

# Statement on Monetary Policy

MAY 2015

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*Reserve Bank*

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# Overview

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Growth of Australia's major trading partners was around its long-run average in 2014. It appears to have eased slightly in the early months of 2015. Commodity prices have been quite volatile over recent months, notably iron ore and oil prices, which have rebounded somewhat from recent lows. Even so, prices of Australia's key commodity exports overall have declined since the beginning of 2015 and are well down on levels of a year ago. In large part, the declines reflect growth in the supply of commodities globally, although an easing of growth in China's demand for some key commodities has also played a role. While there has been a further fall in Australia's terms of trade, the Australian dollar has appreciated by around 3 per cent against the US dollar and in trade-weighted terms since the previous *Statement*.

In China, economic growth has eased further. The Chinese property market remains a source of weakness in the economy and this is flowing through to weaker demand for steel and other construction-related products. Indicators for Japanese economic activity have been somewhat mixed early this year, though labour market conditions remain tight and there are tentative signs that wage growth will rise, which is expected to underpin a pick-up in domestic price pressures. Economic growth in the rest of east Asia looks to have slowed a little in the March quarter. Growth in the US economy moderated in the March quarter, largely reflecting the temporary effects of disruptions related to severe weather and industrial action in West Coast ports. Meanwhile, the US labour market has continued to improve and wage growth has picked up. Economic activity in the euro area is recovering at a gradual pace.

Despite slightly weaker-than-expected conditions early in 2015, growth of Australia's major trading partners is expected to remain around its long-run average pace in 2015 and 2016. Growth will continue to be supported by very stimulatory monetary policies in most parts of the world. Core inflation rates are below many central banks' targets. The Federal Open Market Committee is not expected to start increasing the US policy rate until the second half of 2015, while the People's Bank of China has recently taken steps to boost liquidity and has adopted a more accommodative monetary policy stance more generally. The European Central Bank and the Bank of Japan continue to expand their balance sheets in line with their previously announced policies. Accordingly, finance remains readily available amid very favourable pricing conditions, notwithstanding the sharp rise in sovereign yields in recent days. Also, the low oil price is providing support to Australia's trading partners, most of which are net oil importers.

The available data suggest that the domestic economy continued to grow at a below-trend pace in the March quarter. Dwelling investment and resource exports appear to have continued growing strongly and there is evidence that the growth of household consumption has been gaining some momentum over the past six months or so. However, investment in the mining sector is declining noticeably and non-mining business investment remains subdued. Moreover, indicators of non-mining business investment intentions suggest that a significant pick-up is not in prospect over the next year or so.

Conditions in the established housing market remain strong, especially in Sydney and to a lesser extent in Melbourne. Outside these cities, however, housing price growth has declined. Forward-looking indicators, including building approvals, suggest that dwelling investment overall will continue to grow strongly over coming quarters. Housing credit growth has been little changed at a pace that is around the long-term growth of household income. Growth of housing credit for investors remains close to 10 per cent on an annual basis, with no sign of growth either increasing or decreasing in the period ahead.

Very low interest rates and increasing housing prices helped to support a pick-up in the growth of household consumption over 2014. More recent retail sales data suggest that consumption growth maintained its pace into the early months of 2015. Measures of consumer sentiment remain a little below average.

Export volumes continue to increase, aided in the March quarter by the absence of substantial weather-related disruptions to mining and shipping operations across the country. Resource export volumes are expected to continue growing as new production capacity for iron ore and liquefied natural gas comes on line over 2015. However, the decline in commodity prices in recent quarters has put pressure on higher-cost producers in the iron ore and coal sectors. While the substantial declines recorded in mining investment have been much as expected, producers have responded to lower commodity prices with further cost-cutting. Some smaller, higher-cost producers of iron ore and coal in Australia have announced the curtailment of production, although the affected mines accounted for only a relatively small share of Australian production in 2014.

Non-mining business investment has remained subdued even though many of the conditions for a recovery have been in place for some time. Access to funding does not appear to be constraining business decisions; lending rates on the outstanding stock

of business (and housing) loans have continued to edge lower and business credit growth has been picking up. Also, surveys suggest that business conditions in the non-mining sector are close to average. However, forward-looking measures of business confidence remain a bit below average and non-residential building approvals are relatively subdued. Business liaison suggests that firms have spare capacity and are still waiting to see a more substantial improvement in demand conditions before they commit to major new investment projects. In line with that, surveys of investment intentions do not indicate that there will be much of a pick-up in non-mining capital investment over the next year or so.

There continues to be excess capacity in the labour market, though the most recent labour force data suggest that employment growth has increased over the past six months or more, to be above the rate of population growth. The participation rate has picked up slightly, and the unemployment rate has been stable at about 6¼ per cent since mid 2014. Forward-looking indicators of labour demand, which had picked up somewhat over the past year, have been little changed over recent months and point to modest growth of employment over coming months.

Consumer price inflation declined over the past year, reflecting substantial falls in fuel prices and the repeal of the carbon price, although the recent rebound in fuel prices should add to headline inflation somewhat in the near term. Measures of underlying inflation remained around ½–¾ per cent in the March quarter and 2¼–2½ per cent over the past year. Domestic cost pressures are generally well contained, partly because of the extended period of low growth of wages, with the result that non-tradables inflation was about 1 percentage point below its decade average over the year to March. Consumer prices related to housing increased by marginally more than their historical average, driven by inflation in new dwelling costs, which in turn reflects the strength of dwelling investment. Tradables inflation

(excluding volatile items and tobacco) has picked up in response to the depreciation of the Australian dollar over the past two years or so.

Growth in the Australian economy is expected to continue at a below-average pace for a little longer than earlier anticipated and to pick up gradually to an above-average pace over 2016/17. The key forces shaping the outlook are much as they have been for some time. Recent data suggest that consumption growth has continued to pick up gradually, supported by very low interest rates and relatively strong population growth. Forward-looking indicators continue to suggest that dwelling investment will continue to grow strongly in the near term. The momentum building in household demand will, in time, provide some impetus to non-mining business investment, even though indicators of investment intentions suggest that non-mining business investment is not likely to pick up over coming quarters, as had been expected at the time of the February *Statement*. Export growth is also expected to continue making a substantial contribution to GDP growth. Mining investment, fiscal consolidation and the falling terms of trade are expected to impart an offsetting restraint on growth over the next couple of years at least.

The profile for GDP growth implies that there will be excess capacity in the labour market for longer than previously thought. The unemployment rate is expected to rise gradually and peak a little later than envisaged in the February *Statement*, before gradually declining towards the end of the forecast period. Wage growth is not expected to increase much from its current low levels over the next two years or so. As a result, domestic labour cost pressures are likely to remain well contained and underlying inflation is expected to be consistent with the inflation target throughout the forecast period.

The risks to the outlook for the global economy appear roughly balanced, other than for China where risks remain tilted to the downside. Weakness in the Chinese property market and constraints on the

ability of local governments to fund infrastructure projects continue to represent key sources of uncertainty for China's economic growth and its demand for commodities. Any significant change in the demand for steel in China would affect the prices of iron ore and coking coal. Also, if high-cost producers of iron ore in China were to curtail production significantly, this would place upward pressure on prices. Developments in China and their impact on commodity prices are also likely to affect the outlook for the exchange rate, which is another important consideration for the forecasts for the domestic economy. Further depreciation of the exchange rate seems both likely and necessary, particularly given the significant declines in key commodity prices, although increasingly divergent monetary policies in the major economies are also likely to have an important bearing on exchange rate developments.

Domestically, the forecasts embody a further gradual pick-up in consumption growth and decline in the saving ratio. However, if households respond to changes in interest rates and asset prices to the same degree as they did prior to the global financial crisis, this would support higher consumption growth and imply a lower saving ratio than embodied in the forecasts. Alternatively, if households are less inclined to bring forward their consumption than has been factored into the forecasts, perhaps because they do not wish to increase their leverage, consumption growth would be weaker and the saving ratio higher than forecast.

Business investment remains a significant source of uncertainty. Mining investment is expected to fall significantly, but the size of the fall and the impact of lower-than-expected commodity prices remain uncertain. There are also significant risks to the forecasts for non-mining investment. While the latest capital expenditure survey implies a weaker profile for non-mining business investment over the next year than currently forecast, the first estimate of investment intentions for 2015/16 is subject to considerable uncertainty and the survey covers

only about half of actual non-mining business investment. Moreover, many of the preconditions for a recovery in non-mining business investment are in place, so it is possible that the recovery could begin earlier or be stronger than currently forecast.

The adjustment to the decline in the terms of trade and mining investment over recent years has resulted in a rise in the unemployment rate and a pronounced decline in wage growth in the economy. The unemployment rate is expected to rise a little further from here, before it begins to decline. It is possible that employment growth will be stronger than expected and the unemployment rate will not increase to the extent anticipated, although this could probably only be achieved with ongoing moderation in wage growth.

The Reserve Bank Board reduced the cash rate by 25 basis points at its February meeting. At its March and April meetings, the Board kept the cash rate steady, but indicated that further easing may be appropriate. Over that period, incoming data have generally provided more confidence that growth in household expenditure is gaining some momentum, consistent with the forecasts presented in the February *Statement*. However, other information, including the forward-looking indicators of investment, suggested that overall growth will remain below trend for longer than

had previously been expected. Accordingly, the economy is likely to be operating with a degree of spare capacity for some time yet and domestic cost pressures are expected to remain subdued and inflation well contained.

The Board noted that although financial conditions are very accommodative, the exchange rate continues to offer less assistance than would normally be expected in achieving balanced growth in the economy. It also noted that while housing price growth is very strong in Sydney, it has declined across much of the rest of the country, and there has been little change to the growth of housing credit in recent months. The Bank is working with other regulators to assess and contain risks that may arise from the housing market.

At its May meeting the Board judged that, under these circumstances, it was appropriate to reduce the cash rate by a further 25 basis points to provide some additional support to economic activity. This could be expected to reinforce recent encouraging trends in household demand and is consistent with achieving the inflation target.

The Board will continue to assess the outlook and adjust policy as needed to foster sustainable growth in demand and inflation outcomes consistent with the inflation target over time. ✎

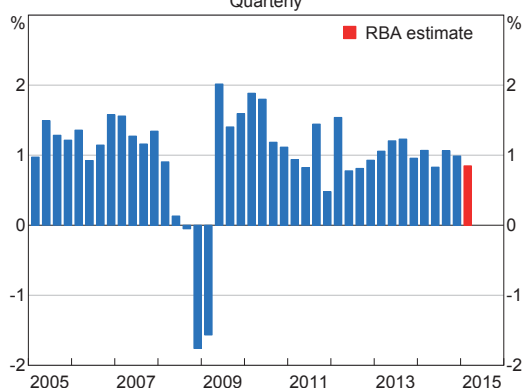
# 1. International Economic Developments

Overall, it appears that the growth of Australia's major trading partners (MTPs) eased a little in the first few months of 2015, but remained close to its long-run average (Graph 1.1). In China, growth of resource-intensive sectors of the economy, such as property and manufacturing, continued to slow in the early part of this year. The Japanese economy has recovered modestly from the weak growth recorded last year following the increase in the consumption tax. In aggregate, other economies in the Asia-Pacific region have continued to grow at their decade-average pace. The euro area economy continues to recover gradually, while the US economy has been growing at an above-trend pace, notwithstanding a moderation in the pace of growth in the March quarter.

Growth of global industrial production has eased over the past year, in part as a result of slower growth in China. This has contributed to a further decline in commodity prices since the beginning of 2015, although much of the decline in commodity prices over recent years appears to have reflected the increase in the global supply of commodities.

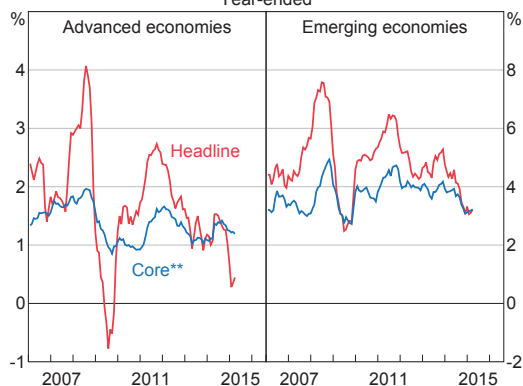
Oil prices remain at a low level relative to recent years. This will continue to support growth in most of Australia's major trading partners (given that they are net energy importers) and put downward pressure on global inflation (Graph 1.2). Core inflation in the advanced economies has not changed significantly in year-ended terms, and remains below central banks' targets in most economies. Monetary policies remain very accommodative.

**Graph 1.1**  
Australia's Trading Partner Growth\*  
Quarterly



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

**Graph 1.2**  
Global Inflation\*  
Year-ended



\* PPP-weighted; sum of emerging and advanced economies accounts for around 80 per cent of world GDP

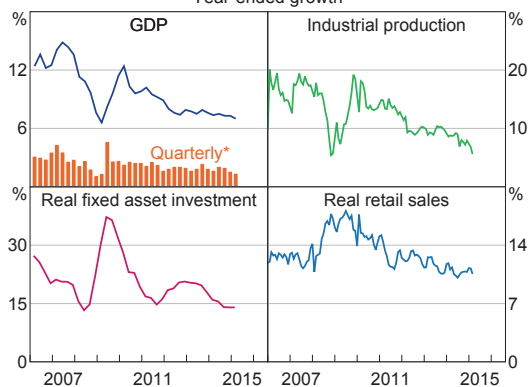
\*\* Excluding food and fuel

Sources: CEIC Data; IMF; RBA; Thomson Reuters

## Asia-Pacific

In China, economic growth moderated further in the March quarter, with the slowing apparent across a range of domestic activity indicators (Graph 1.3). Conditions remain subdued in the property and manufacturing sectors. GDP growth eased further in the quarter, driven by weaker growth in domestic expenditure, which was reflected in a sharp fall in imports. In March, the Chinese Government announced a GDP growth target for 2015 of around 7 per cent, down from around 7½ per cent in 2014. The target of creating 10 million new urban jobs for the year was unchanged in 2015. Slightly more accommodative fiscal policy is expected to make a modest contribution to growth this year, and more recently the authorities have acted to ease monetary policy.

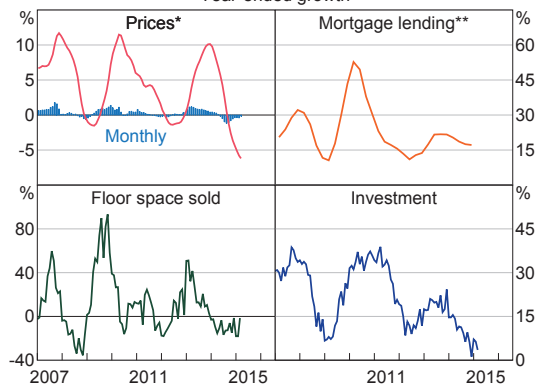
**Graph 1.3**  
China – Activity Indicators  
Year-ended growth



\* RBA estimates prior to December quarter 2010  
Sources: CEIC Data; RBA

Conditions in the property market remain weak, as prices and sales volumes have continued to fall and growth of investment has slowed (Graph 1.4). The authorities have announced further measures to support the property market including: a lower minimum down payment for second mortgages of 40 per cent; lower down payment requirements for home buyers participating in housing fund contribution schemes; and more generous capital gains tax concessions. The authorities are also

**Graph 1.4**  
China – Residential Property Market Indicators  
Year-ended growth

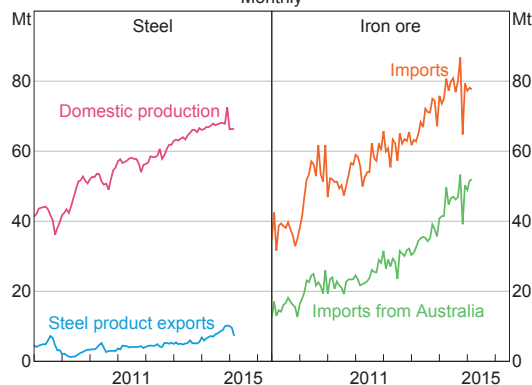


\* Newly constructed property in 69 large and medium-sized cities  
\*\* Total real estate loans minus development loans  
Sources: CEIC Data; RBA; WIND Information

attempting to address the overhang of housing investment through plans for local governments to purchase existing stock from developers to use for social housing.

Conditions in the industrial sector have softened, especially for construction-related products, but growth in the production of a range of other manufactured items has also slowed. Weakness in sectors that use steel as an input has led to a slight fall in domestic steel consumption since mid 2014. Production of steel has eased a little and steel exports have declined after growing rapidly in 2014 (Graph 1.5). Iron ore imports have been relatively

**Graph 1.5**  
China – Iron Ore and Steel  
Monthly



Sources: CEIC Data; RBA

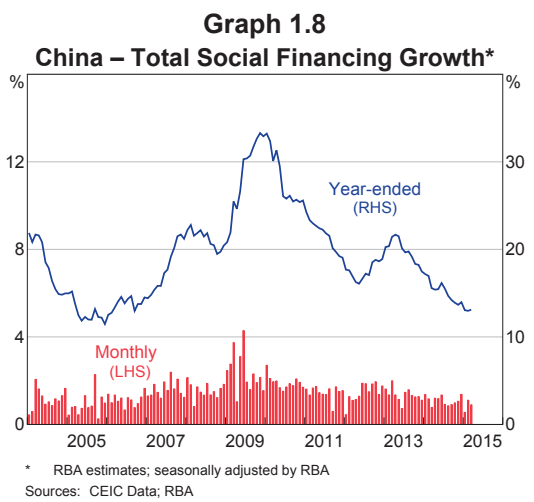
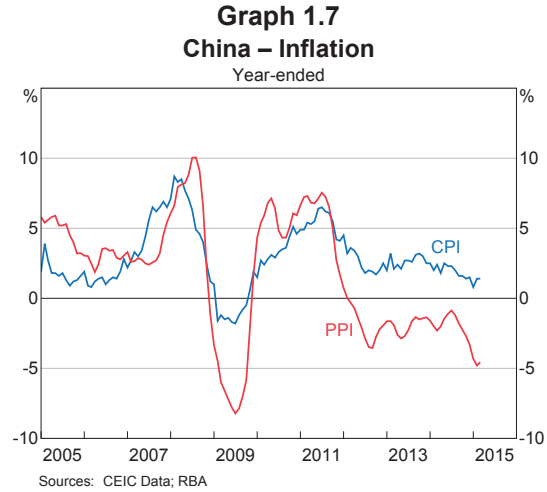


flat overall, although imports from Australia have continued to increase, and Chinese domestic iron ore production has fallen in recent months. In early April, in an effort to support struggling domestic producers, the Chinese Government reduced the proportion of resource tax collected from iron ore mines operating in China from 80 to 40 per cent, which on some estimates implies tax relief of between US\$1 and US\$4 per tonne.

Growth of real fixed asset investment has moderated and remains relatively low in year-ended terms. While real estate and manufacturing investment growth have both weakened in recent months, growth of infrastructure investment has been resilient, consistent with the pick-up in approvals for infrastructure projects announced by the authorities in the second half of 2014. Consumption indicators have weakened slightly with growth of real retail sales and automobile sales both easing. Export volumes have fallen in recent months after a sharp run-up last year (Graph 1.6). Imports have declined sharply in both value and volume terms.

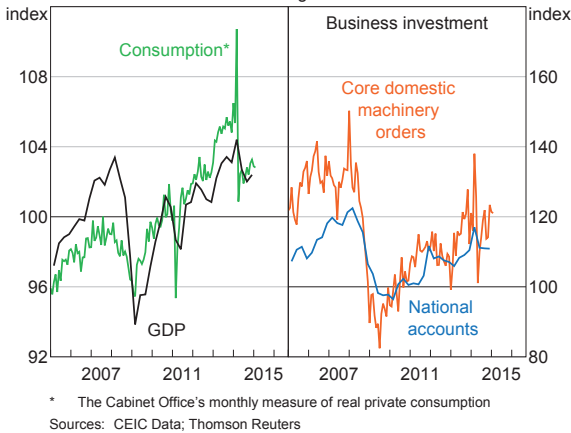
Inflationary pressures remain subdued (Graph 1.7). In March, CPI inflation was 1.4 per cent in year-ended terms, which is well below the CPI inflation target for 2015 of 3 per cent. Producer prices have continued to decline, consistent with excess capacity in manufacturing and falling global commodity prices.

Growth of total social financing has continued to ease, driven by a broad-based slowing in off-balance sheet financing consistent with policy efforts to reduce its share in overall financing activity (Graph 1.8). Growth of bank credit remains stable. Growth of the money supply (M2) is currently a little above the government’s new target for 2015 of 12 per cent; the authorities recently indicated that this target may be exceeded if further stimulus is required to support economic activity. Monetary policy has been more accommodative in recent months: the People’s Bank of China cut benchmark interest rates in February, lowered reserve requirement ratios in April and has injected liquidity through a range of lending facilities (see the ‘International and Foreign Exchange Markets’ chapter).



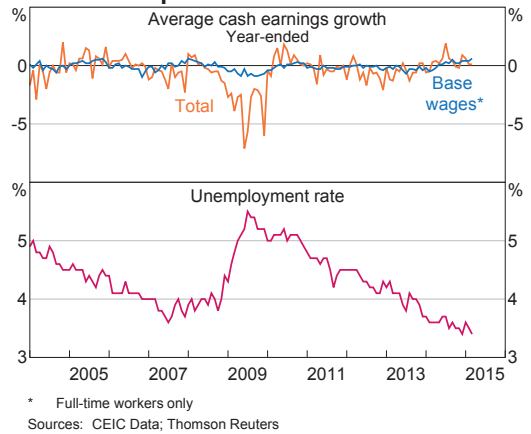
In Japan, growth in economic activity resumed in the December quarter, following significant declines in output in the previous two quarters. Growth appears to have continued at a modest pace in the March quarter, although business indicators and measures of consumer spending have been mixed (Graph 1.9). While business investment remained subdued in the second half of 2014, indicators for the March quarter, such as core machinery orders, have been a little more positive. Export volumes have picked up since late last year.

**Graph 1.9**  
**Japan – Economic Indicators**  
2010 average = 100



The Japanese labour market remains tight. The unemployment rate is around its lowest level in almost two decades and the ratio of job offers to applicants has reached its highest level over the same period (Graph 1.10). Increasingly, there is evidence that labour market conditions are placing upward pressure on nominal wages, which had been stagnant for some time. Wage growth has been picking up of late and the recent annual spring wage negotiations have resulted in several large companies increasing base wages by more than they did a year ago. Despite the recent pick-up, wage growth remains below the Bank of Japan's (BoJ's) inflation target. Although these developments point to some increase in domestic inflationary pressures, inflation has drifted lower of late reflecting the fall in oil prices and the fading effects of the earlier depreciation of

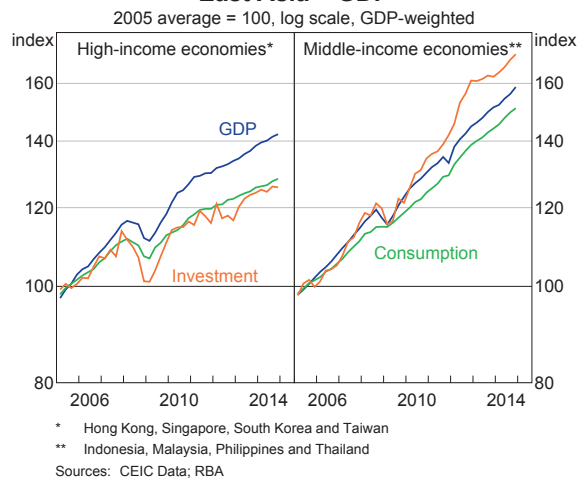
**Graph 1.10**  
**Japan – Labour Market**



the yen. Core inflation has been relatively steady at around ½ per cent, well below the BoJ's target of 2 per cent, while financial market-based measures of longer-term inflation expectations have declined to just below 1 per cent.

In the rest of east Asia, growth returned to an around-average pace in the second half of 2014, following a period of slower growth. Growth picked up in the middle-income Asian economies in the December quarter, but slowed a little in the high-income Asian economies (Graph 1.11). It appears that moderate growth has continued in the March quarter for the high-income economies.

**Graph 1.11**  
**East Asia – GDP**



Growth in the middle-income Asian economies has been driven by strong growth in investment, including in infrastructure, and consumption. In contrast, international trade has been more important for growth in the high-income economies, and domestic demand in these economies has grown at a more moderate pace. Growth in intraregional trade has slowed in recent years, though a pick-up in demand from the United States over the past year has provided an offsetting support to exports in the east Asian region.

Falling global oil prices have led to a moderation in headline inflation across most of the region. Core inflation has been little changed and remains low. Declining inflationary pressures have contributed to decisions by several central banks in the region to ease monetary policy in recent months.

In India, year-ended GDP growth was revised higher to between 6 and 8 per cent over the past few years (Graph 1.12). The share of manufacturing in output has been revised significantly higher, from one-quarter to one-third of GDP, and growth of both manufacturing and services production were revised upwards. This may, in part, reflect better coverage of faster-growing enterprises in the national accounts. GDP growth eased in the December quarter, reflecting subdued agricultural and industrial output. Some partial indicators, such

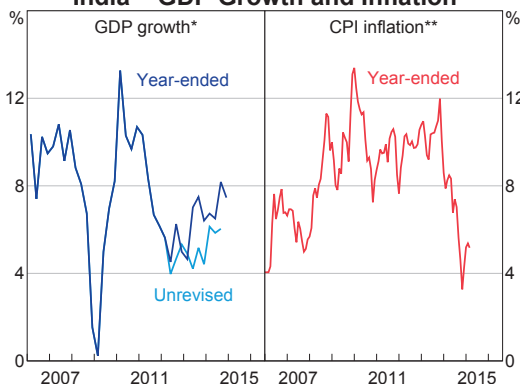
as industrial production and investment approvals, have improved in recent months.

A newly announced monetary policy framework formally established a target for consumer price inflation as the Reserve Bank of India's (RBI's) key objective. Consumer price inflation remains below the RBI's January 2016 target of 6 per cent. In March, the RBI cut its policy rate by 25 basis points for the second time this year, citing weak demand conditions, contained inflation and a positive appraisal of the government's fiscal strategy. The recently released government budget for 2015/16 projects a slight easing in the pace of fiscal consolidation over the next several years. As a share of GDP, public capital expenditure, particularly on infrastructure, is forecast to rise significantly, while public expenditure overall is projected to fall, partly due to a reduction in fuel subsidies.

New Zealand's economy grew at an above-average pace over 2014, as rebuilding following the 2010 and 2011 Canterbury earthquakes, record-high net immigration and continued strength in the housing market have supported activity. The labour market has continued to strengthen, with increases in the participation rate and net migration contributing to strong growth in the supply of labour. Despite the decline in the unemployment rate over recent years, wage and price pressures have remained subdued.

