign currency reserves have been little changed. This is in contrast to 2015 and 2016, when there was heightened uncertainty about Chinese economic growth, large private capital outflows and reserves declined by close to US\$1 trillion.<sup>1</sup> However, on occasion the renminbi fix has been set at a rate that may have slowed the pace of depreciation. The authorities have also reintroduced a reserve requirement for banks (which was removed in 2017) that will make it more expensive to sell renminbi in the forward market.

<sup>1</sup> McCowage M (2018), 'Trends in China's Capital Account', RBA *Bulletin*, June, viewed 16 July 2018. Available at <<https://www.rba.gov.au/publications/bulletin/2018/jun/trends-in-chinas-capital-account.html>>.

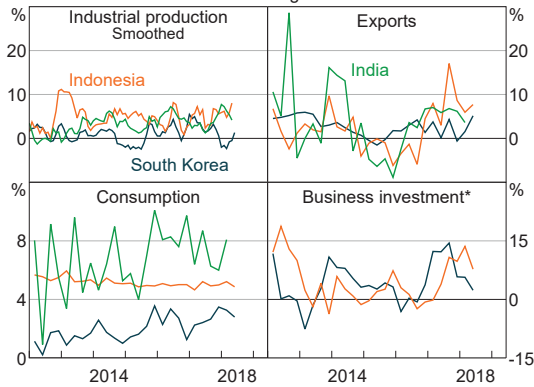
## Growth in the rest of Asia remains strong

Growth elsewhere in Asia (excluding China and Japan) remains strong, after picking up over the past two years. Indian GDP grew strongly in the March quarter to be 7.7 per cent higher over the year (Graph 1.28). GDP growth in year-ended terms has been steady in Korea and Indonesia this year, but has slowed a little in Singapore and Vietnam.



Stronger domestic final demand has been driving GDP growth in the region recently, whereas external demand had been a more important driver of growth over 2017 in some economies. Consumption has contributed significantly to growth across the region and is likely to continue to do so given the above-average level of consumer confidence. Growth in government and private consumption has been particularly rapid in India over the past year (Graph 1.29). Business investment growth has been strong in Indonesia. It had also been strong in Korea over the past two years, boosted by the pick-up in external demand for electronics, but slowed in the June quarter as the build-up of capacity in the electronics sector appears to be nearing its completion. A recovery

**Graph 1.29**  
**Asia – Economic Indicators**  
Year-ended growth



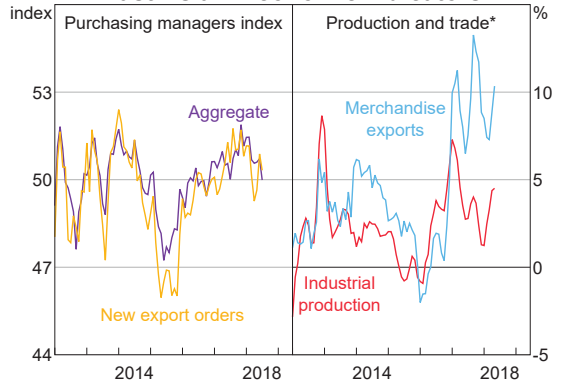
\* June quarter 2018 estimate for South Korea; total investment minus construction investment for Indonesia  
Sources: CEIC Data; RBA

in tourism from China has supported growth in Korea in recent quarters. Employment growth slowed in Korea following the 16 per cent increase in the minimum wage in January that is estimated to have affected wage conditions of about one-quarter of the labour force.

The region's export growth remains relatively strong and survey measures of new export orders have rebounded in recent months (Graph 1.30). While the United States is a major destination for the region's exports, the direct effect on the region of higher US import tariffs has been limited for now because the tariff measures have been focused on China. However, exports to China are a major share of the region's trade and some are used in the production of Chinese exports, which will be affected by the higher US import tariffs (Graph 1.31). A reduction in Chinese exports is likely to result in lower demand for the region's exports and subtract somewhat from its GDP growth.

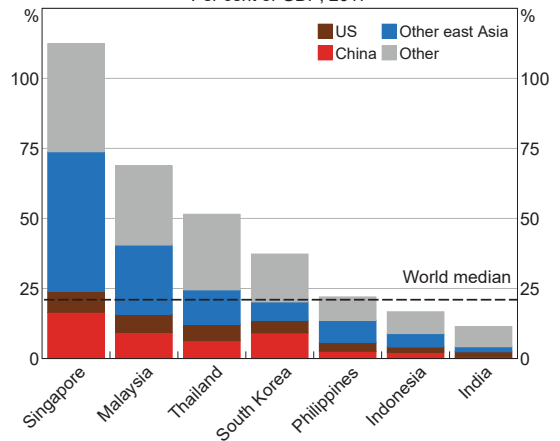
Industrial production growth has picked up in most of the region after the sharp fall in late 2017 and electronics production generally remains strong. Surveyed business conditions have eased this year to be around average.

**Graph 1.30**  
**East Asia – Economic Indicators**



\* Smoothed year-ended growth  
Sources: CEIC Data; RBA

**Graph 1.31**  
**Merchandise Export Values by Destination**  
Per cent of GDP, 2017

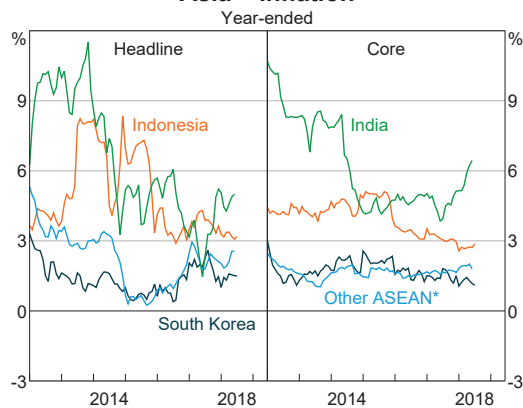


Sources: IMF; RBA; United Nations

Inflation remains generally subdued in the region (Graph 1.32). However, inflation is still above the Reserve Bank of India's medium-term inflation target of 4 per cent. Inflation has increased in the Philippines, as a result of strong demand-side pressures and higher food prices following an increase in excise taxes. Monetary policies remain generally accommodative, although some central banks have raised policy rates in recent months.



**Graph 1.32**  
**Asia – Inflation**



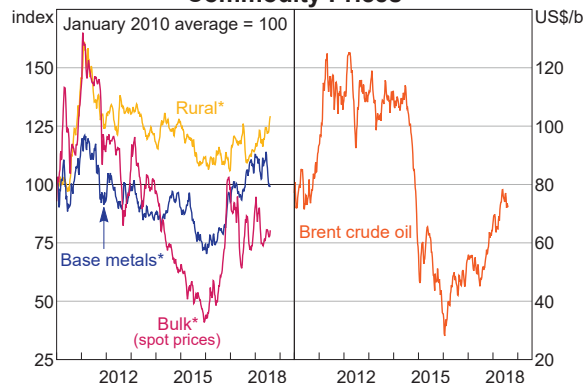
\* Singapore, Thailand, Malaysia, Philippines; core inflation excludes Vietnam until 2015

Sources: CEIC Data; IMF; RBA

## Commodity prices have been mixed in recent months

Developments in global commodity prices have been mixed since the previous *Statement* (Table 1.1; Graph 1.33). Base metal prices are lower following concerns about the outlook for global industrial production in light of trade developments. Meanwhile, bulk commodities and rural prices are higher (nominal wool prices remain at historically high levels), while oil prices are little changed.

**Graph 1.33**  
**Commodity Prices**



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

Sources: Bloomberg; RBA

The spot price of thermal coal has risen significantly, boosted by strong demand from Asia (partly due to warmer than usual weather), as well as a range of supply issues in some of the largest exporting economies (Graph 1.34). A benchmark price for the 2018 Japanese fiscal year contract has reportedly now been agreed at US\$110 per tonne; settling this benchmark took longer than usual, in part because spot prices were increasing while negotiations were underway. The coking coal spot price has increased since the previous *Statement*,

**Table 1.1: Commodity Price Changes<sup>(a)</sup>**  
SDR, per cent

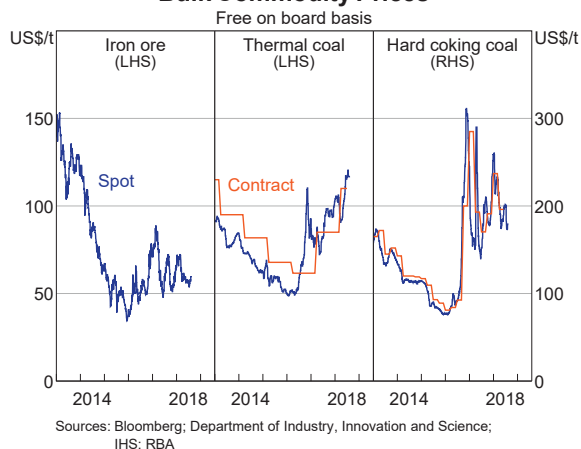
	Since previous <i>Statement</i>	Over the past year
Bulk commodities	7	-6
– Iron ore	3	-14
– Coking coal	5	-10
– Thermal coal	21	24
Rural	8	14
Base metals	-9	-4
Gold	-5	-3
Brent crude oil <sup>(b)</sup>	-2	38
RBA ICP	0	6
– Using spot prices for bulk commodities	4	3

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

(b) In US dollars

Sources: Bloomberg; IHS; RBA

**Graph 1.34**  
**Bulk Commodity Prices**



Australian export prices are expected to remain around their recent levels in the near term, before gradually declining over the coming years as Chinese demand for bulk commodities moderates and further low-cost global supply comes on line. Consequently, the terms of trade are expected to remain around recent levels for a few quarters before declining, but to remain above their trough in early 2016 (as discussed in the 'Economic Outlook' chapter). ✎

while the June quarter contract price was set at around 20 per cent lower than the March quarter benchmark; more than half of Australia's coking coal exports are estimated to be sold on contract. Nevertheless, both the spot and contract prices remain around the high levels that have prevailed over the past two years.

The spot price of iron ore has traded in a relatively narrow range owing to broadly offsetting forces. Increased demand associated with higher Chinese crude steel production appears to have been largely balanced by rising seaborne supply from Australia and Brazil. Demand from steel producers – particularly in China – for higher quality inputs in order to support more efficient production has contributed to an elevated discount for the price of lower quality iron ore products. Around 40 per cent of Australia's iron ore exports are estimated to be of lower grade ore and subject to discounts.

Oil prices are little changed since the previous *Statement* and remain at a high level. Prices have been supported by the strength in global demand and supply disruptions in several countries, although uncertainty around global trade policy has weighed on prices.

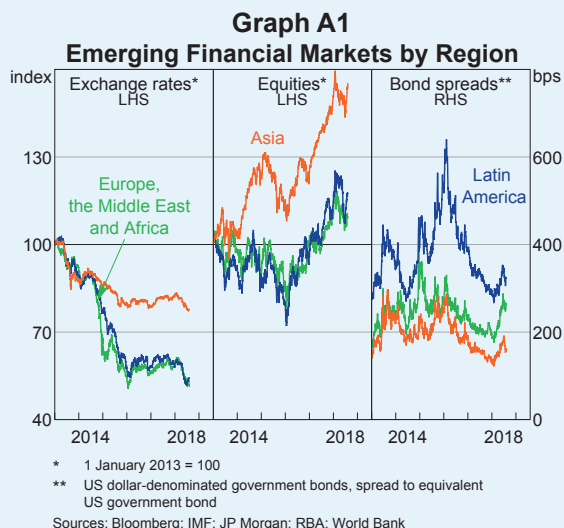
## Box A

# Financial Market Resilience of Emerging Asia

Since earlier this year, most emerging market economies have experienced tighter financial conditions. In this context, this box takes stock of recent financial market and economic developments in several economies in south and south-east Asia – namely India, Indonesia, Malaysia, Thailand and the Philippines (hereafter ‘emerging Asia’).<sup>1</sup> Together, these economies account for around 12 per cent of Australia’s exports, comparable to Japan’s share. These are also the financial markets in emerging Asia in which international investors are most active.

While most emerging markets have experienced asset price declines, exchange rate depreciations (relative to the US dollar) and outflows of foreign capital of late (Graph A1), these developments have tended to be more pronounced in economies with significant economic, financial or institutional vulnerabilities (see ‘The International Environment’ chapter). Compared with other regions, emerging Asian economies have generally been less affected by the tightening in external financing conditions.

In part, the more modest effect of the tighter external financing environment on emerging Asian economies reflects efforts by policymakers to build more resilient institutions, economies



and financial systems in the two decades since the Asian financial crisis. While an in-depth analysis of resiliency is beyond the scope of this box, several key indicators have been a particular focus of financial markets:<sup>2</sup>

- Economic growth in these economies has been faster and more stable than growth in emerging economies in other regions in recent years (Graph A2). This partly reflects the region’s stronger economic links to China and robust domestic demand compared with other emerging market economies. Also, in these emerging Asian economies it has generally been the case that inflation has remained low, real exchange rates have been broadly consistent with economic

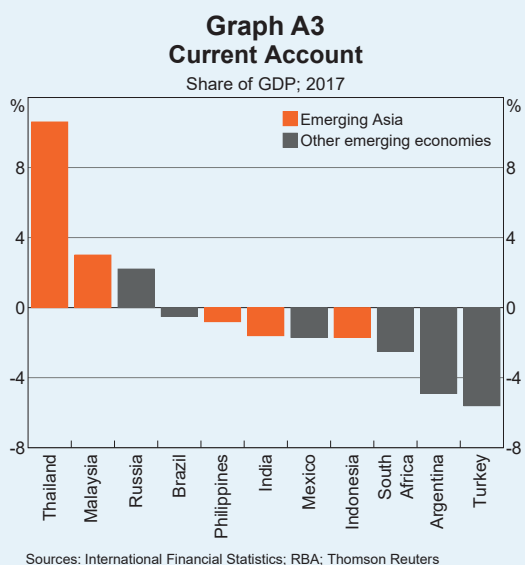
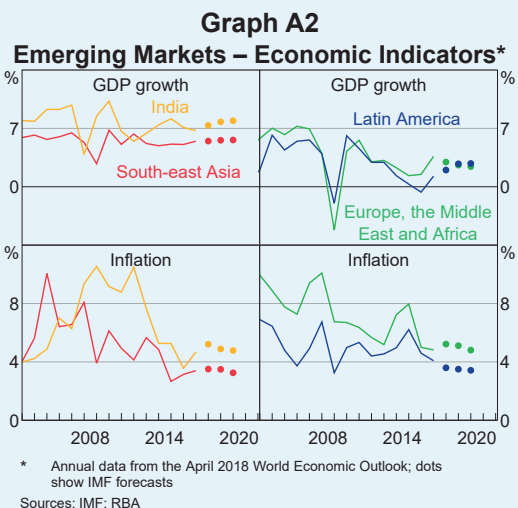
1 China is excluded from this analysis, given its large size (which warrants separate analysis) and limited capital account openness relative to most other economies in the region. The Chinese financial system and capital account have been the subject of several related articles, such as Bowman J, M Hack, and M Waring (2018), ‘Non-Bank Financing in China’, *RBA Bulletin*, March, viewed 16 July 2018. Available at <<https://www.rba.gov.au/publications/bulletin/2018/mar/non-bank-financing-in-china.html>>. McCowage M (2018), ‘Trends in China’s Capital Account’, *RBA Bulletin*, June, viewed 16 July 2018. Available at <<https://www.rba.gov.au/publications/bulletin/2018/jun/trends-in-chinas-capital-account.html>>.

2 There is a large literature that attempts to identify indicators of vulnerability to external shocks. For simplicity, we have chosen to focus on a handful of key metrics. We also acknowledge the difficulty associated with identifying thresholds for these indicators above or below which countries become vulnerable to crises.

fundamentals and monetary policy has generally remained accommodative.<sup>3</sup> Moreover, with generally modest levels of public debt, fiscal policy in emerging Asia has been regarded as having scope to respond to growth shocks, should they materialise.

- Economies in emerging Asia run either current account surpluses (that is, they save more than they invest) or modest deficits (Graph A3). Accordingly, they are less reliant on net inflows of foreign capital, which can reverse sharply during times of market stress. Since the start of the year, the currencies of emerging economies with large current account deficits, such as Argentina and Turkey, have generally depreciated the most.
- Measures of the adequacy of foreign exchange reserves are generally higher for emerging Asia than for other key emerging market economies (Graph A4). Foreign exchange reserves enable authorities to intervene in foreign exchange markets to support market functioning or moderate the pace of exchange rate depreciation during periods of stress. Moreover, since the early 2000s, emerging Asian economies have generally moved towards more flexible exchange rate regimes. This can facilitate economic rebalancing in the event of external shocks, thereby reducing the need to maintain large foreign exchange reserves. The authorities have also encouraged the development of financial instruments to manage exchange rate risk.
- The amount of short- and long-term debt (sovereign and private) held by foreign investors, relative to the size of the overall economy, is generally lower in emerging Asia than in other emerging economies (Graph A5). Malaysia is the

<sup>3</sup> For details on the consistency of real exchange rate valuations with fundamentals see International Monetary Fund (2018), 'External Sector Report', July.

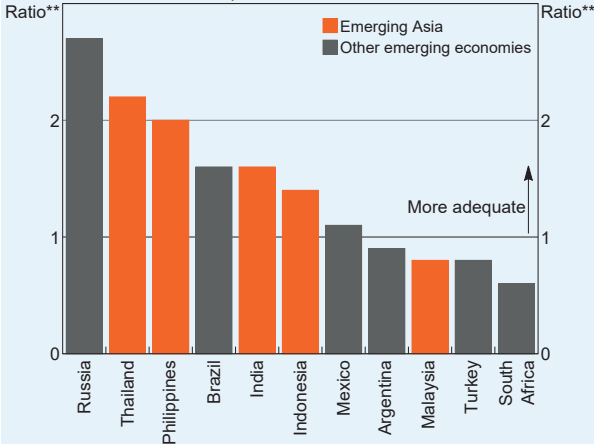


main exception.<sup>4</sup> Importantly, the portion of debt denominated in foreign currencies also tends to be lower in emerging Asia than elsewhere. Such debt, if unhedged, can be problematic because the burden of foreign currency-denominated debt becomes larger in local currency terms when the local currency depreciates.

<sup>4</sup> Roughly one-third of Malaysia's external debt is denominated in local currency and around half has a medium-term maturity, which helps to reduce foreign exchange rate and rollover risks. Most of Malaysia's short-term foreign currency debt has been issued by the banking sector, a sizeable portion of which is hedged by short-term foreign currency assets.

**Graph A4**  
**Foreign Exchange Reserve Adequacy**

Composite measure\*; 2017



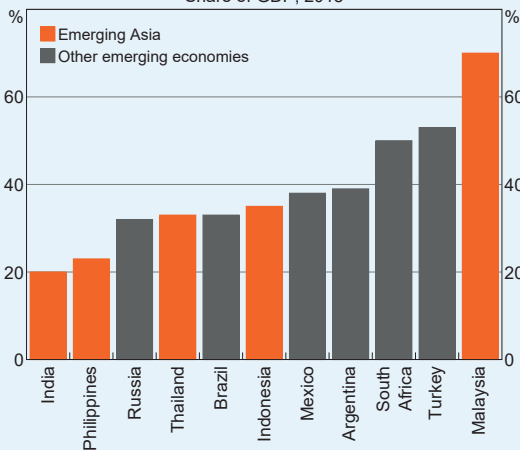
\* The composite measure assesses the adequacy of reserves relative to the potential for them to be used for imports, servicing external debt and accommodating resident capital flight. It also accounts for exchange rate regime.

\*\* A ratio less than 1 is considered inadequate by the IMF.

