Statement on Monetary Policy

NOVEMBER 2013

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Reserve Bank

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Statement on Monetary Policy Enquiries

Information Department
Tel: (612) 9551 9830
Facsimile: (612) 9551 8033
Email: rbainfo@rba.gov.au

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Overview

In recent months, growth in Australia's major trading partners appears to have remained at around its long-term average rate. The pace of growth in China has increased a little through the year and is consistent with the Chinese Government's target of 7½ per cent. The expansion in activity has been driven by domestic demand. In Japan, following the adoption of more expansionary fiscal and monetary policies late last year, the economy looks to have picked up further in the second half of this year. In the rest of east Asia, growth has continued at around its decade-average pace, while conditions remain fairly subdued in India. The US economy appears to have been growing at a moderate pace; the partial shutdown of the US federal government in the first half of October is expected to have had only a minor effect on activity. The economy in the euro area remains weak but has shown some signs of improvement. Globally, inflation pressures are contained and monetary conditions remain highly accommodative in most economies.

Overall, the outlook for the global economy is much as it was a few months ago and so the forecast for growth in Australia's major trading partners in both 2013 and 2014 is little changed from the August *Statement*. Trading partner growth in 2013 is expected to be slightly below its longer-run average, reflecting a short period of slower growth around the beginning of the year. Growth in 2014 is expected to be a little above average. The prospect of a pick-up in conditions in many advanced economies is likely to see growth for the world as a whole improve from a below-average pace in 2013 to around average in 2014.

Commodity prices have been little changed over the past few months. Spot prices for iron ore and coking coal increased, in line with the expansion of Chinese steel production, but this has been offset by slight declines in the prices of some other commodities. The supply of bulk commodities is expected to continue to increase on the back of high levels of investment in the resources sector globally. This should see commodity prices, and hence Australia's terms of trade, decline further over the coming years from their still historically high levels.

The stance of US monetary policy remained the focus of financial markets over the past few months. Expectations that the Federal Reserve might have begun to pare back its asset purchases as early as October saw yields rise further through to early September. Following the Federal Reserve's mid September meeting, the Fed announced that it was leaving the scale of its asset purchases unchanged for the time being, which saw yields retrace much of the increase observed over earlier months. These developments also had a significant effect on emerging markets, with those countries considered most at risk of capital outflows experiencing rising yields and sizeable depreciations of their exchange rates. That pressure then eased as expectations about the timing of the Fed's decision to reduce its asset purchases were pushed back. More generally, volatility in financial markets has abated with the uncertainty about the US debt ceiling having only a limited impact.

Following the depreciation of the Australian dollar through to early August, the exchange rate was

relatively stable until the announcement by the Federal Reserve and the subsequent reassessment by markets of the likely path of US monetary policy. This change in view, along with some more positive Chinese data, saw the Australian dollar appreciate. This recent appreciation means that, on a trade-weighted basis, the Australian dollar is now 6 per cent lower than it was at the time of the May *Statement*.

The Australian economy has expanded at a bit below trend pace this year. Business surveys and the Bank's liaison suggest that current business conditions have been below average for some time. Consistent with this, business investment declined in the first half of the year; estimates suggest that much of this owed to a large fall in mining investment, but there was also a small decline in non-mining investment. Statements by mining companies, information from the Bank's liaison, and a lack of spending on the planning and development of new projects suggest that the level of mining investment will continue to decline over the next few years. Also, non-mining investment looks likely to remain subdued in the near term, with the ABS capital expenditure survey implying a small decline in that part of non-mining investment that is captured by the survey. However, survey-based measures of business confidence and some more timely surveys of current business conditions have increased markedly over the past two months to above-average levels. It is too early though to know whether this improvement will be sustained and the extent to which businesses might be encouraged to take on new risks, increase investment and add to employment.

Growth in household consumption appears to have remained below average over the past year, although indicators have been a bit more positive of late. Retail sales increased modestly over the year to September. However, growth looks to have picked up through the September quarter and there are reports from liaison of some improvement in sales in October. Also, measures of consumer sentiment are now well above long-run average levels.

Meanwhile, conditions in the established housing market have continued to strengthen. Nationally, dwelling prices are now above their late 2010 peak, housing turnover and loan approvals have picked up noticeably over recent months, auction clearance rates remain high, and surveys suggest that households are more optimistic about the housing market. Improved conditions in the established housing market are providing an impetus for dwelling investment, which looks likely to maintain its upward trend. Residential building approvals and other forward-looking indicators of activity, such as loan approvals and first home owner grants for new dwellings, have increased noticeably over the past year.

The large volume of mining investment in recent years has added significantly to capacity, supporting strong growth in resource exports, particularly of iron ore. This growth has resulted in exports making a substantial contribution to aggregate growth over the past year. Resource exports are likely to continue to grow strongly as more mining investment projects are scheduled for completion in the coming years. Other exports have fared less well given the high value of the Australian dollar, although the depreciation since earlier this year will provide some assistance for businesses in the traded sector.

Labour market conditions remain soft. Employment has been little changed since earlier this year, while the unemployment rate has edged higher and the participation rate declined noticeably over that period. At the same time, however, total hours worked have continued to trend higher and more recently there are signs that forward-looking indicators of employment growth may no longer be declining. Nevertheless, indicators of job advertisements and vacancies, as well as surveys of firms' employment intentions, remain consistent with only modest employment growth in the near term.

The softening in labour market conditions observed over the past year or so has seen a broad-based decline in wage growth across industries. Some

measures of wage growth are around their lowest in a decade. Moreover, there has been no growth in measured unit labour costs over the past year, notwithstanding a slowing in labour productivity growth to around its long-run average.

Consumer price inflation has been at or below the middle of the inflation target range over the past year, consistent with the generally subdued growth of domestic demand and costs. While inflation picked up in the September quarter, much of this owed to an increase in the price of fuel. Non-tradables inflation has been relatively stable over the past four quarters and, abstracting from what is likely to have been some small impact from the introduction of the carbon price, it is close to the lowest levels seen over the past decade. Prices of tradable items have increased in each of the past two quarters, following a significant decline over the past few years in response to the earlier appreciation of the exchange rate and strong competitive pressures. The exchange rate depreciation since earlier this year has been pushing up import prices, although historical experience would suggest that it is unlikely to have had much effect on most consumer prices as yet; that is expected to occur gradually over the coming quarters.

The various measures of underlying inflation were between ½ and ¾ per cent in the September quarter, which was a touch above earlier expectations. As a result, underlying inflation was a little above 2¼ per cent over the year, close to where it has been for some time. Underlying inflation in year-ended terms still embodies a small contribution from the introduction of the carbon price.

The forecast for the domestic economy has been revised to account for some developments working in different directions. Based on company statements and the Bank's liaison, mining investment looks like it might decline more than was previously anticipated. Also, the appreciation of the exchange rate since the previous *Statement* means that the traded goods sector will be a bit more constrained than was envisaged at that time. Working in the other direction are the improvement in housing market conditions and the recent pick-up in measures of business and consumer confidence. The net effect of these developments is that GDP growth is now expected to remain below trend through next year, before picking up through 2015. The forecast for growth to pick up about a year from now is based on the stimulatory effect of low interest rates, the expectation that growth in Australia's trading partners will be close to, if not above, average, further strong population growth and the need to add to the capital stock after a long period of subdued investment (outside of the resources sector). The recent improvement in sentiment, if sustained, bodes well for the willingness of businesses to invest and expand their operations.

With the economy expected to expand at a below-trend pace over the coming year, employment is expected to continue to grow at a slower rate than the population. Accordingly, the unemployment rate is likely to continue to drift higher for a year or so, but is forecast to decline through 2015 as non-resource activity picks up.

Overall, the inflation outlook is little changed since the previous *Statement*. Inflation, on an underlying basis, is forecast to remain at or below the centre of the target range over the forecast period. This reflects slightly higher-than-expected inflation of late, offset by the effect of slightly softer labour market conditions on domestically generated inflationary pressures. Also, the depreciation of the exchange rate since earlier in the year is expected to push prices of tradable items gradually higher in coming quarters, but by slightly less than was expected three months ago.

For most countries, the risks to the outlook appear to be broadly balanced, with the exception of the euro area where ongoing banking and fiscal problems suggest that the risks are still tilted to the downside. Relative to earlier years, growth in China has slowed to a more sustainable pace. However, uncertainties surrounding how reforms will proceed and the challenges in managing an increasingly

dynamic economy could see growth either stronger or weaker than the Chinese Government's target. In the United States, growth could either be above or below the forecast depending, in part, on the outcome of upcoming decisions about the fiscal position and the debt ceiling.

For the Australian economy, there are both upside and downside risks for growth and so for inflation. Some of these relate to the path for business investment. There is uncertainty surrounding the profile for mining investment, which will depend on the viability and timing of some projects as well as any variations in costs for projects already underway. Also, it is difficult to predict the timing and strength of the expected upturn in non-mining investment. While the near-term indicators remain subdued, other factors – including the low level of interest rates and the recent improvement in consumer and business confidence – suggest that there is the potential for a stronger recovery in non-mining investment than currently anticipated. In addition, the extent to which household spending responds to rising household wealth remains to be seen.

The path of the exchange rate is also a significant source of uncertainty for the domestic economy. The Australian dollar appreciated significantly over the past decade, as higher commodity prices led to increased capital inflows to fund the substantial increase in mining investment. The appreciation helped to shift demand to external sources, which enabled domestic capacity to accommodate the unprecedented increase in mining investment. But commodity prices have fallen since their peak two years ago, and mining investment has begun to decline from the record level reached this past year. The exchange rate depreciated earlier this year, but has since retraced some of that decline, in large part reflecting the influence of developments offshore. With the terms of trade forecast to decline only modestly over the coming years, there is some chance that the exchange rate will remain around current levels over the forecast horizon. However, lower capital inflows associated with the decline in mining investment could act to reduce the exchange rate, as could a reduction in stimulatory monetary settings in large economies. A lower exchange rate is likely to be needed to achieve balanced growth in the economy. A lower exchange rate, if it came about, would also see growth strengthening sooner than forecast and place some upward pressure on inflation for a time.

In August, the Board decided to reduce the cash rate by 25 basis points to support growth in the economy while observing that the inflation outlook remained consistent with the inflation target. This brought the cash rate to a low of 2.50 per cent, 225 basis points below where it had been two years earlier, and borrowing rates to their lowest levels for decades. Since the August meeting, there has been further evidence that this cumulative easing in monetary policy is supporting activity in interest-sensitive sectors. Monetary policy acts with a lag, and so the effects of the reductions in the cash rate on activity still have further to run. The stimulus is clearly evident in the housing sector, where prices have accelerated a little in recent months, borrowing is rising a little faster and indicators of construction are moving higher. Also, savers continue to shift towards assets with higher returns and risk, and measures of business and consumer confidence have moved higher to above average levels. So although growth is forecast to remain a bit below trend for a time, there is a reasonable prospect that private demand beyond the resources sector will strengthen over time. Meanwhile, the outlook is for inflation to remain consistent with the medium-term target.

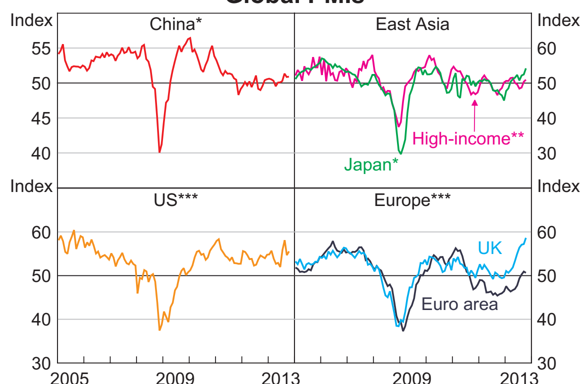
At the meetings since August, the Board judged that given the substantial degree of monetary policy stimulus that had already been put in place, it was appropriate to hold the cash rate steady, but not to close off the possibility of reducing it further, should that be needed to support economic activity consistent with 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

Growth in Australia's major trading partners in the September quarter looks to have been close to its average of the past decade (Graph 1.1). Economic conditions in China have picked up over the course of the year, with recent indicators suggesting that growth for 2013 will be around the authorities' target of 7½ per cent. In Japan, economic activity has strengthened noticeably since late last year, while in the rest of east Asia growth has been around its decade average. The US economy appears to have continued to grow at a moderate pace. There are signs that economic conditions in Europe have improved a little.

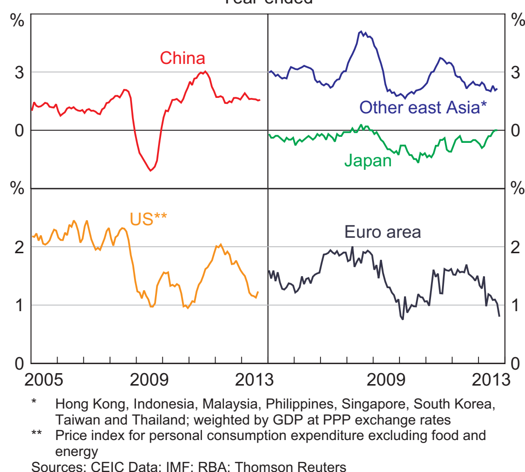
Graph 1.1
Global PMIs



* Manufacturing PMI; China series seasonally adjusted by the RBA
** Manufacturing PMI; Hong Kong, Singapore, South Korea and Taiwan; weighted by GDP at market exchange rates; whole economy PMI used for Hong Kong
*** Composite PMI; ISM prior to 2008 for US
Sources: CEIC Data; Markit Economics; RBA; Thomson Reuters

Core measures of inflation have continued to ease in most advanced economies over the past few months, except in Japan where consumer prices are unchanged over the year after a long period of deflation (Graph 1.2). Inflation in the euro area and the United States is now quite low, consistent with substantial excess capacity in these economies following an extended period of below-trend growth. Monetary policy remains highly accommodative in most advanced economies, but it has been tightened recently in a number of developing economies (see the 'International and Foreign Exchange Markets' chapter).

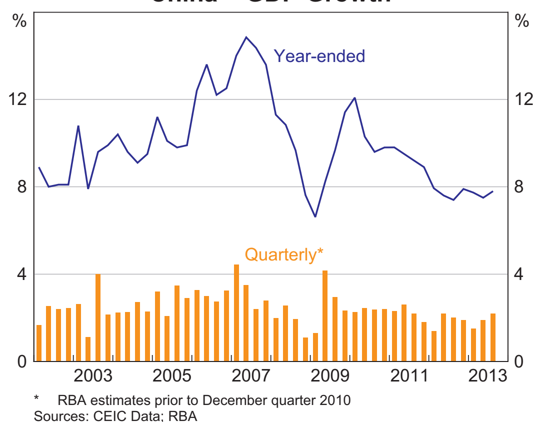
Graph 1.2
Global Core Inflation
Year-ended

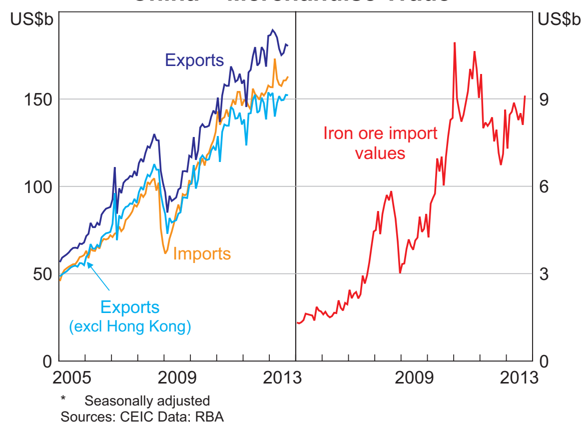


* Hong Kong, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand; weighted by GDP at PPP exchange rates
** Price index for personal consumption expenditure excluding food and energy
Sources: CEIC Data; IMF; RBA; Thomson Reuters

Asia-Pacific

In China, GDP growth has picked up a little through 2013; GDP expanded by 2.2 per cent in the September quarter, to be 7.8 per cent higher over the year (Graph 1.3). While external demand remains subdued, domestic conditions have been comparatively strong. This is evident in the relatively

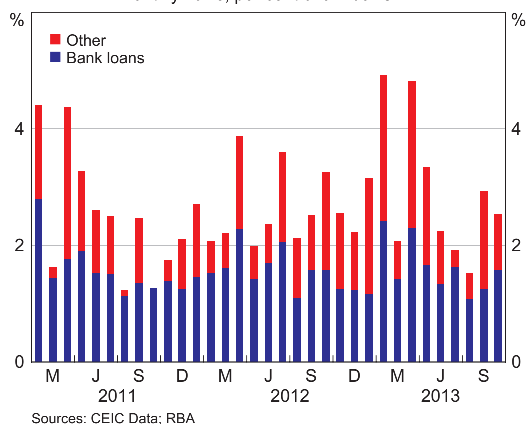




high growth rates of investment in manufacturing and infrastructure, as well as strong retail sales. The growth of production has increased moderately across a broad range of industries, including for crude steel and steel products.

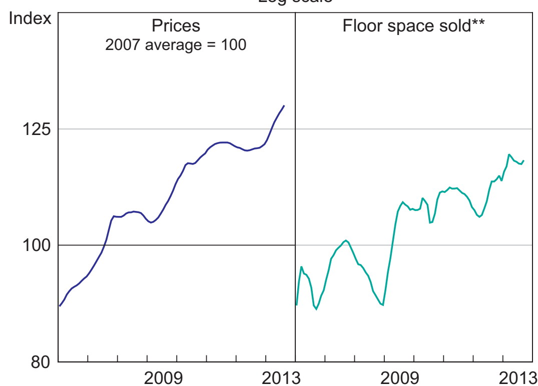
Export values contracted slightly in the September quarter (Graph 1.4). However, excluding exports to Hong Kong (which overstated the rise and subsequent decline in exports earlier in the year), exports increased modestly in the quarter. Exports to East Asia were subdued, as demand from higher-income economies in the region slowed. The strengthening in domestic demand in China coincided with a rise in imports in the September quarter, with the volume of iron ore and crude oil imports increasing noticeably.

The Chinese authorities had previously signalled their intention to place financing on a more sustainable footing. However, after slowing in the three months to July, the flow of total social financing picked back up in August and September (Graph 1.5). The increase was particularly pronounced in financing activity outside of bank loans, which had been something of a concern for the authorities earlier in the year. Bank loans to non-financial corporations also increased in the quarter. The growth of bank loans to households remains brisk at 24 per cent over the year.



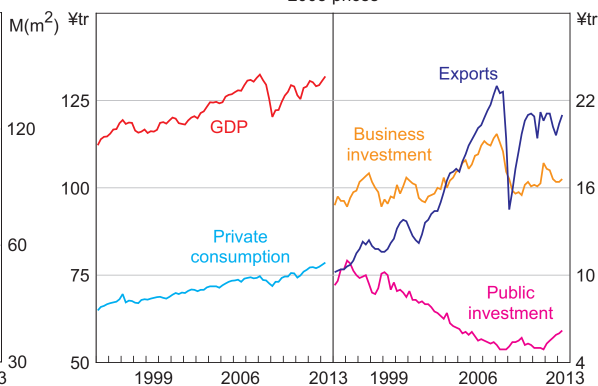
Real estate investment growth has moderated a little since the beginning of the year, particularly in the non-residential sector. Growth of residential real estate investment also eased somewhat in the September quarter, possibly owing to a running down of inventories by developers. In some cities where house price inflation has eased, local governments have pared back restrictions on the purchase of residential property. The volume of residential property sold remains high and property prices rose by 2.5 per cent in the September quarter, to be 9.3 per cent higher over the year (Graph 1.6).

Graph 1.6
China – Residential Property Market*



* RBA estimates
** Three-month moving average
Sources: CEIC Data; RBA

Graph 1.7
Japan – GDP and Components



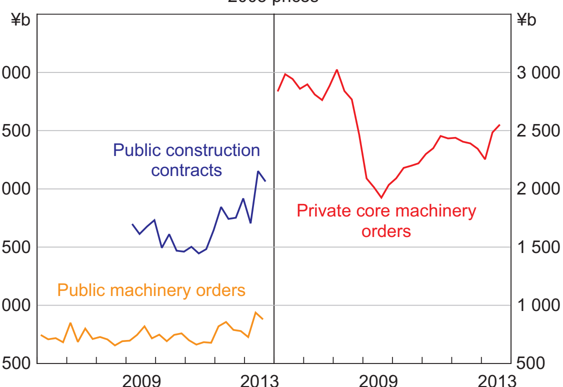
Source: Thomson Reuters

Consumer price inflation picked up a little in the September quarter, owing to a strong rise in food prices, but it remains well below the peak of 2011. Vegetable prices rose sharply in September following adverse weather conditions in key agricultural areas. Non-food consumer price inflation has remained at a low level.

Japanese economic activity picked up over the first half of 2013, following the announcement and implementation of more expansionary fiscal and monetary policies, which has contributed to the depreciation of the yen since late last year. Stronger growth has been driven by consumption, exports and public investment while business investment picked up in the June quarter after falling over the previous year (Graph 1.7).

The pace of growth in the September quarter appears to have slowed somewhat from the stronger pace in the first half of the year, with a range of indicators suggesting that growth of household consumption and export volumes has slowed. Even so, growth still appears to be around the average of the past decade, and forward-looking indicators of both public and private investment suggest that growth in investment will be strong in the near term (Graph 1.8).

Graph 1.8
Japan – Investment Indicators



Sources: CEIC Data; RBA

The Japanese Government confirmed that it will increase the consumption tax from 5 per cent to 8 per cent in April next year. The increase will be accompanied by a temporary fiscal stimulus to mitigate the adverse effects of the higher tax on activity. Inflation has increased further in recent months, driven by rising energy prices resulting primarily from the depreciation of the yen. Inflation expectations derived from bond prices and consumer surveys have also risen since late 2012.

In the rest of east Asia, economic activity over recent months appears to have continued to expand at a similar pace to the average of the past decade. Domestic final demand grew strongly in the June quarter, led by rising investment, while exports also contributed to growth. Services production,

which accounts for just over half of output across these economies, has been growing strongly over the past couple of years. According to the national accounts, industrial activity has continued to grow, and by more than is indicated by monthly industrial production data, which in some countries in the region give smaller weight to faster-growing industries (Graph 1.9).

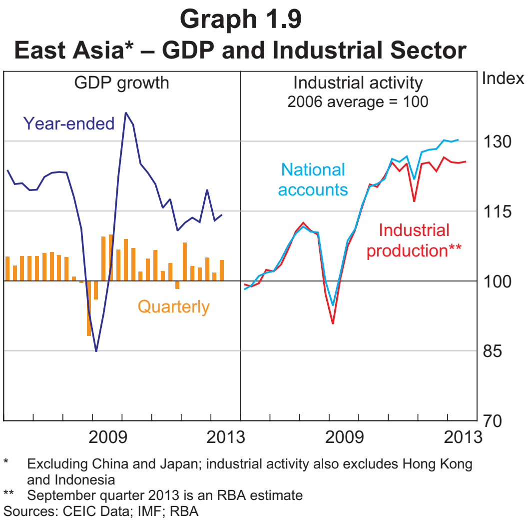
Growth in retail sales has continued at a moderate pace, and consumer confidence remains at a relatively high level in most economies in the region. In Indonesia there was a fall in consumer confidence following the depreciation of the rupiah and outflows of capital in August (see the 'International and Foreign Exchange Markets' chapter). Recent sharp rises in fuel prices and Bank Indonesia's 150 basis point tightening of its policy rate since June are also likely to have weighed on confidence.

For the region as a whole, merchandise trade data have shown little growth in export volumes over the past year. In contrast, exports have been growing according to the national accounts. This disparity in part reflects the fact that exports of services, which have been growing strongly, are only included in the national accounts measure of exports. However, most recently the national accounts have also recorded stronger growth for goods exports than have the merchandise trade data (Graph 1.10).

Inflation generally remains low throughout the region. However, in Indonesia, inflation has been elevated, and reductions in fuel subsidies caused a spike in inflation in July. Malaysian fuel subsidies were also reduced recently, although to a lesser extent than in Indonesia and so the resulting increase in prices was smaller. In the Philippines, Korea and Thailand, inflation is below or near the lower end of their central banks' target ranges for inflation.

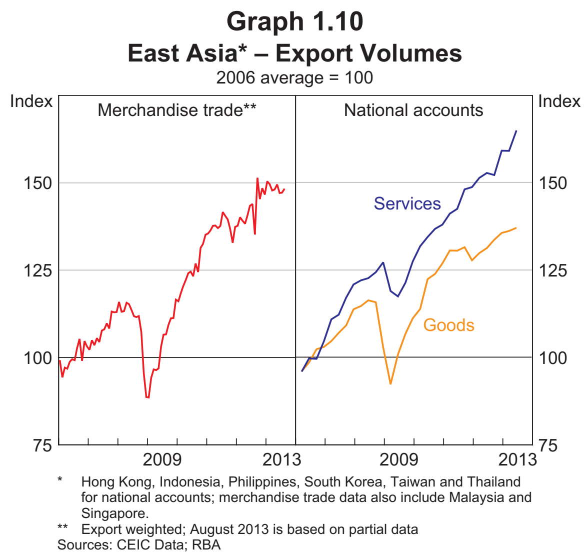
In India, GDP growth remained weak in the June quarter, with investment and household consumption subdued (Graph 1.11). There was some recovery in public demand in the June quarter after the Indian Government cut expenditure in the March quarter to meet its budget deficit target. Industrial

Graph 1.9
East Asia* – GDP and Industrial Sector



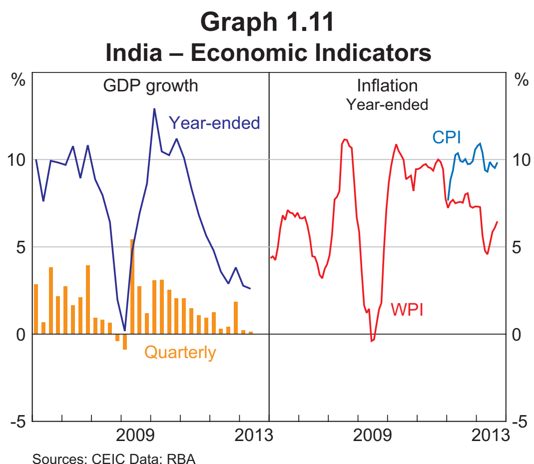
* Excluding China and Japan; industrial activity also excludes Hong Kong and Indonesia
** September quarter 2013 is an RBA estimate
Sources: CEIC Data; IMF; RBA

Graph 1.10
East Asia* – Export Volumes
2006 average = 100



* Hong Kong, Indonesia, Philippines, South Korea, Taiwan and Thailand for national accounts; merchandise trade data also include Malaysia and Singapore.
** Export weighted; August 2013 is based on partial data
Sources: CEIC Data; RBA

Graph 1.11
India – Economic Indicators

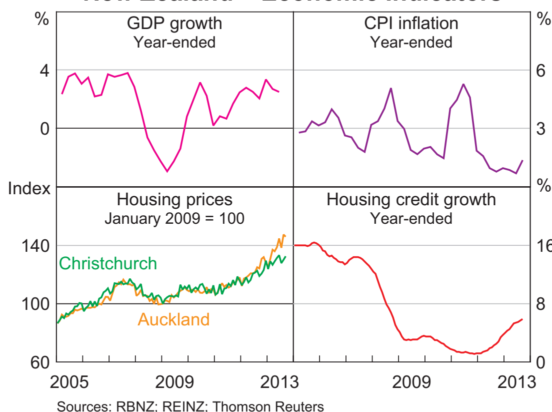


Sources: CEIC Data; RBA

production has remained weak, although exports grew in the quarter. Agricultural production has picked up, aided by above-average monsoon rainfall. Meanwhile, wholesale price inflation (WPI) increased in recent months as a result of higher food prices, while consumer price inflation has remained elevated. Inflationary pressures have been exacerbated by the depreciation of the rupee (see the 'International and Foreign Exchange Markets' chapter).

