2. International and Foreign Exchange Markets

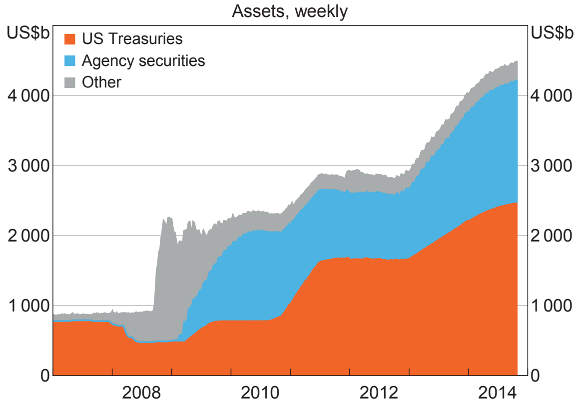
Volatility in global financial markets has risen over recent months, after a prolonged period of being especially low. The timing of this increase in volatility has been somewhat asynchronous across various asset classes, and there have been no obvious triggers for some of these moves. Nevertheless, 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.

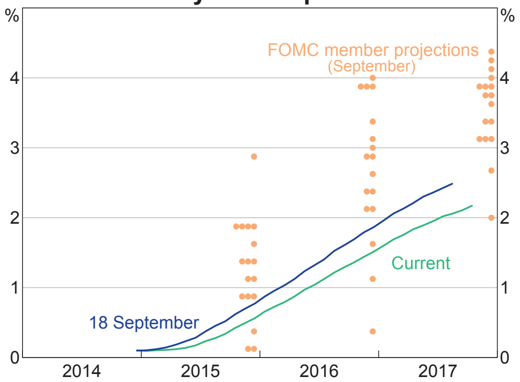
Graph 2.1
Federal Reserve Balance Sheet
Assets, weekly



Source: Board of Governors of the Federal Reserve System

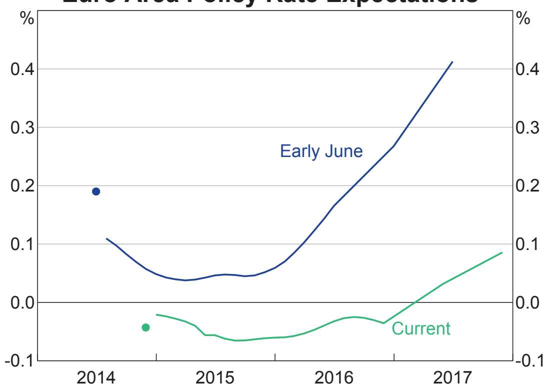
The European Central Bank (ECB) announced a further easing of policy at its September meeting in response to a decline in long-term inflation expectations. The ECB lowered policy rates by a further 10 basis points, taking its main policy rate to 0.05 per cent and the deposit rate to –0.20 per cent. It 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

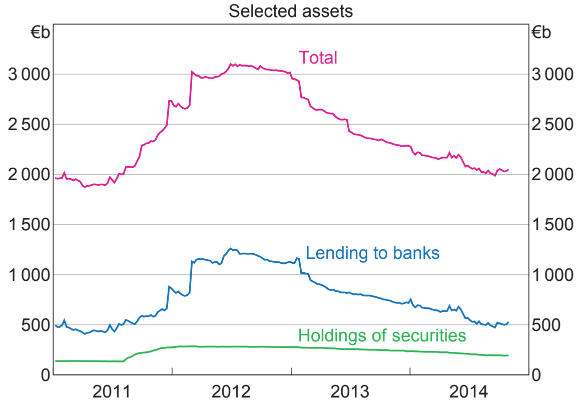
Sources: Bloomberg; RBA

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

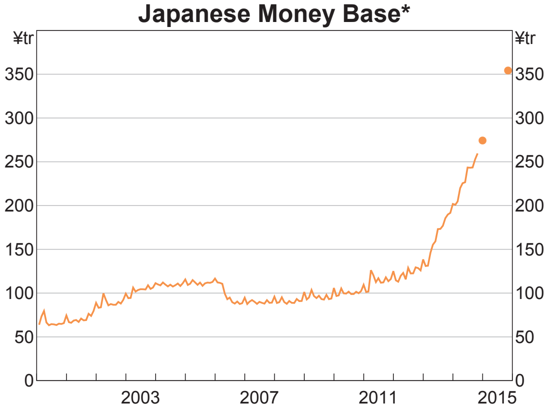


Source: European Central Bank

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.

