Statement on Monetary Policy

NOVEMBER 2014

Contents

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Statement on Monetary Policy Enquiries

Information Department
Tel: +61 2 9551 9830
Fax: +61 2 9551 8033
Email: rbainfo@rba.gov.au

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Overview

Over the past year, growth of Australia's major trading partners (MTPs) has been around its historical average. In China, GDP growth eased marginally over the year to the September quarter, with weakness in the property sector weighing on growth of industrial production, which has slowed a little. Nevertheless, overall growth remains consistent with the authorities' target of 7.5 per cent for this year. In Japan, activity looks to have increased modestly following the sharp decline in output after the consumption tax increase in April. In the rest of east Asia, over the past two quarters output looks to have grown at around its average pace of recent years, while the US economy has grown at an above-trend pace over the same period. Meanwhile, the recovery in the euro area remains fragile, with activity growing only very modestly in recent months. Inflation has been low in all major regions of the world and global financial conditions remain very accommodative.

With global economic conditions not changing much over recent months, the outlook is still for Australia's MTP growth to be a little above its long-run average in 2014 and 2015. Growth in China is expected to trend gradually lower, one reason being that policymakers may be willing to accept some easing in growth in order to place financing on a sounder footing. GDP growth in Japan, the rest of east Asia and the euro area is expected to be around their averages of the past decade, which are quite a bit slower than their longer-term averages. Growth in the US economy is expected to continue at an above-trend pace.

Commodity prices overall have fallen further since the previous *Statement*, with notable declines in the prices of iron ore and oil, although prices of base metals have risen. Much of the decline in iron ore prices this year owes to the increase in global supply following significant expansion in capacity, including in Australia. Some easing in the growth of Chinese steel production has also played a role. Coal prices are lower than they were earlier this year. Oil prices have declined significantly over recent months largely as a result of rising global supply, which will provide support for global growth. As a result of weaker-than-expected prices for bulk commodities, the forecast for Australia's terms of trade have been revised a little lower.

Volatility in financial markets has risen over recent months after a period of being unusually low. While there has been no obvious trigger for the increase in volatility, the divergent paths of policy in the major economies have probably contributed. Global bond yields have declined, along with market expectations for policy rates. Global equity prices have moved within a sizeable range but in net terms have been little changed and are around multi-year highs in the United States and Japan. Australian bond and equity markets have generally moved in line with global developments. The US dollar has appreciated against most currencies, particularly the yen, but remains at a low level by historical standards.

As expected, the US Federal Reserve ended its asset purchase program at its October meeting. Market pricing implies that the first increase in the US federal funds rate is expected around October 2015, later than indicated by commentary by Federal Open Market Committee members. In contrast to this, the Bank of Japan recently announced a significant expansion in its program of quantitative easing. Meanwhile, the European Central Bank is aiming to expand its balance sheet back towards the level seen in 2012, through term lending to the banking system at low rates and by purchasing covered bonds and asset-backed securities.

Australian financial conditions remain very accommodative. Lending rates have continued to edge lower for both households and businesses. The exchange rate has depreciated by about 5 per cent in trade-weighted terms since the previous *Statement*. However, the Australian dollar remains high by historical standards and, in trade-weighted terms, is above the level seen earlier in the year despite the sizeable declines in key commodity prices over the course of this year.

In 2013/14, Australian GDP growth was a bit below trend in year-average terms. Growth of mining activity remained strong, with a rise in resource exports more than offsetting large falls in mining investment. Growth of non-mining economic activity was aided by very low interest rates, with a noticeable increase in dwelling investment and a modest increase in consumption growth. However, non-mining business investment remained subdued. Public demand made a positive contribution to growth.

Over recent months, the composition of growth appears to have been little changed and its pace looks to have been a bit below trend.

Resource exports have continued to grow strongly, as new capacity has come on line. Australian production of iron ore is likely to expand further, despite the substantial decline in prices over this year, and the production of liquefied natural gas from new facilities will begin to ramp up gradually over coming quarters. Coal production is expected to be sustained at a high level even though a few smaller, higher-cost mines have closed in response to lower coal prices. As projects for bulk commodities continue to reach completion, and with only a few new projects under consideration, mining investment is expected to decline more sharply over coming quarters than the decline seen to date.

Surveys of business confidence and conditions, as well as capacity utilisation, have all increased since last year to be around average levels. Non-mining business investment, however, remains subdued, and liaison continues to suggest that firms are reluctant to undertake significant new investment projects until they see a more substantial improvement in demand. Even so, the Australian Bureau of Statistics' capital expenditure survey suggests that modest growth of non-mining business investment is in prospect for this financial year. In line with this, there is a substantial pipeline of non-residential building work yet to be done, although the prospect for non-residential building over the medium term is less positive than it was earlier as approvals for these projects have declined over the course of this year.

Strong growth in dwelling investment is likely to continue, as evidenced by the high level of building approvals and strength in other forward-looking indicators. Conditions in the established housing market also remain strong. Housing price growth has slowed from the rapid pace of late last year, but is still quite high in Sydney and Melbourne. While growth of housing credit for owner-occupiers is only a little above that of income, investor credit continues to grow at a noticeably faster rate.

Household consumption appears to be growing moderately, reflecting the opposing forces of slow growth in incomes on the one hand and very low interest rates and strong increases in wealth on the other. Consumption is expected to continue growing a little faster than income, which implies a further gradual decline in the saving ratio.

Conditions in the labour market remain subdued. On revised estimates, the unemployment rate has risen a little over the past six months. Employment has grown by about 1 per cent over the year to date, which is somewhat slower than population growth. Forward-looking indicators have increased to levels consistent with moderate employment growth in coming months. Meanwhile, wage growth remains low, which is in line with a degree of spare capacity in the labour market.

CPI inflation declined in the September quarter, following several quarters where it had been rising. Much, though not all, of the decline in inflation in the September quarter reflected the effect of the removal of the carbon price on utility prices. Underlying inflation also declined in the September quarter to ½ per cent from ¾ per cent, to be 2½ per cent in year-ended terms. The prices of tradable items (excluding volatile items and tobacco) were lower in the September quarter, though they still remain higher than a year earlier. While tradables inflation tends to be quite volatile from quarter to quarter, the decline in prices in the September quarter was unexpected, given that prices of tradable items had been picking up in response to the depreciation of the exchange rate since early 2013. Non-tradables inflation (excluding utility prices) was little changed in the quarter and remains relatively low in year-ended terms, consistent with weak domestic cost and margin pressures. The low growth of wage costs is particularly apparent in the low inflation of market services, for which labour is a substantial input. In contrast, inflation of new dwelling costs increased in line with the strength of activity in the housing market.

The outlook for domestic growth has not changed from that presented in the August *Statement*. GDP growth is still expected to be below trend until mid 2015, before picking up gradually to be a bit above trend by the end of 2016. The key forces shaping the economy and the outlook are much as they were previously. The low level of interest rates and strong population growth are expected to continue to underpin rising housing activity and housing prices. These, in turn, are expected to support consumption through their effect on household incomes and household wealth. In time, a pick-up in household demand should support higher business investment in the non-mining sector. Exports, especially of resources, are expected to continue to contribute to growth, while declining mining investment and, to a lesser extent, fiscal consolidation at both the state and federal levels are likely to weigh on growth over the forecast period.

A gradual strengthening of economic growth should, in time, lead to stronger growth of employment. However, in the near term, with growth in economic activity forecast to remain below trend, the unemployment rate is likely to stay elevated.

Inflation is projected to remain consistent with the target over the forecast period. The depreciation of the exchange rate since early 2013 is expected to exert some further upward pressure on inflation over the next couple of years, but spare capacity in labour and product markets will continue to weigh on domestic inflationary pressures for some time.

Overall, the risks to the global economic outlook appear to be broadly balanced. A key risk is the condition of the Chinese property market, which has been a source of uncertainty for some time. The Chinese authorities had earlier been trying to engineer a slowing in the growth of property prices. Now that the market has turned down, some restrictions on purchasing have been removed in most cities and the authorities have acted to provide some support to purchasers and developers. It is too early to know how effective these efforts will be, or what implications the slowing in the Chinese property market may have for Chinese commodity demand, economic activity or financial stability.

The path of the exchange rate is another significant source of uncertainty for the forecasts. Notwithstanding the depreciation over recent months, the Australian dollar remains above most estimates of its fundamental value. A lower exchange rate would help to achieve more balanced growth in the economy. It would also put some temporary upward pressure on inflation. However, the recent announcements in Japan on monetary policy and pension fund asset allocation increase the probability of consequent capital flows seeking more attractive yields on various assets in Australia (along with other destinations). Such flows could hold the Australian dollar at a higher level than real economic fundamentals would imply.

Domestically, an important source of uncertainty continues to be the speed and timing of the anticipated recovery in non-mining business investment. While the recent data suggest that a substantial pick-up in non-mining investment is still some way off, the fundamental factors supporting investment remain in place, including low interest rates, strong population growth, gradually rising capacity utilisation and a period of weak investment over the past few years. If the appetite for businesses to take on risk improves, growth in non-mining business investment could eventually be stronger than forecast.

While consumption appears to have been growing moderately, those states where the housing market has been especially strong have also seen stronger growth in consumption and economic activity more generally over the past year. This suggests that consumption growth may pick up faster than expected if property markets in other parts of the country strengthen. However, it is also possible that the increase in wealth from rising housing prices is having less of an effect on consumption than has been the case previously. This would suggest that consumption growth might pick up by less, and the saving ratio fall by less, than forecast.

The cash rate has been unchanged at its current low level for over a year and interest rates paid by borrowers have declined slightly over this period. The very low levels of interest rates are having the sorts of effects normally expected on the economy, contributing to a pick-up in the growth of non-mining activity via strong growth in dwelling investment and providing support to growth in household expenditure more generally. Also, the conditions are in place for stronger growth in non-mining business investment. Despite the recent depreciation of the exchange rate, the Australian dollar remains above most estimates of its fundamental value, particularly given the further declines in key commodity prices over the course of this year. As a result, the exchange rate is offering less assistance than would normally be expected in achieving balanced growth in the economy.

The very accommodative monetary policy settings will continue to provide support to demand and help growth to strengthen, in time. Meanwhile, inflation is expected to be consistent with the 2–3 per cent target over the next two years. Given that assessment, the Board's judgement at its recent meetings has been that monetary policy is appropriately configured to foster sustainable growth in demand and inflation outcomes consistent with the target. On present indications, the most prudent course is likely to be a period of stability in interest rates.

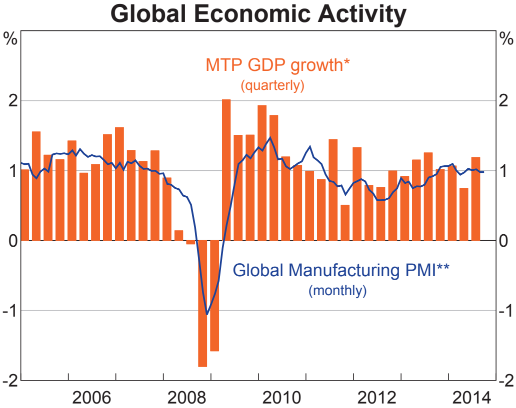
1. International Economic Developments

Overall, growth of Australia's major trading partners (MTPs) was around its long-run average over the past year. In the September quarter, MTP growth looks to have picked up following below-average growth in the June quarter, which largely reflected the sharp fall in Japanese economic activity after the consumption tax increase in April. The global manufacturing PMI has been steady over recent months, at levels consistent with average growth (Graph 1.1). Output growth in China eased marginally, while the US economy continued to grow at, or a little above, trend. Economic activity in the euro area has expanded only modestly since the start of the year and the recovery there remains fragile. Global inflation remains low, particularly in the advanced economies, and monetary policy is expansionary in all major regions. Commodity prices, particularly for the bulk commodities that dominate Australia's exports, have declined over the past year, reflecting a combination of increased supply and, more recently, some softening in the growth of Chinese demand for steel. Oil prices have also fallen in recent months, which largely reflected higher global supply.

Asia-Pacific

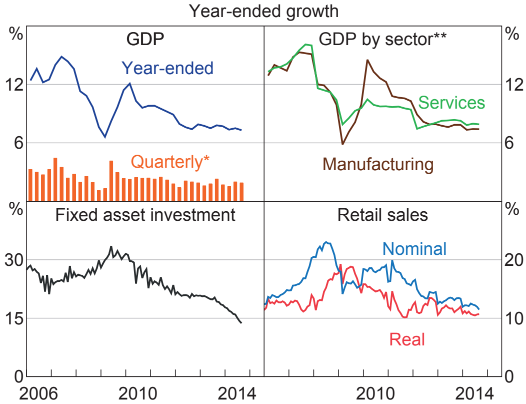
In China, GDP growth was little changed at 1.9 per cent in the September quarter, to be 7.3 per cent in year-ended terms (Graph 1.2). Growth of industrial production was also steady in the quarter. Growth has continued to shift gradually away from the agricultural and manufacturing sectors towards the services sector. The composition of growth has also evolved on the expenditure side, as consumption growth has held steady while the contribution of investment to growth appears to have eased further.

Graph 1.1
Global Economic Activity



* Aggregated using Australia's export shares; RBA estimate for September quarter 2014
** PMI rescaled to match MTP GDP growth
Sources: ABS; CEIC Data; Markit Economics; RBA; Thomson Reuters

Graph 1.2
China – Activity Indicators
Year-ended growth



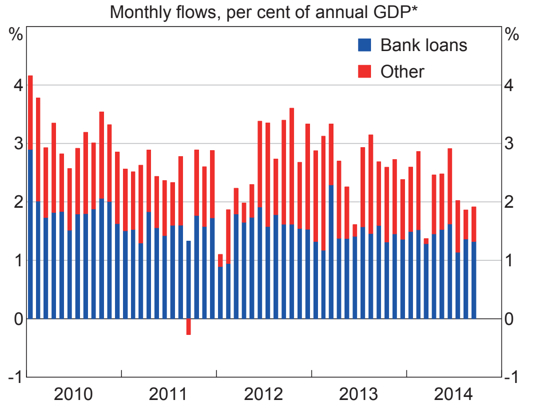
* RBA estimates prior to the December quarter 2010
** Year-to-date; manufacturing and services sectors refer to secondary and tertiary gross value added
Sources: CEIC Data; RBA

The pace of GDP growth is close to the authorities' 7.5 per cent target for 2014, while employment growth in 2014 appears to have exceeded the target of 10 million new urban workers. The limited stimulus measures over the past year have generally been targeted at the rural sector, small businesses and housing purchasers and developers. A number of new infrastructure investment approvals have also been issued in recent months, but there has been no evidence yet of a substantial pick-up in infrastructure investment growth. Although the authorities have sought to limit overall financing flows given the already high levels of debt in the economy, they have adjusted policies to promote financing for home purchases and provided additional funds to financial institutions through the People's Bank of China's standing facilities (see the 'International and Foreign Exchange Markets' chapter).

The flow of new total social financing (TSF) has eased in recent months, continuing its trend decline over the past 18 months or so (Graph 1.3). Flows related to non-bank and off-balance sheet financing activity were noticeably lower. This is likely to reflect recent regulatory changes intended to moderate these flows, including: limiting banks' activities in the interbank market to reduce their ability to circumvent loan-to-deposit ratios; requiring assets purchased under repurchase agreements to be kept on balance sheet and incur a capital charge; and restricting banks' ability to reduce the risk-weighting of assets underlying trust company loans.

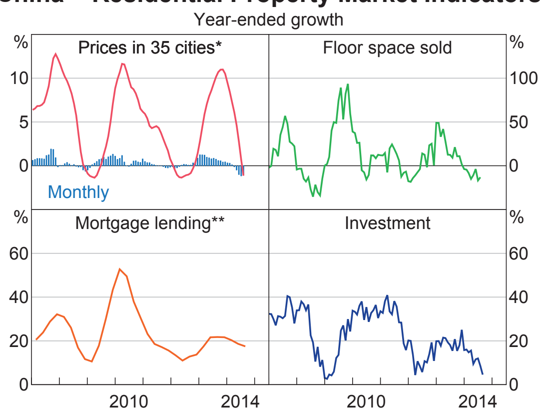
The Chinese residential property market has continued to weaken. Prices of new properties have declined by about 4 per cent since April, which is a larger decline than was experienced in other downturns over the past ten years or so (Graph 1.4). Transaction volumes and investment growth have also declined further over recent months. Restrictions on the purchase of residential property have been eased in most locations apart from the four largest cities and, in some local jurisdictions, measures to encourage property sales have been introduced. In September, the central government made changes to support the property market.

Graph 1.3
China – Total Social Financing



* Seasonally adjusted by RBA
Sources: CEIC Data; RBA

Graph 1.4
China – Residential Property Market Indicators

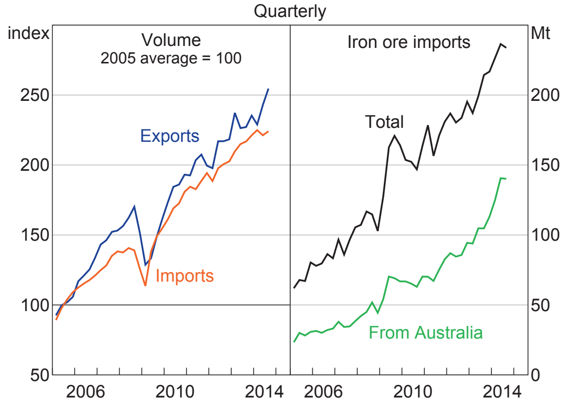


* Newly constructed property
** Total real estate loans minus development loans
Sources: CEIC Data; RBA; WIND Information

Lending policies for homebuyers were eased by lowering the floor on mortgage interest rates relative to the benchmark rate and increasing the maximum loan-to-valuation ratio applying to second properties for homebuyers without an outstanding mortgage. Real estate developers' access to finance was also broadened, and banks have been actively encouraged to lend to financially sound projects.

Export growth was strong in the September quarter, particularly to the United States, euro area and east Asia (excluding Japan) (Graph 1.5). However, an unusually sharp rise in exports to Hong Kong has renewed speculation among commentators that

Graph 1.5
China – Merchandise Trade*
Quarterly



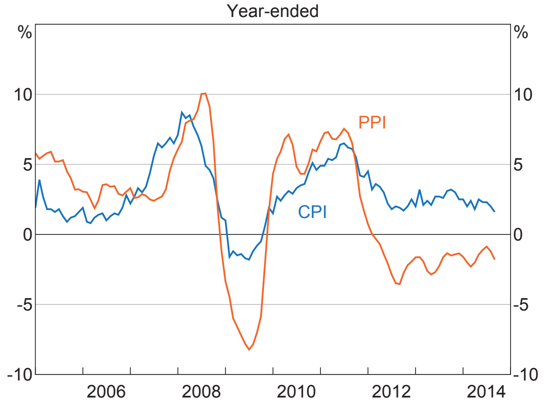
* Seasonally adjusted by RBA
Sources: CEIC Data; RBA

growth of Chinese exports has been overstated due to the false invoicing of exports to disguise illicit capital flows. Imports have not grown as strongly as exports, which is consistent with slower growth of domestic activity, and investment in particular. Following earlier substantial increases, the volume of iron ore imports declined a little, including those from Australia.

Inflationary pressures in China remain subdued (Graph 1.6). Year-ended CPI inflation in September declined to 1.6 per cent, well below the authorities' target of 3.5 per cent. The easing in CPI inflation has been driven by lower food price inflation. Producer prices continued to decline in year-ended terms, albeit not as rapidly as was the case a year or more ago.

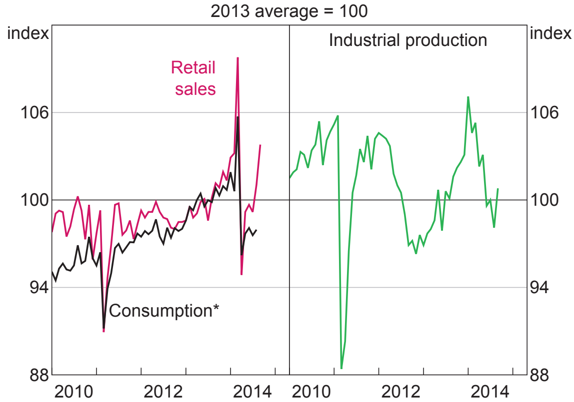
In Japan, GDP contracted sharply in the June quarter. A decline was widely anticipated after consumers brought consumption forward ahead of the increase in the consumption tax rate on 1 April.[1] Consumption fell sharply in the quarter. More recent consumption indicators, including retail sales, suggest that there has been a pick-up in the September quarter (Graph 1.7). Investment also fell sharply in the June quarter. Business surveys suggest conditions have improved in recent months and industrial production rose a little in September following several months of decline.

Graph 1.6
China – Inflation
Year-ended



Sources: CEIC Data; RBA

Graph 1.7
Japan – Economic Indicators
2013 average = 100



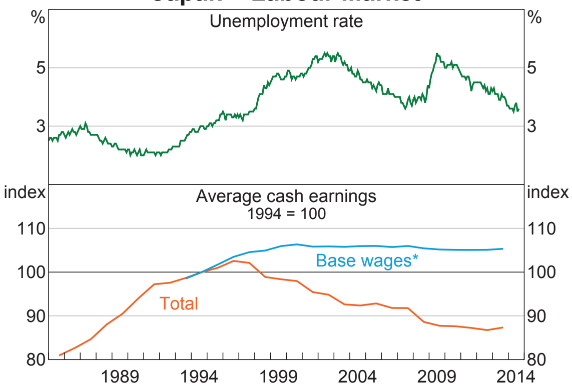
* The Cabinet Office's monthly measure of real private consumption
Sources: CEIC Data; Thomson Reuters

Despite the recent weakness in activity, the labour market has continued to tighten. The unemployment rate is around its lowest level in 15 years and there are more job vacancies than applicants (Graph 1.8). The tightness in the labour market has been associated with the first increase in average earnings in some years. To date, this has been driven by increases in bonus and overtime payments, suggesting that businesses remain cautious about the durability of the improvement in economic conditions seen over the past two years.

Headline inflation has eased over recent months, as the effect of the earlier depreciation of the yen on

1 See RBA (2014), 'Box A: Japan's Consumption Tax Increase', *Statement on Monetary Policy*, February, pp 12–13.

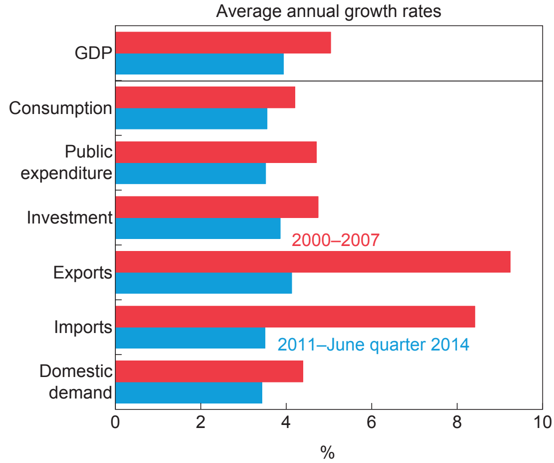
Graph 1.8
Japan – Labour Market



* Full-time workers only

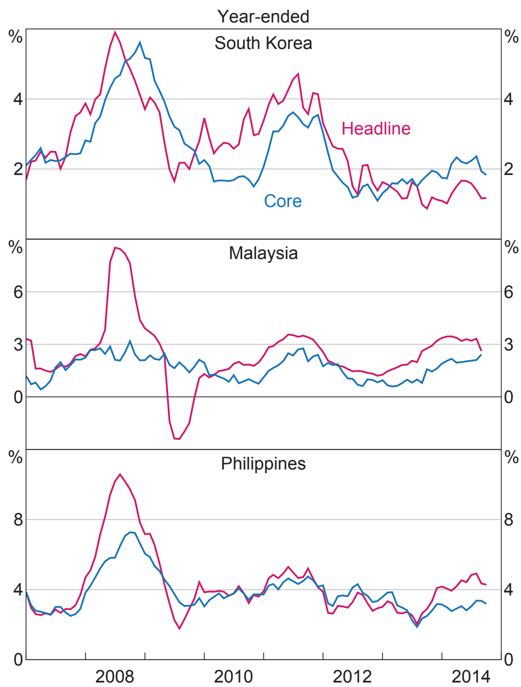
Sources: CEIC Data; RBA; Thomson Reuters

Graph 1.9
East Asia – Expenditure on GDP



Sources: CEIC Data; IMF; RBA

Graph 1.10
East Asia – Inflation



Sources: CEIC Data; RBA

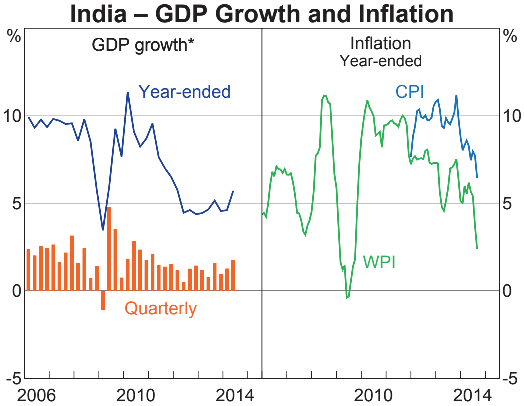
import prices has faded. The easing has been most evident in energy prices, which have also been affected by lower world oil prices more recently. Core inflation has been relatively stable in year-ended terms of late. Excluding the effects of the consumption tax increase, year-ended core inflation was around 0.7 per cent in September and core services prices, which give a clearer indication of domestic price pressures, have been unchanged over the past year. The Bank of Japan eased monetary policy further in late October, citing declining oil prices and weakness in demand (see 'International and Foreign Exchange Markets' chapter). Market expectations of inflation for the next few years are a little above 1 per cent, after increasing following the election of Prime Minister Abe in late 2012.

In the rest of east Asia, GDP growth in the September quarter looks to have picked up a bit from its pace in the first half of 2014, to around the average of recent years. Nevertheless, growth has been slower on average across the region than prior to the global financial crisis. In particular, export growth has been less than half of its pre-crisis rate, while GDP and domestic demand growth have both slowed by around 1 percentage point (Graph 1.9).

