

2. International and Foreign Exchange Markets

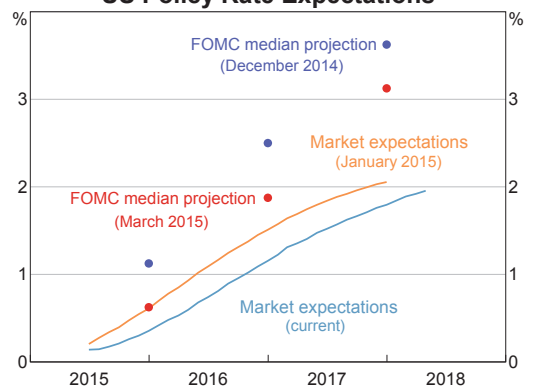
Financial markets have continued to be influenced by the divergence in global monetary policies, with the balance sheets of the European Central Bank (ECB) and Bank of Japan expanding whereas the US Federal Reserve is still expected to raise its policy rate later this year. These developments saw yields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

Central Bank Policy

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

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

Graph 2.1
US Policy Rate Expectations

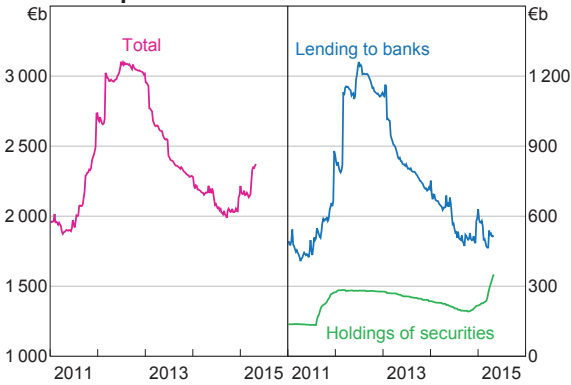


Sources: Bloomberg; Board of Governors of the Federal Reserve System; RBA

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

Graph 2.2

European Central Bank Balance Sheet



Source: European Central Bank

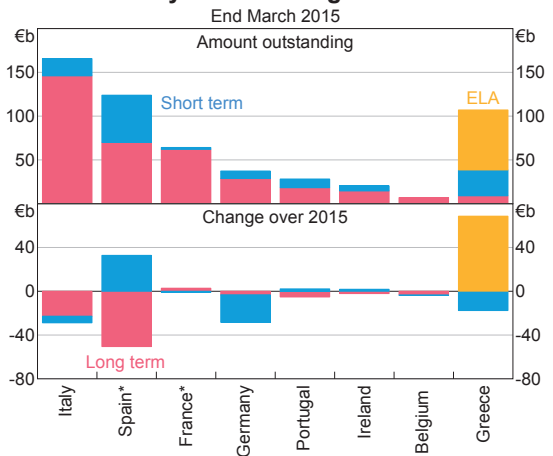
to banks since the start of the year. This decline reflects the maturing of loans extended under its 3-year long-term refinancing operations (LTRO) in January and February, which were larger than the take-up of funds offered at its March 4-year targeted LTRO and an increase in funding via 3-month LTROs.

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

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

Graph 2.3

Eurosystem Lending to Banks



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

Sources: Central Banks; RBA

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

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

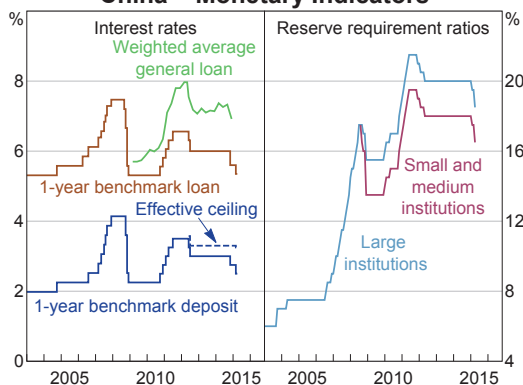
The People’s Bank of China (PBC) has eased policy since the start of the year, announcing a 25 basis point cut in benchmark rates for loans and term deposits, following a 25–40 basis point cut to most of these rates in November (Graph 2.4). While benchmark lending rates are no longer binding, average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