Source: IMF

**Graph A5**  
**External Debt**

Share of GDP, 2018



Source: World Bank

The policy response in emerging Asia to capital outflows this year has varied. Bank Indonesia has increased its policy rate by 100 basis points (despite inflation remaining around the midpoint of its target band) and intervened in the foreign exchange market to limit volatility. At the same time, Bank Indonesia has purchased domestic government bonds and eased macroprudential policy to limit the tightening in broader credit conditions from higher policy rates. The central banks in India and the Philippines increased policy rates, but have stated that this was mostly to address rising inflationary pressures at a time of strong domestic demand. Also, the Reserve Bank of India may have intervened in the foreign exchange market.<sup>5</sup> However, policymakers in other regional economies have generally accommodated the depreciation of exchange rates and declines in financial asset prices to date, as have those in the more industrialised economies of north-east Asia.

While emerging Asian economies have held up relatively well this year in the face of tighter external financing conditions, other types of external shocks may be more problematic. Reflecting the region's strong economic and financial linkages to China, a significant increase in trade protectionism and/or a sharp slowdown in Chinese economic growth represent downside risks to regional economic growth that bear close monitoring in the period ahead. ↘

<sup>5</sup> As a significant net importer of oil, India's external and fiscal positions are somewhat tied to oil prices.

## Box B

# An Update on China's Steel Sector

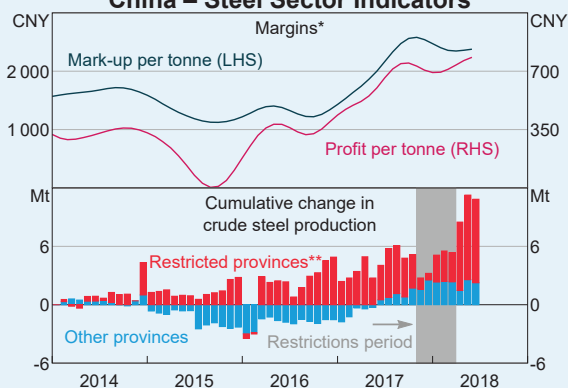
Growth in Chinese crude steel production has picked up strongly in recent quarters. Robust growth in steel output partly reflects the fact that it is currently highly profitable to produce steel; this is because demand has been elevated, many smaller, low-quality producers have exited the market and raw material costs have not increased as much as steel prices. Continued strength of China's steel sector is important because steel production underpins Chinese demand for Australian exports of iron ore and coking coal.

A range of supply- and demand-side factors are currently supporting Chinese steel prices and therefore producers' margins (Graph B1). On the supply side, government efforts in 2016 and 2017 to consolidate the sector and close many small, highly polluting firms resulted in the number of steel firms in China halving since 2015. Some unprofitable firms exited the market, while others were merged and firms using illegal, highly polluting induction furnaces were forced to close.<sup>1</sup> Crude steel output also eased in late 2017 due to environmental policies that restricted production in 28 cities during China's winter months. Production has since rebounded following the expiry of most of the more stringent restrictions in mid March.

Continued strong demand for steel is helping to support prices and margins. Steel sales have grown rapidly over the past year. This growth has been concentrated in sales of long products (such as steel rods and bars to reinforce concrete), which indicates that much of the recent demand

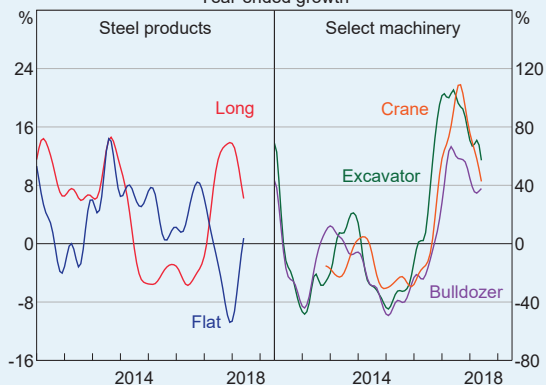
is for construction (Graph B2). Consistent with this, sales of machinery typically involved in residential and infrastructure-related construction activity, such as excavators, bulldozers and cranes, have recorded rapid growth. By contrast, sales of flat steel products, such as hot- and cold-rolled sheets

**Graph B1**  
China – Steel Sector Indicators



\* 'Mark-up per tonne' refers to average steel prices less weighted average input costs; 'profit per tonne' refers to reported profits divided by output of steel products; smoothed using a Henderson trend  
\*\* Provinces imposing output restrictions during Chinese winter 2017/18  
Sources: Bloomberg; CEIC Data; RBA

**Graph B2**  
China – Industrial Sales\*  
Year-ended growth



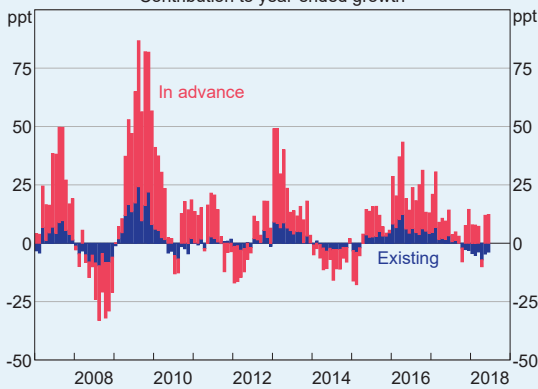
\* Smoothed using a Henderson trend  
Sources: CEIC Data; RBA

1 The transfer of production from illegal mills (whose output is not measured in official statistics) to larger manufacturers (whose output is measured) means that the reported increase in output in 2018 to date may be somewhat overstated.

or strips that are commonly used in manufacturing (including car production), have been more subdued over the past year.

Forward-looking indicators point to a relatively positive outlook for residential construction activity, suggesting that demand for steel should remain strong. In particular, residential property sales volumes have trended higher in recent months, mainly reflecting advance ('off-the-plan') sales of apartments – that is, sales for which there is a commitment to complete construction in the future (Graph B3). Inventories of apartments have declined across much of the country and in some places are now quite low, which should also support future construction.

**Graph B3**  
China – Residential Floor Space Sold\*  
Contribution to year-ended growth



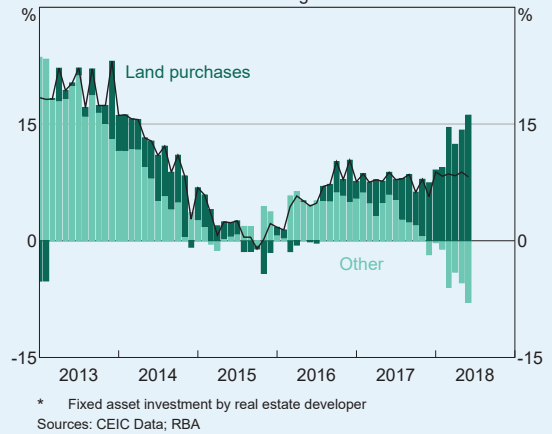
\* Seasonally adjusted by RBA  
Sources: CEIC Data; RBA

While steel production is expected to remain high, it is likely to moderate gradually over time from current levels, reflecting structural factors such as slowing urbanisation and falling population growth.<sup>2</sup> In the near term, there are risks to this projection in both directions. On the downside, growth in investment undertaken by real estate developers in the year to date has been entirely driven by land purchases,

2 For further details on long-run factors affecting Chinese steel demand, see RBA (2017), 'Box A: The Chinese Steel Market and Demand for Bulk Commodities', *Statement on Monetary Policy*, November, pp 15–17.

which implies that actual construction work is declining (Graph B4). Growth in infrastructure investment (parts of which are very steel intensive) has also fallen recently because the central government has increased oversight of local government finances and scrapped public-private partnership projects that were violating limits on state involvement. The contrast between the strength in crude steel output and the recent weakness in investment in these steel-intensive sectors has surprised some market commentators. The weakness in these sectors could lead to steel demand being weaker than expected.

**Graph B4**  
China – Real Estate Fixed Asset Investment\*  
Year-ended growth



\* Fixed asset investment by real estate developer  
Sources: CEIC Data; RBA

On the upside, however, strong growth in land purchases may instead signify a desire by developers to replenish land stocks in advance of future building work. Moreover, in response to the weakness in infrastructure investment, the government has made several recent policy announcements that signal its willingness to support major transport and energy infrastructure projects. The forward-looking indicators noted above also suggest that construction activity could rebound in coming months. These factors are likely to continue to support Chinese steel demand, and imports of bulk commodities, in the second half of 2018. ↗



## 2. Domestic Economic Conditions

Overall conditions in the domestic economy remain positive, supported by continued strength in the global economy and low interest rates. GDP growth has picked up over the past year. This has been associated with an improvement in the labour market, though the unemployment rate has declined only a little over the past year.

### Growth in economic activity has picked up

Real GDP increased by 1.0 per cent in the March quarter and the economy expanded by

3.1 per cent over the year (Table 2.1). Domestic final demand grew by 3.2 per cent over the year (Graph 2.1). The strength in year-ended GDP growth was driven by growth in exports, non-mining business investment and public demand. Consumption growth was modest in the March quarter but remained steady in year-ended terms. Mining investment continued to fall. Output of the farm sector fell by 15 per cent over the year; non-farm GDP increased by 3.6 per cent.

**Table 2.1: Demand and Output Growth**  
Per cent

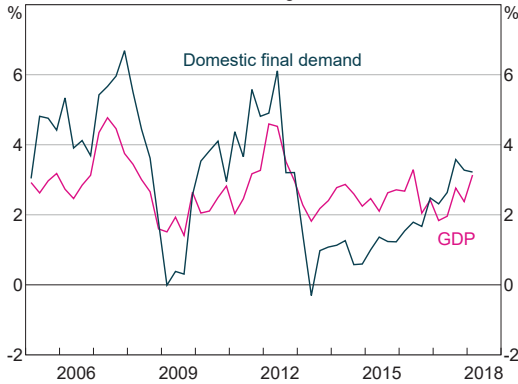
	March quarter 2018	December quarter 2017	Year to March quarter 2018
GDP	1.0	0.5	3.1
Domestic final demand	0.6	0.8	3.2
– Consumption	0.3	1.0	2.9
– Dwelling investment	0.9	–0.1	–1.0
– Mining investment <sup>(a)</sup>	–6.0	–8.3	–16.4
– Non-mining investment <sup>(a)</sup>	1.8	2.3	10.0
– Public consumption	1.6	2.2	5.1
– Public investment	1.2	–1.8	7.5
Change in inventories <sup>(b)</sup>	0.2	0.2	–0.1
Exports	2.4	–1.5	4.6
Imports	0.5	1.6	4.7
Mining activity <sup>(a)</sup>	2.5	2.3	6.7
Non-mining activity <sup>(a)</sup>	0.8	0.3	2.7
Farm GDP	–1.9	–1.8	–14.9
Non-farm GDP	1.1	0.6	3.6
Nominal GDP	2.2	0.9	3.9
Terms of trade	3.3	0.4	–2.6

(a) RBA estimates

(b) Contribution to GDP growth

Sources: ABS; RBA

**Graph 2.1**  
**Domestic Activity**  
Year-ended growth

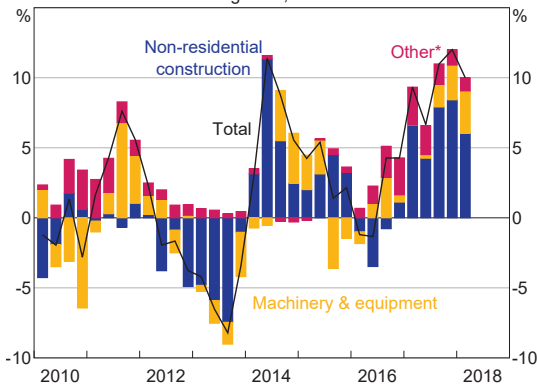


Source: ABS

## Non-mining business investment has been growing, led by building construction

Private non-mining business investment increased by 10 per cent over the year to the March quarter (Graph 2.2). The main contributor to this growth was non-residential construction activity, which includes private sector spending on both non-residential building and infrastructure-related projects. The increase in non-residential building investment over the year

**Graph 2.2**  
**Private Non-mining Business Investment**  
Year-ended growth, RBA estimates



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

Sources: ABS; RBA

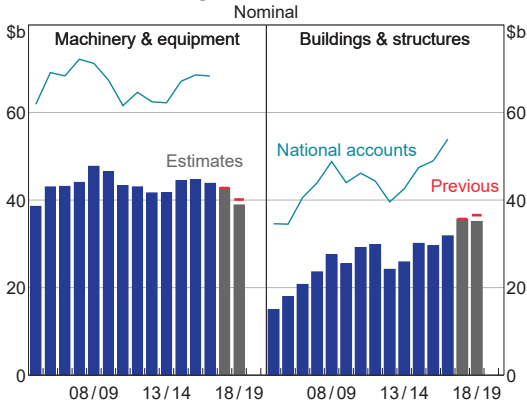
was led by work on offices; this is consistent with strong tenant demand in Sydney and Melbourne, and has occurred against a backdrop of relatively little new supply being added in recent years. Construction of hotels and aged care facilities has also contributed to growth. Private spending on infrastructure has picked up over the past year or so, led by investment in electricity projects (including renewable energy), and is occurring on top of strong public sector expenditure on infrastructure.

A range of indicators suggests non-mining business investment will continue to expand, albeit at a more moderate pace than over the past year. Non-residential building approvals have declined in trend terms from their peak in mid 2017, and investment intentions for buildings and structures reported by non-mining firms were downgraded in the most recent Australian Bureau of Statistics' (ABS) capital expenditure (Capex) survey (Graph 2.3). Respondents currently expect growth in both buildings & structures and machinery & equipment investment to be relatively subdued over the next year or so. However, the Capex survey excludes some industries and some types of investment, such as investment in software, which liaison suggests has been a focus for many firms recently.<sup>1</sup>

Moreover, the outlook for non-mining business investment continues to be underpinned by positive demand and financial conditions. Survey measures of overall business conditions remain at high levels, and measures of capacity utilisation and expected investment have increased over the past year, particularly in the goods-related sector (Graph 2.4). Corporate profit growth in the non-mining sector has risen over the past year, which should support firms' ability to finance new investments, and financial conditions remain

<sup>1</sup> The Capex survey does not cover certain industries, including agriculture, health and education, and does not cover certain types of investment, such as software and research & development.

**Graph 2.3**  
**Non-mining Capital Expenditure\***

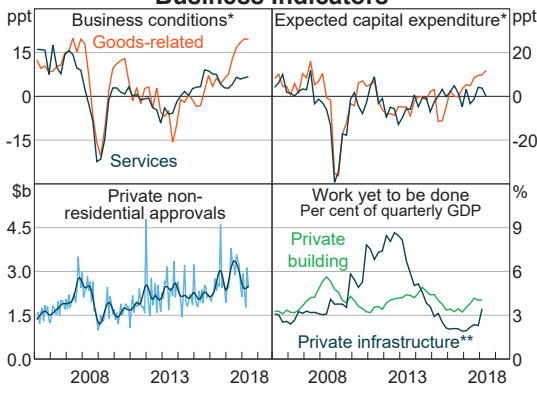


\* Estimates are firms' expected capital expenditure, adjusted for past average differences between expected and realised spending

Sources: ABS; RBA

**Graph 2.4**

**Business Indicators**



\* Non-mining; NAB survey; net balance, deviation from long-run average

\*\* Excludes resources and other heavy industry

Sources: ABS; NAB; RBA

accommodative more broadly (see 'Domestic Financial Conditions' chapter). Underlying demand remains supportive of non-residential building activity: information from the Bank's liaison program suggests that tenant demand for new office space is expected to remain strong and improved conditions in the tourism sector have been positive for plans to construct hotels. Consistent with this, the stock of private building work yet to be done has increased over the past year, particularly for offices and tourism-related building. The pipeline of private

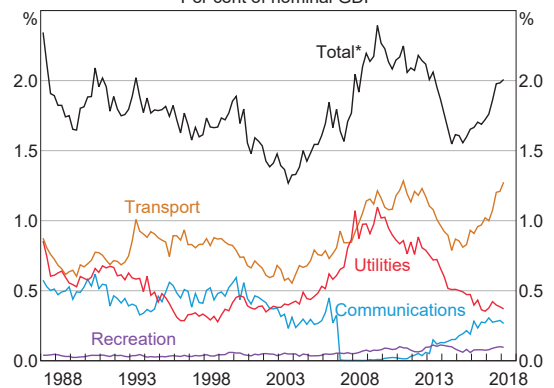
infrastructure investment has also increased, led by road projects.

**Public infrastructure spending is also supporting growth**

Public investment in infrastructure remains high as a share of GDP (Graph 2.5); in real terms, public infrastructure investment has risen by 7.5 per cent over the year. In particular, work done on transport projects has increased significantly over the past few years and the pipeline of work to be completed remains large. The recent federal budget announced an additional \$25 billion in infrastructure projects, mostly in road and rail. Liaison with private sector firms has indicated that spillovers from public infrastructure projects have supported demand for business services, particularly in New South Wales and Victoria.

**Graph 2.5**

**Public Infrastructure Engineering Work Done**  
Per cent of nominal GDP



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

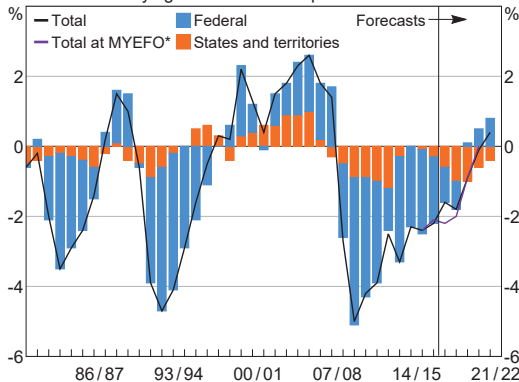
Sources: ABS; RBA

Public consumption grew by 5.1 per cent over the year. Public consumption covers a range of services provided to the community, such as education, health and defence. Recent growth has been supported by spending on the National Disability Insurance Scheme and pharmaceutical benefits. Public demand, which includes both consumption and investment,

increased by 5.6 per cent over the year to the March quarter and contributed 1.3 percentage points to GDP growth. Meanwhile, government transfer payments to households grew modestly over the past year. These payments include unemployment and family benefits and the aged pension, and account for a significant share of gross government expenditure; they are counted as household income rather than public consumption or investment in the national accounts.

Overall, the consolidated underlying cash deficit of the federal and state governments is projected to have been smaller in 2017/18 than previously expected, largely due to stronger projected revenues at both the state and federal levels (Graph 2.6).

**Graph 2.6**  
**Consolidated Government Deficit**  
Underlying cash balance as per cent of GDP

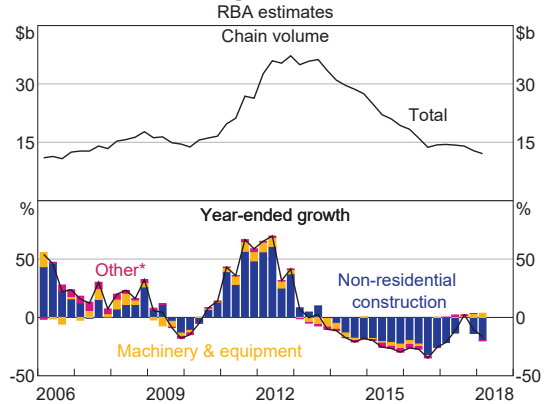


\* 2017/18 Mid-year Economic and Fiscal Outlook  
Sources: ABS; Australian Treasury; RBA; State and territory budgets

## The decline in mining investment has almost run its course

Mining investment fell further in the March quarter, as construction work on the remaining liquefied natural gas (LNG) facilities continued to approach completion (Graph 2.7). Information from the Capex survey and the Bank's liaison program continues to suggest that mining

**Graph 2.7**  
**Mining Investment**  
RBA estimates



\* Includes mineral exploration, computer software and research & development  
Sources: ABS; RBA

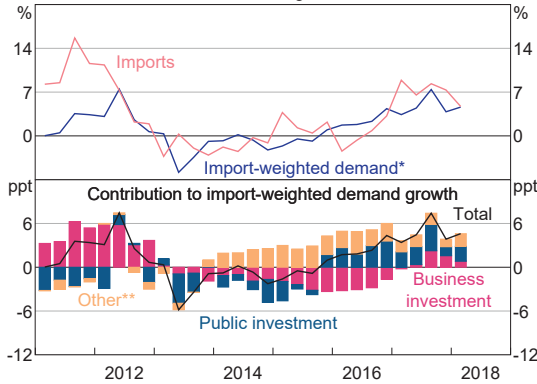
investment will decline further beyond the June quarter, but that the largest subtractions from GDP growth have already occurred. Further out, mining investment is expected to stabilise and then gradually increase as firms invest to sustain production.<sup>2</sup> Liaison with firms also suggests there has been a pick-up in mineral exploration activity over the past year, although this remains below levels seen earlier in the decade.