Monetary policy was eased in Korea in August and October following weak growth in the June quarter and a decline in inflation (Graph 1.10). In contrast, monetary policy was tightened earlier this year in Malaysia and the Philippines in response to a pick-up in inflation and improved growth prospects.

Growth in the Indian economy improved in the June quarter, although it remains well below the pace seen prior to the global financial crisis. GDP (at factor cost) increased by 5.7 per cent over the year, reflecting a pick-up in growth in industrial production and construction output (Graph 1.11). Investment grew relatively strongly in the quarter, and the Government has announced its intention to promote investment by reducing supply-side bottlenecks and improving infrastructure. In response, indicators of business confidence have strengthened in recent quarters and there have been tentative signs of a pick-up in investment approvals. However, recent legal developments, including a ruling in India's Supreme Court that since 1993 most coal mining licences have been awarded illegally, have also presented obstacles to some investment.

Graph 1.11
India – GDP Growth and Inflation



* Measured at factor cost
Sources: CEIC Data; RBA

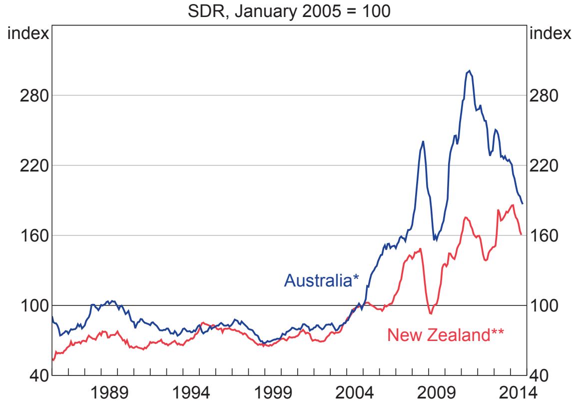
Consumer price inflation over the year to September declined to 6.5 per cent, which is below the Reserve Bank of India's (RBI's) goal of 8 per cent by the beginning of 2015.[2] However, the RBI has suggested that there is a significant chance that CPI inflation will exceed the 6 per cent goal for January 2016. Food price inflation has continued to ease of late, but it remains high.

New Zealand's economy has grown strongly over the past year. Private investment has contributed substantially to growth, supported by rebuilding following the Canterbury earthquakes in 2010/11. The labour market has strengthened in recent quarters, with strong employment growth and further declines of the unemployment rate.

Wage and price pressures have remained subdued so far, with wage growth and inflation below 2 per cent over the year to the September quarter. Nevertheless, the Reserve Bank of New Zealand expects that non-tradables inflation will increase and has raised the cash rate by 100 basis points over 2014. Housing prices growth appears to have moderated following the increases in mortgage rates associated with the tightening of monetary policy and implementation of restrictions on mortgage lending to borrowers with high loan-to-valuation ratios.

Dairy prices have fallen sharply and the prices for New Zealand's commodity exports are 14 per cent below their recent peak. This compares with the 38 per cent decline in Australia's commodity prices since their peak in July 2011 (Graph 1.12).

Graph 1.12
Commodity Export Prices
SDR, January 2005 = 100



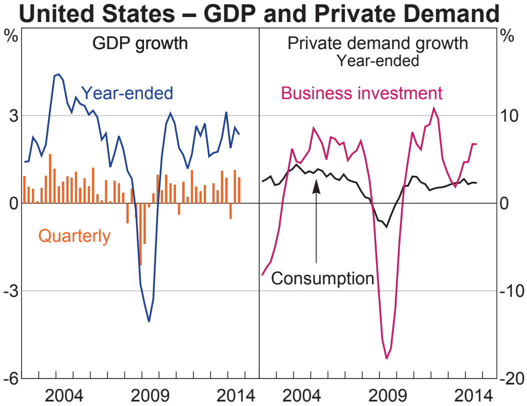
* RBA Index of Commodity Prices (ICP)
** ANZ Commodity Price Index
Sources: ANZ; RBA

2 See White G (2014), 'Measures of Inflation in India', RBA *Bulletin*, September, pp 39–46.

United States

The US economy has been expanding at a pace that is close to, or even a little above, trend (Graph 1.13). Business investment has picked up noticeably of late, and firms have stepped up the pace of hiring. Consumption has continued to grow steadily, in line with growth of incomes. Public demand is no longer weighing on growth, in contrast to recent years.

Graph 1.13
United States – GDP and Private Demand

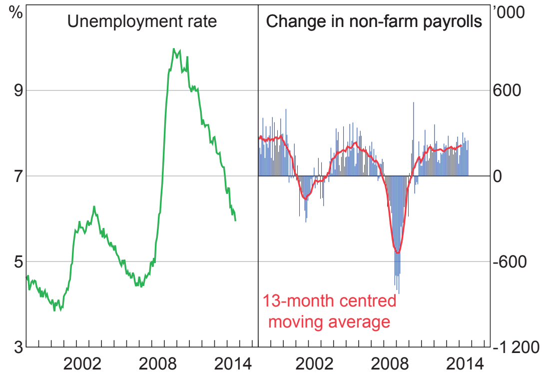


Source: Thomson Reuters

The increase in non-farm payrolls growth has been accompanied by a steady decline in the unemployment rate (Graph 1.14). A range of labour market indicators suggest that spare capacity is gradually being absorbed, although not as rapidly as the declining unemployment rate suggests. In particular, the shares of the labour force that are marginally attached workers, long-term unemployed and people working part-time for economic reasons have declined more slowly than the unemployment rate, and remain elevated relative to history. Wage growth, as measured by the economic cost index, has picked up over recent quarters to 2.8 per cent in six-month-ended annualised terms, a little below its long-run average pace.

Inflation has declined a little over recent months, after picking up earlier in 2014. In year-ended terms, personal consumption expenditure inflation remains below the Federal Open Market Committee's (FOMC)

Graph 1.14
United States – Labour Market



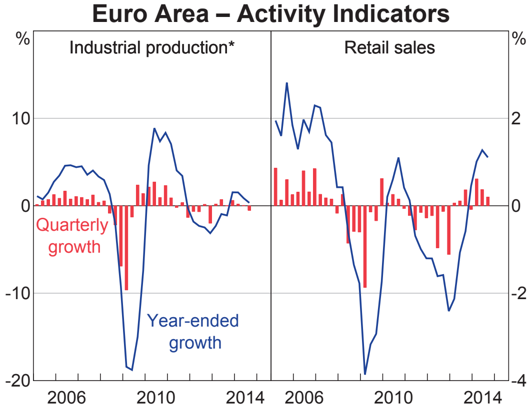
Source: Thomson Reuters

goal of 2 per cent. At its October meeting, the FOMC ended its asset purchase program (see 'International and Foreign Exchange Markets' chapter).

Europe

The recovery in the euro area remains fragile. GDP was little changed in the June quarter and most indicators of activity suggest modest growth in the September quarter at best. Retail sales grew moderately over the past year but industrial production has been unchanged over the same period (Graph 1.15). Business surveys and measures of consumer confidence have declined a little in the September quarter, although they are still consistent with some growth.

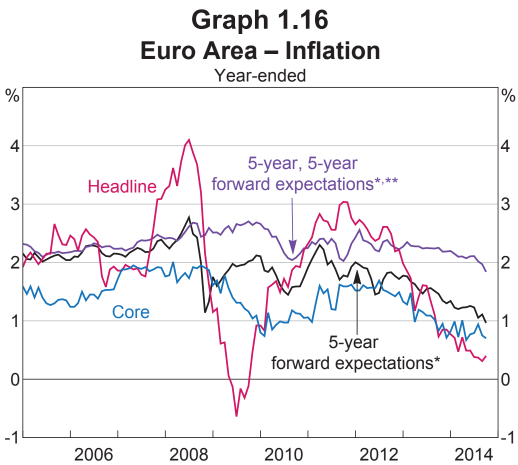
Graph 1.15
Euro Area – Activity Indicators



* Estimate for September quarter 2014
Sources: RBA; Thomson Reuters

Unemployment rates have declined since late 2013 in most euro area countries but they remain high. Headline inflation declined further in recent quarters, to be 0.4 per cent over the year to October, in large part due to lower energy prices and moderating food price inflation (Graph 1.16). Core inflation remained stable at 0.7 per cent.

In response to weak growth and low and declining inflation, the European Central Bank announced further stimulatory measures at its September meeting (see 'International and Foreign Exchange Markets' chapter). Despite this, measures of inflation expectations have declined a little further.



* Break-even inflation rates from inflation swaps
** Inflation expectations for 5–10 years into the future
Sources: Bloomberg; RBA; Thomson Reuters

In the United Kingdom, GDP growth has picked up over the past year, with contributions from both private consumption and investment. Housing prices have grown strongly over the past 18 months, although there are signs that price growth has been easing more recently. The unemployment rate has decreased markedly alongside the increase in activity, while wage growth remains subdued and year-ended inflation remains below the Bank of England's target of 2 per cent.

Commodity Prices

The RBA index of commodity prices has declined (in SDR terms) on average in the past three months, driven by noticeable falls in the spot price for iron ore (Table 1.1; Graph 1.17). Increases in the supply of iron ore, particularly from Australia and Brazil, have weighed on spot prices, which fell to their lowest level since 2009 (Graph 1.18). In recent months, softer growth in demand for steel production from China is also likely to have contributed, consistent with slowing growth of real estate investment. This has also weighed on the demand for coking coal.

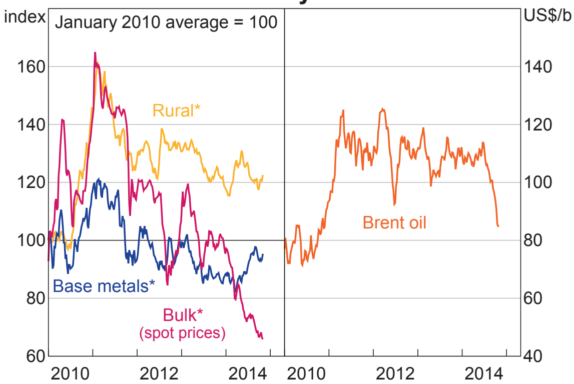
At current spot prices of a bit below US$70 per tonne, most Australian iron ore production remains profitable. Although margins for Australian miners have contracted, the recent depreciation of the exchange rate has partially offset the impact of

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

	Since previous *Statement*	Over the past year
Bulk commodities	–8	–31
– Iron ore	–12	–38
– Coking coal	1	–21
– Thermal coal	–5	–15
Rural	–4	–2
Base metals	4	7
Gold	–1	–6
Brent oil[(b)]	–14	–15
RBA ICP	–4	–16
– using spot prices for bulk commodities	–4	–18

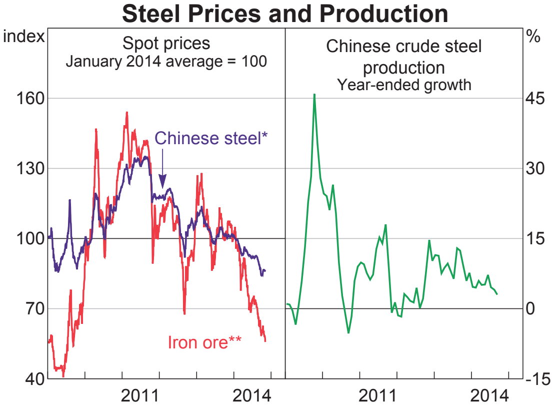
(a) Prices from the RBA Index of Commodity Prices (ICP); bulk commodities prices are spot prices
(b) In US dollars
Sources: Bloomberg; IHS Energy Publishing; RBA

Graph 1.17
Commodity Prices



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

Graph 1.18
Steel Prices and Production



* Average of hot rolled steel sheet and steel rebar prices
** Free on board basis
Sources: Bloomberg; CEIC Data; RBA

the falls in global prices. To date, there has been some reduction of supply in response to the price falls from higher-cost producers outside of China, although determining the exact magnitude is difficult. In China, there has been a small decline in iron ore production in recent months, with some market analysts suggesting that privately owned Chinese production has declined.

Prices for thermal and coking coal remain well below their levels of a year ago. In September, Chinese authorities announced a ban on the transport, import and local sale of coal with a high ash and sulphur content. In their current form, these measures are likely to have a relatively limited impact on Australian coal export volumes as the majority of Australian coal production meets the required standards. In addition, those producers that do not meet the standards can either substitute to other markets or improve the quality of their coal, including by washing or blending it, although this would incur additional costs. The Chinese authorities also re-introduced tariffs on coal imports in mid October. While this is likely to reduce Chinese demand for imported coal, it is too early to determine the impact on Australian coal exports.

Oil prices have fallen sharply in recent months, declining to below US$85 per barrel in recent weeks, the lowest level since late 2010. The increase in supply, which owed to a pick-up in OPEC production, and the strong growth in unconventional oil supply from the United States in recent years have weighed on prices despite geopolitical tensions in the Middle East that would have historically led to higher oil prices. The weakness in oil prices has been exacerbated by an easing in demand from Europe and slower growth of demand from China, causing downward revisions to expectations for oil demand growth in 2014 and 2015.

Base metal prices have increased a little on average in the past three months. Nickel prices have reversed around half of the increase associated with Indonesia's announcement of export bans in January 2014, partly as a result of higher exports from the Philippines. Prices for rural commodities have declined modestly, driven by falls in wheat prices due to an increase in global supply. In contrast, beef prices have continued to rise, driven by low beef production in the United States and strong global demand.

2. International and Foreign Exchange Markets

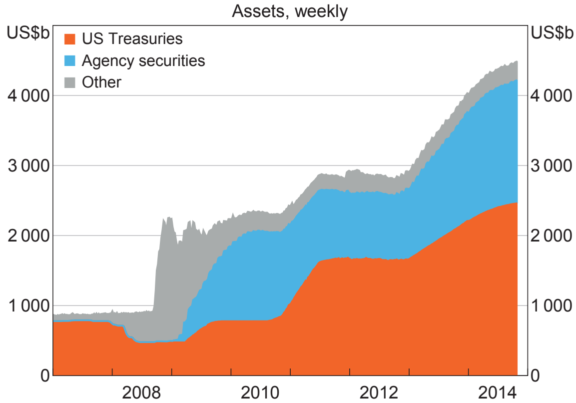
Volatility in global financial markets has risen over recent months, after a prolonged period of being especially low. The timing of this increase in volatility has been somewhat asynchronous across various asset classes, and there have been no obvious triggers for some of these moves. Nevertheless, a combination of persistent weakness in the European economy and further divergence in the outlook for monetary policy among the largest economies – including as a result of significant new balance sheet expansions announced by the European and Japanese central banks – have been contributing factors. On net, market-implied expectations for global policy rates and bond yields have fallen and the US dollar has appreciated, particularly against the Japanese yen and the euro. Global equity prices have fluctuated within a wide range, though are overall little changed from a few months earlier.

Central Bank Policy

The US Federal Reserve ended its asset purchase program following its October meeting, as expected. The Fed's balance sheet has expanded by US$1.7 trillion since the current quantitative easing program began in September 2012, and now stands at US$4.5 trillion (Graph 2.1). The Federal Open Markets Committee (FOMC) affirmed it will maintain the balance sheet at this level until at least the time at which it decides to begin raising its policy rate, and will then let its balance sheet contract through asset maturities, rather than by sales.

Market-implied expectations for when the Federal Reserve will begin raising rates have shifted back over recent months. Market pricing now implies that rates will be unchanged until late 2015, a few months longer than expected over most of the past year (Graph 2.2). This change has largely been in response to heightened investor concerns about the outlook for global growth – particularly in Europe. Official communication from the Fed continues to state that rates will likely remain unchanged for a 'considerable time', but FOMC commentary suggests the middle of 2015 is the most likely time for an increase, although projections among FOMC members remain widely dispersed.

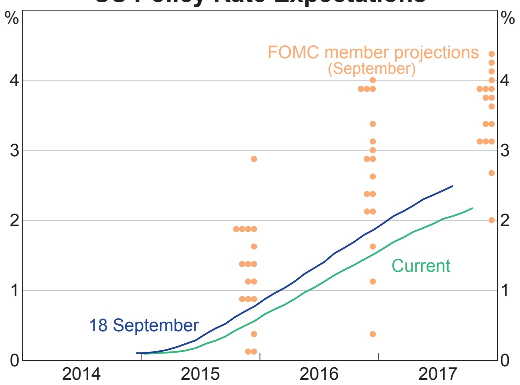
Graph 2.1
Federal Reserve Balance Sheet
Assets, weekly



Source: Board of Governors of the Federal Reserve System

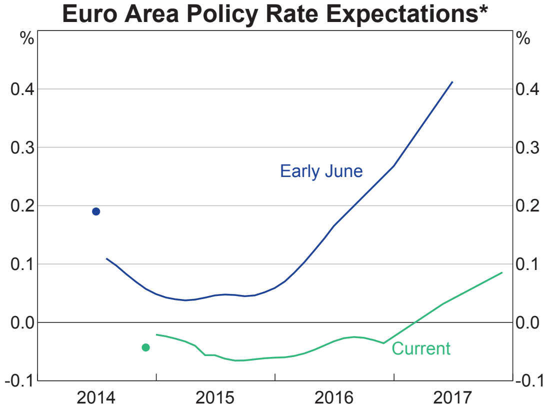
The European Central Bank (ECB) announced a further easing of policy at its September meeting in response to a decline in long-term inflation expectations. The ECB lowered policy rates by a further 10 basis points, taking its main policy rate to 0.05 per cent and the deposit rate to –0.20 per cent. It also announced covered bond and asset-backed security (ABS) purchase programs. Interbank rates have fallen further since the announcement of these policies and market pricing implies that the policy rate is expected to remain around zero until early 2017 (Graph 2.3).

Graph 2.2
US Policy Rate Expectations



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

Graph 2.3
Euro Area Policy Rate Expectations*



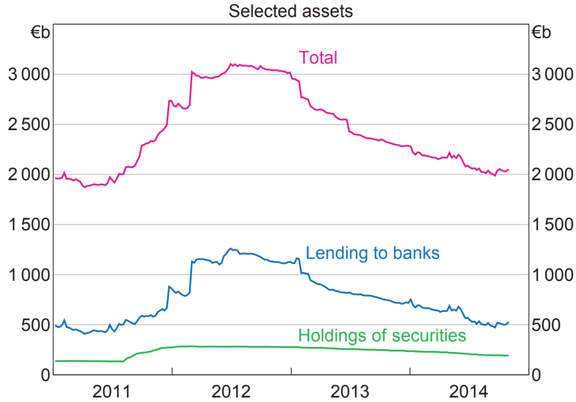
* Dots represent prevailing overnight rate
Sources: Bloomberg; RBA

The ECB began purchasing covered bonds in October and intends to start buying ABS (including residential mortgage-backed securities) this month. Its purchases of ABS will concentrate on senior tranches of securities, which are eligible under the ECB's standard collateral rules. The ECB will also purchase mezzanine tranches of ABS if these are guaranteed by third parties, but euro area governments have generally refused to provide such guarantees.

While it has refrained from setting a target for the volume of purchases, the ECB's intention appears to be to return its balance sheet to its early 2012 size over the next two years. This would imply a net increase of up to €1 trillion through a combination of loans extended under its targeted long-term refinancing operations (TLTROs) and asset purchases. The ECB intends the former to provide the bulk of this expansion, although there was a low take-up of funds under its first TLTRO in September, at which banks borrowed €83 billion out of a total allowance of almost €400 billion. A stronger take-up is expected in December.

The combination of TLTRO take-up and around €5 billion in covered bonds purchases during October, offset by ongoing repayments of 3-year LTRO funds disbursed in 2011 and 2012, has left the ECB's balance sheet broadly stable over recent months (Graph 2.4). Italian and Spanish banks remain the largest borrowers of ECB funds, accounting for two thirds of outstanding lending. Banks from these countries appear to have been the main recipients of TLTRO funds in September but have still reduced their borrowing from the ECB by almost €150 billion over the past year.

Graph 2.4
European Central Bank Balance Sheet
Selected assets

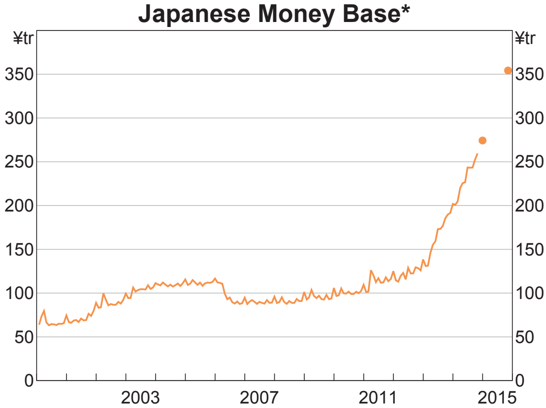


Source: European Central Bank

The ECB's decision to reduce interest rates prompted the Danish central bank to lower its deposit rate by 10 basis points to –0.05 per cent in September, in order to relieve upward pressure on its exchange rate (which is fixed against the euro). The Swiss National Bank has also reaffirmed its commitment to defend its euro exchange rate cap, and has raised the possibility of reducing its deposit rate below zero (see section on 'Foreign Exchange').

The Bank of Japan (BoJ) announced an expansion of its quantitative and qualitative monetary easing (QQME) program in late October. The BoJ now intends to expand the money base at an annual pace of ¥80 trillion, compared with its recent pace of ¥60–70 trillion, which will see it rise to more than 70 per cent of GDP by the end of 2015 (Graph 2.5). This will be achieved by increasing its annual purchases of government bonds from ¥50 trillion to ¥80 trillion (in addition to extending the average maturity of the bonds it purchases) and tripling its purchases of equities and real estate investment trusts to just over ¥3 trillion. The BoJ attributed its decision to expand QQME to a concern that temporary weakness in the economy following April's sales tax rise and the recent decline in oil prices could slow the rise in inflation expectations towards its 2 per cent target. The BoJ now forecasts that inflation will reach this target sometime in 2016, rather than 2015 as previously expected.

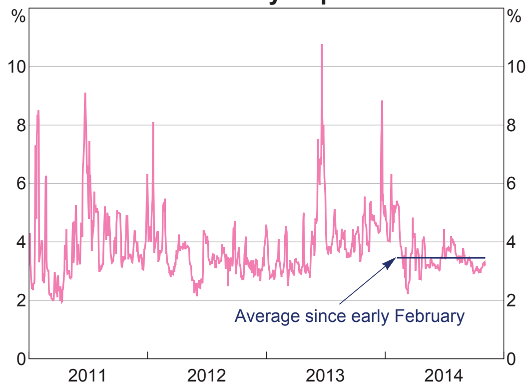
Graph 2.5
Japanese Money Base*



* Projections for end 2014 and 2015 from the BoJ's money base target
Source: Bank of Japan

The People's Bank of China (PBC) has continued to take targeted steps to ease monetary conditions slightly. These steps have included direct lending to a range of banks for a term of at least three months and an easing of mortgage rules to allow banks to offer larger interest rate discounts and higher loan-to-valuation ratios to households without existing mortgage debt. These decisions contributed to a modest decline in money market rates, with the 7-day repo rate trading slightly below the average prevailing since Chinese New Year (Graph 2.6).

Graph 2.6
China – 7-day Repo Rate



Source: CEIC Data

In contrast to these measures, authorities in China have implemented a number of regulations aimed partly at limiting growth in the shadow banking sector. The PBC and the China Banking Regulatory Commission jointly introduced a deposit deviation ratio (DDR), under which banks' deposits at the end of each month cannot be more than 3 per cent higher than the average level prevailing through the month. This regulation is intended to limit the extent to which banks structure off-balance sheet wealth management products to mature at month-end, in order to increase deposits on the reporting date for loan-to-deposit ratio (LDR) requirements. The DDR appears to be binding for most major banks in China, and could require some banks to reduce lending in order to comply with the 75 per cent LDR cap. The announcement of this DDR requirement follows regulations introduced in May that effectively require banks to hold more capital against trust assets and bank-accepted bills.

Market-implied expectations for interest rates in a range of other countries have shifted back, particularly over the past month. Market pricing now implies that the Bank of England, the Bank of Canada and the Reserve Bank of New Zealand are expected to leave rates unchanged for around half a year longer than had been expected recently.

A number of other central banks have lowered their policy rate in recent months. The Swedish Riksbank reduced its policy rate to 0 per cent in October, in response to persistent weakness in inflation, and signalled that it expects to hold it at this level until mid 2016 (Table 2.1). The Bank of Korea also cut rates in both August and October in response to a softening of domestic demand. The central bank of Israel lowered rates further in August in response to persistently weak inflation and slowing growth, and the central bank of Chile has reduced rates four times since July as domestic demand continued to slow. In contrast, the Brazilian central bank unexpectedly resumed its tightening cycle in October, due to concerns about rising inflation risks. The Russian central bank also raised its policy rate by a further 150 basis points in late October, in order to reduce inflation stemming from the depreciation of the rouble and food import restrictions.