**Graph 1.12**

**India – GDP Growth and Inflation**



\* Seasonally adjusted by RBA

\*\* Reserve Bank of India estimates prior to January 2012

Sources: CEIC Data; RBA; Reserve Bank of India

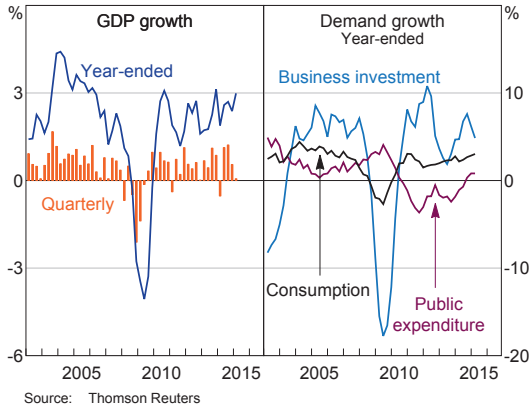
## United States

Growth in the US economy moderated in the March quarter, largely reflecting the impact of temporary factors (Graph 1.13). Industrial action across many ports temporarily disrupted the operation of supply chains and adverse weather conditions affected activity in some regions. Despite these factors, conditions remain favourable for both consumers and businesses, supported by low fuel prices and very stimulatory monetary policy.

The expansion in economic activity over the past year has supported strong growth of non-farm payrolls employment and led to further declines in the unemployment rate (Graph 1.14). Other

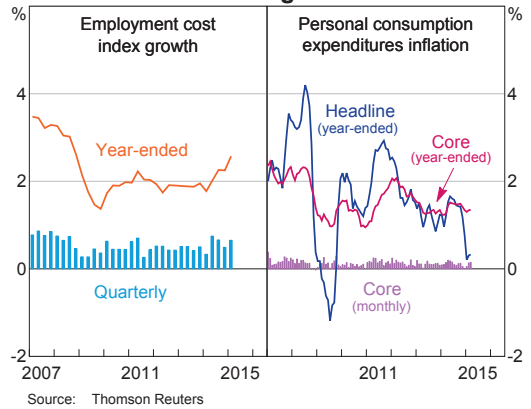
**Graph 1.13**

**United States – GDP and Demand**



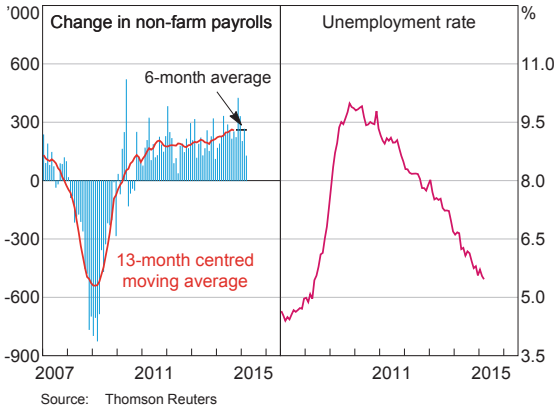
**Graph 1.15**

**United States – Wages and Inflation**



**Graph 1.14**

**United States – Labour Market**



indicators of slack in the labour market have recovered more slowly than the unemployment rate. Nevertheless, wage growth, as measured by the employment cost index, has picked up over the past four quarters to be slightly below its long-run average in year-ended terms (Graph 1.15). Falling energy prices have contributed to lower headline inflation, while core inflation has remained relatively stable at around 1¼ per cent. The Federal Open Market Committee has indicated that it is likely to begin the process of normalising interest rates in the second half of this year.

**Europe**

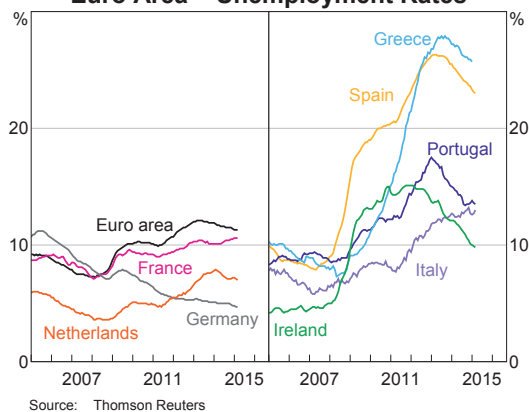
In the euro area, economic activity continues to recover gradually. In the December quarter, GDP expanded for the seventh consecutive quarter. Growth in the quarter was driven by consumption and investment, although the level of investment activity is only a little above its low point of two years ago. Exports also picked up following the depreciation of the euro since mid 2014.

The gradual recovery appears to have continued into the March quarter. Retail sales grew strongly in the quarter, and consumer confidence remained high. The PMIs and measures of business confidence have improved. Meanwhile, credit conditions and loan demand also continue to improve. Growth in household and business credit has lifted a little in recent months, property prices have risen and construction activity is above the lows of early 2013.

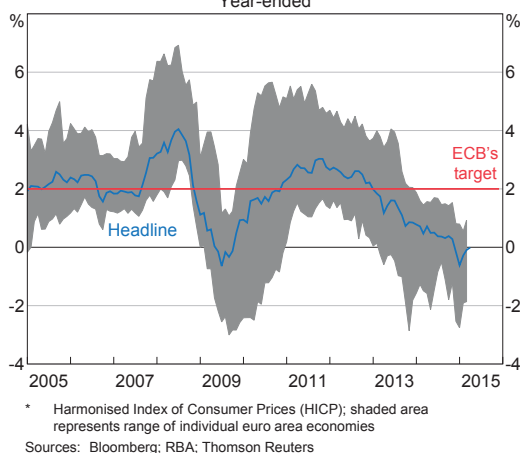
The region's unemployment rate has continued to decline, to be almost 1 percentage point below its peak in mid 2013 (Graph 1.16). Larger declines in unemployment have occurred in Ireland, Portugal and Spain where GDP growth has been above trend over recent quarters.

Consumer prices have increased a little in recent months, but remain lower than a year ago, partly reflecting the fall in oil prices (Graph 1.17). While measures of core inflation have been relatively stable

**Graph 1.16**  
**Euro Area – Unemployment Rates**



**Graph 1.17**  
**Euro Area – Inflation\***  
Year-ended

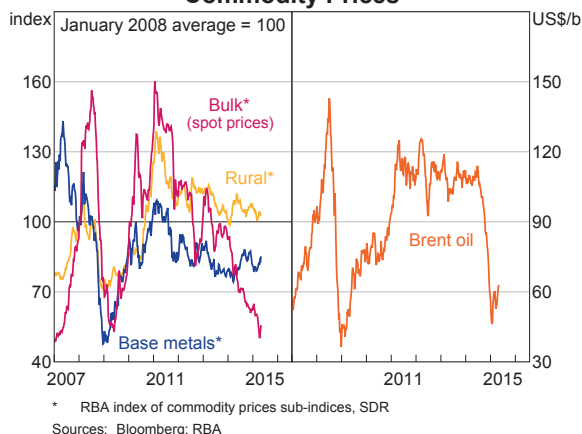


in recent months, they remain well below the target of the European Central Bank. Longer-term inflation expectations have stabilised over recent months but remain historically low.

## Commodity Prices

Since the February *Statement*, the RBA index of commodity prices (ICP) has declined significantly, although it has rebounded to some extent over the past month, driven by developments in prices of iron ore and oil (Graph 1.18; Table 1.1). Overall, commodity prices are 7 per cent lower in SDR terms than at the time of the previous *Statement* and

**Graph 1.18**  
**Commodity Prices**



21 per cent lower than a year ago. The terms of trade declined by 11 per cent over 2014 and are expected to have declined further over the first part of this year, judging by recent levels of commodity prices.

The spot price of iron ore has declined since the previous *Statement*, despite some pick-up in recent weeks (Graph 1.19). While additions to global supply put downward pressure on prices over 2014, price declines since then have also reflected weaker growth in Chinese demand for steel, which in turn reflects weak conditions in the property and manufacturing sectors. Iron ore producers, both in Australia and elsewhere, appear to have been able

**Graph 1.19**  
**Chinese Steel and Iron Ore Spot Prices**



**Table 1.1: Commodity Price Growth<sup>(a)</sup>**  
SDR, 3-month-average prices, per cent

	Since previous Statement	Over the past year
Bulk commodities	-10	-31
– Iron ore	-15	-45
– Coking coal	-4	-2
– Thermal coal	-4	-11
Rural	-3	-4
Base metals	-1	6
Gold	2	1
Brent oil <sup>(b)</sup>	-5	-46
RBA ICP	-5	-20
– using spot prices for bulk commodities	-7	-21

(a) Prices from the RBA index of commodity prices (ICP); bulk commodities prices are spot prices

(b) In US dollars

Sources: Bloomberg; IHS; RBA

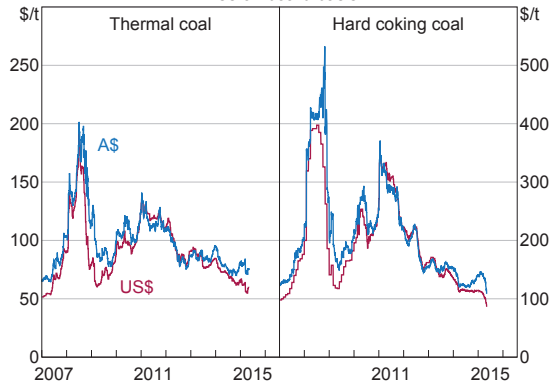
to lower production costs in response to declining prices, aided in part by lower oil prices (which are a key input into extraction and transport). There has been only a limited response of the global supply of iron ore to the decline in prices so far. There are signs that some higher-cost producers in Australia are responding to the lower prices by curtailing production. At current prices, however, most Australian production appears to be profitable. So far, the response from higher-cost producers elsewhere, including in China, has been less than expected given that many are estimated to be unprofitable.

Despite rebounding somewhat from its recent low in January, the Brent oil price remains around 40 per cent below its average level of recent years, largely reflecting the substantial increase in global supply. The recent volatility in oil prices has reflected the combined impact of news about the strength in unconventional oil production, the build-up of crude oil stocks, the decline in oil rig numbers in the United States and tensions in the Middle East. The sharp fall in oil prices since mid 2014 is being reflected in regional liquefied natural gas prices, albeit with some delay (see 'Box A: The Effect of Oil Price Movements on the Terms of Trade').

Spot prices of hard coking coal have declined in recent months and thermal coal prices remain relatively low despite picking up more recently (Graph 1.20). Both spot and contract prices for coking coal have fallen, reflecting subdued growth in Chinese demand for steel. At current prices, a substantial share of global coal production is estimated to be unprofitable. Liaison and recent company announcements indicate that some producers in Australia are considering whether to maintain production in light of lower profitability

**Graph 1.20**  
**Coal Spot Prices**

Free on board basis



Sources: Bloomberg; Citigroup; IHS; Macquarie Bank; RBA

and some companies have announced either delays to projects in the investment pipeline or a reduction in coal production. Accordingly, the growth of Australian coal production is expected to moderate over coming years. Over the past year, the depreciation of the Australian dollar has offset some of the weakness in bulk commodity prices for Australian producers, although the Australian dollar has been a little higher over the past three months. Base metal prices have declined slightly on average in recent months, but remain higher than a year ago. ↴

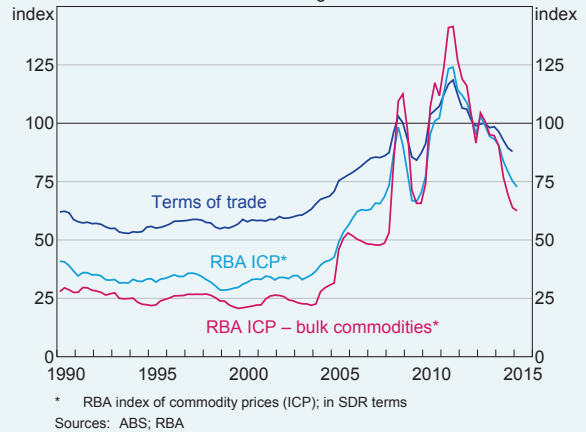
## Box A

# The Effect of Oil Price Movements on the Terms of Trade

Over the past decade, movements in Australia's terms of trade – the ratio of export prices to import prices – have been driven by movements in the prices of commodities, particularly of bulk commodities such as iron ore and coal (Graph A1). This reflects both large changes in the prices of these commodities and the fact that they comprise around one-third of Australia's total exports. Australia's terms of trade rose to record levels following significant increases in bulk commodity prices over the eight years to 2012. The terms of trade have declined since then, following substantial falls in commodity prices.

Movements in oil prices are likely to play an increasingly important role in determining Australia's terms of trade. Given that Australia is currently a net importer of oil, the recent fall in oil prices is expected to lead to an increase in the terms of trade as the effect of the fall in prices for imported oil outweighs that of the fall in prices of exported oil.<sup>1</sup> This direct effect is offset to some extent by the indirect effect of lower oil prices, which lead to lower prices for Australia's exports of liquefied natural gas (LNG), albeit with a lag of one to two quarters.<sup>2</sup> This offsetting effect is estimated to be small at the moment, but will grow as LNG exports become a larger share of Australia's exports. Following the substantial investment in LNG production and export capacity over recent years, Australia is projected to become the largest global producer of LNG by 2018; Department of Industry and Science projections suggest that, in value terms, LNG exports could surpass coal exports around that time. Indeed, taking oil and LNG together, Australia

**Graph A1**  
**Terms of Trade and Commodity Prices**  
2012/13 average = 100



is likely to shift from being a net importer of oil and LNG to being a net exporter over the coming year or so (Graph A2).

The sensitivity of the terms of trade to changes in oil prices can be illustrated by considering three scenarios: a 'reference case', which assumes that the Brent oil price follows prevailing futures market pricing (i.e. oil prices move to US\$74 per barrel by the end of 2020); a 'lower case', where oil prices fall to US\$40 per barrel; and a 'higher case', which assumes that oil prices rise to US\$100 per barrel.<sup>3</sup>

In the reference case, assuming that the historical relationship between US dollar oil prices and Australian dollar prices for Australian gas exports continues to hold, Australian LNG export prices

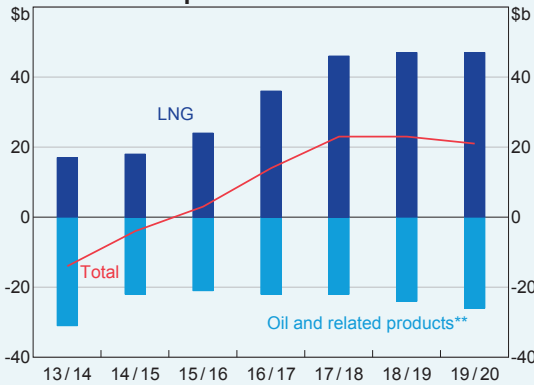
1 For more details about the effect of oil price movements on the Australian economy, see RBA (2015), 'Box C: The Effects of the Fall in Oil Prices', *Statement on Monetary Policy*, February, pp 46–48.

2 More detail about the Australian LNG market and LNG pricing is in Cassidy N and M Kosev (2015), 'Australia and the Global LNG Market', *RBA Bulletin*, March, pp 33–43.

3 LNG and oil export volumes are assumed to follow long-run projections published by the Department of Industry and Science from the June quarter of 2017 onwards. For further details, see Department of Industry and Science (2015), *Resources and Energy Quarterly*, March Quarter. Other prices and volumes are consistent with the forecasts outlined in the 'Economic Outlook' chapter until the June quarter of 2017 and are assumed to be unchanged thereafter.



**Graph A2**  
**Net Exports of Oil and LNG\***



\* Department of Industry and Science estimates from 2014/15 onwards  
\*\* Includes crude oil and other refinery feedstock, liquefied petroleum gas and refined products

Source: Department of Industry and Science

are estimated to fall noticeably by mid 2015 (in response to the oil price having declined by around 50 per cent since mid 2014).<sup>4</sup> LNG export prices then rise again towards their previous level, reflecting the recovery in oil prices implied by futures market pricing (Graph A3).<sup>5</sup> In the case of 'higher' oil prices, LNG export prices would rebound more sharply and surpass their current level. In the case of 'lower' oil prices, LNG export prices would fall further and remain below their current level over the entire period.

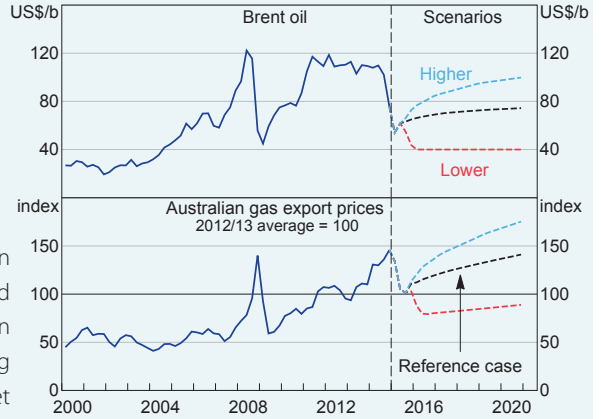
Under these scenarios, the projections for the terms of trade are not markedly different, particularly in the near term (Graph A4). The differences become larger over time, however, as the projected share

4 For the purposes of this analysis, growth in US dollar prices for Australian natural gas exports are modelled using an autoregressive distributed lag model that includes the growth in US dollar Brent oil prices and a constant. Gas export prices are then converted to Australian dollars. The estimation period is from 2000 onwards. Consistent with the sample period, the model implies that for a given increase in oil prices, gas export prices would rise by proportionately more.

5 Movements in LNG prices drive movements in the natural gas implicit price deflator, given that LNG comprises the vast majority of natural gas exports.

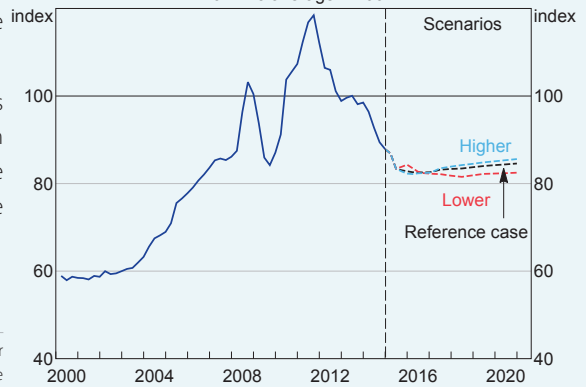
of LNG in total exports increases (from around 5 per cent in 2014/15 to around 11 per cent in 2019/20) and the indirect effect of oil prices on LNG prices dominates the direct effect on the terms of trade. The difference in the terms of trade between the 'higher' and 'lower' oil price scenarios is about 4 per cent by 2020. ↘

**Graph A3**  
**Brent Oil and Natural Gas Prices**



Sources: ABS; Bloomberg; Department of Industry and Science; RBA

**Graph A4**  
**Terms of Trade**  
2012/13 average = 100



Sources: ABS; Department of Industry and Science; RBA



## 2. International and Foreign Exchange Markets

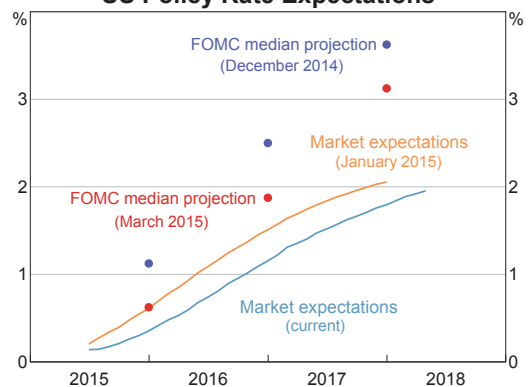
Financial markets have continued to be influenced by the divergence in global monetary policies, with the balance sheets of the European Central Bank (ECB) and Bank of Japan expanding whereas the US Federal Reserve is still expected to raise its policy rate later this year. These developments saw yields on German Bunds fall below 10 basis points in mid April, before rising sharply in recent days along with other sovereign yields. The euro has depreciated markedly and the US dollar has continued its appreciation, although in recent months it has slowed and been less broad based. The Australian dollar has appreciated by around 5 per cent on a trade-weighted basis and against the US dollar since early April after having depreciated by around 15–20 per cent from September 2014 to early April 2015. Developments in Greece have also remained in focus, in particular the ability of the government to meet its near-term debt obligations and the financial position of Greek banks, which have lost more than 15 per cent of their deposits over recent months. In China, the People’s Bank of China has responded to slower growth and lower inflation by increasing liquidity and lowering benchmark interest rates. At the same time, there has been a sharp, debt-financed rise in China’s equity markets.

### Central Bank Policy

The US Federal Reserve signalled at its March meeting that it is moving closer to raising the federal funds rate, and largely affirmed this in April. Statements by members of the Federal Open Market Committee (FOMC) indicate that many members still judge it most likely that they will begin the process of raising

the federal funds rate some time in the coming months, conditional on the evolution of the labour market and inflation. FOMC member projections for the path of the federal funds rate were revised down by around 50 basis points in March, and point to a gradual rise over the next few years (Graph 2.1). Market-implied expectations for the future path of the federal funds rate remain notably below those of FOMC members, particularly for 2017 when the market-implied expectation is below all FOMC members’ projections.

**Graph 2.1**  
**US Policy Rate Expectations**

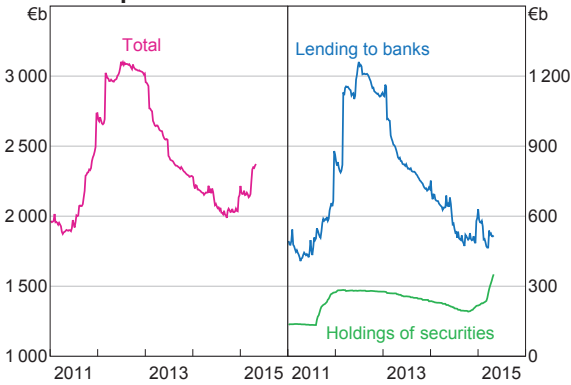


Sources: Bloomberg; Board of Governors of the Federal Reserve System; RBA

The ECB began purchasing public sector bonds in March following its decision in January to expand its asset purchase program. The ECB has bought €95 billion of public sector bonds over the subsequent two months, alongside an additional €25 billion of other assets, mainly covered bonds (Graph 2.2). The resulting expansion of its balance sheet has been partly offset by a decline in lending

**Graph 2.2**

**European Central Bank Balance Sheet**



Source: European Central Bank

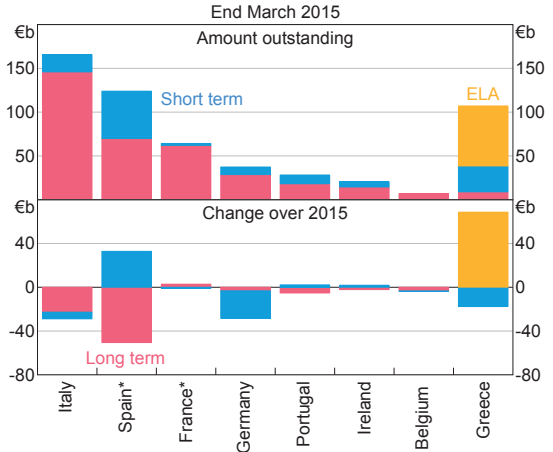
to banks since the start of the year. This decline reflects the maturing of loans extended under its 3-year long-term refinancing operations (LTRO) in January and February, which were larger than the take-up of funds offered at its March 4-year targeted LTRO and an increase in funding via 3-month LTROs.

At a country level, Italian and Spanish banks have reduced their use of ECB funding since the start of the year, as repayments of their maturing 3-year LTROs were only partly offset by increased borrowing via targeted LTROs and regular operations (Graph 2.3). While German and French banks were sizeable borrowers at the December targeted LTRO, they do not appear to have been so at the March operation.

The largest increase in borrowing from the ECB has been by Greek banks, whose reliance on ECB funding has increased to around €110 billion as a result of a sharp withdrawal of private funding sources (see section on 'Greece' below). Around two-thirds of this borrowing has been via the ECB's Emergency Liquidity Assistance (ELA) facility, reflecting the ECB's February decision to remove the waiver that had allowed Greek government non-investment grade debt to be used as collateral at standard lending facilities. Use of the ELA facility is currently capped at €79 billion, but the ECB has been regularly raising the cap in small increments as Greek bank borrowing has increased.

**Graph 2.3**

**Eurosystem Lending to Banks**



\* Month average data; for France, data are based on ECB six-week 'maintenance periods', with the latest ending on 21 April 2015

Sources: Central Banks; RBA

Other central banks in Europe have continued to ease policy in response to concerns about capital inflows from the euro area following the ECB's policy easing. The Swedish central bank progressively lowered its main policy rate from zero to -0.25 per cent over recent months, while also commencing a sovereign bond purchase program, citing concern that its forecast for inflation to return to target by mid next year may not eventuate if the exchange rate appreciates further. The purchase program will see the central bank buy SEK80–90 billion of government bonds between February and September, increasing the share of such securities it owns by almost 15 percentage points over this time. On an annual basis, this program is larger as a share of outstanding stock than any other central bank's except the Bank of England's (though relative to GDP it is somewhat smaller). The Danish central bank also lowered its deposit rate by a further 25 basis points in February in response to persistent upward pressure on its fixed exchange rate (see section on 'Foreign Exchange'). This was the fourth move in three weeks, and brought the rate to -75 basis points. In support of this policy, the Danish Government temporarily ceased new bond issuance to reduce capital inflows.

The Bank of Japan has continued its policy of balance sheet expansion. The money base in Japan has increased by ¥30 trillion since the start of the year, in line with its target of an ¥80 trillion expansion over the year.

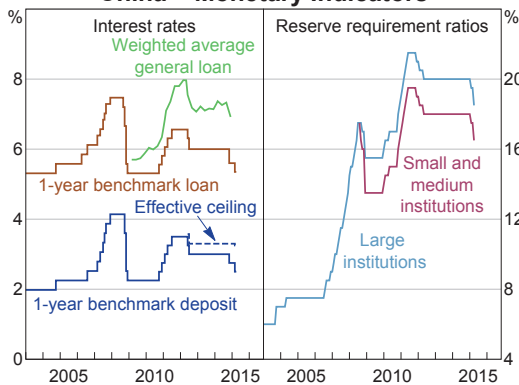
The People’s Bank of China (PBC) has eased policy since the start of the year, announcing a 25 basis point cut in benchmark rates for loans and term deposits, following a 25–40 basis point cut to most of these rates in November (Graph 2.4). While benchmark lending rates are no longer binding, average lending rates fell in the December quarter, with at least some portion of this due to the November change in benchmark rates. Benchmark deposit rates are still binding on banks, but the reduction was accompanied by an increase in the margin that banks can charge above the benchmark (as in November), leaving the effective ceiling on deposit rates little changed. Despite this, larger banks have generally lowered their term deposit rates by 50 basis points since November, though rates on at-call deposits offered by larger banks and those on term deposits offered by smaller banks were generally stable. Authorities in China introduced a deposit insurance scheme on 1 May, which is viewed as a precursor to full deregulation of deposit rates.

The PBC followed the reduction in benchmark rates with a 100 basis point cut to reserve requirement ratios (RRRs) in April, with larger reductions for

financial institutions focused on lending to the rural sector and small businesses. The system-wide cut released around CNY1.2 trillion of additional liquidity (1.9 per cent of GDP), in part to offset the reduction in liquidity injection via reserve accumulation (see section on ‘Foreign Exchange’). Consistent with these decisions, interbank funding costs have fallen since the end of the Chinese New Year to be at their lowest level in over a year.