## Stronger investment is boosting imports

Growth in import volumes has picked up over the past year or so, in line with the strength in private non-mining business investment and public investment, which are relatively more import-intensive components of expenditure (Graph 2.8). Consistent with this, while growth in imports has been broadly based across all major subcomponents over this period, a key driver has been capital imports, such as machinery and industrial equipment.

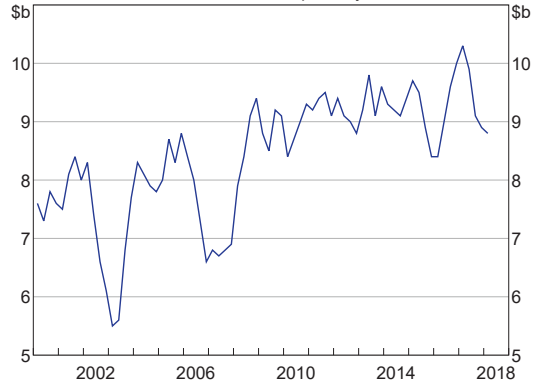
2 See Jenner K, A Walker, C Close and T Saunders (2018), 'Mining Investment Beyond the Boom', *RBA Bulletin*, March, viewed 7 August 2018. Available at <<https://www.rba.gov.au/publications/bulletin/2018/mar/mining-investment-beyond-the-boom.html>>.

**Graph 2.8**  
**Imports and Demand**  
Year-ended growth



\* Constructed by weighting each component of demand by its relative import-intensity, as derived from ABS input-output tables  
 \*\* Includes total consumption and exports  
 Sources: ABS; RBA

**Graph 2.9**  
**Farm GDP**  
Chain volume, quarterly



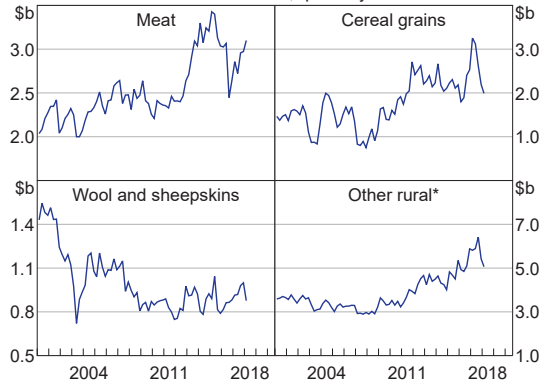
Sources: ABS; RBA

## Unfavourable weather conditions have weighed on the rural sector

Over the year to the March quarter 2018, farm GDP and rural exports both declined by around 15 per cent (Graph 2.9 and Graph 2.10). A large part of this decline reflects a return to lower levels following a record winter crop harvest in 2016/17. However, recent below-average rainfall across eastern and southern Australia has also adversely affected conditions over the first half of 2018.

Rural exports declined by around 5 per cent in the March quarter, led by declines in exports of cereal grains (in part because of delays in harvesting due to weather conditions) and other rural goods. Meat exports increased as producers responded to the dry conditions by increasing slaughter rates. Preliminary data for the June quarter suggest rural export volumes increased. While this partly reflects responses to drier conditions (such as further herd de-stocking), rural exports are also being supported by strong global demand for agricultural commodities. However, the persistence of drought conditions (in terms of

**Graph 2.10**  
**Rural Exports**  
Chain volume, quarterly



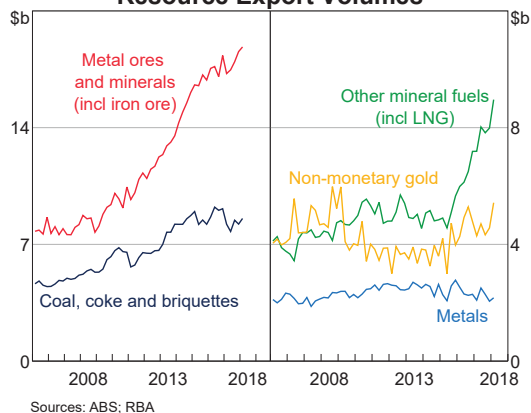
\* Includes horticulture and dairy exports  
 Sources: ABS; RBA

rainfall deficiencies) in recent months in several states is likely to affect rural output adversely in the period ahead.

## Non-rural exports have been growing strongly

Total export volumes increased strongly in the March quarter, driven by resource exports (Graph 2.11). The increase in LNG exports was particularly large as recently completed projects in Western Australia ramped up production. Non-monetary gold exports also increased strongly;

**Graph 2.11**  
**Resource Export Volumes**

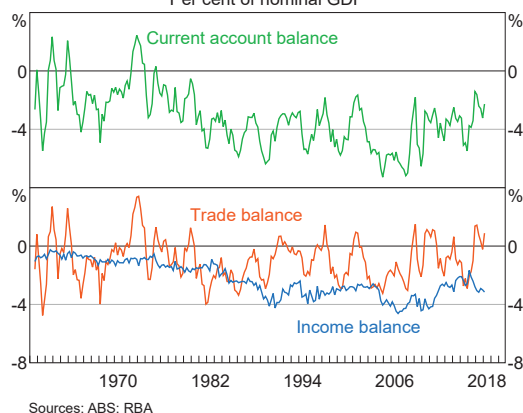


however, this component is volatile from quarter to quarter. Coal export volumes rebounded in the quarter as earlier supply disruptions were largely resolved.

Resource exports have contributed significantly to GDP growth over recent years as additional productive capacity has come online. Further increases in exports are expected over the next year as the two remaining LNG projects are completed and production ramps up. Iron ore volumes are expected to increase a little further over the next few years, driven by productivity improvements from Australia's major producers. Other resource commodities are also expected to contribute modestly to GDP growth over the coming year as new projects are completed and existing mines increase production (see 'Box C: Outlook for Non-ferrous Metal Exports').

The strength in resource export volumes, alongside increases in bulk commodity prices, has seen the trade balance move into surplus and the current account deficit narrow (Graph 2.12). The net income deficit widened modestly in the March quarter, consistent with a pick-up in revenues in the largely foreign-owned mining sector (particularly as LNG export volumes have ramped up).

**Graph 2.12**  
**Current Account Balance**  
Per cent of nominal GDP

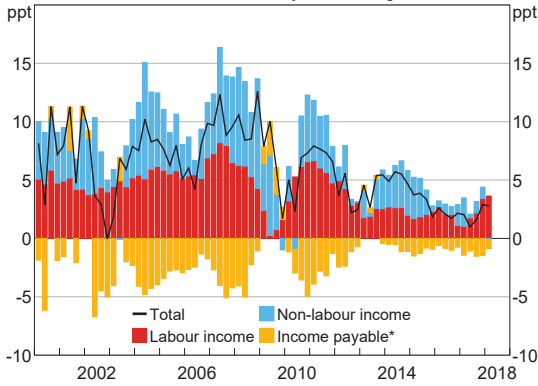


Non-resource export volumes have been little changed over the past year, as higher services and manufactured exports have offset lower rural export volumes. Service and manufactured export growth has been supported by the continued economic expansion in Australia's major trading partners.

### Growth in household disposable income has picked up ...

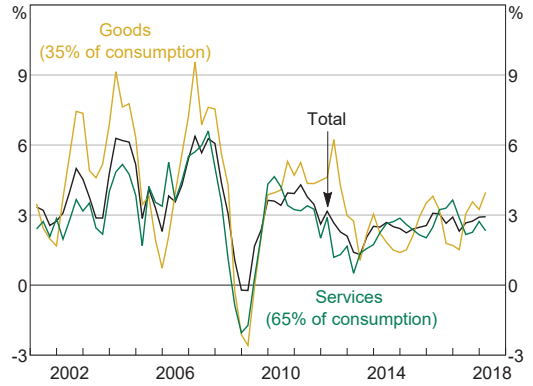
Growth in nominal household disposable income has picked up in recent quarters. Over the year to the March quarter, income rose by 2.8 per cent, although it remains below its 20-year average of around 6 per cent (Graph 2.13). Most of the increase in household income growth over the year was due to stronger growth in compensation of employees, reflecting the pick-up in the total number of hours worked, as well as a recovery in average earnings per hour worked (see 'Inflation' chapter). Other sources of household income were flat over the year.

**Graph 2.13**  
**Household Disposable Income**  
 Contribution to nominal year-ended growth



\* Includes tax and interest payments  
 Sources: ABS; RBA

**Graph 2.14**  
**Real Household Consumption Growth**  
 Year-ended



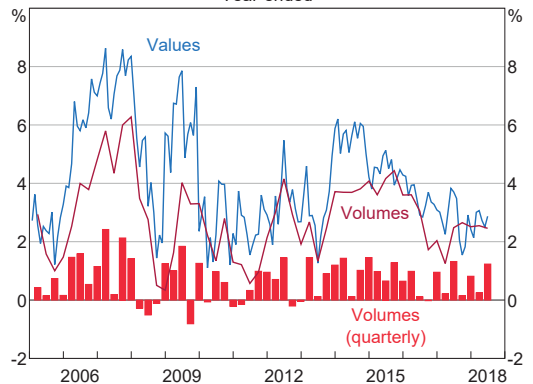
Sources: ABS; RBA

## ... and growth in household spending has been maintained

Household consumption growth has been a bit more volatile from quarter to quarter over the past year than usual but has been fairly stable in year-ended terms at around 3 per cent (Graph 2.14). Growth in the March quarter was just 0.3 per cent but this weakness was narrowly based in consumption of recreation and cultural services and expenditure at hotels, cafes & restaurants. In recent releases of the national accounts, there have been some large upward revisions to the recent history for these categories due to changes in the measurement of overseas travel services. Meanwhile, growth in goods consumption increased over the year, supported by expenditure on clothing, furnishing and recreational goods.

Early indicators for the June quarter point to ongoing year-ended consumption growth of around 3 per cent. Retail sales volumes grew by 1.2 per cent in the June quarter, suggesting further solid growth in goods consumption, although motor vehicle sales to households declined by 5 per cent (Graph 2.15). Measures of consumer sentiment continued to increase

**Graph 2.15**  
**Retail Sales Growth**  
 Year-ended



Sources: ABS; RBA

in June and July, and are above average. Households' sentiment towards their own finances, which tends to be more correlated with consumption growth, is little changed and remains around its long-run average. Liaison with retailers suggests that underlying trading conditions have remained stable in recent months.

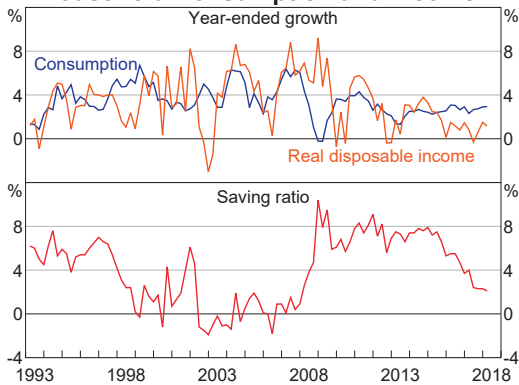
## Household spending remains a source of uncertainty for the growth outlook

The prospect of continued low growth in household income remains a risk to the outlook



for household consumption, especially given high levels of household debt. In recent years, consumption growth has been relatively resilient and has generally exceeded income growth, which has been associated with a decline in the rate of household saving (Graph 2.16). But consumption and income growth have been more in line of late, largely as a result of the modest pick-up in income growth, and the household saving ratio has been more stable.

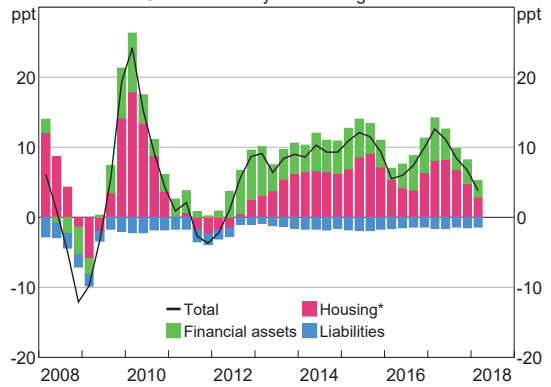
**Graph 2.16**  
**Household Consumption and Income\***



\* Disposable income is after tax and interest payments; saving ratio is net of depreciation  
Sources: ABS; RBA

As discussed in the ‘Domestic Financial Conditions’ chapter, growth in household credit, particularly for investor housing, has slowed in recent months. Accordingly, the ratio of household debt to income is estimated to have been stable in the June quarter but remains high following several years of growth. At the same time, growth in household net wealth has eased along with housing prices (Graph 2.17). However, this follows several years of strong growth; households’ net wealth has increased by an average annual rate of 6.8 per cent since 2012.

**Graph 2.17**  
**Household Net Wealth**  
Contribution to year-ended growth



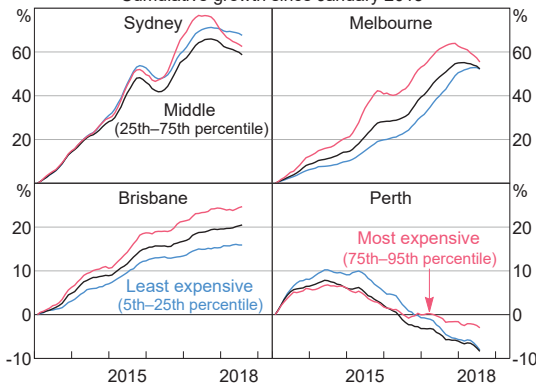
\* Includes durable goods  
Sources: ABS; RBA

### Conditions in the established housing market remain subdued

In most capital cities, conditions in established housing markets eased further in the first half of 2018. National housing prices declined by 2½ per cent over the year to July, driven by developments in Sydney and Melbourne. The rate of price declines has steadily increased in Melbourne over recent months; however, price declines in Sydney remain smaller than in late 2017. Housing prices in Sydney have declined by around 5½ per cent from their July 2017 peak, while in Melbourne, prices are around 3 per cent lower than their November 2017 peak. In general, prices for more expensive properties in Sydney and Melbourne have fallen the most, though prices have declined in the middle market segment recently (Graph 2.18). Other housing market indicators, such as auction clearance rates, have also eased in both cities, and turnover declined in the first half of the year. Detached house prices in Brisbane have been little changed of late, while housing prices in Perth have continued to decline gradually (Graph 2.19). In contrast, housing prices in Hobart have grown strongly to be 12 per cent higher over the year to July.

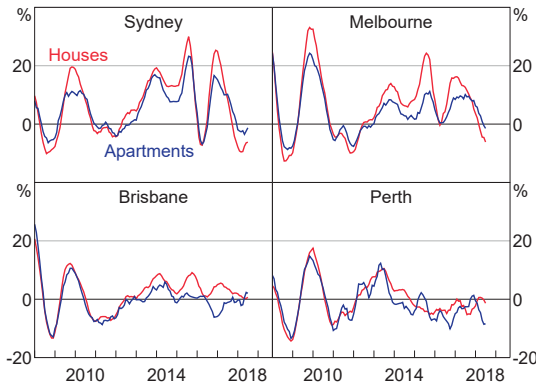


**Graph 2.18**  
**Housing Prices by Dwelling Value**  
 Cumulative growth since January 2013



Sources: CoreLogic; RBA

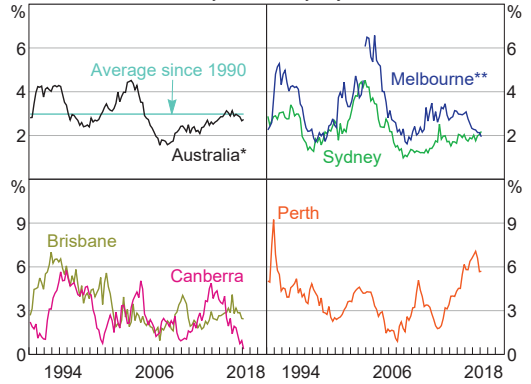
**Graph 2.19**  
**Housing Price Growth by Dwelling Type**  
 Six-month-ended annualised



Sources: CoreLogic; RBA

In the rental market, the significant increase in the supply of new dwellings completed and available for rent in the east coast capital cities over recent years has been absorbed by strong population growth. In Melbourne and Canberra, demand has outstripped supply and vacancy rates have declined (Graph 2.20). In Perth, the vacancy rate has declined from the peak levels seen in 2017, but remains high. Rent inflation remains low in most cities (see 'Inflation' chapter).

**Graph 2.20**  
**Rental Vacancy Rates**  
 Quarterly, seasonally adjusted



\* Capital cities excluding Adelaide, Darwin and Hobart

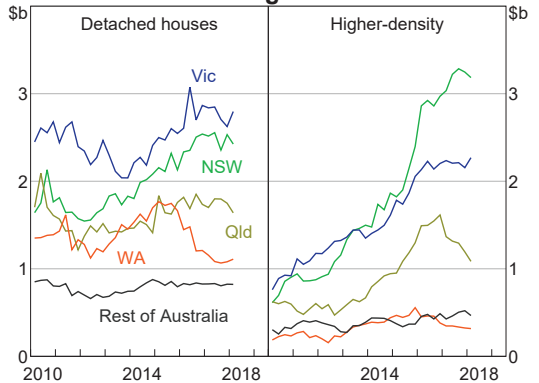
\*\* Series break December quarter 2002

Sources: RBA; REIA; REIV

## New dwelling investment is expected to remain steady at a high level

New dwelling investment has risen to high levels in recent years, supported by strong population growth and encouraged by higher housing prices. The construction of higher-density housing in the eastern states has driven much of this upswing in activity, while the pick-up in the construction of detached houses has been more modest (Graph 2.21). Alterations and additions, which make up around one-third of dwelling

**Graph 2.21**  
**Real Dwelling Investment**

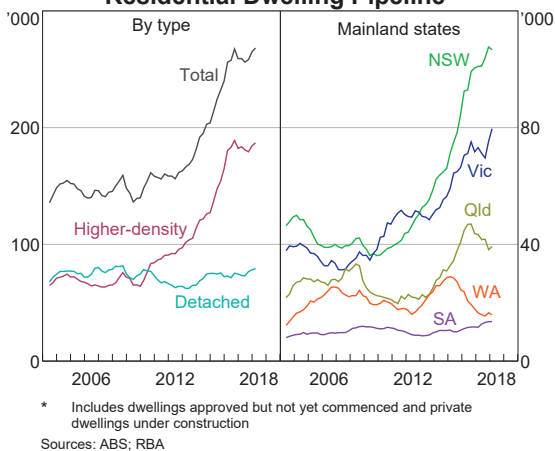


Source: ABS

investment, have contributed relatively little to growth during the latest cycle.

Liaison with developers in the major east coast cities indicate that sales of off-the-plan apartments have declined over the past year, driven by weaker demand from domestic investors and foreign buyers. Demand for new detached housing is also reported to have eased a little in recent months but remains high, supported by strong population growth. Building approvals have declined a little from their peak, consistent with the reported easing of demand. Construction activity is nevertheless expected to remain at a high level for some time yet as a result of the large pipeline of work yet to be done, especially in New South Wales and Victoria (Graph 2.22). In Sydney, liaison contacts report that the higher-density residential construction sector remains around capacity, limiting the pace at which the pipeline can be worked through.