Sovereign Debt Markets

Yields on 10-year US Treasury bonds have trended down since late April and are now 70 basis points lower than at the start of the year (Graph 2.7). Yields on 10-year German Bunds have also fallen of late, to be over 100 basis points lower than at the start of the year and at record lows. Yields on

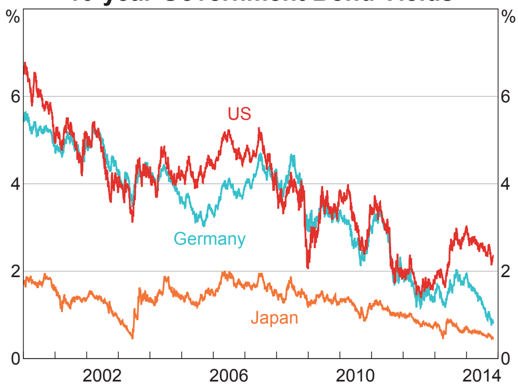
Table 2.1: Monetary Policy

	Policy rate		Most recent change	Cumulative change in current phase[a]
	Per cent			Basis points
Euro area	0.05	↓	Sep 14	–145
Japan[b]	na		na	
United States	0.125	↓	Dec 08	–512.5
Australia	2.50	↓	Aug 13	–225
Brazil	11.25	↑	Oct 14	400
Canada	1.00	↑	Sep 10	75
Chile	3.00	↓	Oct 14	–225
China[b]	na		na	
India	8.00	↑	Jan 14	75
Indonesia	7.50	↑	Nov 13	175
Israel	0.25	↓	Aug 14	–300
Malaysia	3.25	↑	Jul 14	125
Mexico	3.00	↓	Jun 14	–525
New Zealand	3.50	↑	Jul 14	100
Norway	1.50	↓	Mar 12	–75
Russia	9.50	↑	Oct 14	400
South Africa	5.75	↑	Jul 14	75
South Korea	2.00	↓	Oct 14	–125
Sweden	0.00	↓	Oct 14	–200
Switzerland	0.00	↓	Aug 11	–275
Taiwan	1.875	↑	Jun 11	62.5
Thailand	2.00	↓	Mar 14	–150
Turkey	8.25	↓	Jul 14	–175
United Kingdom	0.50	↓	Mar 09	–525

(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. China does not have an official policy rate
Sources: Central Banks; RBA; Thomson Reuters

Japanese government bonds (JGBs) have edged lower since the start of the year, with yields on very long maturities falling materially following the BoJ's decision to expand its QQME program.

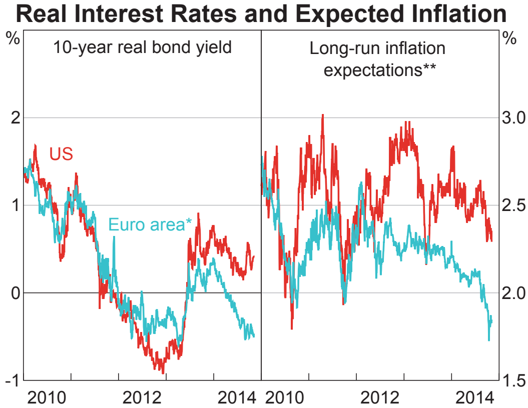
Graph 2.7
10-year Government Bond Yields



Source: Bloomberg

Earlier in the year, the fall in US Treasury yields reflected a reduction in real yields, and was confined to longer-maturity bonds, as investors appeared to revise down their assessment of the longer-run equilibrium rate of interest (Graph 2.8). However, since mid September the decline in nominal Treasury yields has been associated with falling inflation expectations. In contrast, the decline in Bund yields over 2014 has consistently reflected concerns about a deteriorating economic outlook and a consequent expectation that the ECB will need to increase stimulus. These concerns were reflected in declines in both real yields and long-term inflation expectations.

Graph 2.8
Real Interest Rates and Expected Inflation



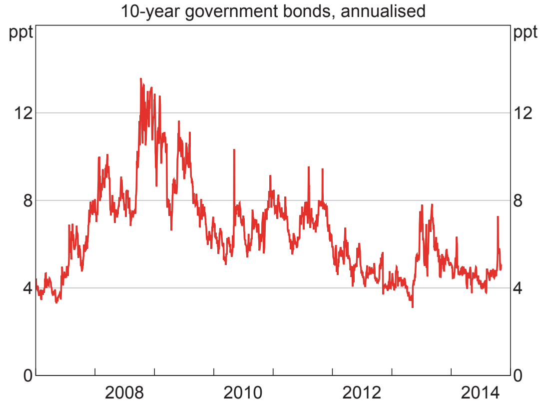
* Yield on German real bond indexed to euro area inflation

** Implied by bonds for the US and by swaps for the euro area

Sources: Bloomberg; Federal Reserve Bank of St. Louis; RBA

Volatility in the US Treasury market increased over October, highlighted by an intraday movement of 36 basis points on 15 October (Graph 2.9). Part of this rise in volatility appeared to reflect a widespread desire to unwind positions betting on views that US interest rates would soon begin rising. As investors sought to exit such trades simultaneously, the Treasury market quickly became one-sided.

Graph 2.9
Implied Volatility of US Treasury Futures
10-year government bonds, annualised

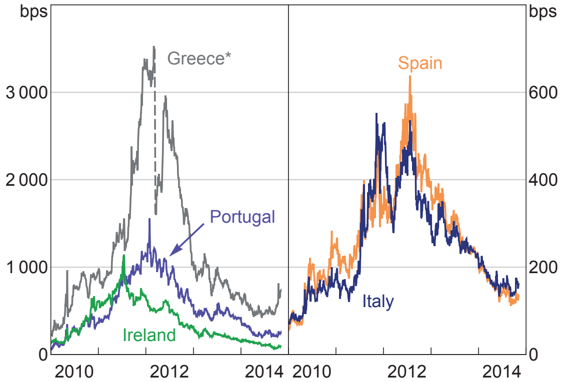


Source: Bloomberg

Spreads between 10-year bonds issued by euro area periphery governments and German Bunds were fairly stable between May and mid September, having fallen sharply over the prior two years (Graph 2.10). However, spreads have widened since mid October as concerns about European growth prompted an increase in risk aversion. The rise in spreads has been most pronounced for Greek bonds, with spreads on these bonds widening by more than 250 basis points since mid September, in part also reflecting concerns about the Greek government's announcement that it planned to refuse promised IMF funding when its European Union funding ends in early 2015. (The government has since announced it will seek to negotiate a precautionary credit line with the European Union.) Despite this sharp widening, Greek spreads are well below their 2012 peaks.

Graph 2.10
Euro Area 10-year Government Bond Spreads

To German Bunds



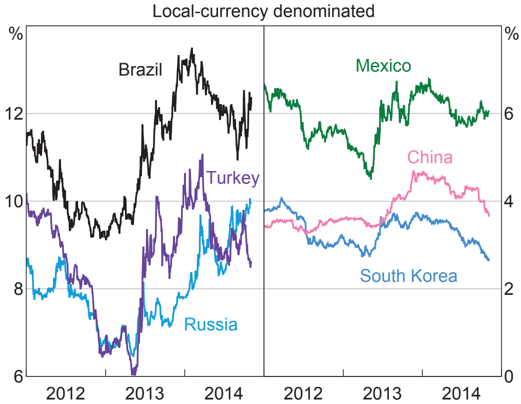
* Data from 12 March 2012 are yields on Greek bonds post first private sector debt swap

Source: Bloomberg

Emerging market bond yields have tended to decline over recent months, but by less than those on US Treasuries (Graph 2.11). Korean bond yields have declined notably as its economy weakened and the central bank lowered its policy rate, while Chinese bond yields have fallen as investors judged that the prospect of a significant monetary policy easing was increasing. In contrast, Russian bond yields have continued to rise as Western sanctions against it were tightened, the fiscal outlook deteriorated due to falling oil prices and the rouble depreciated (see section on 'Foreign Exchange'). Brazilian bond yields have exhibited significant volatility related to its Presidential elections, which confirmed that the

Graph 2.11
10-year Government Bond Yields

Local-currency denominated



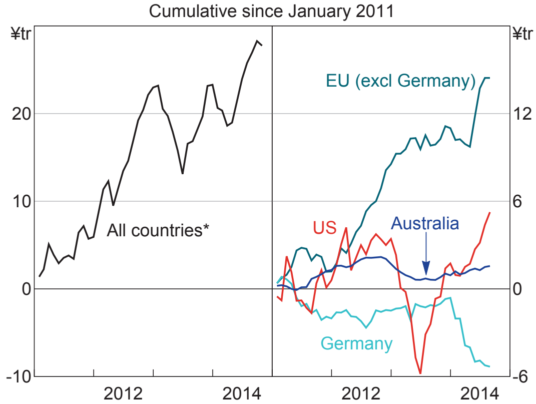
Sources: Bloomberg; Thomson Reuters

incumbent would serve another term. Foreigners' holdings of emerging market bonds have been broadly steady in recent months.

Japanese residents have continued to purchase foreign bonds, lifting their holdings by almost ¥10 trillion since April (Graph 2.12). These purchases have predominantly been of US and French bonds, while Japanese investors have been net sellers of German bonds. Japanese holdings of Australian bonds have increased by ¥500 billion over this period. Japanese residents have also significantly increased their holdings of foreign equities since July.

Graph 2.12
Japanese Purchases of Foreign Bonds

Cumulative since January 2011



* Calculated using monthly data to August 2014; weekly thereafter

Sources: Japanese Ministry of Finance; RBA

More sizeable outflows of portfolio capital from Japan are likely over the period ahead, with Japan's Government Pension Investment Fund (GPIF) announcing that it will increase the proportion of its ¥130 trillion portfolio that is allocated to foreign assets from 27 per cent to a target of 40 per cent (Table 2.2). The GPIF also intends to expand its allocation to domestic equities from 17 per cent to a target of 25 per cent, while reducing its holdings of JGBs from 53 to 35 per cent.

Credit Markets

Spreads on non-investment grade corporate bonds in the United States and euro area have continued to widen, to be 120 and 160 basis points higher than in late June (Graph 2.13). These moves occurred

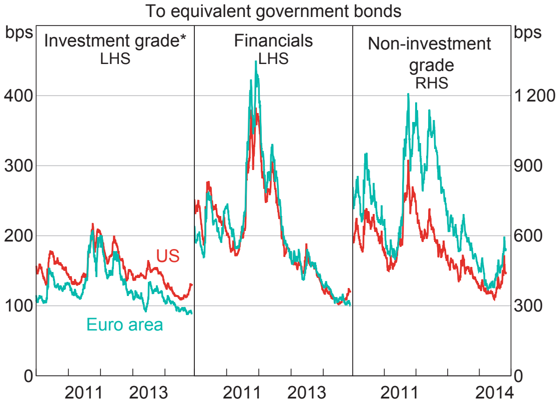
Table 2.2: Japan's Government Pension Investment Fund Asset Allocations
Per cent

	Existing Target[(a)]	Existing Allocation[(a)]	Proposed Target
Domestic bonds	60	53	35
Domestic equities	12	17	25
International bonds	11	11	15
International equities	12	16	25

(a) Remaining allocation in short-term assets
Source: GPIF

alongside large redemptions from high-yield bond funds from late July to early August. The widening in US credit spreads was initially due to concerns about the impact of impending policy rate increases, and a reassessment of pricing after Fed Chair Yellen's comments that spreads on such bonds seemed excessively low. More recently, concerns about the outlook for global growth and financial market volatility have been the primary drivers. The widening of European credit spreads has largely reflected an ongoing focus on the European economic outlook. In contrast, spreads on US investment grade and bank bonds have been little changed this year, while spreads on equivalent European bonds have narrowed somewhat.

Graph 2.13
Corporate Bond Spreads
To equivalent government bonds



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

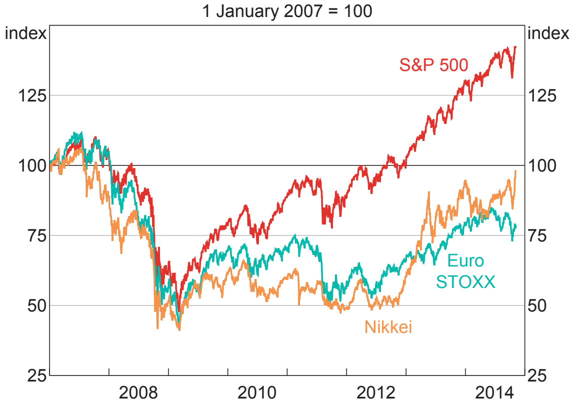
Spreads on euro area covered bonds and ABS have declined since the ECB announced its intention to purchase these assets. The narrowing in spreads has been most pronounced for securities issued by banks from periphery nations. Spreads on mortgage-backed securities in the United States have been broadly stable over most of 2014, with yields falling alongside declines in Treasury yields.

Bond issuance by US corporations has continued to be solid, at a pace that is in line with that recorded last year. Issuance in the euro area has slowed in recent months, but remains well above last year's level. Corporate bond issuance in other regions has been very strong since March, underpinned by a marked pick-up in issuance by Chinese non-financial corporations. This increased issuance has occurred alongside a slowing in new lending extended by providers of 'shadow' financing, as recent regulations have reduced the attractiveness of providing such funding.

Equities

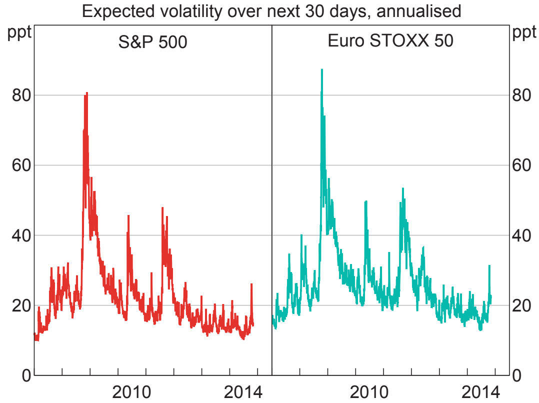
Global equity prices fell by 8 per cent between mid September and mid October, but have since unwound almost all of that decline, with the US market returning to its historical high (Graph 2.14). Rising concerns about the outlook for global growth, spurred largely by weaker European data, initially weighed on share prices, as did large declines in oil prices (see the 'International Economic Developments' chapter) that saw energy stocks more than 15 per cent below their recent peaks. However, the impact of these concerns has since faded due to some better economic and corporate earnings data and the BoJ's decision to ease monetary policy further. The latter had a particularly pronounced

Graph 2.14
Major Share Price Indices
1 January 2007 = 100



Source: Bloomberg

Graph 2.15
Volatility Indices
Expected volatility over next 30 days, annualised



Source: Bloomberg

impact on Japanese share prices, and along with the announced portfolio reallocation by the GPIF, lifted stock prices to their highest level since 2007 (Table 2.3).

Table 2.3: Changes in International Share Prices
Per cent

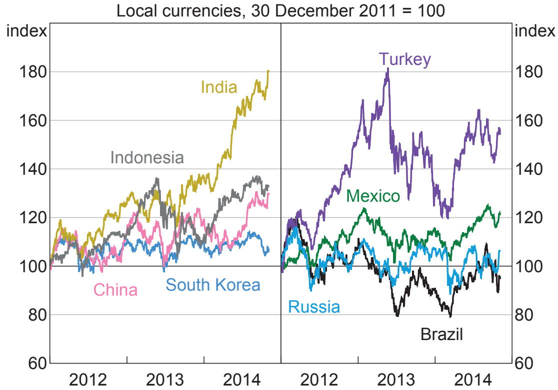
	Over 2013	Year to date
United States – S&P 500	30	9
Euro area – STOXX	20	–1
United Kingdom – FTSE	14	–3
Japan – Nikkei	57	4
Canada – TSE 300	10	7
Australia – ASX 200	15	3
China – MSCI All China	4	8
MSCI indices		
– Emerging Asia	3	4
– Latin America	–7	3
– Emerging Europe	–2	–2
– World	**23**	**5**

Source: Bloomberg

Volatility in US and European equity markets increased sharply in mid October, after a prolonged period of historically low volatility (Graph 2.15). However, this proved fairly short-lived, and option-implied expectations for equity market volatility fell back in both regions.

Equity prices in emerging markets have broadly followed those in advanced economies (Graph 2.16). The fall and subsequent recovery have been particularly pronounced in Turkey, in part reflecting that economy's perceived sensitivity to US monetary policy, while Brazilian equities have been especially volatile as expectations of a change of government fluctuated. Chinese equities have outperformed most other markets since mid July, after a prolonged period of weakness. The recent strength of Chinese equities appears to partly reflect an expectation of further policy stimulus. Foreign capital flowed out of emerging equity markets as global equity prices declined, but outflows have since abated.

Graph 2.16
Emerging Market Share Price Indices
Local currencies, 30 December 2011 = 100



Source: Bloomberg

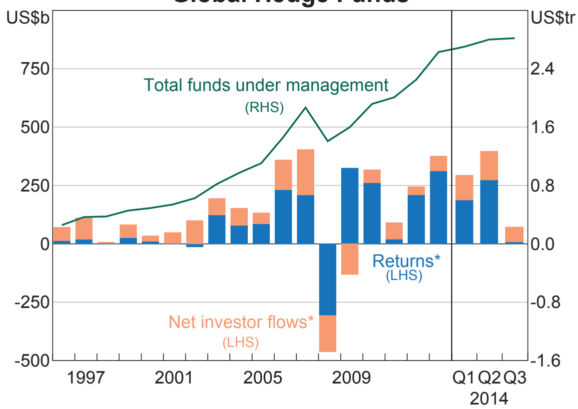
The ECB released results from its comprehensive assessment of 130 European banks in late October. The assessment involved an asset quality review (AQR) as at end 2013 and a stress test in which euro area GDP falls over 6½ per cent below the baseline scenario by end 2016 and sovereign bond yields rise notably. Under the AQR, the ECB required banks to write down or increase provisioning against assets by an aggregate €48 billion (less than 0.25 per cent of the total). The largest recommended provisions were for Italian and Greek banks (€12 and €7½ billion, respectively). In combination with the stress test, authorities found that 25 banks needed to raise a total of €25 billion in new capital, though after accounting for capital raisings and other measures already taken this year or pre-announced restructuring plans, only eight banks still need to raise capital totalling €6.4 billion.

Underlying profits for the larger European banks that have reported September quarter earnings rose, to be notably higher than a year earlier. A decline in operating expenses more than offset a fall in trading revenue in aggregate. Litigation expenses continued to weigh on headline profit, though to a lesser extent than last quarter, while most banks reported an increase in their capital ratios. Underlying profits of the large US banks declined moderately in the September quarter, though remain higher than a year earlier. The modest decline in earnings largely reflected ongoing falls in investment banking revenue for several banks, notwithstanding an increase in trading volumes late in the quarter. Headline profits rose marginally in the quarter, to be about US$5 billion higher than a year earlier, as litigation expenses declined somewhat from their elevated level last quarter. Most US banks reported supplementary leverage ratios that met the 5 per cent requirement that will take effect in 2018.

Hedge Funds

Global hedge funds recorded an asset-weighted return on investments of 9 per cent over the year to September, slightly underperforming the total return from a balanced portfolio of global bonds and equities. Over the September quarter, hedge funds reported only marginal gains, though macro funds, which trade in response to movements in economic variables, performed better than other categories. Hedge funds continue to receive new inflows, which increased funds under management by about 1 per cent to around US$2.8 trillion (Graph 2.17).

Graph 2.17
Global Hedge Funds



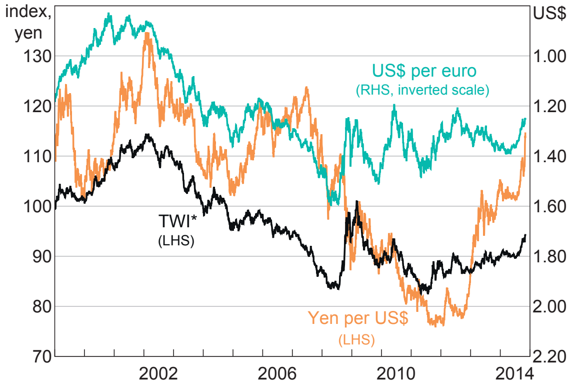
* Annualised for 2014 data

Sources: Hedge Fund Research, Inc.; RBA

Foreign Exchange

The US dollar has appreciated by around 5 per cent on a trade-weighted basis since its recent low in early July, but remains at a low level by historical standards (Graph 2.18; Table 2.4). While the US dollar's appreciation is broadly consistent with the divergent outlooks for monetary policy in the United States and other major advanced economies, the precise timing of the move is not readily explainable. The majority of the recent appreciation occurred during early September, prior to the subsequent declines in global equity prices and bond yields (discussed above). The US dollar's appreciation has generally been more pronounced against the currencies of developed market economies than it has been against emerging market currencies. It has also coincided with an increase in volatility in the main developed market currency pairs, although volatility remains at a low level by longer-term standards (Graph 2.19).

Graph 2.18
US Dollar



* 1 January 1999 = 100

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

Table 2.4: Changes in the US Dollar against Selected Currencies

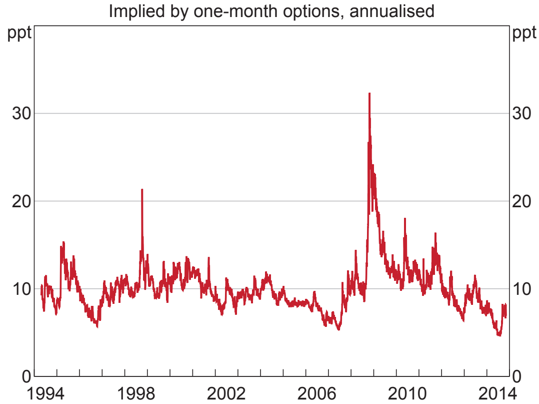
Per cent

	Since end January 2014	Since end June 2014
Brazilian real	4	14
Japanese yen	12	13
New Zealand dollar	5	13
Swedish krona	13	10
Australian dollar	2	10
European euro	8	10
Swiss franc	6	9
UK pound sterling	3	7
South Korean won	0	7
Canadian dollar	2	7
South African rand	0	5
Mexican peso	2	5
Malaysian ringgit	0	4
Singapore dollar	1	4
Philippine peso	–1	3
Indonesian rupiah	–1	2
New Taiwan dollar	1	2
Indian rupee	–2	2
Thai baht	–1	1
Chinese renminbi	1	–1
TWI	**4**	**5**

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

Graph 2.19
Volatility in Developed Market Currencies*

Implied by one-month options, annualised



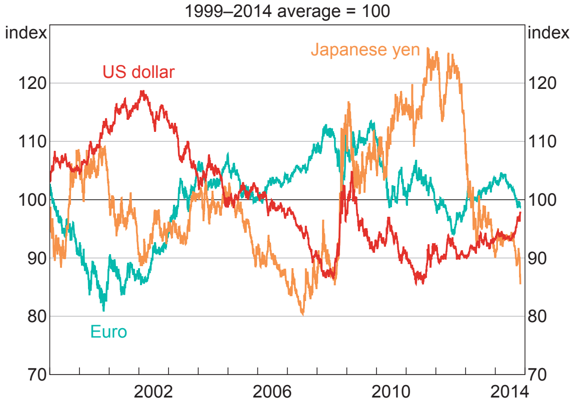
* EUR/USD, USD/JPY, GBP/USD, AUD/USD, USD/CAD, USD/CHF, EUR/JPY, EUR/GBP, EUR/CHF weighted by turnover

Source: Bloomberg

The Japanese yen has depreciated by 9 per cent on a trade-weighted basis and by 11 per cent against the US dollar since early July, with around half of this depreciation occurring following the BoJ's decision to expand its balance sheet further in late October (Graph 2.20). In real trade-weighted terms, the yen is around 20 per cent below its average over the past 15 years. The euro has depreciated by 5 per cent on a trade-weighted basis and by 10 per cent against the US dollar since early May, when the ECB first signalled that further monetary easing measures would likely be implemented. Notwithstanding the recent depreciation, the euro is still 3 per cent higher against the US dollar than at its most recent low in mid 2012 and, on a real trade-weighted basis, is around its average since the introduction of the single currency in 1999.

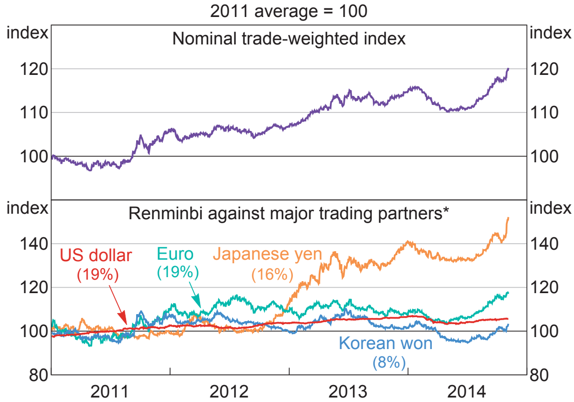
The Swiss franc has encountered some modest appreciation pressure since the ECB's decision in early June to introduce negative deposit rates and is currently around ½ per cent below its ceiling of 1.20 francs per euro. The Swiss National Bank has maintained that it will defend the ceiling by unlimited currency purchases if required, but has not had to do so in recent months. The Reserve Bank of New Zealand has reiterated its view that the high level of the currency is 'unjustified and unsustainable' and, in an effort to counter appreciation pressure, recorded

Graph 2.20
Nominal Trade-weighted Indices
1999–2014 average = 100



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

Graph 2.21
Chinese Renminbi
2011 average = 100



* Figures in parentheses represent currencies' weights in the trade-weighted index

Sources: BIS; Bloomberg

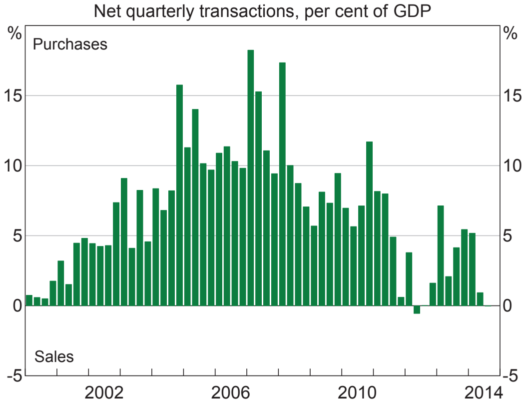
net sales of around NZ$550 million in the foreign exchange market over August and September. The New Zealand dollar has depreciated by 12 per cent against the US dollar since its peak in early July, and is currently around its mid-2013 low.

The Chinese renminbi (RMB) has moved broadly in line with the US dollar in recent months which, given the US dollar's broad-based appreciation against other currencies, has seen the RMB appreciate by 9 per cent on a trade-weighted basis since its May trough. The RMB has recorded sizeable appreciations against the Japanese yen and euro (Graph 2.21).

The stock of Chinese foreign currency reserves decreased by US$103 billion (or around 2½ per cent) over the September quarter, which was the first quarterly decline since the June quarter of 2012. However, the decline primarily reflected exchange rate valuation effects related to the US dollar's appreciation against the yen and the euro over the quarter, with only negligible net sales of foreign currency by the PBC, following modest purchases in the June quarter (Graph 2.22). The PBC's relatively small net purchases of foreign currency over the six months to September indicate that net private capital outflows broadly offset China's current account surplus over this period.