A number of other central banks in Asia and Europe have also eased policy further in recent months (Table 2.1). In Asia, the central banks of both Korea and Thailand cut rates in response to weakness in demand, while the central banks of India and Indonesia both lowered rates in recognition of waning inflationary pressures. Elsewhere, the central bank of Israel lowered its rate to 0.1 per cent in February due to concerns about the possible impact of an appreciating currency, while the central bank of Turkey continued to unwind a small part of last year’s tightening as inflationary pressures abated, largely due to lower commodity prices. The central bank of Russia also continued to unwind some of its earlier tightening in policy, lowering rates by a further 250 basis points over March and April, though its policy rate remains 700 basis points higher than at the start of last year. In contrast, the central bank of Brazil has continued to tighten policy in response to elevated inflationary pressures, in part due to the depreciation of the Brazilian real.

**Graph 2.4**  
**China – Monetary Indicators**



Source: CEIC Data

## Sovereign Debt Markets

Global bond yields have risen sharply in recent days to be around the levels observed late last year (Graph 2.5). Prior to the recent sell-off, yields on 10-year German Bunds had declined to a new historic low of 8 basis points in April, and traded below those on Japanese government bonds for the first time in around three decades. The commencement of the ECB’s expanded asset purchase program in early March has acted to lower yields across all maturities, reflecting both the immediate additional demand for Bunds and market concerns about the ability

**Table 2.1: Monetary Policy**

	Policy rate		Most recent change	Cumulative change in current phase <sup>(a)</sup>
	Per cent			Basis points
Euro area	0.05	↓	Sep 14	-145
Japan <sup>(b)</sup>	na		na	
United States <sup>(c)</sup>	0.125	↓	Dec 08	-512.5
Australia	2.00	↓	May 15	-275
Brazil	13.25	↑	Apr 15	600
Canada	0.75	↓	Jan 15	-25
Chile	3.00	↓	Oct 14	-225
China <sup>(b)</sup>	na		na	
India	7.50	↓	Mar 15	-50
Indonesia	7.50	↓	Feb 15	-25
Israel	0.10	↓	Feb 15	-315
Malaysia	3.25	↑	Jul 14	125
Mexico	3.00	↓	Jun 14	-525
New Zealand	3.50	↑	Jul 14	100
Norway	1.25	↓	Dec 14	-100
Russia	12.50	↓	Apr 15	-450
South Africa	5.75	↑	Jul 14	75
South Korea	1.75	↓	Mar 15	-150
Sweden	-0.25	↓	Mar 15	-225
Switzerland <sup>(c)</sup>	-0.75	↓	Jan 15	-350
Thailand	1.50	↓	Apr 15	-200
Turkey	7.50	↓	Feb 15	-250
United Kingdom	0.50	↓	Mar 09	-525

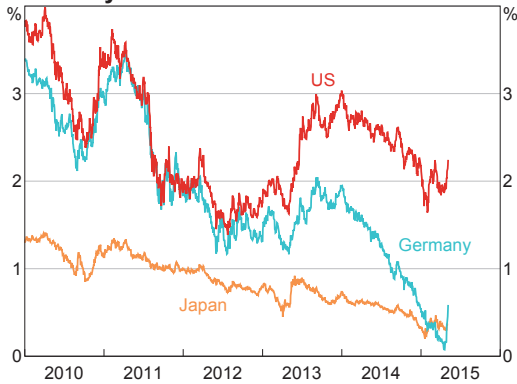
(a) Current rate relative to most recent trough or peak

(b) The Bank of Japan's main operating target is currently the money base; China does not have an official policy rate

(c) Midpoint of target range

Sources: Central Banks; RBA; Thomson Reuters

**Graph 2.5**  
**10-year Government Bond Yields**

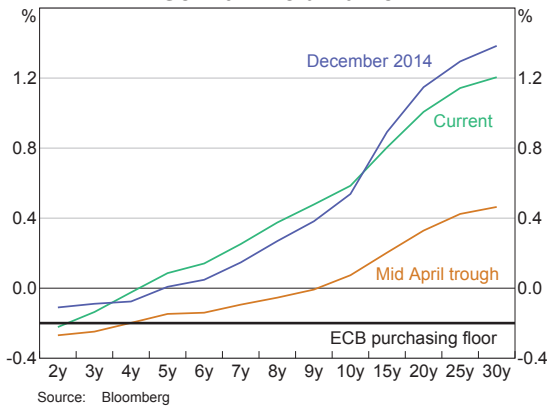


Source: Bloomberg

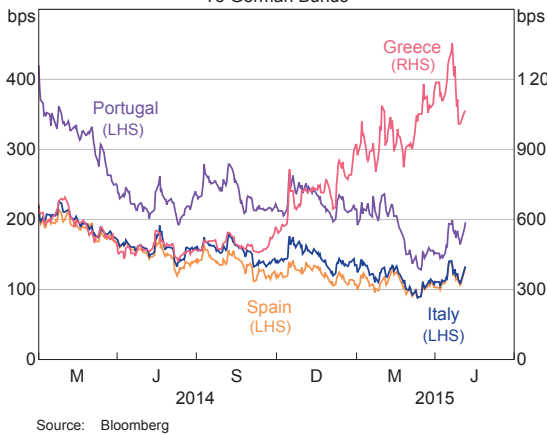
of the ECB to source sufficient quantities of Bunds (Graph 2.6). Such concerns were exacerbated by the ECB's decision to not purchase securities with a yield below the -20 basis point rate applicable to deposits at the ECB, given one-fifth of potentially eligible Bunds have recently traded lower than this.

Yields on 10-year bonds issued by governments of other core euro area economies have broadly followed those of Bunds since the start of the year, leaving spreads to Bunds little changed. However, spreads on Italian, Spanish and Portuguese bonds have all fluctuated over the past month in response to evolving concerns that Greece may soon be unable to meet its creditor obligations (Graph 2.7;

**Graph 2.6**  
**German Yield Curve**



**Graph 2.7**  
**Euro Area 10-year Government Bond Spreads**  
To German Bunds



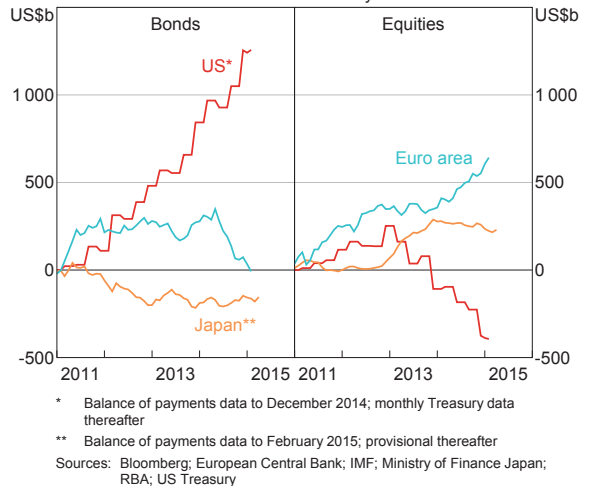
see section on 'Greece'). This follows a long period during which these bonds were largely unaffected by developments in Greece.

Yields on 10-year bonds issued by other European nations declined as monetary policy in these economies has been eased. Swiss government bond yields fell by over 60 basis points earlier this year to below zero, and yields on Swedish and Danish government bonds fell by around 70–80 basis points, though these moves have since partly unwound.

Very low bond yields in the euro area and Japan, along with a policy shift by the Japanese Government

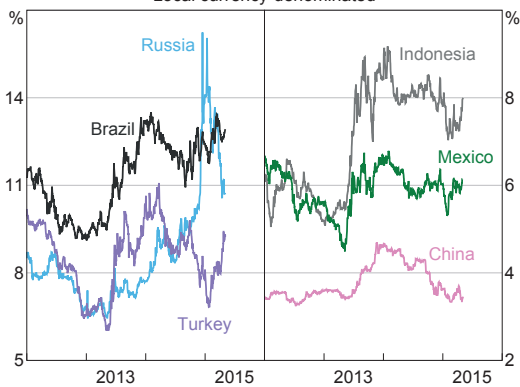
Pension Investment Fund, have seen residents of these economies increase their purchases of foreign bonds over the past year. For the euro area, this has been accompanied by a considerable slowing in bond purchases by foreigners, resulting in sizeable net bond outflows (Graph 2.8). In Japan, the outflows have been offset by foreign capital inflows. US residents have been selling foreign bonds since mid last year while foreign demand for US bonds has continued to trend up. This has been matched to some extent by a net outflow of equity capital, reflecting a reallocation of global equity funds towards the euro area.

**Graph 2.8**  
**Net Portfolio Inflows**  
Cumulative since January 2011



Emerging market bond yields have generally been quite stable over 2015, and there have been minimal net flows into emerging market bond funds (Graph 2.9). One notable exception has been for Russia, with yields on Russian government bonds having retraced most of their rise over December and January alongside a recovery in the rouble (see section on 'Foreign Exchange'). In contrast, yields on Turkish government bonds have risen significantly due to growing concerns over political governance, elevated inflation and a depreciating currency.

**Graph 2.9**  
**10-year Government Bond Yields**  
Local currency-denominated



Sources: Bloomberg; Thomson Reuters

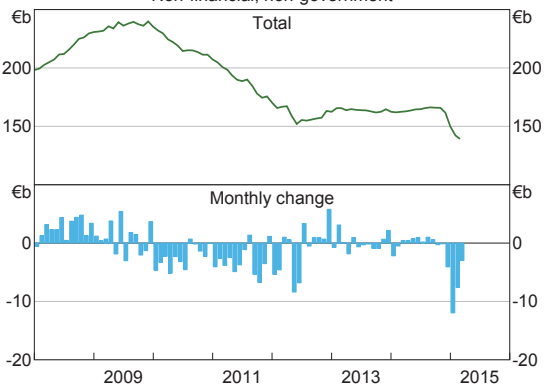
## Greece

There has been a lack of progress in negotiations between Greece, its official sector European creditors and the International Monetary Fund (IMF) about the reforms required before up to €7.2 billion of remaining funding available under the 2012 Economic Adjustment Program can be disbursed. The parties reached a preliminary agreement in February to extend the Program until the end of June and negotiate the details of a set of proposed reforms, but have not yet been able to reach agreement about the required reforms to labour markets, pensions and value-added taxes, along with principles regarding privatisation.

With recent comments suggesting that an agreement on releasing assistance funding could be some way off, there has been considerable focus on the Greek Government's near-term financial capacity. It currently appears likely that the government can meet its obligations throughout May following a directive to local governments and state entities to lend excess cash to the central government. Commentators remain uncertain, however, as to whether the government can meet the €1.6 billion due to the IMF over June and believe it is unlikely that it can repay €8 billion in (mostly) principal due to the Eurosystem in July and August without the disbursement of assistance funds.

Earlier concerns about the possibility that Greece might leave the euro area have already resulted in large deposit withdrawals from Greek banks, though the pace of decline appears to have slowed since January (Graph 2.10). Deposits at Greek banks fell by more than 15 per cent from early December to end March, and Greek banks have been unable to access wholesale debt markets this year. To date this has been offset by increased reliance on ECB funding, which rose to over one quarter of banks' liabilities (see section on 'Central Bank Policy'). Bank share prices have fallen by over 60 per cent since mid 2014.

**Graph 2.10**  
**Deposits at Greek Banks**  
Non-financial, non-government



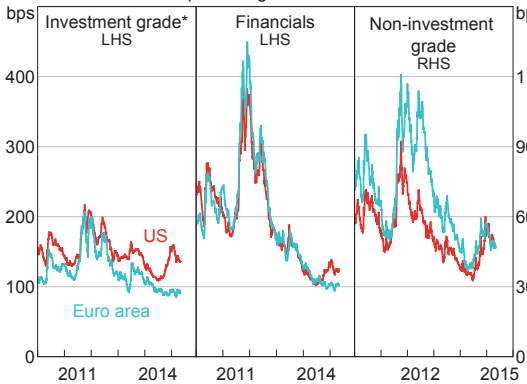
Source: European Central Bank

## Credit Markets

Spreads on US corporate bonds have narrowed somewhat over recent months, alongside a rise in the price of oil and an associated recovery in demand for bonds issued by energy companies, but they remain notably above the levels recorded mid last year (Graph 2.11). These moves in bond yields have been particularly pronounced for non-investment grade bonds, in part due to a larger portion of these bonds having been issued by energy companies. Despite the rise in spreads since mid last year, corporate borrowing costs remain around historic lows due to a fall in Treasury yields over the second half of 2014.



**Graph 2.11**  
**Corporate Bond Spreads**  
 To equivalent government bonds

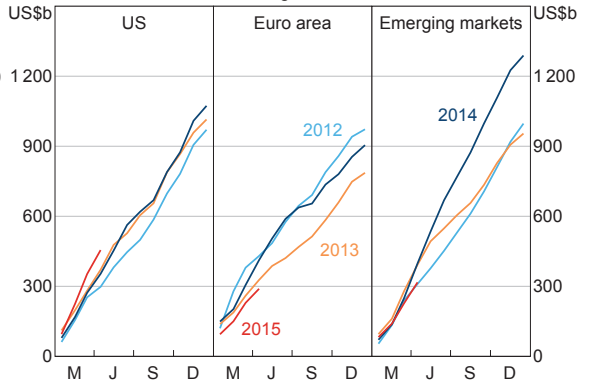


\* Non-financial corporations  
 Sources: Bank of America Merrill Lynch; Bloomberg; RBA

Spreads on euro area investment grade bonds remain around their 2007 lows. ECB purchases of covered bonds saw more than 15 per cent of these trade with a yield below zero until recently, while its decision to purchase agency debt pushed average yields on highly rated quasi-sovereign bonds below zero for maturities up to five years. However, yields on non-investment grade corporate bonds remain above earlier levels due to the widening of spreads over the second half of last year, only part of which has subsequently been unwound.

The pace of bond issuance by US corporations has picked up in 2015 (Graph 2.12). In contrast, the quantity of bonds issued by euro area corporations in the first four months of the year was at its lowest level in over a decade, owing to reduced offerings by financial corporations. Issuance by emerging market corporations has also slowed somewhat from the very rapid pace observed mid last year, reflecting less issuance by Chinese corporations. The Chinese onshore corporate bond market experienced only its second ever default – the first default on principal – in early April, when Cloud Live Technology Group failed to repay CNY400 million on a maturing bond issued three years ago. This was then followed later in the month by a missed coupon payment

**Graph 2.12**  
**Global Corporate Bond Issuance**  
 Cumulative gross issuance



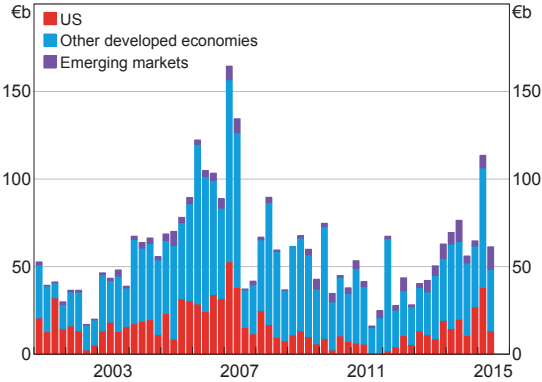
Sources: Dealogic; RBA

by state-owned manufacturer Baoding Tianwei, though it has reportedly since been lent money by a state-owned bank to make the payment. To date, however, there has been little spillover from these developments to yields of other low-rated onshore issuers. In the offshore market, property developer Kaisa Group also defaulted on a US dollar bond in April, owing to a sharp drop in its revenue after a municipal government prohibited it from selling new properties late last year.

Foreign currency-denominated corporate bond issuance has been broadly stable in recent months, but the currency composition of issuance has shifted somewhat from US dollars to euros. Issuance of euro-denominated bonds by corporations resident outside the euro area has increased notably since the start of 2015, with much of this reflecting offshore issuance by US corporations (Graph 2.13). At the same time, US dollar-denominated issuance by corporations resident outside the United States has slowed. Both these developments reflect lower credit spreads in Europe over this time, which have (until recently) more than offset the cost of swapping proceeds into US dollars. Foreign currency issuance by emerging market corporations has been relatively stable.

**Graph 2.13**

**Euro-denominated Corporate Bond Issuance\***  
By corporations domiciled outside the euro area



\* June quarter 2015 issuance is projected using quarter-to-date data  
Sources: Dealogic; RBA

**Equities**

Global equity prices have risen strongly since the start of the year (Table 2.2; Graph 2.14). The rally has been underpinned by large increases in European and Japanese share prices. The 15 per cent rise in European share prices has not been matched by upward revisions to analysts' earnings forecasts, with the forward price-earnings ratio rising to its highest level since 2002; in contrast, the forward price-earnings ratio for Japanese stocks has been little changed at below-average levels due to strong gains in Japanese corporations' foreign-generated profits. Share prices in the United States have been little changed since the start of 2015.

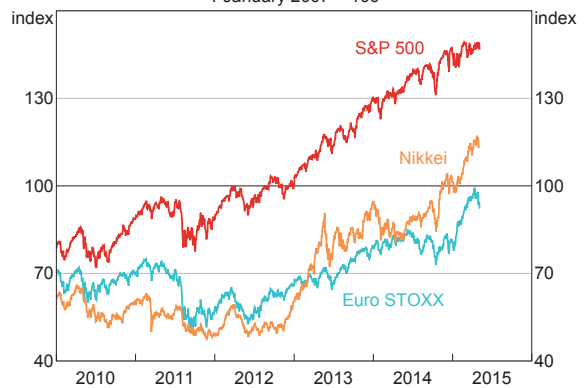
Major US banks reported a substantial increase in earnings in the March quarter compared with both the previous quarter and a year earlier. The increases were generally driven by declines in legal expenses compared with the large charges in the previous quarter and higher advisory and trading revenues, particularly from equities, amid an increase in client activity. Capital ratios continued to increase and all large banks reported leverage ratios above the 5 per cent requirement (effective from 2018). European banks continue to show stronger signs of recovery, reporting a sizeable rise in March quarter earnings. The increase in European bank earnings in the

**Table 2.2: Changes in International Share Prices**  
Per cent

	Over 2014	2015 to date
United States – S&P 500	11	1
Euro area – STOXX	2	14
United Kingdom – FTSE	-3	6
Japan – Nikkei	7	12
Canada – TSE 300	7	3
Australia – ASX 200	1	5
China – MSCI All China	28	27
MSCI indices		
– Emerging Asia	5	10
– Latin America	-4	8
– Emerging Europe	-8	12
<b>– World</b>	<b>7</b>	<b>5</b>

Source: Bloomberg

**Graph 2.14**  
**Major Share Price Indices**  
1 January 2007 = 100



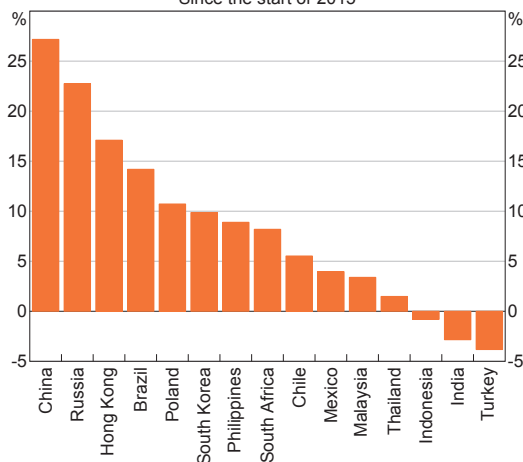
Source: Bloomberg

quarter owed to increased corporate and institutional banking activity and cost-cutting. However, this was partly offset by large charges incurred by some banks to settle misconduct allegations. Among these, Deutsche Bank increased its legal provisions to cover a US\$2.5 billion settlement with US and UK authorities over claims that it manipulated the London interbank offered rate benchmark between 2003 and 2011, while Barclays increased its legal provisions for an expected settlement associated

with allegations of foreign exchange benchmark manipulation.

Share prices in most emerging markets have outperformed those in advanced economies in 2015 to date (Graph 2.15). In particular, mainland Chinese shares are 30 per cent higher since the start of the year and more than double their level in mid 2014, while the Hong Kong exchange prices of dual-listed companies have risen rapidly since an expansion of the Shanghai-Hong Kong Stock Connect Scheme in April (see 'Box B: Recent Developments in Chinese Equity Prices'). Russian share prices have also increased very strongly, more than unwinding a sizeable fall over 2014, alongside a more general recovery in demand for Russian assets (see section on 'Foreign Exchange').

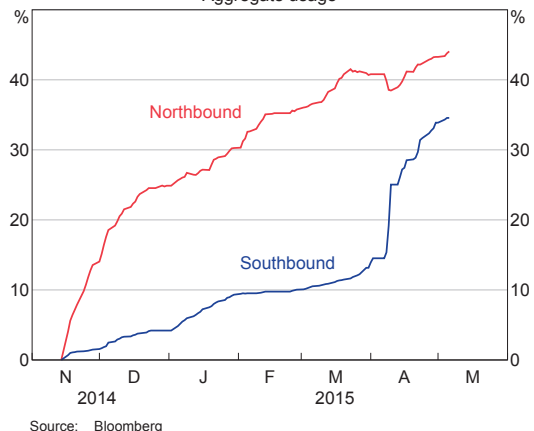
**Graph 2.15**  
Changes in Emerging Market Share Price Indices  
Since the start of 2015



Source: Bloomberg

Use of the Shanghai-Hong Kong Stock Connect has increased significantly over recent months, particularly for 'southbound' flows into Hong Kong, which had been minimal until recently (Graph 2.16). The surge in southbound use of the Stock Connect followed a widening of eligible investors to include Chinese mutual funds, with the facility used in large part to purchase dual-listed stocks trading at a substantial discount in Hong Kong.

**Graph 2.16**  
Shanghai-Hong Kong Stock Connect Quota  
Aggregate usage

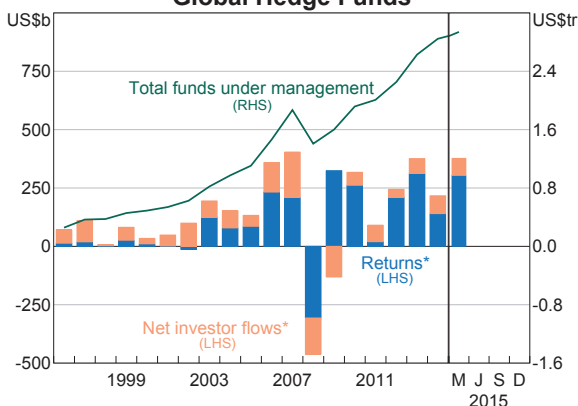


Source: Bloomberg

## Hedge Funds

Global hedge funds recorded an asset-weighted return on investments of 6.2 per cent over the year to the March quarter 2015, slightly underperforming a balanced portfolio of global bonds and equities (Graph 2.17). The strongest performance came from macro funds, which trade according to views on broad economic developments, and those investing in emerging Asia; the outperformance of macro funds occurred despite reports of sizeable losses following the sharp depreciation of the Swiss franc

**Graph 2.17**  
Global Hedge Funds



\* Annualised for 2015 data

Sources: Hedge Fund Research, Inc.; RBA

in January. Hedge funds continue to receive net inflows which, combined with positive investment returns, saw funds under management rise by 3 per cent over the March quarter to US\$2.9 trillion.

## Foreign Exchange

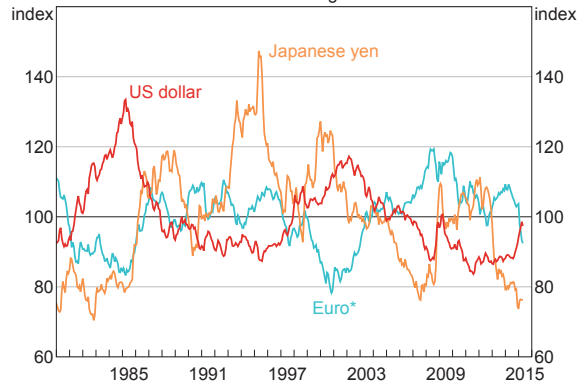
Foreign exchange markets have continued to be influenced by the stance, both current and prospective, of monetary policy in the major advanced economies, particularly the United States and Europe. The euro has depreciated by 8 per cent on a trade-weighted basis and by 9 per cent against the US dollar since mid December alongside market participants' expectations for, and the subsequent commencement of, the ECB's asset purchase program (Graph 2.18). The ongoing uncertainty surrounding Greece is also likely to have contributed. The euro has now depreciated by 12 per cent on a nominal trade-weighted basis since May 2014. In real trade-weighted terms, the euro is around 10 per cent lower than its longer-term average (Graph 2.19).

The US dollar has continued to appreciate against most other currencies, to be 2 per cent higher on a trade-weighted basis over 2015 to date (Table 2.3). The appreciation reflects market participants' ongoing expectations that the Federal Reserve will increase the federal funds rate later this year. However, the pace of appreciation has stalled

**Graph 2.19**

**Real Trade-weighted Indices**

1980–2015 average = 100



\* Weighted average of individual euro area currencies prior to 1999  
Sources: BIS; Bloomberg; Board of Governors of the Federal Reserve System

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

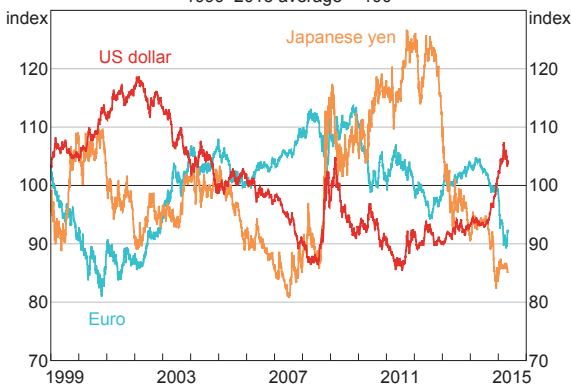
	Over 2014	2015 to date
Brazilian real	12	15
European euro	14	7
Swedish krona	21	5
Indonesian rupiah	2	5
New Zealand dollar	5	4
Mexican peso	13	4
South African rand	10	4
Canadian dollar	9	4
Australian dollar	9	3
UK pound sterling	6	2
Malaysian ringgit	7	2
Thai baht	1	1
Indian rupee	2	1
Chinese renminbi	2	0
Japanese yen	14	0
Singapore dollar	5	0
Philippine peso	1	0
South Korean won	4	-1
New Taiwan dollar	6	-3
Swiss franc	11	-8
<b>TWI</b>	<b>9</b>	<b>2</b>

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

**Graph 2.18**

**Nominal Trade-weighted Indices**

1999–2015 average = 100



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

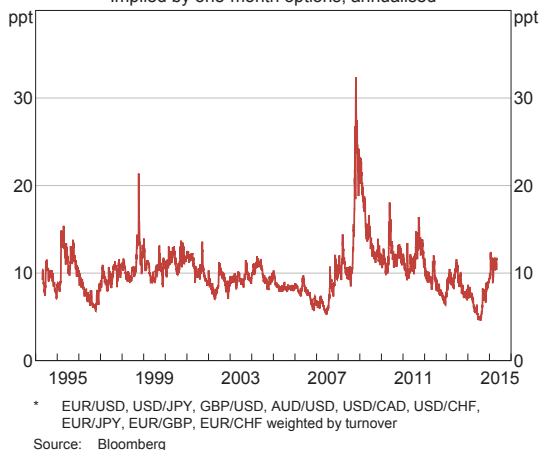
recently and the US dollar is now around 3 per cent lower than its peak in mid March. Notwithstanding the recent depreciation, the US dollar is 12 per cent higher than its mid 2014 low although it is still only around its multi-decade average on a real trade-weighted basis.