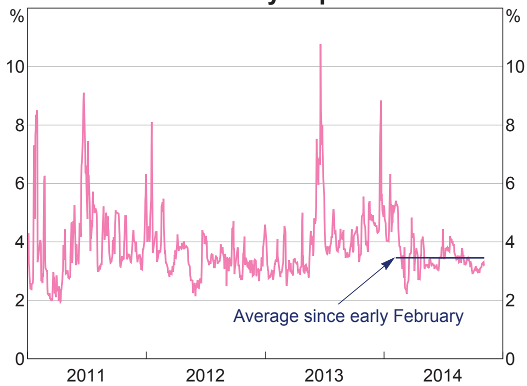
Graph 2.5
Japanese Money Base*



* 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

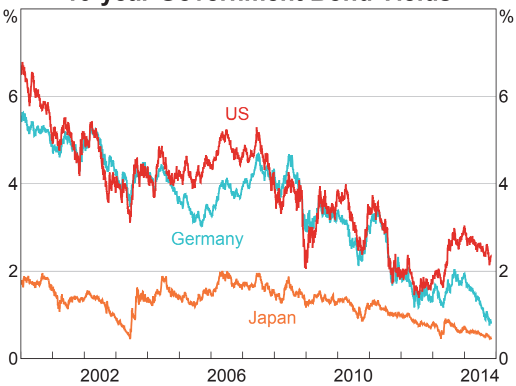
Table 2.1: Monetary Policy

	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.

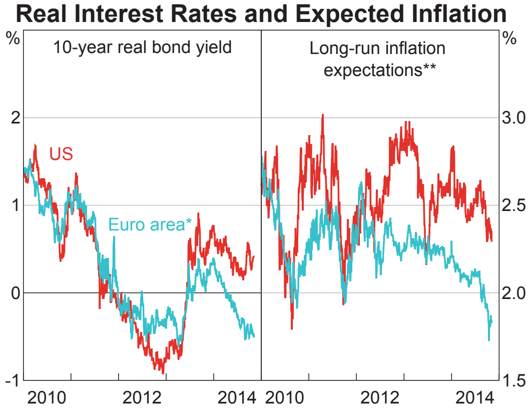
Graph 2.7
10-year Government Bond Yields



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

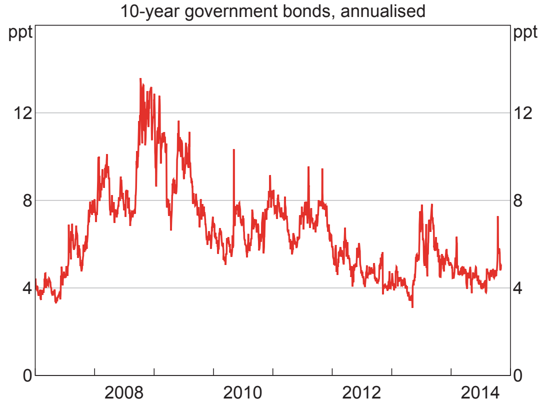
** Implied by bonds for the US and by swaps for the euro area