In New Zealand, GDP growth slowed in the June quarter owing to a contraction in exports following earlier drought conditions. Domestic demand continued to grow strongly and employment has picked up noticeably of late. Inflation has been low, partly reflecting the appreciation of the New Zealand dollar. House prices have grown rapidly in Auckland and Christchurch over the past year or so and credit growth has picked up (Graph 1.12). In response, the Reserve Bank of New Zealand has restricted new residential mortgage lending at loan-to-valuation ratios of over 80 per cent to no more than 10 per cent of the dollar value of each bank's new housing lending flows.[1]

Graph 1.12
New Zealand – Economic Indicators



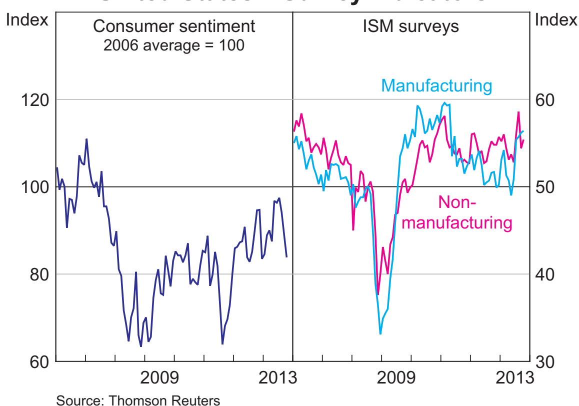
Sources: RBNZ; REINZ; Thomson Reuters

United States

Economic activity in the United States continued to expand at a moderate pace through the middle of 2013. Private demand drove growth in the June quarter while fiscal consolidation continued to weigh on demand.

The recent partial shutdown of the US federal government and the protracted negotiation of an increase to the debt ceiling are likely to have detracted a little from growth in the December quarter, although it is too early to gauge the precise extent of the effect. In addition, several data releases, including the national accounts for the September quarter, have been delayed as a result of the shutdown. Some effects of the uncertainty surrounding the fiscal negotiations were evident in financial markets (see the 'International and Foreign Exchange Markets' chapter), and consumer sentiment declined in October (Graph 1.13).

Graph 1.13
United States – Survey Indicators



Source: Thomson Reuters

Conditions in the housing market remain stronger than in recent years; however, some indicators have softened recently. Mortgage applications have declined in response to higher mortgage rates, while pending home sales and housing starts are a little lower than they were earlier in the year (Graph 1.14). Nevertheless, house prices have continued to rise through to September, and residential construction activity expanded further in recent months.

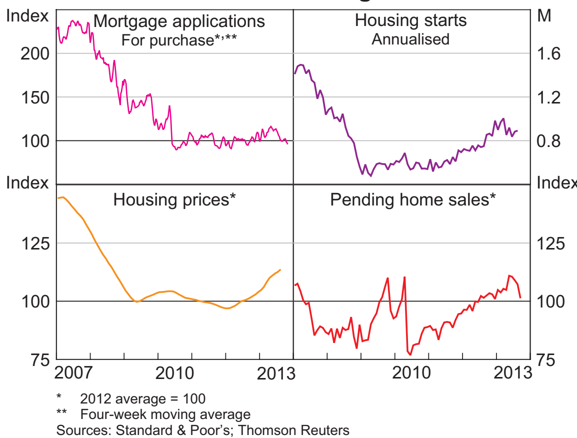
The labour market has continued to recover over recent months. However, the pace of improvement has slowed a little compared with earlier in the year. The unemployment rate declined further, to

1 See RBA (2013), 'The Global Financial Environment', *Financial Stability Review*, September, pp 5–14.

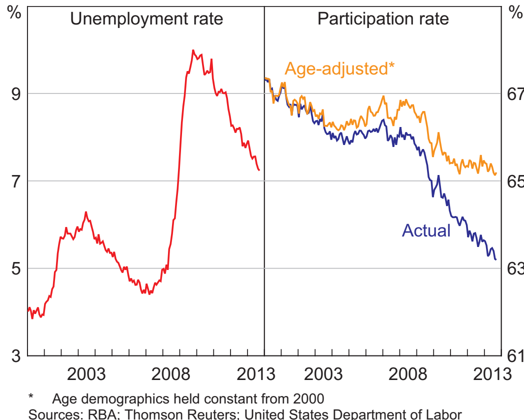
7.2 per cent, but so too has the participation rate (Graph 1.15). While the decline in the participation rate, in part, owes to some workers becoming discouraged about their job prospects and leaving the labour force, it is also the result of the ageing of the population. People aged 55 or above have lower participation rates as they are nearing or entering retirement, and their share in the population has increased in recent years. These demographic changes appear to have accounted for much of the decline in the participation rate over recent years.

Inflation has continued to decline over the past few months with both core and headline measures of inflation (based on personal consumption expenditure) at just over 1 per cent over the past year, well below the Federal Open Market Committee's goal of 2 per cent.

Graph 1.14
United States – Housing Indicators



Graph 1.15
United States – Labour Market



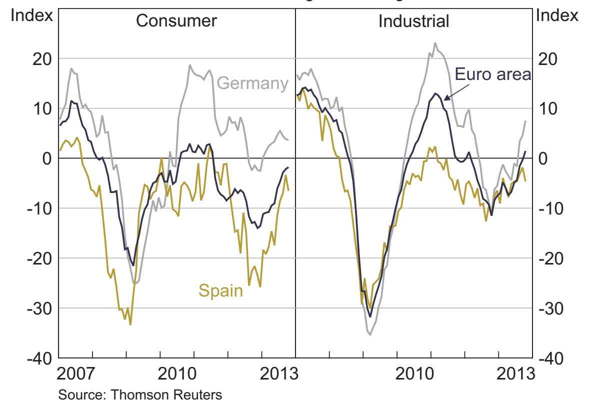
Europe

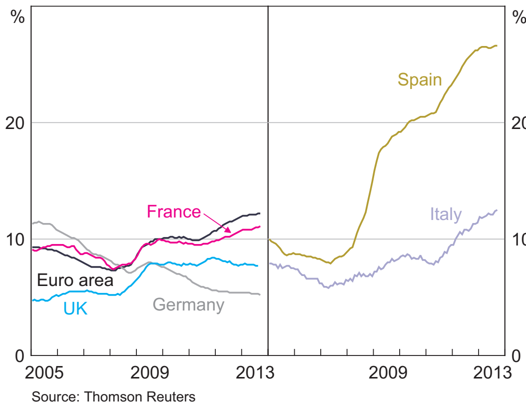
Economic conditions have improved a little in the euro area, with GDP increasing in the June quarter following six quarters of contraction. Outside of Germany and France, there was little growth, although the rate of decline in the crisis economies eased slightly. Both domestic demand and exports contributed to growth in the quarter.

More recently, industrial production and exports have softened somewhat, although retail sales and survey data of sentiment have strengthened. Measures of both consumer and industrial sentiment are now back to around their long-run average levels (Graph 1.16). Similarly, PMIs have improved noticeably since June. Nevertheless, unemployment rates remain high in most euro area economies with the exception of Germany (Graph 1.17).

In the United Kingdom, the labour market has improved slightly alongside a moderate recovery in GDP growth supported by stimulatory monetary policy. More timely indicators have been positive, with the PMIs and house prices increasing strongly over recent months.

Graph 1.16
Euro Area – Sentiment
Deviation from long-run average





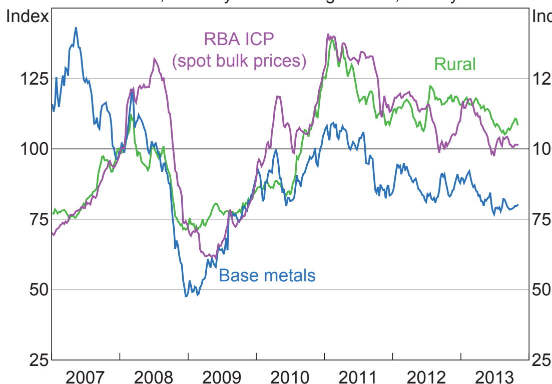
Commodity Prices

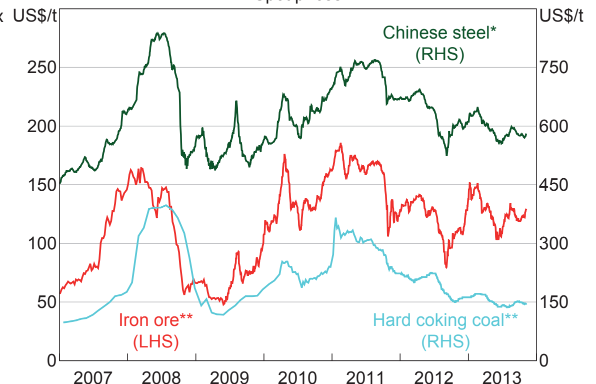
Commodity prices have been little changed on average in recent months (Graph 1.18, Table 1.1). The spot price for iron ore has risen, coinciding with an increase in Chinese crude steel production, while the spot price for coking coal has also edged higher (Graph 1.19). The December quarter benchmark contract price for premium hard coking coal was settled at US$152 per tonne, slightly higher than the September quarter contract price. Base metal prices have been little changed since the August *Statement*.

Table 1.1: Commodity Prices Growth[(a)]
SDR, 3-month-average prices, per cent

	Since previous *Statement*	Over the past year
Bulk commodities	4	10
– Iron ore	7	25
– Coking coal	2	–11
– Thermal coal	–4	–8
Rural	–2	–8
– Beef	1	–4
– Cotton	–4	8
– Wheat	–1	–11
– Wool	3	0
Base metals	0	–7
– Aluminium	–1	–8
– Copper	1	–9
– Lead	1	2
– Nickel	–2	–16
– Zinc	1	–1
Gold	–1	–21
Brent oil[(b)]	5	–2
RBA ICP	–1	–4
– using spot prices for bulk commodities	1	0

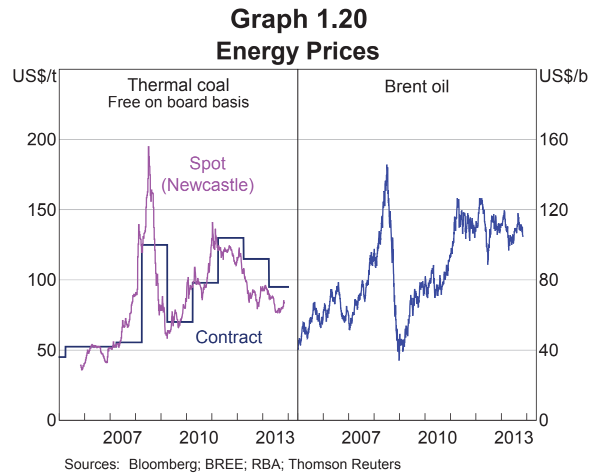
(a) Prices from the RBA Index of Commodity Prices (ICP); bulk commodities prices are spot prices
(b) In US dollars
Sources: Bloomberg; IHS Energy Publishing; RBA





Developments in energy prices have been mixed (Graph 1.20). Over the past year, global thermal coal prices have declined significantly, weighed down by seaborne supply from Australia, Indonesia and the United States, but to date there has been little scaling back in global supply. Thermal coal prices have picked up noticeably in recent weeks. Crude oil prices, on the other hand, have increased on average since the August *Statement*.

Overall, rural prices have been little changed in recent months. Expectations of a strong increase in global grain and oilseeds production have weighed on the prices of canola and corn in particular, while wool prices increased slightly. Most rural prices remain elevated relative to history. ✠



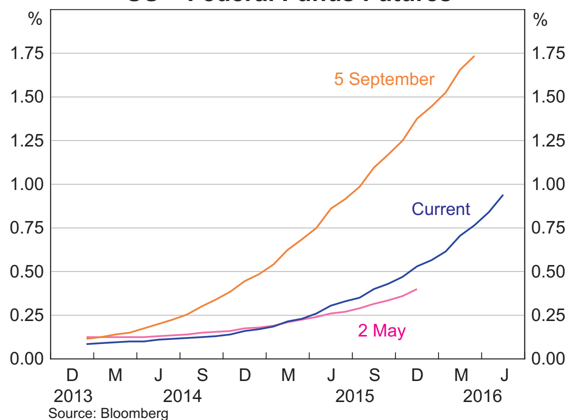
2. International and Foreign Exchange Markets

Shifting expectations regarding the future path of US monetary policy remained the focal point for markets over recent months. A widespread expectation that the US Federal Reserve would begin reducing the scale of its asset purchases at its September meeting saw global bond yields rise significantly and equity prices fall over August. In addition, there were significant depreciations of emerging market currencies amid large capital outflows, as well as a depreciation of the Australian dollar. These moves were reversed to varying degrees following a reassessment of the outlook for US monetary policy in response to the Federal Reserve's decision in September to maintain the size of its asset purchases.

Central Bank Policy

Markets had increasingly been expecting the Federal Reserve to announce a reduction in the pace of its asset purchase program following its September meeting, given earlier guidance. In the event, the Federal Reserve refrained from changing its policy at that meeting. It noted that while the economic outlook was little changed from June, when it first signalled an intention to scale back asset purchases, members wanted more certainty about this outlook before changing policy and were mindful of the impact that higher market interest rates were having on US economic activity. The Federal Reserve subsequently kept its asset purchase program unchanged at its October meeting, and continued to note that it is awaiting clearer signs that the current recovery will be sustained before adjusting policy. Most commentators now expect the Federal Reserve to begin reducing asset purchases at its March meeting, which would be the first chaired by Janet Yellen (subject to Senate confirmation).

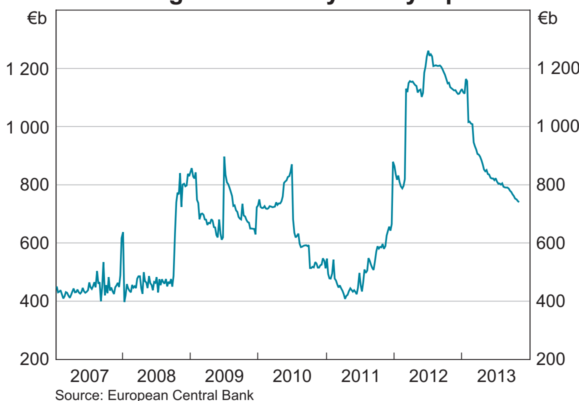
Anticipation that the Federal Reserve would reduce its asset purchases at its September meeting saw market-implied expectations for the future path of the federal funds rate rise sharply between May and early September, despite repeated statements from the Federal Reserve that it did not expect policy interest rates to rise for a considerable period of time after purchases end (Graph 2.1). Expectations for future policy rates were then revised sharply lower following the September decision to maintain the scale of asset purchases. Markets are now pricing in the first increase in the federal funds rate to occur by November 2015, followed by a further 75 basis points of tightening over the subsequent year. The Federal Reserve has maintained its guidance that interest rates will not rise until the unemployment rate falls to at least 6½ per cent, provided its forecast for inflation one to two years ahead does not exceed



2½ per cent and expectations remain anchored, and has repeatedly noted that it may not raise rates until unemployment is well below the 6½ per cent threshold.

The European Central Bank (ECB) has maintained its policy stance at recent meetings, and continues to state that it expects interest rates to remain at current or lower levels for 'an extended period'. Lending for monetary policy purposes has continued to decline, falling by more than €60 billion since early August and by over €500 billion since its peak mid last year, as banks prepay loans extended as part of the ECB's long-term refinancing operations (Graph 2.2). The ECB has noted that it is prepared to respond if the resulting decline in liquidity exerts unwanted upward pressure on interbank interest rates.

Graph 2.2
ECB Lending for Monetary Policy Operations



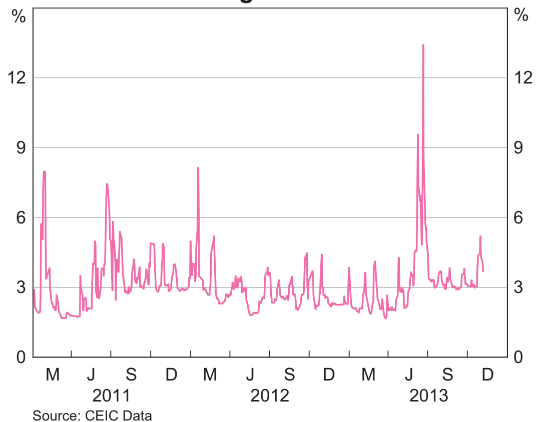
Source: European Central Bank

The Bank of England (BoE) maintained its policy settings and forward guidance at recent meetings, noting that the unemployment rate has declined more rapidly than envisaged in its August *Inflation Report* but that the appreciation of the pound has reduced inflationary pressures. In response to strengthening economic data, the market-implied expectation for the timing of the first increase in its policy rate has been brought forward over recent months to around mid 2015. The BoE also announced a number of operational changes to expand the potential scope of its liquidity provision arrangements, including lengthening the term of its lending to banks and reducing the cost and possible stigma associated with stressed banks temporarily accessing finance via the BoE.

The Bank of Japan (BoJ) has continued to purchase around ¥5–6 trillion of Japanese government bonds (JGBs) per month. This has seen the money base continue to grow rapidly over recent months. The BoJ has stated that the economy is recovering 'moderately', supported by this monetary stimulus, and has argued that it would be 'premature' to consider additional easing at this point.

Conditions in Chinese money markets have been relatively stable since the easing of the tensions that emerged in June. However, the Shanghai Interbank Offered Rate (SHIBOR) has averaged around 75 basis points higher in recent months compared with the year prior to June, and the People's Bank of China allowed liquidity conditions to tighten temporarily in late October (Graph 2.3).

Graph 2.3
Overnight SHIBOR



Source: CEIC Data

Central banks in several developing economies have tightened policy, citing a desire to counter expected pressure on inflation, resulting in part from recent currency depreciations, and reduce exchange rate volatility (Table 2.1). Bank Indonesia (BI) tightened policy by a total of 75 basis points in late August and early September, adding to the 75 basis point tightening earlier this year, citing high inflation, volatility in the rupiah and concerns about the current account deficit. BI also changed a number of other regulations in order to tighten domestic

liquidity, attract foreign capital, and increase its ability to control excess liquidity in the interbank market. The Reserve Bank of India (RBI) raised its policy rate in September and October, though in recognition of reduced downward pressure on the rupee it also reversed much of the temporary liquidity tightening measures it had introduced in July. In order to minimise upward pressure on longer-term yields, the RBI has also purchased Indian government bonds and relaxed restrictions on the use of such bonds to meet banks' reserve requirement ratios. The central bank of Brazil tightened policy by 50 basis points in each of August and October, bringing the cumulative tightening since April to 225 basis points, and the central bank of Turkey raised the rate it charges banks on overnight loans by 50 basis points in August.

Table 2.1: Monetary Policy

	Policy rate Per cent		Most recent change	Cumulative change in current cycle[a] Basis points
Euro area	0.50	↓	May 13	–100
Japan[b]	na		na	
United States	0.125	↓	Dec 08	–512.5
Australia	2.50	↓	Aug 13	–225
Brazil	9.50	↑	Oct 13	225
Canada	1.00	↑	Sep 10	75
Chile	4.75	↓	Oct 13	–50
China	6.00	↓	Jul 12	–56
India	7.75	↑	Oct 13	50
Indonesia	7.25	↑	Sep 13	150
Israel	1.00	↓	Sep 13	–225
Malaysia	3.00	↑	May 11	100
Mexico	3.50	↓	Oct 13	–475
New Zealand	2.50	↓	Mar 11	–50
Norway	1.50	↓	Mar 12	–75
Russia[c]	5.50	↑	Sep 12	25
South Africa	5.00	↓	Jul 12	–700
South Korea	2.50	↓	May 13	–75
Sweden	1.00	↓	Dec 12	–100
Switzerland	0.00	↓	Aug 11	–275
Taiwan	1.875	↑	Jun 11	62.5
Thailand	2.50	↓	May 13	–100
United Kingdom	0.50	↓	Mar 09	–525

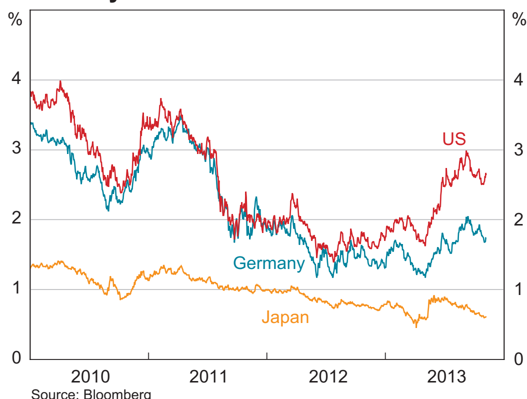
	Current monthly asset purchases	Most recent change	Assets on balance sheet Per cent of GDP
United States	$85 billion	Sep 12	23.0
Japan	¥6 trillion	Apr 13	44.9
United Kingdom	0	Jul 12	25.1

(a) Current rate relative to most recent trough or peak
(b) Since April 2013, the Bank of Japan's main operating target has been the money base
(c) The central bank of Russia changed the interest rate it uses as its policy rate in September 2013
Sources: RBA; Thomson Reuters; central banks

In contrast, the central banks of Mexico, Chile and Israel all eased policy in response to weaker economic activity.

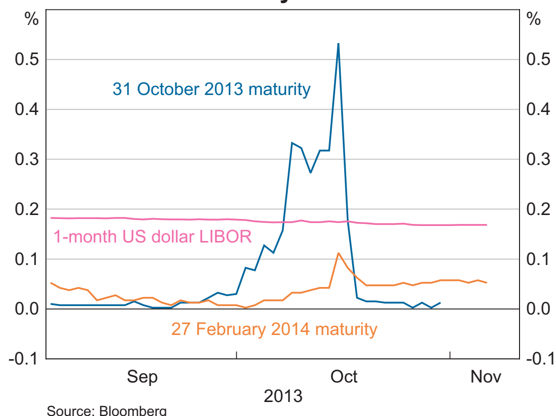
Sovereign Debt Markets

Yields on 10-year US Treasuries rose notably over August and early September, to exceed 3 per cent for the first time in more than two years, in response to firming expectations that the Federal Reserve would begin to scale back its asset purchase program at its mid September meeting (Graph 2.4). However, this move higher was fully unwound over September as markets revised their expectations for future US monetary policy in light of the Federal Reserve's September decision and weaker-than-expected employment data. On net, yields have been unchanged since then, despite temporarily rising in early October as negotiations on the debt ceiling proved difficult. Yields remain 100 basis points higher than in early May.



The inability of the US Congress to agree on a 'continuing resolution' to extend government spending authority beyond 30 September saw 'non-essential' services of the US federal government shut for 16 days in early October, with around one-third of government employees sent on temporary leave. While this attracted little immediate reaction from markets, the US Treasury's forecast that it could not guarantee payment of its obligations to creditors and/or the general public beyond 17 October unless Congress agreed to raise the legal ceiling on the federal government's debt stock created considerable uncertainty in US Treasury markets. In the event, Congress passed legislation on 16 October to provide spending authority until 15 January and suspend the debt ceiling until 7 February.

In response to concerns that this could lead to a delay in payment to holders of some US Treasuries, yields on Treasury bills and bonds maturing between 17 October and mid November rose by up to 60 basis points ahead of the passage of legislation to extend Treasury's borrowing authority (Graph 2.5). Securities maturing at other dates were initially unaffected as US Treasuries do not 'cross-default'. However, as it became increasingly clear that any agreement would only extend the debt ceiling until early 2014, yields on bills maturing around that time also rose notably. These increases – particularly on October and November bills – were largely unwound following the legislative agreement.



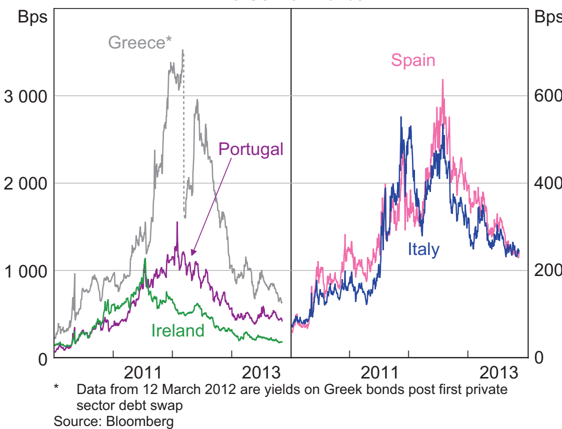
Yields on German 10-year Bunds have broadly followed those on 10-year Treasuries. Yields reached 2 per cent in early September for the first time in 18 months but have since declined by around 25 basis points. Yields on UK 10-year Gilts have risen relative to Treasuries and Bunds, alongside stronger UK data.