The Japanese yen has appreciated by around 4 per cent in trade-weighted terms and by 2 per cent against the US dollar since early December. Prior to this, the unexpected decision by the Bank of Japan to increase its asset purchases in late October had seen the Japanese yen depreciate by 8 per cent on a trade-weighted basis and by 10 per cent against the US dollar. Notwithstanding the recent appreciation, in real trade-weighted terms the Japanese yen remains around 25 per cent lower than its multi-decade average.

The Swiss franc has depreciated by around 6 per cent against the euro since its level following the Swiss National Bank's (SNB) surprise decision to abandon its minimum exchange rate policy in mid January but remains 15 per cent higher than its level prior to the announcement. The SNB's decision also prompted some market participants to question the sustainability of the Danish krone's peg to the euro. Denmark has maintained a fixed exchange rate policy since 1982. Although the krone has typically traded very close to its target level of 7.46 krone per euro (with an allowable trading band of +/-2.25 per cent), the krone encountered increased appreciation pressure in late January and early February. In addition to lowering the policy rate, the Danish central bank purchased the equivalent of €37 billion (around 15 per cent of GDP) of foreign currency in January and February to curb appreciation pressure and maintain the peg. The appreciation pressure has since subsided. Elsewhere in Europe, the Swedish krona has appreciated by around 3 per cent against the euro since mid February, notwithstanding the Swedish central bank's decision to lower its policy rate. In trade-weighted terms, the Swedish krona has depreciated by around 7 per cent since mid 2014.

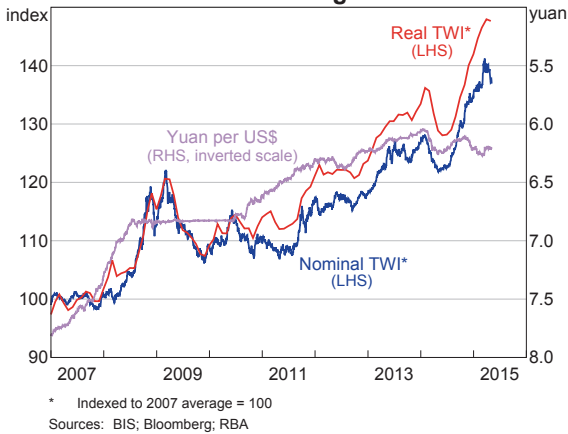
Volatility in the main developed market currency pairs increased from its historical low in early August until mid January but has been little changed since then to remain only slightly above its longer-term average (Graph 2.20). The increase in volatility has been neither disorderly nor inconsistent with the adjustment of major exchange rates that would be expected given the growing divergence in the outlook for advanced economies' monetary policies. Volatility has generally been more pronounced for the EUR/USD currency pair.

**Graph 2.20**  
**Volatility in Developed Market Currencies\***  
 Implied by one-month options, annualised

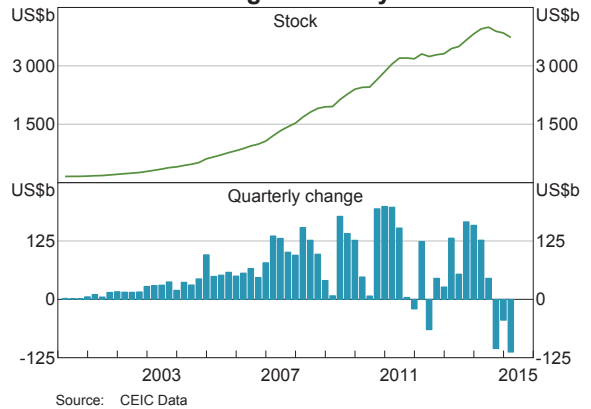


The Chinese renminbi (RMB) has been little changed against the US dollar over 2015 to date to remain around 1½ per cent lower than its recent peak in late October (Graph 2.21). The RMB traded at the bottom of its +/-2 per cent trading band against the US dollar in late February and early March but has since appreciated to be around 1½ per cent below the fixing rate against the US dollar. Consistent with the broad-based appreciation of the US dollar, the RMB has appreciated by around 2 per cent on a trade-weighted basis over 2015 to date to be 12 per cent higher than its mid 2014 level. This primarily reflects an appreciation of the RMB against the euro and Japanese yen.

**Graph 2.21**  
**Chinese Exchange Rates**



**Graph 2.22**  
**Chinese Foreign Currency Reserves**



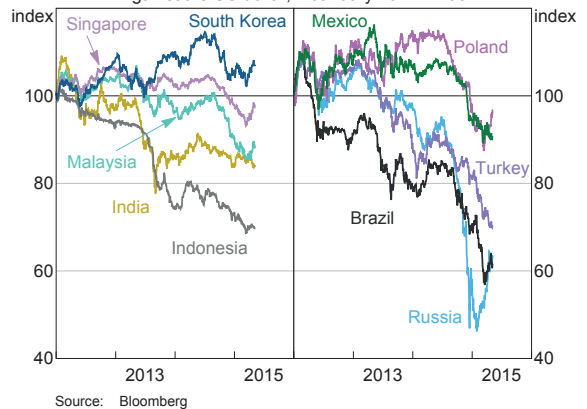
The stock of Chinese foreign currency reserves decreased by US\$113 billion (around 3 per cent) over the March quarter to be around US\$263 billion lower than its peak at the end of June 2014 (Graph 2.22). The decline over the quarter partly reflects exchange rate valuation effects related to the US dollar's appreciation against the euro.

Most other Asian and emerging market currencies have been little changed or have depreciated further against the US dollar over 2015 to date, with the notable exception of the Russian rouble (Graph 2.23). Depreciations have generally been more pronounced for Eastern European currencies, which have tended to depreciate in line with the euro. Volatility in emerging market currencies has generally increased over 2015 to date to be slightly higher than its post-2009 average, though it is lower than its recent peak in March.

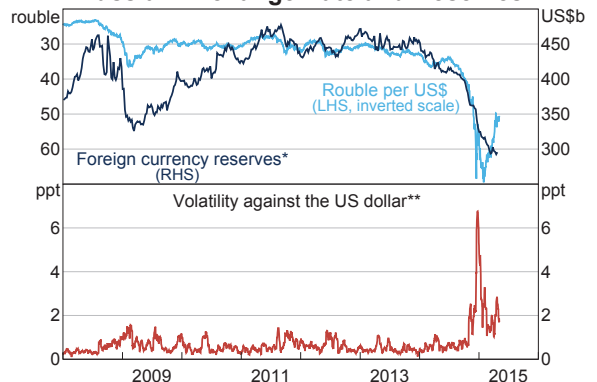
The Russian rouble has appreciated by around 35 per cent against the US dollar since its trough in late January but nevertheless remains around 35 per cent lower than its mid 2014 level. While volatility in the rouble remains above its average of recent years, it is much lower than in late December (Graph 2.24). The appreciation has coincided with a rebound in oil prices and a reassessment of Russia's outlook by market participants, despite ongoing geopolitical tensions and limited access for Russian firms to international capital markets.

**Graph 2.23**  
**Asian and Emerging Market Currencies**

Against the US dollar, 2 January 2012 = 100



**Graph 2.24**  
**Russian Exchange Rate and Reserves**



In addition, the policy measures enacted by the Russian central bank in December and January – including a sizeable increase in the policy rate and the provision of foreign currency repos and loans – have also contributed to the recent appreciation. The Russian central bank has since partly unwound the increase in the policy rate and has also increased the rate on its foreign currency repos and loans by 150–200 basis points since late March, in part due to an improvement in conditions in the foreign exchange market. The ongoing provision of foreign currency has contributed to the central bank's gross foreign currency reserves declining by around 10 per cent since the end of December, to US\$296 billion. The Russian central bank has not intervened directly in the foreign exchange market since mid December 2014, although it sold US\$3 billion of foreign exchange on behalf of the Russian Treasury in January.

The Brazilian real has appreciated by around 8 per cent against the US dollar since its recent trough in mid March but remains around 13 per cent lower

over 2015 to date and almost 30 per cent lower since mid 2014. The recent appreciation occurred despite the Brazilian central bank's decision to discontinue its daily foreign exchange market intervention program on 31 March – in place since August 2013 – and has occurred alongside a modest recovery in global commodity prices.

The gross foreign currency reserves of most emerging market economies have been little changed since the end of December with the exceptions of India, Malaysia, Russia and Ukraine (Table 2.4). The decline in Malaysia's foreign currency reserves, of almost US\$25 billion (or 20 per cent) since the end of June 2014, has coincided with the sharp fall in oil prices and increased depreciation pressure on the Malaysian ringgit. Valuation effects due to the higher US dollar have also likely contributed. In contrast, India's foreign currency reserves have increased by 8 per cent since the end of December, consistent with reports of intervention in the foreign exchange market to curb appreciation pressure on the Indian rupee.

**Table 2.4: Gross Foreign Currency Reserves<sup>(a)</sup>**

	Percentage change since:		Level US\$ equivalent (billions)
	End June 2014	End December 2014	
China	-7	-3	3 730
Taiwan <sup>(b)</sup>	-1	0	418
Brazil	-2	0	356
South Korea	-1	0	354
Hong Kong	3	1	321
India	11	8	320
Russia	-29	-10	296
Singapore	-10	-3	247
Mexico	3	2	187
Thailand	-7	0	148
Indonesia	4	0	105
Turkey	-8	-4	101
Malaysia	-20	-10	96
Ukraine	-41	37	9

(a) Data to end March for China, Hong Kong, Indonesia, Mexico, Singapore, South Korea, Thailand and Ukraine; to 15 April for Malaysia; to 24 April for India, Russia and Turkey; and to 30 April for Brazil and Taiwan

(b) Foreign exchange reserves (includes foreign currency and other reserve assets)

Sources: Bloomberg; CEIC Data; Central Banks; IMF; RBA

## Australian Dollar

Since the previous *Statement*, the Australian dollar has appreciated by 3 per cent against the US dollar and on a trade-weighted basis (Graph 2.25). This follows a period between early September and early February when the Australian dollar depreciated by 12 per cent on a trade-weighted basis and by 17 per cent against the US dollar (Table 2.5). More recently, movements in the Australian dollar have broadly reflected market participants' ongoing assessment of the outlook for US monetary policy, the Chinese economy and the future path of domestic policy. The prices of Australia's key commodities have picked up slightly over recent weeks but are lower over 2015 to date.

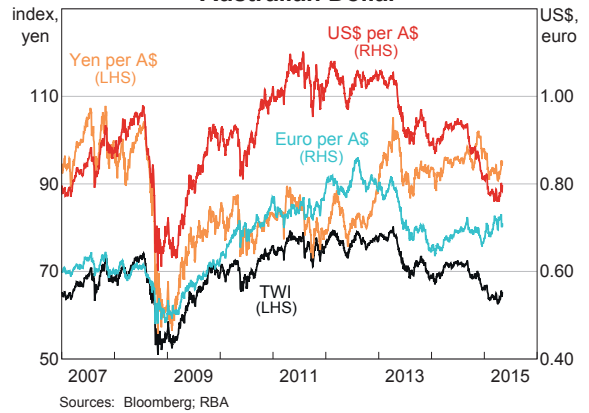
**Table 2.5: Changes in the Australian Dollar against Selected Currencies**  
Per cent

	Over 2014	2015 to date
European euro	4	4
Indonesian rupiah	-7	3
New Zealand dollar	-4	1
South African rand	1	1
Canadian dollar	0	1
UK pound sterling	-3	0
Malaysian ringgit	-2	-1
Thai baht	-8	-1
Indian rupee	-6	-2
US dollar	-8	-2
Chinese renminbi	-6	-3
Japanese yen	4	-3
Singapore dollar	-4	-3
South Korean won	-5	-3
Swiss franc	2	-10
<b>TWI</b>	<b>-3</b>	<b>-2</b>

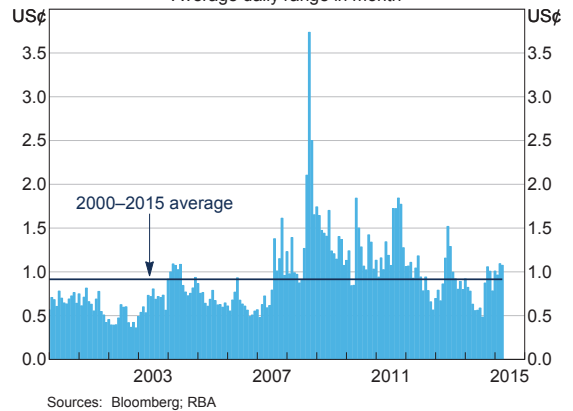
Sources: Bloomberg; RBA

Consistent with developments in other currency markets, volatility in the Australian dollar has been little changed over 2015 to date. The average intraday trading range for the AUD/USD exchange has remained slightly above its post-2000 average (Graph 2.26).

**Graph 2.25**  
**Australian Dollar**



**Graph 2.26**  
**Intraday Range in AUD/USD**  
Average daily range in month



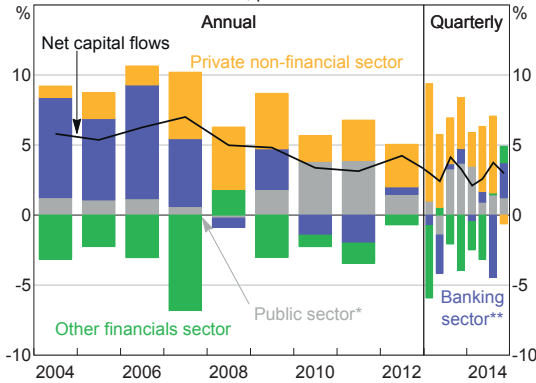
## Capital Flows

Net capital inflows to the Australian economy were 3 per cent of GDP in the December quarter. The net inflows were primarily directed to the private financial sector, though there was also a moderate net inflow to the public sector (Graph 2.27). In contrast to recent quarters, there was a small net outflow from the private non-financial sector rather than a net inflow. This was largely because net inflows to the mining sector were much lower.

The net inflow to the private financial sector reflected net inflows to both the banking sector and 'other financials' (which includes superannuation



**Graph 2.27**  
**Australian Capital Flows**  
 Net inflows, per cent of GDP



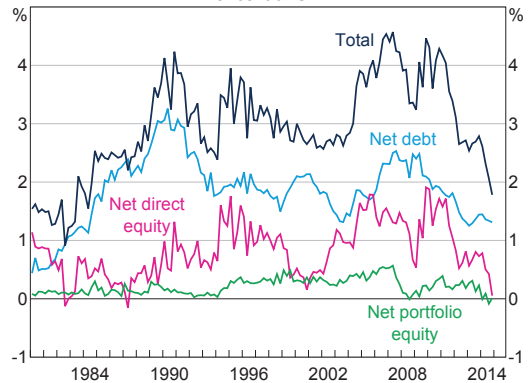
\* Excludes official reserves and other RBA flows  
 \*\* Adjusted for US dollar swap facility in 2008 and 2009  
 Sources: ABS; RBA

and other types of investment funds). The net inflow to the banking sector was associated with an increase in net debt issuance by domestic banks in the December quarter whereas the inflow to other financials was entirely due to a repatriation of debt assets which more than offset continued net equity outflows.

Within the public sector, the modest net inflow continued to largely reflect foreign purchases of Commonwealth Government securities (CGS). As the inflows were largely proportional to net issuance of CGS, the foreign ownership share of CGS remained around 66 per cent. In contrast, a net outflow from the state and local government sector resulted in the foreign ownership share of state government securities declining by 1 percentage point to 25 per cent.

Consistent with the reduction in net capital inflows, Australia's current account deficit also narrowed in the December quarter. This partly reflected a further narrowing in the net income deficit to 1.8 per cent of GDP which, in turn, was almost entirely due to a reduction in the income paid on Australia's direct equity liabilities (Graph 2.28). As a result, Australia's net direct equity income position declined to 0.1 per cent of GDP – its lowest level as a share of GDP since 1987. ↘

**Graph 2.28**  
**Net Income Deficit\***  
 Per cent of GDP



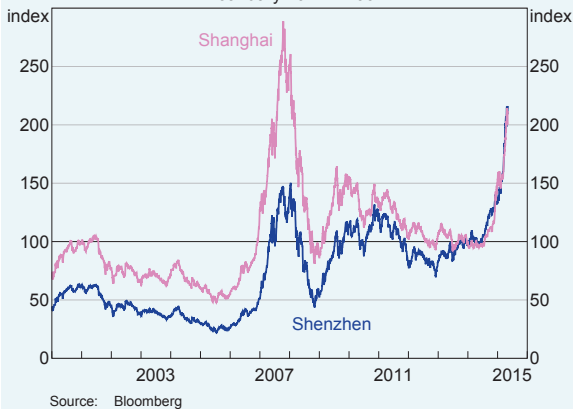
\* Excluding compensation of employees and secondary income  
 Sources: ABS; RBA

## Box B

# Recent Developments in Chinese Equity Prices

Equity prices in mainland China have more than doubled since mid 2014, with both the Shanghai and Shenzhen exchanges rallying sharply over this time (Graph B1).<sup>1</sup> This rally has been broad based across sectors, and has occurred despite slowing economic growth. It has, however, coincided with rapid growth of debt-financed retail investment in the stock market.

**Graph B1**  
**Chinese Share Prices**  
1 January 2014 = 100

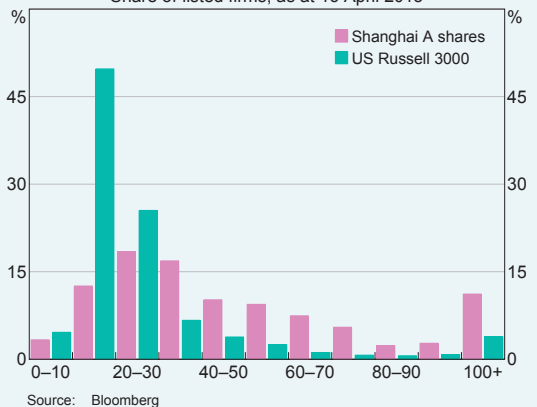


With analysts' earnings forecasts for Chinese companies actually being lowered since mid 2014, the forward price-earnings (PE) ratio has increased a little more sharply than overall share prices to around 20. This follows a prolonged period in which the PE ratio was low, largely reflecting scepticism about the outlook for earnings at Chinese banks (which account for around 15 per cent of market capitalisation), such that it is now only moderately above its average since 2007. However, half of the companies listed in Shanghai have a PE ratio greater

1 The Shanghai Stock Exchange mainly comprises larger companies including state-owned banks, and the Shenzhen Stock Exchange mainly comprises small- to medium-sized companies.

than 40, with over 10 per cent having a ratio greater than 100 (Graph B2).<sup>2</sup> By comparison, only 4 per cent of companies included in the broad US Russell 3000 Index have a ratio greater than 100.<sup>3</sup> Moreover, the premium paid by investors to own mainland-listed shares of companies that are listed in both Shanghai and Hong Kong increased sharply in late 2014, meaning the same companies now command an average 30 per cent premium in Shanghai, compared with Hong Kong.

**Graph B2**  
**Distribution of 12-month Forward PE Ratios**  
Share of listed firms, as at 16 April 2015



Leverage has played an increasingly large role in this rally, in contrast to the previous upswing in 2005–07 when margin financing was prohibited. (Chinese authorities only allowed margin financing from March 2010, predominantly for institutional and wealthy investors, but have since relaxed restrictions to extend its availability to retail investors.)

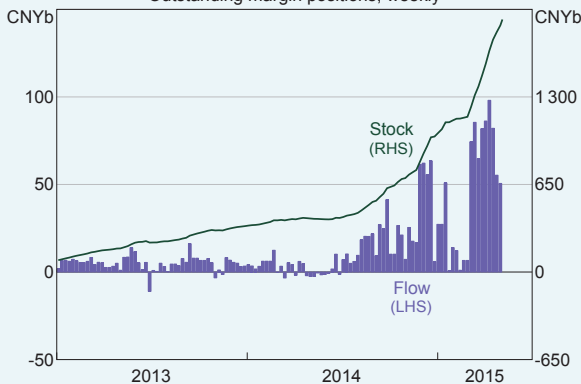
2 Forward estimates of earnings are not available for many companies listed in Shenzhen.

3 Such comparisons are influenced by differences in accounting standards, but any difference is likely to result in Chinese ratios being understated relative to the United States.

Outstanding margin positions in Chinese equities have more than quadrupled since early July 2014 to CNY1.9 trillion (Graph B3), equating to almost 9 per cent of the free float market capitalisation in China (compared with 2½ per cent for the United States and 1 per cent for Australia).<sup>4</sup> Daily purchases using margin financing have increased tenfold over this time, and currently account for almost 15 per cent of turnover. Margin account balances may also be underestimating leveraged purchases of equities, as some investors are reportedly funding equity purchases with money borrowed from other sources. The increase in leverage has been mainly driven by retail investors opening new accounts, though little else is known about the distribution of margin debt.

Chinese authorities have introduced regulations in response to this rapid rise in leverage. These include temporarily prohibiting some brokers that breached lending regulations from opening new accounts and banning a source of margin financing (not captured by the data above) known as umbrella trusts. The Shanghai and Shenzhen stock exchanges also issued rules designed to make short selling of stocks easier and the authorities allowed foreign investors to short-sell stocks via the Shanghai-Hong Kong Stock Connect (though this is yet to be used due to tight limitations). In addition, Chinese mutual funds were granted access to the Stock Connect at the end of March, giving retail investors an avenue to purchase dual-listed companies in Hong Kong at the substantial discount prevailing on these companies' Hong Kong-listed shares. This led to a surge in buying of Hong Kong-listed shares by Chinese investors and a rapid increase in the Hong Kong price of dual-listed companies. ↘

**Graph B3**  
**Chinese Margin Financing**  
 Outstanding margin positions, weekly



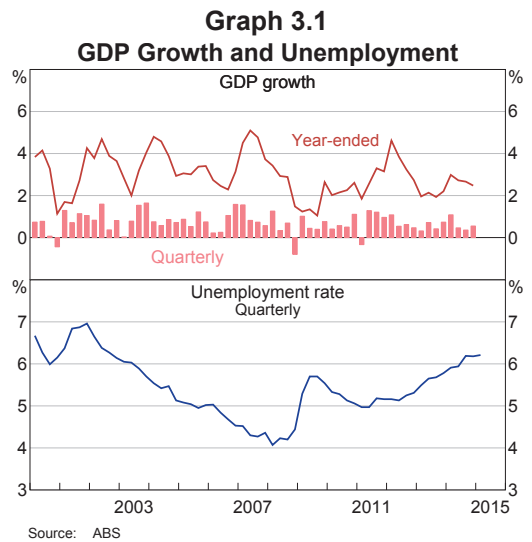
Source: WIND Information

<sup>4</sup> Free float market capitalisation refers to the value of shares that are readily available in the market. Free float market capitalisation in China is considerably less than total market capitalisation due to the large number of state-owned enterprises listed on the stock market.



### 3. Domestic Economic Conditions

Growth in the Australian economy remained a bit below average over 2014, and looks to have continued at a similar pace in early 2015 (Graph 3.1; Table 3.1). Dwelling investment has grown strongly over the past year and growth of household consumption picked up towards the end of 2014. In contrast, non-mining business investment has been subdued, although many of the conditions typically associated with stronger investment are in place. Activity in the mining sector has continued to expand, with strong growth of resource exports more than offsetting large declines in mining investment. Public demand was unchanged over 2014, consistent with fiscal consolidation by state and federal governments. Nominal GDP growth has been relatively weak, in line with the declines in the terms of trade.



**Table 3.1: Demand and Output Growth**  
Per cent

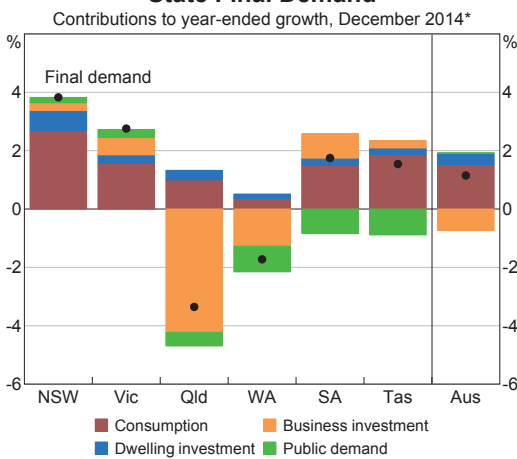
	December quarter 2014	September quarter 2014	Year to December quarter 2014
GDP	0.5	0.4	2.5
Consumption	0.9	0.6	2.8
Dwelling investment	2.5	-1.2	8.1
Mining investment <sup>(a)</sup>	-4.8	-5.0	-13.3
Non-mining investment <sup>(a)</sup>	1.9	0.6	2.0
Public demand	0.3	-1.0	0.0
Exports	1.0	3.6	7.2
Imports	-2.5	-0.7	-2.6
Nominal GDP	0.6	-0.1	1.7
Real gross domestic income	0.2	-0.4	0.1

(a) RBA estimates  
Sources: ABS; RBA

There is general evidence of spare capacity in the labour market. However, recent trends appear to have been a little better over the past six months than earlier indicated, following recent data revisions. Leading indicators of labour demand continue to suggest modest employment growth over the coming quarters.

Low interest rates have been supporting economic activity across the country. Dwelling investment and consumption, the sectors of the economy most sensitive to changes in interest rates, contributed to growth in all states over 2014 (Graph 3.2). Outside New South Wales and Victoria, growth has been constrained by a decline in public demand and, in Queensland and Western Australia, large declines in mining-related business investment.

**Graph 3.2**  
**State Final Demand**



\* Contributions may not sum as ownership transfer costs are excluded  
Sources: ABS; RBA

## Household Sector

Conditions in the housing market remain strong overall, although there is considerable variation across regions. Growth of household consumption looks to have been around its average pace recently, having picked up over the past couple of years.