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

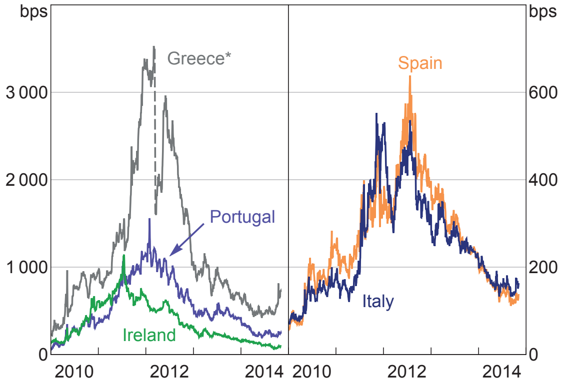
10-year government bonds, annualised



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

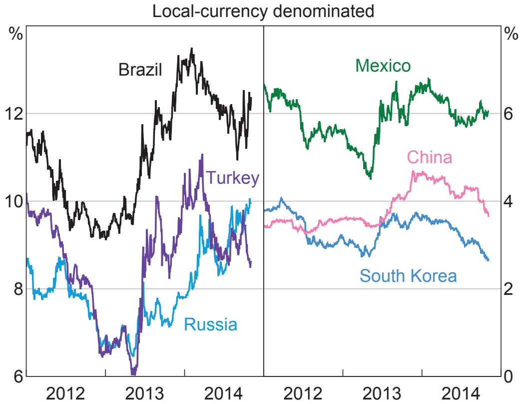


* Data from 12 March 2012 are yields on Greek bonds post first private sector debt swap

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

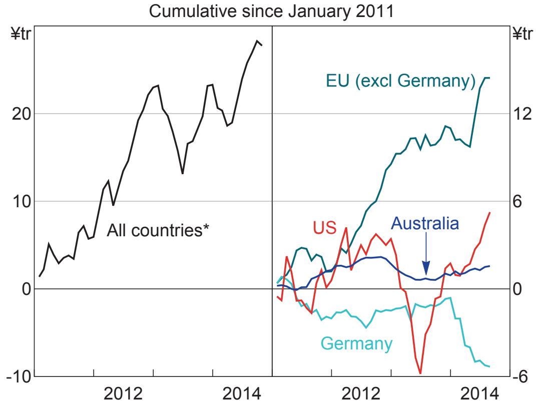


Sources: Bloomberg; Thomson Reuters

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

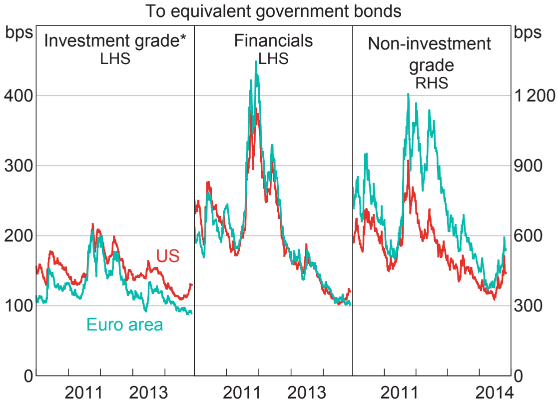
Table 2.2: Japan's Government Pension Investment Fund Asset Allocations
Per cent

	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

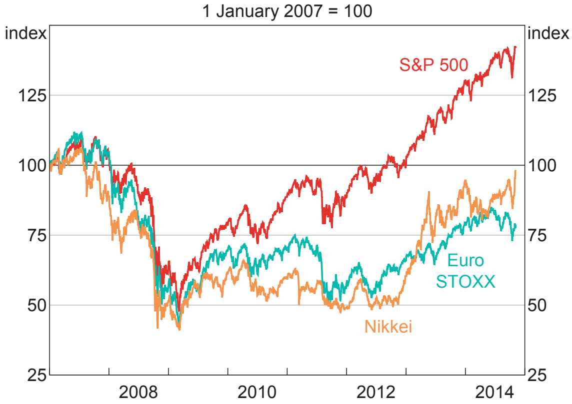
Spreads on euro area covered bonds and ABS have declined since the ECB announced its intention to purchase these assets. The narrowing in spreads has been most pronounced for securities issued by banks from periphery nations. Spreads on mortgage-backed securities in the United States have been broadly 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

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).