**Graph 2.22**  
Residential Dwelling Pipeline\*

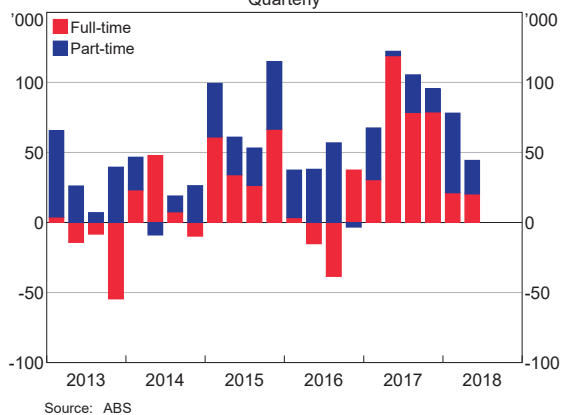


## Employment growth remains above population growth, but has moderated

Employment grew at an annualised pace of around 2 per cent over the first half of 2018. This is above growth in the working-age population

and follows very strong employment growth of around 3½ per cent over 2017. Most of the increase in employment in 2018 to date has been in part-time employment (Graph 2.23). As such, the part-time share of employment is around its record high. However, average hours worked have been steady in trend terms over the past few years because part-time workers have worked more hours per week on average.

**Graph 2.23**  
Change in Employment  
Quarterly



The household-based Labour Force Survey suggests that employment growth over the year to May was strongest in the health care & social assistance and construction industries. Indeed, over 2017, these two large industries are estimated to have contributed over one-half of the employment growth in the economy. This is consistent with continued growth in the demand for carers of the elderly and disabled, while employment in the construction industry has been supported by the high levels of residential and infrastructure building activity underway.<sup>3</sup> Employment growth also appears to have picked up in business services over the past year,

<sup>3</sup> The ABS recently released the first issue of the quarterly Australian Labour Accounts. The Labour Accounts dataset is believed to be a better indicator of industry labour market trends because it is constructed from a range of sources, including business surveys. However, these data are currently only available up to the September quarter 2017.

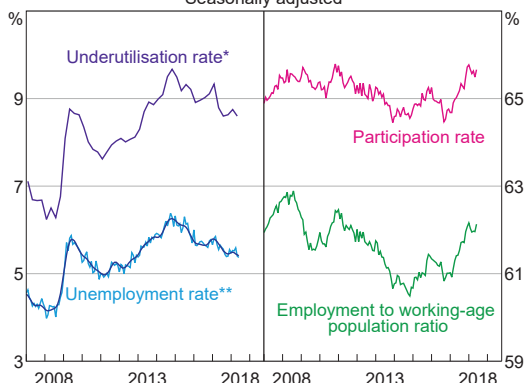
particularly within the professional, scientific & technical services industry.

## The unemployment rate has declined a little ...

In trend terms, the unemployment rate is 5.4 per cent and has declined a little over the past year (Graph 2.24). The unemployment rate remains a bit less than ½ percentage point above conventional estimates of full employment in Australia, indicating that there is still spare capacity in the labour market. A broader measure of labour market underutilisation – which captures the additional hours that underemployed people would like to work as well as hours sought by the unemployed – has also remained fairly stable over the past year at a level consistent with there being some spare capacity remaining. The trend unemployment rates in New South Wales and Victoria are the lowest across Australia, consistent with the stronger economic activity in these states. Meanwhile, the trend unemployment rate remains elevated in Western Australia and Queensland.

A number of other indicators suggests that labour market conditions have continued

**Graph 2.24**  
**Labour Market**  
Seasonally adjusted



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

to improve. Households appear to be more confident about their employment prospects, as the share of employed persons expecting to voluntarily leave their current employer has trended higher over the past year, while the share expecting to leave because their employer is closing/downsizing has continued to trend lower (Graph 2.25). The trend unemployment rate of younger workers (aged between 15 and 24 years), who make up a large share of spare capacity in the labour market, appears to have declined sharply over the first half of the year.<sup>4</sup> More broadly, short- and medium-term unemployment (those unemployed for less than one year) has also declined a little as a share of the labour force, although there has been little reduction in the share of the labour force that has been unemployed for more than a year.

**Graph 2.25**  
**Unemployment and Labour Market Turnover**  
Trend



\* Share of employment  
Sources: ABS; RBA

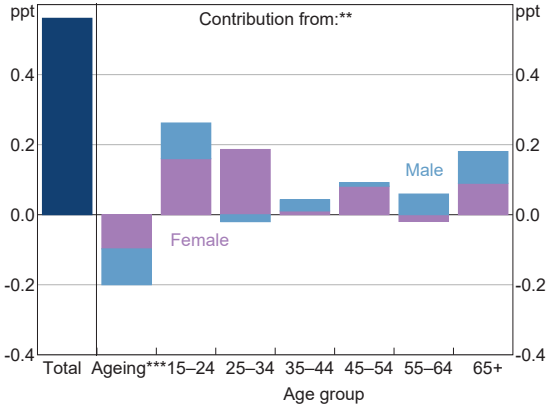
## ... while the participation rate is around record highs

The strong employment growth over recent times has been accompanied by an increase in labour force participation, which has meant that

<sup>4</sup> See Dhillon Z and N Cassidy (2018), 'Labour Market Outcomes for Younger People', RBA Bulletin, June, viewed 7 August 2018. Available at <<https://www.rba.gov.au/publications/bulletin/2018/jun/labour-market-outcomes-for-younger-people.html>>.

the unemployment rate has been little changed. The labour force participation rate is currently around 65½ per cent, which is close to its historical high. The increase in the participation rate over the year reflects the fact that as economic conditions improved and employment grew strongly, more people chose to enter the labour force or deferred retiring (Graph 2.26).<sup>5</sup> As tends to be the case, the participation of younger people, 25–54 year-old females and older males has been relatively responsive to changes in economic conditions over the past year. Alongside these cyclical responses, there has also been a longer-run upward trend in the participation rate for females and older workers.

**Graph 2.26**  
**Change in Participation Rate\***  
 Year to June 2018



\* Seasonally adjusted by the RBA  
 \*\* Contributions do not sum to total due to interaction effect  
 \*\*\* Contribution from the change in the population age structure  
 Sources: ABS; RBA

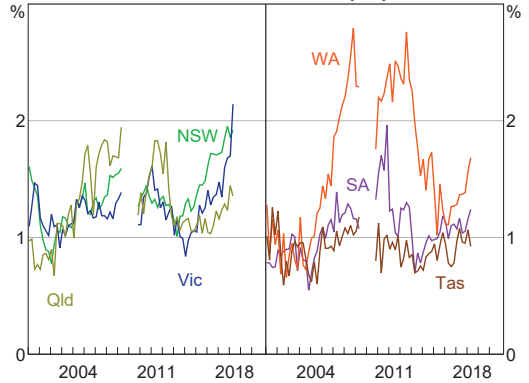
### Leading indicators of labour market conditions remain positive

Overall, the range of labour demand indicators points to above-average growth in labour demand over the remainder of this year. In particular, business surveys suggest hiring intentions remain well above average, while

job vacancies have risen to a record high level relative to the size of the labour force. Over the past year, there has been particularly strong growth in job vacancies within the business services sector, namely in the administrative & support services and professional, scientific & technical services industries. Consistent with the steady increase in mining industry vacancies, there has been a more recent pick-up in job vacancies in Western Australia, while job vacancies remain at a high level as a share of the labour force in Victoria and New South Wales (Graph 2.27).

In addition, information from the Bank’s liaison program provides evidence of continued labour shortages in some parts of the economy such as construction and information technology. These are most acute in the eastern states, partly reflecting the combination of strong residential, commercial and public infrastructure construction activity. ↕

**Graph 2.27**  
**Job Vacancy Rates by State\***  
 Share of labour force, seasonally adjusted



\* Survey was suspended between May 2008 and November 2009  
 Sources: ABS; RBA

<sup>5</sup> See RBA (2018), 'Box B: The Recent Increase in Labour Force Participation', *Statement on Monetary Policy*, May, pp 33–34.

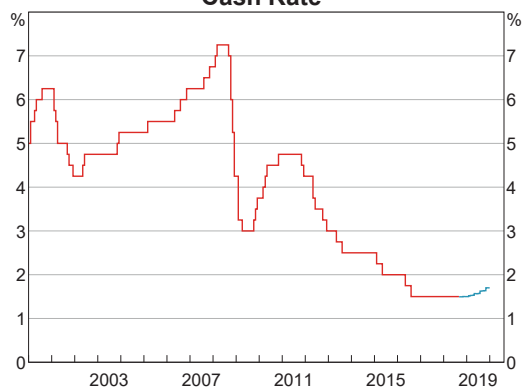
# 3. Domestic Financial Conditions

While domestic financial conditions remain expansionary, interest rates in a range of short-term money markets are higher than they were three months ago. The increase in money market rates since the beginning of the year has flowed through to a small increase in funding costs for banks. This has been reflected in higher interest rates on loans to many large businesses, and a number of small- and medium-sized banks have raised their mortgage interest rates. However, the average outstanding rate on housing loans has declined through much of the past year. Overall borrowing rates remain low for both households and businesses. Growth in housing credit has eased, most notably for credit extended to investors. Growth in business debt has picked up a little since the beginning of the year. The Australian dollar remains within its narrow range of the past couple of years. Financial market prices suggest that the cash rate is expected to remain unchanged this year.

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

The Reserve Bank has maintained the cash rate target at 1.5 per cent since August 2016. Financial market prices imply that the cash rate is expected to remain unchanged this year and increase to 1.75 per cent around the end of next year (Graph 3.1).

**Graph 3.1**  
**Cash Rate\***

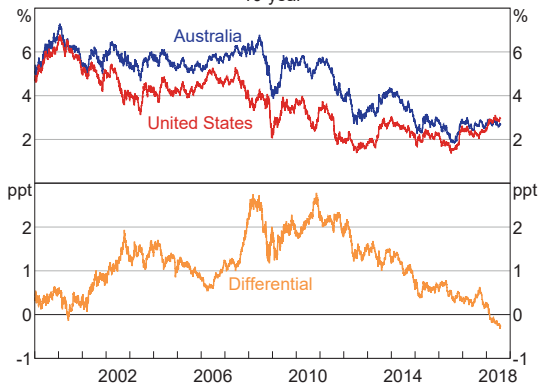


\* Data from September 2018 onwards are expectations derived from interbank cash rate futures  
Sources: ASX; Bloomberg

## Government bond yields have been little changed

Yields on 10-year Australian Government Securities (AGS) have moved lower to around 2.65 per cent, to be little changed since the start of the year. The yield on 10-year AGS is around 30 basis points below the yield of 10-year US Treasury securities (Graph 3.2). Issuance from the Australian Government and state borrowing authorities has continued to be well received by the markets. The pace of issuance by the Australian Government is expected to decline over 2018/19, reflecting the narrowing in the forecast budget deficit. The stock of bonds issued by the state borrowing authorities is expected to be little changed over 2018/19.

**Graph 3.2**  
**Government Bond Yields**  
 10-year



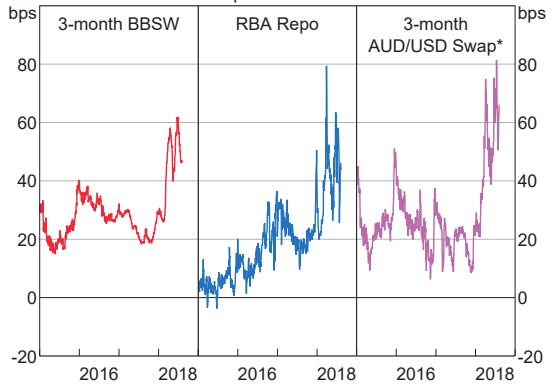
Sources: Bloomberg; RBA

### Conditions in short-term money markets have tightened

In recent quarters, interest rates in bank bill, repurchase agreement (repo) and foreign exchange (FX) swap markets have risen noticeably towards the end of the quarter, before easing back (Graph 3.3). For example, in the June quarter, spreads on 3-month bank bill swap (BBSW) rates relative to overnight indexed swaps (OIS) reached a peak of around 60 basis points for a few days, before dropping back to currently be around 45 basis points.

While, after the end of each of the past three quarters money market rates have declined, they have not fully unwound the earlier increase. So overall, money market rates have increased this year despite market expectations for the future path of the cash rate having been little changed. Spreads on 3- and 6-month bank bills relative to OIS are currently around 20 basis points higher than the average over 2017. The cost of raising funding in the United States (in US dollars) and then converting these funds into Australian dollars in the FX swap market also increased, and has at times been well above the cost of raising funds domestically. Repo rates at the Reserve Bank's open market operations

**Graph 3.3**  
**Australian Dollar Money Market Spreads**  
 Spread to OIS



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

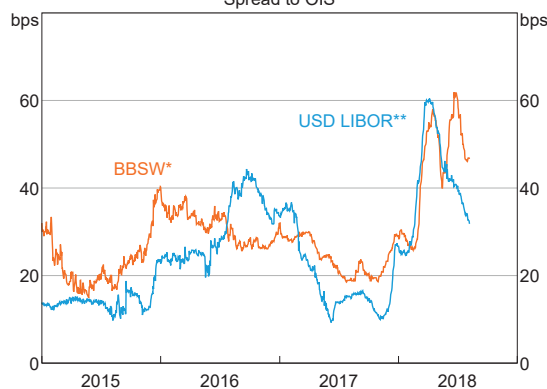
Sources: ASX; Bloomberg; RBA

have also increased, and are currently around 40–50 basis points above OIS. This continues to reflect strong demand for secured funding from market participants. In contrast, conditions in the overnight interbank markets have remained little changed and the cash rate has continued to trade at the Board's target.

The increase and subsequent (smaller) decline in money market rates through March and early April coincided with similar movements in rates on a range of short-term US dollar instruments relative to US dollar OIS (Graph 3.4). These movements in the US markets had a knock-on effect in other markets including Australia, since Australian (and other) banks fund a share of their domestic balance sheets in US markets; so, in part the increase in BBSW rates relative to 2017 has reflected a spillover from higher US LIBOR spreads. Over the end of the June quarter, Australian dollar money market rates rose and declined again, but unlike the previous quarter, this was not associated with a similar pattern in US dollar money market spreads.

One factor contributing to the dynamics in the domestic bank bill market is an apparent decline in demand for the major banks' bills from investment funds. Over recent years, investment funds have

**Graph 3.4**  
**3-month Money Market Rates**  
Spread to OIS



\* As a spread to AUD OIS

\*\* As a spread to USD OIS

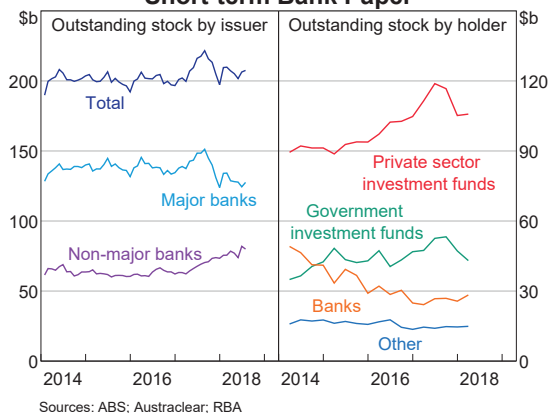
Sources: ASX; Bloomberg; Tullet Prebon (Australia) Pty Ltd

become the dominant holders of bills, as banks have reduced their holdings of other banks' paper (Graph 3.5). Since late last year, some investment funds have shifted their asset allocation away from bills towards global equities. This reduction in demand appears to have contributed to the increase in BBSW rates and has been accompanied by the major banks reducing their issuance since late 2017. Meanwhile, bill issuance by other banks (including by foreign banks operating in Australia) has increased. This would have provided some competition to major banks' bill issuance (which underpins the BBSW rate). However, this increased issuance by other banks has been apparent since early 2017, whereas the behaviour of BBSW rates has changed most noticeably only over recent quarters.

There are some longer-run, structural developments that could help to explain why sharper movements in interest rates in Australian dollar money markets have become more prevalent of late.

First, banks, including in Australia, have become more reluctant to supply liquidity in money markets. In other words, banks appear less inclined to be 'market makers', which stand

**Graph 3.5**  
**Short-term Bank Paper**



ready to buy and sell in money markets, thereby absorbing movements in demand and supply. This is likely to be partly the consequence of changes in banking regulation following the global financial crisis (which were intended to encourage market participants to price the risk involved in market making appropriately). The greater focus on bank conduct in money markets also appears to have played a role. As a result, liquidity – the capacity to buy or sell at short notice without significantly affecting the price – has declined.

Second, there has been strong demand to borrow Australian dollars in money markets. In net terms, banks operating in Australia have been raising more funds offshore, which they convert into Australian dollars via the FX swap market. In addition, there has been strong demand to borrow Australian dollars from other financial institutions in the repo market as part of their investment strategies.

### **Banks' funding costs have risen but remain low**

The rise in interest rates in short-term money markets has led to an increase in banks' overall funding costs. However, banks' funding costs have increased by less than the increase in



money market rates and remain low by historical standards.

Higher BBSW rates affect bank funding costs in a number of ways. First, BBSW rates flow through to the rates banks pay on their new and existing variable-rate wholesale debt.

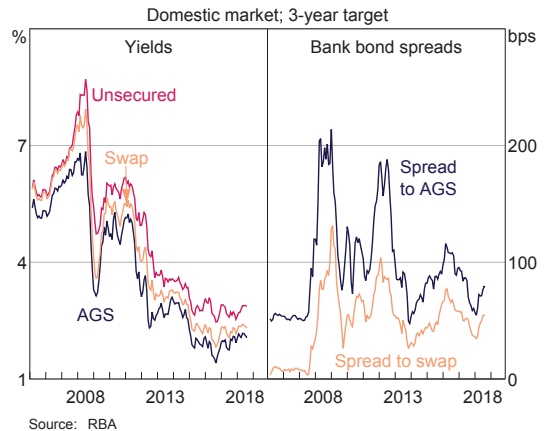
Second, the higher BBSW rates and an increase in the cost of swapping foreign currencies for Australian dollars has increased the cost of hedging the interest rate and exchange rate risks on banks' balance sheets (this is also true for other companies that raise funds offshore). When banks issue fixed-rate bonds, they tend to swap a sizeable share of these fixed interest rate exposures into floating rate exposures. This aligns the nature of the rates for their funding with those of their assets (which consist largely of variable interest rate loans). In doing this, the banks typically end up paying BBSW rates on their hedged liabilities. Australian banks also raise a significant amount of their funding in foreign currency, which they convert into Australian dollars via cross-currency swaps; the cost of doing this has increased in recent months, which also adds to banks' overall cost of raising funds.

Third, rates on wholesale deposits tend to be closely linked to BBSW rates, so the cost of these deposits is rising. Wholesale deposits include deposits from large corporations, pension funds and the government, and account for around 30 per cent of banks' debt funding.

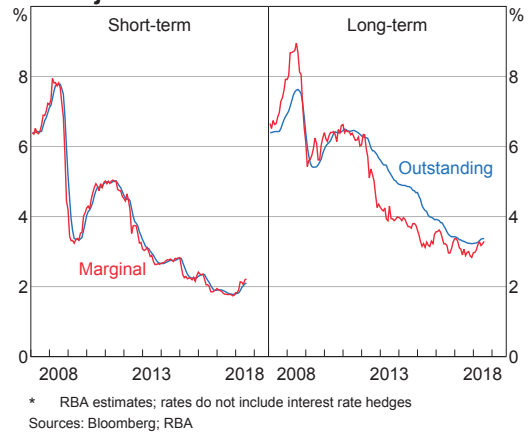
The cost of new long-term debt has also risen due to spreads to benchmark rates for bank bonds having increased since the start of the year, to around the average of the past two years (Graph 3.6). Nevertheless, the cost of short-term and long-term debt for banks generally remains at a low level (Graph 3.7).