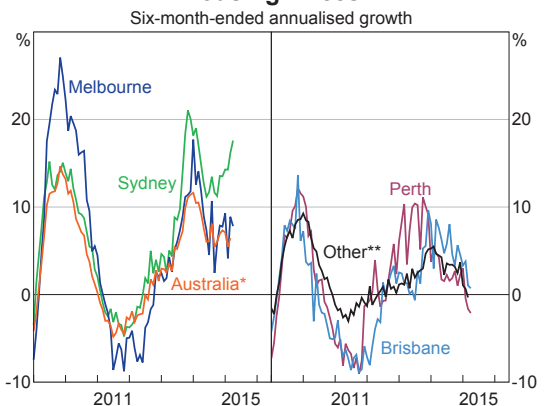
Looking through the monthly volatility, the pace of national housing price inflation has been little changed over the past year or so at around

8 per cent, which is above the growth rate of household incomes. Price increases and auction clearance rates have been particularly strong in Sydney and, to a lesser extent, Melbourne (Graph 3.3). Outside these cities, conditions in established housing markets have been fairly subdued; price growth has declined across much of the country over the past six months and prices have even fallen a little in some regions more recently. Other non-price indicators, including the average size of vendor discounts and the time taken to sell properties, also suggest that conditions in the established housing market have been weaker outside Sydney, although there can be seasonal adjustment issues with these measures around the turn of the year (Graph 3.4).

The nationwide rental vacancy rate has been gradually drifting higher since the mid 2000s. Accordingly, growth of rents has slowed. Combined with higher housing prices overall, this has resulted in rental yields continuing to fall.

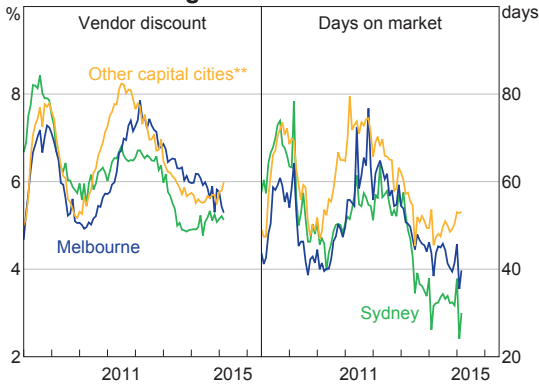
Consistent with low interest rates and relatively strong population growth, dwelling investment has continued to grow rapidly. Over 2014, dwelling investment increased by 8 per cent and, despite being a small share of the economy, contributed nearly ½ percentage point to GDP growth. The

**Graph 3.3**  
**Housing Prices**



\* Excludes apartments outside of capital cities  
\*\* Includes houses and apartments in Adelaide, Canberra, Darwin and Hobart and regional houses  
Sources: ABS; CoreLogic RP Data; RBA

**Graph 3.4**  
**Housing Market Indicators\***



\* Seasonally adjusted; capital city dwelling stock weighted median, private treaty sales only

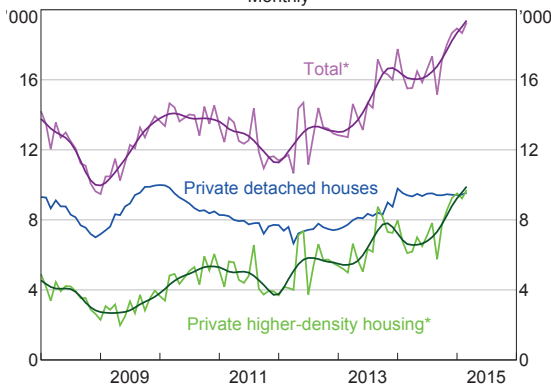
\*\* Excludes Hobart

Sources: CoreLogic RP Data; RBA

increase has been driven by a strong pick-up in the construction of higher-density dwellings, particularly along the eastern seaboard. Dwelling approvals data suggest that further increases in higher-density construction are in prospect in the near term and that detached housing construction is likely to remain at a high level (Graph 3.5; for further details, see 'Box C: The Cycle in Dwelling Investment').

Household consumption growth has picked up over the past couple of years, supported by low interest rates, rising household wealth, above-average population growth and, more recently, lower

**Graph 3.5**  
**Residential Building Approvals**  
Monthly

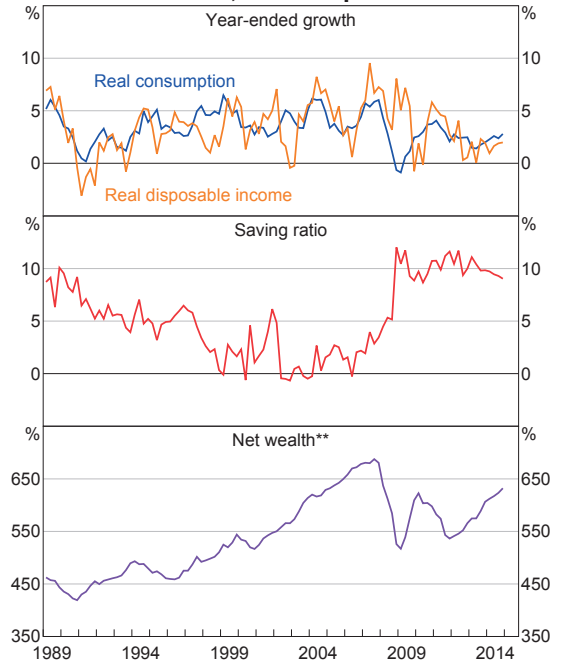


\* Smoothed lines are 13-period Henderson trends

Sources: ABS; RBA

petrol prices. Consumption growth has been a little stronger than the growth of labour income, which has been relatively slow, and the saving ratio has declined a little (Graph 3.6).

**Graph 3.6**  
**Household Income, Consumption and Wealth\***



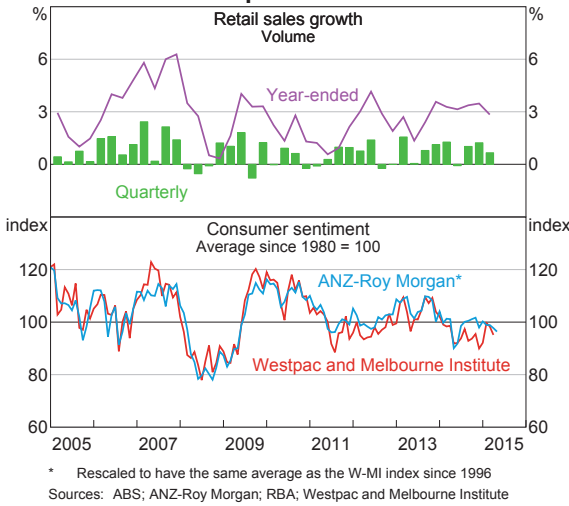
\* Household sector includes unincorporated enterprises; disposable income is after tax and interest payments; income level smoothed with a two-quarter moving average between March quarter 2000 and March quarter 2002; saving ratio is net of depreciation

\*\* Per cent of annual household disposable income, before the deduction of interest payments

Sources: ABS; RBA

Recent indicators suggest that household consumption grew at an around-average pace in the March quarter. Retail sales volumes increased by 0.7 per cent in the quarter and, as has been the case since mid 2014, growth was concentrated in discretionary spending on items such as durable goods and spending in cafes and restaurants (Graph 3.7). Motor vehicle sales to households remain at high levels. Measures of consumer sentiment are a little below their long-run averages and consumers' unemployment expectations remain elevated.

**Graph 3.7**  
**Consumption Indicators**



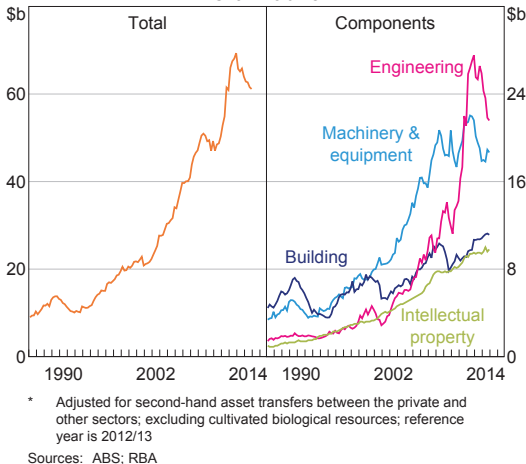
completed and very few new projects are expected to go ahead, particularly given the substantial fall in commodity prices, which has reduced the incentive to invest in new projects.

The latest estimates derived from the ABS capital expenditure (Capex) survey imply that the value of mining investment could decline by over 10 per cent in both 2014/15 and 2015/16, although there is considerable uncertainty around these estimates and the Bank's liaison points to an even larger fall (Graph 3.9). Indeed, the pace of the decline in mining investment could be greater than had previously been anticipated if declines in commodity prices place further pressure on mining sector profitability, particularly in the oil and gas sectors. Mining sector profits fell by 17 per cent over 2014.

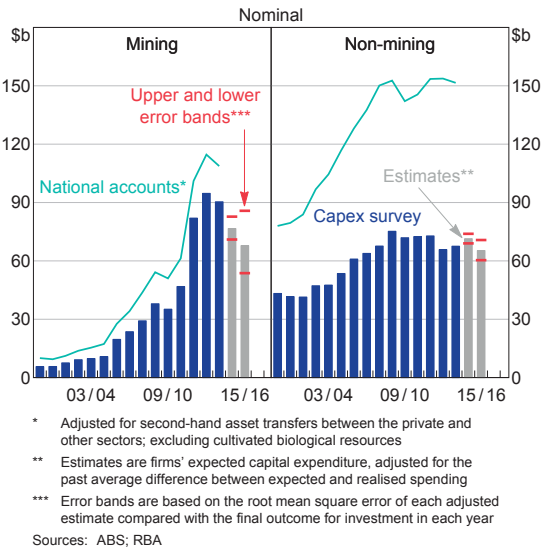
## Business Sector

Private business investment continued to decline in the December quarter and was 4 per cent lower over the year (Graph 3.8). Over 2014, mining investment declined sharply while non-mining investment growth was subdued. The decline in mining investment since its peak in mid 2012 reflects the completion of large-scale iron ore, coal and liquefied natural gas (LNG) projects. The decline is expected to continue over coming years as existing projects are

**Graph 3.8**  
**Private Business Investment\***  
Chain volume



**Graph 3.9**  
**Measures of Private Business Investment**  
Nominal

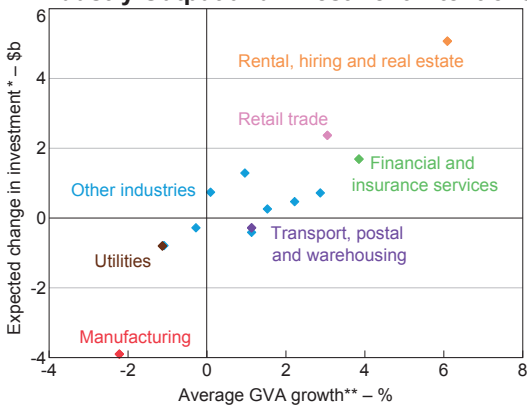


Non-mining investment has been subdued over recent years and the data suggest that this will continue for some time. The latest Capex survey implies that any recovery in nominal non-mining investment in 2014/15 will be reversed in 2015/16. The survey suggests that the weakness in non-mining investment intentions is being driven by industries that have been experiencing subdued output



growth in recent years, such as the manufacturing industry (Graph 3.10). In contrast, industries that have been experiencing better conditions over recent years, such as the retail trade and rental, hiring & real estate industries, have recorded positive investment intentions. The estimates of capital expenditure intentions from the Capex survey are, however, subject to significant uncertainty, especially those further out. Moreover, the survey does not cover a large share of non-mining investment that is included in the national accounts, such as in agriculture, education and health care. Nor does it capture investment in intangible items (which tends to grow at a steady pace).

**Graph 3.10**  
**Industry Output and Investment Intentions**

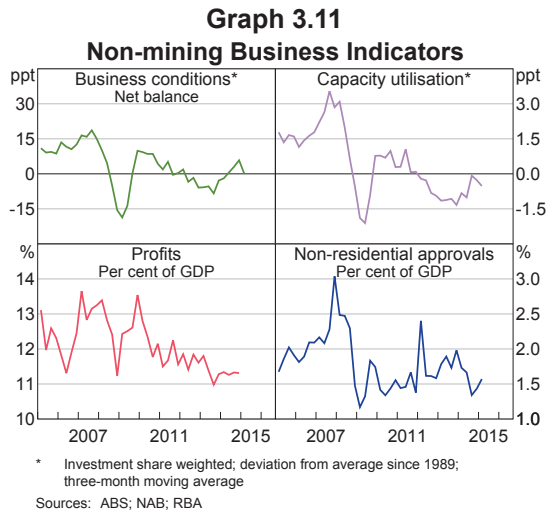


\* Average nominal investment implied by the Capex survey in 2014/15 and 2015/16 less average nominal investment in 2012/13 and 2013/14 from the national accounts

\*\* Average annualised growth in real gross value added (GVA) over 2012/13 and 2013/14

Sources: ABS; RBA

Non-mining company profits grew in line with nominal GDP over 2014 and survey measures of business conditions are around average levels (Graph 3.11). In contrast, survey measures of non-mining capacity utilisation and the more forward-looking NAB business confidence measure are a bit below their long-run average levels. While a large stock of work yet to be done will support non-residential building investment for a time, non-residential building approvals will need to rise from their relatively low levels for this to be sustained. The



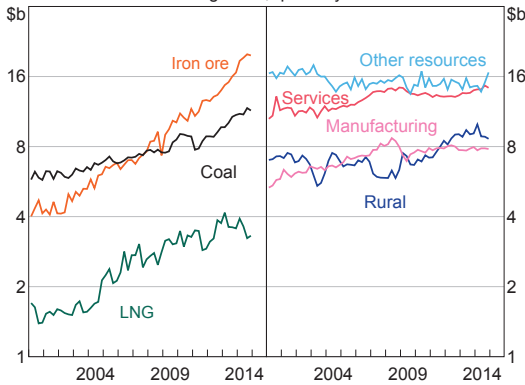
current level of approvals is consistent with weak underlying demand for space in the commercial property market.

At the same time, many of the conditions that are typically associated with stronger investment are in place. Finance is readily available at low cost and business credit growth has increased over the past year or more. Domestic demand growth has picked up and is likely to be supported in the period ahead by relatively strong population growth, low interest rates, low oil prices and the exchange rate depreciation. The Bank's liaison suggests that a sustained pick-up in demand is required to spur growth of business investment.

## External Sector

Export volumes rose by 7 per cent over 2014, contributing 1½ percentage points to GDP growth. The increase was driven by strong growth of resource exports, particularly iron ore, reflecting further expansions to extraction, processing and transport facilities (Graph 3.12). Exports of coking and thermal coal also rose over the year. While exports of bulk commodities are expected to continue to grow over the next couple of years, given existing commitments to expand capacity, the pace of growth is expected to slow and a sustained period of low commodity

**Graph 3.12**  
**Export Volumes\***  
Log scale, quarterly

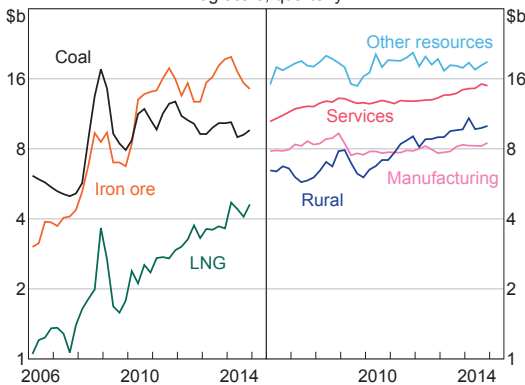


\* Reference year is 2012/13  
Sources: ABS; Department of Industry and Science; RBA

prices could prompt some curtailment of existing supply by higher-cost producers (see 'International Economic Developments' chapter). In contrast, LNG exports are expected to increase substantially over the next couple of years as a number of projects currently under construction begin production.

Service exports have grown over the past couple of years, driven by tourism, education and business services exports and supported by the depreciation of the exchange rate. The value of service exports in total is currently worth a little more than iron ore exports, given the sharp decline in the price of that commodity (Graph 3.13). In contrast, manufactured

**Graph 3.13**  
**Export Values**  
Log scale, quarterly

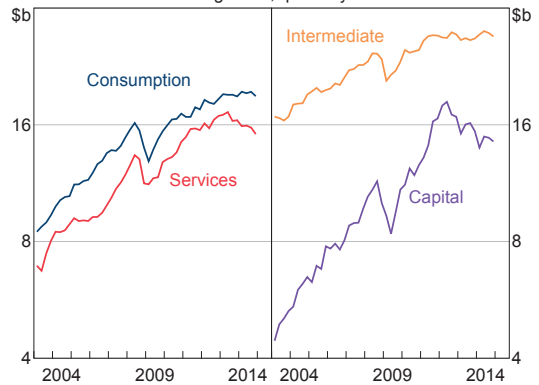


Sources: ABS; Department of Industry and Science; RBA

exports have remained subdued for some time and, so far, have not responded to the exchange rate depreciation by as much as might be expected based on historical behaviour.

Import volumes declined moderately over 2014, largely reflecting the fall in mining investment and the depreciation of the exchange rate (Graph 3.14). Capital imports have fallen over the past couple of years as construction on many of the relatively import-intensive, large-scale mining projects has approached completion. Service imports have also declined noticeably. In particular, imports of travel services have declined as the depreciation of the exchange rate has made overseas travel for Australian residents more expensive.

**Graph 3.14**  
**Import Volumes\***  
Log scale, quarterly

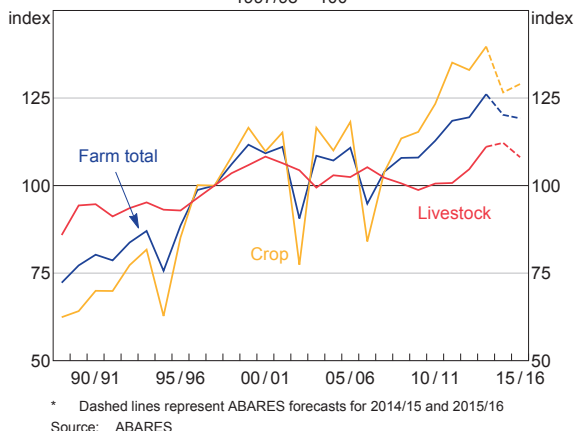


\* Reference year is 2012/13  
Source: ABS

## Farm Sector

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) expects farm production volumes to decline by around 5 per cent in 2014/15, driven by generally dry conditions for winter crops (Graph 3.15). In contrast, livestock production is expected to rise marginally. ABARES is forecasting a small decline in farm production in 2015/16, as restocking is expected to hold back livestock production following a period of increased slaughter rates and high export demand. ABARES forecasts that the prices received by farmers will increase in both

**Graph 3.15**  
**Farm Production Volumes\***  
 1997/98 = 100



2014/15 and 2015/16 due to higher world prices for livestock and assisted by the depreciation of the Australian dollar over the past year.

## Labour Market

Recent data, including revisions to previously published figures, suggest that employment growth has picked up to be faster than population growth over the past six months or so (Graph 3.16). This growth has been accompanied by a rise in the participation rate and average hours worked. The unemployment rate has been broadly stable at around 6¼ per cent since mid 2014.

**Graph 3.16**  
**Labour Market**



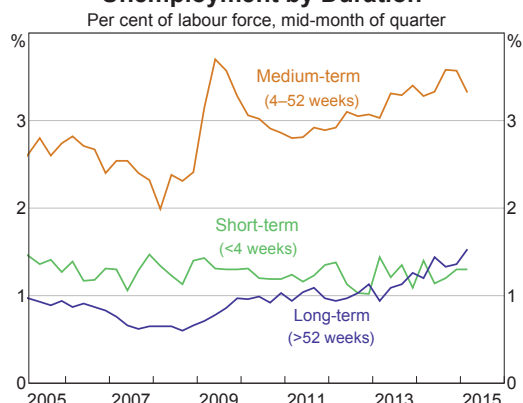
\* Six-month-ended average  
 \*\* Increase in employment required to keep the unemployment rate constant given growth in the working-age population, if the participation rate remains unchanged  
 Sources: ABS; RBA

Despite these better trends of late, a broad range of indicators suggest that there is spare capacity in the labour market, including relatively slow growth in wages (see 'Price and Wage Developments' chapter). The unemployment rate remains elevated at around its highest level since the early 2000s. The number of unemployment benefit recipients as a share of the labour force also remains elevated, though it has not changed significantly over recent quarters, in line with the latest vintage of the labour force data. The participation rate is below its level of a few years ago and there has also been an increase in the number of employed people who are working fewer hours than they desire.

Much of the increase in the unemployment rate since mid 2011 can be attributed to the 'medium-term' unemployed (those who have been unemployed for between 4 and 52 weeks; Graph 3.17). However, the rate of long-term unemployment (those unemployed for more than a year) has also risen, consistent with the protracted period of subdued labour market conditions.

Across industries, recent employment outcomes have continued to reflect the shift in the composition of economic activity away from resource-related sectors. Employment growth over the past year has been concentrated in industries related to household consumption and residential

**Graph 3.17**  
**Unemployment by Duration\***  
 Per cent of labour force, mid-month of quarter

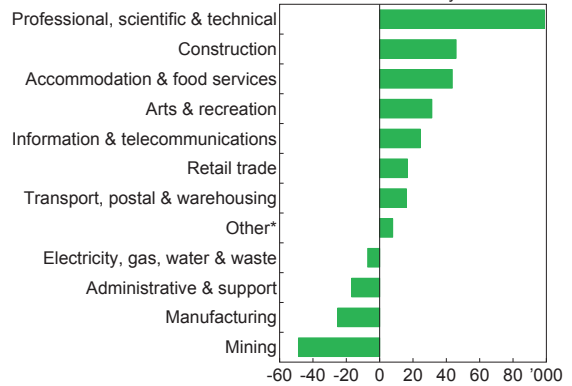


\* Seasonally adjusted using ABS seasonal factors for aggregate unemployment rate  
 Sources: ABS; RBA

construction (Graph 3.18). Growth in professional, scientific & technical services has largely been driven by architectural, engineering & technical services, consistent with reports from the Bank's business liaison of strong demand for professional roles related to residential building activity. Total construction employment has increased over the past year, suggesting that the pick-up in residential construction employment has more than offset the decline in mining-related construction employment. The accommodation & food services and arts & recreation industries have also made significant contributions to recent employment growth. In contrast, employment has declined in the mining and manufacturing industries.

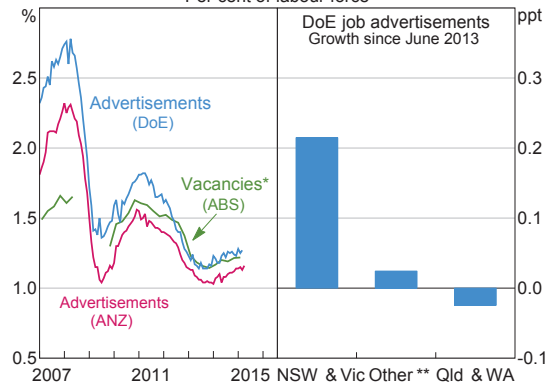
A number of forward-looking indicators of labour demand, such as job advertisements and vacancies, have been little changed over recent months at relatively low levels (Graph 3.19). Nevertheless, they remain higher than at the end of 2013 and, together with evidence from surveys and liaison, suggest modest employment growth over the coming months. The distribution of job vacancies across states also reflects the shift in economic activity away from the resources sector. Job advertisements and vacancies have increased relatively strongly as a share of the labour force in Victoria and New South Wales since 2013, while they have declined or been little changed in Queensland and Western Australia.

**Graph 3.18**  
**Employment Growth by Industry**  
 Year to February 2015



\* Includes agriculture, forestry & fishing; wholesale trade; financial & insurance services; rental, hiring & real estate services; public administration & safety; education & training; health care & social assistance; and other services  
 Source: ABS

**Graph 3.19**  
**Job Advertisements and Vacancies**  
 Per cent of labour force



\* This survey was suspended between May 2008 and November 2009  
 \*\* All other states and territories; territories seasonally adjusted by RBA  
 Sources: ABS; ANZ; Department of Employment (DoE); RBA

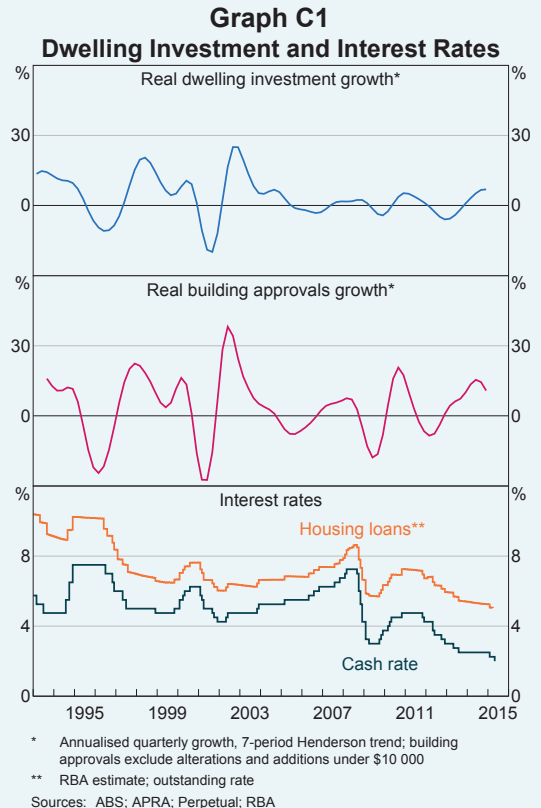
## Box C

# The Cycle in Dwelling Investment

Dwelling investment is the expenditure component of GDP that tends to be most sensitive to interest rates.<sup>1</sup> So given the reductions in the cash rate over recent years, it is unsurprising that the pace of dwelling investment growth has increased to 8 per cent over the past year (Graph C1). Ongoing strength in residential building approvals, relatively strong population growth and the very low level of interest rates suggest that further increases in dwelling investment are in prospect.

Interest rates affect dwelling investment partly because purchasing or renovating a dwelling is a large expense for a household and typically requires financing with a loan. A reduction in the cash rate lowers household borrowing rates, making it easier for households to finance the purchase of a dwelling, thereby increasing demand for dwellings. A reduction in the cash rate also lowers yields on 'safe' investments, such as cash deposits, which increases the demand for higher-yielding assets, such as dwellings or shares. Given the time it takes to start a building project, higher demand for dwellings would be expected to lead to higher prices for existing dwellings in the near term and, a little later, to stimulate the building of new dwellings as well as renovations to existing dwellings.

Statistical models that jointly consider the various drivers of investment in new dwellings (which makes up the bulk of dwelling investment) suggest that the response to declines in the cash rate in the current phase of the monetary policy cycle has been in line



with previous episodes of declining rates.<sup>2</sup> Despite this, the pick-up of new dwelling investment so far looks more muted than in some previous cycles, particularly that in 2001 (Graph C2). One explanation for the difference is that the current cycle has had an unusually high concentration of construction of higher-density dwellings, particularly high-rise apartments, which take longer to reach the construction phase after the building approvals have been granted. Indeed, the increase in the volume of

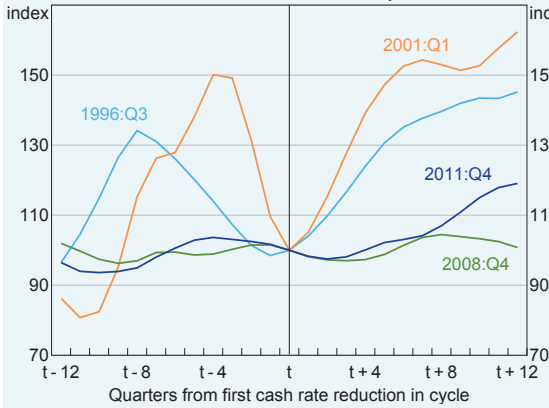
1 See, for instance, Lawson J and D Rees (2008), 'A Sectoral Model of the Australian Economy', RBA Research Discussion Paper No 2008-01. This also tends to be true for other countries: for the United States, see Mishkin FS (2007), 'Housing and the Monetary Transmission Mechanism', NBER Working Paper No 13518; for the United Kingdom, see Corder M and N Roberts (2008), 'Understanding Dwellings Investment', Bank of England *Quarterly Bulletin*, 48(4), pp 393–403.