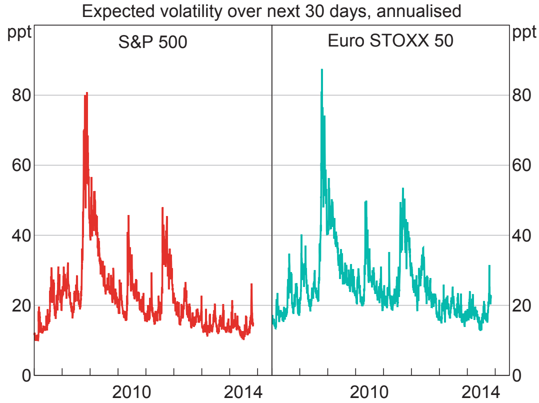
Table 2.3: Changes in International Share Prices
Per cent

	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.

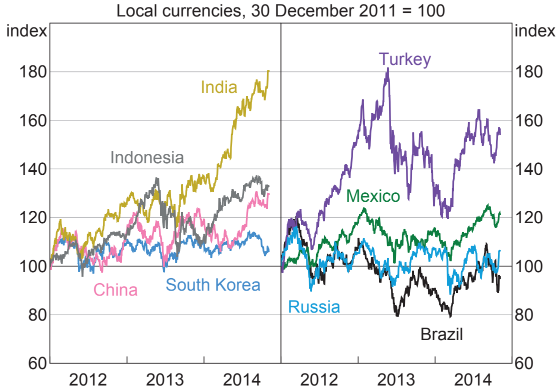
Graph 2.15
Volatility Indices
Expected volatility over next 30 days, annualised



Source: Bloomberg

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

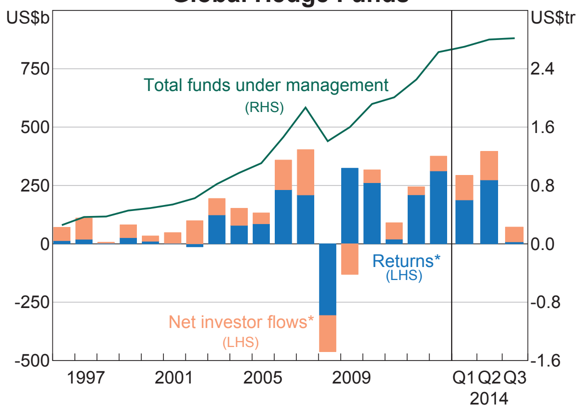
The ECB released results from its comprehensive assessment of 130 European banks in late October. The assessment involved an asset quality review (AQR) as at end 2013 and a stress test in which euro area GDP falls over 6½ per cent below the baseline scenario by end 2016 and sovereign bond yields rise 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



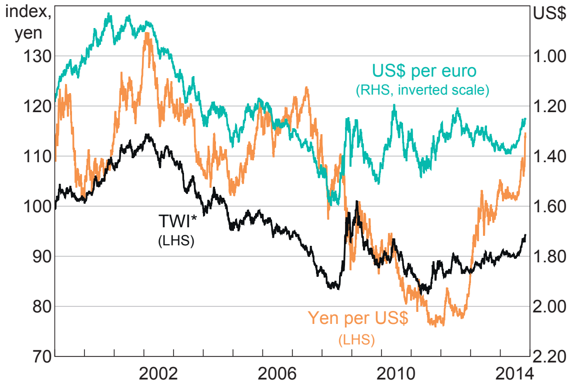
* Annualised for 2014 data

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

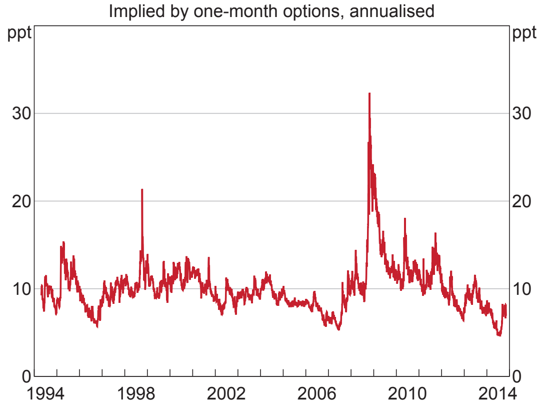
Sources: Bloomberg; Board of Governors of the Federal Reserve System