In contrast, yields on 10-year JGBs have continued to drift down from their peak in May, while volatility in JGB yields has been low. The Bank of Japan continues to exert a sizeable influence on the market, having increased its share of total JGBs outstanding by 4 percentage points since April, to 16 per cent. This rise in its holdings has been matched by a ¥25 trillion reduction in JGB holdings by local banks since the introduction of the Quantitative and Qualitative Monetary Easing program in April. On net, there has been little change in Japanese banks' and other residents' holdings of foreign bonds in recent months.

Spreads between yields on long-term bonds issued by the Greek Government and German Bunds have narrowed by more than 200 basis points since early September, while spreads on other euro area periphery countries' bonds narrowed by between 20 and 130 basis points (Graph 2.6). The narrowing of Greek government bond spreads reflects increasing confidence that the government will achieve a primary budget surplus this year and some positive signs of progress on its privatisation program. Indications that the Portuguese governing coalition has become more stable and committed to meeting the requirements under its bailout program contributed to a narrowing of Portuguese spreads. Italian and Spanish spreads drifted lower as threats to the stability of the Italian ruling coalition dissipated and investors grew more comfortable with the progress of 'peripheral' economies. Ireland is expected to successfully exit its financial assistance program at the end of this year, possibly with a precautionary credit line to smooth its transition to full market funding.

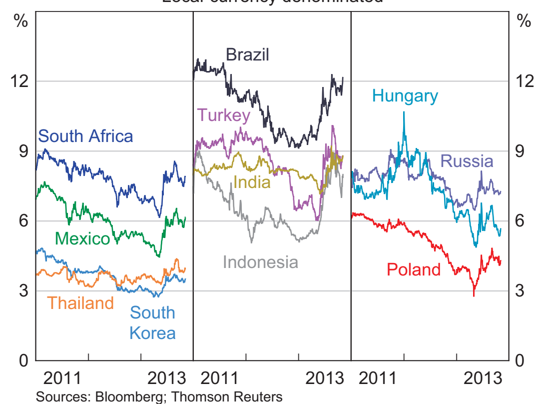
Yields on 10-year local currency bonds issued by several emerging market sovereigns have increased notably over recent months, despite receding significantly since the US Federal Reserve's September decision (Graph 2.7). At their peaks in late August, yields on Brazilian, Indonesian, South African and Turkish local currency government bonds had risen by between 250 and 400 basis points, unwinding the declines observed between 2011 and early 2013. Yields on local currency bonds issued by these governments rose somewhat more than those on US dollar-denominated bonds, suggesting some increased premia for currency risk. These increases in yields occurred alongside significant outflows of foreign capital from these and other emerging market economies as investors grew concerned about the difficulties these economies may face in financing large current account deficits when the US Federal Reserve slows its monetary stimulus. While the size of certain countries' current account deficits was the focus of investor attention, exposure to foreign currency borrowing risk, rapid credit growth and/or substantial asset price inflation over recent years also provoked some concern. However,

Graph 2.6
Euro Area 10-year Government Bond Spreads
To German Bunds



* Data from 12 March 2012 are yields on Greek bonds post first private sector debt swap
Source: Bloomberg

Graph 2.7
10-year Government Bond Yields
Local-currency denominated



Sources: Bloomberg; Thomson Reuters

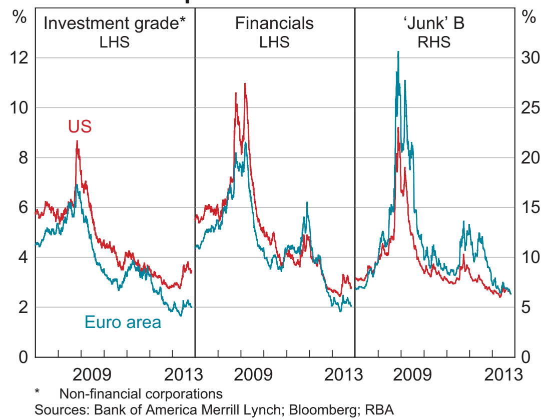
a general decline in external debt outstanding, improved macroeconomic policy frameworks and higher levels of foreign currency reserves over the past 15 years suggest that these countries are less vulnerable to a balance of payments crisis than at the time of the Asian financial crisis.

Credit Markets

Credit remains readily available for most corporations in the United States and Europe. Indicative of this, US telecommunications company Verizon issued US$49 billion of investment grade bonds in September – the largest ever non-financial corporate bond issue. Yields on investment grade corporate bonds in the United States and euro area have changed only modestly over recent months, but yields on sub-investment grade securities issued by US and European corporations have declined by 75 and 120 basis points since their recent peaks midyear (Graph 2.8). Spreads between sub-investment grade corporate and sovereign bond yields in the United States and euro area are now narrower than in early May.

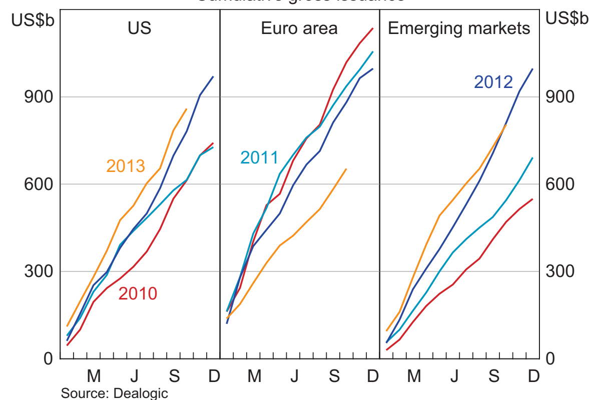
Bond issuance by US corporations has picked up since early September and remains healthy over 2013 (Graph 2.9). In contrast, issuance by euro area corporations continues to be well below that seen in recent years, notwithstanding favourable pricing. Issuance by emerging market corporations has been subdued since June.

Graph 2.8
Corporate Bond Yields



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

Graph 2.9
Global Corporate Bond Issuance
Cumulative gross issuance



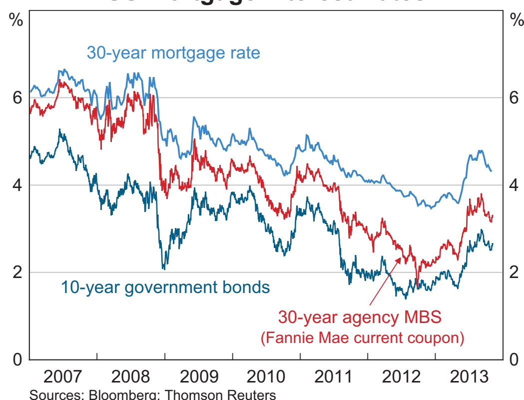
Source: Dealogic

The availability of short-term secured financing in the US tightened notably in the first half of the month due to the possibility of a default on US Treasury bills, which are commonly used as collateral in repurchase agreements (repos). In the week prior to the deadline, Treasury repo rates spiked higher and the volume of transactions using Treasuries as collateral declined – particularly for terms longer than overnight – amid reports that cash lenders were refusing to accept as collateral securities that were vulnerable to a technical default. There were also significant outflows from institutional money market funds that invest only in US Treasuries and/or agency securities; US$56 billion (6 per cent of assets under management) was withdrawn from these funds in the two weeks leading up to the deadline, before reversing around half these flows following the suspension of the debt ceiling. The outflow from such funds in the week of the debt ceiling deadline was the largest weekly outflow since mid 2009.

Yields on US agency mortgage-backed securities (MBS) have moved in response to changes in yields on Treasuries, reaching their highest level in more than two years in early September before retracing by around 50 basis points (Graph 2.10). Nonetheless, yields remain around 100 basis points higher than in early May. US mortgage interest rates have moved

in line with yields on agency MBS, and despite their recent decline remain well above the levels observed in 2012.

Graph 2.10
US Mortgage Interest Rates



Sources: Bloomberg; Thomson Reuters

Equities

Global share prices have increased by 5 per cent since the previous *Statement*, with much of this occurring since September, to be almost 20 per cent higher over 2013 to date (Table 2.2). Markets' reassessment of the outlook for US monetary policy has been the most important contributor to recent increases.

Among advanced economies, recent increases have been larger in the euro area than in the United States (Graph 2.11). Nonetheless, US share prices have continued to reach new record highs in recent months. In contrast to similar events in 2011, share prices fell only modestly during the impasse over the US debt ceiling (and quickly reversed these losses following the suspension of the ceiling until next year), while volatility in share prices rose only modestly and briefly.

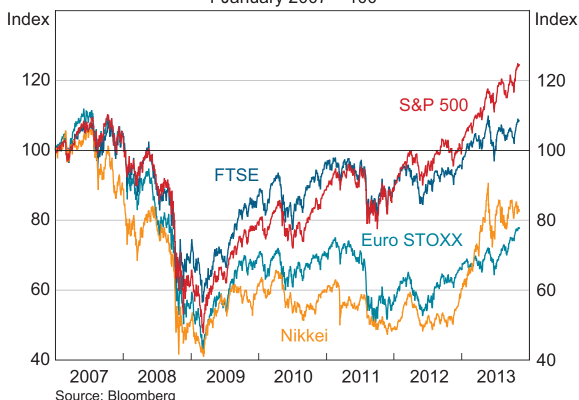
Third quarter profit results for US financial institutions were broadly in line with expectations in aggregate, though varied across institutions. Most banks recorded a decline in profits as a result of reduced earnings from fixed income trading services, due

Table 2.2: Changes in International Share Prices
Per cent

	Since end 2012	Since previous *Statement*
United States		
– S&P 500	24	5
Euro area		
– STOXX	18	9
United Kingdom		
– FTSE	14	4
Japan		
– Nikkei	38	4
Canada		
– TSE 300	8	8
Australia		
– ASX 200	17	8
China		
– China A	–6	5
MSCI indices		
– Emerging Asia	2	8
– Latin America	–5	7
– Emerging Europe	2	9
– World	**19**	**5**

Source: Bloomberg

Graph 2.11
Share Price Indices
1 January 2007 = 100

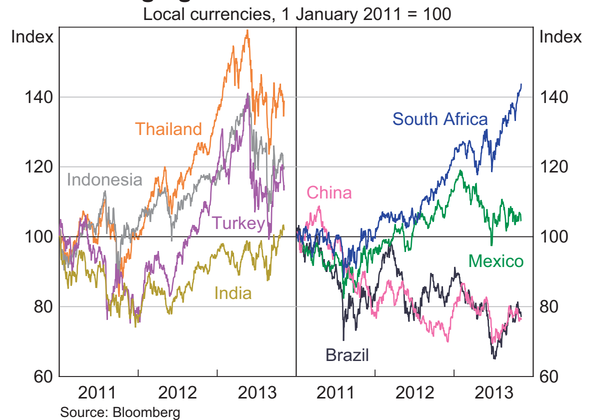


Source: Bloomberg

to low levels of bond trading ahead of the Federal Reserve's September meeting, and a fall in mortgage refinancing volumes following the rise in mortgage interest rates. Partially offsetting these falls, loan loss expenses declined. Euro area banks' underlying profits in the third quarter were quite varied, with a number reporting reduced income from bond trading while others benefited from lower loan loss and other expenses. Both US and euro area banks also raised provisions for litigation expenses, in expectation of fines and compensation payments related to the sale of MBS and insurance, as well as manipulation of interest rate and foreign exchange benchmarks (some of which have already settled). Nonetheless, European bank shares have significantly outperformed other sectors in the region over recent months, rising by almost 20 per cent since late August, with abating political tensions in Italy having a more pronounced effect on the share price of financial institutions than on other companies.

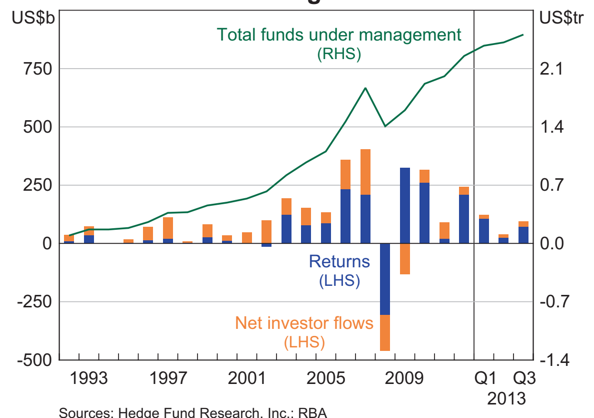
These gains occurred despite the details of the ECB's planned comprehensive assessment of the banking system, which were released in October, being perceived as stricter than initially expected. The ECB will report its findings in November 2014 on three aspects of its assessment: banks' resilience to key balance sheet risks, such as liquidity, leverage and funding risks; a review of banks' asset quality and the risk weights applied to various assets; and a stress test of banks' ability to maintain a minimum 8 per cent Common Equity Tier 1 capital ratio following as-yet-undetermined shocks.

Share prices in developing economies have been buffeted by the shifting expectations regarding the outlook for US monetary policy. The growing expectation that the Federal Reserve would reduce the scale of its asset purchases from September saw share prices fall by more than 10 per cent in some cases between early August and early September (Graph 2.12). However, these declines have since been more than reversed, with the MSCI Emerging Markets Index now almost 10 per cent higher than at the time of the previous *Statement*. Improving Chinese economic data were an additional factor supporting emerging market share prices, including in commodity exporting nations such as Brazil, Russia and South Africa, while the reduced prospect of military action against Syria supported Turkish shares.



Hedge Funds

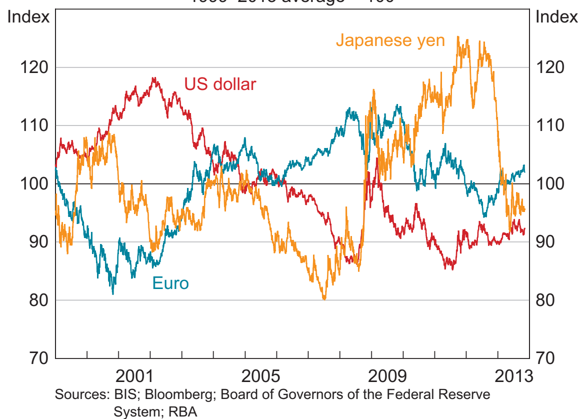
Global hedge funds recorded an average return on investments of 7.1 per cent over the year to September – less than the total return from a balanced portfolio of global bonds and equities (including dividends) over the period – with returns picking up in the quarter to 2.2 per cent. Funds under management increased by 3.9 per cent over the September quarter to US$2.5 trillion, mostly reflecting a positive return from investments (Graph 2.13).



Foreign Exchange

Foreign exchange markets have also been influenced by changes in market expectations about the timing of future reductions in the pace of asset purchases by the Federal Reserve. From May to August, the US dollar appreciated modestly on a trade-weighted basis amid growing market expectations that the Federal Reserve would begin to reduce its asset purchases in September. But the Fed's decision to leave monetary policy unchanged at its September meeting, and the uncertainty surrounding the US fiscal situation, have seen the US dollar depreciate against a number of currencies to be slightly lower on a broad trade-weighted basis since the end of August (Graph 2.14, Table 2.3). Foreign exchange market volatility has declined to relatively low levels over recent months, notwithstanding the heightened policy uncertainty in the United States.

Graph 2.14
Nominal Trade Weighted Indices
1999–2013 average = 100



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

The euro has appreciated by 2 per cent against the US dollar since the end of August but has been little changed on a trade-weighted basis over the period. In contrast, the Japanese yen has been little changed against the US dollar and has depreciated by 2 per cent on a trade-weighted basis over the period. On a trade-weighted basis, the yen nevertheless remains around 4 per cent above its trough in May.

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

	Over the past year	Since end August
Indonesian rupiah	19	4
Japanese yen	23	1
South African rand	19	0
Chinese renminbi	–2	0
Canadian dollar	5	–1
New Taiwan dollar	1	–2
Mexican peso	1	–2
Swiss franc	–3	–2
Swedish krona	–3	–2
European euro	–5	–2
Singapore dollar	2	–3
Thai baht	2	–3
Philippine peso	5	–3
UK pound sterling	–1	–4
Malaysian ringgit	4	–4
Brazilian real	12	–4
South Korean won	–3	–4
Indian rupee	15	–6
Australian dollar	9	–7
New Zealand dollar	–1	–8
Majors TWI	**3**	**–2**
Broad TWI	**2**	**–2**

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

The US Federal Reserve, ECB, BoJ, BoE, Bank of Canada and the Swiss National Bank have agreed to convert their existing temporary bilateral liquidity swap arrangements into standing arrangements. The bilateral swap network allows foreign currency liquidity to be provided to each jurisdiction (in any of the five currencies foreign to that jurisdiction) provided that both parties to a particular bilateral swap arrangement judge that it is warranted by market conditions.

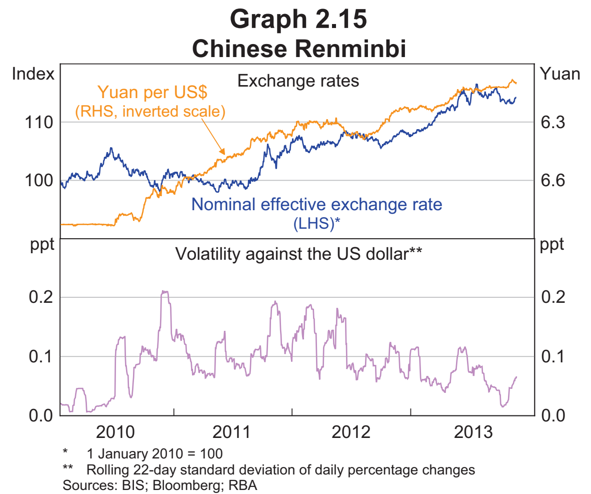
The Chinese renminbi (RMB) traded in an especially narrow range against the US dollar between late August and mid October and, consistent with this,

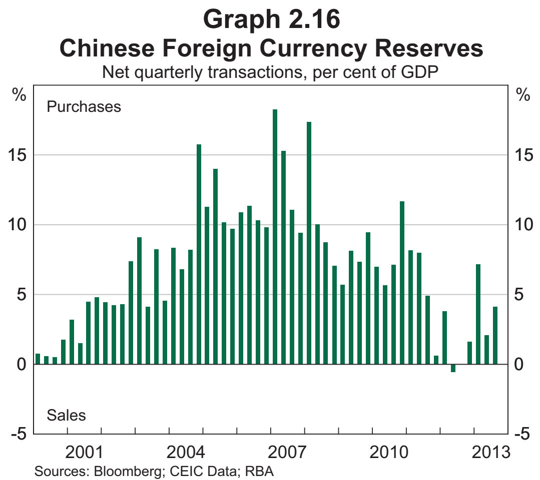
daily volatility in the RMB declined to levels not seen since 2010 (Graph 2.15). Although the RMB has remained little changed against the US dollar for some time, it has depreciated by around 2 per cent on a nominal effective basis since its peak in early July, in part reflecting the appreciation of the euro and the Korean won over the period.

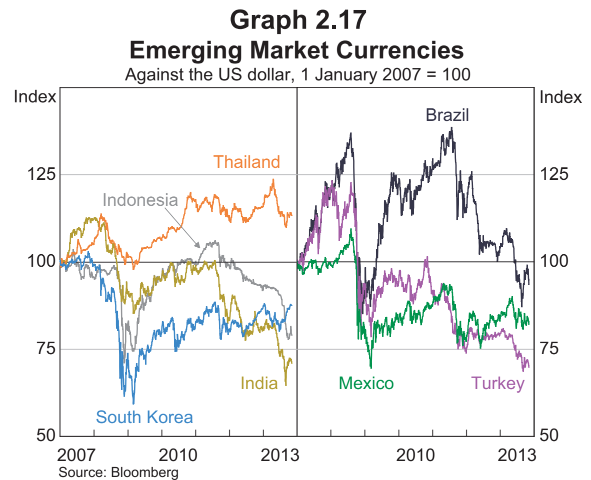
Chinese foreign currency reserves increased by US$166 billion (around 5 per cent) over the September quarter, reflecting net purchases of foreign currency reserves of US$98 billion and positive valuation effects (Graph 2.16). A sizeable share of these purchases appear to have been made in September, which is consistent with the period of unusual stability in the RMB despite reports of increased capital inflows around this time. Most other Asian and emerging market countries' foreign currency reserves have also increased over recent months (discussed below).

Further steps have been taken towards internationalising the RMB. The United Kingdom and Singapore have both been allocated quotas under the RMB Qualified Foreign Institutional Investor (RQFII) scheme, which will allow approved UK- and Singapore-based financial institutions to invest RMB acquired offshore in approved Mainland Chinese securities. The UK and Singapore authorities also announced that there will be 'direct trading' between their respective currencies and the RMB in the onshore market – that is, trading between these currencies without the use of the US dollar as an intermediate currency. In addition, the Chinese authorities have signed or extended bilateral local currency swap agreements with a number of jurisdictions (including the euro area) and simplified regulations covering specific types of foreign investment.

After having generally depreciated between May and August, most other Asian and Latin American currencies have since appreciated against the US dollar, and volatility has receded from elevated levels (Graph 2.17). Most of these currencies nevertheless remain below their end-April levels,







with the exception of the Korean won. In contrast, the Indian rupee and the Indonesian rupiah remain well below their end-April levels, with authorities in both countries announcing further policy measures designed to encourage capital inflows and/or curb volatility in their exchange rates in August and September. These countries have also established or extended bilateral local currency swap agreements with other Asian countries.

Most Asian and other emerging market countries' gross foreign currency reserves have increased since the end of August, consistent with an abatement in depreciation pressures on their currencies and lower exchange rate volatility (Table 2.4). Positive valuation effects related to the depreciation of the US dollar since the end of August are likely to have contributed to these increases. However, a number of countries' gross foreign currency reserves remain below their end-April levels – including Indonesia and India – consistent with reports of sustained intervention in foreign exchange markets by the authorities in these countries between May and August. While the authorities in Brazil continue to intervene in foreign exchange markets to support the local currency, this has primarily been conducted through auctions of derivatives that are settled in local currency and are therefore not included in gross foreign currency reserves.

Australian Dollar

After reaching its lowest level in three years on a trade-weighted basis in early August, the Australian dollar has since appreciated against most other currencies to be around 5 per cent higher in trade-weighted terms (Graph 2.18, Table 2.5). Similar to other currencies, the Australian dollar has appreciated against the US dollar as market participants have adjusted their expectations about the timing of future reductions in asset purchases by the Federal Reserve. The Australian dollar has also been affected by a scaling back of market

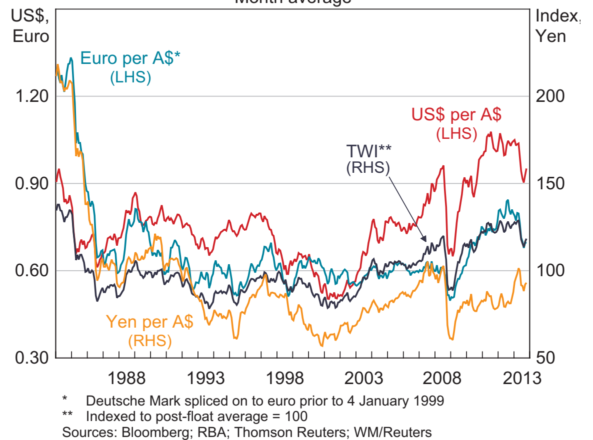


Table 2.4: Gross Foreign Currency Reserves
As at end October 2013

	Percentage change since:		Level
	End April	End August	US$ equivalent (billions)
China[(b)]	4	3	3 663
Russia[(b)]	1	3	462
Taiwan[(a)]	3	2	416
Brazil	0	3	367
South Korea	4	4	332
India	–3	3	255
Thailand[(b)]	–3	2	163
Turkey	–1	4	111
Indonesia	–10	5	90

(a) Official reserve assets (includes foreign currency and other reserve assets)
(b) End September
Sources: Bloomberg; CEIC Data; IMF; RBA

expectations for additional cuts to the domestic cash rate and broadly positive Chinese economic data. In trade-weighted terms, the Australian dollar nevertheless remains around 10 per cent below its April peak, though it is still at a high level.

Consistent with developments in other currency markets, intraday volatility in the Australian dollar has declined over recent months and has returned towards the low levels recorded at the beginning of the year (Graph 2.19).

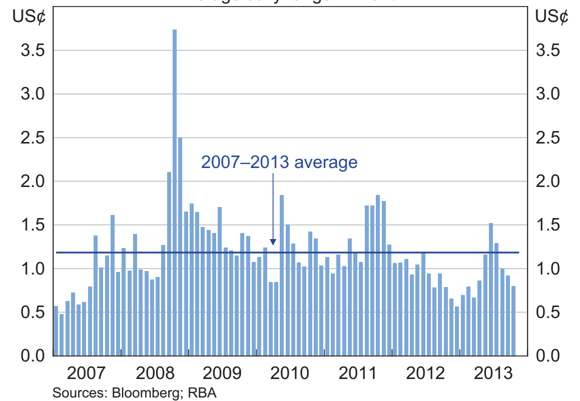
Table 2.5: Changes in the Australian Dollar against Selected Currencies

Per cent

	Since April peak in TWI[(a)]	Since August trough in TWI[(b)]
Indonesian rupiah	6	18
South African rand	4	11
Indian rupee	4	10
Canadian dollar	–7	7
Japanese yen	–11	7
US dollar	–10	7
Thai baht	–3	6
Chinese renminbi	–11	6
Malaysian ringgit	–5	5
Swiss franc	–12	5
European euro	–13	5
Singapore dollar	–9	4
UK pound sterling	–14	2
South Korean won	–16	2
New Zealand dollar	–8	0
TWI	**–10**	**6**

(a) 11 April 2013
(b) 6 August 2013
Sources: Bloomberg; WM/Reuters

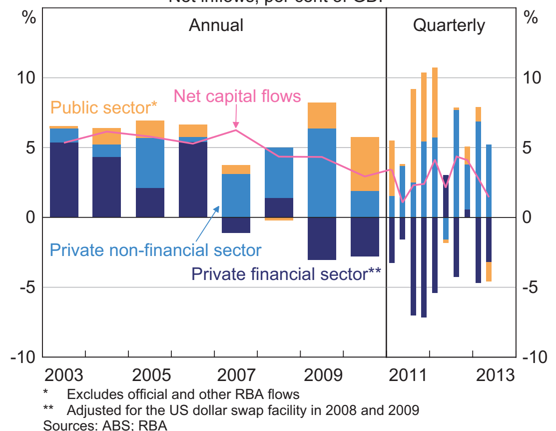
Graph 2.19



Capital Flows

Net capital inflows to the Australian economy were directed entirely to the private non-financial sector in the June quarter, with relatively large net inflows to this sector also evident throughout the past year (Graph 2.20). The net inflow to the private non-financial sector in the June quarter – which consisted of both debt and equity investment – more than offset a further net outflow from the

Graph 2.20



private financial sector, as well as a relatively rare net outflow from the public sector. The net outflow from the private financial sector reflected a withdrawal of deposits from the banking sector by foreigners and an increase in loans by the Australian banking sector to non-residents, while the net public sector outflow primarily reflected a net outflow from state and local government debt. In contrast, the foreign ownership share of Commonwealth Government securities was broadly unchanged at 68 per cent as at the end of June, consistent with a small net capital inflow to the national government sector in the quarter.