The Chinese authorities have continued to take steps towards internationalising the RMB. Direct trading

Graph 2.22
Chinese Foreign Currency Reserves
Net quarterly transactions, per cent of GDP

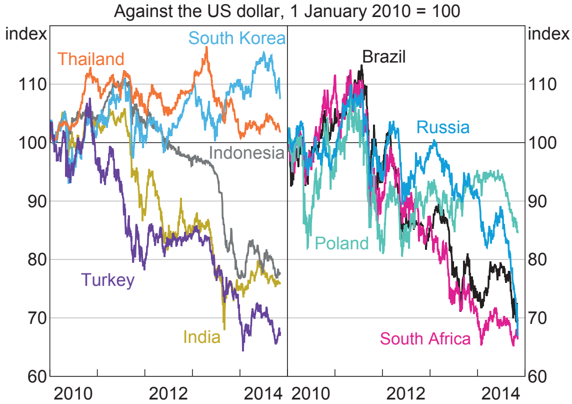


Sources: Bloomberg; CEIC Data

between the euro and the RMB and between the Singapore dollar and the RMB – that is, trading in these currency pairs without the use of the US dollar as an intermediate currency – has commenced in Mainland China's interbank market. The PBC also designated official RMB clearing banks in Paris, Luxembourg and Doha and signed bilateral local currency swap agreements with the central banks of Russia and Qatar. In addition, the PBC granted Qatar a quota which will allow locally based financial institutions to invest in China under the Renminbi Qualified Foreign Institutional Investor Scheme. The UK government issued an RMB3 billion bond in the offshore market, which was the first RMB-denominated bond to be issued by a foreign sovereign government. The bond has a three-year maturity and the proceeds were used to fund the purchase of RMB-denominated foreign currency reserves.

Asian and other emerging market currencies have depreciated against the US dollar since early July. Eastern European and Latin American currencies have typically depreciated by more than Asian currencies, with a number surpassing their recent troughs against the US dollar in late September or early October. In contrast, most Asian currencies remain a little higher than their early 2014 lows against the US dollar (Graph 2.23).

Graph 2.23
Asian and Emerging Market Currencies
Against the US dollar, 1 January 2010 = 100



Source: Bloomberg

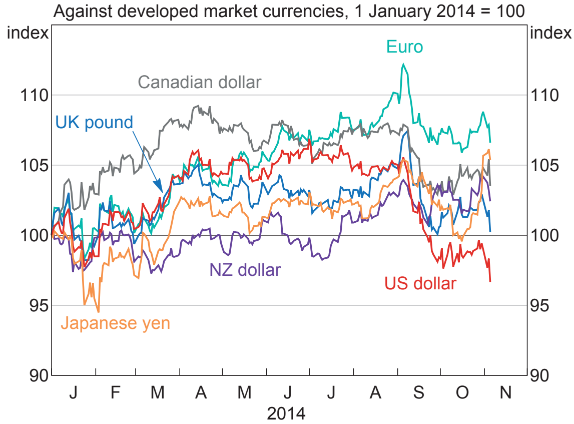
In Eastern Europe, ongoing geopolitical tensions have seen the Russian rouble continue to depreciate, to be 25 per cent below its recent peak against the US dollar in late June. In addition to the increase in the policy rate (discussed above), the Russian authorities have also announced a number of measures to support liquidity in the domestic foreign exchange market. The Russian central bank has also intervened in the foreign exchange market to slow the pace of depreciation of the rouble. This foreign exchange market intervention, coupled with exchange rate valuation effects associated with the US dollar's appreciation against the euro and the yen, have contributed to a 9 per cent decline in Russia's foreign currency reserves since the end of June. In November the central bank changed its intervention policy to limit the size of daily intervention. This was done partly in an effort to introduce greater flexibility in the rouble.

The gross foreign currency reserves of most other emerging market and Asian economies have been little changed or declined moderately since the end of June (Table 2.5). The modest declines in these economies' reserves are likely to have been driven largely by exchange rate valuation effects.

Australian Dollar

Since the previous *Statement*, the Australian dollar has depreciated against most other currencies to be 5 per cent lower on a trade-weighted basis and 8 per cent lower against the US dollar (Table 2.6). In addition to the broad-based appreciation of the US dollar, declines in key commodity prices and concerns among some market participants about the outlook for Chinese economic growth have also weighed on the Australian dollar. While the recent depreciation more than reverses the Australian dollar's appreciation against the US dollar earlier in the year, it remains higher against a number of other developed market currencies than at the beginning of the year (Graph 2.24). Notwithstanding the recent depreciation, the Australian dollar remains at a high level and above its levels of earlier in the year on a trade-weighted basis despite marked declines in key commodity prices since that time.

Graph 2.24
Australian Dollar
Against developed market currencies, 1 January 2014 = 100



Source: Bloomberg

Table 2.5: Gross Foreign Currency Reserves[(a)]

	Percentage change since: End December 2013	End June 2014	Level US$ equivalent (billions)
China	2	–3	3 890
Taiwan[(b)]	1	–1	421
Russia	–16	–9	383
Brazil	4	0	364
South Korea	5	–1	355
Hong Kong	4	2	316
India	8	0	288
Thailand	–4	–4	153
Malaysia	–4	–2	117
Turkey	3	2	112
Indonesia	13	4	105
Argentina	–9	–3	23

(a) Data to end September for China, Hong Kong, Indonesia, South Korea, Taiwan and Thailand; to 14 October for Malaysia; to 24 October for India, Russia and Turkey; and to 4 November for Argentina and Brazil
(b) Foreign exchange reserves (includes foreign currency and other reserve assets)
Sources: Bloomberg; CEIC Data; Central Banks; IMF; RBA

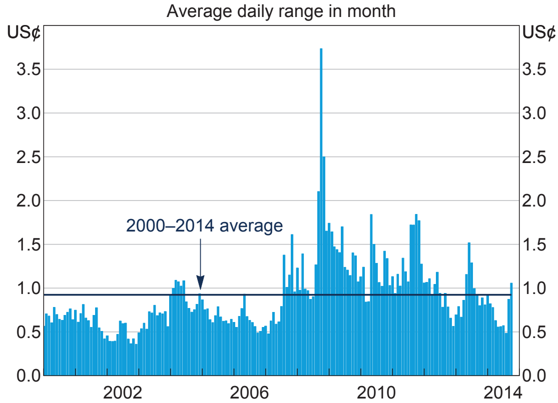
Table 2.6: Changes in the Australian Dollar against Selected Currencies
Per cent

	Since January 2014 trough in TWI[(a)]	Since end June 2014
Japanese yen	11	3
New Zealand dollar	5	3
European euro	8	0
Swiss franc	7	–1
UK pound sterling	2	–2
South Korean won	–1	–2
Canadian dollar	2	–3
South African rand	–1	–5
Malaysian ringgit	–1	–5
Singapore dollar	0	–6
Indonesian rupiah	–1	–7
Indian rupee	–3	–7
Thai baht	–1	–8
US dollar	–1	–9
Chinese renminbi	0	–10
TWI	**2**	**–5**

(a) 24 January 2014
Sources: Bloomberg; RBA

Consistent with developments in a number of other currencies, volatility in the Australian dollar has increased noticeably in recent months. In particular, after having been very subdued between April and August, the average intraday trading range for the AUD/USD exchange rate rose markedly in September and October, to around its post-2000 average (Graph 2.25).

Graph 2.25
Intraday Range in AUD/USD
Average daily range in month

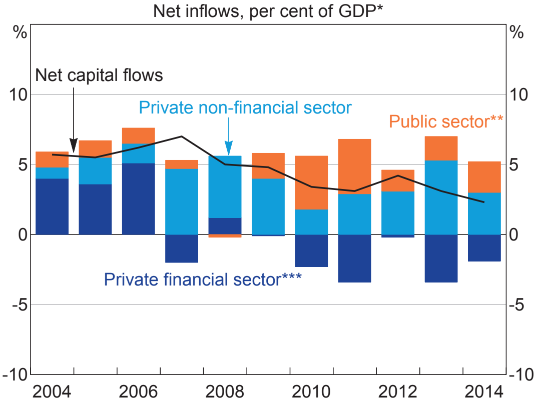


Sources: Bloomberg; RBA

Capital Flows

Net capital inflows to the Australian economy increased to 2.7 per cent of GDP in the June quarter, with net inflows directed primarily to the private sector. This is in contrast to the previous three quarters and, more broadly, the past few years, when net inflows had been directed primarily to the public sector (Graph 2.26).

Graph 2.26
Australian Capital Flows
Net inflows, per cent of GDP*



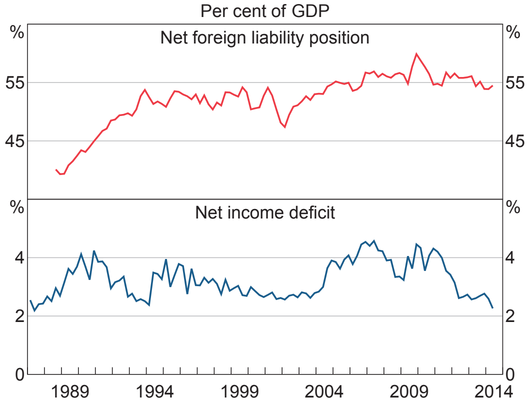
* Data for 2014 are only available up to the June quarter
** Excludes official reserves and other RBA flows
*** Adjusted for US dollar swap facility in 2008 and 2009
Sources: Australian Bureau of Statistics; RBA

In the June quarter the net inflow to the private sector was directed to non-financial firms, with increased net inflows to both the mining and non-mining sectors. In contrast, there was a continued net outflow from the private financial sector, once again reflecting net outflows from 'other financial institutions' (which include superannuation and other types of investment funds).

The modest net inflow to the public sector in the June quarter reflected continued inflows to the general government sector, which were partly offset by net outflows from the state and local government sector. The net inflow to the general government sector reflected continued foreign purchases of Commonwealth Government securities (CGS), but, as the rate of purchases was broadly in line with CGS issuance over the quarter, the foreign ownership share of CGS was largely unchanged at 67 per cent. In contrast, the net outflow from the state and local government sector saw the foreign ownership share of state government securities decline by 3 percentage points to 28 per cent.

Consistent with the increase in net capital inflows, Australia's current account deficit widened in the June quarter. This was due entirely to the trade balance moving from surplus to deficit, with the net income deficit narrowing over the quarter to its lowest level as a share of GDP since 1987. The narrowing in the net income deficit over the quarter was driven by a reduction in the net direct equity income deficit as yields paid on Australia's direct equity liabilities declined (Graph 2.27).

Graph 2.27
Australia's External Position
Per cent of GDP



Source: Australian Bureau of Statistics

3. Domestic Economic Conditions

In 2013/14, the Australian economy grew in year-average terms at a pace that was a bit below trend (Table 3.1).[1] Exports made a large contribution to growth, supported by ongoing capacity expansion in the resources sector, particularly for iron ore (Graph 3.1). Dwelling investment strengthened markedly relative to a year earlier, supported by low interest rates and rising housing prices, and growth of consumption picked up. However, business investment fell in 2013/14, reflecting the fact that non-mining businesses have remained reluctant to increase their investment and mining investment has been declining. Public demand made a positive contribution to growth.

Labour market conditions remain subdued. The unemployment rate has risen a little over the past six months and growth in wages is low. Leading indicators of labour demand have picked up since the beginning of the year and point to modest employment growth over coming months.

Timely economic indicators and liaison suggest that GDP growth is likely to have been a little below trend in the September quarter, with growth of exports and non-mining activity offsetting a decline in mining investment. Retail sales growth has strengthened of late, though measures of consumer confidence remain at or below average. Survey measures of business conditions and confidence are close to their long-run averages.

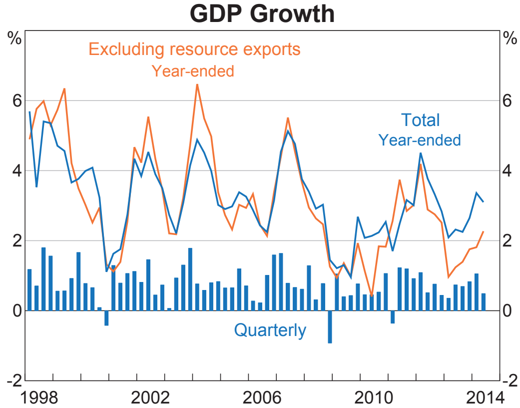
1 The 2013/14 annual national accounts contain the most recent data on GDP. The June quarter 2014 national accounts, which were released prior to the annual national accounts, contain the most recent data on quarterly movements in GDP.

Table 3.1: Demand and Output Growth[(a)]
Year average, per cent

	2013/14
GDP	2.5
Domestic final demand	1.2
– Private demand	0.9
– Consumption	2.2
– Dwelling investment	4.7
– Business investment[(b)]	–4.8
– Public demand[(b)]	1.5
Change in inventories[(c)]	–0.4
Gross national expenditure	0.8
Exports	5.8
Imports	–2.1
Nominal GDP	4.1
Real gross domestic income	1.7

(a) Based on 2013/14 release of the annual national accounts, rather than the June quarter 2014 release
(b) Excludes net purchases of second-hand assets
(c) Contribution to GDP growth
Sources: ABS; RBA

Graph 3.1
GDP Growth



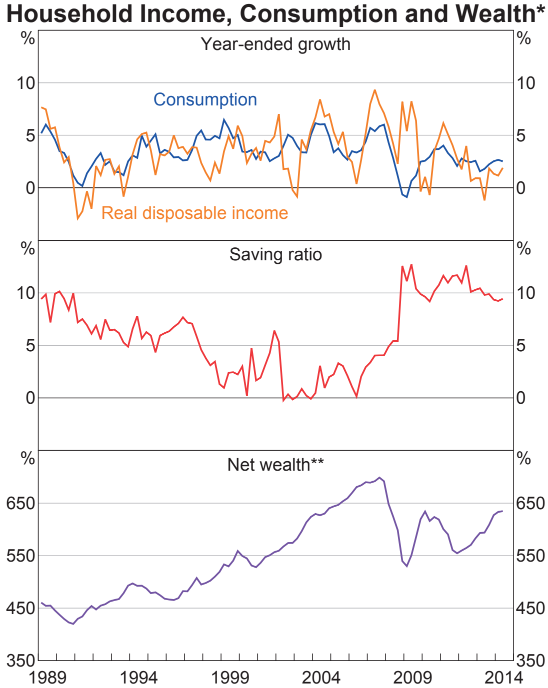
Sources: ABS; RBA

Household Sector

Household consumption increased at a moderate pace over the first half of 2014, reflecting the net effect of low growth in income on the one hand and very low interest rates and strong increases in wealth on the other (Graph 3.2). Real household disposable income grew at well below its decade-average pace over the year to June, mostly as a result of subdued growth in labour income.

The strong growth in net household wealth over the past two years largely reflects increases in housing prices. Higher equity prices have also contributed (see the 'Domestic Financial Markets' chapter for more details). The strong growth in net wealth is consistent with consumption growing faster than income and, hence, the gradual decline in the saving ratio recorded over the past couple of years.

Graph 3.2
Household Income, Consumption and Wealth*



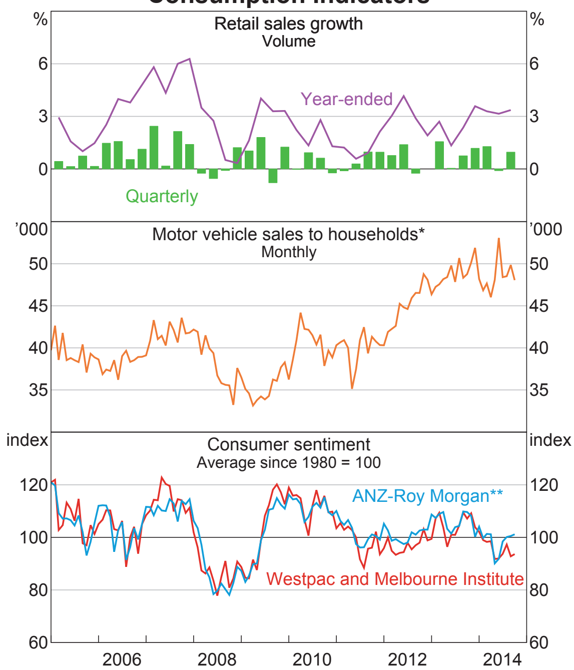
* Household sector includes unincorporated enterprises; disposable income is after tax and interest payments; income level smoothed with a two-quarter moving average between March quarter 2000 and March quarter 2002; saving ratio is net of depreciation

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

Sources: ABS; RBA

Timely consumption indicators are consistent with moderate household consumption growth. Retail sales volumes increased by 1 per cent in the September quarter and liaison points to a further increase in October (Graph 3.3). Motor vehicle sales to households have remained at a high level recently. While retail and motor vehicle sales broadly correspond to the consumption of household goods (as measured in the national accounts), around two thirds of total household consumption is accounted for by services. There are fewer timely indicators for consumption of household services, although it tends to be less volatile than household goods consumption. Measures of consumer sentiment have diverged in recent months to be at or below average levels.

Graph 3.3
Consumption Indicators



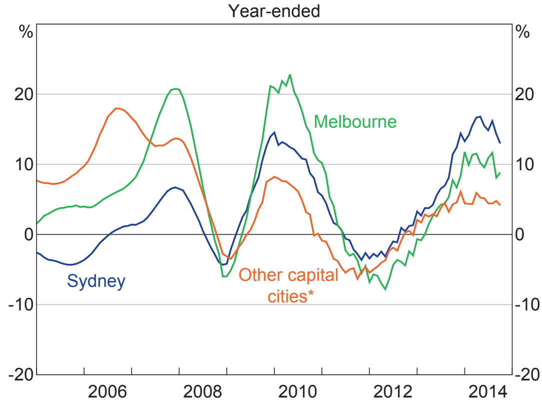
* Seasonally adjusted by the RBA

** Rescaled to have the same average as the W-MI index since 1996

Sources: ABS; ANZ- Roy Morgan; FCAI/VFACTS; RBA; Westpac and Melbourne Institute

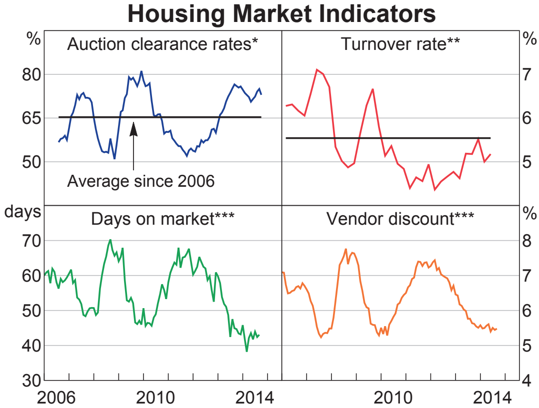
Nationwide housing prices increased by around 2 per cent over the three months to October. This is slower than the rapid pace observed in late 2013, but faster than recent growth in household income. Housing price inflation over the past year has been highest in Sydney and Melbourne, where investor demand has been particularly strong (Graph 3.4). Non-price indicators also remain consistent with strong conditions in the established housing market. Auction clearance rates remain at above-average levels and average days on market and vendor discounts remain at very low levels (Graph 3.5). The increase in housing prices has been associated with an increase in the value of loan approvals and housing turnover, although not by as much as would be expected based on earlier episodes of strong housing market conditions (see 'Box A: Housing Prices, Turnover and Borrowing').

Graph 3.4
Housing Price Growth
Year-ended



* Weighted by share of dwelling stock
Sources: ABS; RBA; RP Data-Rismark

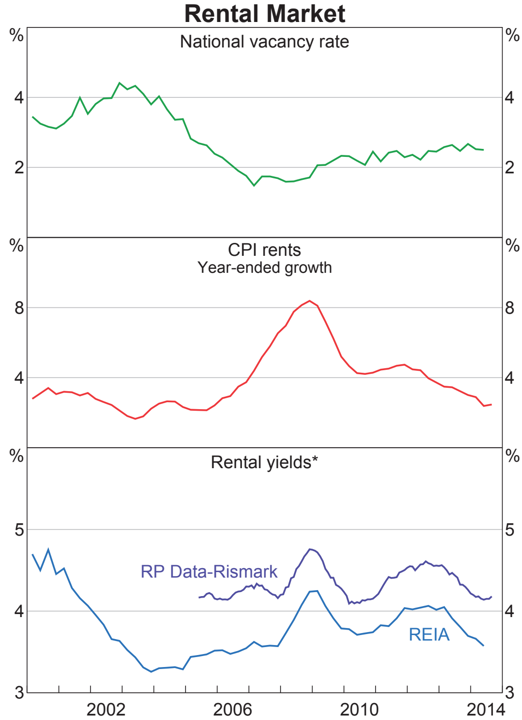
Graph 3.5
Housing Market Indicators



* Average of Melbourne and Sydney
** Share of dwelling stock, annualised
*** Capital city dwelling stock weighted median, private treaty sales only
Sources: Australian Property Monitors; RBA; Real Estate Institute of Victoria; RP Data-Rismark

The nationwide rental vacancy rate was little changed in the June quarter and remains a little above the level of recent years (Graph 3.6). Consistent with this, rental price inflation has slowed over the past year, which, combined with the faster pace of housing price growth, has resulted in further declines in rental yields.

Graph 3.6
Rental Market

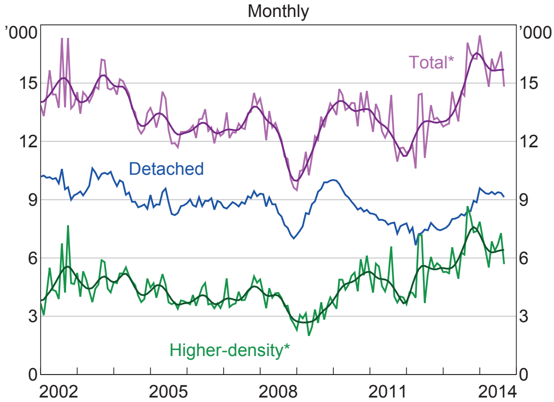


* REIA series uses an unmatched sample of rents and prices; RP Data-Rismark series uses a matched sample and has been seasonally adjusted by the RBA
Sources: ABS; RBA; REIA; RP Data-Rismark

Dwelling investment continues to grow strongly, supported by low interest rates, strong population growth and rising housing prices. There has been a strong rise in construction activity for both detached and higher-density housing. In contrast, alterations and additions activity declined over the year to June and remains relatively low.

Forward-looking indicators continue to point to above-average growth in dwelling investment. Building approvals have been at a high level since late 2013, with some volatility reflecting movements in the higher-density component (Graph 3.7). Building approvals for detached dwellings have been little changed since March. Loan approvals for new dwellings have increased by 8 per cent over the year to August and the number of first home owner grants (FHOGs) paid for new dwellings has continued to trend higher in all states, increasing by 34 per cent over the past year (Graph 3.8).

Graph 3.7
Private Dwelling Approvals
Monthly



* Smoothed line is ABS trend measure
Source: ABS

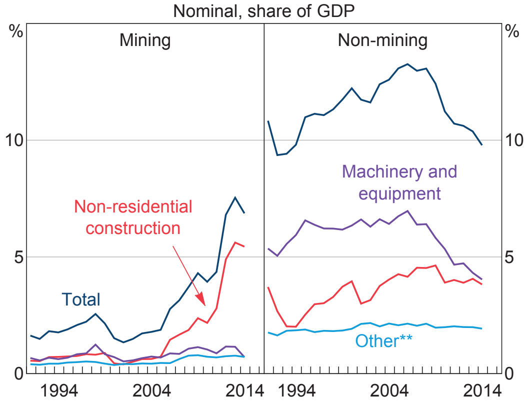
Graph 3.8
Indicators of Dwelling Investment*
Owner-occupier, monthly

* Includes both new construction and newly erected dwellings
Sources: ABS; NSW Office of State Revenue; RBA

Business Sector

Mining investment declined by 7 per cent in 2013/14 as further progress was made on existing large mining projects but few new projects got underway (Graph 3.9). This subtracted around ½ percentage point from GDP growth in the year, although the effect on domestic activity is lower after taking account of the imported content of mining investment. Since its peak in mid 2012, the decline in mining investment has been driven by falls in investment in both machinery & equipment and buildings & structures; resource exploration activity remained largely unchanged over that period. The latest estimate derived from the ABS capital expenditure (Capex) survey suggests that a further fall in mining investment is in prospect in 2014/15, led by a sharp decline in building & structures investment (Graph 3.10). The Bank's liaison also points to larger declines in mining investment over the next couple of years than have been seen to date.