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

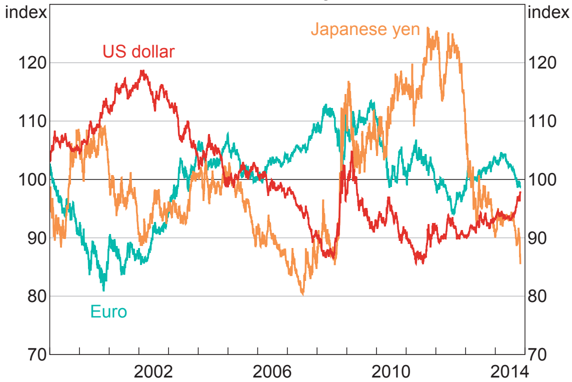
Source: Bloomberg

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

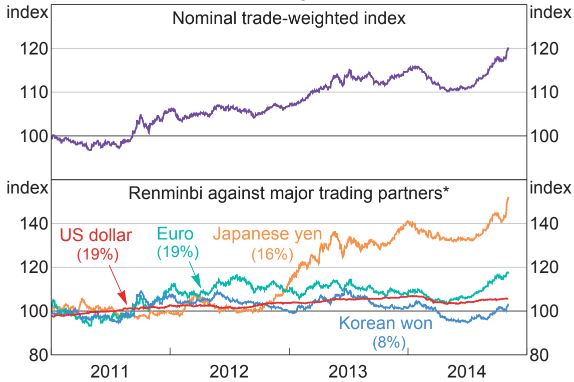
1999–2014 average = 100



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

Graph 2.21
Chinese Renminbi

2011 average = 100

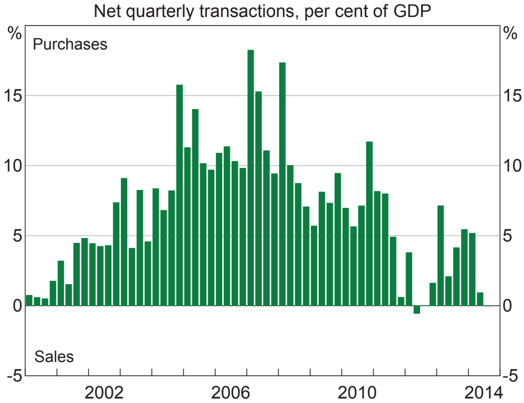


* Figures in parentheses represent currencies' weights in the trade-weighted index

Sources: BIS; Bloomberg

Graph 2.22
Chinese Foreign Currency Reserves

Net quarterly transactions, per cent of GDP



Sources: Bloomberg; CEIC Data

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.

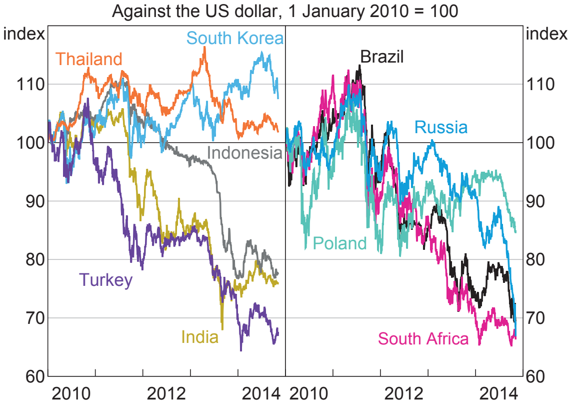
The Chinese renminbi (RMB) has moved broadly in line with the US dollar in recent months which, given the US dollar's broad-based appreciation against other currencies, has seen the RMB appreciate by 9 per cent on a trade-weighted basis since its May trough. The RMB has recorded sizeable appreciations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