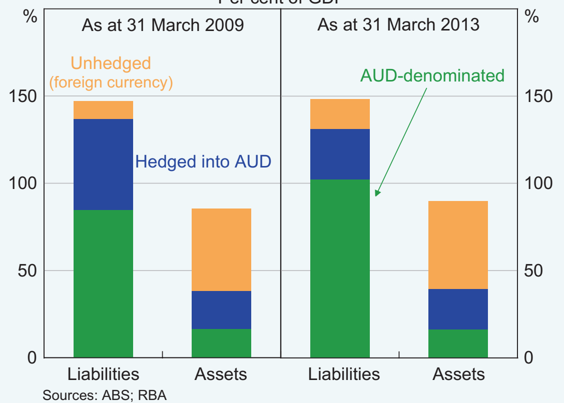
Australian entities have had a net foreign liability position equivalent to 55–60 per cent of GDP over the past five years or so. However, the latest ABS survey of Foreign Currency Exposure indicates that, after accounting for the currency composition of foreign assets and liabilities and the extent to which they are hedged back into Australian dollars, Australian entities had an effective net foreign currency asset position of a little more than 30 per cent of GDP at the end of March 2013. See 'Box A: Foreign Currency Exposure and Hedging in Australia' for further details.

Box A

Foreign Currency Exposure and Hedging in Australia

The Australian Bureau of Statistics survey of Foreign Currency Exposure (FCE) contains detailed information on Australian entities' foreign currency asset and liability positions and their use of derivatives to hedge these exposures.[1] The Reserve Bank initiated and has provided funding for the FCE survey every four years since 2001, with the most recent survey collecting information as at the end of March 2013.[2] The 2013 survey includes additional information about respondents' use of derivatives for hedging purposes and, in particular, the hedging of foreign currency denominated debt security liabilities.

As at the end of March 2013, Australian entities had a net foreign liability position equivalent to 58 per cent of GDP.[3] However, even before the use of derivatives to hedge foreign currency exposures is taken into account, Australian entities had a net foreign currency asset position equivalent to 27 per cent of GDP, as most foreign liabilities are denominated in Australian dollars whereas most foreign assets are denominated in foreign currencies (Graph A1). Information from the 2013 FCE survey indicates that after accounting for derivatives used for hedging purposes, this net foreign currency asset position increases to the equivalent of a little more than 30 per cent of GDP, in turn reflecting a higher share of foreign currency liabilities that are hedged (63 per cent) compared with foreign currency assets



(31 per cent). While the 2009 FCE survey indicated a slightly higher net foreign currency asset position after hedging (37 per cent of GDP), the data are not directly comparable owing to a number of survey design changes.[4]

By sector, the 2013 FCE survey shows that banks had a net foreign currency liability position equivalent to 13 per cent of GDP before hedging, or 7 per cent of their total financial assets (Graph A2). However, after taking into account the use of hedging derivatives, banks had a small net foreign currency asset position (reflecting a 56 per cent hedging ratio for foreign currency assets and a 76 per cent hedging ratio for foreign currency liabilities).

Other financial corporations – which include superannuation funds, fund managers and insurance corporations – had a net foreign currency asset

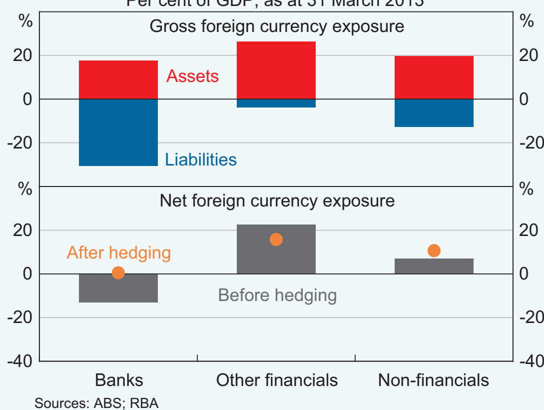
1 See ABS (2013), 'Foreign Currency Exposure, Australia, March Quarter 2013', ABS Cat No 5308.0. A more detailed discussion of the results of the survey will be included in the RBA's December 2013 *Bulletin*.

2 For a discussion of the results of the 2009 survey, see D'Arcy P, M Shah Idil and T Davis (2009), 'Foreign Currency Exposure and Hedging in Australia', RBA *Bulletin*, December, pp 1–10.

3 The 2013 data presented in this box are based on the March 2013 vintage of Australia's International Investment Position data, while the 2009 data are based on the March 2009 vintage.

4 The 2009 data are based on information collected about a sample of firms' *usual* hedging policies, whereas the 2013 data are based on information specifically relating to the *actual* use of derivatives for hedging purposes.

position before hedging equivalent to 22 per cent of GDP, with the use of hedging derivatives reducing this to around 16 per cent of GDP.



The 2013 FCE survey collected additional information on the extent to which the debt security component of foreign currency liabilities is hedged using derivatives, and the degree to which the maturities of these hedges are matched to the maturities of the underlying exposures. The data indicate that Australia's foreign currency debt security liabilities, which account for 70 per cent of total foreign currency liabilities, had a hedging ratio of around 80 per cent (without accounting for 'natural hedges' such as offsetting foreign currency asset positions). Further, almost all derivative hedges were maturity matched. For the banking sector – where debt security liabilities account for around three-quarters of total banking sector foreign currency liabilities and almost half of Australia's total foreign currency liabilities – the data show that 92 per cent of foreign currency debt security exposures were hedged using derivatives, with almost complete maturity matching for both short-term and long-term securities. ✠

3. Domestic Economic Conditions

The Australian economy expanded at a below-trend pace over the year to the June quarter, as growth was weighed down by a fall in mining investment, moderate growth of household consumption and ongoing fiscal restraint (Graph 3.1, Table 3.1). After growing very strongly over recent years, mining investment is estimated to have fallen by around 10 per cent over the first half of 2013, although it remains at a high level. Non-mining investment also appears to have declined a little over this period, with businesses generally reluctant to take on new risks. Growth in household consumption has been below average, in line with soft labour market conditions and moderate growth in household income. Public demand declined over the past year, consistent with ongoing fiscal restraint at state and federal levels of government. In contrast, growth in dwelling investment has picked up as conditions in the housing market have strengthened. Also,

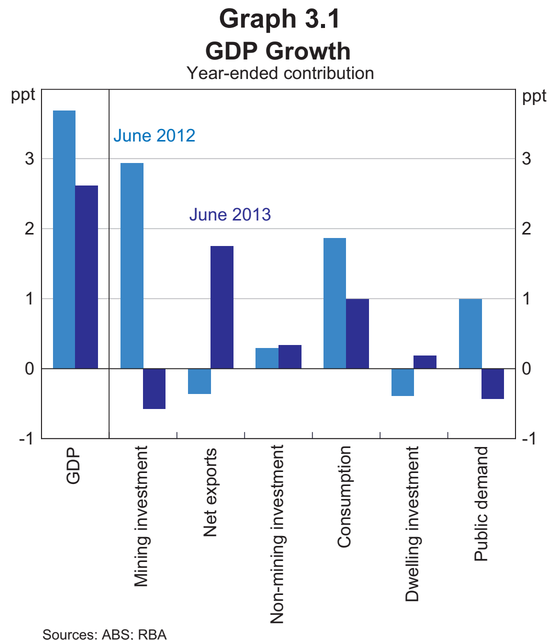


Table 3.1: Demand and Output Growth
Per cent

	June quarter 2013	Year to June quarter 2013
Domestic final demand	0.3	0.6
– Private demand	0.0	1.3
– Public demand	1.6	–1.8
Change in inventories[(a)]	0.2	–0.1
Gross national expenditure	0.6	0.5
Exports	1.3	6.4
Imports	1.6	–1.8
GDP	0.6	2.6
Nominal GDP	0.9	3.0
Real gross domestic income	0.6	1.5

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

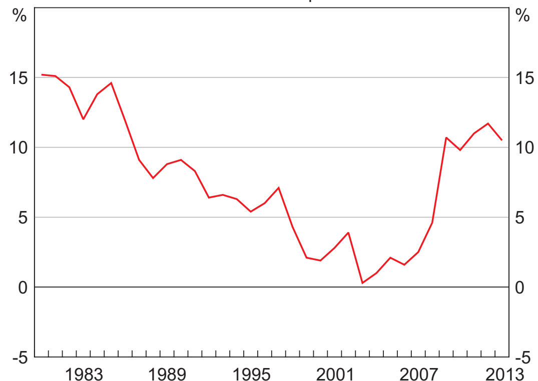
resource extraction and exports have continued to grow, particularly of iron ore, as more mining projects move into the production phase.

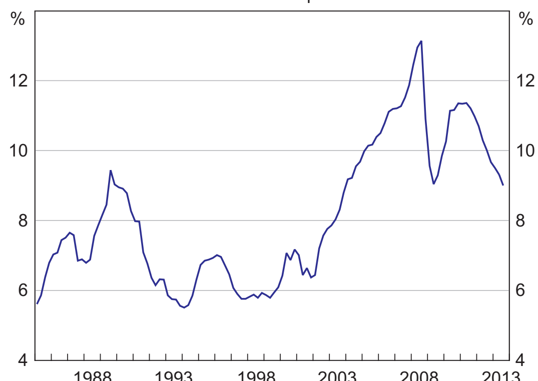
More recently, partial indicators and liaison suggest that growth in economic activity has continued at a below-trend pace, although indicators of confidence and housing market conditions have picked up. Survey-based measures of current business conditions have been below average for some time. Consistent with this, non-mining investment is expected to remain subdued in the near term, with firms' surveyed capital expenditure intentions consistent with a small fall in 2013/14 as a whole. Mining investment is expected to continue to decline over the period ahead from the current high level. Growth in household consumption appears to have remained below trend in the September quarter, although some indicators have been a bit more positive recently. Indicators of business and consumer confidence have risen in recent months to above-average levels, although it is too early to know whether this pick-up will be sustained. Housing turnover and prices have also increased strongly, and dwelling investment continues to pick up.

Household Sector

Growth in household consumption was below average over the year to the June quarter, consistent with soft labour market conditions and relatively moderate growth in household income. The saving ratio remained within its range of recent years at around 10 per cent (Graph 3.2). Growth in consumption has been weak for most categories of discretionary spending, although it has been somewhat stronger for some non-discretionary items such as food, health and some financial services. Purchases of motor vehicles have flattened out, following strong growth in recent years as the high level of the exchange rate led to attractive offers for consumers.

Real household disposable income increased by 2 per cent over the year to the June quarter, around half the average annual rate of growth over the past two decades. Growth in labour income has been particularly soft, held down by weak employment growth and slower wage inflation. Interest payments as a share of disposable income are estimated to have fallen by a further 1 percentage point over the past year to 9 per cent owing to lower interest rates (Graph 3.3).

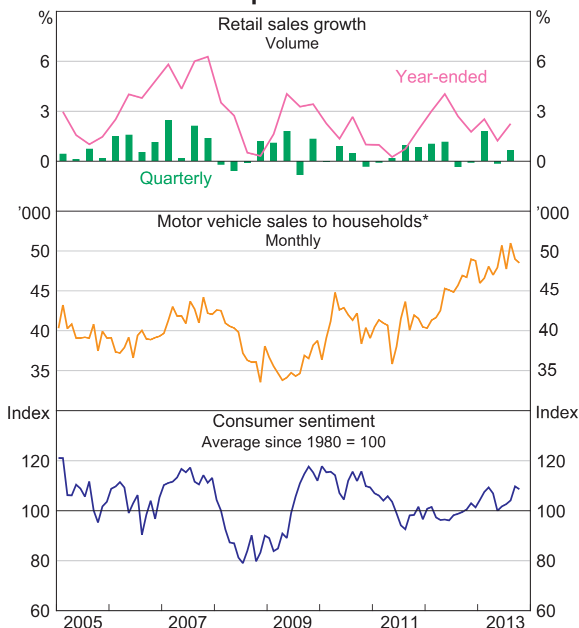




Growth of household consumption appears to have been moderate in the September quarter. Retail sales volumes increased by 0.7 per cent, with prices little changed overall (Graph 3.4). Sales at retailers of clothing, footwear & accessories, food-related items

and household goods increased, while department store sales declined. Growth in the value of retail sales picked up as the quarter progressed. There were reports from liaison of further improvement of sales in October. In contrast, motor vehicle sales have been little changed since earlier in the year. Over recent months, survey measures of consumer sentiment have risen to well above average levels, and consumers' concerns about future conditions in the labour market have moderated, although they remain somewhat elevated.

Graph 3.4
Consumption Indicators

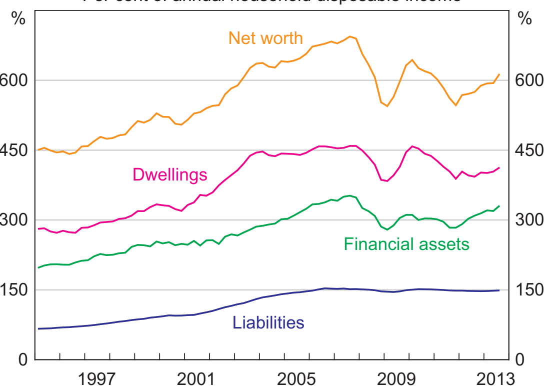


* Seasonally adjusted by the RBA
Sources: ABS; FCAI/VFACTS; Melbourne Institute and Westpac; RBA; Roy Morgan Research

Improved sentiment in the household sector may in part reflect strong growth in household net worth, which is estimated to be 10 per cent higher over the year to September 2013 (Graph 3.5). This increase has been driven by higher equity and housing prices.

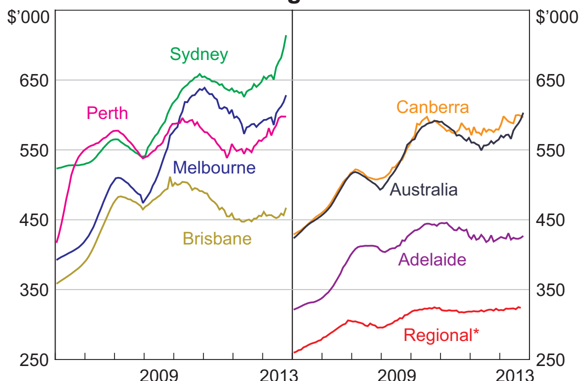
Housing prices have risen strongly in recent months, with nationwide prices increasing by around 2¾ per cent over the September quarter and 5½ per cent over the past year (Graph 3.6, Table 3.2); prices picked up further in October. Over the three months to October, housing price inflation was particularly marked in Sydney, with prices rising by more than 5 per cent. Melbourne also recorded a strong increase and prices in Brisbane have started to pick up. While housing prices in Sydney and Perth have surpassed their peaks of 2010, the ratio of nationwide prices to household income remains below the levels seen over much of the past decade. Other indicators point to strong conditions in the established housing market; auction clearance rates remain elevated, while the degree of vendor discounting and the average time taken to sell a

Graph 3.5
Household Wealth and Liabilities*
Per cent of annual household disposable income



* Household liabilities exclude the liabilities of unincorporated enterprises; disposable income is after tax and before the deduction of interest payments; RBA estimates for September quarter 2013
Sources: ABS; RBA; RP Data-Rismark

Graph 3.6
Housing Prices



* Excluding apartments; measured as areas outside of capital cities in mainland states
Sources: RBA; RP Data-Rismark

Table 3.2: Housing Price Growth

Per cent

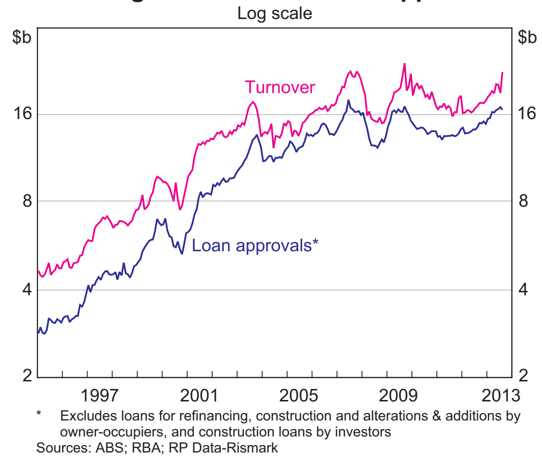
	3 months to September 2013	3 months to June 2013	Year to September 2013
Capital cities			
ABS[(a),(b)]	1.9	2.7	7.6
APM[(b)]	1.9	2.4	7.0
RP Data-Rismark	2.8	1.1	5.5
Regional areas			
APM[(b)]	1.3	0.5	3.4
RP Data-Rismark[(a)]	0.2	0.1	0.8

(a) Detached houses only
(b) Quarter-on-quarter growth rate
Sources: ABS; APM; RBA; RP Data-Rismark

property have both fallen substantially and are now close to their lowest levels in nearly a decade. Surveys indicate that households view buying conditions for dwellings as favourable and expectations of future housing price growth have increased. Turnover in the housing market, as a share of the housing stock, has risen from relatively low levels over the past two years. This higher turnover can be expected to boost demand for a range of services including real estate, legal and financial services.

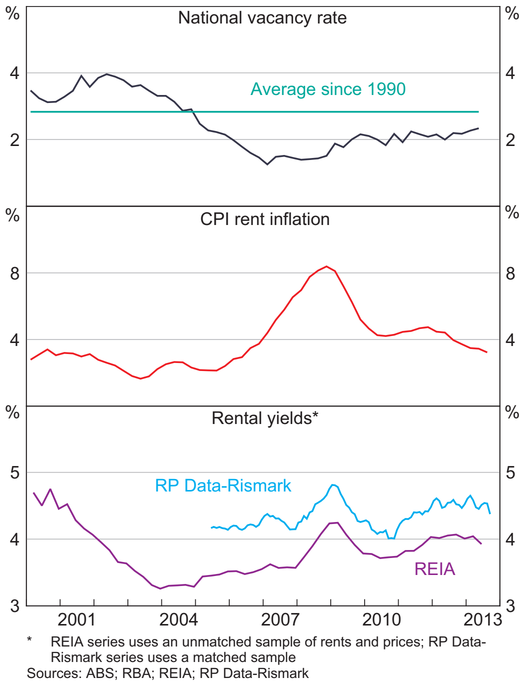
Demand for housing finance has risen as the value of housing turnover has increased (Graph 3.7). Nonetheless, housing loan approvals remain relatively low as a share of household debt and so household debt has continued to grow broadly in line with nominal incomes (see the 'Domestic Financial Markets' chapter for further details).

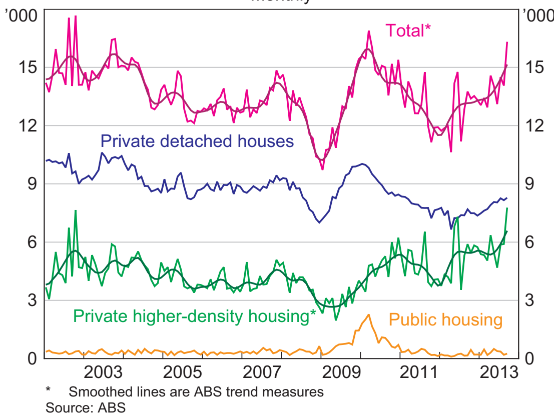
In contrast to the market for established dwellings, conditions in the rental market appear to have eased slightly in recent quarters from the relatively tight position a year ago. The nationwide rental vacancy rate increased a little in the June quarter to around 2¼ per cent, but is still below the long-run average (Graph 3.8). Rent inflation has slowed to around 3¼ per cent annually, although this is still above CPI inflation and rental yields remain higher than the average of the past decade.



* Excludes loans for refinancing, construction and alterations & additions by owner-occupiers, and construction loans by investors
Sources: ABS; RBA; RP Data-Rismark

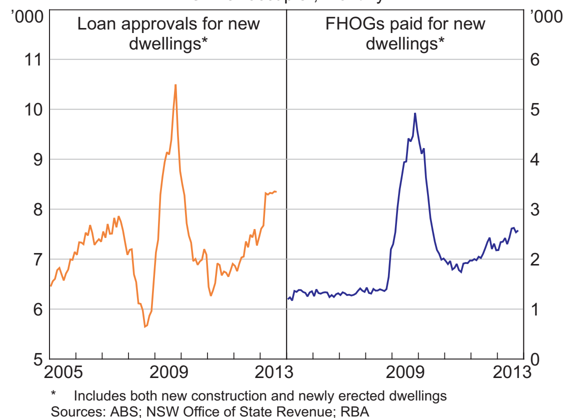
Dwelling investment increased over the past year, despite a pause in growth in the first half of 2013, which mirrored an earlier softer patch in building approvals. Forward-looking indicators point to a resumption of growth from the second half of 2013. The number of private residential building approvals rose by 9 per cent in the September quarter (Graph 3.9). Detached house approvals have been rising since late last year after an extended period of weakness, with strong growth in New South Wales and Western Australia; approvals have stabilised at a relatively low level in Victoria following very strong activity in 2009 and 2010. Higher-density approvals,





which tend to be volatile, increased strongly in the September quarter, buoyed by approvals in New South Wales and Victoria. Approvals for high-rise developments in inner-city areas have increased strongly in these states since around 2009, notwithstanding some moderation in Victoria more recently. Liaison contacts have noted the increasing presence of overseas buyers and developers for high-rise developments in inner-city areas, although survey evidence suggests that the share of overseas buyers in the housing market overall is little changed. In aggregate, building approvals are expected to increase further over the period ahead, aided by a continued recovery in the established housing market, relatively high rental yields, low lending rates and government support to first home buyers that is increasingly directed towards purchases of newly built, rather than existing, dwellings.

Other timely indicators of housing construction also suggest that a sustained recovery in activity is under way. Loan approvals for new dwellings are 12 per cent higher than at the beginning of the year, while first home owner grants (FHOGs) for new dwellings have risen by 18 per cent over the same period (Graph 3.10). Rising house prices and the increase in housing turnover is also expected to underpin a pick-up in renovation activity.

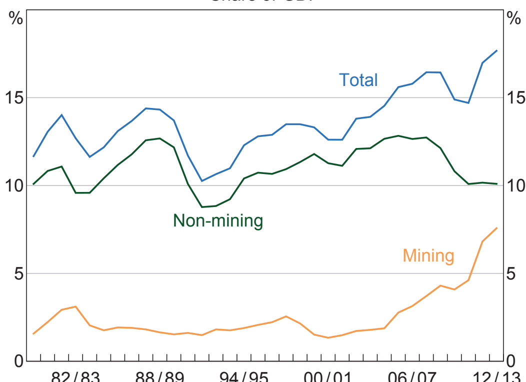


Business Sector

Total business investment has been very high as a share of economic activity, with mining investment estimated to have peaked at around 7½ per cent of GDP in 2012/13 (Graph 3.11). However, in recent quarters, mining investment is estimated to have declined, with public announcements by resource

companies and the Bank's liaison both signalling that the investment phase of a number of mining projects is beginning to wind down. This contributed to a decline in total business investment over the first half of the year (Graph 3.12).

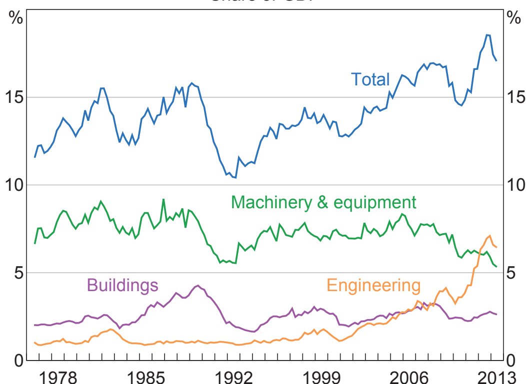
Graph 3.11
Private Business Investment*
Share of GDP



* Adjusted for second-hand asset transfers between the private and other sectors, excluding cultivated and biological resources

Sources: ABS; RBA

Graph 3.12
Business Investment*
Share of GDP

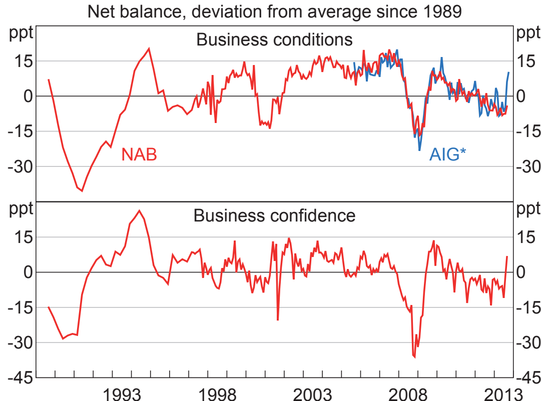


* Adjusted for second-hand asset transfers between the private and other sectors, excluding cultivated and biological resources

Sources: ABS; RBA

Non-mining investment remains low as a share of GDP. Contributing factors appear to be the subdued demand faced by non-mining firms and a reluctance of firms to take on new risks. Survey-based measures of business conditions have been weak for some time, although they have shown improvement recently (Graph 3.13). Measures of business confidence have improved markedly over recent months, although it is too soon to know whether this will be sustained and lead to an increase in employment and investment.