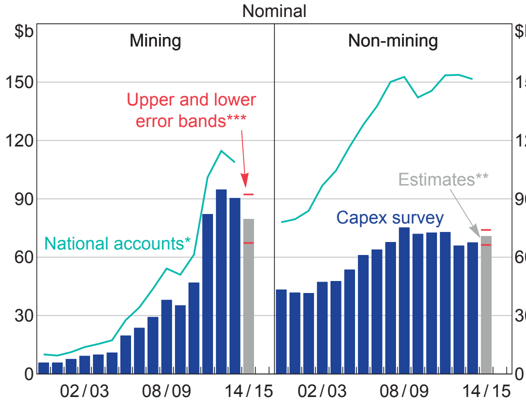
Graph 3.9
Private Business Investment*
Nominal, share of GDP



* Adjusted for second-hand asset transfers between the private and other sectors; assumes all of mining investment is private new investment
** Intellectual property products (research & development, mineral & petroleum exploration, computer software, and artistic originals) and cultivated biological resources
Sources: ABS; RBA

Non-mining investment declined a little in real terms in 2013/14, and is very low as a share of nominal GDP relative to history. Subdued non-mining investment in recent years is consistent with modest growth in demand, spare capacity, the still high level of the exchange rate and firms' low appetite for risk. Nevertheless, over the past year or so there has been a gradual increase in the pace of economic activity outside of the mining sector and there are indications that non-mining investment will pick up in the next year. The latest estimates derived

Graph 3.10
Private Business Investment
Nominal



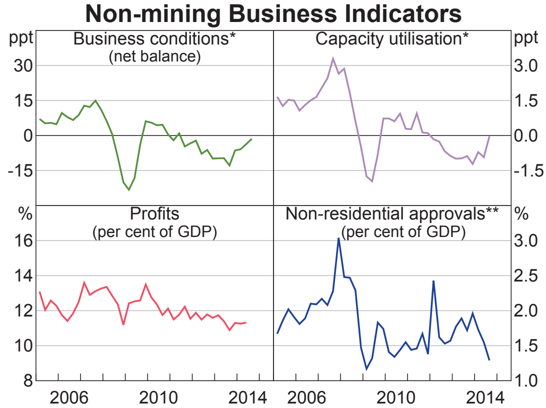
* Adjusted for second-hand asset transfers between the private and other sectors; excluding cultivated biological resources

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

*** Error bands are based on the root mean square error of each adjusted estimate compared with the final outcome for investment in each year

Sources: ABS; RBA

Graph 3.11
Non-mining Business Indicators



* Investment share weighted; deviation from average since 1989; three-month moving average

** RBA forecast for the September quarter 2014

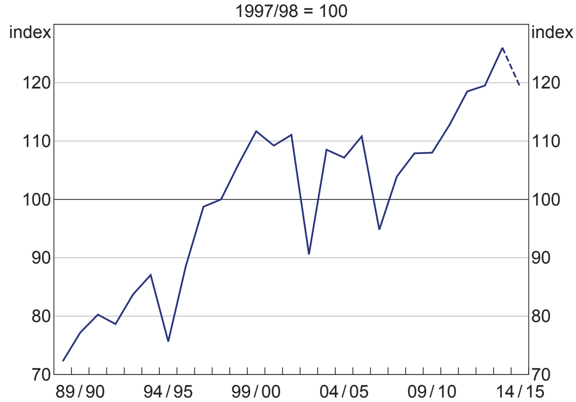
Sources: ABS; NAB; RBA

using the Capex survey point to modest growth in non-mining investment in 2014/15, led mainly by a pick-up in machinery & equipment investment. Survey measures of non-mining business conditions and confidence have increased over the past year and are around average levels (Graph 3.11). Survey measures of capacity utilisation have risen since early 2013 to be around long-run average levels. Business surveys also suggest that investment intentions in the non-mining sector have increased to around average levels. The stock of work yet to be done on large non-residential building projects has increased further over the past year or so and will support activity in the near term. However, non-residential building approvals have trended lower since the start of the year to relatively low levels and office vacancy rates have been increasing. This is consistent with weak underlying conditions in the commercial property market.

Farm Sector

The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) forecasts that farm production will fall by 5 per cent in 2014/15 (Graph 3.12). This reflects expectations of crop and livestock production declining from relatively high levels in 2013/14. The Bureau of Meteorology calculates that there is a 50 per cent chance of an El Niño weather pattern developing over coming months and rainfall is likely to be below average over much of Australia for the remainder of 2014. This follows below-average rainfall in much of Queensland, New South Wales and south west Western Australia over the past year.

Graph 3.12
Volume of Farm Production*
1997/98 = 100



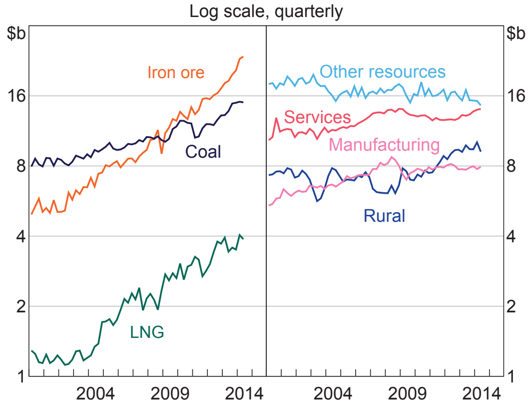
* The solid line represents ABARES' estimate while the dotted line represents ABARES' 2014/15 forecasts

Source: ABARES

External Sector

Export volumes grew at an above-average pace over the first half of 2014, driven by bulk commodities (Graph 3.13). A decline in the level of overall exports in the June quarter partly reversed strong growth in the March quarter. Service export volumes increased a little over the first half of the year, reflecting increases in exports of education, tourism and 'other' services (which include financial and other business services). In the September quarter, resource exports look to have grown at an above-average pace, supported by a higher volume of exports from existing mines and ongoing capacity expansions.

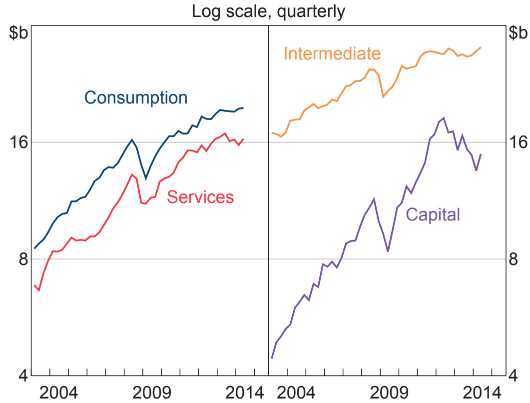
Graph 3.13
Export Volumes*
Log scale, quarterly



* 2011/12 prices
Sources: ABS; BREE; RBA

Import volumes grew strongly in the June quarter, led by capital imports, although growth was broad-based across all components (Graph 3.14). However, imports are lower than a year ago, consistent with moderate growth in domestic spending, partly as a result of the decline in mining investment. The depreciation of the exchange rate since early 2013 may also have weighed on imports.

Graph 3.14
Import Volumes*
Log scale, quarterly

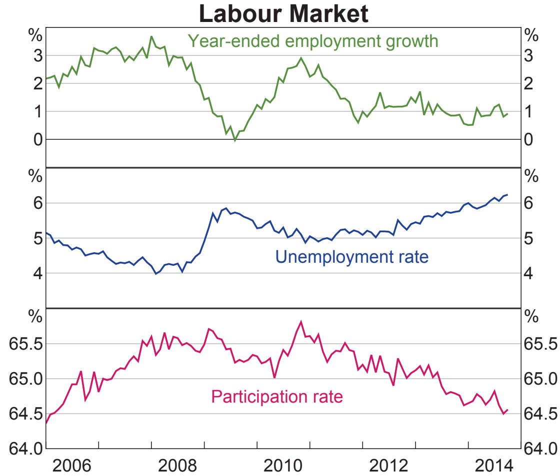


* 2011/12 prices
Source: ABS

Labour Market

Labour market conditions remain subdued. The monthly labour force data have been especially volatile of late and affected by some measurement issues related to seasonality. On revised estimates, employment appears to have increased by around 1 per cent since the turn of the year, which is somewhat below population growth (Graph 3.15). The unemployment rate has risen over the past six months to 6.2 per cent. The participation rate has been little changed over that period.

Graph 3.15
Labour Market



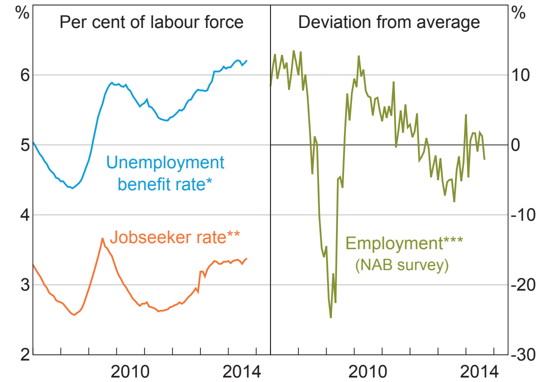
Source: ABS

Meanwhile, the number of people collecting unemployment benefits and subject to a job search requirement has stabilised (as a proportion of the labour force) over the course of this year, after having increased over the preceding two years (Graph 3.16). Similarly, business surveys indicate that monthly employment outcomes have been close to long-run average levels over 2014 to date, and reports from the Bank's liaison suggest that employment intentions are higher than they were a year ago. Also, the leading indicators of labour demand have generally improved since last year (Graph 3.17). The ABS measure of job vacancies has increased since its trough at the end of 2013, while measures of job advertisements have also trended higher over the course of the year.

Despite signs of stabilisation in a few indicators, there remains a degree of spare capacity in the labour market. The unemployment rate is around its highest level since the early 2000s, and above the level that statistical estimates suggest would be consistent with stable domestic inflationary pressures.[2] The participation rate is around its lowest level in the past eight years and average hours worked have declined a little in recent years. Consistent with this, cyclically sensitive components of unemployment, such as the medium-term unemployment rate and involuntary unemployment, have also increased (Graph 3.18). These provide some signal about the degree of spare capacity and account for much of the increase in the unemployment rate over the past few years. The youth unemployment rate, which is also sensitive to the business cycle, has increased by a bit more relative to the aggregate unemployment rate than it has in previous episodes. The employment-to-population ratio and participation rate for this age group have also fallen significantly in the current episode, alongside an increase in the proportion of young people attending full-time education. Long-term unemployment, which is likely to reflect more

Graph 3.16

Labour Market Indicators



* Seasonally adjusted by RBA; break-adjusted for policy changes

** Seasonally adjusted by RBA; jobseekers are unemployment benefit recipients subject to a job search requirement

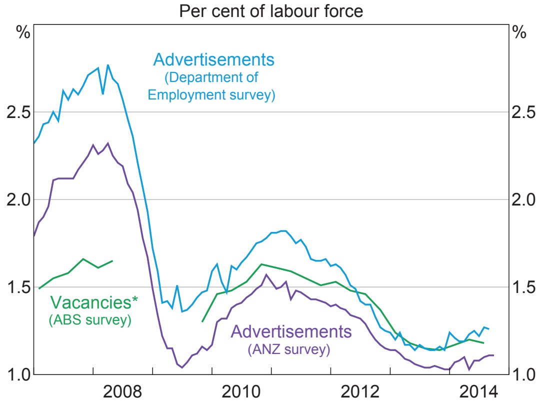
*** Net balance of monthly employment outcomes; deviation from average since 1989

Sources: ABS; Department of Social Services; NAB; RBA

Graph 3.17

Labour Market Indicators

Per cent of labour force



* This survey was suspended between May 2008 and November 2009

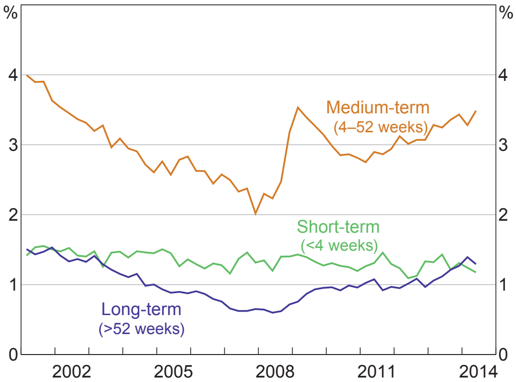
Sources: ABS; ANZ; Department of Employment

structural or enduring influences on unemployment, has increased since the beginning of 2013.

The change in the composition of economic activity away from the resources sector has been apparent in employment outcomes in recent quarters. Mining employment appears to have declined somewhat recently (Graph 3.19). Lower demand for construction

2 More detail is contained in Ballantyne A, D De Voss and D Jacobs (2014), 'Unemployment and Spare Capacity in the Labour Market', RBA *Bulletin*, September, pp 7–20.

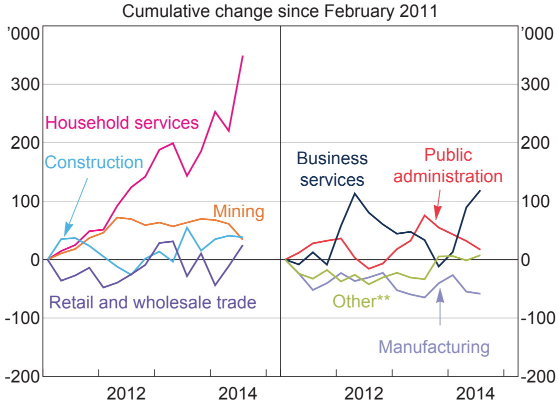
Graph 3.18
Unemployment by Duration*
Per cent of labour force



* Unemployment spell ended with a period of work of one hour or more from July 2014 onwards, and two weeks or more prior to this; seasonally adjusted by RBA up to June quarter 2014 and non-seasonally adjusted data used for the latest quarter

Sources: ABS; RBA

Graph 3.19
Employment Growth by Industry*
Cumulative change since February 2011



* Non-seasonally adjusted data used for the latest quarter

** Includes agriculture, forestry & fishing; transport, postal & warehousing; and electricity, gas, water & waste services

Source: ABS

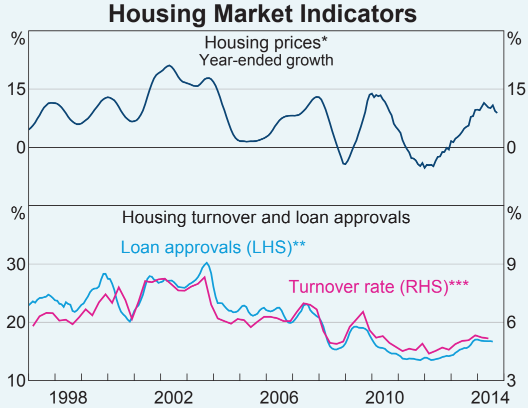
workers in the resources sector appears to have been more than offset by increases in demand from other sources of construction employment. Hence, overall construction employment has increased since the beginning of the year, particularly in New South Wales, consistent with growth in construction activity. Liaison suggests that construction employment is likely to increase further over the year ahead. Meanwhile, business services employment has recovered to be close to its historical peak. Employment in household-focused industries has also increased. The household services sector has continued to experience strong employment growth, driven by the health and education industries. Employment in retail and wholesale trade has picked up. Alongside the changing patterns of labour demand across industries and regions, there has been a shift in the pattern of population growth at the state level. Both net overseas immigration and net interstate immigration have picked up in New South Wales and Victoria. In contrast, the pace of population growth has slowed from high levels in the resource-intensive states of Western Australia and Queensland. ✠

Box A

Housing Prices, Turnover and Borrowing

Indicators of conditions in the established housing market, such as housing prices, housing turnover and new borrowing, are interrelated and often move together quite closely (Graph A1). However, in recent years, housing turnover and loan approvals have risen by less than housing prices when compared with previous cycles in the housing market.

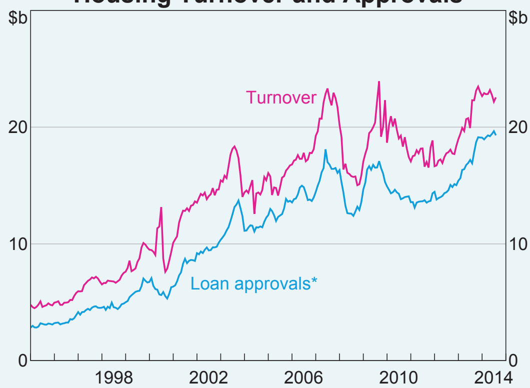
Graph A1
Housing Market Indicators



* Capital city housing prices
** Share of total housing credit; three-month rolling sum, annualised; excludes loans for refinancing, construction and alterations & additions to owner-occupiers and construction loans to investors
*** Quarterly value of turnover as a share of the estimated value of the dwelling stock, annualised
Sources: ABS; RBA; RP Data-Rismark

Turnover and loan approvals are closely linked. Each new housing loan represents a new transaction in the housing market (as long as it is not used to refinance an existing property or construct a new dwelling).[1] Hence, the value of new borrowing will grow at about the same rate as the value of turnover as long as the average loan-to-valuation ratio does not change too much. In Australia, it turns out that the relationship between new borrowing and turnover has been quite stable for the past decade or so (Graph A2).

Graph A2
Housing Turnover and Approvals



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

Housing prices and turnover might move together over time for a number of reasons, although the relationship may not be quite as tight as that between turnover and loan approvals (and it is possible for prices to rise with only limited turnover). One strand of research has found that an increase in housing prices causes an increase in turnover because higher housing prices increase the net wealth of homeowners. This allows those owners who did not previously have a large enough deposit to trade up to a more expensive dwelling, thereby increasing turnover.[2] A complementary strand of research has found that the causality can also run in the other direction, from turnover to housing prices.

1 Loans for the construction of a new dwelling may or may not be associated with the transfer of property. However, purchases of vacant land are not included in the turnover statistics, so loans to households for the purpose of construction are excluded from approvals for consistency. Purchases of new dwellings are included in the turnover data and, if they require financing, the housing loan approvals data.

2 For example, see Stein J (1995), 'Prices and Trading Volume in the Housing Market: A Model with Down-payment Constraints', *The Quarterly Journal of Economics*, 110, pp 379–406.

It suggests that some vendors might discern a rise in housing demand by observing a rise in turnover, thereby encouraging them to raise their reserve prices.[3]

Turnover and housing price growth have moved together over time, although the relationship appears to have weakened somewhat in recent years. The change is most evident in Sydney and Melbourne, where growth in housing prices has been strongest of late (Graph A3). The rate of turnover has remained low in those cities, both in terms of their longer-term averages and relative to growth in housing prices.[4]

It is difficult to know why the turnover rate has remained relatively low compared with its history and compared with prices. There is tentative evidence to suggest that existing homeowners have become more reluctant to borrow against increases in their net wealth to trade up homes. For example, the survey of Household Income and Labour Dynamics in Australia (HILDA) suggests that in 2011 and 2012 (the two most recent survey years) a smaller share of households bought larger homes than in any of the previous nine survey years. Also, there has been unusually low participation of owner-occupiers in housing market transactions recently (Graph A4). The reasons are not clear, although it partly reflects the fact that state government incentives for first home buyers have been redirected away from established dwellings towards new dwellings.

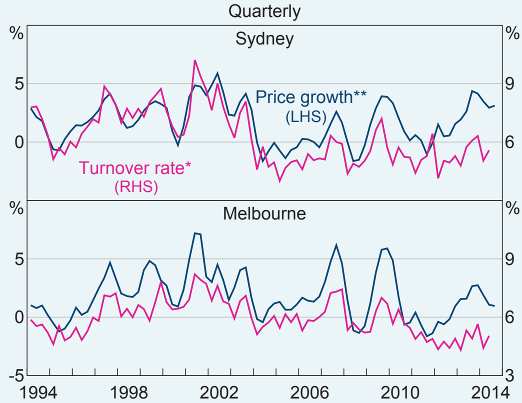
One possibility is that a reluctance to trade up homes reflects households generally becoming less willing to take on additional debt in recent years.[5] Following the increase in leverage over the 1990s and early

3 See Wheaton W (1990), 'Vacancy, Search, and Prices in a Housing Market Matching Model', *Journal of Political Economy*, 98, pp 1270–1292.

4 It is important to note that the period of comparison (from the mid 1990s onwards) may not be a good indication of the usual relationship between turnover and credit, given that the sharp rise in housing prices and credit growth from the mid 1990s was the result of a number of other factors, including financial deregulation and the move to a low-inflation environment.

5 For further details, see Stevens G (2012), 'The Cautious Consumer', Address to The Anika Foundation Luncheon, July.

Graph A3
Housing Prices and Turnover

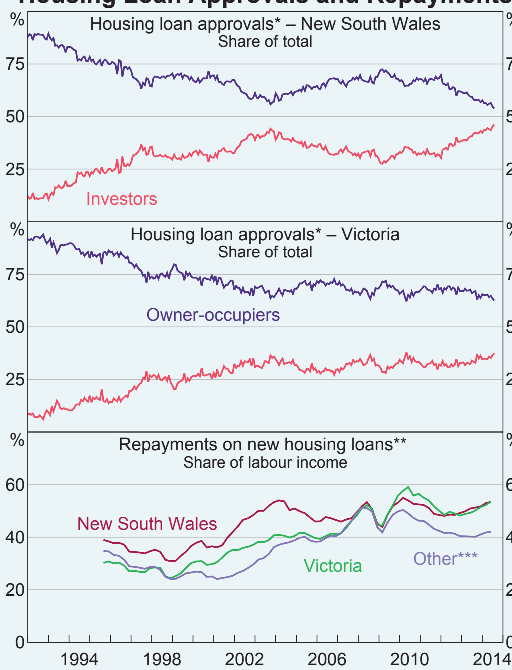


* Number of transactions as a share of the number of dwellings, annualised

** Median dwelling price, smoothed using five-quarter Henderson trend

Sources: ABS; Australian Property Monitors; RBA; RP Data-Rismark

Graph A4
Housing Loan Approvals and Repayments



* Gross of refinancing

** Assumes a 20 per cent deposit on a median-priced dwelling, 25-year mortgage and constant repayments, and a 10-year fixed mortgage rate; labour income measured as compensation of employees per wage and salary earner

*** Queensland, South Australia and Western Australia weighted together by the number of wage and salary earners

Sources: ABS; Australian Property Monitors; RBA

2000s, the debt-to-income ratio has been stable at high levels. Although interest rates are currently low, the *expected* repayment burden on loans is at 10-year average levels, when calculated using a longer-term interest rate to account for the expectation that variable interest rates will move up over time. Indeed, in New South Wales and Victoria, which have experienced the greatest disparity between housing prices and turnover relative to historical norms, the share of current income required to service an average loan over the next 10 years is close to historical highs.

Another consideration is that homeowners may be less willing to borrow more because growth in labour income has slowed. Nominal labour income has grown at an average annual rate of 2.7 per cent over the past two years, compared with a decade average of 6.2 per cent. And the widespread expectation is that wage growth will remain subdued for a time. Moreover, the Westpac-Melbourne Institute survey suggests that the share of households expecting more unemployment a year ahead has been at above-average levels since late 2011, which is an unusually long time by the historical standards of the survey.

Repayment obligations, in combination with uncertainty about future labour income, are an important consideration for homeowners. According to liaison with banks, one consequence of this environment is that an increasing share of owner-occupiers is opting for interest-only loans to increase repayment flexibility.

A reluctance to trade up homes might also stem from increases in effective stamp duty rates. In some states, including New South Wales and Victoria, the nominal housing price thresholds at which higher rates of stamp duty apply have not changed for a number of years. As housing prices have risen, more buyers have fallen into the higher stamp duty brackets, acting as a disincentive to purchase housing. In New South Wales, for instance, the stamp duty paid on a median-priced home has grown to around 25 per cent of annual disposable income per household, from close to 10 per cent in 1991.

Finally, the relationship between turnover and housing prices can be affected by developments in housing supply. Additions to the housing stock have been relatively low in some states over recent years, which would weigh on the rate of turnover as it is currently measured, while low supply relative to demand would also put upward pressure on prices.

4. Domestic Financial Markets

Volatility in Australian financial markets picked up recently, consistent with developments in international markets. Money market rates imply that the cash rate is expected to remain unchanged over the year ahead. Government bond yields have declined in line with global developments, with borrowing costs for state governments around historic lows. Spreads on corporate bonds remain around their lowest levels since 2007, although there has been relatively little bond issuance as gearing continues to decline, particularly in the resources sector. Interest rates on the stock of housing and business loans have continued to edge down further, as new loans are priced at lower rates than existing loans. Growth in housing lending has continued to rise, driven by lending to investors. Australian equity prices underperformed those in other developed markets, with commodity price falls weighing on the resources sector.

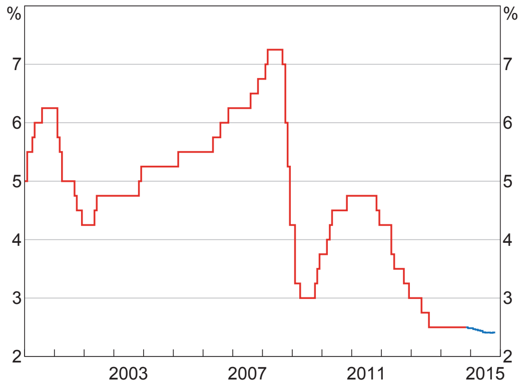
Money Markets and Bond Yields

The Reserve Bank has maintained the cash rate target at 2.50 per cent since August 2013. Interest rates on short-term money market instruments imply that the cash rate is expected to remain unchanged over the coming year (Graph 4.1).

Rates on bank bills and certificates of deposits (CDs) have increased slightly since the previous *Statement*. Spreads between bank bills and overnight indexed swaps (OIS) have edged higher (Graph 4.2).

Yields on long-term Commonwealth Government securities (CGS) have declined since the previous *Statement*. Offshore developments have been the main factor contributing to the decline in yields, with appetites for risk deteriorating owing to renewed concerns about the outlook for economic growth in some of the major economies. The spread between

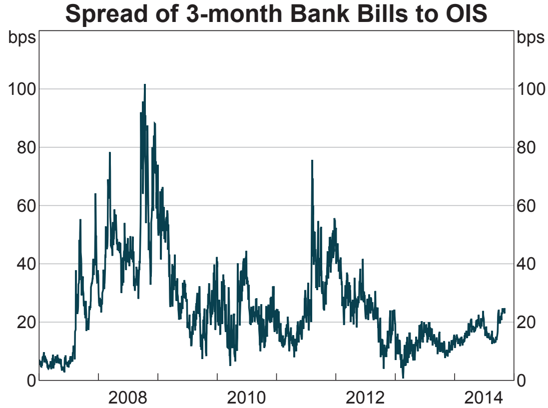
Graph 4.1
Cash Rate*



* Data from November 2014 onwards are expectations derived from interbank cash rate futures

Sources: ASX; Bloomberg

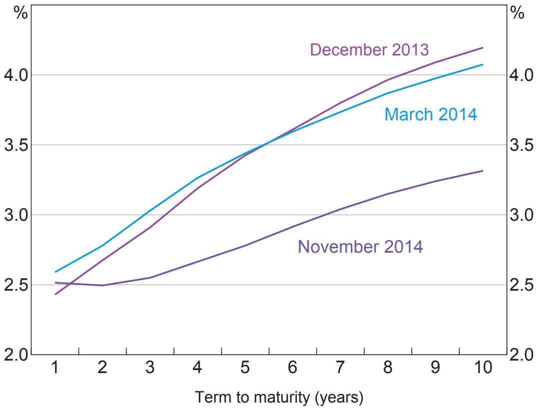
Graph 4.2
Spread of 3-month Bank Bills to OIS



Sources: AFMA; Tullet Prebon (Australia) Pty Ltd

10-year CGS and US Treasuries has been little changed. The Australian yield curve has flattened considerably in recent months (Graph 4.3). Since mid March, the spread between 3-year and 10-year CGS yields has declined by around 50 basis points.