2 New dwelling investment excludes alterations and additions activity, which has been weaker than suggested by historical experience.

### Graph C2

#### Investment in New Dwellings\*

Date of first cash rate reduction in cycle = 100



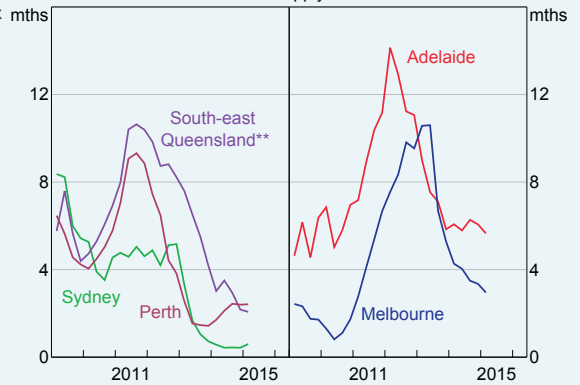
\* Volumes; 7-period Henderson trends

Sources: ABS; RBA

### Graph C3

#### Greenfield Land Supply

Estimated months of supply available for sale\*



\* Number of lots for sale at quarter-end divided by average number of lots sold per month over the preceding year

\*\* Brisbane, Gold Coast, Sunshine Coast

Sources: National Land Survey Program, Charter Keck Cramer, Research 4; RBA

approvals has been more in line with that of other cycles. Also, the relatively sharp pick-up of new dwelling investment in 2001 was unusual. This may, in part, have reflected a rebound following the sharp decline in approvals after the introduction of the goods and services tax in July 2000. The introduction of the federal First Home Owner Grant scheme at that time might also have played some role.

To accommodate an increase in demand for renovations and new dwelling construction, the construction industry needs to draw more heavily on a range of inputs, including land, construction workers, materials and equipment. The size of the increase in dwelling investment will therefore depend on how easily the industry can source these additional inputs.

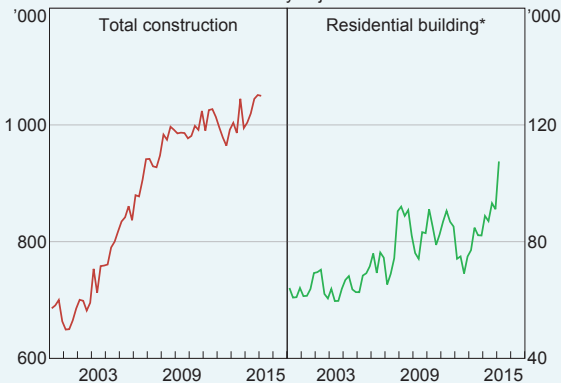
The increase in dwelling investment to date has already seen a pick-up in growth of greenfield land sales, particularly along the eastern seaboard. However, developers are now holding unusually low levels of unsold lots and, in some cities, supply is equivalent to less than three months of sales (Graph C3). Unsold lots are recorded as being most scarce in Sydney and south-east Queensland, where

the Bank's liaison contacts have suggested that developers are having difficulty obtaining further suitable land approved for development. Some liaison contacts have also raised concerns about the availability of land for apartment developments in Sydney, as the stock of suitable sites has been gradually depleted over recent years.

The employment of construction workers has also grown, particularly in residential construction (Graph C4). Even so, only some types of personnel are reported to be in short supply, such as project managers in the high-density construction sector and bricklayers on the eastern seaboard.

In general, the supply of labour in the residential construction industry appears to be well placed to increase further, partly because large numbers of construction workers are becoming available as work on mining construction projects winds down. According to the Bank's liaison, construction employment in the mining sector is expected to fall by about 60 000 people from 2014 to 2018 (around 6 per cent of construction employment), and contacts have suggested that many will be able to move into

**Graph C4**  
**Construction Employment**  
 Seasonally adjusted



\* Seasonally adjusted using ABS seasonal factors for aggregate construction employment; does not include residential-related construction services employment or workers employed in building construction that are difficult to classify further

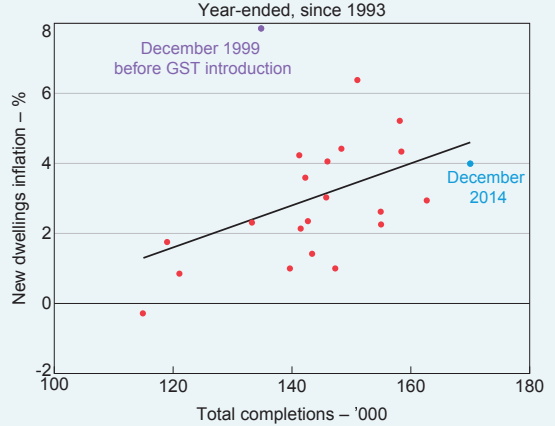
Sources: ABS; RBA

the residential building industry.<sup>3</sup> There is also scope to employ construction workers from overseas if significant skill shortages arise.

It is more difficult to quantify any potential shortages of building equipment and materials. The Bank's liaison suggests that some builders have been able to increase margins over the past year or so, and building material price inflation has risen somewhat. Significant shortages of any key building inputs, if they do arise, are also likely to show up in faster growth of new dwelling prices. Indeed, in the past, periods of strong growth of new dwelling completions have been associated with higher rates of inflation in the cost of newly built houses (Graph C5; the measure of inflation excludes the cost of land). Growth of new dwelling costs was around 4 per cent over the year to the December quarter 2014 and remained strong in the March quarter. This is around 1 percentage point above its average over the inflation-targeting period, but below that seen in earlier periods of strong dwelling construction activity. However, outside of certain trades, labour cost pressures have been

3 For more detail, see Doyle M-A (2014), 'Labour Movements during the Resources Boom', RBA *Bulletin*, December, pp 7–16.

**Graph C5**  
**New Dwellings Price Inflation and Completions**  
 Year-ended, since 1993



Sources: ABS; RBA

subdued to date. Growth in construction wages was around its slowest pace in the past decade or so over 2014.<sup>4</sup>

On balance, strength in dwelling investment is likely to be sustained, supported by low interest rates and relatively strong population growth. However, difficulties in obtaining the necessary production inputs, especially suitable land with development approval in some parts of the country, are likely to limit the extent of any further pick-up in dwelling investment growth above what is currently expected. ↗

4 For more detail, see RBA (2014), 'Box B: Inflation and the Housing Cycle', *Statement on Monetary Policy*, November, pp 55–57.





# 4. Domestic Financial Markets

Conditions in Australian financial markets continue to support the financing of the business and household sectors. Yields on bonds issued by governments, banks and non-financial corporations are near historic lows. Spreads on corporate bonds remain relatively low and issuance has picked up over the year to date. The cash rate target was reduced at the May Board meeting. Interest rates on the stock of housing and business loans have declined in response to the February and May cash rate reductions and lower money market interest rates over the past three months. Growth in housing lending continues to be driven by lending to investors, while growth in business financing has picked up over the year. Australian equity prices have declined over recent months.

## Money Markets and Bond Yields

The Reserve Bank Board reduced the cash rate target to 2 per cent at its May meeting. Yields on money market instruments imply some probability of a further reduction in the cash rate later in the year (Graph 4.1).

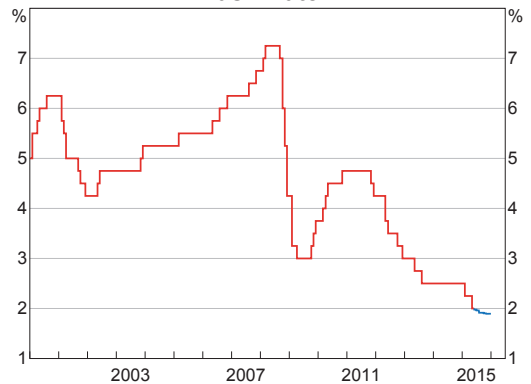
Rates on bank bills and certificates of deposit have steadily declined over recent months, reflecting both further monetary easing, and a narrowing of the spreads between bank bills and overnight indexed swaps (OIS) by around 15 basis points since their peak late last year.

Yields on 10-year Commonwealth Government securities (CGS) reached a historic low of 2.28 per cent in February, while the spread between CGS and US Treasuries declined to its lowest level since 2001 (Graph 4.2). More recently, better-than-expected

domestic data and higher global yields have seen CGS yields increase by around 60 basis points from their lows.

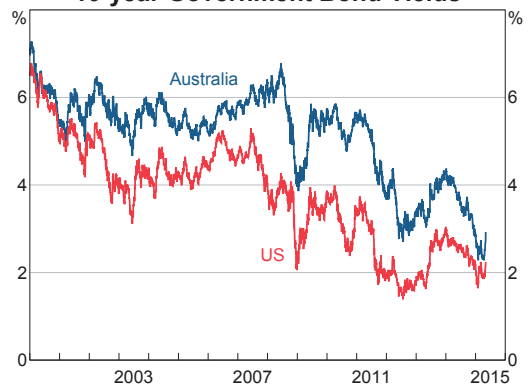
Demand for newly issued CGS has remained firm, with most bond tenders conducted by the

**Graph 4.1  
Cash Rate\***



\* Data from June 2015 onwards are expectations derived from interbank cash rate futures  
Sources: ASX; Bloomberg

**Graph 4.2  
10-year Government Bond Yields**



Source: RBA

Australian Office of Financial Management (AOFM) clearing below yields prevailing in the secondary market at the time of issuance. The AOFM issued a new 20-year bond in March at a yield of 2.86 per cent. Around one-third of the issue was purchased by non-residents, which was lower than for the April 2037 bond issued by the AOFM last October. Interest in Treasury notes has also improved, with several recent note tenders pricing at a premium to OIS.

Yields on debt issued by the state borrowing authorities ('semis') have increased after reaching historic lows in February, and spreads between semis and CGS have risen modestly over the past year (Graph 4.3). Gross issuance by the state borrowing authorities has totalled around \$12½ billion since the February *Statement*, which is lower than the equivalent period last year. Continuing the trend seen over the past two years, around 30 per cent of the new issuance was in the form of floating-rate notes and the weighted-average residual maturity of outstanding semis declined further. This is consistent with the preferences of authorised deposit-taking institutions (ADIs) for shorter-tenor and floating-rate securities; ADIs have become the largest holders of semis as they constitute high-quality liquid assets, which are held to satisfy the Liquidity Coverage Ratio. After taking account of maturities, the total stock of semis outstanding has decreased slightly since the previous *Statement*.

Standard & Poor's (S&P) placed Western Australia on negative credit watch based on expectations of a deterioration of the state's budgetary position following the falls in iron ore prices. Western Australia's current credit rating is AA+. Three other state or territory governments have a negative rating outlook from at least one of the major credit rating agencies.

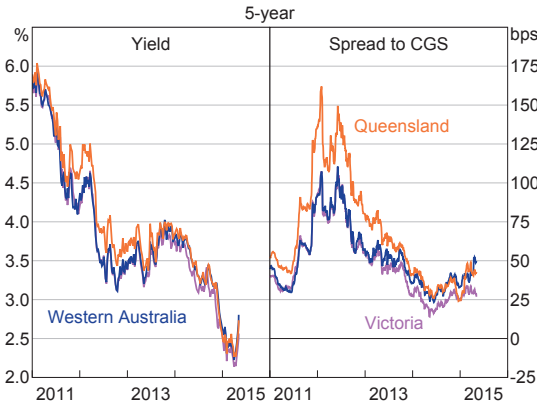
Bond issuance by non-residents into the domestic market ('Kangaroo' issuance) has totalled around \$10½ billion since the previous *Statement*. Almost two-thirds of the Kangaroo issuance was by banks, which is higher than typical of the past few years; sovereign and supranational issuance largely accounted for the other third. Kangaroo issuance by European-based entities has been somewhat higher than usual since the start of 2015 reflecting, in part, favourable movements in the cost of hedging Australian dollar proceeds into euros. Secondary market spreads on Kangaroo bonds have widened a little over the past year.

### Financial Intermediaries

Bank balance sheets have continued to grow moderately following a pick-up in growth in 2014. The funding composition of bank balance sheets has remained broadly unchanged over the past year with deposits as a share of funding stable at around 58 per cent (Graph 4.4).

Banks' average funding costs have continued to decline, driven by reductions in wholesale funding costs and deposit rates following the February cash rate reduction. The reductions in deposit rates have been larger for term deposits with longer maturities, consistent with some lessening in appetite by banks for term deposits. Interest rates on term deposits with maturities greater than one year fell by around 60 basis points after the February cash rate reduction, reflecting the reduction in wholesale interest rates. Households have generally moved into other deposit products, such as bonus saver accounts which offer higher interest rates (Graph 4.5).

**Graph 4.3**  
**State Government Debt**

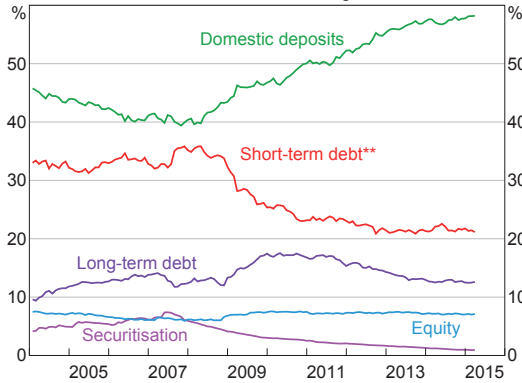


Sources: RBA; Yieldbroker

**Graph 4.4**

**Funding Composition of Banks in Australia\***

Share of total funding



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

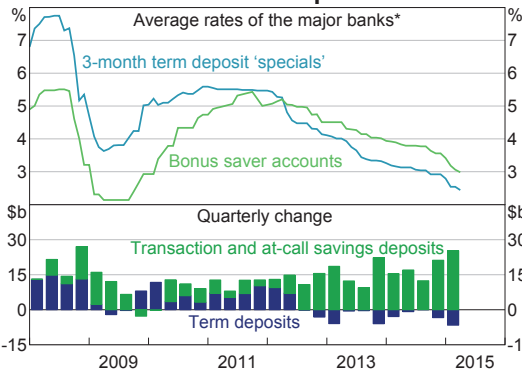
\*\* Includes deposits and intragroup funding from non-residents

Sources: APRA; RBA; Standard & Poor's

**Graph 4.5**

**Household Deposits**

Average rates of the major banks\*



\* Prior to the May cash rate reduction

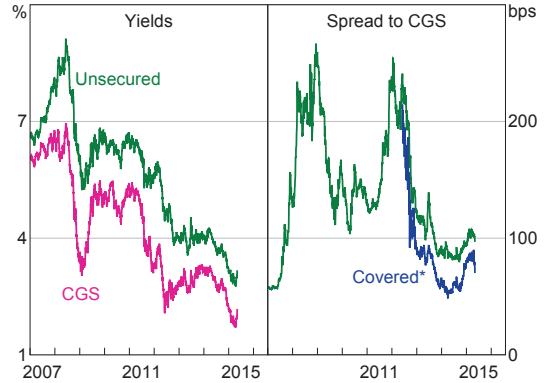
Sources: APRA; CANSTAR; RBA

Conditions in wholesale funding markets remain favourable and continue to contribute to a decline in bank funding costs. Yields on the major banks' new long-term wholesale debt issuance have fallen over the past year; spreads on the major banks' unsecured bonds relative to CGS have also narrowed a little over the past few months (Graph 4.6). After having edged higher in 2014, the cost of short-term debt issuance declined notably following the February cash rate reduction. This funding is replacing debt previously issued at higher rates, leading to a sizeable decline in the average outstanding yield.

**Graph 4.6**

**Major Banks' Bond Pricing**

3–5 year residual maturity, Australian dollar bonds



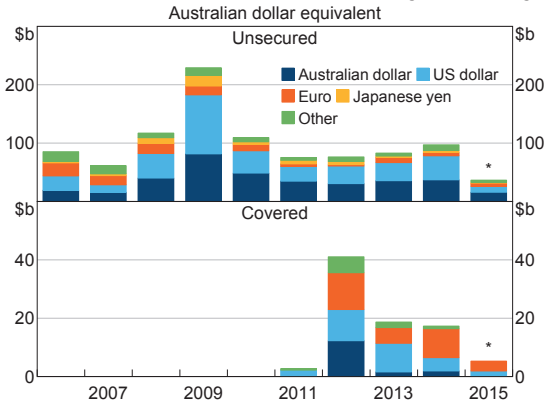
\* Covered bond pricing interpolated to a target tenor of 4 years using bonds with a residual maturity between 2 and 10 years

Sources: Bloomberg; UBS AG, Australia Branch

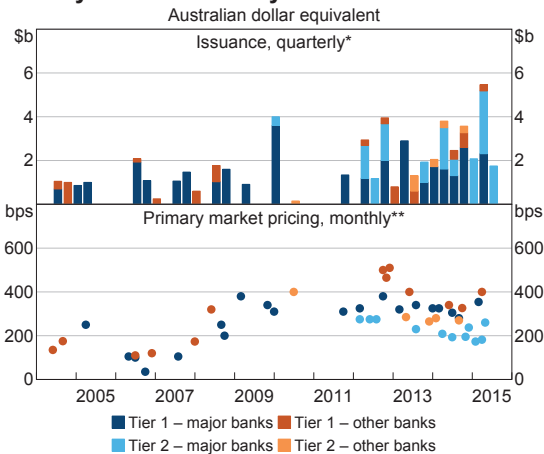
Australian banks have issued around \$40 billion in bonds since the start of the year, with around two-thirds issued into offshore markets. Over the past year, the stock of outstanding bonds has increased a little, with issuance outpacing maturities. Less than half of the banks' offshore bond issuance in 2015 has been denominated in US dollars, which is a lower share than that seen in recent years, while issuance of euro-denominated bonds has increased (Graph 4.7). Notwithstanding a pick-up in euro issuance hedging costs, the Australian dollar equivalent issuance costs achieved by the Australian banks have been broadly comparable across currencies. Australian banks have continued to explore new funding markets: a number of the large Australian banks issued bonds into the offshore renminbi market, with some of the banks accessing this market for the first time.

Australian banks have issued around \$7½ billion in hybrid securities so far this year (Graph 4.8). Banks raised around \$4.6 billion in Basel III compliant Tier 2 hybrids (a form of regulatory capital), with a significant share of this issued offshore in foreign currency-denominated securities. The remainder of the hybrid issuance was in the form of securities qualifying as Tier 1 capital, most of which were listed on the ASX. Primary market spreads on recent hybrid issuance have been wider than those seen in late

**Graph 4.7**  
**Resident Banks' Bond Issuance by Currency**



**Graph 4.8**  
**Hybrid Issuance by Australian Banks**



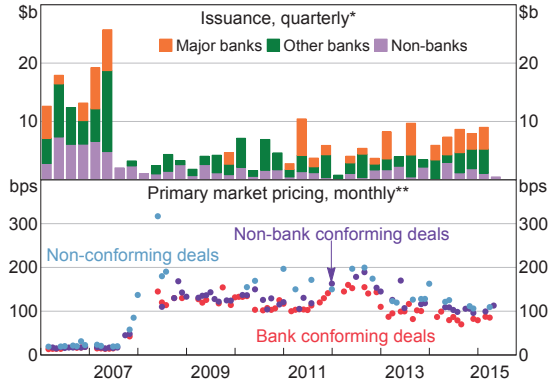
2014, particularly for Tier 1 securities; this has been attributed to the increased supply.

Issuance of Australian asset-backed securities has continued at a robust pace, mainly in the form of residential mortgage-backed securities (RMBS) (Graph 4.9). Most of the RMBS issuance since the start of the year has been by banks, which have issued around \$8 billion across five deals. As in 2014, RMBS backed by 'non-conforming mortgages', which typically involve borrowers with an impaired credit

history, higher loan-to-valuation ratios or lower levels of income documentation, comprise only a very small proportion of the issuance. Four securitisations backed by assets other than residential mortgages have also been issued, raising around \$2 billion in total. Issuance spreads on senior RMBS tranches have widened slightly since the start of the year, though they remain at low levels compared with most of the period since 2008.

S&P downgraded its rating on QBE Lenders' Mortgage Insurance (QBE LMI) Australia by one notch to A+ following the implementation of changes to S&P's criteria for rating mortgage insurers. Other Australian mortgage insurers had their ratings affirmed. Following the downgrade of QBE LMI and changes to S&P's ratings methodology, which reduces the credit given to lenders mortgage insurance when rating RMBS, S&P has placed 120, predominately subordinated, tranches of Australian and New Zealand RMBS on review for possible downgrade.

**Graph 4.9**  
**Australian RMBS**



## Financial Aggregates

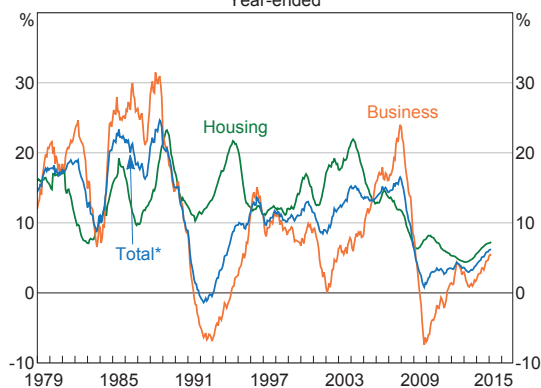
Total credit is expanding at around 6 per cent on a year-ended basis (Graph 4.10). This reflects steady growth in housing credit and a pick-up in business credit. Growth in credit remains below growth in broad money, which increased at a rate of around 8 per cent on a year-ended basis (Table 4.1).

**Table 4.1: Financial Aggregates**  
Percentage change<sup>(a)</sup>

	Three-month-ended		Year-ended
	December 2014	March 2015	March 2015
Total credit	1.6	1.6	6.2
– Housing	1.8	1.8	7.3
– Owner-occupier	1.5	1.5	5.8
– Investor	2.6	2.4	10.4
– Personal	0.1	-0.2	0.9
– Business	1.5	1.6	5.3
Broad money	1.6	2.0	7.8

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

**Graph 4.10**  
**Credit Growth by Sector**  
Year-ended



\* Includes housing, personal and business credit  
Sources: ABS; APRA; RBA

## Household Financing

Housing credit growth continued at around 7 per cent on a year-ended basis. Credit extended to owner-occupiers increased by slightly less than 6 per cent over the year while the pace of investor credit growth increased slightly to be around 10½ per cent.

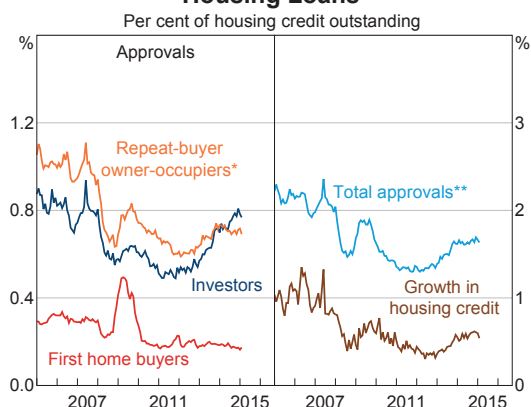
Growth in owner-occupier loan approvals (excluding refinancing) has been moderate and is consistent with credit growth remaining around its current pace (Graph 4.11). Loan approvals to investors have continued to grow, although the pace has slowed. Following an ABS review of the data there have been revisions to first home buyer loan approvals to adjust for under-reporting of these approvals. While first

home buyer approvals have been revised up, they are a small share of total approvals relative to their historical average.

Personal credit has been growing at a year-ended rate of around 1 per cent. This reflects modest increases in fixed-term loans and credit card balances outstanding.

The February cash rate reduction was fully reflected across housing lending rates with most lenders reducing their standard housing variable rates by around 25 basis points (Table 4.2). Fixed rates were also reduced, most notably the 3- and 5-year fixed rates which declined by more than 25 basis points, reflecting the decline in comparable maturity

**Graph 4.11**  
**Housing Loans**



\* Excluding refinancing

\*\* Excluding refinancing of repeat-buyer owner-occupiers

Sources: ABS; RBA

**Table 4.2: Intermediaries' Fixed and Variable Lending Rates**  
Prior to the May cash rate reduction

	Level at 4 May 2015	Change since end January 2015
	Per cent	Basis points
<b>Housing loans</b>		
– Standard variable rate <sup>(a)</sup>	5.67	–26
– Package variable rate <sup>(b)</sup>	4.82	–26
– Fixed rate <sup>(c)</sup>	4.74	–40
– Average outstanding rate <sup>(d)</sup>	5.04	–21
<b>Personal loans</b>		
– Variable rate <sup>(e)</sup>	11.36	–4
<b>Small business</b>		
– Term loans variable rate <sup>(f)</sup>	6.85	–25
– Overdraft variable rate <sup>(f)</sup>	7.72	–25
– Fixed rate <sup>(c),(f)</sup>	5.37	–37
– Average outstanding rate <sup>(d)</sup>	5.94	–24
<b>Large business</b>		
Average outstanding rate <sup>(d)</sup> (variable rate and bill funding)	4.11	–31

(a) Average of the major banks' standard variable rates

(b) Average of the major banks' discounted package rates on new, \$250 000 full-doc loans

(c) Average of the major banks' 5-year fixed rates

(d) RBA estimates

(e) Weighted average of variable rate products

(f) Residentially secured; average of the major banks' advertised rates

Sources: ABS; APRA; CANSTAR; RBA

wholesale rates. Housing lending rate declines resulted in the estimated average interest rate on outstanding housing loans falling by about 20 basis points since the previous *Statement* (prior to the May cash rate reduction). The aggregate decline in outstanding rates has been less than the 25 basis points reduction to variable rates as it takes some time for fixed-rate loans to roll over. Following the May cash rate reduction, banks have lowered their standard variable rates on housing loans by 20–25 basis points.

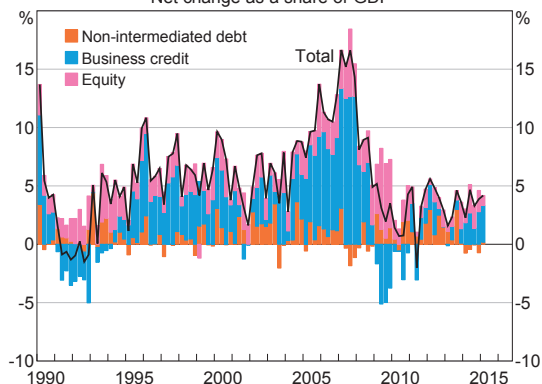
## Business Financing

Growth in external business funding remained steady in the March quarter at around 4 per cent of GDP (Graph 4.12). Equity raisings declined, but were offset by a pick-up in non-intermediated debt issuance.