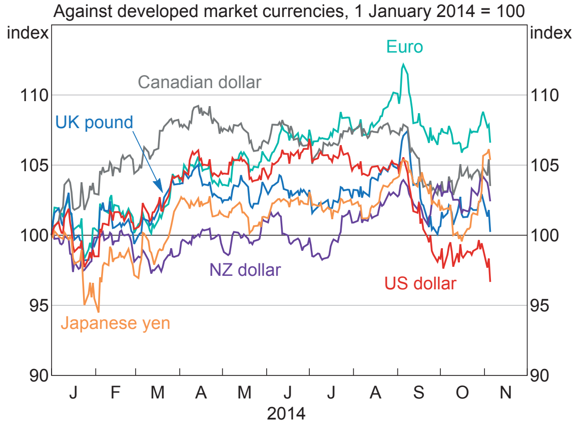
In Eastern Europe, ongoing geopolitical tensions have seen the Russian rouble continue to depreciate, to be 25 per cent below its recent peak against the US dollar in late June. In addition to the increase in the policy rate (discussed above), the Russian authorities have also announced a number of measures 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:		Level
	End December 2013	End June 2014	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

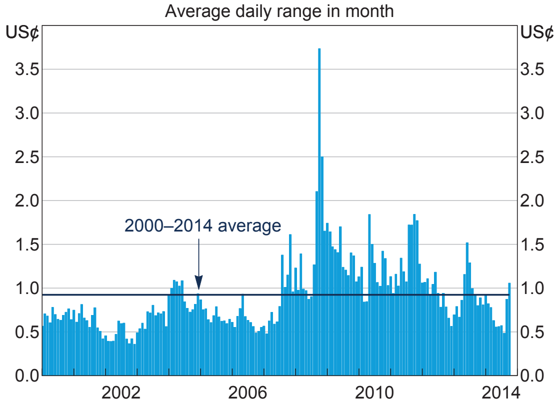
Table 2.6: Changes in the Australian Dollar against Selected Currencies
Per cent

	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

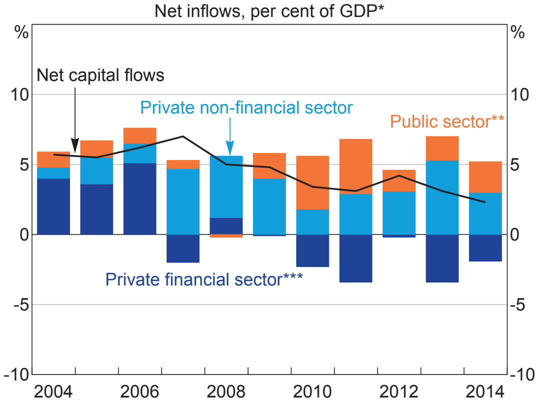


Sources: Bloomberg; RBA

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*



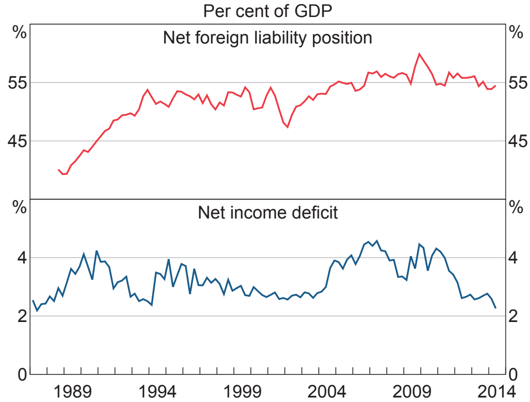
* Data for 2014 are only available up to the June quarter
** Excludes official reserves and other RBA flows
*** Adjusted for US dollar swap facility in 2008 and 2009
Sources: Australian Bureau of Statistics; RBA

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