Graph 4.3
Commonwealth Government Bond Yields



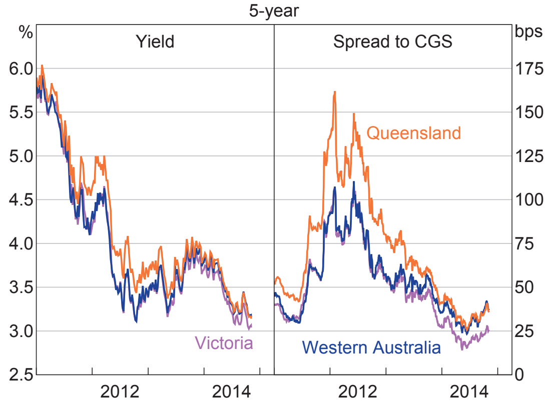
Source: RBA

The primary market for long-term CGS remains strong, with bond tenders conducted by the Australian Office of Financial Management (AOFM) clearing at yields below those quoted in the secondary market. In October, the AOFM issued $7 billion of a new April 2037 nominal bond at a yield of 3.94 per cent. This was equal to the largest initial government bond issue on record and had the longest term-to-maturity of any CGS issued since 1996. A little less than half of the new bond line was purchased by non-residents.

Spreads between debt issued by the state borrowing authorities ('semis') and CGS have increased modestly since the previous *Statement,* but in outright terms yields on semis are around their lowest levels on record (Graph 4.4).

Net issuance of semis has totalled over $3 billion since the previous *Statement*. New issuance has continued to feature floating-rate notes (FRN); increased issuance of FRNs has been driven by demand from Australian banks, which have a preference for floating rate liabilities and are

Graph 4.4
State Government Debt
5-year



Sources: RBA; Yieldbroker

increasing their holdings of high quality liquid assets ahead of the implementation of the Australian Prudential Regulation Authority's (APRA's) Basel III liquidity reforms on 1 January 2015.

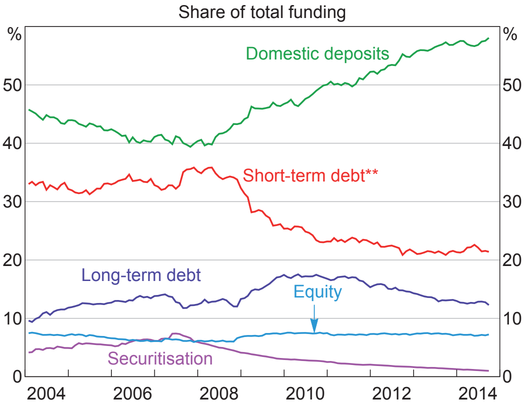
Domestic bond issuance by non-resident entities ('Kangaroo' issuance) has totalled around $10 billion since the previous *Statement,* with around two-thirds raised by banks. Secondary market spreads of Kangaroo bonds have widened, although they remain close to the low levels seen in late 2007.

Since the previous *Statement*, the cost of hedging Australian dollar issuance into some major currencies has decreased, as the cross-currency basis swap spreads of the yen and the euro against the Australian dollar have widened. Conversely, the cost of hedging foreign currency yen or euro issuance into Australian dollars has increased. Australian dollar cross-currency basis swap spreads against the US dollar have been relatively unchanged.

Financial Intermediaries

The aggregate share of deposits in banks' funding has edged higher over recent months as banks continue to fund new lending from deposits and only replace maturing wholesale debt (Graph 4.5). Major banks' average funding costs have generally declined since the previous *Statement.*

Graph 4.5
Funding Composition of Banks in Australia*

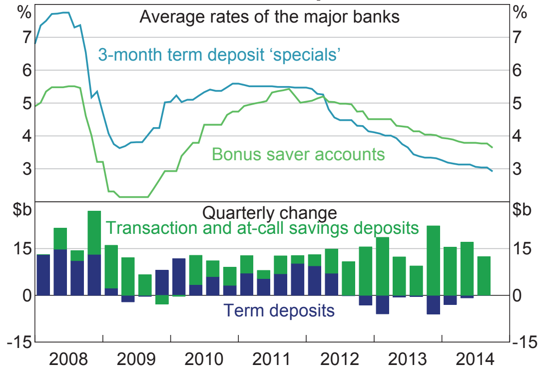


* Adjusted for movements in foreign exchange rates; tenor of debt is estimated on a residual maturity basis

** Includes deposits and intragroup funding from non-residents

Sources: APRA; RBA; Standard & Poor's

Graph 4.6
Household Deposits



Sources: APRA; Canstar; RBA

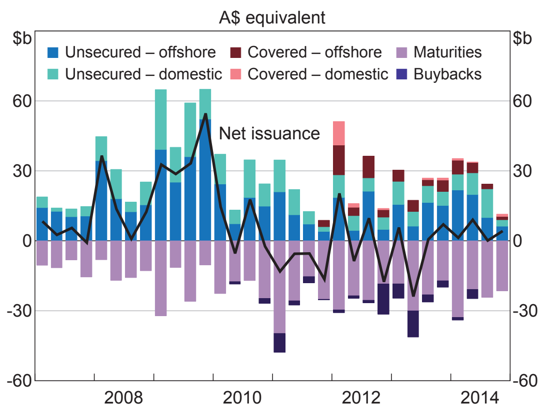
Banks have reduced their term and at-call deposit rates over the past few months, suggesting that competition for deposits has eased (Graph 4.6). Depositors have continued to move away from term deposits as the interest rates on these products continue to be less attractive in comparison to bonus saver accounts.

Conditions in long-term wholesale debt markets continue to be favourable, with the cost of issuance having fallen since the beginning of the year. At the same time, some wholesale debt issued previously at higher spreads has matured, further reducing the average cost of outstanding debt. To date this has only had a modest effect on overall average funding costs as the share of long-term wholesale debt has been broadly stable for some time at around 12 per cent of banks' total funding.

Australian banks have issued around $27 billion in senior unsecured and covered bonds since the previous *Statement*. Around 60 per cent of these bonds were issued in the offshore market, primarily in US dollars (Graph 4.7). The stock of outstanding bonds has increased.

Spreads on the major banks' unsecured bonds, relative to CGS, have increased slightly since the previous *Statement*, but remain around their lowest levels since late 2007 (Graph 4.8).

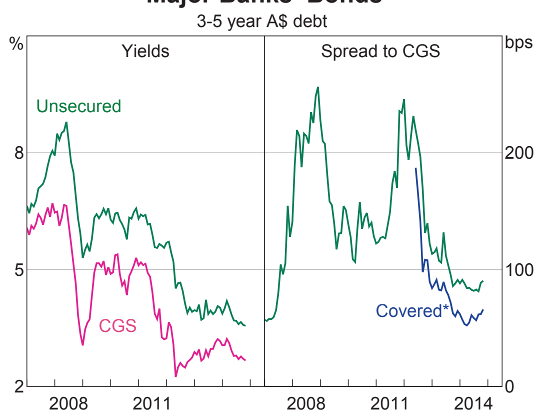
Graph 4.7
Banks' Bond Issuance and Maturities*



* Last quarter gross issuance and net issuance are quarter to date

Source: RBA

Graph 4.8
Major Banks' Bonds

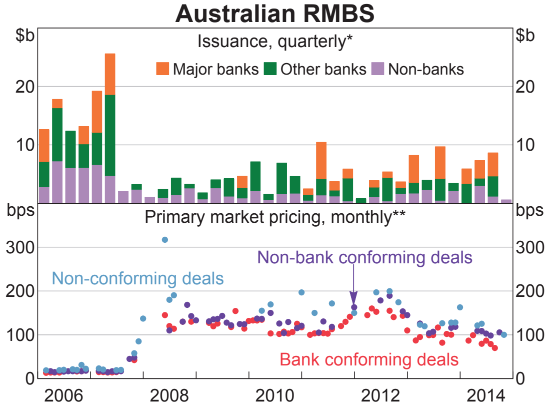


* Covered bond pricing interpolated to a target tenor of 4 years using bonds with a residual maturity between 2 and 10 years

Source: Bloomberg; RBA; UBS AG, Australia Branch

Australian securitised issuance has totalled around $8 billion since the previous *Statement* (Graph 4.9). Around 85 per cent of this issuance has been in the form of residential mortgage-backed securities (RMBS). Most RMBS were originated by banks including a $4 billion RMBS by a major bank, which was the largest RMBS issue since 2007. Mortgage originators raised around $1½ billion, including a $400 million 'non-conforming' RMBS. These mortgages typically involve borrowers with a history of credit impairment, higher loan-to-valuation ratios or reduced documentation. A $950 million security backed by assets such as motor vehicles and equipment finance for small businesses was also issued. Primary market issuance spreads for banks and mortgage originators on senior RMBS tranches have generally declined since the previous *Statement* and remain at their lowest levels since late 2007.

Graph 4.9
Australian RMBS



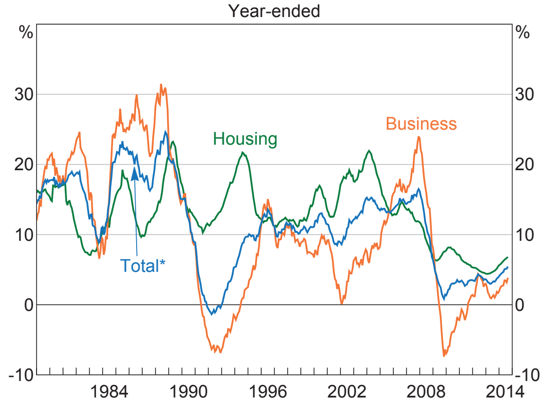
* Latest observation is quarter-to-date
** Face-value weighted monthly average of the primary market spread to bank bill rate
Source: RBA

Issuance of hybrid securities by banks and other financial institutions has increased, with six entities raising around $5½ billion of Basel III compliant securities since the middle of the year. Most of the bank-issued hybrids were in the form of Additional Tier 1 capital instruments. S&P revised its global credit rating methodology for bank-issued hybrids to reflect its assessment of the higher risk of conversion into equity of Basel III Tier 1 hybrids. As a result, ratings of a number of hybrids were downgraded by an additional one notch, including 21 hybrids issued by Australian banks.

Financial Aggregates

Total credit grew by around 5½ per cent over the year to September (Graph 4.10). Growth in credit remains below growth in broad money, which increased by around 8 per cent over the year (Table 4.1).

Graph 4.10
Credit Growth by Sector
Year-ended



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

Household Financing

Housing credit growth has picked up to an annualised pace of around 7 per cent this year. Credit extended to owner-occupiers has been steady at around 5½ per cent while the pace of investor credit growth has increased to around 10 per cent. The rate of new housing loan approvals suggests that growth of lending to owner-occupiers will remain around its current pace, but the pick-up in investor loan approvals in the past three months should contribute to faster growth in that segment in coming months (Graph 4.11). Lower interest rates have made owner-occupiers more inclined to refinance their loans or pay down mortgages at a faster rate; consistent with this, mortgage prepayments remain at a high level.

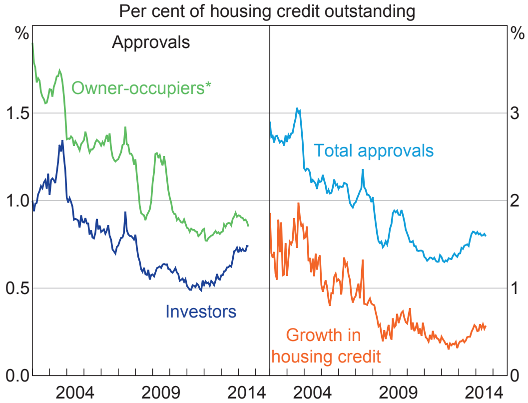
Personal credit grew at an annualised rate of 2.6 per cent over the quarter. The modest pick-up was driven largely by increases in fixed term loans and credit card balances outstanding.

Table 4.1: Financial Aggregates
Percentage change[(a)]

	Three-months ended		Year-ended
	June 2014	September 2014	September 2014
Total credit	1.6	1.3	5.4
– Housing	1.7	1.7	6.8
– Owner-occupier	1.3	1.3	5.5
– Investor	2.5	2.5	9.5
– Personal	0.4	0.6	1.0
– Business	1.6	0.7	3.8
Broad money	2.0	2.1	7.9

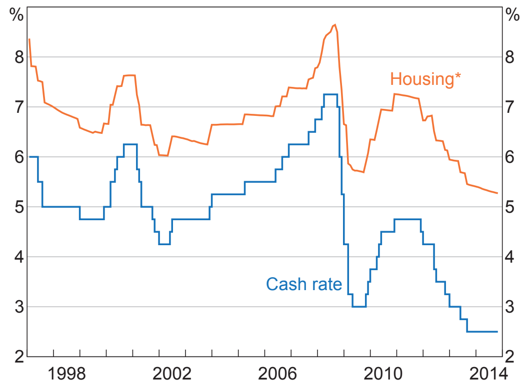
(a) Growth rates are break adjusted and seasonally adjusted
Sources: APRA; RBA

Graph 4.11
Housing Loans
Per cent of housing credit outstanding



* Net of refinancing
Sources: ABS; RBA

Graph 4.12
Interest Rates



* Estimated outstanding rate
Sources: ABS; APRA; Perpetual; RBA

The average interest rate on outstanding housing loans has continued to decline as new loans are being written at lower rates than expiring loans and borrowers have refinanced at lower rates (Graph 4.12). The average interest rate on housing loans is now around 20 basis points below its level following the cash rate reduction in August 2013. Lenders' standard variable rates have remained largely unchanged over this period, although lenders have increased the interest rate discounts on new loans significantly (Table 4.2).

Business Financing

Growth in business external funding slowed in the September quarter after picking up in the June quarter (Graph 4.13). The pace of equity raisings and business credit eased in the quarter, while non-intermediated debt declined.

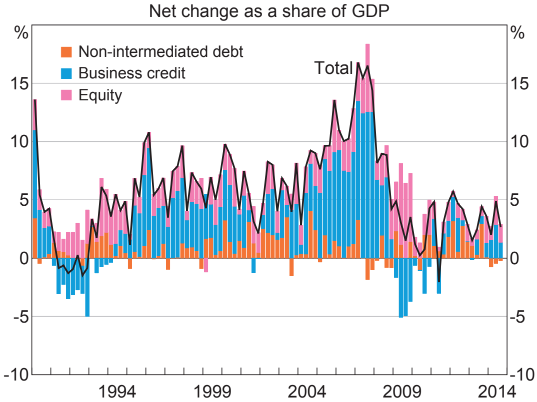
Australian non-financial corporate bond issuance totalled around $4½ billion since the previous *Statement*, remaining low compared to previous years. Resource companies have been largely absent from the bond market over the past year. The majority of issuance was placed offshore, as is typical for Australian corporate bonds, with almost all offshore issuance denominated in euros.

Table 4.2: Intermediaries' Fixed and Variable Lending Rates

	Level at 5 November 2014 Basis points	Change since end August 2013 Basis points
Housing loans		
– Standard variable rate[(a)]	5.93	0
– Package variable rate[(b)]	5.08	–2
– Fixed rate[(c)]	5.08	–3
– Average outstanding rate	5.27	–19
Personal loans		
– Variable rate[(d)]	11.66	–9
Small business (variable rates)		
– Term loans[(e)]	7.10	0
– Overdraft[(e)]	7.97	0
Average outstanding rate	6.63	–17
Large business		
Average outstanding rate (variable rate and bill funding)	4.50	–30

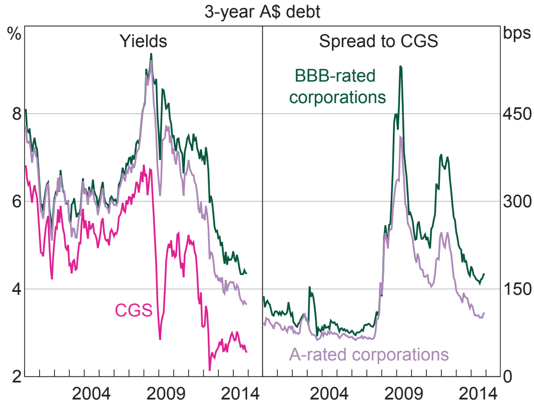
(a) Average of the major banks' standard variable rates
(b) Average of the major banks' discounted package rates on new, $250 000 full-doc loans
(c) Average of the major banks' 3 year fixed rates
(d) Weighted average of variable rate products
(e) Residentially secured
Sources: ABS; APRA; Canstar; RBA

Graph 4.13
Business External Funding
Net change as a share of GDP



Sources: ABS; APRA; ASX; RBA

Graph 4.14
Australian Corporates' Bond Pricing
3-year A$ debt



Sources: RBA; UBS AG, Australia Branch

Secondary market spreads over CGS for 3-year Australian dollar BBB-rated corporate bonds have widened by around 15 basis points since the previous *Statement*, while spreads for A-rated corporate bonds have increased by around 6 basis points (Graph 4.14). Nevertheless, spreads remain around their lowest levels since late 2007.

Hybrid bond issuance by non-financial entities has totalled around $1½ billion since the previous *Statement*.

Non-bank financial corporate bond issuance has totalled around $2½ billion since the previous *Statement*, which was supported by issuance from Scentre Group (a company formed from the restructure of Westfield).

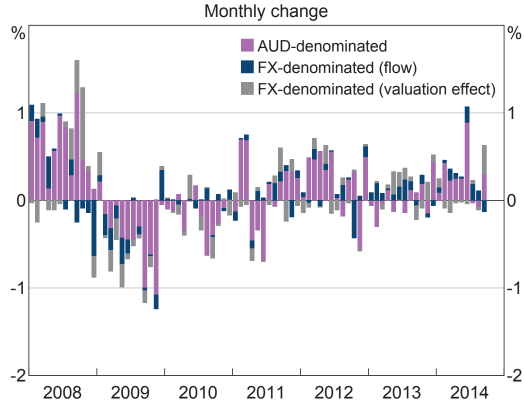
Business credit growth slowed over the September quarter, partly driven by two large loan repayments, but has edged up further in year-ended terms. Following its bond issuance in July, Scentre Group repaid part of the bridging finance drawn down in June for the restructure of Westfield. There was also a large loan repayment by an Australian Government non-financial corporation in August. The repayments were reflected in slower growth in Australian-dollar-denominated business credit over the quarter (Graph 4.15); foreign-currency-denominated business credit continued to grow strongly owing in part to the depreciation of the Australian dollar. Lending to private non-financial corporations has generally grown at a faster pace than lending to unincorporated (typically smaller) businesses over recent months. Commercial loan approvals remain at a high level and are expected to contribute to growth in business credit in coming months.

Activity in the syndicated loan market increased strongly in the September quarter, although much of this related to approvals for the restructure of Westfield, which was included in the July data. Notably, approvals for acquisitions increased to their highest level since 2007, with the increase covering a range of industries. Some of these approvals had very long terms, boosting the average loan maturity at origination to about 4½ years, compared to about four years in the June quarter.

The cost of intermediated business borrowing for both small and large businesses continued to edge down over recent months, with much of the decline driven by the maturation and replacement of fixed rate loans at lower interest rates. Average rates on outstanding business loans are likely to fall further in the short term as existing loans continue to be refinanced at lower rates (Graph 4.16).

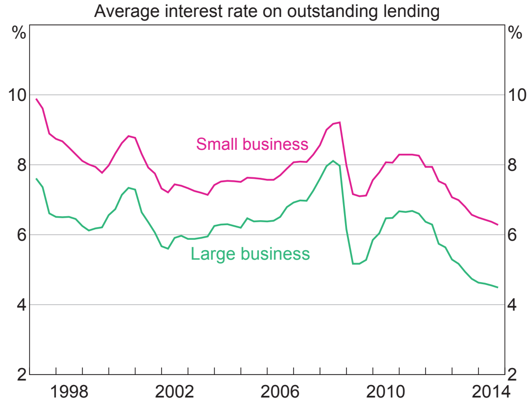
Equity raisings by non-financial corporations (including real estate companies) slowed in the September quarter to $6 billion, mainly driven by

Graph 4.15
Business Credit
Monthly change



Sources: APRA; RBA

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

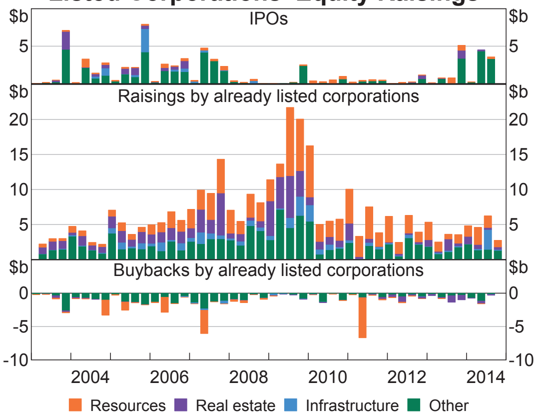


Sources: APRA; RBA

lower equity raisings by already listed companies (Graph 4.17). Initial public offerings (IPOs) remain high relative to 2013, at around $3½ billion. The Government has announced further details of the sale of shares in Medibank Private, which will be completed by the end of November.

Mergers and acquisitions (M&A) activity has been subdued since the previous *Statement*, with around $8 billion in deals announced by listed companies. M&A activity was concentrated in the consumer discretionary sector, with $2½ billion of transactions conducted in the September quarter.

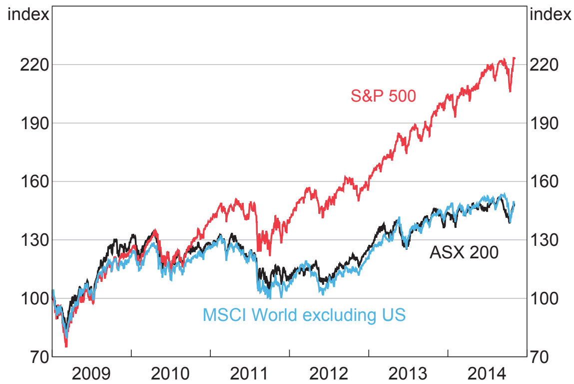
Graph 4.17
Listed Corporations' Equity Raisings*



* Excludes financial corporations other than real estate; excludes privatisations and hybrid conversions

Sources: ASX; RBA

Graph 4.18
Share Price Indices
End December 2008 = 100



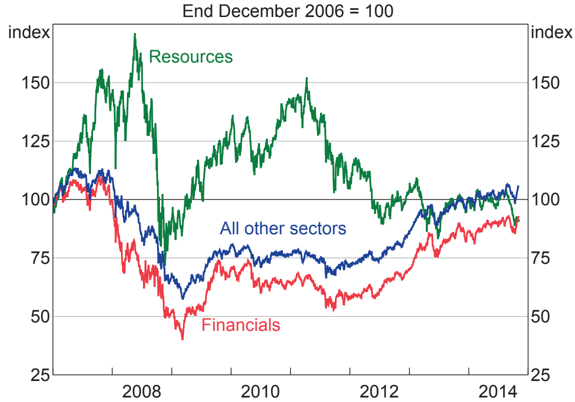
Sources: Bloomberg; Thomson Reuters

Equity Markets

Australian equity prices have risen slightly since the previous *Statement*, generally underperforming other major equity markets which have risen over this period (Graph 4.18). Australian equity prices have been particularly affected by lower commodity prices owing to the resources sector's relatively large share of the domestic market. Similar to other international markets, the volatility of Australian equities has increased since the previous *Statement*.

Equity prices in the resources sector have fallen by 12 per cent since the previous *Statement* (Graph 4.19). The share prices of the major miners have broadly tracked iron ore price movements while energy sector share prices have fallen 6½ per cent alongside lower oil prices. In contrast, financial sector equity prices have risen since the previous *Statement*. Share prices in other sectors increased by 3 per cent, with defensive sectors generally outperforming the broader market. Healthcare sector equity prices have increased substantially since the previous *Statement*, supported by higher earnings and international product approvals.

Graph 4.19
Australian Share Prices Indices
End December 2006 = 100

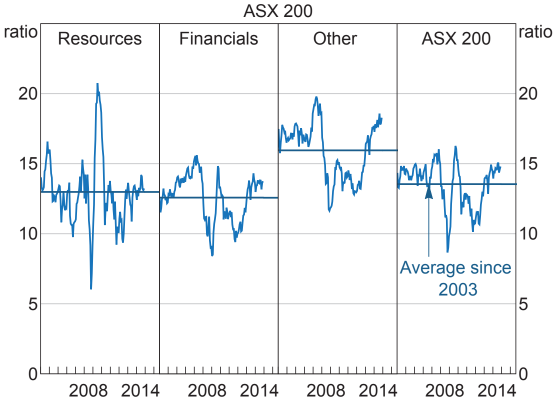


Sources: Bloomberg; RBA

Valuations of Australian equities, as measured by forward price-earnings (PE) ratios, have fallen slightly since the previous *Statement*, but remain close to their decade averages for all broad sectors (Graph 4.20). Valuations declined the most in the resources sector as the fall in equity prices has outpaced the decline in analysts' consensus earnings estimates.

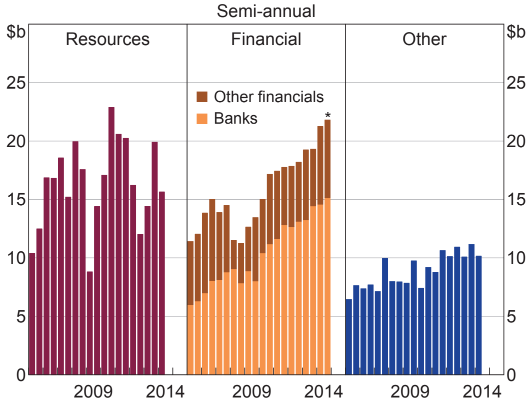
ASX 200 companies reported their June half 2014 results in July and August. Aggregate underlying profits, which exclude the effect of non-recurring items, increased by 10 per cent compared with the same period last year (Graph 4.21).