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

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

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

Graph 2.4
China – Monetary Indicators



Source: CEIC Data

Sovereign Debt Markets

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

Table 2.1: Monetary Policy

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

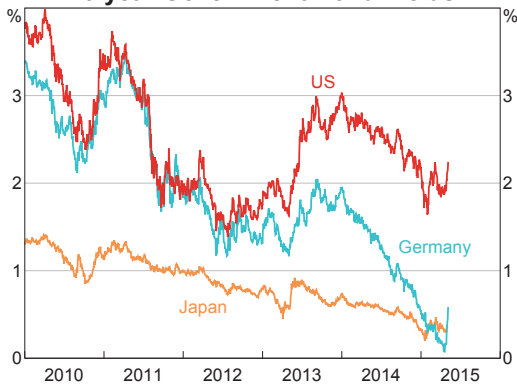
(a) Current rate relative to most recent trough or peak

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

(c) Midpoint of target range

Sources: Central Banks; RBA; Thomson Reuters

Graph 2.5
10-year Government Bond Yields

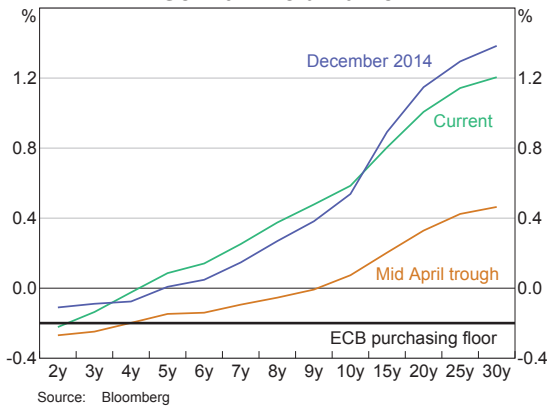


Source: Bloomberg

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

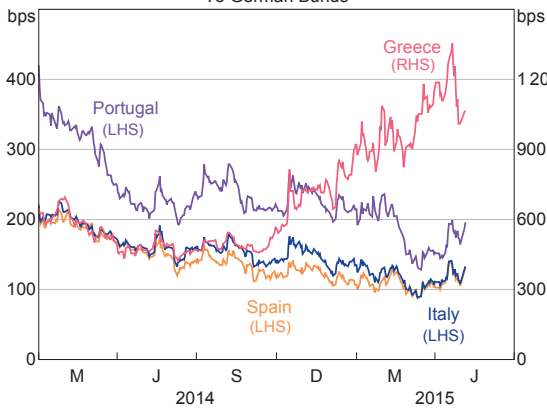
Yields on 10-year bonds issued by governments of other core euro area economies have broadly followed those of Bunds since the start of the year, leaving spreads to Bunds little changed. However, spreads on Italian, Spanish and Portuguese bonds have all fluctuated over the past month in response to evolving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

Graph 2.6
German Yield Curve



Source: Bloomberg

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



Source: Bloomberg

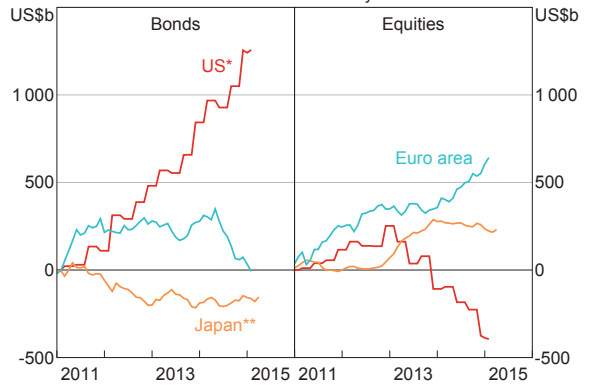
see section on 'Greece'). This follows a long period during which these bonds were largely unaffected by developments in Greece.