Graph 3.13
Business Sentiment
Net balance, deviation from average since 1989



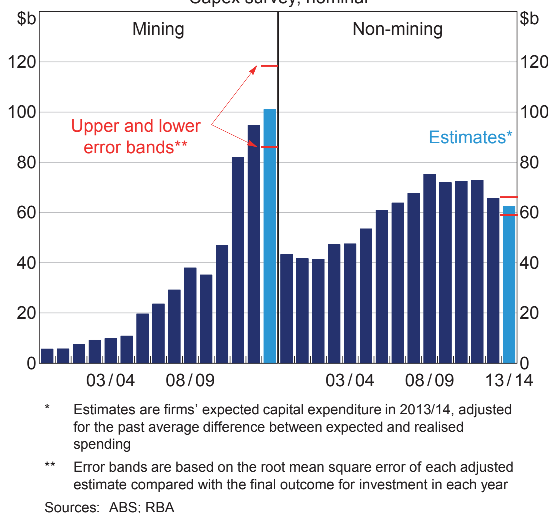
* Weighted average of AIG's Performance of Construction, Performance of Services and Performance of Manufacturing indices, scaled to have the same mean and standard deviation as the NAB Business Conditions Index.

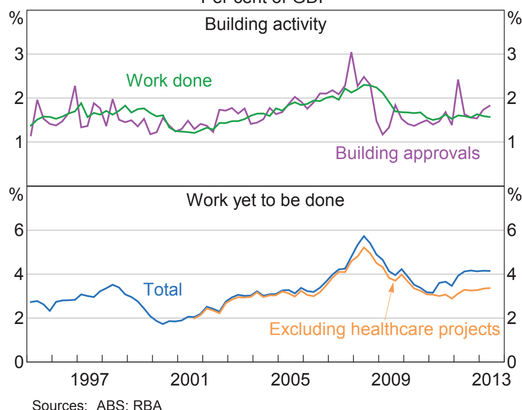
Sources: AIG; NAB; RBA

The ABS capital expenditure (Capex) survey for the June quarter (which predates the recent pick-up in business sentiment) continues to suggest that non-mining investment covered by the survey will decline in 2013/14 (Graph 3.14). However, in coming years non-mining investment not covered by this survey – such as investment in agriculture, forestry & fishing and healthcare & social services – is expected to grow faster than investment included in the Capex survey, particularly in the healthcare industry. The Capex survey provides more comprehensive coverage of mining investment, although it tends to be a less accurate guide than it is for the non-mining component. The survey suggests that mining investment will increase in 2013/14. However, public statements by mining companies and the Bank's liaison imply that mining investment will decline in 2013/14.

In contrast to the soft outlook for non-mining investment from the Capex survey, some forward-looking indicators of private non-residential building

investment have strengthened. Non-residential building approvals have moved higher since the start of the year and the stock of work yet to be done is at a relatively high level, boosted by large healthcare projects (Graph 3.15). However, indicators of current activity in the sector, including work done, remain subdued. Also, office vacancy rates have risen and rents for offices have declined over the past year, partly reflecting a focus on reducing costs by both companies providing services to the resources sector and some state governments.





Farm Sector

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) forecasts that farm production will increase by 1¾ per cent in 2013/14, owing to a larger wheat crop. This represents a slight downward revision from ABARES forecasts in June. Higher world prices for dairy products, wool and lamb, together with the depreciation of the Australian dollar since earlier in the year, are expected to more than offset the effect of lower world prices for most grains and oilseeds. Hence, prices received by farmers overall are forecast to increase by 2 per cent in 2013/14.

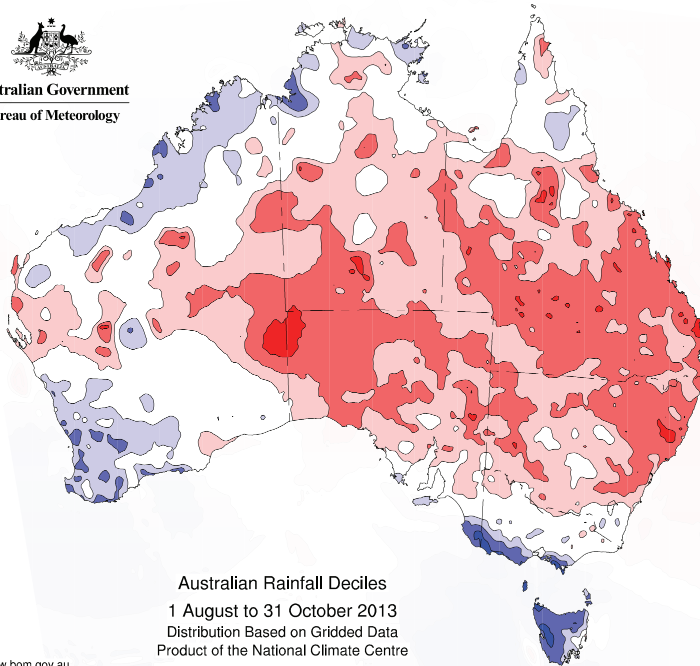
The approaching harvest of winter crops is expected to see a higher level of production across southern Australia as a result of the good growing conditions in the first half of the year. However, dry weather in northern New South Wales and Queensland is likely to have reduced the potential yield in these regions (Graph 3.16). In addition, dryer than usual conditions continue to place pressure on cattle producers to reduce stock levels in Queensland and the Northern Territory as a result of inadequate feed.

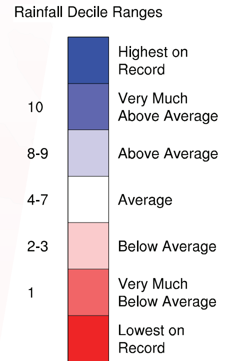
External Sector

Exports rose in the June quarter, underpinned by further growth in resource exports and a pick-up in rural exports (Graph 3.17). The strong growth in resource exports over the past couple of years reflects more supply coming on line as investment projects reach completion. Imports also grew modestly in the quarter, driven by a rebound in capital goods imports.

Recent trade data suggest that there was a large increase in iron ore export volumes in the September quarter. Strong growth in resource exports is expected to continue over the next couple of years. Manufactured goods export volumes are estimated to have grown in the September quarter. Import volumes appear to have declined, reflecting lower imports of services and capital goods.

Graph 3.16
Australian Rainfall
1 August to 31 October 2013





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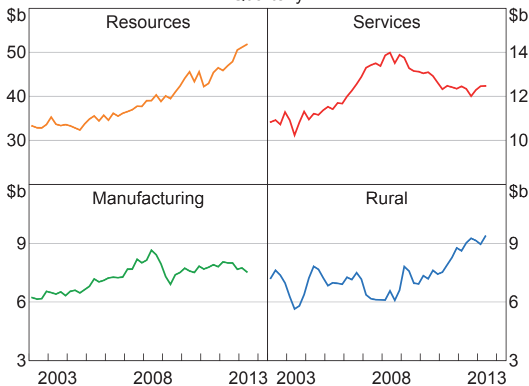
Source: Bureau of Meteorology

Graph 3.17
Export Volumes*
Quarterly



* 2010/11 prices
Sources: ABS; RBA

Labour Market

Labour market conditions have remained soft in recent months, consistent with below-trend growth in the economy. The unemployment rate has trended higher since mid 2011 (see 'Box B: The Increase in the Unemployment Rate'; Graph 3.18). The participation rate, which had been little changed for more than a year, has declined quite noticeably over recent months, mainly due to a decrease in male participation. Also, employment has been little changed since earlier in the year and so the ratio of employment to the working-age population has fallen to its lowest level since 2005 (Graph 3.19).

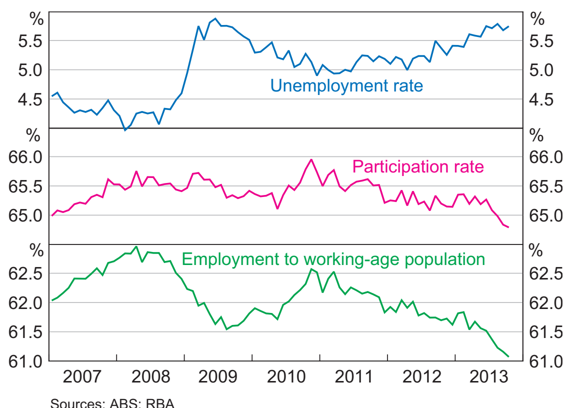
While employment growth has slowed to 0.8 per cent over the past year, in trend terms total hours worked increased by 1.6 per cent over the same period. This is consistent with reports from the Bank's liaison that some firms have sought to

contain costs by increasing the hours of existing employees rather than hiring new staff. Most recently, the increase in total hours worked might also reflect a shift in employment towards industries in which workers tend to work longer average hours. Despite the increase in hours worked, measures of underemployment – capturing employed workers who want to work more hours – have risen over recent months, reflecting an increase in the number of part-time workers looking for additional hours (Graph 3.20).

Unemployment rates have increased and participation rates have declined in most states over the past year (Graph 3.21). In New South Wales, employment has declined in recent months following relatively strong growth earlier in the year. Employment has been little changed in Victoria since the middle of the year. In contrast, employment growth in Queensland has been stronger since the middle of the year, while the state's unemployment and participation rates have remained relatively stable. Consistent with the slowing in resource-related activity, the unemployment rate in Western Australia has increased from a very low level and the participation rate has declined noticeably over the past year. Labour market conditions in South Australia and Tasmania have also weakened over the same period.

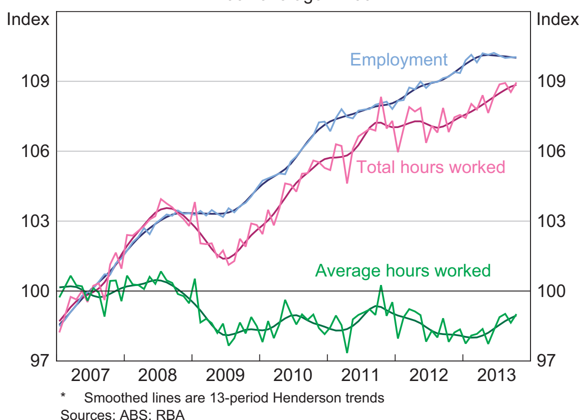
Employment in mining and business services has been little changed over recent quarters and remains below the peaks of 2012, as the economy moves into the less labour-intensive production phase of the mining boom and businesses exposed to mining activity maintain their focus on containing costs (Graph 3.22). Employment in manufacturing has declined further, after stabilising somewhat in the past couple of years, and employment in the household services sector (which includes the health, education and hospitality industries) declined in recent months, following several years of strong growth (see 'Box C: The Household Services Sector'). In contrast, construction employment has picked up over the past year or so; residential construction

Graph 3.18
Labour Market



Sources: ABS; RBA

Graph 3.19
Employment and Hours Worked*
2007 average = 100



* Smoothed lines are 13-period Henderson trends
Sources: ABS; RBA

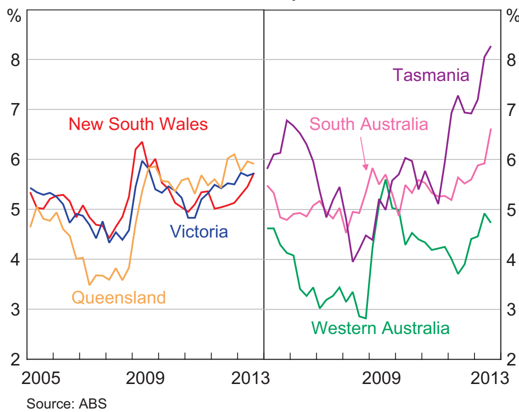
Graph 3.20
Underemployed Part-time Workers*
Share of part-time employment, seasonally adjusted**

* Part-time workers looking for and available to work more hours
** Seasonally adjusted by RBA
Sources: ABS; RBA

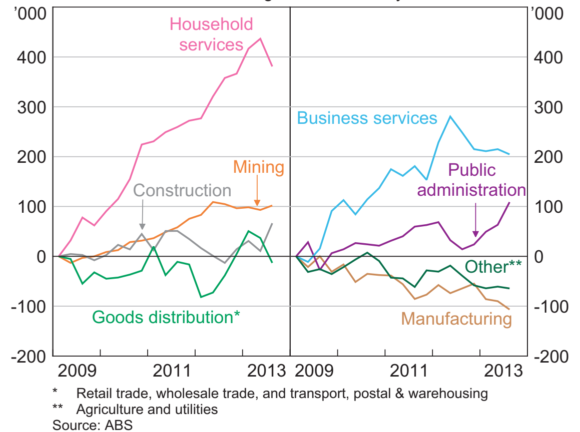
employment has been particularly strong in New South Wales, consistent with indicators of increased dwelling construction activity. Also, employment in public administration and safety is reported to have recovered in recent quarters after declining in 2012.

There have been tentative signs of stabilisation in most forward-looking indicators of employment growth in recent months, though they remain at low levels (Graph 3.23). The ABS quarterly measure of job vacancies rose over the three months to August but it is around 20 per cent lower over the year. The pace of decline in measures of job advertisements also appears to have eased in recent months. Business survey measures and the Bank's liaison with firms suggest that employment intentions remain at or below their historical average.

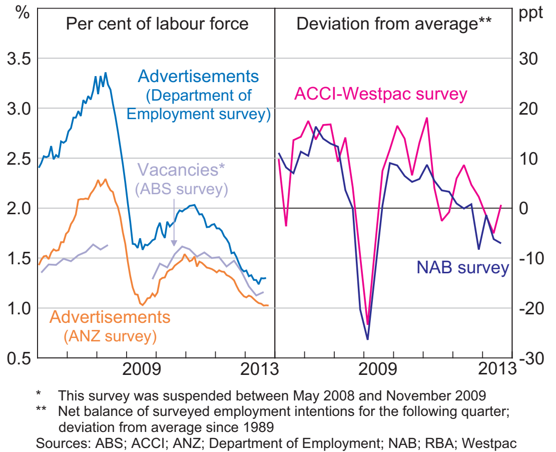
Graph 3.21
Unemployment Rates by State
Quarterly



Graph 3.22
Employment by Industry
Cumulative change since February 2009



Graph 3.23
Labour Market Indicators

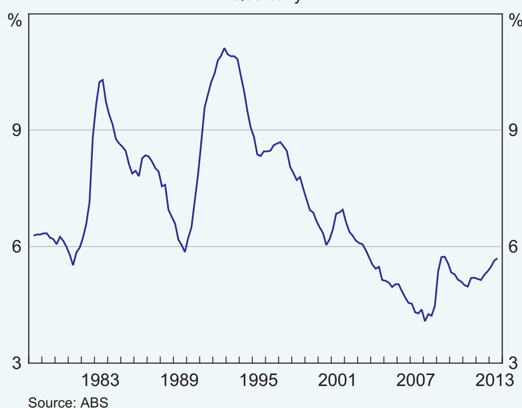


Box B

The Increase in the Unemployment Rate

Since mid 2011, the unemployment rate has risen by around ¾ percentage point to 5¾ per cent. This increase has been fairly gradual, which contrasts with previous episodes of rising unemployment that have typically been much sharper (Graph B1). The unemployment rate remains below the average of the past few decades, but it is around the highest it has been since 2003, and the increase has been accompanied by a decline in both wage growth and inflation pressures. There are a number of factors that may have contributed to the rise in the unemployment rate, including cyclically weak demand for labour resulting in employment growing more slowly than labour supply, as well as structural influences that affect the efficiency with which unemployed workers are matched to vacant jobs.

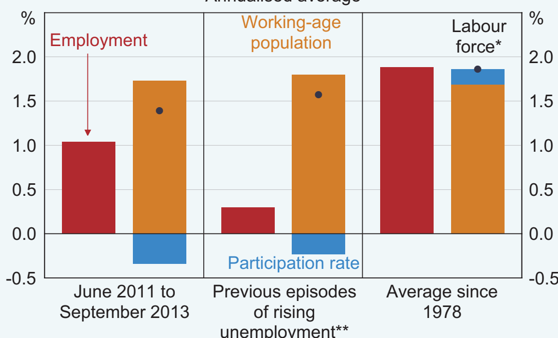
Graph B1
Unemployment Rate
Quarterly



Source: ABS

The increase in the unemployment rate over the past couple of years is not the result of a reduction in employment. In annualised terms, employment has grown at an average pace of 1 per cent. But this growth has not kept pace with the growth in the labour force (the number of people working or available and actively looking for work), which has been around 1.4 per cent annually (Graph B2). As a result, the number of unemployed, and their share of the labour force, has increased.

Graph B2
Employment and Labour Force Growth
Annualised average



* The dot denotes the percentage change in the labour force, which is approximately equal to the sum of the percentage change in the working-age population and the percentage change in the participation rate

** Previous episodes include the six episodes between 1978 and 2010 where the quarterly unemployment rate has risen by more than ¼ percentage point

Sources: ABS; RBA

Growth in the labour force is determined by two factors: the growth in the working-age population and changes in the participation rate. The growth in the working-age population is largely influenced by demographic and policy developments and is relatively insensitive to economic cycles: it has averaged 1.7 per cent per year since mid 2011. In contrast, the participation rate tends to decrease during slowdowns as incentives to search actively for a job decline. While labour force participation has declined since mid 2011, this decline has been only slightly larger in magnitude than the average in previous episodes of rising unemployment.

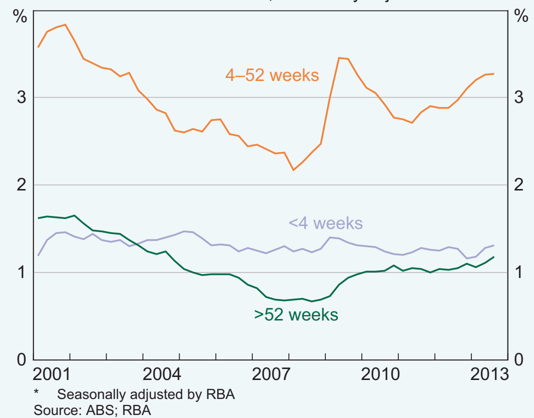
The subdued pace of employment growth since mid 2011 appears to have largely reflected a weakening

in employers' demand for labour, as seen across a number of indicators. The growth of output over recent years has been a bit below its longer-term average and indicators of firms' demand for new employees – job vacancies, job advertisements and business surveys of employment intentions – have shown pronounced declines. Slower growth in output, including because of the elevated level of the exchange rate (which has seen a loss of competitiveness in many traded-sector industries), has also seen some firms focus on containing costs, including labour costs. This may have helped to contribute to faster growth in labour productivity than the average of the decade prior to June 2011.

Over the past year or so, a deterioration in the prospects for some mining projects and the transition to the less labour-intensive production phase of the mining boom have also weighed on the demand for labour in mining and mining-related industries. Moreover, the increase in unemployment since mid 2011 has been concentrated among male workers, who tend to account for a larger share of employment in mining and other more cyclical industries.

Subdued employment growth, and a rising unemployment rate, can also reflect the ability to match unemployed workers to vacant jobs. Workers differ in their qualifications, experience and place of residence, while jobs differ according to the skills required and the location of employment. So both unemployed workers and employers may need to search for a period of time before finding an appropriate 'match'.

Many workers have a short search period between leaving one job and finding a new job and so are unemployed only temporarily. A commonly used (albeit imperfect) estimate of this form of unemployment, which is termed 'frictional' unemployment, is the number of unemployed persons that have been unemployed for less than four weeks; this measure has remained more or less constant (as a share of the labour force) for some time (Graph B3).

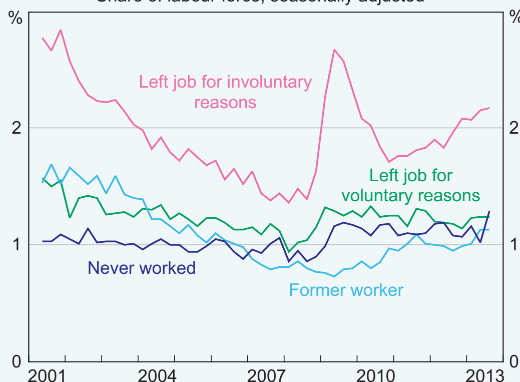


Other structural factors can also inhibit the overall efficiency of matching in the labour market, leading workers to spend a longer period of time in unemployment and contributing to a higher unemployment rate. Structural unemployment occurs when unemployed persons lack the skills or experience to obtain secure employment. Broader structural changes in the economy may be one cause of structural unemployment; for example, workers that were previously employed in industries or regions where labour market conditions have weakened could face difficulties in retraining or relocating in order to obtain jobs elsewhere. Sustained weakness in labour demand may also cause an increase in structural unemployment, as the skills of unemployed workers diminish or become redundant after a prolonged period out of employment.

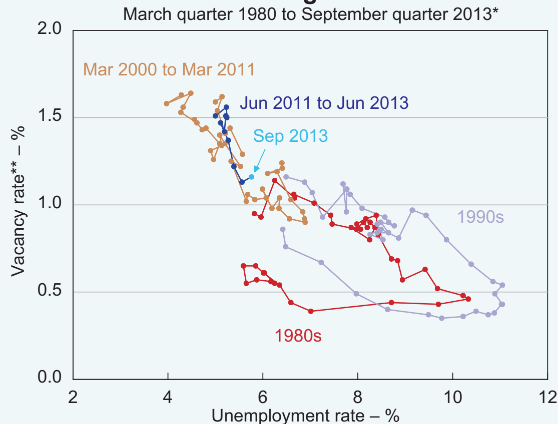
It is difficult to assess the extent to which such structural factors have contributed to the recent rise in unemployment. The rate of long-term unemployment (measured as the share of the labour force that has been unemployed for more than a year) has risen only slightly in recent years. Rather, most of the increase in the unemployment rate has been attributable to individuals that have been

unemployed for between 4 and 52 weeks, who are more likely to be unemployed for cyclical reasons. Looking at the reasons reported for unemployment, most of the increase in unemployment can be attributed to unemployed persons that have left their job involuntarily in the past two years, with a large proportion of such job losses likely to occur for cyclical reasons (e.g. retrenchment or business closure) (Graph B4). Since mid 2011, persons unemployed for reasons that are most likely to relate to structural unemployment – namely, 'former workers' (those whose last full-time job was more than two years ago) and those that have never worked before – have made only modest contributions to the aggregate increase in unemployment.[1] However, as the former worker measure of unemployment largely relies on the last period of employment having been at least two years ago, it would demonstrate a change in structural unemployment only with a lag. Both measures are also likely to capture some share of workers who are unemployed for cyclical rather than structural reasons.

Changes in the relationship between unemployment and job vacancies, as shown by the Beveridge curve, provide another way of assessing the level of frictional and structural unemployment. Movements along the (downward sloping) Beveridge curve will generally reflect cyclical changes in labour market conditions; for instance, a decline in the demand for labour results in a decrease in the number of vacancies (as a share of the labour force), as firms search for less labour, and so an increase in the unemployment rate. In contrast, changes to the rates of frictional and structural unemployment will show up as outward or inward shifts in the position of the Beveridge curve; that is, for a given vacancy rate the unemployment rate is either higher or lower. The significant decline in the vacancy rate since mid 2011 has coincided with a smaller increase in the unemployment rate than the average historical relationship would have indicated (Graph B5). While this may be a function of the noise that naturally exists in this relationship, it may also be consistent with labour market matching having become slightly more efficient over this period.[2]



* Those that have 'left' a job have worked for at least two weeks in the past two years; 'former workers' last worked more than two years ago
** Seasonally adjusted by RBA
Sources: ABS; RBA



* Mid month of quarter
** Ratio of vacancies to the labour force; this survey was suspended between the June quarter 2008 and the December quarter 2009
Sources: ABS; RBA

1 For more on the link between these measures and structural unemployment, see Connolly G (2011), 'The Observable Structural and Frictional Unemployment Rate (OSFUR) in Australia', paper presented to the 40th Australian Conference of Economists, Canberra, 11–13 July.

2 See Edwards K and L Gustafsson (2013), 'Indicators of Labour Demand', RBA *Bulletin*, September, pp 1–11.

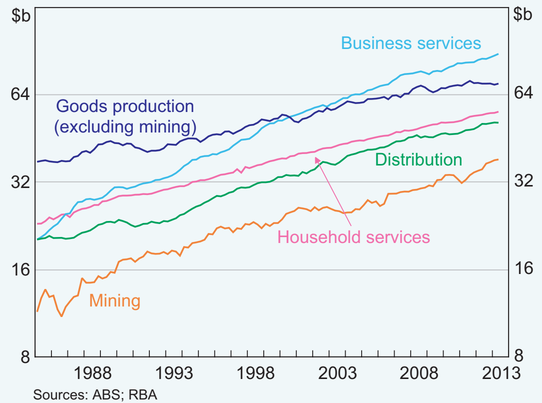
Box C
The Household Services Sector

Service industries account for a large and rising share of Australian economic output. The increasing share of services is common among advanced economies as households tend to spend more on services as their income and wealth rise. Also, businesses demand more services as they outsource an increasing share of their non-core functions to more specialised firms.

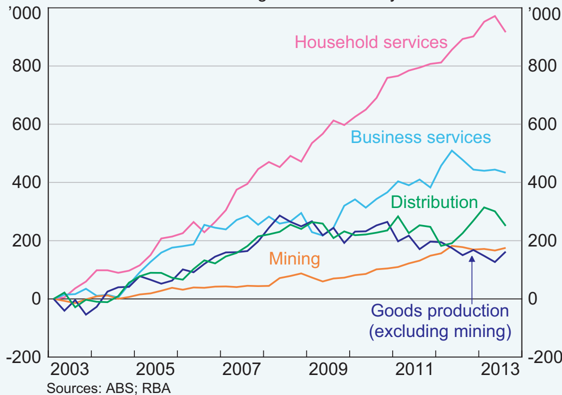
Within the services sector there is a group of industries – collectively called the household services sector – that provide services primarily to households, including health, education, hospitality and art & recreation. Households also consume services from a range of other industries, such as finance & insurance, but these are typically classified as business service industries.[1] The household services sector accounts for almost one-fifth of Australia's output, equivalent to the manufacturing, construction and agricultural industries combined. The cyclical fluctuations in household services tend to be much less pronounced than those of other industries, as many services demanded by households – especially health and education – are less discretionary and so are relatively insensitive to cycles in economic conditions (Graph C1). As a result, the household services sector tends to be an important source of growth during periods of soft demand in the broader economy, thereby contributing to smaller fluctuations in aggregate output growth.