Bond issuance by Australian non-financial corporations has picked up, with around \$20 billion

raised over the year to date, predominantly in offshore markets (Graph 4.13). Mining-related companies were the main issuers with some companies returning to the market for the first time since 2013.

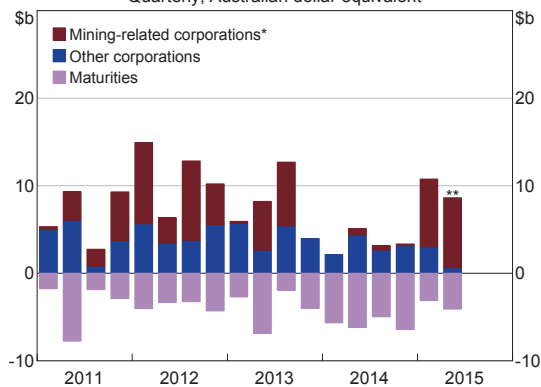
**Graph 4.12**  
**Business External Funding**  
Net change as a share of GDP\*



\* GDP data for the latest quarter are based on RBA forecasts

Sources: ABS; APRA; ASX; RBA

**Graph 4.13**  
**Australian Corporate Bond Issuance**  
 Quarterly, Australian dollar equivalent

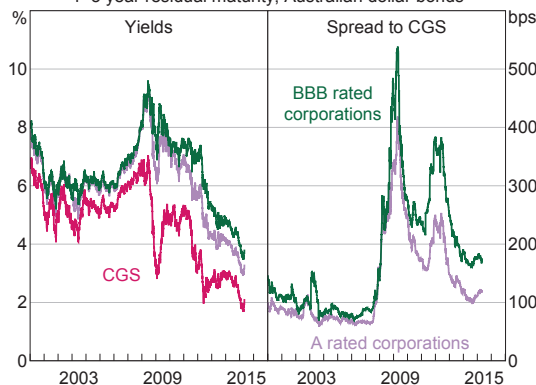


\* Energy sector and mining-related materials sector companies  
 \*\* Latest quarter issuance is quarter to date  
 Source: RBA

The pick-up in issuance is due at least in part to the low cost of issuance, with yields on corporate bonds around their lowest levels on record (Graph 4.14). Secondary market spreads over CGS for BBB rated corporate bonds have widened a little since mid last year, though they remain at around their lowest levels since 2008.

Business credit growth has strengthened over the past year, driven by lending to both private non-financial corporations and unincorporated (typically smaller) businesses. Credit provided by the major and foreign-owned banks has driven the growth, with Asian banks making a notable

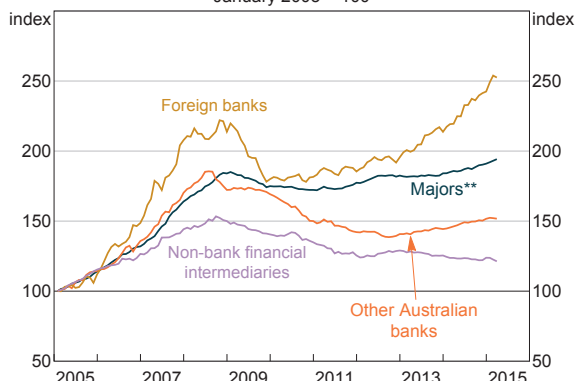
**Graph 4.14**  
**Australian Corporate Bond Pricing**  
 1–5 year residual maturity, Australian dollar bonds



Sources: RBA; UBS AG, Australia Branch

contribution and increasing their market share (Graph 4.15). The Australian dollar value of foreign currency-denominated business credit has been boosted by the depreciation of the Australian dollar. In trend terms, commercial loan approvals have been at a relatively high level, consistent with the strengthening in business credit growth.

**Graph 4.15**  
**Business Credit by Source\***  
 January 2005 = 100

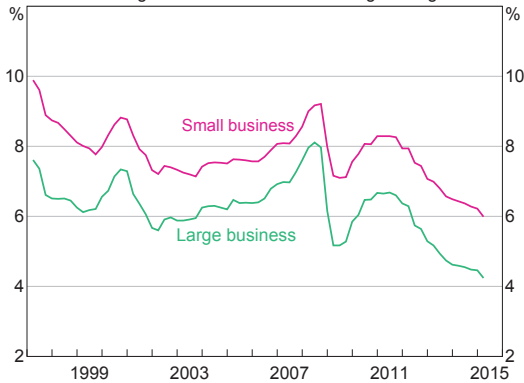


\* Break and seasonally adjusted; includes securitisation  
 \*\* Majors include St. George and Bankwest  
 Sources: ABS; APRA; RBA

Credit ratings of Australian corporations have been affected by the declines in commodity prices. Since the beginning of February, six resource sector companies have been downgraded by the major ratings agencies, with negative outlooks remaining in place for most of these companies' ratings.

The cost of intermediated business borrowing for both small and large businesses declined in the March quarter, mainly reflecting the repricing of loans following February's cash rate reduction (Graph 4.16). Prior to the May cash rate reduction, average rates on outstanding small business loans had fallen by around 25 basis points since the end of January, with banks' advertised variable rates on small business loans having fully reflected February's cash rate reduction. Lending rates on large business loans have also been reduced, with the average rate falling by more than 25 basis points, reflecting the reduction in yields in wholesale markets. Following the May cash rate reduction, banks have generally

**Graph 4.16**  
**Australian Business Lending Rates\***  
 Average interest rate on outstanding lending



\* RBA estimates; prior to the May cash rate reduction  
 Sources: APRA; RBA

lowered their variable rates on business loans by 25 basis points.

In contrast to the second half of last year, there has been little activity in the IPO market so far this year. Already listed corporations continue to raise around \$4 billion in equity per quarter, driven by non-resource corporations, particularly in the infrastructure sector.

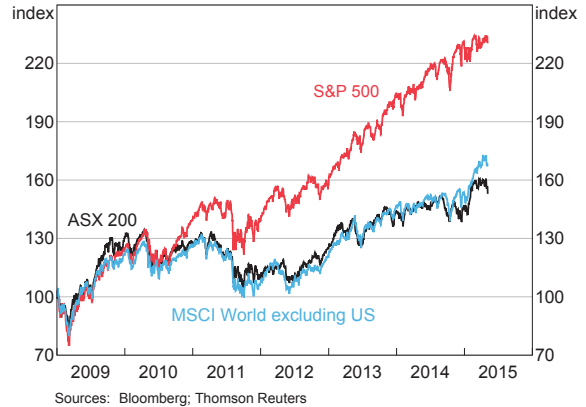
Mergers and acquisitions (M&A) activity has picked up over the past 18 months, with around \$21 billion in deals announced by listed companies so far this year. M&A activity has been concentrated in the industrial sector and has included Japan Post's \$6.5 billion proposed acquisition of Toll Holdings and Macquarie Group's acquisition of a \$5 billion aircraft leasing portfolio.

## Equity Markets

After falling in late 2014 in response to lower commodity prices, Australian equity prices rebounded in January but have declined since then (Graph 4.17). Over this period, the Australian equity market has underperformed other developed markets.

Equity prices in the resources sector remain well below their levels in mid 2014 owing to lower commodity prices, particularly for iron ore

**Graph 4.17**  
**Share Price Indices**  
 End December 2008 = 100



Sources: Bloomberg; Thomson Reuters

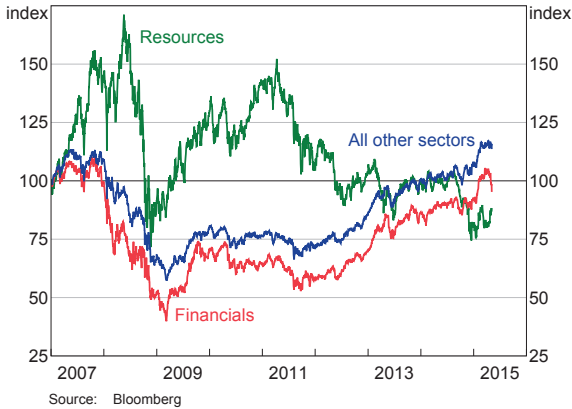
(Graph 4.18). However, better-than-expected profit results for the major miners and a slight slowing in the expected pace of expansion of iron ore production have supported materials sector equity prices since the beginning of the year. Energy sector share prices have increased over recent months, alongside a rebound in oil prices.

Financial sector equity prices have declined over recent months, affected by mixed earnings updates across the banks and diversified financial companies. Outside the financial and resources sectors, share prices have generally risen. The prices of industrial stocks have increased substantially, supported by increased M&A activity in the sector. Equity prices were mixed across the consumer sectors: consumer staples share prices have underperformed while share prices of the consumer discretionary sector have increased following a pick-up in sales growth across companies exposed to the residential real estate sector.

Valuations of Australian equities, as measured by forward price-earnings (PE) ratios, have increased. Equity price rises have outpaced increases in earnings expectations (Graph 4.19). Forward PE ratios remain above the 20-year averages of all broad sectors, with the PE ratio of the ASX 200 remaining at around its highest level over the past 10 years. However, the aggregate forward PE ratio of

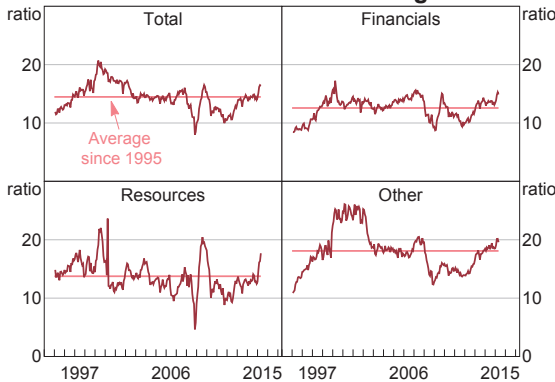


**Graph 4.18**  
**Australian Share Price Indices**  
End December 2006 = 100



Source: Bloomberg

**Graph 4.19**  
**Australian Forward Price-earnings Ratios**



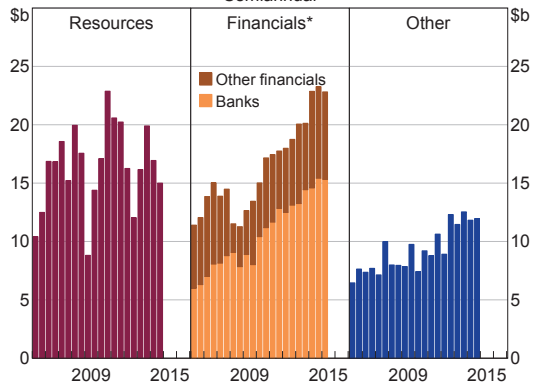
Sources: MSCI Australia; Thomson Reuters

the Australian equity market is well below the level reached in the late 1990s.

ASX 200 companies reported their December half 2014 results in February. Aggregate underlying profits, which exclude the impact of non-recurring items, fell slightly from the same period in 2013, driven by lower profits of resource companies. In aggregate, profits were slightly better than consensus analysts' expectations; this was due in large part to the better-than-expected results of the resources sector. Among resource companies, however, performance was mixed: the major miners' profit results exceeded analysts' expectations, while energy companies generally underperformed.

Notwithstanding the better-than-expected results, resource sector profits declined by 22 per cent from the same period in 2013, owing to lower commodity prices (Graph 4.20). The decline in profits has been accompanied by significant cost-cutting efforts and further increases in production volumes across the major miners. Many of the smaller resource companies reported substantial falls in profit, with a number of these companies also recording asset writedowns.

**Graph 4.20**  
**ASX 200 Underlying Profits**  
Semiannual



\* The June 2015 half observation for financial companies is based on reported results during the half and consensus expectations for companies that have not yet reported

Sources: Bloomberg; Morningstar; RBA

Underlying profits of financial companies rose by 15 per cent from the same period in 2013, primarily reflecting substantial increases in profit at insurance and real estate companies. The increase in profits at real estate companies partly reflected heightened activity in the residential property market.

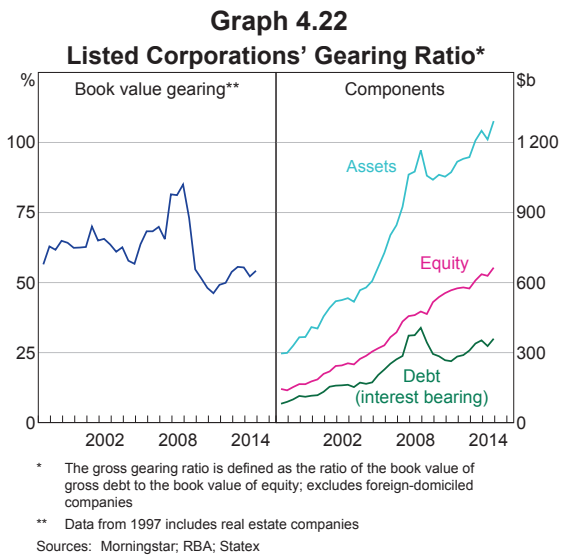
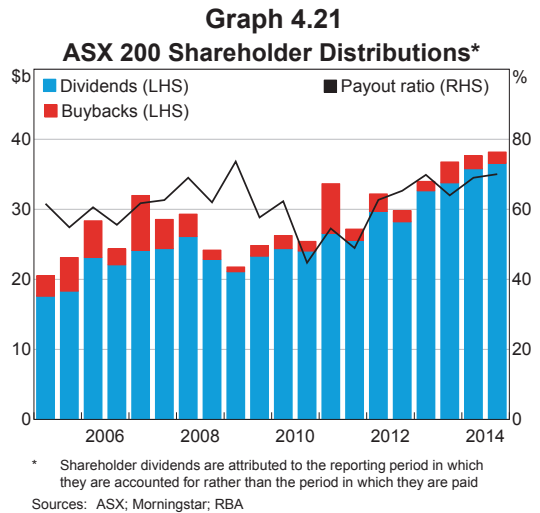
Banks generally reported smaller increases in underlying profit compared with the same period in the previous year. Net interest income was supported by strong growth in interest earning assets, partially offset by a decline in net interest margins for the major banks as a result of strong competition in lending markets and increased holdings of liquid assets. Declines in bad and doubtful debt charges owing to improved asset quality also contributed to profit growth. Banks generally increased their

dividend payments compared with the same period in the previous financial year.

Underlying profits for companies outside the resources and financial sectors have been broadly flat over the past couple of years. Profits in the industrial sector, which includes a number of mining services companies, declined in the most recent reporting season alongside lower capital expenditure at resource companies.

Company shareholder distributions grew modestly in the December half 2014 compared with the previous year, driven by an increase in dividend payments, particularly in the resources sector (Graph 4.21). The increase in dividends exceeded earnings growth, resulting in the aggregate payout ratio rising further to its highest level since 2009.

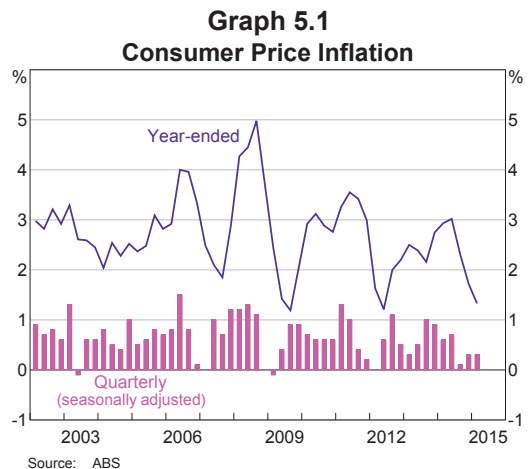
Listed corporations' balance sheets expanded by 6½ per cent over the December half 2014, with the expansion largely due to the depreciation of the Australian dollar against the US dollar, which increased the value of offshore assets (Graph 4.22). The depreciation of the Australian dollar also led to a revaluation of foreign currency-denominated debt, resulting in a shift in the reported funding mix towards debt; however, this was partly offset by reductions in US dollar-denominated debt among the mining companies. Equity rose over the period, also partly due to exchange rate effects, despite a number of asset writedowns across resource companies. As a result, the gross book value gearing ratio – the ratio of debt to equity – rose a little to 54 per cent, but remains well below its historical average. ↗



# 5. Price and Wage Developments

## Recent Developments in Inflation

The consumer price index increased by 0.3 per cent in the March quarter (in seasonally adjusted terms) and by 1.3 per cent over the year (Graph 5.1; Table 5.1). The slowing in headline inflation over the past year is largely accounted for by a significant fall in fuel prices over the past two quarters and the repeal of the carbon price in 2014. Various measures suggest that underlying inflation remained around ½–¾ per cent in the March quarter, in line with the forecast in the February *Statement* (Graph 5.2). In year-ended terms, the pace of underlying inflation was around 2¼–2½ per cent.



**Table 5.1: Measures of Consumer Price Inflation**  
Per cent

	Quarterly <sup>(a)</sup>		Year-ended <sup>(b)</sup>	
	March quarter 2015	December quarter 2014	March quarter 2015	December quarter 2014
Consumer Price Index	0.2	0.2	1.3	1.7
Seasonally adjusted CPI	0.3	0.3	–	–
– Tradables	–0.6	–0.6	–0.9	0.7
– Tradables (excl volatile items and tobacco) <sup>(c)</sup>	0.5	0.0	0.4	0.0
– Non-tradables	0.7	0.7	2.6	2.3
– Non-tradables (excl utilities)	0.7	0.8	3.0	2.6
<i>Selected underlying measures</i>				
Trimmed mean	0.6	0.6	2.3	2.2
Weighted median	0.6	0.7	2.4	2.4
CPI excl volatile items <sup>(c)</sup>	0.7	0.6	2.3	2.1

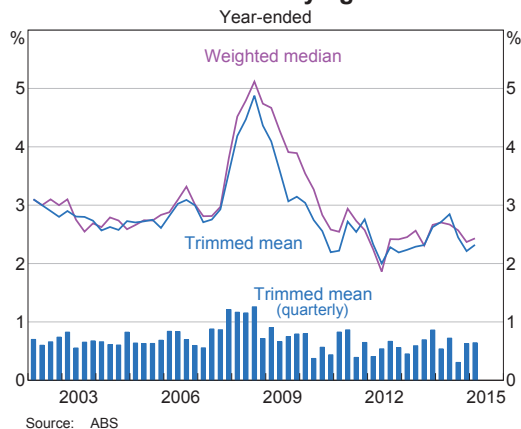
(a) Except for the headline CPI, quarterly changes are based on seasonally adjusted data; those not published by the ABS are calculated by the RBA using seasonal factors published by the ABS

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

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

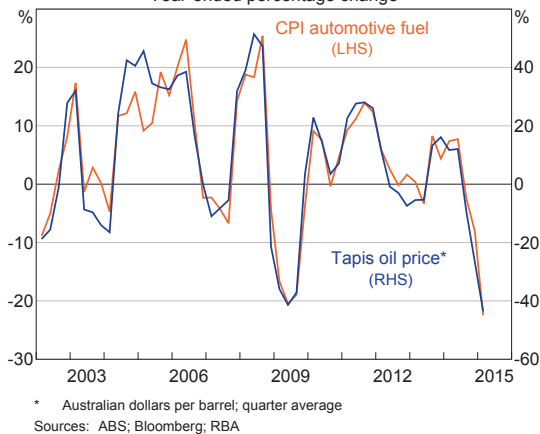
Sources: ABS; RBA

**Graph 5.2**  
**Measures of Underlying Inflation**



The large drop in global oil prices in recent quarters has contributed significantly to the decline in headline inflation over this period through its direct effect on the price of automotive fuel. Prices for fuel fell by 13 per cent in the March quarter, subtracting around 0.4 percentage points from headline inflation. Over the year, fuel prices have subtracted about 0.7 percentage points from the pace of headline inflation. The decline observed in domestic fuel prices over this period has been roughly in line with the fall in international prices for crude oil, after accounting for the offsetting effect of the depreciation of the Australian dollar (Graph 5.3).

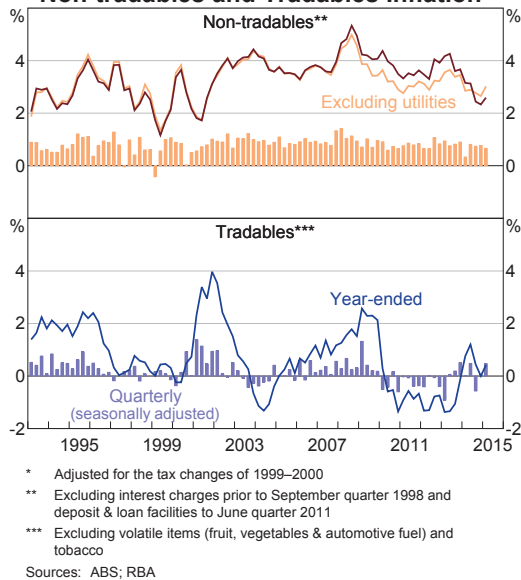
**Graph 5.3**  
**Fuel and Oil Prices**  
Year-ended percentage change



The large decline in crude oil prices may also be exerting some downward pressure on the pace of underlying inflation through its effect on costs for a wide range of businesses. The goods and services consumed by households that are most intensive in their use of oil include the categories of recreation & culture (which covers air travel), public transport fares and food (owing to the cost of diesel for freight). To date, the effect of lower oil and fuel prices on the prices of most of these items appears to have been fairly limited, and liaison with firms also indicates this. However, lower fuel costs are likely to take some time to work their way through the supply chain. It is also difficult to ascertain the extent to which these effects on costs have passed through to inflation amid the usual variation in final consumer prices driven by other factors. The removal of the carbon price has also reduced energy costs for businesses somewhat over the past year.

Spare capacity in labour markets and, more generally, in many product markets has continued to contain domestic inflationary pressures. The pace of non-tradables inflation remained at 0.7 per cent in the March quarter (Graph 5.4). Excluding utility prices,

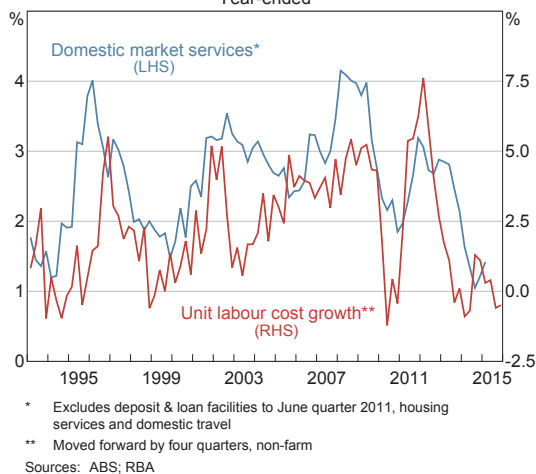
**Graph 5.4**  
**Non-tradables and Tradables Inflation\***



which were affected directly by the repeal of the carbon price in the September quarter, non-tradables inflation was 3.0 per cent over the past year, which is relatively low compared with its average pace over the past decade.

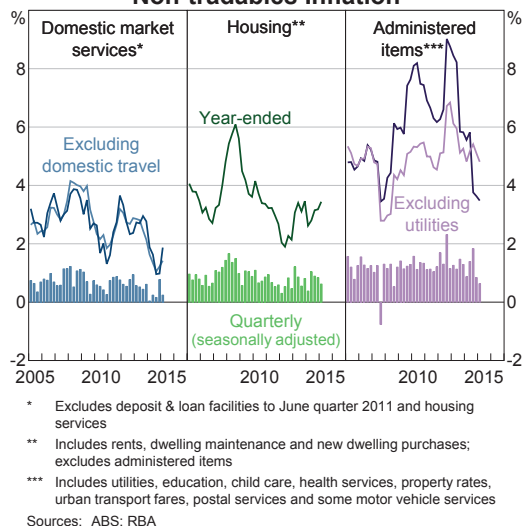
Inflation in the prices of domestic market services (excluding domestic travel & accommodation) remains particularly low at around 1.4 per cent over the year (Graph 5.5). This reflects continued slow wage growth and the related slow growth in unit labour costs, as these services contain a relatively high labour content and have few administered price components.

**Graph 5.5**  
**Market Services Inflation**  
Year-ended

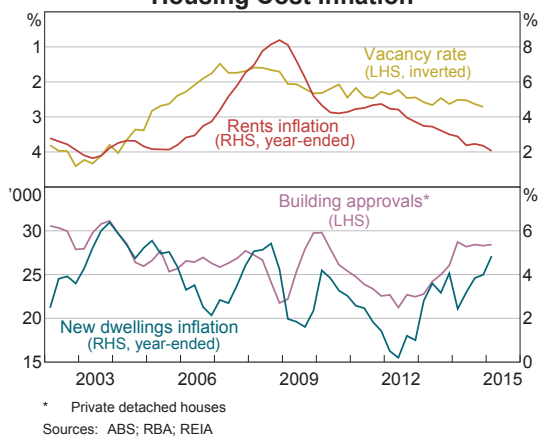


The downward pressure on non-tradables inflation from slow unit labour cost growth has been partly offset by several factors (Graph 5.6). The exchange rate depreciation is providing a boost to domestic tourism demand, and domestic holiday prices increased sharply in the quarter. Stronger demand during recent major sporting events may have also pushed up these prices. Housing inflation remains a little above its historical average, reflecting the high level of activity in the residential construction sector, especially in Sydney. Growth in the cost of new dwellings has remained strong, whereas growth in rents has fallen to its lowest pace in over a decade (Graph 5.7). Inflation in administered prices, for items

**Graph 5.6**  
**Non-tradables Inflation**



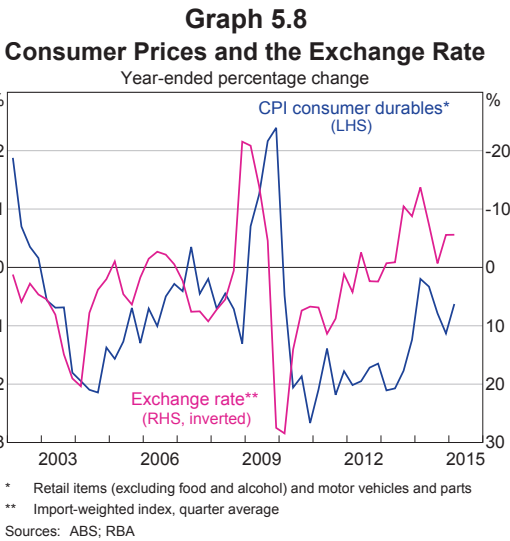
**Graph 5.7**  
**Housing Cost Inflation**



such as health and urban transport fares, has also slowed in recent years (even excluding utilities) but remains high compared with inflation in other non-tradable items.