Retail deposit rates have been little changed over the year to date and also remain low by historical standards (Graph 3.8). Retail deposits account for

**Graph 3.6**  
**Major Banks' Bond Pricing**



**Graph 3.7**  
**Major Banks' Wholesale Debt Cost\***



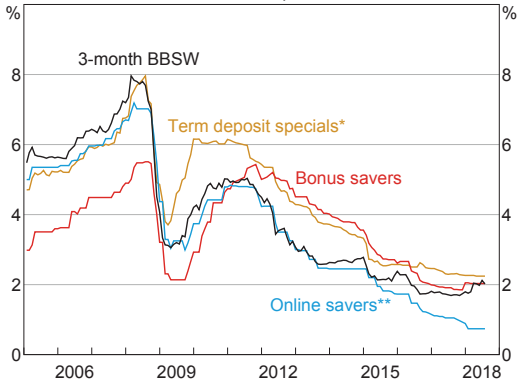
around a third of banks' funding. Given this, the overall increase in funding costs is significantly less than the 20 basis point increase in BBSW rates.

Interest rates on some bank assets are also linked to BBSW rates, limiting the impact that higher funding costs have had on banks' net interest margins (NIM).<sup>1</sup> Some business lending rates are closely linked to BBSW rates and, therefore, have increased in recent months (lending rates are discussed in more detail below). Yields on banks'

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



**Graph 3.8**  
**Major Banks' Retail Deposit Rates**  
 \$10 000 deposits



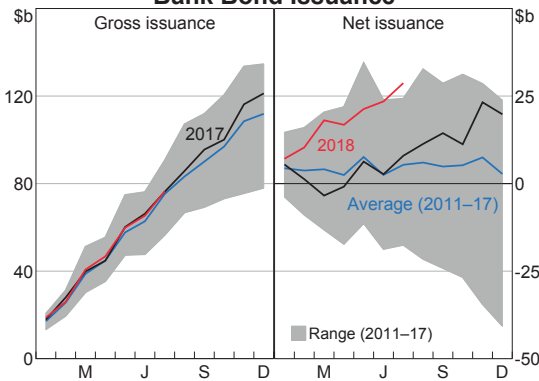
\* Average of 1-12, 24-, 36- and 60-month terms  
 \*\* Excludes temporary bonus rates  
 Sources: Canstar; RBA

liquid asset holdings (including on bank bills issued by other financial institutions and other debt securities) have also risen as a result of the higher BBSW rates.

## Banks have maintained good access to wholesale funding markets

Gross bond issuance by Australian banks has been at a similar pace to previous years, with around \$75 billion raised over the first seven months of the year (Graph 3.9). However, net issuance has been above average given that there have

**Graph 3.9**  
**Bank Bond Issuance**

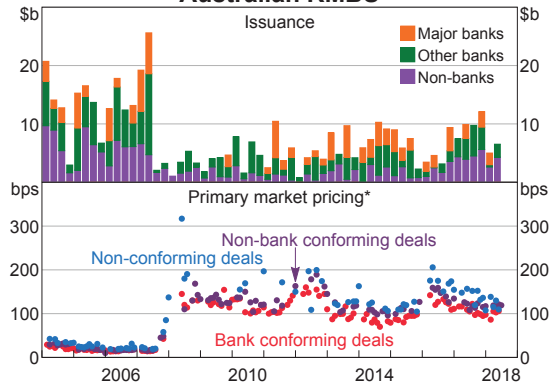


Sources: Bloomberg; RBA

been relatively few bond maturities over the year to date. Most of the banks' wholesale funding continues to be raised in offshore markets.

Issuance of residential mortgage-backed securities increased in the June quarter, but remains lower than in 2017 (Graph 3.10). Non-bank deals accounted for most of the issuance, with the major banks largely absent from the market.

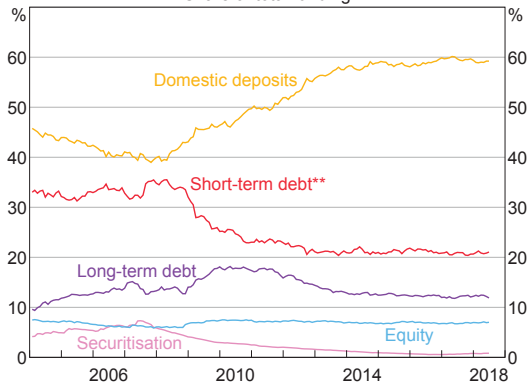
**Graph 3.10**  
**Australian RMBS**



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

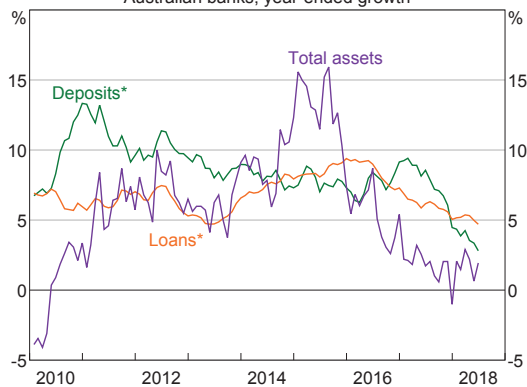
Overall, the composition of banks' funding has been little changed since the beginning of the year (Graph 3.11). Growth in banks' funding liabilities has been subdued, consistent with the moderation in growth in banks' assets. While deposit growth has slowed relative to lending growth, this is unlikely to have been a factor contributing to the increase in money market rates such as BBSW rates (Graph 3.12). In particular, banks' total assets have been growing at a slower rate than both deposits and lending; this reflects the slow growth, and in some cases contraction, of other assets on banks' balance sheets (such as intragroup assets, securities and non-resident assets). Slower growth of assets relative to deposits is consistent with the observation that retail deposit rates have been little changed this year (Graph 3.8). In other words, banks have not sought to attract additional deposits by raising rates.

**Graph 3.11**  
Funding Composition of Banks in Australia\*  
Share of total funding



\* Adjusted for movements in foreign exchange rates; tenor of debt is estimated on a residual maturity basis  
\*\* Includes deposits and intragroup funding from non-residents  
Sources: APRA; RBA; Standard & Poor's

**Graph 3.12**  
Loan, Deposit & Balance Sheet Growth  
Australian banks; year-ended growth



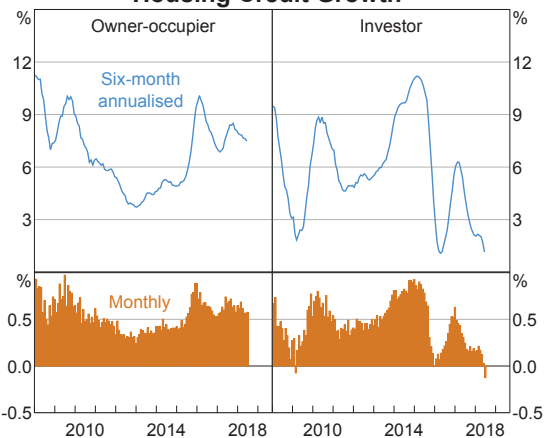
\* Excludes intra-group and non-resident positions  
Sources: APRA; RBA

## Housing credit growth has slowed, driven by investors

Housing credit growth has eased since mid 2017 to around 5½ per cent in year-ended terms (Table 3.1). This was driven by slower growth in borrowing by investors, which has declined to around 1½ per cent in year-ended terms (Graph 3.13).

The slowing in credit growth reflects a combination of demand and supply factors, with the demand factors likely to have been the more dominant influence of late. In particular, there has been a general decline in the growth of demand

**Graph 3.13**  
Housing Credit Growth\*



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

**Table 3.1: Financial Aggregates**  
Percentage change<sup>(a)</sup>

	Three-month ended		Year-ended
	Mar 2018	Jun 2018	Jun 2018
Total credit	1.1	0.9	4.5
– Housing	1.5	1.1	5.6
– Owner-occupier housing	1.9	1.7	7.8
– Investor housing	0.5	0.0	1.6
– Personal	–0.3	–0.5	–1.3
– Business	0.7	0.7	3.2
Broad money	1.0	0.3	1.9

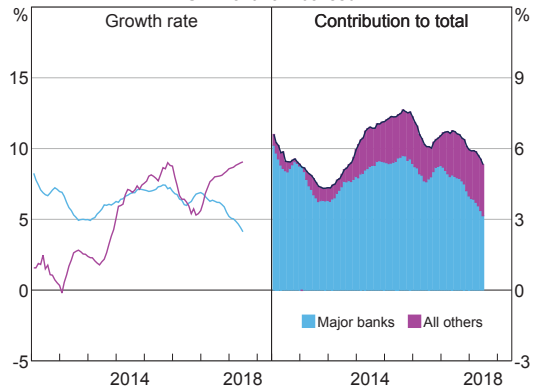
(a) Seasonally adjusted and break-adjusted  
Sources: ABS; APRA; RBA

for housing credit from investors as housing dynamics have changed. This easing in demand growth has been associated with lower expected capital gains, with housing prices declining in some markets.

Growth in the supply of credit has also slowed over recent years. The decline in housing credit growth since mid 2017 partly reflected a reduction in interest-only (IO) lending (which is more prevalent among investors than owner-occupiers). Banks raised interest rates and tightened some lending standards on these loans following APRA's measures to reinforce sound residential mortgage lending practices, particularly the requirement that authorised deposit-taking institutions (ADIs, such as banks) limit new IO lending to 30 per cent of total new residential mortgage lending. There may have been some further tightening in lending standards by banks during 2018 due to additional public scrutiny. While growth in the overall supply of credit has slowed, lenders are competing strongly for high-quality borrowers, such as principal-and-interest borrowers that also have low loan-to-value ratios. This has been reflected in lower interest rates for this group (discussed further below). Moreover, growth of owner-occupier housing credit has remained robust, at close to 8 per cent in year-ended terms.

A number of observations are consistent with the decline in the growth of demand for housing credit having been somewhat greater than the decline in the growth of supply. In particular, the average outstanding variable interest rate on housing loans has declined moderately since last year (discussed further below). Also, rates on investor housing credit have tended to decline by more than for owner-occupier credit, which is consistent with a notable decline in the growth of demand for investor credit. In addition, growth in lending by non-major banks and non-ADIs has been well above that of the major banks, providing additional credit supply (Graph 3.14).

**Graph 3.14**  
**Housing Credit Growth\***  
Six-month annualised



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

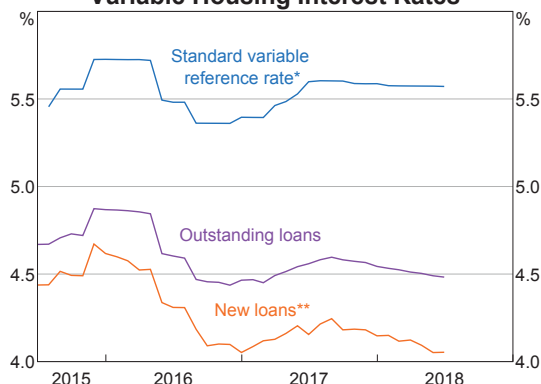
Liaison indicates that non-ADIs have been lending to some borrowers who typically would have borrowed from ADIs in the absence of the regulatory measures. This includes IO borrowers and borrowers who are having difficulty meeting banks' tighter lending criteria (although the available evidence suggests that there has been little sign of widespread financial distress among those who have had their IO periods expire and have started making principal repayments). Nevertheless, lending by these institutions remains small as a share of loan approvals and housing credit, at less than 5 per cent.

### Average housing interest rates remain low

The average rates paid on outstanding variable rate housing loans in the RBA's Securitisation Dataset have drifted down by around 10 basis points since August 2017 (Graph 3.15; Table 3.2).<sup>2</sup>

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

**Graph 3.15**  
**Variable Housing Interest Rates**



\* Average across major banks' rates  
 \*\* Variable-rate loans originated over the past three months  
 Sources: RBA; Securitisation System

In recent months, a number of small- and mid-sized lenders raised their standard variable rates (SVRs) by an average of around 10 basis points, with the majority of rate changes taking place since late June. These recent SVR increases tended to be larger for investors than owner-occupiers. The changes were largely attributed to rising funding costs. The lenders that have increased their SVRs account for around 15 per cent of housing credit, so the effect of these changes on average outstanding rates is modest.

Meanwhile, lenders are actively competing for new loans. The average rates paid on new variable-rate loans in the Securitisation Dataset decreased by around 20 basis points between

**Table 3.2 Intermediaries' Fixed and Variable Lending Rates**

	Interest rate Per cent	Change since August 2017 Basis points	Change since November 2016 Basis points
Housing loans <sup>(a)</sup>			
– Variable principal-and-interest rate			
– Owner-occupier	4.25	–10	–16
– Investor	4.70	–8	10
– Variable interest-only rate			
– Owner-occupier	4.72	–4	40
– Investor	5.07	–4	58
– Fixed rate			
– Owner-occupier	4.18	–14	–34
– Investor	4.33	–9	–28
– Average outstanding rate	4.45	–11	0
Personal loans			
– Variable rate <sup>(b)</sup>	11.42	–20	–7
Small business			
– Term loans variable rate <sup>(c)</sup>	6.43	0	4
– Overdraft variable rate <sup>(c)</sup>	7.26	–5	–1
– Fixed rate <sup>(c)(d)</sup>	5.33	2	2
– Average outstanding rate <sup>(e)</sup>	5.32	4	–3
Large business			
– Average outstanding rate <sup>(e)</sup>	3.67	28	18

(a) Average rates from Securitisation Dataset, updated for end June 2018

(b) Weighted average of advertised variable-rate products

(c) Residentially secured, average of the major banks' advertised rates

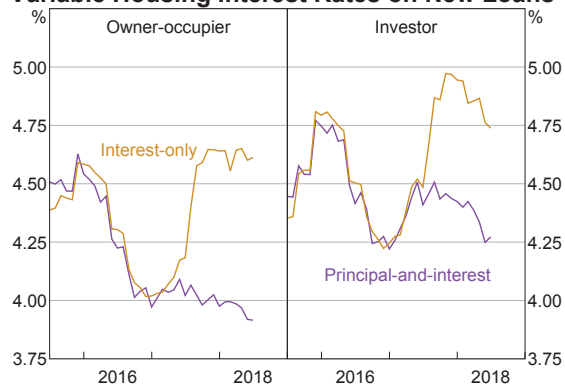
(d) 3-year fixed rates

(e) RBA estimates

Sources: ABS; APRA; Securitisation System; RBA

August 2017 and June 2018. Also, many lenders have cut their fixed interest rates for new borrowers during the past few months. The decline in the rates for new loans has been somewhat more pronounced for investors than for owner-occupiers since the beginning of the year (Graph 3.16). Moreover, advertised rate reductions for new borrowers have targeted investor loans more frequently than owner-occupiers over the past few months. As discussed above, the larger decrease in rates for investors is consistent with the decline in the growth of demand for housing loans from investors being larger than the decline in the growth of the supply of housing loans (which followed the earlier tightening in banks' lending standards towards investors).

**Graph 3.16**  
**Variable Housing Interest Rates on New Loans\***

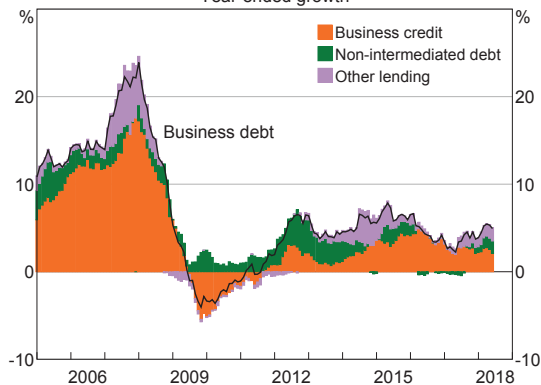


\* Variable-rate loans originated over the past three months  
Sources: RBA; Securitisation System

## Funding conditions are generally accommodative for businesses

Growth in business debt has risen since the start of the year (Graph 3.17). This has been driven by increased bond issuance and a pick-up in syndicated lending by institutions that do not report their lending to APRA (that is the 'other lending' category). At the same time, business credit growth remains low by historical standards. Overall, growth in business debt remains moderate, despite interest rates being at

**Graph 3.17**  
**Business Debt\***  
Year-ended growth



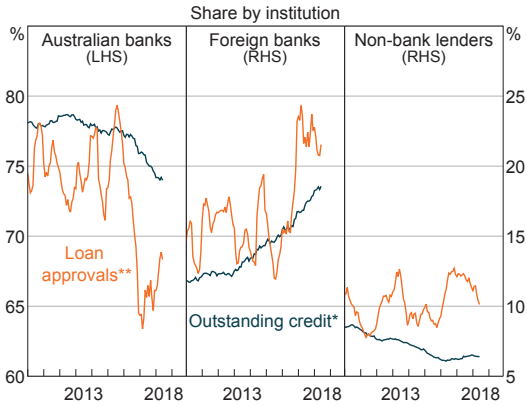
\* Break-adjusted; non-seasonally adjusted  
Sources: APRA; Bloomberg; RBA; Thomson Reuters

low levels and a pick-up in business investment outside the mining industry. In part, the growth in business debt remains moderate because businesses have tended to finance much of their investment from their retained profits rather than from external sources.

Growth in lending by the Australian banks to businesses has been subdued over the past few years, with foreign banks (primarily European and Asian lenders) driving the growth in aggregate business credit. Reflecting this, the Australian banks' share of business credit is around its lowest level since mid 2007. The major banks' share of business loan approvals has picked up somewhat more recently (Graph 3.18).

During the past few months, the Reserve Bank has hosted a number of roundtable discussions on small business financing with entrepreneurs, government representatives, banks and non-bank lenders. Participants identified a range of challenges that small businesses face when accessing finance, including limited access to funding for start-up businesses and a heavy reliance on lending secured by housing collateral and personal guarantees. A range of ideas for addressing these challenges were also discussed. In particular, the representatives from banks and

**Graph 3.18**  
**Business Loans**

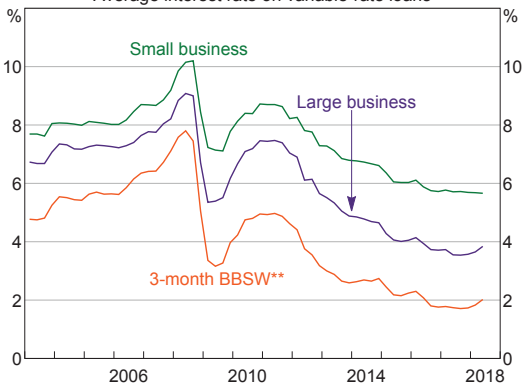


\* Seasonally adjusted and break-adjusted; excludes securitisation  
 \*\* Six-month moving average  
 Sources: ABS; APRA; RBA

non-bank lenders agreed that the government’s comprehensive credit reporting and open banking policy initiatives could help improve access to finance, in part by providing lenders with more information for making lending decisions. The Reserve Bank will continue to monitor developments in small business financing.

In aggregate, interest rates on business loans remain low by historical standards (Graph 3.19). Interest rates on outstanding loans to large businesses have increased by around 20 basis points since the start of the year. This reflects the

**Graph 3.19**  
**Variable-rate Business Lending Rates\***  
Average interest rate on variable-rate loans

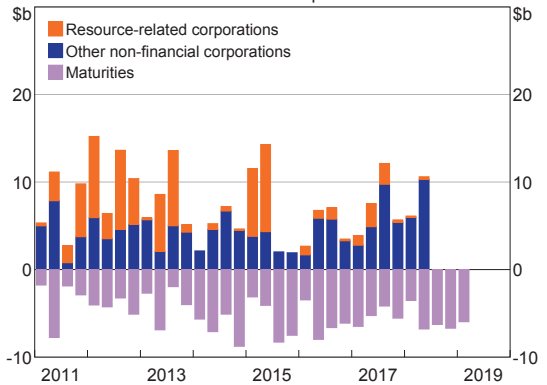


\* RBA estimates  
 \*\* 3-month trailing average  
 Sources: APRA; RBA

fact that many large business loans are closely linked to BBSW rates. The link between variable rates on small business loans and BBSW rates is less direct and the interest rates on outstanding variable-rate loans to small businesses have increased only slightly since mid 2017. However, advertised rates for fixed-rate small business loans have edged a little higher this year.