The share of workers that are employed in the household services sector, at almost one-third, is even larger than the share of household services in output. In part, this reflects the fact that workers in the household services sector tend to work fewer hours on average than in many other industries (with casual and part-time workers more prevalent than in the broader economy). But even accounting for the lower average hours worked in the household services sector, the employment share is greater than the output share as this sector is relatively labour intensive. Measured productivity growth also tends to be slower in the household services sector, owing in part to the considerable difficulties in measuring services output, particularly changes in the quality of that output. As is the case for output, employment in household services tends to be less cyclical than employment in many other industries. The household services sector has been a key driver of aggregate employment growth, more than offsetting the decline in employment in the goods production sector (manufacturing, construction, agriculture and utilities) since the global financial crisis (Graph C2).

While the sector as a whole has grown as a share of both output and employment over the past few decades, trends within the household services



1 The categorisation of service industries as primarily servicing households or businesses is necessarily imprecise, as these industries service both sectors to some degree (as well as the government sector). For a discussion of trends in the business services sector, see Manalo J and D Orsmond (2013), 'The Business Services Sector', RBA *Bulletin*, March, pp 1–10.



sector have differed by industry (Table C1). The largest contributor to the growth in both output and employment has been the expansion of the health industry. Strong growth in demand for health services partly reflects households' increasing propensity to spend on health care to improve the quality and length of life. Related to this, the ageing of the population has also had some effect on the level of health spending to date, but larger effects are expected in coming years. Consistent with increased spending on health care in the past few decades, employment in the healthcare industry has grown strongly. Of late, liaison suggests that some healthcare providers have had difficulties in finding skilled staff, such as nurses, who constitute a significant share of their employees.

While the education industry also constitutes a comparatively large share of the economy, it has been relatively stable as a share of total (nominal) output. This stable share is the result of two offsetting influences. First, the demand for education services in real terms grows more in line with the population than with overall output, although the strong growth in the number of international students at Australian universities has increased demand over the past two decades. Second, and working in the other direction, the average prices paid for education services, such as university degrees, have increased by more than prices in other industries, reflecting in part the labour intensity of the education industry.

The hospitality industry, which includes hotels, restaurants and cafés, constitutes a relatively small share of total output, although it is a comparatively large employer within the economy. The output share of hospitality has drifted higher over the past few decades as the demand for eating out and other hospitality has increased. More recently, liaison with accommodation providers suggests that demand for leisure travel from both domestic and international visitors has increased in the past year or so; in contrast, demand from the corporate sector has slowed somewhat, as firms try to contain costs.

Table C1: Output and Employment in Household Services[(a)]
Per cent

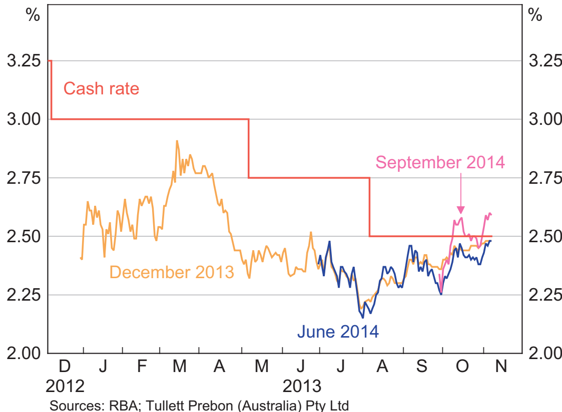
	Output share (nominal)		Employment share (hours)	
	1989/90	2012/13	1989/90	2012/13
Household services	15	19	24	29
Health	5	8	7	10
Education	5	5	6	7
Hospitality	2	3	5	6
Art & recreation	1	1	1	2
Other services	2	2	5	4

(a) Excludes 'ownership of dwellings'
Sources: ABS; RBA

4. Domestic Financial Markets

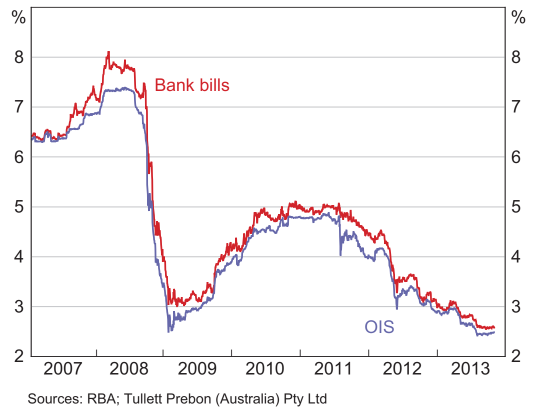
Money Markets and Bond Yields

The Reserve Bank Board has maintained its target for the cash rate at 2.50 per cent since August. Over recent months, the pricing of money market instruments has pointed to reduced expectations of a further easing in monetary policy, as domestic and offshore economic data have generally been stronger than expected. Rates on overnight indexed swaps (OIS) currently imply that the cash rate is likely to remain at 2.50 per cent over the next year (Graph 4.1).



Rates on bank bills and certificates of deposit (CDs) are mostly unchanged from the time of the previous *Statement*, with the yield on 3-month bank bills remaining at historical lows of around 2.6 per cent (Graph 4.2). Spreads between comparable bill and OIS rates have been stable at low levels, with liquidity in the interbank market for bills and CDs benefiting from more active price making from the major participants (see 'Box D: Bank Bill Swap Benchmark Rates').

Yields on long-term Commonwealth Government securities (CGS) have fluctuated in a relatively wide range during recent months (Graph 4.3). Yields on 10-year CGS are currently 4.1 per cent, having briefly reached an 18-month high of 4.2 per cent in September. Uncertainty about fiscal and monetary policy in the United States has



been an influence, as has diminished expectations for a lower cash rate. The latter has resulted in the spread between 10-year CGS yields and those on US Treasuries widening by around 40 basis points since August (Graph 4.4).

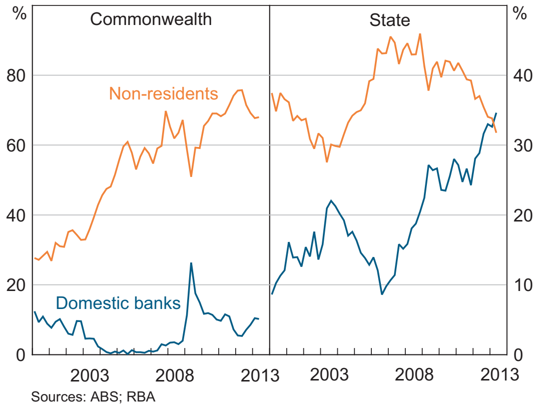
Graph 4.4
Australia/US 10-year Bond Differential

Source: RBA

The Australian Government announced in October that it would seek to raise the legislative ceiling on the amount of CGS outstanding from $300 billion to $500 billion. In August, the Treasury had projected that the current limit would be reached before the end of the calendar year, with CGS outstanding peaking at $370 billion in 2016. The Australian Office of Financial Management (AOFM) expects gross issuance of Treasury Bonds to be $70 billion this financial year, with issuance net of maturities of $47 billion; up to $5 billion of Treasury Indexed Bonds will also be issued this financial year.

The share of CGS held by non-residents was unchanged at 68 per cent in the June quarter, while the share of the state and territory ('semi-government') market held by non-residents fell further, to 32 per cent. The amount of semi-government debt held by the domestic banks now exceeds that held by non-residents as banks have been increasing their liquid asset holdings in advance of new prudential requirements being implemented in January 2015 (Graph 4.5).

Graph 4.5
Ownership of Australian Government Debt
Share of outstandings

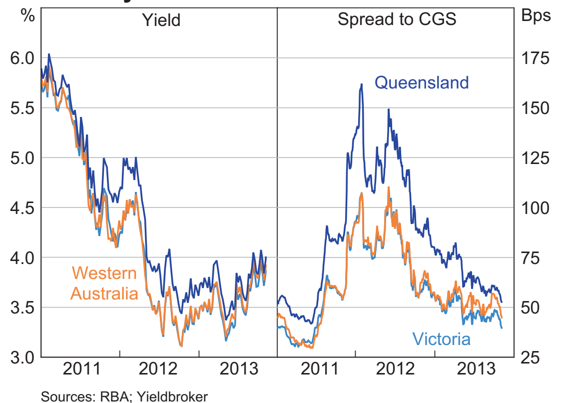


Sources: ABS; RBA

Spreads between semis and CGS have narrowed since the previous *Statement* (Graph 4.6). Standard & Poor's downgrade of Western Australia's credit rating from AAA to AA+ resulted in spreads on that state's debt decreasing by less than other semi-government issuers.

Issuance of bonds in the domestic market by non-resident ('Kangaroo') entities since the previous *Statement* has been around $9 billion. Secondary market spreads of Kangaroo bonds remain close to their post-2007 lows. While Australian dollar cross-currency basis swap spreads against the US dollar have been broadly unchanged, spreads have narrowed against the euro and the yen, reducing the attractiveness of issuance in Australia for some offshore entities.

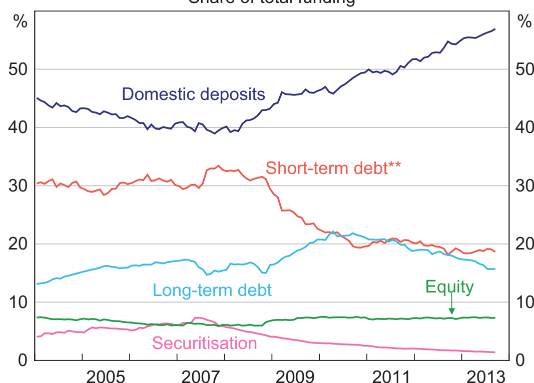
Graph 4.6
5-year Semi-Government Debt

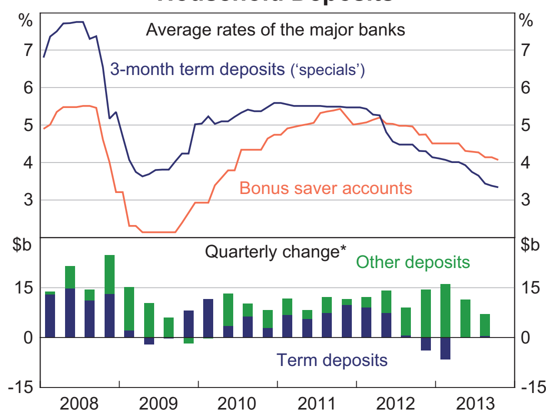


Sources: RBA; Yieldbroker

Financial Intermediaries

The share of funding from domestic deposits has increased slightly as banks continue to fund new lending with deposits (Graph 4.7). The cost of banks' outstanding funding liabilities relative to the cash rate has changed little in recent months. Notwithstanding the repricing of advertised rates on most banks' at-call savings accounts in line with the reduction in the cash rate in August, spreads on these accounts remain at elevated levels. The widening interest rate differential between at-call deposits and short-term deposits has been a factor in the further inflow of household deposits into at-call savings products (Graph 4.8).

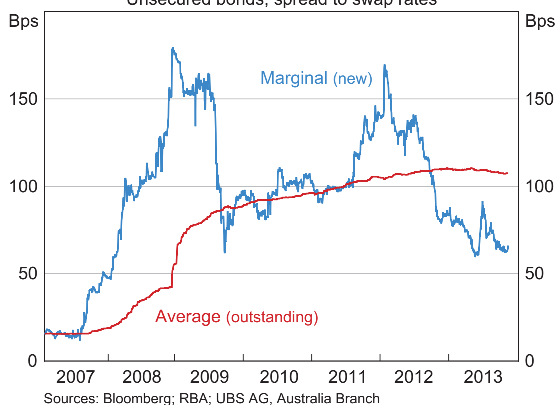




Movements in the rates offered on term deposit 'specials' have tended to coincide with changes in the cash rate during 2013, rather than move with wholesale rates of comparable terms. Consequently, as term interest rates in the wholesale market have risen, the spreads between term deposit 'specials' and wholesale interest rates have narrowed, particularly for long-term deposits. This has also made term deposits relatively less attractive.

Since the previous *Statement*, the marginal cost of new long-term wholesale funding, as measured by the spread to equivalent swap rates, has declined further (Graph 4.9). Relative to CGS, spreads on the major banks' unsecured bonds declined by around 25 basis points, while spreads on covered bonds fell by 20 basis points (Graph 4.10). This contraction in spreads was supported by the US Federal Reserve's unexpected decision in September to delay the tapering of its asset purchase program.

Notwithstanding these trends, there has been little change in the average cost of banks' outstanding wholesale debt funding costs recently, reflecting both the low levels of bond issuance in recent times and the generally long term to maturity of outstanding wholesale funding. Nevertheless, if the marginal cost of new debt remains around current levels, the average cost of banks' outstanding wholesale debt relative to the cash rate is expected to gradually decline over the coming year, particularly



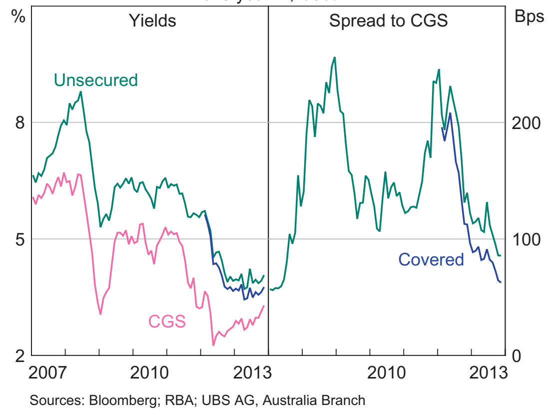
as bonds that were issued during 2008 and 2009 at higher spreads mature.

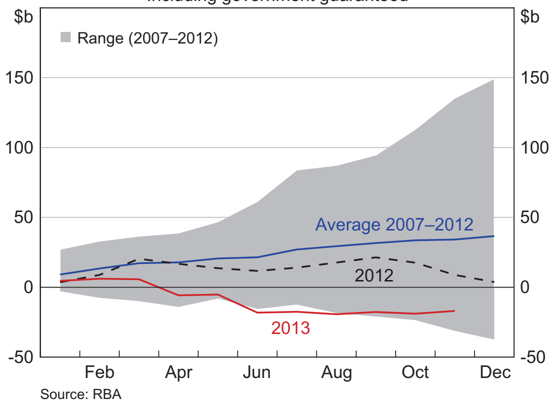
Around $20 billion of bonds have been issued by Australian banks since the previous *Statement*. About two-thirds of this debt has been issued in offshore markets, while around $2 billion was raised through covered bonds. Around $4 billion of government-guaranteed debt has been repurchased over the past three months, which together with maturities has reduced the stock of outstanding government-guaranteed debt to $39 billion, compared with a peak of $150 billion. Taking into account these buybacks and maturities, net bond issuance by banks in 2013 has been negative, reflecting their greater use of deposit funding and the modest growth in bank assets (Graph 4.11).

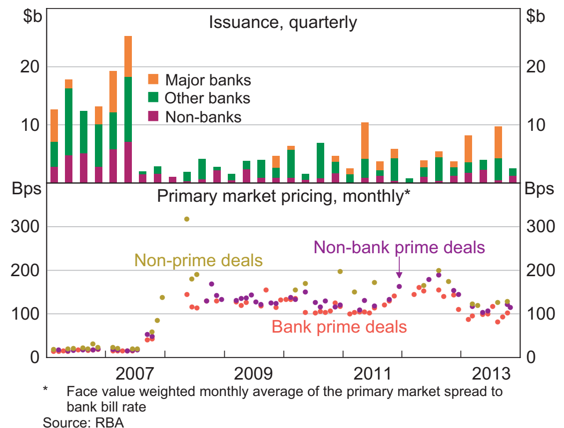
Several banks have reported increases in underlying profit over the past few months. Overall, these results were characterised by a reduction in bad debt charges as asset quality has improved, and a modest increase in net interest income. The major banks have generally increased their dividends in the most recent half-year compared with the same period in 2012.

Around $11 billion of residential mortgage-backed securities (RMBS) have been issued since the previous *Statement* (Graph 4.12). Almost all recent RMBS have been issued in the domestic market with a number of issuers returning to the market after an absence of at least two years. The securities have exhibited a greater variation in loan pool characteristics, with a number of recent deals having a relatively high share of new loans and a small number having a higher-than-usual share of low-documentation loans. These features have generally been offset by higher-than-average credit support for the AAA rated tranches. Pricing on RMBS has been little changed since early in the year, with issuance spreads remaining around their lowest level since the beginning of the financial crisis.

Issuance of other asset-backed securities has totalled $2 billion since the previous *Statement*, with a mix of auto-, equipment- and consumer loan-backed securitisations. Two particularly bespoke





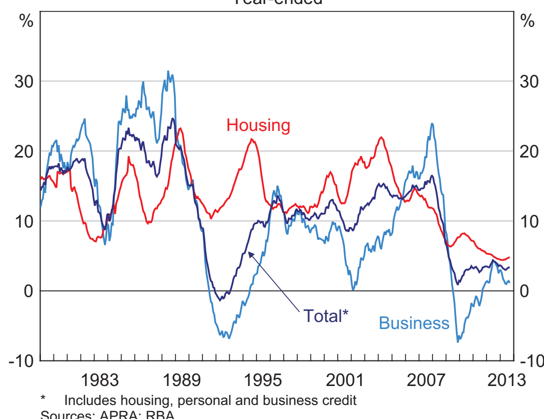


asset-backed securities were issued during the period: a commercial mortgage-backed security backed by leases on a number of home improvement stores; and an Australian airline issue into the US asset-backed security market, the first such aircraft-backed deal by an Asia-Pacific airline.

Financial Aggregates

Total credit grew modestly in the September quarter (Graph 4.13, Table 4.1). Growth in broad money slowed over the quarter although, as discussed above, inflows into saving and transaction deposit accounts have remained strong.

Graph 4.13
Credit Growth
Year-ended



Household Financing

Consistent with the pick-up in prices and activity in the housing market over the past year, the value of new housing loan approvals has increased to be around its highest level in four years, although it remains low as a share of total housing credit outstanding (Graph 4.14). The increase in both the value and number of loan approvals has been underpinned by loans to repeat-buyer owner-occupiers and investors. Loan approvals for purchases of dwellings in New South Wales by investors were particularly strong. In contrast, the value of first home buyer loan approvals remains subdued following changes to first home buyer grants in most states over the past year.

Graph 4.14
Value of Housing Loan Approvals
Per cent of housing credit outstanding

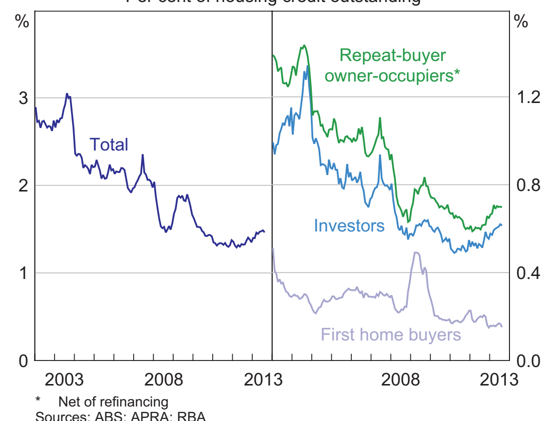


Table 4.1: Financial Aggregates
Percentage change(a)

	Quarterly		Year-ended
	Jun 2013	Sep 2013	Sep 2013
Total credit	1.0	1.0	3.3
– Owner-occupier housing	1.0	1.1	4.2
– Investor housing	1.6	1.7	6.1
– Personal	0.1	0.5	1.0
– Business	0.9	0.4	1.1
Broad money	1.8	0.8	5.2

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

Following the cut in the cash rate in August, most lenders passed on the reduction to their mortgage customers. This reduced advertised rates on package variable-rate home loans to below the average advertised rate on 3-year fixed-rate loans (Table 4.2). As a consequence, the share of new loans approved at fixed rates has fallen in recent months, although it remains elevated because of many borrowers' desire to lock in the historically low level of interest rates (Graph 4.15). Competition for new variable-rate loans has seen several lenders increase their advertised discounts on new loans. Lenders have also begun competing more aggressively for customers via the broker channel, with a number of lenders increasing the commissions paid to mortgage brokers who meet volume targets.

Notwithstanding the pick-up in approvals, housing credit continued to grow at a modest pace over the September quarter. In part, this reflects households maintaining their higher pace of mortgage prepayments and a decreasing share of approvals to first home buyers, where the value of approvals typically translates into a larger increase in housing credit. Growth in investor credit has picked-up over the past two quarters, while growth in owner-occupier credit has remained steady (Graph 4.16).

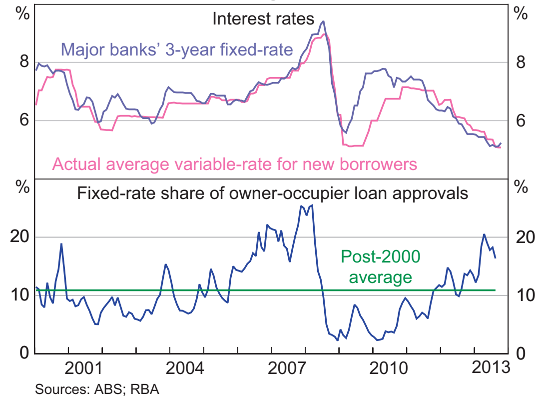
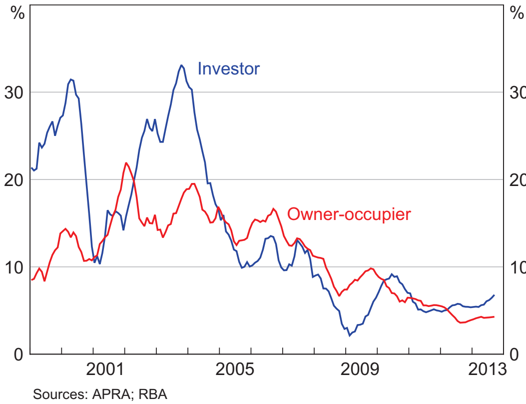


Table 4.2: Intermediaries' Fixed and Variable Lending Rates

	Level at 6 November 2013	Change since July 2013	Change since end October 2011
	Per cent	Basis points	Basis points
Housing loans			
– Standard variable rate[(a)]	5.93	–26	–186
– Package variable rate[(b)]	5.08	–28	–195
– Fixed rate[(c)]	5.24	7	–127
Personal loans			
– Variable rate	11.59	–4	–95
Small business (variable rates)			
Residentially secured, advertised			
– Term loans	7.10	–25	–190
– Overdraft	7.97	–25	–188
Average rate[(d)]	6.80	–26	–183
Large business			
Average rate[(d)] (variable rate and bill funding)	4.66	–21	–238

(a) Average of the major banks' standard variable rates
(b) Average of the major banks' discounted package variable rates on new, $250 000 full-doc loans
(c) Average of the major banks' 3-year fixed rates
(d) Rates on outstanding, business lending (includes discount)
Sources: ABS; APRA; RBA



The value of outstanding personal credit grew modestly over the September quarter as the stock of fixed-term loans continued to increase. This has been supported by ongoing strength in credit extended by car finance companies. Preliminary data suggest that there was a small decline in the value of outstanding margin lending over the September quarter.

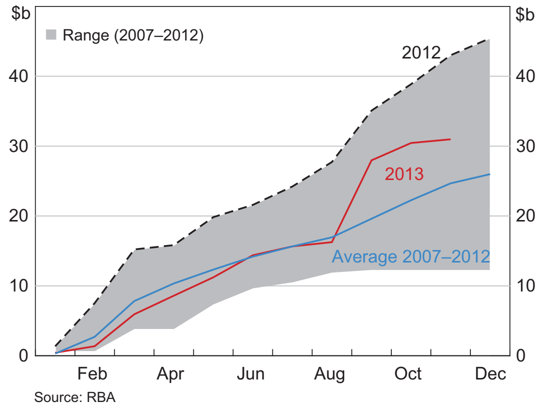
Rates on some variable-rate personal loans including margin loans and home equity loans were largely reduced in line with the cut in the cash rate in August. Advertised rates on most credit cards and unsecured personal loans, which are generally less sensitive to changes in the cash rate, have changed little over the past couple of years.

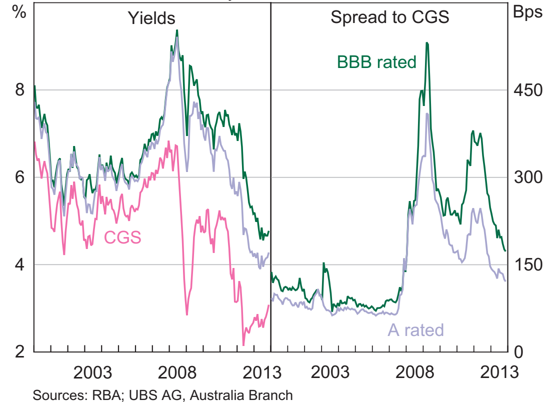
Business Financing

Australian corporate bond issuance has picked up in recent months, with around $15 billion issued since the previous *Statement* (Graph 4.17). The majority of this issuance was in offshore markets, with one $5 billion US dollar-denominated deal (which included a 30-year bond) accounting for one-third of the total. Most of the remaining offshore issuance was placed into the euro market by a range of Australian companies. Issuance into the domestic market was around average at $2.3 billion, but four BBB rated bonds were issued at a tenor of seven years, which is relatively long for the domestic market. This follows five BBB rated bonds of comparable tenors issued earlier in the year and represents a significant pick-up in longer-term domestic issuance, given that only six bonds with such maturities were issued from 2007 to 2012.

Secondary market spreads of 3-year corporate bonds over CGS have narrowed by around 25 basis points since the previous *Statement*, and remain near their lowest level since the onset of the financial crisis (Graph 4.18).