Graph 4.20
Australian Forward Price-earnings Ratios
ASX 200



Sources: RBA; Thomson Reuters

Graph 4.21
ASX 200 Underlying Profits
Semi-annual



* Figures for financials for the December 2014 half are based on reported results during the half and consensus expectations for companies that have not yet reported.

Sources: Bloomberg; Morningstar; RBA

Resource sector profits were 10 per cent higher than the same period in 2013 driven by significant increases in production volumes and lower costs. However, profits fell by 20 per cent compared to the previous half as lower commodity prices, particularly for iron ore, weighed on earnings.

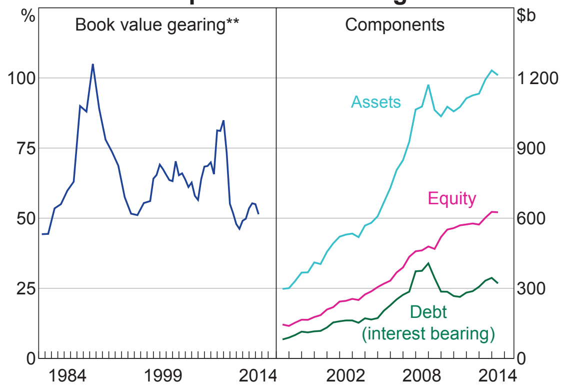
Underlying profits in the financial sector rose by 13 per cent in the June half of 2014 compared to the same period in the previous year supported by substantial increases in the profits of insurers and diversified financials. Banks generally reported increases in full year underlying profit. These increases were partly driven by higher net interest income, which resulted from growth in interest earning assets. Declines in bad and doubtful debt charges owing to improved asset quality also contributed to profit growth. For the major banks, net interest margins have been broadly stable, with strong competition in lending markets offset by lower funding costs and improved wholesale market conditions. Banks generally increased their dividend payments compared with the same period in the previous financial year.

Underlying earnings outside the resources and financial sectors increased by 2 per cent from the same period last year. Earnings in the industrial sector, which includes a number of mining service-related companies, declined as resources firms continued to reduce their capital expenditure. Consumer sectors also reported lower profits weighed by weaker sales growth.

Debt of listed corporates declined by 7 per cent, while equity was unchanged (Graph 4.22). As a result, the book value gearing ratio declined to 51 per cent to remain well below its historical average. Gearing in the resources sector declined as the major diversified miners continued to reduce outstanding debt. Further declines in resources sector gearing are expected to be more moderate, as companies approach their target net debt levels and increase shareholder distributions. Gearing also declined across the non-resources sectors.

Graph 4.22

Listed Corporations' Gearing Ratio*



* The gross gearing ratio is defined as the ratio of the book value of gross debt to the book value of equity; excludes foreign-domiciled companies

** Data from 1997 includes real estate companies

Sources: Morningstar; RBA; Statex

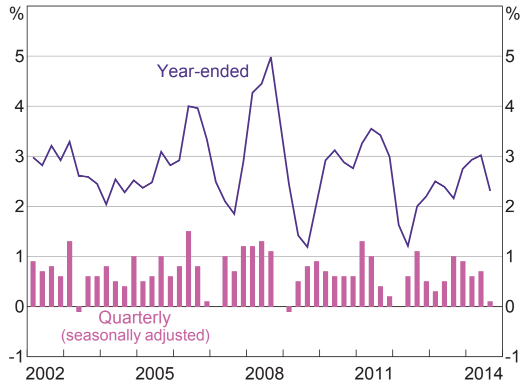
5. Price and Wage Developments

Recent Developments in Inflation

Inflation declined in the September quarter and was a little lower than expected. This followed several quarters where inflation had been rising in year-ended terms and had been a little higher than expected.

Consumer price inflation was 0.1 per cent in the quarter (in seasonally adjusted terms) and 2.3 per cent over the year (Graph 5.1; Table 5.1). The decline in headline inflation (from 0.7 per cent in the June quarter) in large part reflected the repeal of the carbon price, which took effect retroactively from 1 July. Excluding utility prices, which capture the direct effect of the repeal on final prices, consumer

Graph 5.1
Consumer Price Inflation



Source: ABS

Table 5.1: Measures of Consumer Price Inflation
Per cent

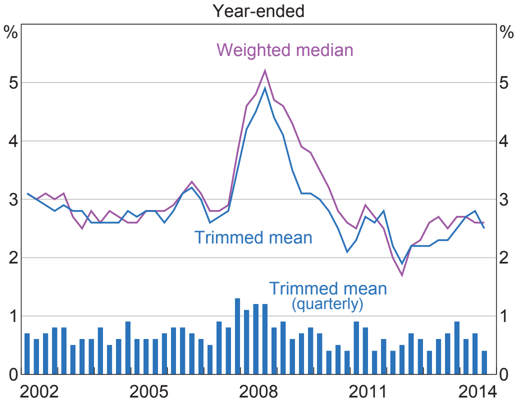
	Quarterly(a)		Year-ended(b)	
	September quarter 2014	June quarter 2014	September quarter 2014	June quarter 2014
Consumer Price Index	0.5	0.5	2.3	3.0
Seasonally adjusted CPI	0.1	0.7	–	–
– Tradables	0.0	0.4	2.0	2.9
– Tradables (excl volatile items and tobacco)(c)	–0.6	0.5	0.4	1.2
– Non-tradables	0.2	0.8	2.4	3.1
– Non-tradables (excl utilities)	0.7	0.8	2.8	2.9
Selected underlying measures				
Trimmed mean	0.4	0.7	2.5	2.8
Weighted median	0.6	0.6	2.6	2.6
CPI excl volatile items(c)	0.1	0.8	2.1	2.8

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

price inflation was 0.4 per cent in the quarter and 2.5 per cent over the year. The effect on headline inflation of a sharp increase in fruit prices was offset by a fall in the price of fuel, reflecting lower prices of crude oil.

Underlying inflation also declined in the September quarter. Statistical measures suggest that quarterly underlying inflation slowed to around ½ per cent, from around ¾ per cent in the June quarter (Graph 5.2). Over the year, underlying inflation was around 2½ per cent. The pace of underlying inflation is also likely to have been affected to an extent by the removal of the carbon price, owing to its 'indirect' effect on the prices of a broad range of consumer goods and services. However, these indirect effects are likely to pass through over a number of quarters and are difficult to observe amid the usual variation in different costs.

Graph 5.2
Measures of Underlying Inflation

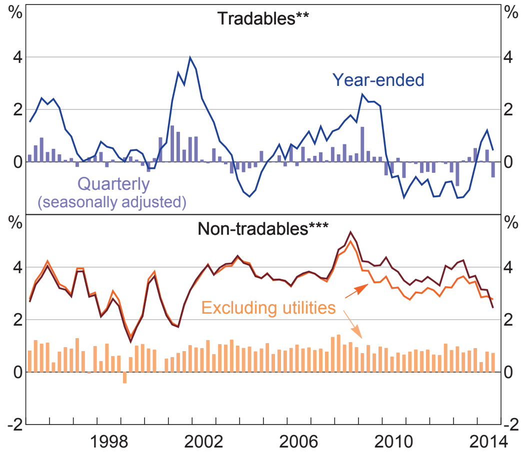


Source: ABS

The prices of tradable items (excluding volatile items and tobacco) declined by 0.6 per cent in the September quarter, although these prices are still higher than they were a year ago (Graph 5.3). Over time, the prices of tradable items tend to be heavily influenced by movements in the exchange rate, as they are either imported or relatively exposed to international competition (particularly for consumer durables) (Graph 5.4). Accordingly, the exchange rate depreciation since early 2013 has led to an increase in the prices of imported items when measured 'across the docks'. This will exert gradual upward pressure on prices faced by consumers for several years. The more recent depreciation of the exchange rate can be expected to push the prices of tradable items up further still (see 'Economic Outlook' chapter).

Tradables inflation frequently displays a high degree of volatility from quarter to quarter. The decline in

Graph 5.3
Tradables and Non-tradables Inflation*



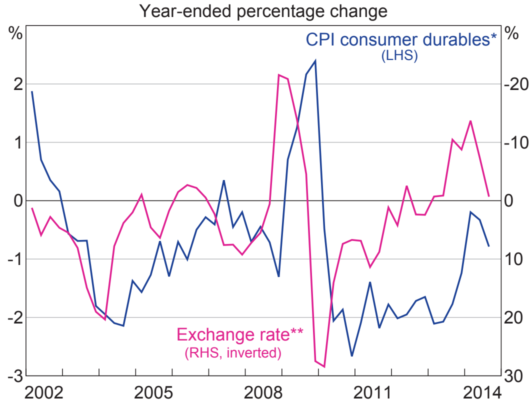
* Adjusted for the tax changes of 1999–2000

** Excluding volatile items (fruit, vegetables & automotive fuel) and tobacco

*** Excluding interest charges prior to the September quarter 1998 and deposit & loan facilities to June quarter 2011

Sources: ABS; RBA

Graph 5.4
Consumer Prices and the Exchange Rate



* Retail items (excluding food and alcohol) and motor vehicles and parts

** Import-weighted index, quarter averages

Sources: ABS; RBA

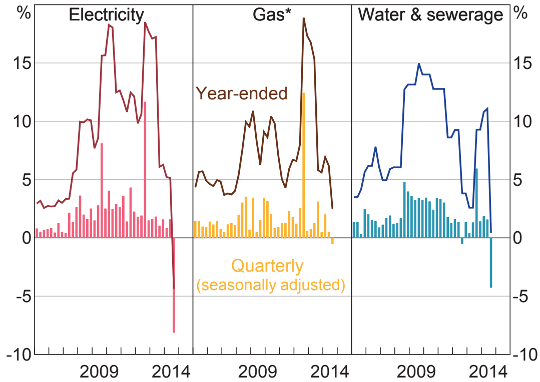
tradables prices in the September quarter could reflect several factors. It may be due to statistical noise. It may reflect a temporary pause in the pass-through of the exchange rate depreciation following the strong outcome in the previous quarter. In addition, liaison suggests that retailers have been constrained in passing on price increases due to the strength of competitive pressures and there may have been greater-than-usual discounting to clear winter stocks of clothing and footwear following unseasonably warm weather in the June quarter.

Non-tradables prices increased by only 0.2 per cent in the September quarter, to be 2.4 per cent higher in year-ended terms. The weak outcome largely reflects the effect of the repeal of the carbon price on utility prices (Graph 5.5). Electricity prices declined by 8.1 per cent, with large decreases across most states. The effect of the repeal of the carbon price on gas prices was offset by price rises for other reasons (including the expected increase in wholesale prices as gas markets on the eastern seaboard are integrated into international markets). Water and sewerage prices also fell sharply in the quarter, although this was driven by policy changes in Victoria unrelated to the repeal of the carbon price. It is likely that the bulk of the direct effects of the carbon price repeal on utility prices have been passed through in the September quarter.

Abstracting from utility prices, non-tradables inflation was little changed in the September quarter and remains below its average over recent years. Weak growth in labour costs over the past couple of years has exerted downward pressure on non-tradables inflation. This is most apparent for market services inflation, which over the past year was around 1 per cent, its slowest pace in the past couple of decades (Graph 5.6). This is not surprising because market services have a relatively high labour content, are comparatively sheltered from international competition and include few administered price components. Accordingly, their prices are particularly sensitive to growth of labour costs.[1]

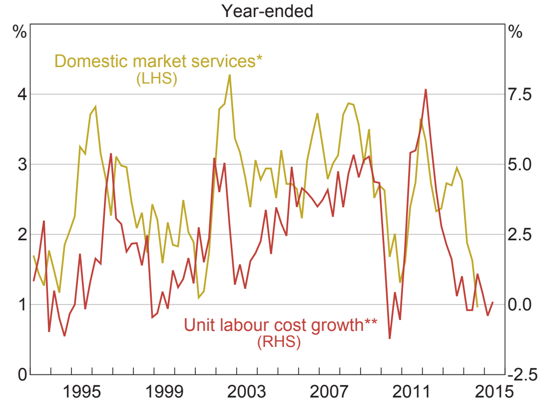
1 For further details, see Jacobs D and T Williams (2014), 'The Determinants of Non-tradables Inflation', RBA *Bulletin*, September, pp 27–38.

Graph 5.5
Utilities Inflation



* Includes other household fuels
Source: ABS

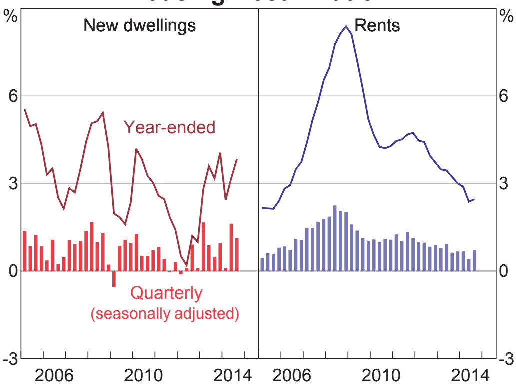
Graph 5.6
Market Services Inflation
Year-ended



* Excludes deposit & loan facilities to June quarter 2011 and housing
** Moved forward by four quarters, non-farm
Sources: ABS; RBA

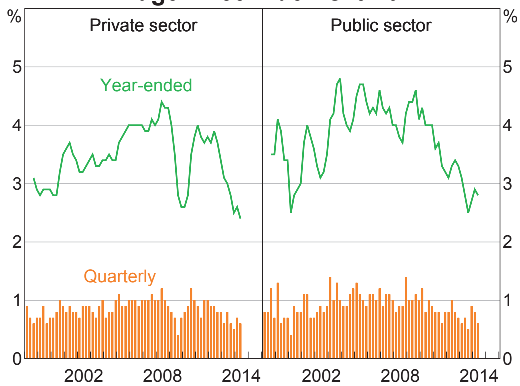
Non-tradables inflation has also been affected by the housing cycle (see 'Box B: Inflation and the Housing Cycle'). Overall, inflation in the housing-related components of the CPI (excluding utilities) continued at an around-average pace in the September quarter. But inflation in new dwellings costs remained elevated, consistent with strong activity in the new housing sector (Graph 5.7). In contrast, rents inflation picked up a little in the quarter, but remains low in year-ended terms, consistent with a gradual trend higher in rental vacancy rates.

Graph 5.7
Housing Cost Inflation



Source: ABS

Graph 5.8
Wage Price Index Growth



Source: ABS

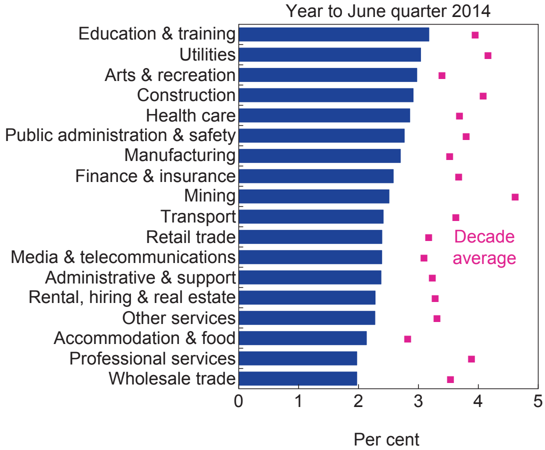
Labour Costs

Labour cost pressures generally remain weak, consistent with a degree of spare capacity in the labour market. Wage growth, as measured by the wage price index, remained low in the June quarter at 0.6 per cent. Year-ended wage growth was 2.6 per cent. While this is the lowest it has been since the late 1990s, when the wage price index was first published, the pace of wage growth looks to have stabilised in recent quarters.

The weakness in wage growth continues to be broad-based. Private sector wage growth has been weak, slowing to 2.4 per cent over the year (Graph 5.8). This is consistent with business surveys and liaison, which suggest that wage growth has stabilised at low levels, with firms remaining focused on reducing costs. Mining, professional & technical services and wholesale trade have seen pronounced declines in the pace of wage growth in recent years (Graph 5.9).

The broad-based decline in wage growth is consistent with other evidence of spare capacity in the labour market. In particular, measures of unemployment and underemployment are at elevated levels (see 'Domestic Economic Conditions' chapter). The extent of the slowing in wage growth appears to have been a little more pronounced than would have been expected given historical

Graph 5.9
Wage Growth by Industry*
Year to June quarter 2014



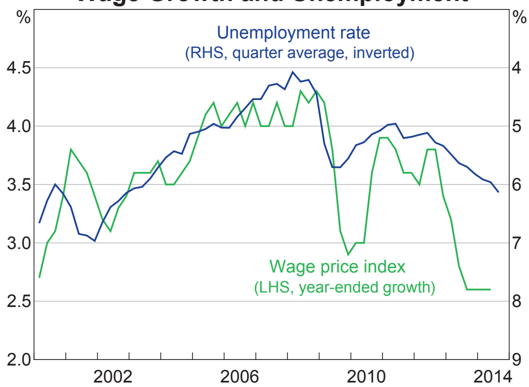
* Wage price index
Sources: ABS; RBA

relationships between private sector wage growth and measures of the degree of spare capacity in the labour market (Graph 5.10).[2]

There are various possible explanations for a change in the sensitivity of wage growth to the level of spare capacity in the economy. Greater labour market flexibility may have allowed wages to respond more to a given change in the unemployment rate than in earlier episodes. Alternatively, the rise

2 The same conclusion is drawn from a more sophisticated econometric modelling approach that controls for variables such as the unemployment rate, output prices and inflation expectations.

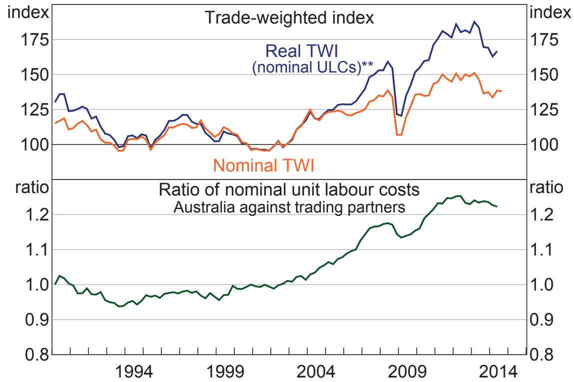
Graph 5.10
Wage Growth and Unemployment



Sources: ABS; RBA

Graph 5.11
Real Effective Exchange Rate*

2002 average = 100



* Series constructed using unit labour cost data exclude China and several other trading partners as data are unavailable

** Nominal trade-weighted index adjusted for ratio of nominal unit labour costs

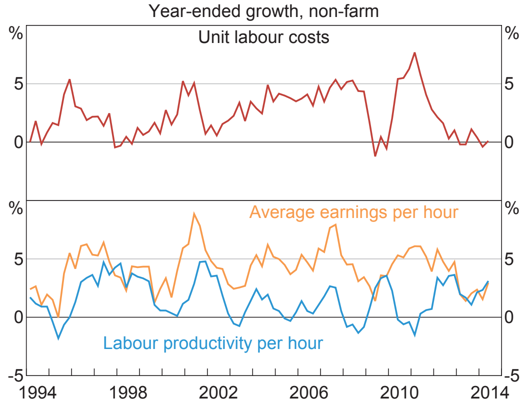
Sources: OECD; RBA

in the unemployment rate may be understating the extent of the increase in spare capacity in the labour market. It is also possible that concerns about job security – which remain elevated as measured by unemployment expectations in the Melbourne Institute survey of consumers – have led workers to limit their wage demands. Liaison with firms supports this, with reports that employees appear to be willing to trade lower wage growth for greater job security. It is also consistent with the low level of industrial disputes.

In addition, businesses have been under pressure to contain costs due to a loss of international competitiveness. Over a number of years, this was brought about by the run-up in the terms of trade, which contributed to a sizeable appreciation of the exchange rate and some growth in wages. A measure of Australia's international competitiveness that adjusts Australia's nominal trade-weighted index by the relative growth of labour costs in Australia and its OECD trading partners illustrates that both factors contributed to a decline in Australia's competitiveness up to 2013 (Graph 5.11). The depreciation of the nominal exchange rate since early 2013, if sustained, can be expected to assist in improving international cost competitiveness. The relatively low growth of Australia's unit labour costs – unchanged now for a few years – will also make a contribution to competitiveness (Graph 5.12).

Graph 5.12
Unit Labour Costs

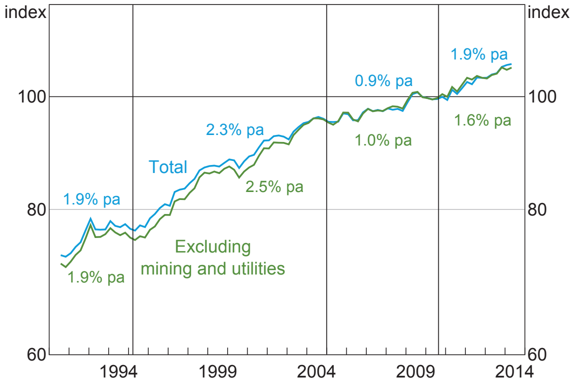
Year-ended growth, non-farm



Sources: ABS; RBA

Labour productivity growth has increased over the past few years. Recent improvements partly reflect the transition of the resource sector to a period of strong growth in output, which is much less labour intensive than the earlier period of significant accumulation of capital. However, there are also signs that labour productivity growth has picked up across a wide range of industries over recent years (Graph 5.13).

Graph 5.13
Labour Productivity*
2009/10 = 100, log scale



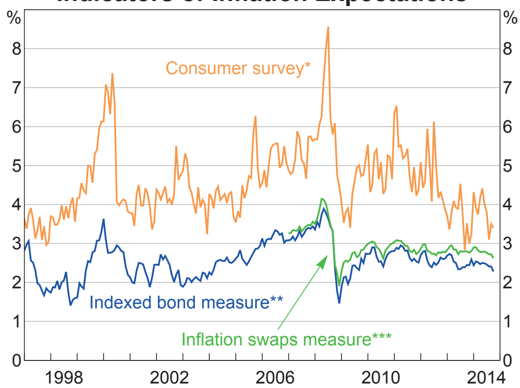
* Figures represent trend growth during each period
Sources: ABS; RBA

Producer price data suggest that domestic inflationary pressures have been relatively subdued across all stages of production over the past year. The repeal of the carbon price affected domestic producer prices in the quarter, though it is difficult to quantify this effect. The low level of inflation across the domestic components of producer prices is broadly consistent with the below-average level of non-tradables inflation (excluding utilities) reported in the CPI; however, such comparisons should be drawn with caution owing to the variety of conceptual and measurement differences between the indices. The pass-through of imported producer prices, which have increased over the past year or so, to consumer prices typically occurs with long lags. The more recent depreciation of the exchange rate, along with the continued effects of the earlier depreciation, are likely to exert continued upward pressure on final prices for tradables items for some time yet.

Inflation expectations

Measures of inflation expectations have generally declined and remain below their long-run average levels (Table 5.2; Graph 5.14). The CPI data for the September quarter were a bit lower than generally expected, and market economists and union officials revised down their forecasts for 2014 in response. Forecasts for inflation over 2015 are little changed for market economists, but union officials have revised their forecasts lower by nearly ½ percentage point. Financial market measures and the Melbourne Institute survey of consumer inflation expectations have also declined in recent months and are below their historical averages.

Graph 5.14
Indicators of Inflation Expectations



* Trimmed mean expectation of inflation over the next year
** Break-even 10-year inflation rate on indexed bonds; interpolation used to match exact maturity
*** Expectations 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 December 2014			Year to December 2015		
	May 2014	August 2014	November 2014	May 2014	August 2014	November 2014
Market economists	2.4	2.2	2.1	2.7	2.6	2.7
Union officials	3.0	3.0	2.5	2.9	3.0	2.6

Sources: RBA; Workplace Research Centre

Box B

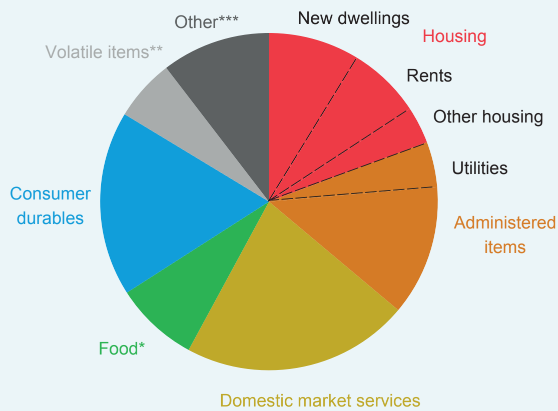
Inflation and the Housing Cycle

Strong conditions in the housing market over the past year or so have exerted upward pressure on inflation. This is in contrast to a general easing in domestic inflationary pressures, associated with spare capacity in product and labour markets. Stronger demand for new and established housing affects inflation directly and indirectly:

- *Direct effects:* housing components represent about one-fifth of the total CPI basket, and around one-third of non-tradable items (Graph B1). Housing components include the cost of owner-occupied housing and rents, as well as other housing-related costs. Importantly, the cost of owner-occupied housing is measured as the price of a newly built dwelling, excluding the value of the land, so it is related to price pressures in the new housing market. That is, the price of established dwellings has no direct influence on CPI inflation.[1]
- *Indirect effects:* demand for a wide range of goods and services included in the CPI might be affected indirectly by conditions in both the new and established housing markets.

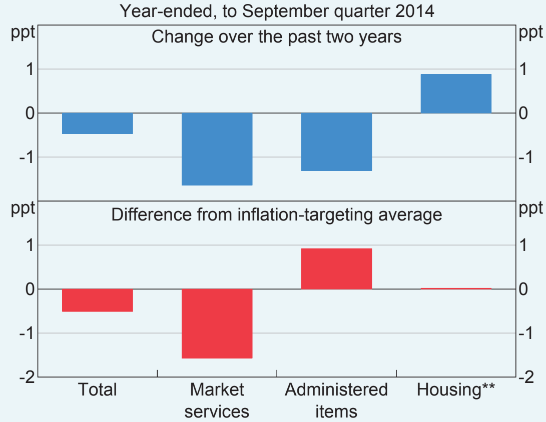
In terms of the direct effects, housing inflation has picked up over the past two years, to be around its average over the inflation-targeting period (Graph B2). In contrast, the other components of non-tradables inflation have generally slowed over the past two years. Non-tradables inflation overall is below its inflation-targeting average.