Bond issuance by Australian non-financial corporations was strong in the June quarter (Graph 3.20). Issuance was mainly from utilities and infrastructure companies. In line with global trends, interest rates for issuers have increased since the beginning of this year, but remain at low levels.

**Graph 3.20**  
**Australian Corporate Bond Issuance**  
Australian dollar equivalent



Sources: Bloomberg; RBA

## Australian equity prices have increased

Australian equity prices have largely followed global developments in recent months to be around 3 per cent higher since the end of 2017 (Graph 3.21). Market volatility has remained low.

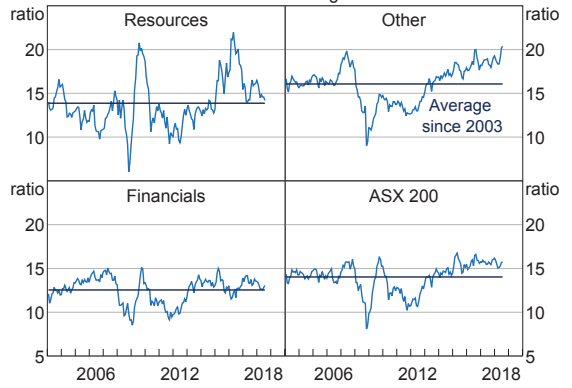
Resources sector share prices are 9 per cent higher since the end of 2017, consistent with an overall increase in commodity prices (Graph 3.22). Analysts’ earnings expectations for the sector have continued to increase. Banks’ share prices have risen recently, but are still lower than they were

**Graph 3.21**  
Share Price Accumulation Indices  
End December 2014 = 100



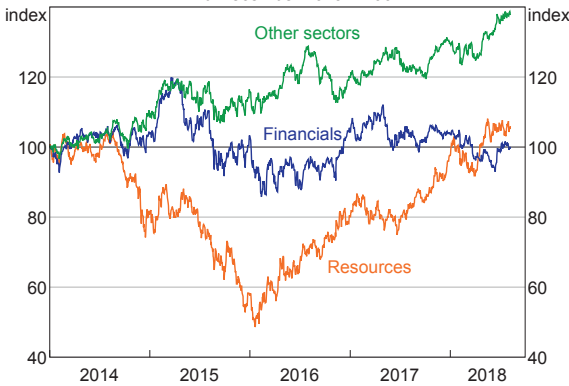
Sources: MSCI; Thomson Reuters

**Graph 3.23**  
ASX 200 Price-earnings Ratios  
12-month-ahead earnings forecasts



Source: Thomson Reuters

**Graph 3.22**  
Australian Share Prices  
End December 2013 = 100

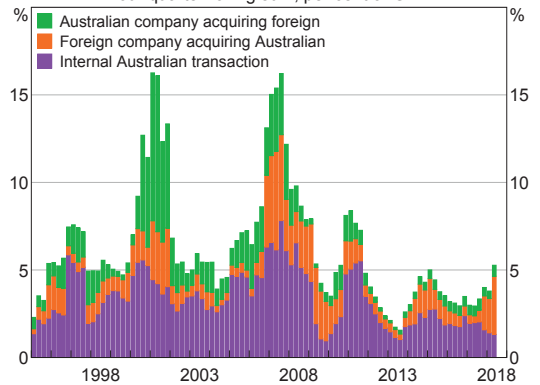


Source: Bloomberg

at the end of 2017. Meanwhile, healthcare and consumer staples companies' share prices have increased strongly, while the telecommunications sector is down around 20 per cent over the year. Analysts' earnings expectations for coming years have been revised higher this year, driven by the resources sector. Expectations are that overall earnings will continue to rise, consistent with survey measures of business conditions, which remain elevated. Price-to-earnings ratios for the resources and financials sectors are close to long-run averages, while ratios for other sectors are somewhat above average (Graph 3.23).

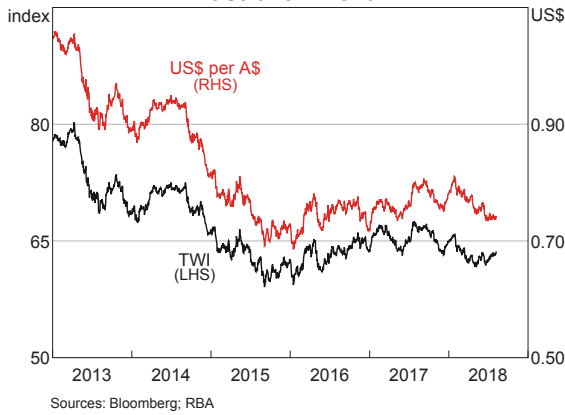
Some large mergers and acquisitions (M&A) have been completed or announced recently, particularly foreign acquisitions of Australian companies (Graph 3.24). Most notably, Unibail-Rodamco's acquisition of Westfield was completed in May, and gas pipeline company APA received a \$13 billion takeover offer from CKI earlier this year, although the deal is yet to receive regulatory approval. In addition, Amcor announced the acquisition of US company Bemis in a US\$6.8 billion deal.

**Graph 3.24**  
Australian Mergers and Acquisitions  
Four quarter rolling sum, per cent of GDP



Sources: ABS; RBA; Thomson Reuters

**Graph 3.25**  
**Australian Dollar**

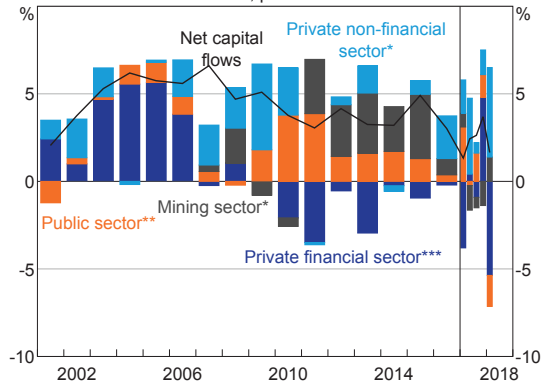


### The Australian dollar remains within its narrow range of the past couple of years

The Australian dollar has appreciated a little since the previous *Statement* on a trade-weighted basis, though remains within its narrow range of the past couple of years (Graph 3.25). The RBA Index of Commodity Prices is little changed since the previous *Statement*, while Australian bond yields declined slightly relative to those in other advanced economies. The modest appreciation of the Australian dollar has mostly occurred against the exchange rates of Asian economies, in particular the Chinese renminbi, which has depreciated amid moderating growth and rising trade tensions (see 'The International Environment' chapter). The Australian dollar is little changed against the US dollar over the period, which has experienced a broad-based appreciation.

Net capital inflows to Australia remain modest, consistent with the low level of the current account deficit (Graph 3.26). Inflows into the private non-mining, non-financial sector have increased in the past couple of years, partly offsetting a reduction in flows to the mining sector. Australia's net foreign liability position has declined over the same period, largely reflecting

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



\* Prior to 2007 the mining sector is included in the private non-financial sector

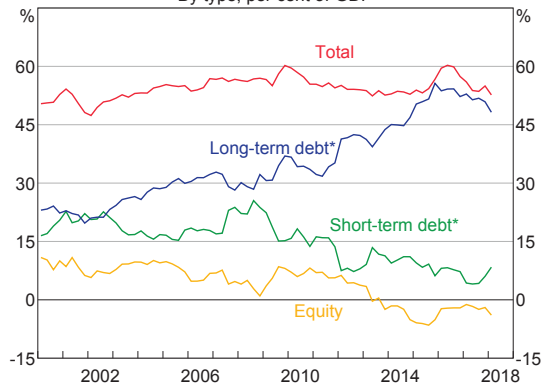
\*\* Excludes official reserves and other RBA flows

\*\*\* Adjusted for US dollar swap facility in 2008 and 2009

Sources: ABS; RBA

a decrease in net long-term debt liabilities (Graph 3.27). Net foreign short-term debt liabilities and net foreign equity assets have been little changed. The net foreign liability position declined modestly in the March quarter to 53 per cent of GDP, and is around its average level of the past two decades. ↗

**Graph 3.27**  
**Net Foreign Liabilities**  
By type, per cent of GDP



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

Source: ABS

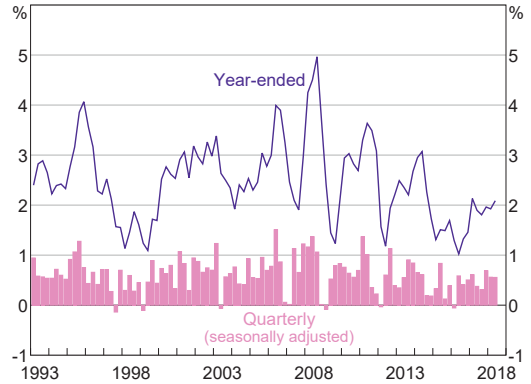


# 4. Inflation

## Inflation remains low and stable

The June quarter inflation outcomes were in line with the forecast in the May *Statement on Monetary Policy*. Headline inflation was steady at 0.5 per cent (seasonally adjusted) in the quarter, to be 2.1 per cent over the year (Graph 4.1; Table 4.1). Underlying inflation was also steady at ½ per cent in the quarter and close to 2 per cent over the year (Graph 4.2). The recent period of low and stable inflation primarily reflects spare capacity in the economy and the associated low wages growth. Ongoing competition in the retail sector has also continued to put downward pressure on inflation. In contrast, higher electricity and fuel prices and further increases in the tobacco excise have boosted inflation over the past year.

**Graph 4.1**  
**Consumer Price Inflation\***



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

Sources: ABS; RBA

Prices of non-tradable items have risen by around 3 per cent over the year (Graph 4.3). There have been large price increases for tobacco and

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

	Quarterly <sup>(a)</sup>		Year-ended <sup>(b)</sup>	
	June quarter 2018	March quarter 2018	June quarter 2018	March quarter 2018
Consumer Price Index	0.4	0.4	2.1	1.9
Seasonally adjusted CPI	0.5	0.6		
– Tradables	0.4	0.2	0.3	–0.5
– Tradables (excl volatile items)	–0.2	0.0	–1.0	–0.9
– Non-tradables	0.7	0.8	3.0	3.1
<i>Selected Underlying Measures</i>				
Trimmed mean	0.5	0.6	1.9	1.9
Weighted median	0.5	0.5	1.9	2.1
CPI excl volatile items <sup>(c)</sup>	0.4	0.5	1.8	2.0

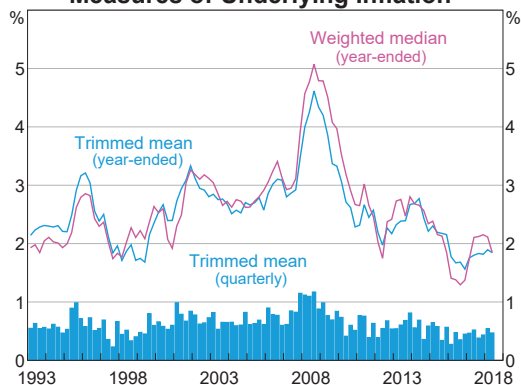
(a) Except for the headline CPI, quarterly changes are based on seasonally adjusted data; those not published by the ABS are calculated by the RBA using seasonal factors published by the ABS

(b) Year-ended changes are based on non-seasonally adjusted data, except for the trimmed mean and weighted median

(c) Volatile items are fruit, vegetables and automotive fuel

Sources: ABS; RBA

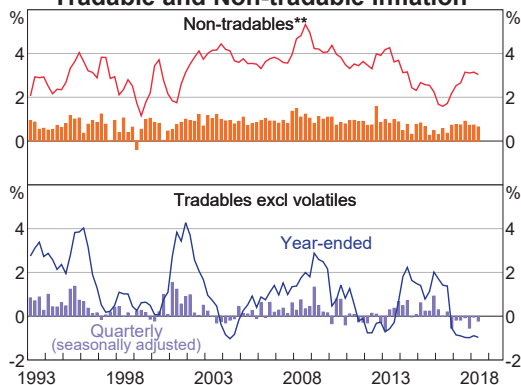
**Graph 4.2**  
**Measures of Underlying Inflation\***



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

Sources: ABS; RBA

**Graph 4.3**  
**Tradable and Non-tradable Inflation\***



\* Adjusted for the tax changes of 1999–2000

\*\* Excludes interest charges and deposit & loan facilities

Sources: ABS; RBA

electricity. However, inflation in the prices of other non-tradable items has been more subdued, reflecting low wages and rent growth and, more recently, a slowing in the growth of administered prices. Prices of tradable items, excluding volatile components, have fallen over the past two years.

## Inflation in market services prices remains subdued

Inflation in the prices of market services, which include such services as hairdressing and meals out, remains low (Graph 4.4). This is mainly

**Graph 4.4**  
**Market Services Inflation**



\* Year-ended; includes household services, meals out & take-away and insurance & financial services; adjusted for the tax changes of 1999–2000

\*\* Quarterly; non-farm; eight-quarter moving average

Sources: ABS; RBA

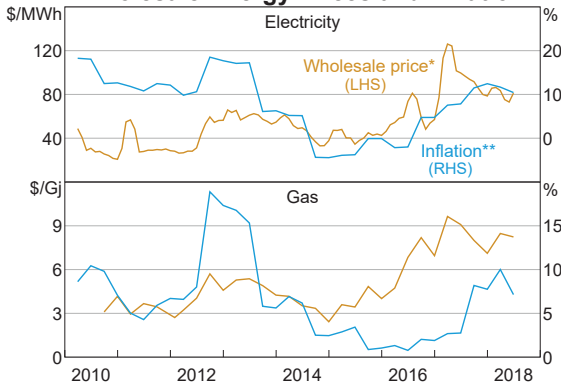
because labour cost growth has been subdued; labour costs account for around two-fifths of final prices for these services. However, some specific factors have also lowered market services inflation over the past year or so, including reforms to state-based compulsory third-party insurance schemes, and the NSW Government's Active Kids voucher program. Since 2014, there have been technology-driven declines in the prices of telecommunications equipment and services, which have subtracted 0.1 percentage points on average from year-ended headline inflation.

## Administered price inflation has slowed

Electricity and gas prices rose sharply over the past year as increases in wholesale prices were passed on to consumer prices (Graph 4.5). However, these prices were relatively little changed in the June quarter; recent declines in wholesale prices and competition for customers have started to put downward pressure on prices. Energy providers in some states have announced reductions to prices that will take effect in the September quarter.

**Graph 4.5**

**Wholesale Energy Prices and Inflation**

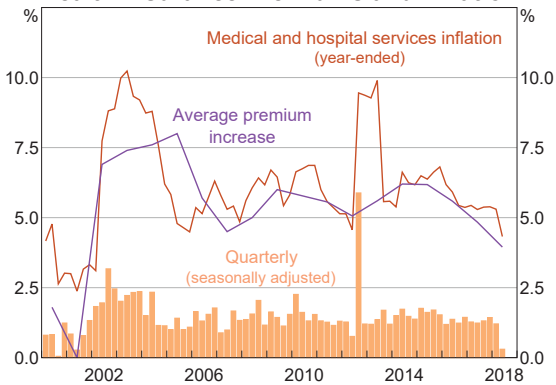


\* State-level wholesale prices weighted by each state's generation capacity  
 \*\* Year-ended  
 Sources: ABS; AER; Bloomberg; RBA

Inflation in the prices of other administered services has declined in recent years to below its inflation-targeting average. Health inflation was unusually low in the June quarter because the annual increase in health insurance premiums was well below average (Graph 4.6). Education cost inflation was also lower over the year, because some school and university fees are indexed to CPI inflation or wages growth, which have been subdued (Graph 4.7). One-off policy changes in some states have also contributed to lower-than-average inflation in education costs in recent years. In contrast, tobacco inflation remained elevated

**Graph 4.6**

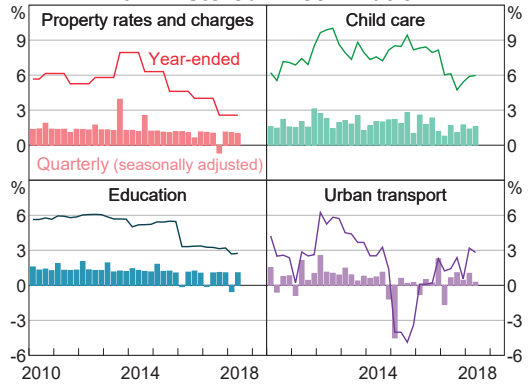
**Health Insurance Premiums and Inflation**



Sources: ABS; RBA; The Conversation

**Graph 4.7**

**Administered Price Inflation**



Source: ABS

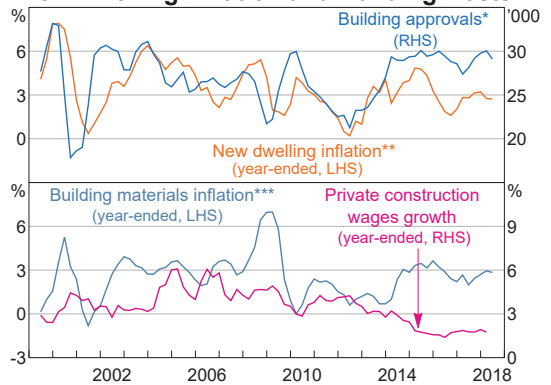
in the June quarter due to ongoing increases in the tobacco excise. After 2020, legislated tobacco excise increases will be smaller in size.

**Housing cost inflation varies across the cities**

The cost of building a new dwelling has risen by around 3 per cent over the past year (Graph 4.8). Inflationary pressures in the sector have risen a little since 2016, which has been a period of elevated construction activity. Consistent with this, new dwelling cost inflation has been highest

**Graph 4.8**

**New Dwelling Inflation and Building Costs**



\* Three-month rolling sum; private non-house building approvals included from 2017 onwards with a weight of 20 per cent to be consistent with weights in new dwelling inflation

\*\* Adjusted for the tax changes of 1999–2000

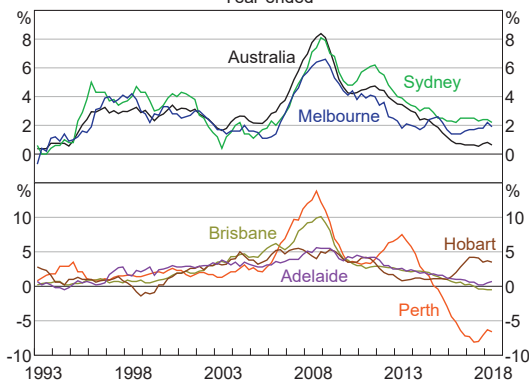
\*\*\* For houses

Sources: ABS; RBA

in the capital cities in eastern states, which have generally experienced the strongest growth in detached dwelling construction. There are reports that an increase in the domestic production capacity of some construction materials has limited cost inflation and that developers are compensating for higher costs by switching to lower-cost building materials. Despite this, liaison contacts have reported growing cost pressures for selected materials that are also in demand for public infrastructure projects in Sydney and Melbourne. While wages growth appears fairly contained in the construction industry as a whole, liaison contacts suggest that skill shortages for some construction workers have pushed up subcontractor rates and are also contributing to construction cost pressures in Sydney and Melbourne.