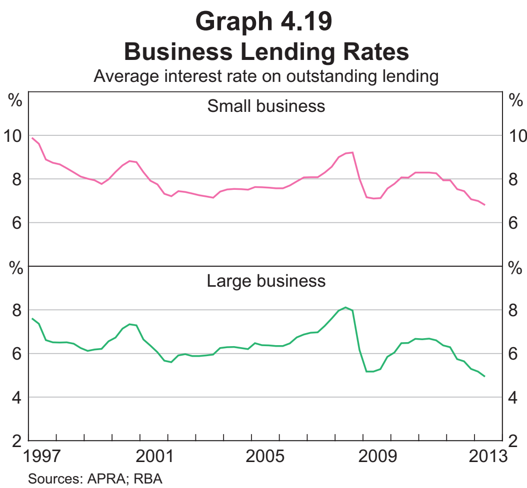
There was a slight increase in intermediated business credit over the September quarter, although the overall rate of growth remains subdued. The rise in business credit has been driven by an increased demand for loans by other financial corporations.





In contrast, growth in credit extended to private trading corporations and unincorporated businesses was little changed, which largely reflects ongoing weakness in business conditions and investment intentions.

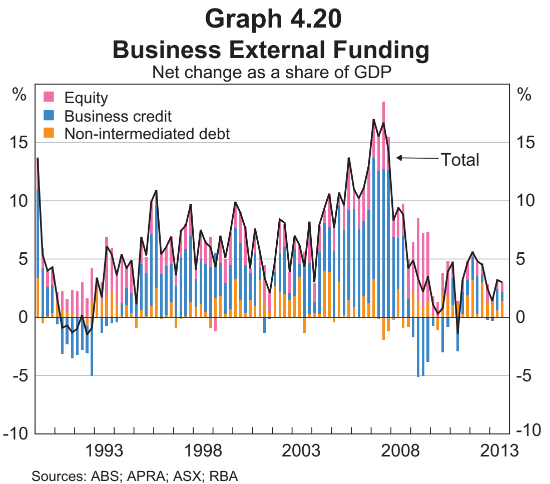
The cost of intermediated business borrowing has continued to decline since the previous *Statement*; the average interest rates on outstanding small and large business loans have both fallen (Graph 4.19). This has largely reflected the ongoing repricing of fixed-rate and bill-financed lending. Rates on small and large business loans outstanding are now around 150 and 200 basis points below their post-1996 averages, respectively.



Activity in the Australian syndicated lending market softened in the September quarter, although this was partly seasonal. Over the past few years, the value of outstanding syndicated loans has been little changed, largely reflecting a general decline in acquisition activity since the financial crisis. While there has been an increase in lending by Asian institutions, this has mostly offset a decline in lending by European institutions.

Equity raisings by listed corporations totalled $3 billion during the September quarter, well below their historical average. Initial public offerings (IPOs) amounted to $770 million during the quarter, with the majority of this the result of one new listing. Around $6 billion in merger and acquisition deals have been announced by listed corporations since the previous *Statement*. The largest two transactions were Westpac's $1½ billion acquisition of Lloyds Banking Group's Australian finance business and corporate loan portfolio and a $1½ billion joint venture between Boral and a US industrial firm.

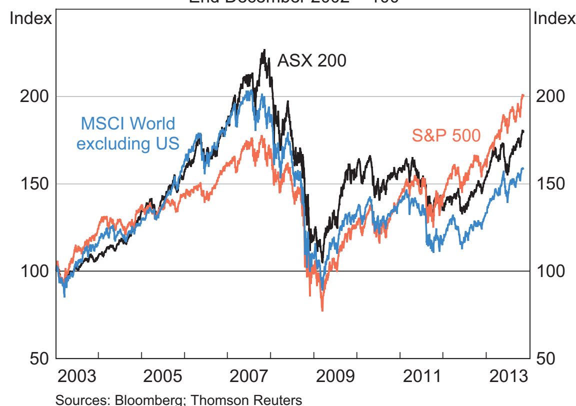
Overall, external business funding is estimated to have risen by the equivalent of 3 per cent of GDP in the September quarter (Graph 4.20). A slowing of business credit provided by financial institutions was partly offset by an increase in non-intermediated debt issuance; equity raisings were stable during the quarter.



Equity Markets

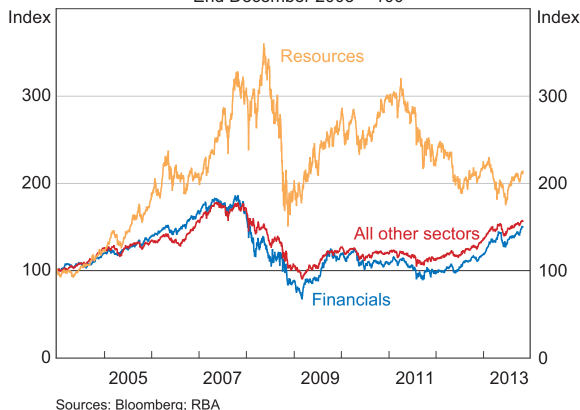
Australian equity prices have increased by around 7 per cent since the last *Statement*, reaching a 5½-year high in October (Graph 4.21). Domestic equity prices have been supported by a broadly positive reaction to the local profit reporting season in August and better-than-expected Chinese economic data. Market sentiment responded positively to the US Federal Reserve's decision in September not to commence the tapering of its asset purchase program. Australian equities generally outperformed US equities over the past three months.

Graph 4.21
Share Price Indices
End December 2002 = 100



Sources: Bloomberg; Thomson Reuters

Graph 4.22
Australian Share Price Indices
End December 2003 = 100



Sources: Bloomberg; RBA

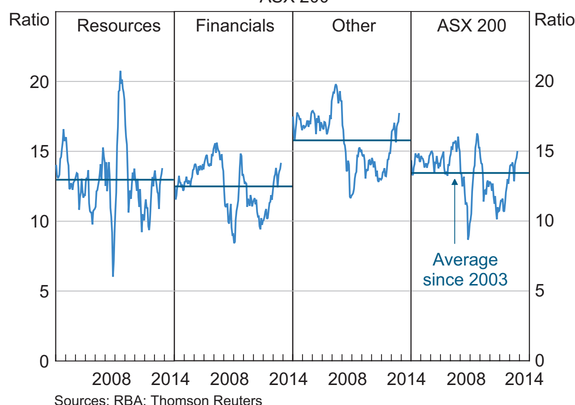
Resource sector share prices have risen by 8 per cent since the previous *Statement* and by around 23 per cent since the equity market trough in late June. They have been supported by positive September quarter production reports as new capacity has come on line, and the recovery in the prices of base metals (Graph 4.22).

Financial sector share prices have increased by 9 per cent since the previous *Statement*, with domestic bank valuations benefiting from a rise in bank share prices globally. Share prices in other sectors have risen by 4 per cent, largely due to strength in the more cyclical sectors.

Similar to international markets, the option-implied volatility of Australian equities has been little changed in recent months despite the market's reassessment of the future path of US monetary policy and the political disagreement over US fiscal policy.

The valuation of Australian equities, as measured by forward price-earnings (PE) ratios, has risen since the last *Statement* and these measures are now above their averages of the past decade across all three broad sectors (Graph 4.23). Valuations have increased as a result of both the increase in equity prices and small downward revisions to earnings expectations in some sectors.

Graph 4.23
Australian Forward Price-earnings Ratios
ASX 200



Sources: RBA; Thomson Reuters

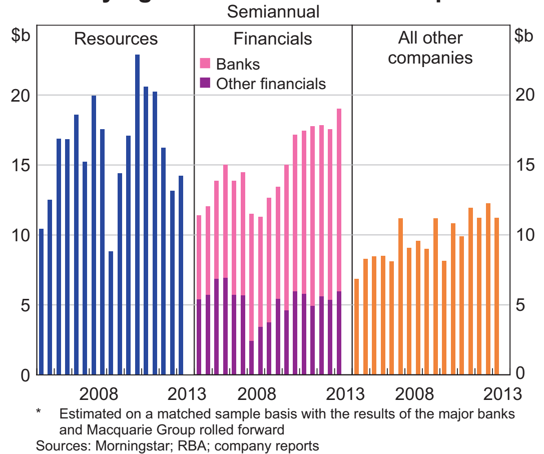
ASX 200 companies reported their June half 2013 earnings results during August. In aggregate, underlying earnings, which exclude the impact of non-recurring items, were marginally lower than in the same period last year, but rose by 3½ per cent over the December 2012 half.

Resource sector profits increased by 8 per cent in the first half of 2013 as companies continued to bolster revenues by containing costs and increasing production and sales volumes (Graph 4.24). However, underlying earnings are 12½ per cent below the same period in 2012 owing to the impact of lower commodity prices, particularly for iron ore.

Underlying profits in the financial sector rose by 11½ per cent in the half year to June 2013. As noted previously, this mainly reflected the improvement in operating conditions for banks. Underlying earnings of corporations outside the resources and financial sectors declined by 8½ per cent from the December half, to be around their levels of a year ago.

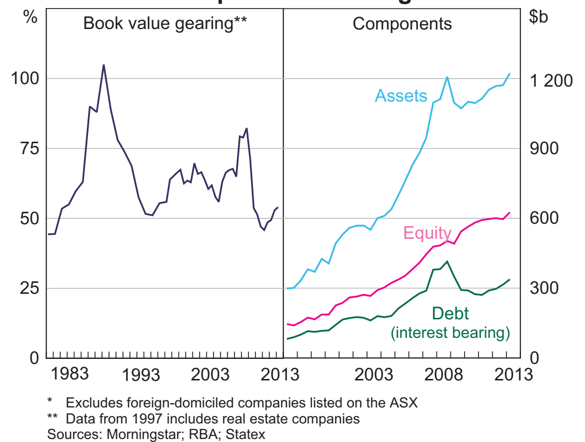
Listed corporations' balance sheets expanded by 4½ per cent over the first half of 2013, partly due to the depreciation of the Australian dollar increasing the value of assets held offshore (Graph 4.25). At the same time, the depreciation of the currency contributed to a shift in the reported funding mix towards debt, as foreign currency-denominated debt was revalued. Bond issuance by resources companies, that can currently access debt markets on relatively favourable terms, also resulted in higher aggregate corporate debt. Balance sheet equity rose by 4 per cent over the half year as an increase in profits boosted retained earnings, though this was partially offset by large asset writedowns in a small number of resources companies. As a result of these developments, and largely reflecting the impact of the depreciation of the Australian dollar, gross book value gearing of Australian corporations increased by 1½ percentage points to 57 per cent.

Graph 4.24
Underlying Profits of ASX 200 Companies*



* Estimated on a matched sample basis with the results of the major banks and Macquarie Group rolled forward
Sources: Morningstar; RBA; company reports

Graph 4.25
Listed Corporates' Gearing Ratio*



* Excludes foreign-domiciled companies listed on the ASX
** Data from 1997 includes real estate companies
Sources: Morningstar; RBA; Statex

Box D

Bank Bill Swap Benchmark Rates

Findings by the authorities in the United Kingdom, the United States and elsewhere that certain interbank reference rates had been subject to attempted manipulation have prompted reference rate administrators and standard-setting bodies to consider ways in which the governance and methodology of these benchmarks might be improved.

Following a period of public consultation, the International Organization of Securities Commissions (IOSCO) released its *Principles for Financial Benchmarks* (the *Principles*) in July. Reflecting concerns that benchmarks may not always have been representative of an underlying market, the *Principles* stress that benchmarks should be anchored in an active market and be derived from transactional data or other representations of market activity, such as executable quotes. The *Principles* identify benchmarks that are reliant on submissions from a panel of market participants as being subject to greater risk, including potential conflicts of interest.

To align with these *Principles*, the Australian Financial Markets Association (AFMA) has recently modified the process by which its bank bill swap (BBSW) benchmark rates are calculated. These rates, along with the overnight cash rate (published by the Reserve Bank), are the most important reference rates within the Australian dollar market.[1]

AFMA publishes BBSW benchmark rates for each monthly tenor out to six months, with each rate designed to reflect where prime bank bills and certificates of deposit (CDs) of that maturity are priced in the interbank market. (Currently, only the four major Australian banks are designated as prime banks.)

In the past, AFMA has relied on a panel of 14 market participants (both prime and non-prime banks) to each submit an assessment of where prime bank bills and CDs were priced at 10 am, Sydney time, to calculate BBSW. The transparent nature of the market meant there was generally little dispersion in the participants' submissions. However, following the controversy surrounding London Interbank Offered Rates (LIBOR) and other international benchmarks, banks have become less willing to participate in reference rate surveys that require a subjective assessment of market pricing. During the first quarter of 2013, four banks withdrew from AFMA's BBSW survey.

Effective 27 September 2013, AFMA no longer derives BBSW benchmark rates from a survey of market participants. Instead, AFMA directly collects executable quotes in prime bank bills and CDs from approved trading venues.[2] For each maturity, averages of the best bids and the best offers sourced from these venues are used to produce the benchmark rates.

To ensure that there will always be quotes with which to calculate BBSW benchmark rates, AFMA's conventions for the prime banks have been amended. These banks are now expected to make continuous two-way markets in prime bank bills and CDs in the period surrounding the setting of rates at 10 am. As well as a minimum parcel size, the conventions stipulate maximum bid-offer spreads

1 The Reserve Bank's process for calculating the cash rate is detailed on the Bank's website. For full details on how BBSW benchmark rates are derived, see Australian Financial Markets Association (2013), 'Bank Bill Swap (BBSW) Benchmark Rate General Conventions', October, available at <http://www.afma.com.au/afmawr/_assets/main/lib90031/bbsw%20general%20conventions.pdf>.

2 The venues currently included in AFMA's calculation process are ICAP, Tullett Prebon and Yieldbroker.

that prime banks may quote during this time. (Of course, other participants may be posting prices as well.)

The adoption of this convention has facilitated the change in AFMA's calculation process for BBSW and increased liquidity within the interbank market. While trading activity remains concentrated in the one-, three- and six-month maturities, the liquidity of the other monthly maturities has improved. Moreover, at only 1 to 2 basis points, bid-offer spreads within the market are generally well inside the maximums imposed on the prime banks.[3]

AFMA now publishes the volume of transactions executed in the period surrounding the setting of rates via those trading venues from which executable quotes have been sourced, with a one-month lag. Recent data indicate that around $750 million in trading activity occurs during this window on an average day. Additionally, a significant quantity of bills and CDs are also issued or traded at other times of the day. The outstanding amount of prime bank bills and CDs (with six months or less to maturity) is currently around $130 billion.[4]

3 Currently, prime banks must post bids and offers at a maximum spread of 3 basis points on one-, three- and six-month maturities and 4 basis points on two-, four- and five-month maturities.

4 Bills and CDs are grouped into half-month maturities for market trading. For example, a three-month CD purchased during the first half of November will have a maturity anywhere between 1 and 15 February.

5. Price and Wage Developments

Recent Developments in Inflation

Consumer price inflation has remained moderate over the past year, notwithstanding a pick-up in the quarterly rate of inflation in the September quarter. On a seasonally adjusted basis, the consumer price index (CPI) rose by 1.0 per cent in the quarter, following an increase of 0.6 per cent in the June quarter (Graph 5.1, Table 5.1). Abstracting from volatile items – which added 0.3 percentage points to headline inflation in the quarter, driven by a rise in fuel prices – there was a small increase in the quarterly pace of inflation in both tradables and non-tradables prices. The year-ended rate of consumer price inflation slowed to 2.2 per cent, as the strong quarterly outcome in the September quarter 2012, which resulted from the introduction of the carbon price and the means testing of the private health insurance rebate, dropped out of the calculation.

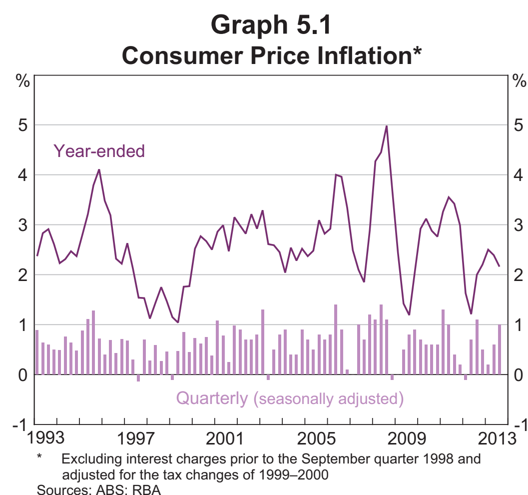


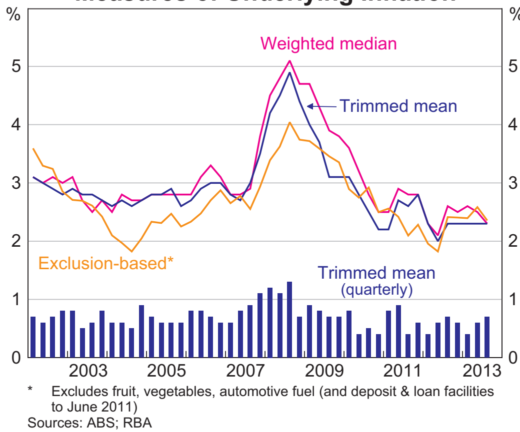
Table 5.1: Measures of Consumer Price Inflation
Per cent

	Quarterly(a)		Year-ended(b)	
	September quarter 2013	June quarter 2013	September quarter 2013	June quarter 2013
Consumer Price Index	1.2	0.4	2.2	2.4
Seasonally adjusted CPI	1.0	0.6	–	–
– Tradables	1.0	0.1	–0.1	–0.7
– Tradables (excl volatile items and tobacco)(c)	0.2	0.1	–1.1	–1.3
– Non-tradables	0.9	0.8	3.6	4.3
Selected underlying measures				
Trimmed mean	0.7	0.6	2.3	2.3
Weighted median	0.6	0.6	2.3	2.5
CPI excl volatile items(c)	0.7	0.7	2.4	2.6

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

The various measures of underlying inflation were between ½ and ¾ per cent in the September quarter, slightly higher than expected and similar to the rate of underlying inflation in the previous quarter. In year-ended terms, underlying inflation was a little above 2¼ per cent, a touch lower than the levels of the past year or so, and in the lower half of the inflation target (Graph 5.2). While it is not possible to identify precisely the impact of the introduction of the carbon price in July 2012 on underlying inflation, earlier estimates were that it would boost underlying inflation by a little more than ¼ percentage point, with the pass-through to general prices to occur over several quarters. So underlying inflation over the past year is likely to still include a small contribution from the carbon price, but this will diminish over the next couple of quarters.

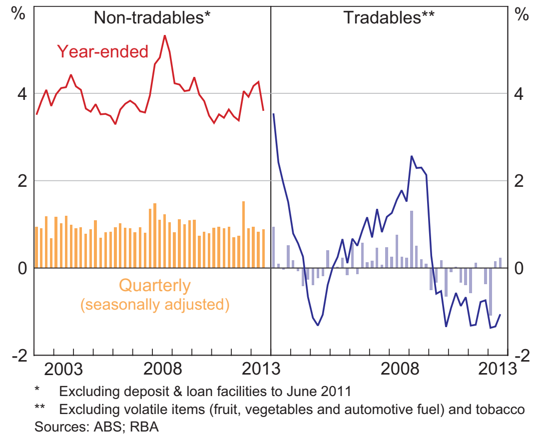
Graph 5.2
Measures of Underlying Inflation



* Excludes fruit, vegetables, automotive fuel (and deposit & loan facilities to June 2011)
Sources: ABS; RBA

Tradables prices (excluding volatile items and tobacco) increased a little in the September quarter, by 0.2 per cent, following a 0.1 per cent increase in the June quarter (Graph 5.3). This increase reflected a pick-up in inflation for food items that are considered tradable (which includes most food items apart from meals out and take-away). The increase in tradables prices over the past two quarters is in contrast to the steady decline in tradables prices over the previous three years. That decline was greater than expected given the relative stability of the exchange rate and import prices over much of that period

Graph 5.3
Non-tradables and Tradables Inflation

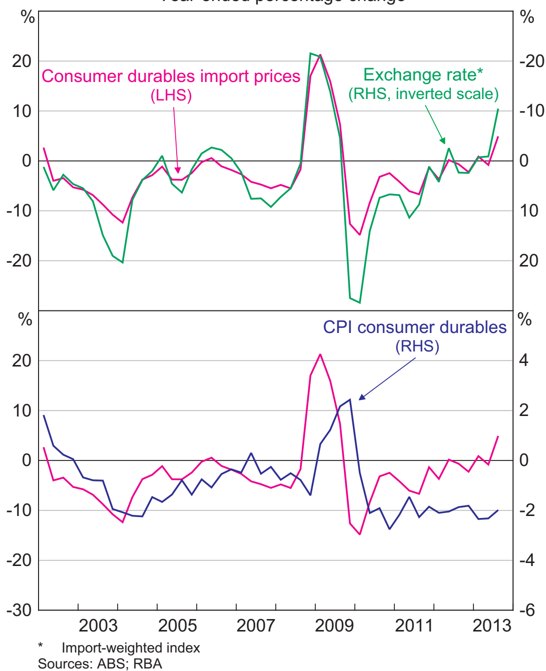


* Excluding deposit & loan facilities to June 2011
** Excluding volatile items (fruit, vegetables and automotive fuel) and tobacco
Sources: ABS; RBA

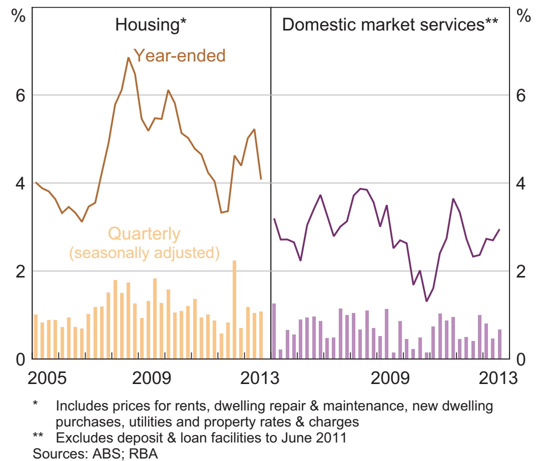
(Graph 5.4). Instead, it is likely to have reflected pronounced competitive pressures, particularly in the domestic supply chain for consumer durables.[1] Some consumer durables prices appear to have declined at a somewhat slower pace in recent quarters, although the year-ended pace of deflation has remained steady. Based on historical experience, the depreciation of the exchange rate earlier this year is, as yet, unlikely to have had much effect on most tradables prices; that effect would likely begin to show in the next few quarters.

Non-tradables inflation also picked up slightly, to 0.9 per cent in the September quarter. Notwithstanding this, the year-ended pace of non-tradables inflation slowed to 3.6 per cent, as the direct effects of the policy changes in the September quarter last year dropped out of the year-ended rate. Apart from the September quarter 2012, the quarterly pace of non-tradables inflation appears to have been relatively steady over the past couple of years, albeit at below the average pace seen over the past decade. The stability of non-tradables inflation, despite slowing growth in aggregate unit labour costs, could reflect longer than usual lags for the pass-through of labour costs, increased profit margins or noise associated with measurement.

1 See RBA (2013), 'Box B: The Recent Deflation in Consumer Durables Prices', *Statement on Monetary Policy*, May, pp 57–59.



In the September quarter, the small pick-up in non-tradables inflation reflected an increase in market services inflation, while the quarterly pace of housing inflation remained relatively steady (Graph 5.5). Market services inflation was lifted by a strong rise in the prices of domestic holiday travel and accommodation (which tend to be volatile), some of which was attributable to higher jet fuel prices. In contrast, inflation in the prices of most other market services declined. Within the housing group, there were substantial rises in utilities prices, particularly for water and gas, owing to capital investments and network cost increases in some states. These were offset by a surprising decline in new dwelling cost inflation in the quarter, with price reductions observed in Brisbane and Melbourne. The decline could, in part, reflect liaison reports of builders in some cities finding it difficult to raise prices, as well as an increase in the value of first home owner grants (which acted to reduce the cost of new dwellings in Victoria). But the decline was somewhat at odds with the pick-up in indicators of housing market activity. Rents inflation also eased, in line with the slight increase in vacancy rates over the first half of the year.

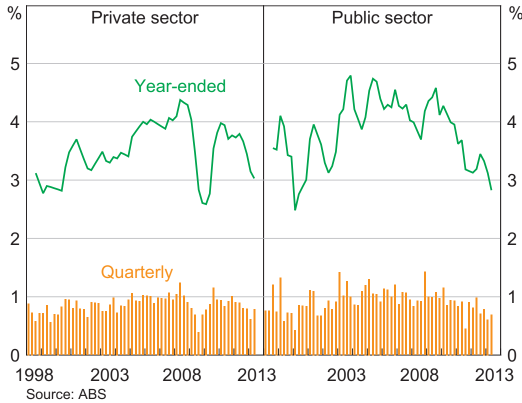


Food prices (excluding fruit & vegetables) increased by 0.5 per cent in the quarter, which was more than the 0.2 per cent increase in the June quarter. The pick-up in food price inflation was broad based across a range of items. Even so, food price inflation remains relatively subdued compared with history, consistent with reports from liaison that supermarket competition continues to place downward pressure on prices. Vegetable prices decreased by 4.9 per cent in the September quarter, while there was a modest increase in fruit prices.

Costs

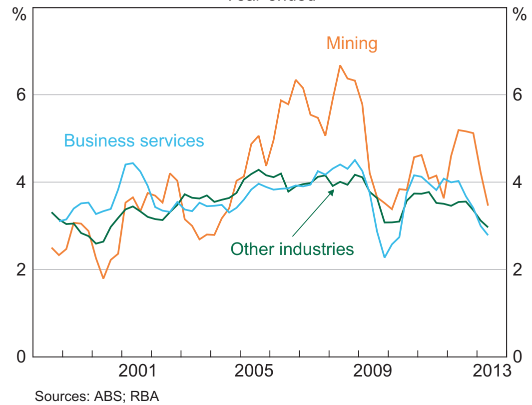
Year-ended wage growth eased further in the June quarter, consistent with the softening in labour market conditions observed over the past year or so. The wage price index rose by 0.7 per cent in the June quarter, to be 2.9 per cent higher over the year (which is ¾ percentage point below the average annual growth of the past decade). Public sector wage growth has been particularly weak in recent quarters, with year-ended growth currently at its slowest pace since 2000 (Graph 5.6). Growth

in private sector wages also continued to slow over the year, though it picked up slightly in the quarter. Business surveys and liaison suggest that wage growth remained slow in the September quarter, and firms tended to report that they expect wage growth to slow a little further over the period ahead.