Graph B1
CPI Basket
Per cent



* Excluding alcohol, fruit, vegetables, meals out and takeaway
** Fruit, vegetables and automotive fuel
*** Alcohol, tobacco, pet & related products, and international travel & accommodation
Sources: ABS; RBA

Graph B2
Non-tradables Inflation*
Year-ended, to September quarter 2014



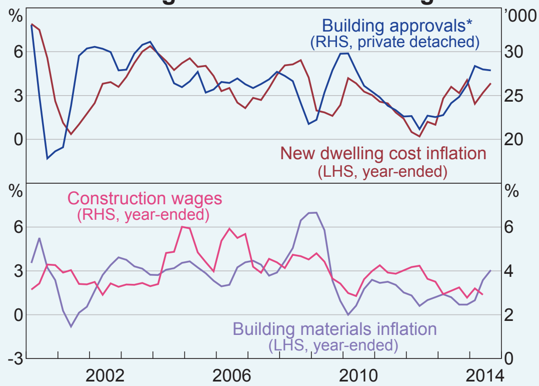
* Excluding utilities
** Excluding administered items; new dwelling costs not directly included in CPI basket prior to September quarter 1998
Sources: ABS; RBA

1 The cost of servicing a mortgage is also not included in the CPI, although is included in the ABS analytical living cost indices. For a discussion see Jacobs D, D Perera and T Williams (2014), 'Inflation and the Cost of Living', RBA *Bulletin*, March, pp 33–46.

The pick-up in housing inflation has been driven by the cost of new housing. The price of a newly built dwelling has risen by nearly 4 per cent over the past year – faster than its historical average and around the quickest pace in nearly five years, a period over which conditions in this market had generally been subdued. New dwelling inflation has tended to move closely with the cycle in residential building activity, as gauged by building approvals (Graph B3).[2] An upswing in residential building activity typically places upward pressure on new dwelling prices both by providing scope for builders to increase their margins and by pushing up the costs of labour and materials in this market.[3] The Bank's liaison suggests that builders have been able to increase margins over the past year or so, which is consistent with inflation for new dwellings exceeding growth in construction wages and materials costs. Labour cost pressures have been subdued to date, with construction wage growth around its slowest pace in the past decade or so. Workers with skills in construction are reported to be readily available, in part because demand for such labour from the resources sector has declined. In contrast, building materials inflation has risen somewhat over the past year or so – particularly for items such as timber, cement and sheet metals – and now is a little above its historical average.

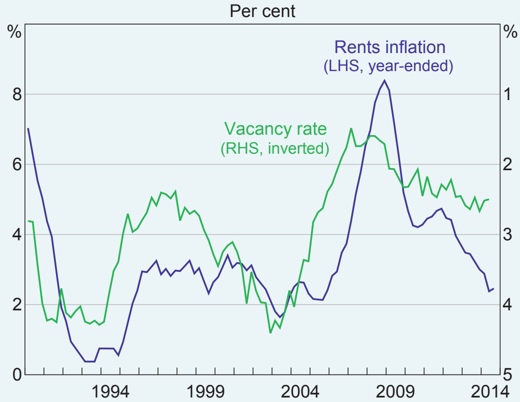
In contrast to new dwelling costs, the growth in rents has eased in recent years, to be around its slowest pace since the mid 2000s (Graph B4). This has been accompanied by a gradual increase in the rental vacancy rate, although this remains below its long-run average. The balance of supply and demand in the rental market will be affected by conditions in the established housing market; in principle, more households seeking to own rather than rent will weigh on rental demand. At the same time, increased housing construction activity and strong growth of investor purchases will add to the supply of rental properties.[4]

Graph B3
New Dwelling Inflation and Building Costs



* Three-month rolling sum
Sources: ABS; RBA

Graph B4
Rents Inflation and Vacancy Rate
Per cent



Sources: ABS; REIA

The housing cycle may also exert an indirect influence on inflation through its effect on demand for a broad range of goods and services. The level of turnover in the market for established housing is likely to be positively correlated with demand for durable goods, such as furniture or white goods. However, despite

2 See Jacobs D and T Williams (2014), 'The Determinants of Non-tradables Inflation', RBA *Bulletin*, September, pp 27–38.

3 According to liaison, the cost of residential construction is roughly evenly split between materials and labour.

4 Outcomes for aggregate inflation may also affect the rate of rental inflation because some landlords may index rents to the CPI. Accordingly, the relationship in Graph B4 is stronger still if considering 'real' rents, deflated by the aggregate CPI.

the overall strength in housing market conditions, turnover has increased only moderately to date (see 'Box A: Housing Prices, Turnover and Borrowing'). More generally, higher labour earnings and profits in the construction sector would be expected to contribute to aggregate demand. In addition, a rise in housing prices resulting from more housing activity raises the wealth of households that already own property. This is typically associated with a rise in spending across a range of goods and services, providing retailers greater scope to raise prices. Working in the other direction, some households may reduce their spending in order to accumulate a deposit or service a new mortgage. Altogether, these indirect effects are likely to be small and therefore difficult to observe among the many other influences on prices in the CPI basket.

6. Economic Outlook

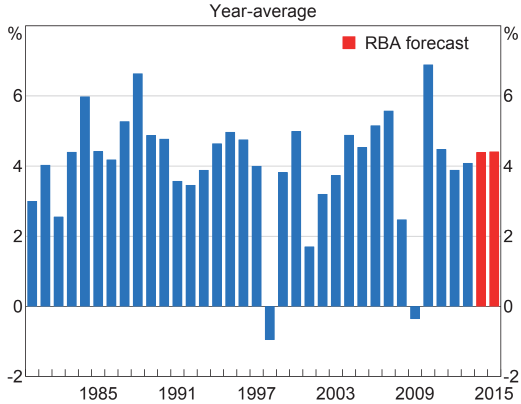
The International Economy

Overall growth of Australia's major trading partners is expected to be a bit above its long-run average pace in 2014 and 2015 (Graph 6.1). This forecast is little changed from the August *Statement*. The 20 per cent decline in oil prices since the start of the year, if sustained, is likely to provide a measure of support for global growth in 2015 as real incomes in oil-importing countries increase and production costs decline, offset to some extent by the effect of lower incomes for oil-exporting countries.

Chinese GDP growth in 2014 is expected to be close to the authorities' target of 7.5 per cent. The downturn in the property market is likely to weigh on activity in the next few quarters. More generally, GDP growth in 2015 and 2016 is expected to trend gradually lower reflecting supply-side factors (such as the declining working-age population) and the willingness of policymakers to accept some slowing in growth to place financing on a sounder footing after the rapid build-up of leverage in recent years.

In Japan, output appears to have picked up in the September quarter, although the consumption tax increase in April has weighed more on activity than had been anticipated. As a result, the forecast for 2014 has been revised down. The Bank of Japan recently responded to weaker-than-expected growth with additional monetary stimulus. The Japanese economy is expected to grow at around its average pace of the past decade in 2014 and 2015. In the rest of east Asia, growth in 2014 is expected to be below its decade average, before picking up in 2015 to around average. This forecast is unchanged since the August *Statement*.

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

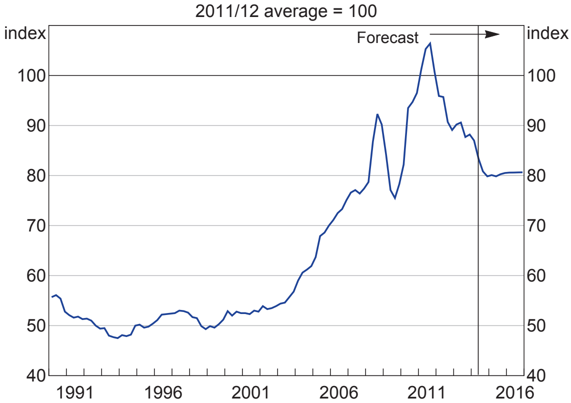


* Aggregated using total export shares
Sources: ABS; CEIC Data; RBA; Thomson Reuters

The outlook for the US economy is also unchanged. It is expected to expand at a pace that is a little above trend, supported by stimulatory monetary policy and further improvement in the labour market. The recovery in the euro area is still expected to be modest.

The outlook for the terms of trade has been revised down by about 2½ per cent, in large part owing to weaker-than-expected commodity prices over recent months, particularly for iron ore. This has been marginally offset by the effect of falling oil prices on import prices. Overall, the terms of trade are expected to fall by around 4 per cent over the rest of 2014 and early 2015, reflecting gradual pass-through of recent declines in spot prices for bulk commodities and further increases in global capacity, before flattening out around mid 2015 (Graph 6.2).

Graph 6.2
Terms of Trade
2011/12 average = 100



Sources: ABS; RBA

Domestic Activity

In preparing the domestic forecasts, as usual a number of technical assumptions have been employed. The exchange rate is assumed to remain at its current level over the forecast period (TWI at 68 and A$ at US$0.86). This is around 4½ per cent lower on a trade-weighted basis than the assumption underlying the forecasts in the August *Statement*. The forecasts are based on the price of Brent oil at US$86 per barrel, which is almost 20 per cent lower than the assumption used in August. The cash rate is assumed to stay at 2.5 per cent over the forecast period, implying that borrowing rates also remain at very low levels. As in the previous *Statement*, the working-age population is assumed to grow by 1.8 per cent over 2015 and by 1.7 per cent over 2016, drawing on forecasts by the Department of Immigration and Border Protection.

The starting point for the forecasts is that, in 2013/14, the Australian economy grew at a year-average pace that was a bit below trend. Despite large falls in mining investment in the year, rising resource exports meant that growth of mining activity overall remained high. Growth of non-mining economic activity remained below its long-run average pace, but it had picked up owing to stronger growth in dwelling investment and public demand and a modest pick-up in consumption growth. Non-mining business investment remained subdued.

The available indicators suggest that GDP growth remained moderate in the September quarter. Growth of resource exports and non-mining activity is likely to have been offset by a further decline in mining investment. Timely indicators are consistent with moderate growth of consumption and survey measures of business conditions and confidence are close to their long-run averages. Conditions in the housing market are consistent with strong growth in dwelling investment. While the work yet to be done in the non-residential building sector remains elevated and should support investment in the near term, forward-looking indicators, such as non-residential building approvals, have weakened over the course of this year, implying that there is less growth in prospect in this sector than previously expected.

Forecasts for GDP growth are unchanged from the previous *Statement* at an aggregate level. GDP growth is expected to be below trend over 2014/15, before picking up to an around-trend pace over 2015/16 and to a bit above trend by the end of 2016 (Table 6.1). There have been some minor changes to the components in response to incoming data and changes to the assumptions outlined above.

A key consideration in the development of these forecasts has been the extent to which the exchange rate depreciation since the August *Statement* has offset the faster-than-expected decline in the terms of trade. The latter tends to be contractionary for the economy because the lower prices received for exports weigh on national income and expenditure, although much of the decline in commodity prices this year reflects strong growth in the volume of bulk commodity exports from Australia. An exchange rate depreciation is expansionary because it increases export incomes in Australian dollar terms and increases import prices, which causes households and businesses to substitute towards domestically produced goods and services.

Table 6.1: Output Growth and Inflation Forecasts[(a)]
Per cent

	Year-ended					
	June 2014	Dec 2014	June 2015	Dec 2015	June 2016	Dec 2016
GDP growth	3.1	2½	2–3	2½–3½	2¾–3¾	2¾–4¼
Non-farm GDP growth	3.3	2¾	2–3	2½–3½	2¾–3¾	2¾–4¼
CPI inflation[(b)]	3.0	1¾	1½–2½	2½–3½	2½–3½	2½–3½
Underlying inflation[(b)]	2¾	2¼	2–3	2¼–3¼	2¼–3¼	2¼–3¼
	Year-average[(c)]					
	2013/14	2014	2014/15	2015	2015/16	2016
GDP growth	2.5	2¼–3¼	2–3	2–3	2½–3½	2½–4

(a) Technical assumptions include A$ at US$0.86, TWI at 68 and Brent crude oil price at US$86 per barrel
(b) Based on current legislation
(c) Based on 2013/14 release of the annual national accounts, rather than the June quarter 2014 release
Sources: ABS; RBA

The net effect of recent changes in the exchange rate and changes in the terms of trade is, by itself, likely to be a small boost to GDP in the near term. This reflects higher net exports, as well as the effect of lower oil prices on costs of production and real household incomes. However, the net effect of these changes has been roughly matched by a downward revision to growth in business investment based on data that suggest the growth of non-residential construction will be weaker than had previously been forecast.

Nonetheless, the key forces shaping the forecasts remain as they were. The low level of interest rates and strong population growth continue to support household demand, through both higher prices and activity in the housing market and, in turn, consumption. In time, growth of household demand and the impetus to domestic production provided by the exchange rate depreciation since early 2013 are expected to increase capacity utilisation further and spur non-mining business investment (although this will be offset to some extent by the higher cost of imported investment goods). Export growth is expected to continue to make a sizeable contribution to GDP growth, particularly towards the end of the forecast period when liquefied natural gas exports are expected to be growing strongly. In contrast, sharp declines in mining investment are still expected to subtract around 1¼ percentage points from GDP growth in 2015. Also, fiscal consolidation at all levels of government will weigh on GDP growth over the forecast period.

Household consumption is expected to pick up gradually to a pace slightly above trend by 2016. Near-term indicators have evolved broadly as expected; retail sales growth strengthened in the September quarter while consumer sentiment has been around or a little below average in recent months. The forecasts envisage that consumption will grow by more than income, implying a further gradual decline in the saving ratio.

Dwelling investment is expected to increase at an above-average pace, and the profile has not changed significantly since the August *Statement*. Over the forecast horizon, dwelling investment is being supported by low interest rates, strong population growth and relatively low rates of construction over the past decade. Forward-looking indicators point to further strong growth in new construction in coming quarters. Alterations and additions activity has been weaker than expected over the past year, but is expected to pick up gradually.

Labour market forecasts are little changed. Conditions remain subdued and there is still a degree of spare capacity. The unemployment rate is elevated, the participation rate is low and business surveys and liaison suggest that labour is readily available. A sustained decline in the unemployment rate is not expected for some time.

Consistent with subdued labour market conditions, wage growth remains low. Although wage growth is not expected to decline further, with many firms foreseeing a period of stable wage growth, pressure on public and private sector employers to contain costs means that wage growth is likely to remain low for a time and pick up only gradually towards the end of the forecast period. Meanwhile, productivity growth is expected to remain a little above its average pace of the past decade. Combined, these forces imply that unit labour costs will remain well contained.

Inflation

The inflation forecast has been revised up slightly since the previous *Statement,* reflecting the recent further depreciation of the exchange rate. Nevertheless, inflation is expected to remain consistent with the inflation target over the forecast period.

Inflation eased in the September quarter and was a little lower than expected, following a few quarters over which inflation was a little higher than expected. Indicators of underlying inflation slowed to around ½ per cent in quarterly terms while underlying inflation over the year was around the middle of the inflation target.

While tradables prices declined unexpectedly in the September quarter, they are likely to rise over the next few years, reflecting the ongoing pass-through of the exchange rate depreciation to final consumer prices. Altogether, the direct effects of the exchange rate depreciation since early 2013 are expected to add a little under ½ percentage point to underlying inflation each year over the forecast period.

In contrast, domestic inflationary pressures are generally expected to remain subdued. In particular, spare capacity in the labour market is expected to contain labour costs, spare capacity in product markets is likely to constrain firms' ability to expand margins, and inflation expectations remain modest. As a result, inflation in many non-tradable items, whose prices are primarily determined by domestic factors, is expected to remain below its average since 2000. An exception to this is the new housing component of the CPI, which has continued to record higher inflation in recent quarters reflecting strong conditions in the housing sector, and this dynamic is likely to continue.

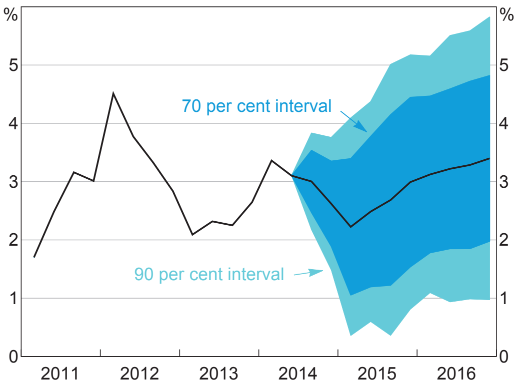
Lower crude oil prices are expected to reduce fuel costs in coming quarters. This is expected to reduce CPI inflation by 0.1 percentage point in the December quarter, and to have a negligible effect thereafter. The effects on underlying inflation are expected to be small. The recent increase in the fuel excise is expected to only partly offset the effect of lower crude oil prices.

Government policy measures affected inflation in the September quarter and will continue to do so over the forecast period. Given that these effects are not indicative of an excess or shortfall of demand in the economy, they do not have a direct bearing on monetary policy. The repeal of the carbon price had a direct effect on utility prices in the September quarter and is expected to weigh on inflation more generally in the quarters ahead. The timing of the indirect effects is uncertain and difficult to observe amid the usual variation in consumer prices driven by other factors. Cost savings to businesses in the form of lower energy prices may take some time to be passed on to final consumer prices. Finally, the staged increase in tobacco excise in 2015 and 2016 is expected to contribute around ¼ percentage point each year to the rate of headline inflation, but to have little effect on underlying inflation.

Uncertainties

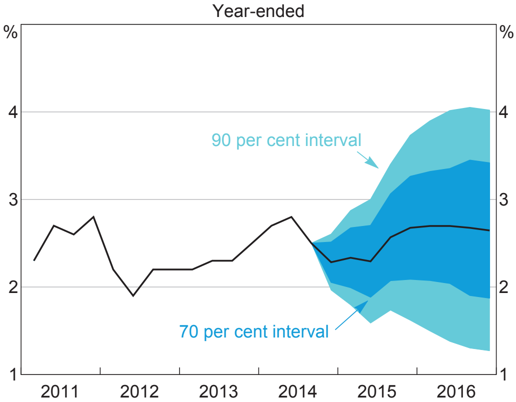
The forecasts are based on a range of assumptions about the evolution of some variables, such as the exchange rate, and judgements about how developments in one part of the economy will affect others. One way of demonstrating the uncertainty surrounding the central forecasts is to present confidence intervals based on historical forecast errors (Graph 6.3 and Graph 6.4). The 70 per cent confidence interval for GDP growth happens to encompass most market economist forecasts. It is also worth considering the consequences that different assumptions and judgements might have on the forecasts and to consider the possibility of events occurring that are not a part of the central forecast.

Graph 6.3
GDP Growth Forecast*
Year-ended



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

Graph 6.4
Trimmed Mean Inflation Forecast*
Year-ended



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

External uncertainties

There are numerous uncertainties about how events offshore will unfold, and exactly how policymakers and financial markets will respond. For example:

- if the flow of data suggests that there is less spare capacity in the US economy than currently envisaged, interest rates might rise faster than markets expect, with implications for financial markets and exchange rate movements
- the recovery in Japan or the euro area could be slower than currently envisaged if the policy stimulus in these regions does not have the desired effect
- official estimates suggest that the outbreak of the Ebola virus in West Africa is unlikely to have serious consequences for the global economy. To date, World Bank estimates suggest that the economic costs amount to less than 0.05 per cent of world GDP under its 'high Ebola' scenario, in which the virus is not brought under control in the region until 2015. Nevertheless, these estimates are uncertain and do not fully reflect any effects on confidence that the outbreak may have if it spreads more widely.

In terms of more specific external risks, conditions in the Chinese property market and changes in the exchange rate are key sources of uncertainty.

Chinese housing market

The Chinese authorities have taken some actions recently to support activity in the property market, but it remains to be seen if these measures will be sufficient to avoid a protracted slump. There are a few reasons to be concerned about downside risks to the property market in the current episode and the potential effects on residential investment and economic activity more generally. First, unlike previous episodes (including in 2008), the current downturn in the property cycle has been accompanied by a slowing in growth in total social financing, partly as a result of efforts to place financing and economy-wide leverage on a more sustainable footing. Second, there appears to be a large overhang of property developer debt and unsold property relative to earlier episodes, and anecdotal reports point to weak demand conditions in smaller cities.

The housing market also poses risks to financial stability in China. Although the direct exposure of the banking sector to the real estate market is moderate, property developers also raise sizeable funds through trust companies, entrusted lending (bank-intermediated intercompany finance) and informal lending channels. As the banks ultimately fund much of this lending, they would potentially be exposed if a negative shock to the housing market led to financial losses among less regulated financial entities. While the authorities could respond with a more substantial easing of financial conditions, this might undermine broader regulatory efforts to reduce the scale of non-bank and off-balance sheet financing activities, which are aimed at limiting the accumulation of risks in the financial system.

If there was a very large and protracted decline in the Chinese property market, this would be likely to reduce demand for Australia's exports of bulk commodities and the prices received for them. Over the past year, prices for bulk commodities have fallen by about a third. While much of this fall has been the result of increasing supply of iron ore and coal, weaker growth of Chinese demand for steel is also likely to have put downward pressure on prices in recent months. If growth of Chinese steel production was to weaken a lot further, without accompanying cuts to iron ore and coking coal production globally, further commodity price falls may eventuate. This would have implications for the revenue of Australian miners. For higher-cost Australian miners, further price falls could precipitate the closure of unprofitable mines, especially in the coal industry, leading to lower exports than otherwise.

Exchange rate

The path of the exchange rate is an important source of uncertainty for the forecasts. The exchange rate has depreciated by a further 4½ per cent since the August *Statement*. However, given the substantial decline in commodity prices over the course of this year, the exchange rate remains above most estimates of its fundamental value.

The prospect of a rise in US interest rates next year, though widely anticipated, could lead to a further appreciation of the US dollar and hence a depreciation of the Australian dollar. Other things being equal, a further depreciation of the Australian dollar would tend to support demand for Australian producers, thereby adding somewhat to growth. It would also lead to upward pressure on inflation, for a time. Based on historical relationships, a 10 per cent depreciation of the Australian dollar (that is not associated with any further decline in commodity prices) would be expected to increase output by ½–1 per cent over a period of two years or so. Year-ended inflation would be higher by a little less than ½ percentage point over each of the following two years or so. However, if the exchange rate depreciation were to be accompanied by a larger-than-expected decline in commodity prices, the net effects would be smaller than the estimates above.

On the other hand, the recent announcements in Japan on monetary policy and pension fund asset allocation increase the probability of capital flows seeking attractive yields in Australia (and elsewhere). Such flows could hold the Australian dollar at a higher level than real economic fundamentals would imply.

There is also uncertainty about the extent to which changes in import prices are passed through to inflation. The forecasts assume that the degree of pass-through is consistent with historical relationships, although the speed of pass-through could be slower or faster than expected depending on the strength of trading conditions.

Domestic uncertainties

The key domestically sourced uncertainties surrounding the forecasts arise from uncertainty about: how low income growth and wealth effects from the housing market might translate into consumption; the timing and speed of the recovery in non-mining business investment; and the impact of structural changes, such as the transition from the investment to the production phase of the mining boom, on capacity utilisation in the economy.

Household sector

As outlined above, the consumption forecasts are little changed from the August *Statement*. The effects of weak growth in real household income are expected to be offset by a further gradual decline in the saving ratio.

Consumption is likely to be supported by above-average growth of housing prices. The operation of a wealth effect on consumption is consistent with the fact that consumption growth over the past year or so has been strongest in New South Wales and Victoria, where housing price increases have been greatest. This suggests that consumption may pick up further if the property markets in other parts of the country strengthen. However, another possibility is that, in aggregate, the increase in wealth from rising housing prices is having less of an effect on consumption than it did previously. In particular, in recent years fewer households appear to have been utilising the increase in the value of their houses to increase their leverage or trade up. This is one channel by which households had increased consumption in earlier episodes, notably the period of rising house prices in the early 2000s. The possibility that this effect is weaker increases the likelihood that the saving ratio could be higher than we expect based on historical experience. If that is the case, consumption growth might be a little weaker than is forecast.

Business investment

A sharp slowing in mining investment is widely expected as existing projects are completed and few new projects commence. However, there is uncertainty about the pace and timing of this slowing, as well as the level of expenditure that will be required to maintain the existing stock of capital in the mining sector.

Outside the mining sector, the recent data have been a bit weaker than expected, including non-residential building approvals and spending intentions for building and structures from the Capex survey. This has led to a slight reduction in the strength of the forecast recovery in non-mining investment. Further, the forecasts are predicated on a turnaround in non-residential approvals that is less pronounced than was the case in other upswings, reflecting subdued underlying conditions in the commercial property market.

There is considerable uncertainty about the timing and the speed of the recovery in non-mining investment. One possibility is that the recovery could be delayed further if businesses wait for a more substantial pick-up in demand. Alternatively, the timing of the pick-up in investment could be as forecast, but its magnitude much larger than forecast if firms become more willing to take on risk, particularly given the period of below-average growth of investment over recent years. It is hard to know if and when such a change in sentiment might occur, but it is more likely to do so when the fundamental determinants of investment are in place, as appears to be the case at present. The forecast for business investment balances the range of possible outcomes that encompass these scenarios.

Capacity utilisation

The forecasts for inflation assume that pressures from domestic costs and margins remain subdued given spare capacity in labour and product markets. However, if demand were to pick up by more than expected, or if there is less spare capacity than currently assumed, inflation could be higher. Various factors might weigh on the economy's productive capacity in the next few years. For example, the ageing of the workforce might constrain labour supply. Also, the need for labour to shift from the mining to the non-mining sectors might lead to a mismatch between the skills and location of workers versus the needs of employers. In addition, subdued investment in non-mining sectors in recent years may weigh on the economy's productive capacity. While growth in labour productivity has been quite strong in recent years, it is not clear whether this growth will be sustained. If productivity growth is weaker than expected, this could lead to more domestic inflationary pressures than currently assumed.

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