Year-ended rent inflation in the Consumer Price Index (CPI) was 0.6 per cent, which remains around the lowest rate since mid 1994. There is considerable variation in rent growth across capital cities (Graph 4.9). Rents increased by around 4 per cent in Hobart but were relatively steady at 2 per cent in Sydney and Melbourne. In contrast, rents declined modestly in Brisbane where there has been a substantial addition to the apartment stock in recent years.

**Graph 4.9**  
**Rent Inflation**  
Year-ended



Source: ABS

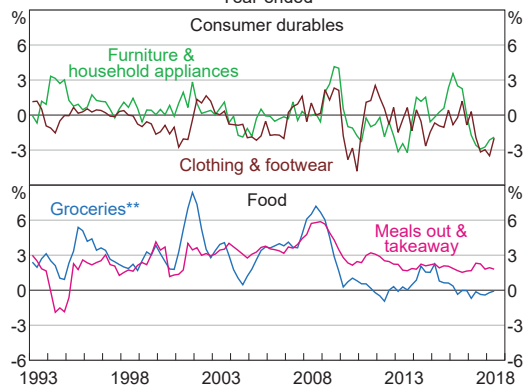
In Perth, rents have been falling for some time. More generally, the weakness of inflation in Perth relative to other capital cities is quite broad based across expenditure categories and predominantly reflects the ongoing effects of the end of the mining boom on the Western Australian economy. New dwelling cost inflation and wages growth have also been somewhat lower in Perth than in the rest of Australia.

## Retail prices have continued to decline

Prices of tradable items have declined by around 1 per cent in year-ended terms once particularly volatile items – fruit, vegetables and fuel – are excluded. Grocery food prices were little changed in the June quarter, continuing the trend of very low inflation in food prices of the past couple of years (Graph 4.10). In contrast, non-alcoholic beverage prices have increased noticeably since the introduction of a container deposit scheme in New South Wales in December 2017. Consumer durable prices were around 2 per cent lower over the year.

Intense competition in the retail industry is contributing to the ongoing weakness in

**Graph 4.10**  
**Consumer Durables and Food Inflation\***  
Year-ended



\* Adjusted for the tax changes of 1999–2000

\*\* Excludes fruit and vegetables

Sources: ABS; RBA

tradable price inflation. Reports from liaison contacts suggest that the implementation of ‘everyday low price’ strategies has been partly responsible for low supermarket price inflation in recent quarters. Non-food retailers have also been engaging in aggressive discounting strategies, often to clear excess stock.

Another factor that has weighed on retail price inflation is subdued growth in input costs. Retail rents have been little changed for some time and, as noted earlier, growth in labour costs has been slow. Even where costs have risen more noticeably, such as for energy, this does not seem to have been passed on to product prices. In any case, utility price pressures are likely to have eased more recently given that wholesale energy prices have declined in recent months. The import-weighted exchange rate is a little lower over the year, which has put some upward pressure on final retail prices.

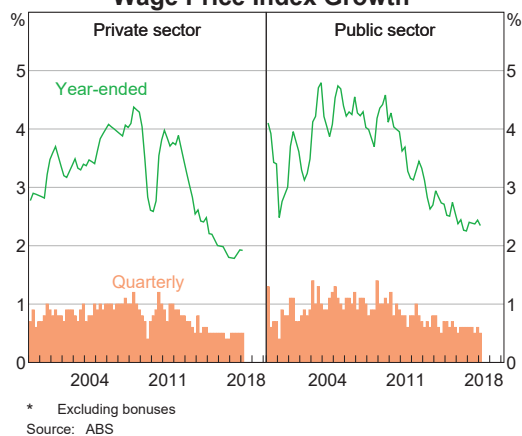
## Low wages growth is weighing on inflation

Wages growth continues to be low and stable across most industries and states. Several factors have contributed to low wages growth including spare capacity in the labour market, and the process of adjustment to the end of the mining boom. Low wages growth has weighed on inflation because wages are the largest component of business costs. In turn, low inflation and expectations that inflation will remain low in the near term have weighed on wages growth.

Wages growth has also been relatively low across a number of other advanced economies in recent years, suggesting that similar factors are at play. Lower productivity growth is likely to have played a role, as has a decline in labour’s relative bargaining power and the effects of technological change and globalisation.

The Wage Price Index (WPI) grew by 0.5 per cent in the March quarter to be 2.1 per cent higher over the year (Graph 4.11). Public sector wages growth remains higher than private sector wages growth, despite being subject to government wage caps in most jurisdictions. Wages growth was strongest in the household services sector, largely driven by health care & social assistance, and education & training. Year-ended wages growth has increased modestly relative to a year ago in these industries. Wages growth remains highest in Victoria, while year-ended wages growth in Western Australia and Queensland has picked up from low levels of a year ago.

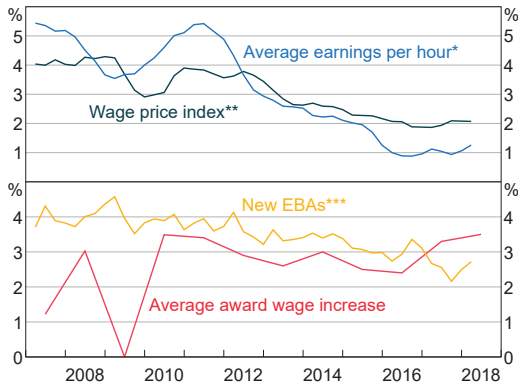
**Graph 4.11**  
**Wage Price Index Growth\***



\* Excluding bonuses  
Source: ABS

Average earnings per hour in the national accounts (AENA) captures a wider range of payments than the WPI, including allowances, superannuation and redundancy payments, as well as changes in the composition of employment. Growth in AENA per hour has been lower than in the WPI over recent years, though it has risen a little recently in trend terms (Graph 4.12). Given that voluntary turnover (people choosing to change jobs) is typically associated with an increase in income, the decline in turnover over the past decade is likely to have been one compositional factor weighing

**Graph 4.12**  
**Wages Growth**  
Year-ended



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

on average earnings. In addition, some of the turnover over the past couple of years may have been from higher-paid mining-related jobs to lower-paid jobs outside this sector.

### Award and minimum wages increased by 3½ per cent

The Fair Work Commission (FWC) determined that there would be a 3.5 per cent increase in the national minimum wage from 1 July 2018 in its annual wage review, as well as for the minimum wages in federal awards covering specific industries and occupations. The national minimum wage is now \$18.93 per hour. The increase was a little larger than last year's increase of 3.3 per cent. The main reasons cited by the FWC for its decision were the positive outlook for the economy and its continued belief that there are no significant measurable negative employment effects of 'modest and regular' minimum wage increases.

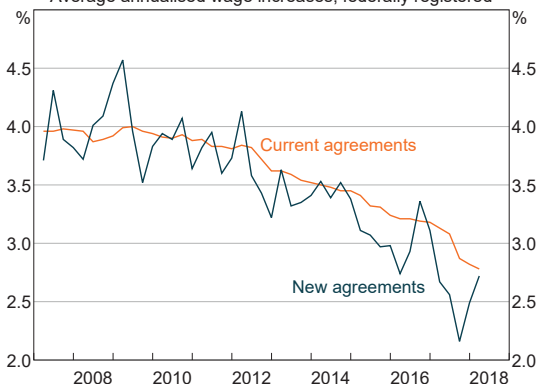
Nearly one-quarter of all employees, accounting for around 15 per cent of the national wage bill, are covered by awards. Other employees are likely to be indirectly affected by the FWC

decision because wage increases in some enterprise agreements are linked or otherwise benchmarked to the outcome of the review. This includes employees who are paid at close to the minimum wage. Estimates suggest up to 40 per cent of employees are directly or indirectly affected by the FWC decision, though there remains uncertainty around how recent FWC decisions have influenced wages growth for those not directly linked to the outcome.

### Wages growth has increased in new collective agreements

Average wages growth in new federally registered enterprise bargaining agreements (EBAs) increased in the March quarter (Graph 4.13).<sup>1</sup> Despite this, wages growth in new EBAs remains marginally below that in the stock of outstanding EBAs, which implies that average wages growth for employees on EBAs will continue to slow in the near term. The average duration of an EBA is a little over three years.

**Graph 4.13**  
**Wages Growth in Collective Agreements**  
Average annualised wage increases, federally registered



Source: Department of Jobs and Small Business

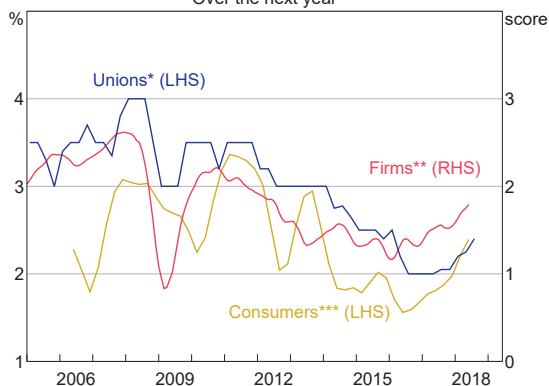
<sup>1</sup> The data on federally registered enterprise bargaining agreements compiled by the Department of Jobs and Small Business do not cover state government agreements (except for Victoria).

## Expectations of wages growth have picked up, but remain low

Information from the Bank’s business liaison program has for some time pointed to broadening skill shortages and upward pressure on wages growth in some parts of the economy. There is also growing evidence of labour shortages in other business surveys. The proportion of firms reporting wages-growth outcomes above 3 per cent in the liaison program has increased a little this year; the construction industry accounts for most of this change.

The majority of firms surveyed in the liaison program expect private sector wages growth to remain stable over the year ahead, although a growing minority expect wages growth to strengthen (Graph 4.14). Other measures of short-term expectations of wages growth have picked up recently; unions and consumers expect wages to grow by close to 2½ per cent over 2019.

**Graph 4.14**  
Short-term Wages Growth Expectations  
Over the next year

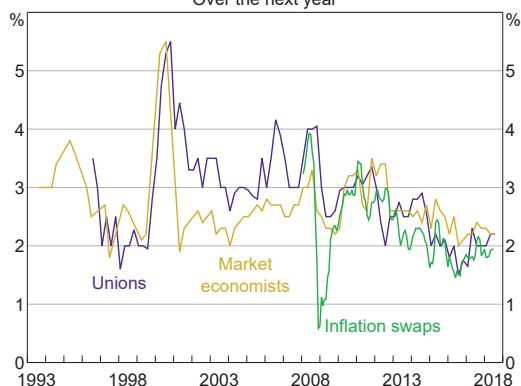


\* Median  
 \*\* Average Likert score, trend; a score of two can be interpreted as average growth and zero for no growth  
 \*\*\* Average, trend  
 Sources: Australian Council of Trade Unions; Melbourne Institute; RBA; Workplace Research Centre

## Inflation expectations are unchanged

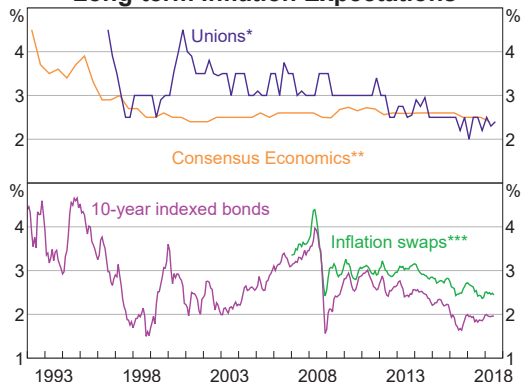
Inflation expectations are generally consistent with the inflation target. Measures of short-term inflation expectations are higher than they were in 2016 but remain low (Graph 4.15). Market economists and unions expect inflation to be around 2¼ per cent over the next year. Survey measures of longer-run inflation expectations remain around 2½ per cent (Graph 4.16). ↕

**Graph 4.15**  
Short-term Inflation Expectations  
Over the next year



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

**Graph 4.16**  
Long-term Inflation Expectations



\* Average over the next five to ten years  
 \*\* Average over six to ten years in the future  
 \*\*\* Five-to-ten-year forward  
 Sources: Australian Council of Trade Unions; Bloomberg; Consensus Economics; RBA; Workplace Research Centre; Yieldbroker





## 5. Economic Outlook

The forecasts for global and domestic growth are little changed from those presented in the May *Statement on Monetary Policy*. Domestic inflation is still expected to be 2¼ per cent in mid 2020, although inflation in the September quarter of this year is now expected to be lower because of declines in some administered prices.

Global economic growth has been solid and the outlook remains positive. While the risks to global growth from trade protection policies have increased, there are also other important uncertainties. A continuation of solid growth and further absorption of spare capacity – particularly in some major advanced economies – could result in inflation picking up more quickly than is currently expected. This would have implications for monetary policies and financial markets. There also continues to be uncertainty around the outlook for the Chinese economy, as the authorities there look to support growth while managing other objectives, such as financial stability. These risks are discussed below.

Domestic economic growth was a bit stronger than anticipated in the March quarter and is expected to remain above trend over the forecast period. As a result, the unemployment rate is forecast to decline gradually and this is expected to be associated with a further modest increase in wage and inflationary pressures. However, as discussed below, there continues to be uncertainty around the amount of spare capacity in the economy, how quickly it might decline and the consequences for inflation.

### GDP growth is expected to remain above trend

GDP growth in Australia is expected to be above trend over the forecast period. Growth was stronger in the March quarter and quite broad based. Consumption growth moderated in the quarter, but was stable in year-ended terms. Partial indicators point to solid GDP growth in the June quarter and the year-ended rate is likely to remain a little above estimates of potential growth.

The forecasts for domestic output growth are broadly similar to those presented in the May *Statement*. GDP growth is forecast to be a little above 3 per cent over 2018 and 2019 (Table 5.1; Graph 5.1). Growth is then expected to ease to around 3 per cent in 2020 when the remaining liquefied natural gas (LNG) projects will have reached their targeted production levels and therefore no longer contribute to export growth.

Accommodative monetary policy and tighter labour market conditions are expected to provide ongoing support for growth in household income and consumption throughout the forecast period. Growth in non-mining business investment is expected to remain solid. The implementation of the National Disability Insurance Scheme (NDIS) and public infrastructure investment are expected to continue to boost public demand. Dwelling investment is expected to remain at high levels over the next year or so, supported by a significant pipeline of work still to be done, and then gradually decline towards the end of the forecast period. The economy is not expected to encounter broad-based capacity constraints for

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

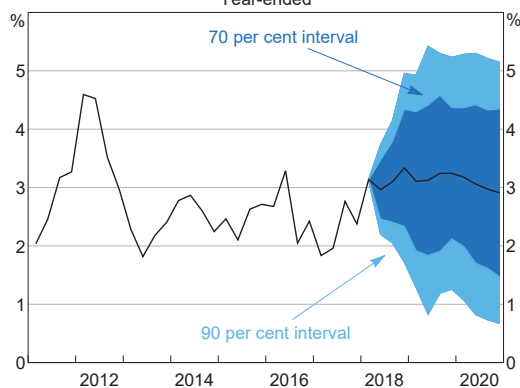
	Year-ended					
	Jun 2018	Dec 2018	Jun 2019	Dec 2019	Jun 2020	Dec 2020
GDP growth	3	3¼	3¼	3¼	3	3
Unemployment rate <sup>(b)</sup>	5.5	5½	5¼	5¼	5¼	5
CPI inflation	2.1	1¾	2	2¼	2¼	2¼
Underlying inflation	2	1¾	2	2	2¼	2¼
	Year-average					
	2017/18	2018	2018/19	2019	2019/20	2020
GDP growth	2¾	3¼	3¼	3¼	3¼	3

(a) Technical assumptions include A\$ at US\$0.74, TWI at 64 and Brent crude oil price at US\$73 per barrel; shaded regions are historical data

(b) Average rate in the quarter

Sources: ABS; RBA

**Graph 5.1**  
**GDP Growth Forecast\***  
Year-ended



\* Confidence intervals reflect RBA forecast errors since 1993

Sources: ABS; RBA

some time, although liaison contacts indicate that capacity constraints are affecting construction activity, particularly in Sydney, and there also continue to be difficulties attracting workers with specialised information technology skills.

The domestic forecasts are conditioned on the technical assumptions that the cash rate evolves broadly in line with market expectations, which is for no change until at least the end of next year. The exchange rate and oil prices are assumed to remain at their current levels. This implies a trade-weighted exchange rate that is around 2½ per cent higher than was assumed in the May

Statement, and a US dollar price of Brent crude oil that is around 2 per cent higher. The population aged 15 years and over is assumed to grow by 1.6 per cent per annum over the next few years.

### Ongoing solid growth in non-mining investment is anticipated ...

Non-mining business investment grew by 10 per cent over the year to the March quarter, led by non-residential construction. While leading indicators suggest that growth in construction activity will moderate over the next year, growth in machinery & equipment investment is expected to pick up further over the forecast period, consistent with an ongoing economic expansion.

The overall outlook for mining investment remains little changed: the trough in mining investment is still expected to occur in late 2018 or early 2019. The quarterly profile over the next year has been adjusted slightly to incorporate new information about additional spending associated with the completion of the remaining LNG projects. However, there is still some uncertainty around the timing of these outlays. Further out, mining investment is expected to

increase moderately to sustain higher levels of production; recent company announcements have removed some uncertainty around the timing of this activity.

Public demand is expected to provide an ongoing impetus to growth. Liaison contacts continue to report that there are positive spillovers from strong growth in public infrastructure investment. Public demand is likely to be supported by additional revenues associated with the stronger-than-expected terms of trade, although this may be offset to some extent by lower stamp duty revenues associated with easing housing market conditions in some states.

### ... and the current rate of consumption growth is expected to continue

The forecasts for consumption growth are little changed. Consumption growth has been a bit more volatile from quarter to quarter over the past year, but has been stable in year-ended terms and is expected to continue at a similar rate. The March quarter outcome was lower than had been expected at the time of the *May Statement*, although the weakness was concentrated in expenditure on recreational services and hotels, cafes and restaurants and does not appear to have significant implications for the outlook; growth in consumption of goods remained strong in the quarter. The outlook for household consumption growth continues to represent a significant uncertainty for the forecasts, in large part due to uncertainty around household income growth (see below).

Household disposable income growth will be supported over the forecast period by the reductions in income taxes announced in the 2018/19 federal budget. Consumption is projected to grow at the same rate as household disposable income over the forecast period.

### Exports are expected to continue growing, but with some change in composition

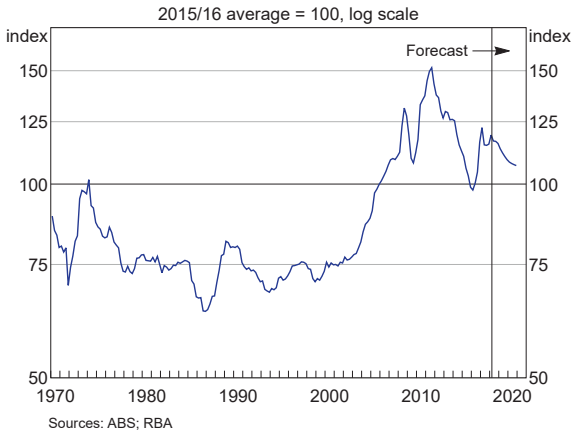
Exports are expected to grow strongly, led by LNG exports as production ramps up. Iron ore exports are expected to increase only slightly, supported by productivity improvements, and coal exports are expected to increase marginally. Non-ferrous metal exports are also likely to contribute to export volume growth (see 'Box C: Outlook for Non-ferrous Metal Exports'). However, by 2020, most of Australia's major resource projects are expected to be producing at their targeted production levels. At this time, resource export volumes will be at historically high levels but will contribute little to GDP growth. Exports of services and manufactures are expected to grow steadily, supported by solid trading partner growth. Beyond the June quarter, rural exports are expected to be a little weaker than anticipated in the *May Statement* because of drought conditions in parts of the country. If these conditions were to persist or become more widespread, then the impact on rural exports, and the farm sector more generally, would be larger.