The slowing in wage growth has been broad based. Over the year to the June quarter, wage growth was below its decade average in all industries and the dispersion in wage growth across industries was at its lowest level since at least 1998. Wage growth in the mining industry has slowed particularly sharply since the beginning of the year, consistent with the decline in the demand for labour in that industry (Graph 5.7). Wage growth in the business services sector (which accounts for around one-fifth of total employment) has also declined markedly, in part reflecting the decline in mining-related demand for business services, and has accounted for a large part of the slowing in aggregate wage growth over the past year.

Wage growth slowed in all states over the year to the June quarter. In New South Wales, Queensland and Tasmania, wage growth is now at its slowest pace since the early 2000s, reflecting slow growth in both the public and private sectors. In Western Australia, private sector wage growth has slowed sharply, most notably in mining and mining-related industries, and



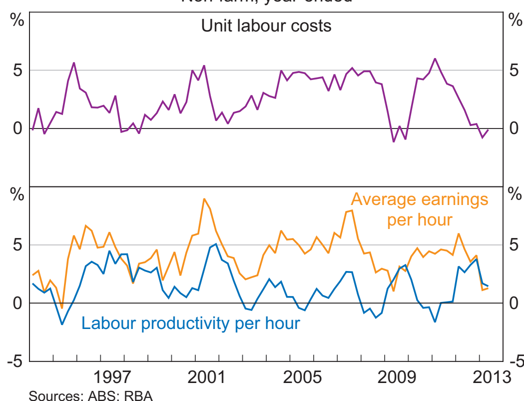
is now only slightly above the national average. In contrast, public sector wage growth in that state has remained relatively strong.

Average earnings as measured in the national accounts increased by 1.3 per cent over the year to June, which was low relative to history. At the same time, measured growth in labour productivity has slowed somewhat from the pace seen last year, to be around its 20-year average over the year to the June quarter. With average earnings and productivity having grown at around the same pace, aggregate unit labour costs are estimated to have been unchanged over the past year (Graph 5.8).

Producer price data point to a pick-up in inflation in the September quarter across all stages of production, mainly due to a rise in import prices. Nevertheless, producer price inflation remained relatively modest at around 2 per cent in year-ended terms.

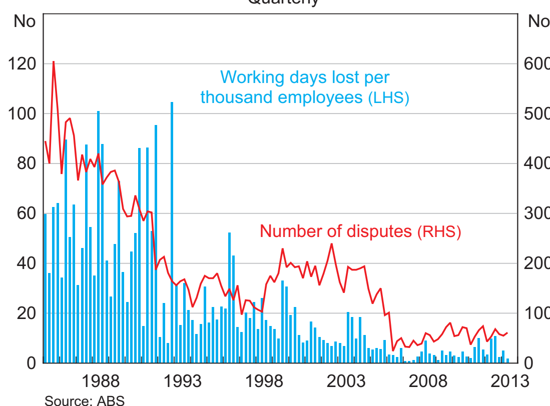
ABS data indicate that the number of working days lost as a result of industrial disputes declined in the June quarter, to be well below the decade average (Graph 5.9). This decline was driven by a fall in the average number of employees involved per dispute, which more than offset slight increases in the average duration and number of disputes.

Graph 5.8
Unit Labour Costs Growth
Non-farm, year-ended



Sources: ABS; RBA

Graph 5.9
Industrial Disputes
Quarterly

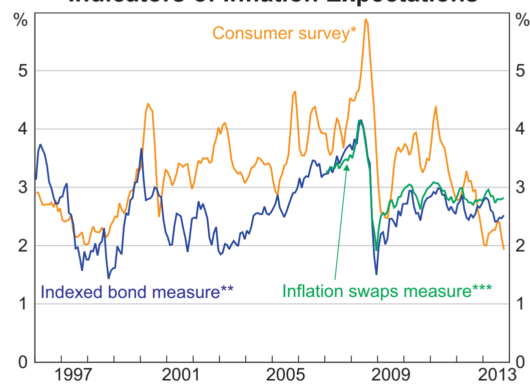


Source: ABS

Inflation Expectations

Measures of inflation expectations remain within the inflation target range, and are generally below their long-term average levels (Graph 5.10, Table 5.2). Following the higher-than-expected September quarter outcome, market economists' expectations for inflation over the year to June 2014 increased a bit, although expectations for the year to June 2015 have been revised slightly lower. Union officials' forecasts for inflation are little changed, as are financial market measures of inflation expectations, which remain below their historical average levels. The Melbourne Institute's measure of consumer inflation expectations is around its lowest level in the history of the series.

Graph 5.10
Indicators of Inflation Expectations



* Three-month moving average of the trimmed mean expectation of inflation over the next year

** Break-even 10-year inflation rate on indexed bonds

*** Expectation of average annual inflation over the next 10 years

Sources: Bloomberg; Melbourne Institute of Applied Economic and Social Research; RBA

Table 5.2: Median Inflation Expectations
Per cent

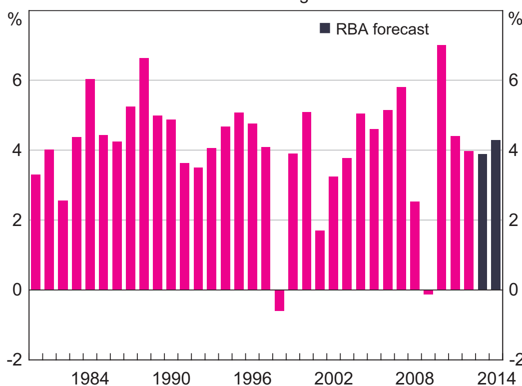
	Year to June 2014			Year to June 2015	
	May 2013	August 2013	November 2013	August 2013	November 2013
Market economists	2.6	2.6	2.8	2.6	2.5
Union officials	2.8	2.5	2.5	2.5	2.5

Sources: RBA; Workplace Research Centre

6. Economic Outlook

The International Economy

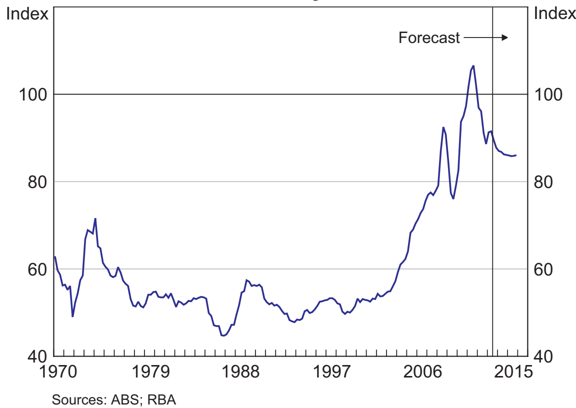
The Bank's forecast for growth in Australia's major trading partners is little changed from the August *Statement* for both 2013 and 2014. In 2013, trading partner growth is expected to remain slightly below its decade average of around 4 per cent before picking up to about 4¼ per cent in 2014 (Graph 6.1). This forecast is similar to those published by other forecasters.



For most countries, revisions to expected growth for 2013 since the previous *Statement* reflect published data for the second and third quarters, with relatively small changes to the outlook for the remainder of 2013 and for 2014. The Chinese economy is expected to grow a little faster in 2013 than previously anticipated, though still close to the government's target of 7½ per cent. This follows stronger-than-expected September quarter data and an upward revision to GDP in the June quarter. Domestic demand is expected to remain strong. In Japan, average growth over the forecast period is anticipated to be similar to the pace seen over the past year or so, although the increase in the consumption tax and the newly announced temporary fiscal stimulus are likely to see growth stronger in the near term than further out. In the rest of east Asia, growth for 2014 has been revised down a little, more so for the middle-income countries. Notably in Indonesia, the combination of high inflation and the tightening of monetary policy is expected to weigh on activity. The outlook for India is also a bit softer, given the recent weakness in activity and tighter monetary and fiscal policies.

In the United States, the economy is expected to gather momentum gradually through 2014, given very stimulatory monetary policy and progress already made in repairing private sector balance sheets. The recent partial shutdown of the US federal government and the protracted negotiation of an increase in the debt ceiling are likely to have had only a minor negative effect on the recovery. Economic conditions have improved a little in the euro area in recent months and, while activity remains weak, the economy is expected to record positive growth in 2014.

Over the second half of 2013, the terms of trade are forecast to retrace the gains seen over the first half of the year and then decline gradually thereafter as the global supply of bulk commodities increases (Graph 6.2). The overall profile is slightly higher than it was in the August *Statement*, in part reflecting higher-than-expected prices received for iron ore of late.



Domestic Activity

In preparing the domestic forecasts, a number of technical assumptions have been employed, as usual. The exchange rate is assumed to remain at its current level over the forecast period (A$ at US$0.95 and the TWI at 72, which is around 5 per cent higher than was assumed in the August *Statement* but still 7 per cent lower than assumed in the May *Statement*). The forecasts are based on the price for Brent oil remaining at US$104 per barrel, the same as the assumption in August. The cash rate is assumed to be unchanged over the forecast period at 2.50 per cent. The low level of the cash rate has resulted in variable borrowing rates below their 2009 lows. The working-age population is assumed to grow by 1.8 per cent each year, drawing on forecasts by the Department of Immigration and Citizenship and in line with the August *Statement*.

The starting point for the forecasts of the Australian economy is below-trend growth over the year to the June quarter 2013, with several factors weighing on growth – the fall in mining investment, moderate consumer spending growth and ongoing fiscal restraint. The available indicators suggest that growth remained below trend in the September quarter. Retail sales and the Bank's liaison point to moderate growth of household spending. Measures of current business conditions from surveys have been below average for some time. Consistent with this, non-mining investment intentions remain subdued, while the decline in mining investment has much further to run as large mining projects continue to reach completion.

On a more positive note, indicators of business and consumer confidence have risen to above-average levels in recent months. It is too early to know whether this pick-up will be sustained and whether it will transmit to economic activity. In one area where confidence has been building for longer, namely the housing market, indicators of dwelling investment continue to point to further growth. Resource exports growth has remained strong as investment projects reach completion, thereby adding to productive capacity.

GDP growth is now expected to remain below trend at close to 2½ per cent through to the end of 2014, before picking up to above trend by the end of the forecast period (Table 6.1). This outlook is a little weaker over 2014 than at the time of the August *Statement*, as the latest liaison information points to a more pronounced fall in mining investment over 2014, with some large projects delayed or looking less likely to proceed. The appreciation since the August *Statement* means that the still high level of the exchange rate is also expected to constrain activity in the traded sector by more than was expected three months ago. For consumption, the positive effects from various indicators of household sentiment are judged to be mostly offset by weaker prospects for growth of household income, owing to the labour market remaining soft through 2014.

Overall, the outlook for below-trend growth over the coming year reflects the substantial fall in mining investment, planned fiscal restraint and the still high level of the Australian dollar. On the other hand, low interest rates are stimulating dwelling construction as well as prices and turnover in the established housing market. It is likely that these trends will be associated with stronger growth in household consumption over time. Subsequently, this pick-up in demand, and the improvement in consumer and business sentiment, is expected to flow through to stronger non-mining business investment, which would contribute to higher GDP growth over 2015.

Table 6.1: Output Growth and Inflation Forecasts[a]

Per cent

	Year-ended					
	June 2013	Dec 2013	June 2014	Dec 2014	Jun 2015	Dec 2015
GDP growth	2.6	2¼	2½	2–3	2¼–3¼	2¾–4¼
Non-farm GDP growth	2.7	2¼	2½	2–3	2¼–3¼	2¾–4¼
CPI inflation[b]	2.4	2½	2¾	2–3	2–3	1½ –2½
Underlying inflation[b]	2½	2¼	2½	2–3	2–3	1¾ –2¾
	Year-average					
	2012/13	2013	2013/14	2014	2014/15	2015
GDP growth	2.6	2½	2½	2–3	2–3	2½ –3½

(a) Technical assumptions include A$ at US$0.95, TWI at 72 and Brent crude oil price at US$104 per barrel
(b) Based on current legislation for the price of carbon
Sources: ABS; RBA

The outlook for household consumption is in fact a little stronger than at the time of the August *Statement*, reflecting the balance of forces pushing in two directions. An impetus to consumption has come from the strengthening conditions in the established housing market, with increased turnover and prices, as well as higher equity prices and the apparent improvement in consumer confidence. Working in the other direction is slower income growth, given softer wage outcomes and expectations for slightly slower employment growth (reflecting the downward revision to aggregate GDP growth). Overall, while growth of consumption spending is expected to be below trend over the remainder of 2013, it could rise to a bit above trend by the end of the forecast period. With consumption spending expected to grow faster than incomes, consistent with rising wealth, the forecasts embody a modest decline in the household saving ratio towards the lower end of the range seen over recent years.

The recovery in dwelling investment is expected to continue, and to accelerate somewhat, over the forecast period. The environment for this form of investment remains favourable, with low interest rates, rental yields that are around the highest they have been for a decade and support for first home buyers that favours construction of new dwellings. Stronger conditions in the established housing market will also promote investment, including renovation activity (which tends to rise with higher housing turnover). Building approvals and other forward-looking indicators, such as loan approvals and first home owner grants for new construction, are consistent with a recovery in dwelling investment.

With governments at both the federal and state levels planning to undertake fiscal consolidation over the next few years, growth of public demand is expected to be very low relative to its historical average. Consistent with budget projections, the contribution to GDP growth from public demand over the forecast period is expected to be around one-third of its historical rate. This outlook has not changed since the previous *Statement*; at the federal level more detail will be available in the Mid-Year Economic and Fiscal Outlook.

The outlook for mining investment has been revised lower, particularly in 2014/15, primarily due to a reappraisal of the prospects for investment in the coal sector. A range of information points to some delay in the expansion of coal mining, and the viability of some of this expansion being more tentative than previously considered. Investment in iron ore and liquefied natural gas (LNG) extraction has also been revised down a little. While the expectations component of the ABS capital expenditure (Capex) survey remains strong for the mining sector, this is inconsistent with the lack of new commitments to

mining projects and a lack of current expenditure on development and planning work that would precede new projects. Given this, it is expected that mining investment will continue to decline, but to do so more rapidly from around the middle of next year. The share of mining investment in GDP is anticipated to decline by around 3 percentage points over two and a half years. The impact on GDP will be smaller in magnitude than the decline in mining investment because a large share of this investment spending is estimated to be on imported capital goods.

Overall, non-mining investment is expected to remain subdued in the near term. Surveys of firms' intentions suggest that there will be little growth in non-mining business investment over the next year or so. Also, office vacancy rates have increased and measures of capacity utilisation have been a little below average. Non-residential construction is, however, expected to be supported by the large stock of work planned or currently underway, most notably in the healthcare sector. Further out in the forecast period, non-mining investment is expected to pick up given the low level of investment and hence low growth of the non-mining capital stock over recent years, the low level of interest rates, increasing consumption growth and strong population growth. The recent pick-up in measures of business confidence and the depreciation of the exchange rate since earlier in the year support this outlook.

Prospects for export volumes remain good and exports are expected to make a significant contribution to GDP growth in the coming years. Given the significant investment that has occurred to date and is still underway, bulk commodity exports are expected to increase strongly over the next few years. Growth of resource exports is expected to pick up even more noticeably from 2016 as new LNG production facilities come on line.

With output growing below trend, the labour market has softened over 2013. The level of employment is little changed since earlier in the year, although total hours worked have continued to grow with an increase in average hours worked. The unemployment rate remains on a gradual upward trend and the participation rate has declined. The near-term outlook for employment remains soft. Forward-looking indicators of employment growth generally appear to have stabilised after falling through most of the year, although they remain at low levels. Further out, the more subdued outlook for mining investment and so for aggregate activity has seen the profile for employment revised down slightly. The winding down of mining investment from very high levels is likely to weigh on employment growth, with industries that provide inputs to mining investment projects – such as construction and business services – particularly affected. Unemployment is anticipated to continue to increase gradually for the next year or so as the economy grows at a below-trend pace. Later in 2015, the improvement in non-resource activity is expected to see employment growth pick up and unemployment begin to decline.

Consistent with spare capacity in the labour market, wage growth has eased across states and industries over the course of the past year. On some measures, wage growth has been around its slowest pace in a decade. Wage growth is expected to remain contained over the forecast period, owing to the labour market remaining soft for the next one to two years and pressures on firms to contain costs. Various leading indicators of wage growth, including surveys of firms' wage expectations and information from the Bank's liaison, also indicate that wage pressures are likely to remain limited. Overall, wage growth is expected to remain below 3 per cent over most of the forecast period.

Inflation

The forecasts for inflation are little changed, notwithstanding some influence from a slightly higher-than-expected outcome for the September quarter, the slightly weaker labour market and higher exchange rate.

The quarterly rate of inflation picked up in the September quarter, by a bit more than expected, boosted by a rise in fuel prices. Year-ended inflation declined as the direct effect of the earlier introduction of the carbon price dropped out of the calculation.

The various measures suggest that underlying inflation was around ½–¾ per cent in the quarter and the year-ended pace of underlying inflation was a touch lower than a quarter ago, at a little above 2¼ per cent.

While the exchange rate has appreciated since the previous *Statement*, it remains lower than earlier in the year. Accordingly, higher import prices are expected to add to inflation over the course of the next few years, but by a bit less than was expected three months ago. Higher import prices are expected to begin to exert an upward influence on tradables prices in the next few quarters, with increasing prices for tradables items likely to become the norm, in contrast to the deflation in these items experienced in recent years. Altogether, the forecasts anticipate that the rise in import prices will contribute up to ¼ percentage point to the annual rate of inflation over the forecast period.

Working in the other direction, the subdued outlook for the labour market in the near term is likely to exert downward pressure on wages and so inflation. Unit labour costs have been unchanged over the past year and growth of these costs is expected to remain contained over the forecast horizon. Accordingly, domestically generated inflationary pressures are likely to remain modest.

Inflation will also be affected by the price of carbon. As in the previous *Statement*, the forecasts incorporate a path for the carbon price that is based on current legislation, which stipulates a move from a fixed to floating carbon price on 1 July 2015. This would be likely to see the carbon price fall to be similar to the price of European permits. In line with projections in the Australian Government's budget, the forecasts assume a floating price of around $12 in 2015/16, down from the fixed price of around $25 in 2014/15. This change is expected to subtract under ½ per cent from CPI inflation in 2015 and around half that much from underlying inflation.

The government has stated that it intends to repeal the carbon price on 1 July 2014. Based on modelling by Treasury, the introduction of the carbon price was expected to add 0.7 per cent to the CPI and it seems reasonable to assume that its removal would result in a reduction in the CPI of a similar magnitude. Under this outcome, the forecast for CPI inflation would be lower by around 0.7 percentage points over the year to June 2015 at 1¼–2¼ per cent (with inflation in the subsequent period being higher than the current forecasts because the price of carbon would not be declining in that period). Underlying inflation would again respond by less than this, with the forecasts a little more than ¼ percentage point lower over the year to June 2015 at 1½–2½ per cent. The government has also stated its intention to increase tobacco excise in a sequence of steps over the next four years. These increases, which are not incorporated in the forecasts, would be expected to add a little less than ¼ percentage point to the forecasts for headline inflation over each of the next four years, but not affect underlying inflation.

Risks

Just as the forecast for trading partner growth is little changed from the August *Statement*, many of the risks surrounding those forecasts are as they were three months ago. For most economies, the risks appear broadly balanced. The notable exception remains the euro area, where risks to growth appear to be to the downside given the still weak state of the economy and ongoing need for resolution of banking and fiscal problems. However, the risks in the euro area economy may be becoming slightly more balanced with the improvement in conditions apparent over the past six months or so.

In China, after the authorities had signalled concern about the rapid expansion of financing earlier in the year, there was a noticeable decline in the extent of new borrowing. In August and September, however, growth of bank and non-bank lending rebounded. It remains to be seen how sustained this rebound will be. A renewed effort to address the build-up of debt could slow the pace of borrowing and so some forms of economic activity. On the other hand, failure to contain the build-up of risks in the financial system may strengthen activity in the near term but presents risks to the economy further out. Policymakers also

face challenges calibrating and implementing structural reforms: a program of significant reforms could raise the potential growth of the economy, but a failure to reform could constrain future growth. A key meeting of the Chinese Communist Party in November is expected to provide more detail on the plans for reform.

Following the two and a half week partial shutdown of the US Government, there has been only a temporary resolution of the fiscal problems, with further agreement needed by early next year to continue funding government operations and increase the debt ceiling. While the most recent events appear to have had little impact on the ongoing recovery in economic activity, the potential for another shutdown or protracted debt ceiling negotiations could contribute to ongoing uncertainty for firms and households, and hamper the recovery. Moreover, uncertainty about the timing of withdrawal of the extraordinary monetary stimulus in the United States has increased. This has resulted in some substantial moves in financial market prices and sentiment. When expansionary monetary policy settings are eventually pared back in the United States, financial conditions could tighten disproportionately in developing economies, with the possibility for negative effects on economic activity. How policymakers in these economies prepare for, and respond to, these possibilities will have a bearing on growth outcomes.

In Japan, for the improvement in economic conditions to persist, there will need to be sustained increases in business investment. The increase in the consumption tax next April will be an important hurdle for the Japanese economy, although the announcement that the tax rise will be accompanied by a temporary fiscal stimulus improves the prospects for growth at that time. There continues to be little information about the proposed structural reforms, which are critical to raising the potential growth rate of the Japanese economy.

For the Australian economy, there remains substantial uncertainty about the transition as mining investment declines and other sources of growth pick up. While the prospects for resource exports remain strong, there is considerable uncertainty around the forecasts for mining investment. This uncertainty manifested itself more recently with a reassessment of the prospects for coal investment. While there could be further cost overruns, there is little planning and development underway for new projects, which would suggest little upside risk to the profile for mining investment activity in the near term.

The forecasts encompass a recovery in non-mining business investment that is more muted than in past cyclical upturns. While this seems likely in the near term given current economic conditions and leading indicators, the low level of non-mining business investment in recent years, together with the freeing up of labour from mining investment projects and stimulatory financial conditions, could eventually see non-mining investment pick up at the faster rates seen in some past upturns. While a faster recovery would seem more likely if the recent improvement in business confidence is sustained, past experience indicates that it is very difficult to predict when such a strong cyclical upswing in business investment may occur.

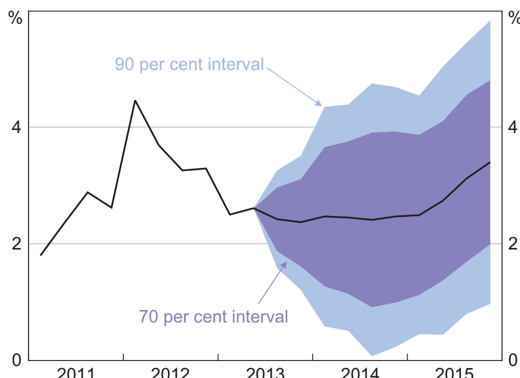
If housing market conditions strengthen more substantially, the associated boost to wealth and sentiment could result in lower saving and stronger-than-expected consumption growth. If this were accompanied by a return to increasing household leverage, it could raise concerns from the perspective of financial stability, although to date growth of housing credit overall remains moderate. On the other hand, there is a risk that households become more cautious in the face of slower income growth, resulting in weaker consumption growth.

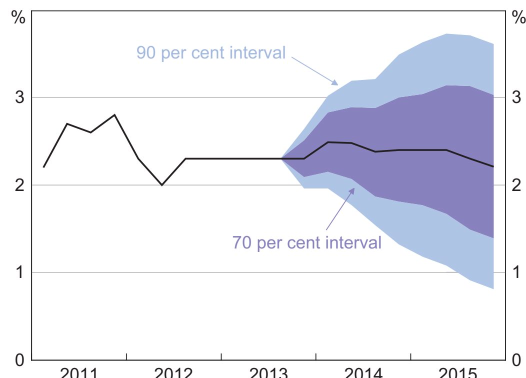
The weak outlook for growth of public demand is consistent with the fiscal consolidation underway and that which is planned. The forecasts imply that growth of public demand over the next few years will continue to be the weakest seen for at least 50 years. It is possible that with below-trend growth in the economy in the near term, governments will not restrain spending growth to the extent assumed.

A significant uncertainty for the forecasts is the path of the exchange rate. The forecasts are, as usual, predicated on a constant exchange rate. The exchange rate appreciated significantly during the past decade as higher commodity prices led to a boom in mining investment. The higher exchange rate shifted demand toward external sources, so relieving pressure on domestic capacity to accommodate the substantial increase in mining investment. The decline in mining investment, even if commodity prices remain high, will result in a reduction in the capital inflow that has been funding that investment and a reduction in domestic demand, and so could well result in a lower exchange rate. A further depreciation similar in magnitude to that seen earlier this year could be expected to see growth return to trend, or even above trend, sooner than forecast and assist with the required rebalancing of growth in the domestic economy. A depreciation of this size could also see inflation move into the top half of the target range for a time.

If the recent pick-up in confidence were to be even more durable than expected, employment and inflation might also be expected to pick up. Following a long period during which firms outside the mining sector have been reluctant to take on new risks and have been focused on containing costs, a shift in confidence might translate into more employment growth than has been assumed, thereby lifting labour costs and inflation somewhat. However, if the transition to non-mining led growth were to progress less smoothly than anticipated, then the labour market could weaken by more than is expected, resulting in lower inflation outcomes. The need for labour to shift to non-resource related jobs might also see a period during which there is an increased mismatch between the skills required for vacant jobs and those of available workers, pushing up unemployment for a time as well as limiting the economy's potential to grow without generating additional wage growth.

These identified, and other unknown, risks mean that the path for GDP and inflation may well differ from the forecasts presented. One way of demonstrating the uncertainty surrounding GDP and inflation forecasts is to present confidence intervals based on historical forecast errors (Graph 6.3 and Graph 6.4).[1] ✢





1 This is based on Bank research; see Tulip P and S Wallace (2012), 'Estimates of Uncertainty around the RBA's Forecasts', RBA Research Discussion Paper No 2012-07 and RBA (2013), 'Box E: Forecast Confidence Intervals', *Statement on Monetary Policy*, February, p 68 for further details.