The prices of tradable items tend to be heavily influenced by movements in the exchange rate, because these items are either imported or have a high degree of exposure to international competition. Tradables prices (excluding volatile items and tobacco) increased by 0.5 per cent in the March quarter and by 0.4 per cent over the year, consistent

with some upward pressure from the exchange rate depreciation since mid 2013. This stands in contrast to the decline in these prices seen from 2010 to 2013. It is expected that the exchange rate depreciation since mid 2014 will gradually exert further upward pressure on tradables prices over the next few years. Many consumer durables, including motor vehicles, furniture & furnishings, clothing & footwear and audio, visual & computing equipment, have a high imported content. Consequently, changes in the prices for consumer durables tend to be particularly closely linked to exchange rate movements (Graph 5.8). However, for much of the past five years or so the pace of deflation for these items had been more than expected given movements in the exchange rate, partly as a result of a reduction of margins along the supply chain.<sup>1</sup>



## Labour Costs

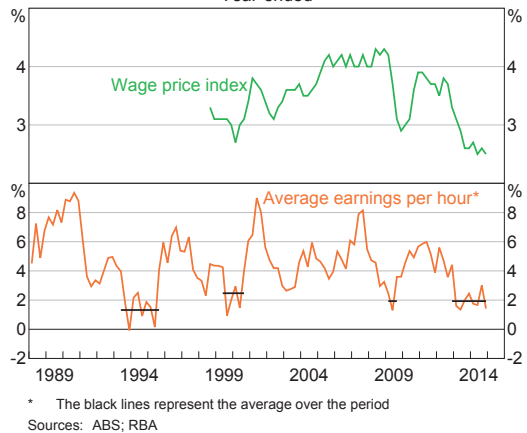
Labour cost pressures remain subdued. Wage growth, as measured by the wage price index (WPI), was 0.6 per cent in the December quarter and 2.5 per cent over the year – the slowest annual pace since the index was first published in the late 1990s (Graph 5.9). Other wage measures suggest that the recent period has been the most protracted episode

1 See RBA (2014), 'Box C: Recent Developments in Retail Prices and Margins', *Statement on Monetary Policy*, February, pp 56–58.

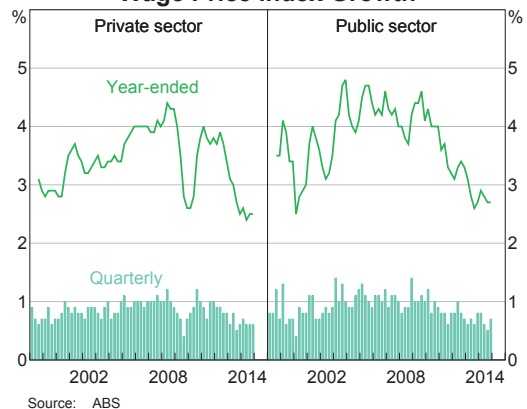
of slow wage growth since the early 1990s recession, though wage growth has not been quite as low as it was at that time.

The slow pace of wage growth continues to be broad based. Growth of both the private and public sector WPI remained low over the year to the December quarter, at 2.5 per cent and 2.7 per cent, respectively (Graph 5.10). Year-ended wage growth in most industries has stabilised at levels well below their decade averages and dispersion in growth rates across the states is low. This is consistent with evidence from the Bank's business liaison, which finds that a greater proportion of firms report wage growth of 2 to 3 per cent than in the past, when outcomes in excess of 3 per cent were relatively common.

**Graph 5.9**  
**Wage Growth**  
Year-ended



**Graph 5.10**  
**Wage Price Index Growth**

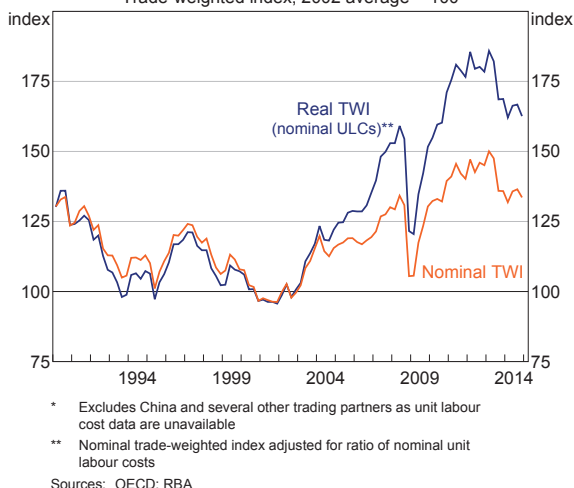


According to business liaison and surveys of firms and union officials, growth in wages is widely expected to remain low.

These wage outcomes are consistent with other indicators of spare capacity in the labour market (see the ‘Domestic Economic Conditions’ chapter). Compared with earlier episodes, increased labour market flexibility may have provided firms with more scope to adjust wages and average hours worked by each employee in response to a given change in demand for their goods and services, allowing them to increase employment by more than would otherwise have been the case. This is consistent with business liaison, which suggests that many employees appear to be willing to trade lower wage growth for greater job security.

More generally, employers have remained under pressure to contain costs given spare productive capacity in many product markets and the pressures of international competition. Over the decade to 2011, Australia’s real exchange rate – measured on the basis of relative unit labour costs – appreciated significantly, consistent with the rise in the terms of trade and the mining investment boom (Graph 5.11). Much of this adjustment occurred through the appreciation of the nominal exchange rate, but nominal unit labour costs in Australia also rose relative to those of many trading partners (and by more than would be expected given differences in inflation targets). This implied a loss of international competitiveness for many firms. Some of this effect is being reversed now that the terms of trade are declining and mining investment has been falling. Wage growth has slowed and productivity growth has picked up. Both have been growing at about the same pace over the past three years. This has meant that unit labour costs have been little changed over that period and have declined by about 3½ per cent relative to those of Australia’s trading partners. These developments, in combination with the depreciation of the Australian dollar, are assisting the non-mining economy to regain some competitiveness and thereby support demand for domestic production and employment.

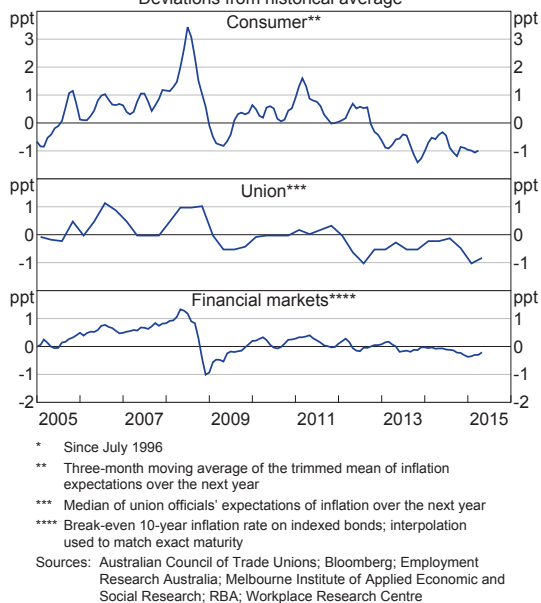
**Graph 5.11**  
**Real Effective Exchange Rate\***  
 Trade-weighted index, 2002 average = 100



## Inflation Expectations

A number of measures of inflation expectations remain below average (Graph 5.12). Both short-run and long-run financial market measures have increased a little recently but remain lower than mid last year. In recent quarters, market economists

**Graph 5.12**  
**Measures of Inflation Expectations**  
 Deviations from historical average\*



and union officials have also revised down their expectations of inflation for the year ahead. The Melbourne Institute measure of consumer inflation expectations remains about 1 percentage point below its historical average. Longer-run inflation expectations remain well anchored. ✖



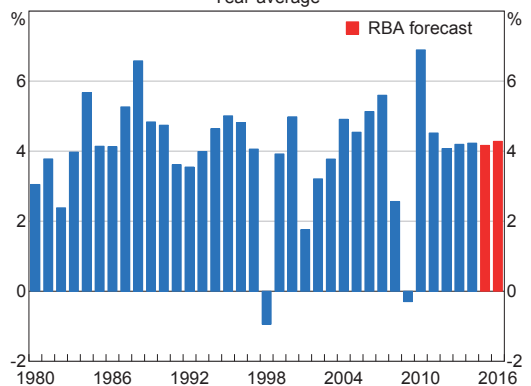
# 6. Economic Outlook

## The International Economy

Growth of Australia's major trading partners is expected to remain around its long-run average pace in 2015 and 2016 (Graph 6.1). Forecasts have been revised down slightly since the February *Statement*, largely reflecting weaker growth in China recently. Low energy prices – particularly for oil – are likely to impart stimulus to most of Australia's trading partners because they are net oil importers. Bulk commodity prices have fallen since February, and Australia's terms of trade are lower as a result. The falls in the prices of iron ore and coking coal over the past three months appear, in part, to reflect moderating growth in industrial production in China, particularly of steel.

In China, economic growth in 2015 is projected to be a little weaker than previously forecast, reflecting slower-than-expected growth across a range of activity indicators in the March quarter. In the near term, weakness in the property market and the manufacturing industry is likely to continue to dampen growth of Chinese demand for steel, iron ore and coal. An anticipated pick-up in infrastructure investment, together with more accommodative monetary and fiscal policies and the positive impact of low oil prices, should provide some offsetting support for aggregate demand over the course of the next year or so. Nevertheless, GDP growth is expected to ease further in the next couple of years. In the near term, this reflects a weaker outlook for demand growth and policymakers' ongoing efforts to restrain the growth of financing in order to put it on a more sustainable footing. The medium-term outlook is consistent with lower growth in

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



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

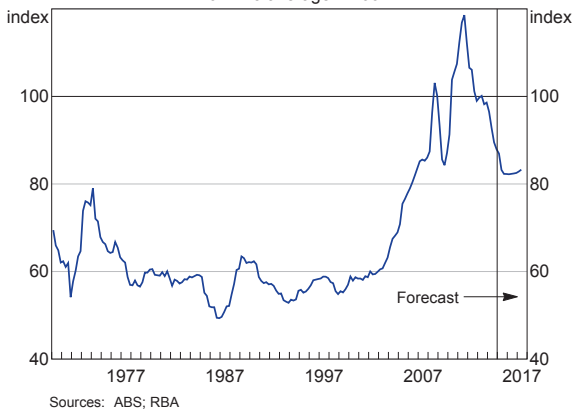
productive capacity due to supply-side factors, such as the falling working-age population.

The Japanese economy is expected to return to modest growth in 2015 and 2016, supported by accommodative monetary and fiscal policies, the depreciation of the yen and low oil prices. In the rest of east Asia, the outlook is little changed and growth is expected to remain close to its decade average. Growth in the US economy is expected to continue at an above-trend pace over the forecast period, notwithstanding a moderation in the pace of growth in the March quarter, which largely reflects temporary factors. The pace of recovery in the euro area remains moderate, but is expected to be a bit faster than forecast three months ago.

The outlook for the terms of trade has been revised down by about 1½ per cent, consistent with the overall decline in commodity prices over the past three months. The terms of trade are forecast to fall

by around 6 per cent over 2015, as the falls in spot prices for bulk commodities are passed through to export prices (Graph 6.2). The Bank's forecast assumes that global demand for steel will be more subdued than in recent years and that any reduction in supply from higher-cost iron ore operations, including those in China, will be modest as producers continue to reduce costs to maintain production.

**Graph 6.2**  
**Terms of Trade**  
2012/13 average = 100



## Domestic Activity

In preparing the domestic forecasts, a number of technical assumptions have been employed. The forecasts are conditioned on the assumption that the cash rate moves broadly in line with market pricing at the time of writing. This assumption does not represent a commitment by the Board to any particular path for policy. The exchange rate is assumed to remain at its current level over the forecast period (TWI at 65 and A\$ at US\$0.80). The TWI is a little higher than the assumption underlying the forecasts in the February *Statement*. The forecasts are based on the price of Brent oil at US\$70 per barrel, which is around 19 per cent higher than the assumption used in February. This is in line with near-term futures pricing. The working-age population is assumed to grow by 1.7 per cent each year (drawing on forecasts by the Department of Immigration and Border Protection), which is a little lower than in the previous *Statement*.

The starting point for the forecasts is that the Australian economy grew a bit below its trend rate over 2014, and that this pace of growth looks to have continued in early 2015. In recent quarters, consumption growth has been picking up and dwelling investment growth has remained strong. However, growth of non-mining investment is still subdued, as is public spending. As a result, growth of non-mining activity overall has remained below trend. Mining activity has made a sizeable contribution to growth over the past year, as falls in mining investment have been offset by increases in resource exports. Mining investment is expected to continue subtracting substantially from growth over the next couple of years.

GDP growth is forecast to remain below trend for a bit longer than had been anticipated in the February *Statement*. GDP growth over the year to June 2016 is expected to be in the range of 2½ to 3½ per cent and 2¾ to 4¼ per cent over the year to June 2017 (Table 6.1).

Non-mining business investment is forecast to pick up later than earlier envisaged. This follows the weak reading from the ABS Capex survey of investment intentions for 2015/16 and is consistent with the still low levels of non-residential building approvals. It is also consistent with the Bank's liaison, which continues to suggest that firms are reluctant to undertake significant investment until they see a durable pick-up in the growth of demand. The forecast for an above-average pace of consumption growth from mid 2016, together with the boost to demand for domestic production provided by the exchange rate depreciation over the past couple of years, is expected, in time, to increase capacity utilisation and lead to a rise in non-mining business investment.

Mining investment is expected to fall sharply over the next two years as a number of large-scale projects are completed and few new projects are expected to start, especially given the magnitude of falls in commodity prices over the past year. The lack of a pipeline of new projects has been factored into the outlook for some time. Given this, the additional effect of recent declines in commodity prices is likely

**Table 6.1: Output Growth and Inflation Forecasts<sup>(a)</sup>**  
Per cent

	Year-ended					
	Dec 2014	June 2015	Dec 2015	June 2016	Dec 2016	June 2017
GDP growth	2.5	2	2½	2½–3½	2¾–3¾	2¾–4¼
Non-farm GDP growth	2.6	2¼	2½	2½–3½	2¾–3¾	2¾–4¼
CPI inflation <sup>(b)</sup>	1.7	1½	2½	2–3	2–3	2–3
Underlying inflation <sup>(b)</sup>	2¼	2¼	2½	1¾–2¾	1¾–2¾	1¾–2¾
	Year-average					
	2014	2014/15	2015	2015/16	2016	2016/17
GDP growth	2.7	2¼	2¼	2–3	2½–3½	2½–4

(a) Technical assumptions include A\$ at US\$0.80, TWI at 65 and Brent crude oil price at US\$70 per barrel

(b) Based on current legislation

Sources: ABS; RBA

to be modest. There have, however, been indications that some capital expenditure may be deferred and that there will be less spending on exploration activity, particularly in the oil and gas sectors. This has led to a minor downward revision to the outlook for mining investment.

The low level of interest rates and relatively strong population growth are expected to continue to support household demand. Since the February *Statement*, the outlook for dwelling investment has strengthened a little. Consumption growth is still expected to pick up gradually to an above-average pace and the saving ratio is expected to decline a little further, consistent with the forecasts presented in the February *Statement*.

Export growth is expected to continue to make a sizeable contribution to GDP growth. Liquefied natural gas exports are expected to grow strongly and contribute ¾ percentage point to GDP growth over 2016/17. However, the decline in commodity prices, particularly for iron ore, has meant that a small but increasing share of Australian production is estimated to be unprofitable. This has prompted some smaller Australian iron ore producers to reduce production, and there is potential for further announcements of this kind. The forecast for growth of bulk commodity exports over the next couple of years has been revised slightly lower as a result.

Import volumes are estimated to be lower than previously forecast, reflecting the downward revision to domestic demand. Growth of non-mining imports is expected to pick up, in line with non-mining investment in late 2016; imports related to mining activity are expected to continue falling over the next couple of years.

The latest data from the labour force survey suggest that recent trends in the labour market have been a bit better than earlier indicated. Employment has grown by more than the working-age population over the past six months. This has been accompanied by a small increase in the participation rate, while the unemployment rate has been little changed at around 6¼ per cent. Accordingly, the starting point for the labour market forecasts is slightly more favourable than had been expected. Nonetheless, the fact that output growth is likely to take longer to pick up than earlier thought means that the unemployment rate will probably rise further to peak at 6½ per cent in mid 2016 and remain elevated for longer.

A degree of spare capacity in the labour market and pressure on public and private sector employers to contain costs mean that wage growth is expected to remain subdued. It is not expected to slow further, but nor is it expected to increase much over the next couple of years. This is consistent with messages

from business liaison and surveys of firms and union officials, which suggest that wage growth is widely expected to remain slow, but generally not fall below the expected pace of inflation. These forces imply that unit labour costs will remain well contained. This will help to improve the competitiveness of Australian producers and also support labour demand.

## Inflation

The inflation forecast has been revised down a little since the previous *Statement*, reflecting the weaker outlook for product and labour markets.

The decline in headline inflation over the past year can partly be explained by the temporary effects from lower automotive fuel prices and the repeal of the carbon price. Headline inflation is expected to remain below 2 per cent in year-ended terms through to mid 2015, before picking up to between 2 and 3 per cent. Measures of underlying inflation were around  $\frac{1}{2}$ – $\frac{3}{4}$  per cent in the March quarter and  $2\frac{1}{4}$ – $2\frac{1}{2}$  per cent over the year. Underlying inflation is expected to remain well contained over the forecast period.

Inflation in the prices of non-tradable items is expected to remain below its inflation-targeting average. Spare capacity in the labour market and the associated low growth in wages are expected to contain labour costs. Spare capacity in product markets and heightened competitive pressures are likely to constrain many firms' ability to expand margins, although strong demand for residential construction is likely to see inflation in new dwelling costs remain a little above average. Meanwhile, inflation expectations overall remain below average.

In contrast, inflation in prices for tradable items is expected to increase in the next few years. The cumulative depreciation of the exchange rate since early 2013 has led to increases in import prices, which are gradually being passed through to prices for final goods. The direct effects of the exchange rate depreciation since early 2013 are expected to add a little under  $\frac{1}{2}$  percentage point to underlying inflation over each year of the forecast period.

A number of large movements in individual prices will continue to affect inflation for a time. The fall in automotive fuel prices, as a result of lower oil prices, subtracted a little under  $\frac{3}{4}$  percentage point from headline inflation over the year to the March quarter 2015. Fuel prices have since increased and are expected to contribute  $\frac{1}{4}$  percentage point to inflation in the June quarter. However, they remain lower than a year ago, which has reduced input costs for a range of businesses, and these lower costs may gradually be passed on to the prices these businesses charge for their goods and services. The magnitude and timing of this indirect effect is difficult to gauge. While estimates are quite uncertain, this indirect effect is expected to subtract about 0.1 percentage points per year from underlying inflation over most of the forecast period. Further increases in the tobacco excise in 2015 and 2016 are expected to contribute around  $\frac{1}{4}$  percentage point each year to the rate of headline inflation, but to have little effect on underlying inflation.

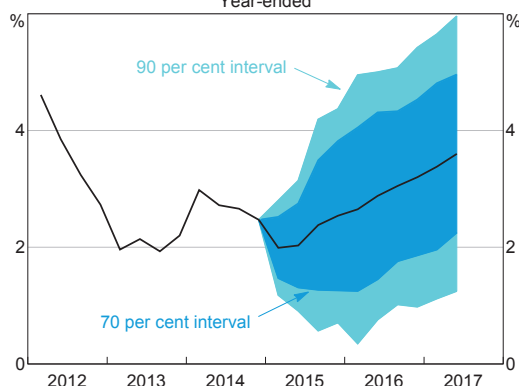
## Uncertainties

The forecasts are based on a range of assumptions about the evolution of some variables, such as the exchange rate, and judgements about how developments in one part of the economy will affect others. One way of demonstrating the uncertainty surrounding the central forecasts is to present confidence intervals based on historical forecast errors (Graph 6.3, Graph 6.4 and Graph 6.5).

It is also worth considering the consequences that different assumptions and judgements might have on the forecasts and to consider the possibility of events occurring that are not part of the central forecast. There are always uncertainties about how events offshore will unfold, and how policymakers and financial markets will respond. One of the key sources of uncertainty for the forecasts from the global economy continues to be the outlook for the Chinese economy. Developments there also have important implications for commodity prices, particularly prices for iron ore and coal, which affect

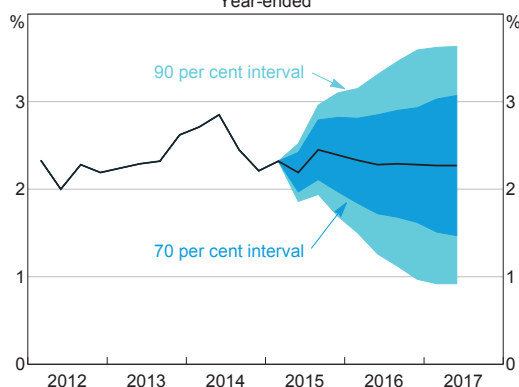
the forecast for the terms of trade and may affect the exchange rate. Domestically, key sources of uncertainty arise from: how households respond to the contrasting effects of the low growth in incomes and the effects of rising wealth from the housing market; the outlook for business investment; and the way in which the economy is adjusting to the lower terms of trade.

**Graph 6.3**  
**GDP Growth Forecast\***  
Year-ended



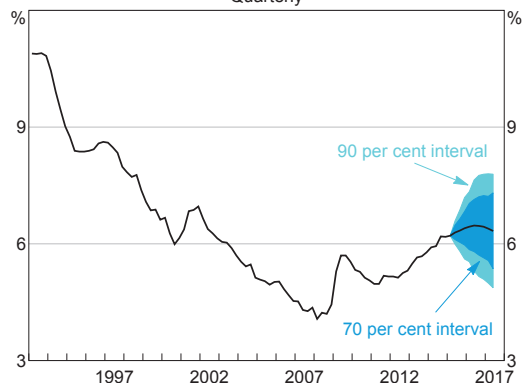
\* Confidence intervals reflect RBA forecast errors since 1993  
Sources: ABS; RBA

**Graph 6.4**  
**Trimmed Mean Inflation Forecast\***  
Year-ended



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

**Graph 6.5**  
**Unemployment Rate Forecast\***  
Quarterly



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

### Chinese property market and local government investment

Ongoing weakness in the Chinese property market and constraints on funding for local government-led infrastructure spending continue to represent key sources of uncertainty for China's economic growth and its demand for commodities. Recently announced initiatives should provide some support for property prices and construction activity in the residential property market, although conditions in the sector (and upstream industries that supply inputs to construction) are likely to remain weak until the existing overhang of housing inventory is worked through.

With the property and manufacturing industries under pressure and growth in consumption showing tentative signs of moderating, infrastructure investment continues to be an important alternative source of growth. However, subdued conditions in the property market have the potential to weaken the revenue streams of local governments that rely heavily on land sales to raise funds. At the same time, recent reforms to local government finances, requiring greater transparency and reduced use of local government financing vehicles to issue debt,

may constrain the ability of local governments to implement planned infrastructure spending. While the central authorities have scope to loosen fiscal and monetary policies further, there is a risk that reduced capacity to fund projects at the local level will make it harder for policymakers to support growth of activity in the period ahead.

### Commodity prices

The forecasts for commodity prices assume that the ongoing planned expansion to global supply will outpace demand growth over coming quarters, which is looking more subdued. Iron ore and coking coal price forecasts are particularly sensitive to the assumption that global steel demand growth will be relatively subdued over the next few years. The assumption about steel demand in China depends on the extent of the weakness in the property and manufacturing sectors and on the effectiveness of policy responses.

The forecasts assume that there will only be a limited response of the global supply of commodities to the sustained period of lower commodity prices. This assumption is partly justified by the observation that many producers of bulk commodities have been able to reduce their production costs in an effort to maintain production. However, in recent months some production cuts have occurred in China and have also been announced by higher-cost producers in Australia. This flags the possibility that there will be further cuts by some producers both domestically and globally and, all else being equal, higher commodity prices. The possibility of unexpected cuts to Australian production also represents a downside risk to the forecast for export growth.

### Household sector

While recent indicators of consumption growth have been broadly consistent with previous expectations, uncertainty around consumption and saving behaviour remains. The forecasts assume a further gradual pick-up in consumption growth, which is consistent with a further gradual decline in the saving

ratio. There are downside risks to the income forecast (see below). The risks to the wealth forecast are tilted somewhat to the upside for a number of reasons. One reason is that supply constraints, particularly in Sydney, may limit the extent to which new dwelling investment can satisfy growing demand, which raises the possibility that housing prices will grow more quickly than forecast. Another reason is that growth of housing prices outside Sydney and Melbourne has been relatively subdued and may not yet have responded fully to the very low levels of interest rates.

However, in recent years, fewer households appear to have been utilising the increase in the value of their dwellings to trade up or increase their leverage for the purposes of consumption or alterations and additions to housing. It may be that although monetary policy is having its usual effects on asset prices, the effect of changes in asset prices on the growth of household expenditure is less, or at least slower, than historical relationships would suggest. This may be because households have revised down their expectations of income growth, and therefore may be less willing to carry as much debt as in the past. Similarly, they may be more concerned about the prospect of unemployment. These possibilities suggest that growth of household expenditure could be somewhat lower, and the saving ratio higher, than forecast.

### Business investment

Total business investment is expected to fall over the next two years as a large decline in mining investment more than offsets a recovery in non-mining investment. Given the size of the falls in mining investment already factored into the forecasts, the assessment is that the most recent step down in commodity prices will not lead to a significant additional fall. However, the size of the fall and the impact of the declines in commodity prices remain uncertain.

The timing of the recovery in non-mining business investment has been pushed out until later in 2016 on the basis that forward-looking indicators provide

little, if any, evidence of a turning point before then. Indeed, the Capex survey implies that non-mining investment could be lower than forecast. However, many of the preconditions for a recovery in non-mining business investment are in place: borrowing rates are currently low, business credit has picked up, and the forecasts suggest that by mid 2016 domestic demand will be growing at an above-trend pace. So it is possible that non-mining business investment recovers more strongly than forecast. Given the significant uncertainty around the timing and strength of the expected pick-up in non-mining business investment growth, the risks to these forecasts are assessed to be roughly balanced.

### **Labour market adjustment**

Since the peak of mining investment in 2012, the labour market has been adjusting to the transition from the investment to the production phase of the mining boom, the lower terms of trade and the still relatively high exchange rate. Over this period, growth in economic activity has not been sufficient to absorb all the increase in the available supply of labour and the unemployment rate has increased as a result. A key feature of this episode is that wage growth has slowed by more than would have been

expected on the basis of historical relationships. This may indicate that the labour market is more flexible than it was in the past. Lower wage growth could also be a part of the process of unwinding the relatively strong growth in Australian unit labour costs and the sustained appreciation of the Australian dollar that took place during the mining investment boom. A further depreciation of the real exchange rate, either through a depreciation of the nominal exchange rate or relatively low growth of unit labour costs, would assist with the adjustment process already under way.

The current forecasts assume that the unemployment rate will continue to increase gradually as long as the economy is growing at a below-trend pace, and that wage growth will remain low, but not slow any further. However, recent revisions to labour force data suggest that the unemployment rate has remained stable since mid last year, despite below-trend growth (as implied by GDP estimates). It is possible that employment will continue to grow fast enough to maintain a steady unemployment rate, but given the forecasts for below-trend output growth in the near term, this could probably only be achieved with ongoing moderation in wage growth. ✖