### The terms of trade are still expected to moderate

Australia's terms of trade forecast has been revised a little higher relative to the *May Statement*, reflecting the recent strength in coal prices. The terms of trade are expected to remain around these higher levels for the next few quarters or so, before gradually declining over the medium term as Chinese demand for bulk commodities moderates and the global supply from low-cost producers increases (Graph 5.2). The terms of trade are expected to remain above their recent trough in early 2016.

It is possible that thermal coal prices will be higher than expected over the medium term. Government policies in a range of economies are encouraging a global transition to less carbon-intensive energy sources, which has meant that there has been little additional supply. However, the transition to alternative energy sources has been gradual and thermal coal power generation is expected to remain a material share of global energy production for some time, thereby supporting thermal coal prices.

**Graph 5.2**  
**Terms of Trade**

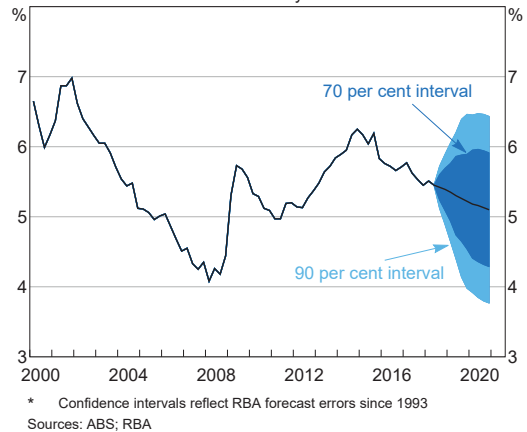


### Spare capacity in the labour market is expected to decline ...

There has been little change to the labour market forecasts. Leading indicators of labour demand suggest employment will grow at an above-average pace over the second half of the year, albeit slower than the very strong growth recorded over 2017. With GDP growth expected to be above trend, employment growth is expected to be a little above the average growth in the working-age population over the next couple of years. These positive labour market conditions are expected to encourage more people to either enter or delay leaving the labour force and, as such, the participation rate is expected to rise a little further. The unemployment rate is expected to decline

gradually over the forecast period to around 5 per cent by the end of 2020 (Graph 5.3); this rate is consistent with conventional estimates associated with full employment. However, there is uncertainty around estimates of spare capacity in the labour market (see below).

**Graph 5.3**  
**Unemployment Rate Forecast\***  
Quarterly



### ... which is expected to underpin a gradual pick-up in wages growth

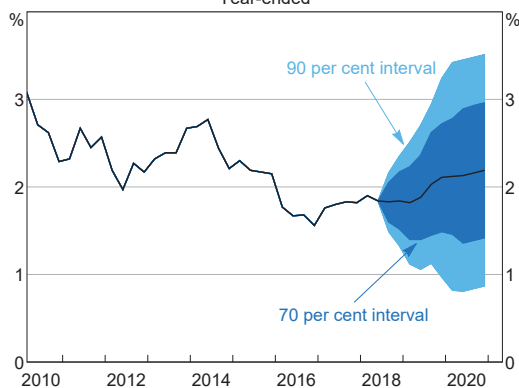
The outlook for wages is little changed from the *May Statement*. Wages growth is expected to be boosted slightly in the near term as a result of the 3.5 per cent increase in award and minimum wages from 1 July. Further out, the pick-up in wages growth is expected to be gradual, consistent with information from the Bank's liaison program and the expectation of a steady decline in labour market spare capacity. Wage outcomes from enterprise bargaining agreements are likely to remain a drag on overall wages growth because wages growth in new agreements, despite having picked up recently, remains below that in current agreements. How much a pick-up in wages growth will add to inflationary pressures will depend on whether there is an accompanying increase in productivity growth.

## Inflation is expected to pick up to above 2 per cent

The June quarter inflation outcomes were in line with the forecasts in the *May Statement*. However, the forecasts for headline and underlying inflation in the September quarter have been revised down. This is due to declines in the prices of some administered services that are known to have taken place in the quarter. This includes changes to the child care subsidy package, a decline in electricity and gas prices in some states, and some smaller changes to TAFE fees and car registration fees in New South Wales. There is uncertainty around the size of some of these price declines. The central forecast assumes that these price changes are one-offs and will not affect quarterly inflation in subsequent quarters.

The declines in administered prices are expected to have a larger effect on headline inflation than underlying inflation in the September quarter; in year-ended terms, both are now expected to be around 1¾ per cent in the second half of 2018 (Graph 5.4). Headline and underlying inflation are then expected to increase gradually to 2¼ per cent by mid 2020, which is unchanged from the *May Statement*. The increase reflects the expected decline in spare capacity in the economy.

**Graph 5.4**  
**Trimmed Mean Inflation Forecast\***  
Year-ended



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

## The risks to the outlook have evolved

Domestically, there continues to be uncertainty about the degree of spare capacity in the labour market and how quickly that might be absorbed by above-trend growth. From the perspective of the inflation forecasts, there continues to be uncertainty about how quickly tighter labour market conditions will translate into wage pressures, and when competitive pressures in the retail sector might abate. Uncertainty about wages growth also translates into uncertainty about household disposable income, which is an important driver of the consumption outlook. Other uncertainties that affect the outlook for inflation, such as the size and persistence of changes in administered prices, also have implications for real disposable income.

The risks to global growth from trade protectionism have increased. In light of this, and recent policy actions by Chinese authorities to manage financial risks and slowing growth, there is uncertainty about the outlook for China, which is a key trading partner for Australia. However, growth in the United States could be stronger than expected, which would boost global growth. A depreciation of the trade-weighted Australian dollar, in an environment of US dollar strength, would also be positive for the domestic outlook for growth and inflation.

## There is uncertainty about how much spare capacity there is in the economy

Leading indicators suggest that employment will continue to grow faster than the working-age population. However, it is unclear whether the increase in labour demand will be met by those who are currently unemployed finding jobs (which would lead to a reduction in the unemployment rate), those who are currently

employed working more hours, or an increase in the participation rate. It is possible that the forecast for above-trend GDP growth over the next few years will result in a sharper decline in the unemployment rate than expected, which could lead to a stronger pick-up in wages growth than forecast.

There is also uncertainty about the level of the unemployment rate that is consistent with stable inflation, which has to be inferred. International experience suggests that these estimates may decline as the unemployment rate falls. If so, upward pressure on wages growth could be less than expected.

For some time, wage outcomes have been systematically lower than historical relationships with labour market spare capacity would suggest. This raises the possibility that structural changes, possibly related to technological change and competition, have been placing additional downward pressure on wages growth. From a forecasting perspective, it is difficult to gauge the effect these forces might have on wages growth over the next few years. It may also be the case that wages growth picks up faster than forecast after a sustained period of low wages growth.

With GDP growth expected to be above trend over the next couple of years, spare capacity is expected to decline in the economy more broadly. As such, firms are likely to face increasingly binding capacity constraints. Following a prolonged period of underinvestment (particularly in machinery & equipment), and with survey measures of capacity utilisation already well above average, it is possible that firms will increase investment expenditure by more than is currently embodied in the central forecast.

## The outlook for administered prices and retail competition is unclear

The forecasts incorporate a temporary step-down in inflation in the September quarter based on known changes in some administrative prices. There is uncertainty about the size of some of these price declines, particularly in the case of the changes to child care subsidies. It is also the case that there may be larger-than-expected price increases in some expenditure categories during the quarter that are less apparent. However, there is a risk of further declines in administered prices in early 2019: there are a number of known government policy changes that take effect early next year, including new subsidies for children's extracurricular activities in New South Wales, changes to TAFE fees and the removal of caps for child care rebates.

There is also uncertainty about future movements in the prices of utilities. Utilities prices contributed 0.4 percentage points to headline inflation over the past year, but could decline or remain fairly steady over the forecast period. Wholesale electricity prices have already declined and the large volume of new renewable energy generation expected to come on line may put further downward pressure on wholesale prices. There is also uncertainty around other drivers of utilities prices, including the outlook for regulated network costs, which make up a significant share of the residential electricity bill, and the strength of competitive pressures in the retail energy market for new customers.

More generally, the forecasts assume that competition will continue to put downward pressure on a range of retail prices, particularly consumer durables. However, it is possible that the process of adjusting margins to the new level of retail competition will run its course over the forecast period and downward pressure on prices will abate.

## The outlook for consumption remains uncertain

Uncertainty about the outlook for wages growth has a direct bearing on the forecasts for household income growth and therefore consumption. The changes to income tax announced in the 2018/19 federal budget should support growth in household disposable income over the forecast period. Lower administered prices may also support real income growth in the near term, given that administered items make up around one-fifth of household consumption. Other uncertainties that affect the outlook for inflation, such as the level of retail competition, also have implications for real disposable income.

The high level of household debt also remains a key consideration for household consumption. For example, a highly indebted household facing weaker growth in disposable income or wealth than they had expected may respond by reducing consumption. Consumption growth may also be lower for a time if households concerned about their debt levels choose to pay down debt more quickly rather than consume out of additional income. Steps taken by regulators to strengthen household balance sheets have led to a moderation in growth in the riskier types of lending to households, but risks remain. While demand factors are likely to have been the dominant influence affecting credit growth of late, the ongoing high level of public scrutiny of lending decisions could see some further tightening in the supply of credit, although there are no signs of this as yet.

Recent declines in national housing prices have been gradual and follow several years of very strong growth. Accordingly, there is no evidence that moderate housing price declines have weighed on household consumption to date. Nevertheless, housing assets account for around

55 per cent of total household assets, so lower housing prices could lead to lower consumption growth than is currently forecast. Although the earlier gains in national housing wealth may not have encouraged much additional consumption, it is possible that the consumption decisions of highly indebted and/or credit-constrained households could be more sensitive to declines in housing prices than to the previous increases.

## Trade protectionism risks have increased

While the international outlook is largely unchanged from the *May Statement*, the risks to global growth from trade protectionism have increased. The direct impact on global GDP growth of the measures implemented so far is expected to be small, because the affected goods are only a small share of global trade; however, the growth forecasts for some more trade-exposed economies, such as Korea, have been scaled back a little. The risk is that an increase in protectionist measures could materially weaken the investment outlook and may weigh on confidence and financial market conditions more generally. Quantifying these possible effects is difficult at this point.

## US growth could be stronger than expected

Global financial conditions remain supportive of growth, despite monetary policy in the United States becoming somewhat less accommodative against the backdrop of stronger growth and higher inflation in the US economy. The US economy is experiencing a substantial fiscal stimulus, which is unusual at a time of full employment. US growth could therefore be stronger than expected and spare capacity, which has already been largely absorbed, could decline further. It is also possible that the



US government increases the fiscal stimulus by more than is currently legislated. Stronger US growth would provide a boost to global growth. US inflation could also increase by more than expected to be above the Federal Reserve's inflation goal. Under these conditions, the Federal Reserve would be likely to increase the federal funds rate by more, or more quickly, than currently anticipated.

Changes to the expected path of US monetary policy would be associated with significant financial market repricing, including an appreciation of the US dollar. The Australian dollar would be expected to depreciate against the US dollar, but the effect on Australia's trade-weighted exchange rate would depend on how far the exchange rates of other trading partners depreciate against the US dollar. In this environment, stronger global demand and a broad-based depreciation of the Australian dollar would be likely to boost growth in domestic activity and tradables inflation.

## Chinese authorities continue to balance financial risks against growth

Chinese policymakers face several trade-offs that present risks to the outlook for the Chinese economy, demand for bulk commodities and thus Australia's terms of trade. Financial policy settings have generally been tightened over the past year, which has slowed the build-up of financial stability risks, but has also weighed on economic growth at a time when momentum is already easing for structural reasons. The moderation in growth has led the government to ease fiscal policy and bolster liquidity in a targeted way. Although some policy easing in response to weaker conditions had been anticipated, these changes could result in growth being a little higher than forecast in

the second half of 2018 and early 2019. On the other hand, if additional fiscal spending is mainly financed by debt, it could undermine efforts to control overall leverage, resulting in a tightening of policy and weaker-than-expected economic growth further out. Chinese exchange rate policy presents a further source of uncertainty for the forecasts. If rising trade tensions and a more subdued growth outlook place further downward pressure on the renminbi, and the authorities allow a depreciation to occur, that could help offset weakness in parts of the economy. ↗



## Box C

# Outlook for Non-ferrous Metal Exports

Australia has large reserves of a number of resource commodities other than iron ore and coal, its two largest resource exports. These include copper, bauxite (the ore from which aluminium is produced), zinc, nickel, lithium and cobalt.

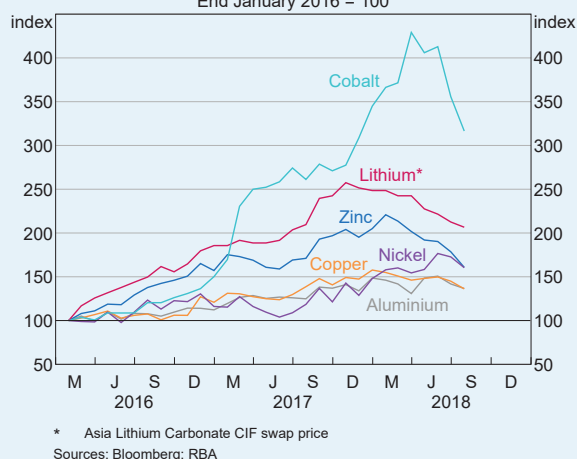
Stronger global demand for these commodities, stemming from both cyclical and structural factors, has contributed to significant price increases since 2016 (Graph C1). The pick-up in global GDP growth over this period has resulted in a broad increase in demand for commodities used in industrial production and construction, such as copper, zinc, nickel and aluminium. In addition, the outlook for the global uptake of electric vehicles and renewable energy generation has improved due to government policies and improved cost competitiveness. This in turn has increased the demand for copper, lighter-weight metals and commodities that are used in rechargeable batteries:

- Rechargeable lithium-ion batteries used in electric vehicles (and other applications) contain materials derived from a range of commodities, including lithium, nickel, cobalt, manganese, graphite and rare earths.
- To help offset the additional weight of a battery, the body of an electric vehicle is often manufactured with a higher share of lighter-weight metals such as aluminium and copper compared with a conventional vehicle.
- Renewable energy generation (wind, solar and hydro) uses copper more intensively

than coal- or gas-fired generators, partly because of the need for larger earthing systems and longer transmission lines to connect to grids.

- Renewable generation is also increasingly associated with battery storage systems, including rechargeable batteries similar to those used in electric vehicles.

**Graph C1**  
**Selected Non-ferrous Metal Prices**  
End January 2016 = 100



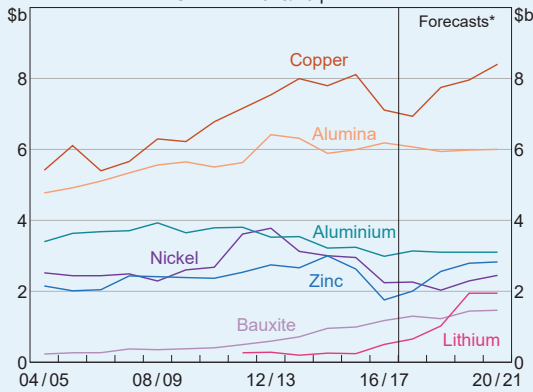
Australia is well placed to meet some of the increase in global demand for these commodities. Around 20–25 per cent of known global reserves for bauxite, lithium, nickel and zinc are located in Australia, and around 12 per cent for copper. Australia was one of the largest five global producers for each of these commodities in 2016.<sup>1</sup> Mineral exploration and mining activity for these commodities has increased over the past

<sup>1</sup> Source: Geoscience Australia.

two years, after several years of curtailed production and mine closures both in Australia and overseas; stronger commodity prices have supported the confidence and the ability of exploration and junior mining companies to secure financing.

As a result, Australian export volumes for these commodities are expected to increase over the next few years, as new projects commence production, existing mines are expanded, and mines that had been placed in care and maintenance are restarted (Graph C2).<sup>2</sup> Exports of copper and lithium are likely to drive the bulk of this growth; lithium exports are expected to triple over the next few years. Exports of bauxite, zinc and nickel are also likely to contribute to resource export growth, but to a lesser extent.<sup>3</sup>

**Graph C2**  
**Non-ferrous Metal Exports**  
Constant 2015/16 prices



\* Based on DOIIIS and RBA projections  
Sources: ABS; DMIRS; DOIIIS; RBA

In aggregate, copper, aluminium and its ores, zinc, nickel and lithium account for a small share of Australia's exports. In 2017 they comprised around 7 per cent of total export values and 13 per cent of resource export values, which was

a similar share to liquefied natural gas (LNG).<sup>4</sup> However, this was much smaller than the share of coal and iron ore, which comprised around 30 per cent of total export values and 60 per cent of resource export values in 2017.

Despite the positive outlook for export volumes of these commodities over the next few years, their share of total exports is expected to remain around the same as present. In the period to 2020/21, their combined contribution to total export growth is likely to average around 1/3 percentage point a year; this compares with a forecast average contribution of around 1 percentage point a year from LNG over the same period. Similarly, developments in export prices for non-ferrous metal exports are not expected to materially affect Australia's terms of trade. Instead, iron ore, coal and LNG will remain the most important for overall export prices, because they are still expected to comprise around 40 per cent of Australia's export values in coming years.

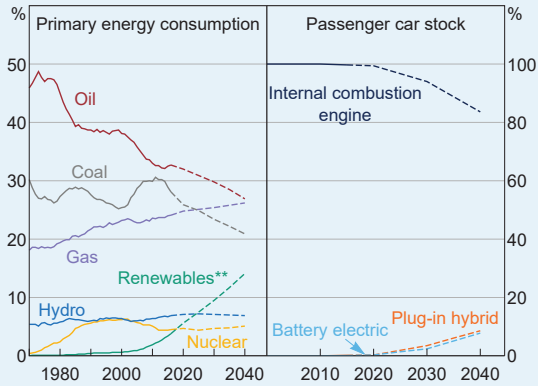
Looking beyond 2020, global renewable energy generation and sales of electric vehicles are expected to continue growing strongly as they become more cost competitive. For example, BP expects that, by 2040, renewable energy will account for almost 15 per cent of global energy needs (up from around 5 per cent now), and that there will be more than 300 million electric vehicles on the road (16 per cent of the global car stock; Graph C3).<sup>5</sup> All else being equal, this should continue to support demand for Australia's non-ferrous metal exports.

Alongside prospects for rapid growth in renewable energy production in coming decades, gas may also

2 See DOIIIS (Department of Industry, Innovation and Science) *Resources and Energy Quarterly* – June 2018.  
3 In addition to bauxite, Australia exports alumina and aluminium, but because no additional refining and smelting production capacity is expected for these in the next few years, it is not expected that they will add materially to export volumes over this period.

4 As a share of resource export values in 2017: copper and alumina each comprised around 4 per cent; zinc, aluminium and nickel each comprised a little under 2 per cent; bauxite and lithium comprised around 1/2 per cent each; and cobalt comprised less than 1/4 per cent.  
5 Based on the Evolving Transition (baseline) scenario in the BP Energy Outlook 2018. Electric vehicles include plug-in hybrid and battery electric vehicles.

**Graph C3**  
**Changing Global Energy Mix\***  
 Global share



\* Dotted lines represent forecasts  
 \*\* Includes wind, solar, geothermal, biomass and biofuels (excludes large-scale hydro)  
 Source: BP Energy Outlook 2018

meet a growing share of global energy needs over this period. This is partly because government policy measures are favouring lower-emission fuels and low-cost gas supplies are expanding. While increased global gas demand could support further growth in Australia’s LNG exports, this will depend on Australian LNG’s price competitiveness and whether global demand is met from pipeline or LNG sources.<sup>6</sup> ↕

6 See Heath A (2016) ‘The Future of Energy Demand and Implications for Australia’, Address to CEDA’s NSW Energy Series: Future Energy Projects, Sydney, 21 June.