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

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

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

Graph 2.8
Net Portfolio Inflows
Cumulative since January 2011



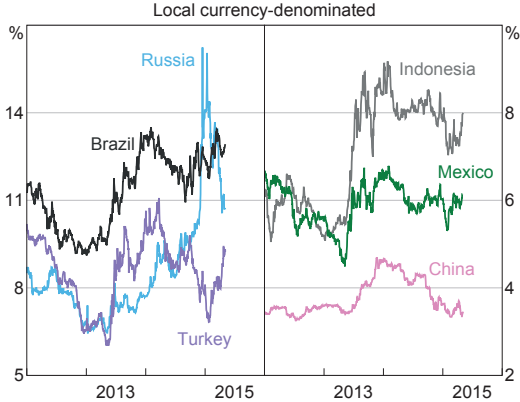
* Balance of payments data to December 2014; monthly Treasury data thereafter

** Balance of payments data to February 2015; provisional thereafter

Sources: Bloomberg; European Central Bank; IMF; Ministry of Finance Japan; RBA; US Treasury

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

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



Sources: Bloomberg; Thomson Reuters

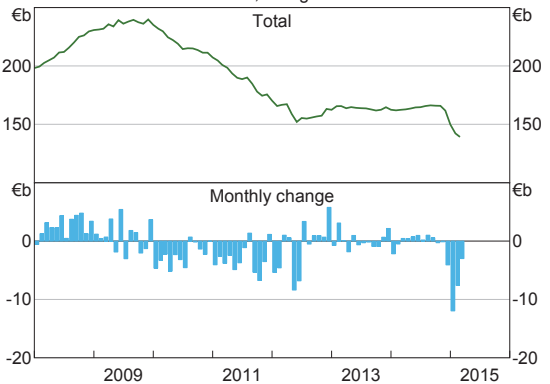
Greece

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

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

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

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

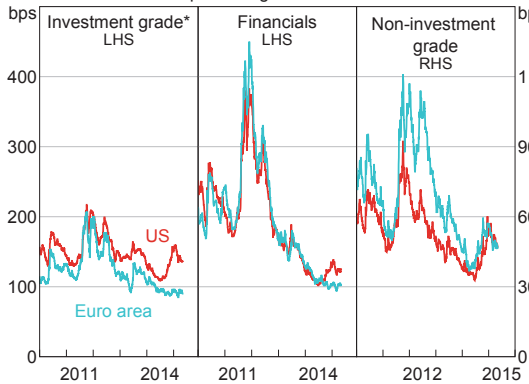


Source: European Central Bank

Credit Markets

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

Graph 2.11
Corporate Bond Spreads
 To equivalent government bonds

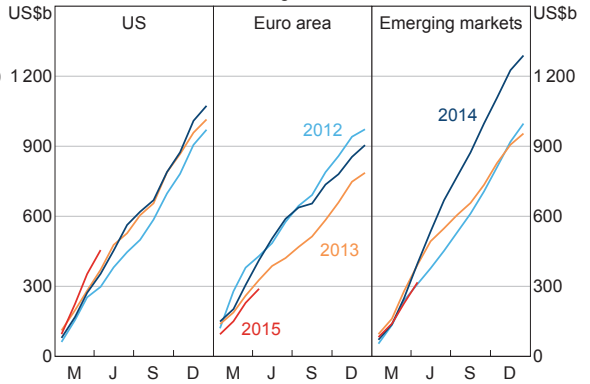


* Non-financial corporations
 Sources: Bank of America Merrill Lynch; Bloomberg; RBA

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

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

Graph 2.12
Global Corporate Bond Issuance
 Cumulative gross issuance

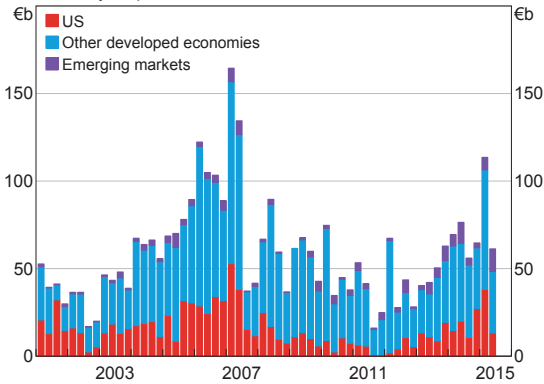


Sources: Dealogic; RBA

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

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

Graph 2.13
Euro-denominated Corporate Bond Issuance*
 By corporations domiciled outside the euro area



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

Equities

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

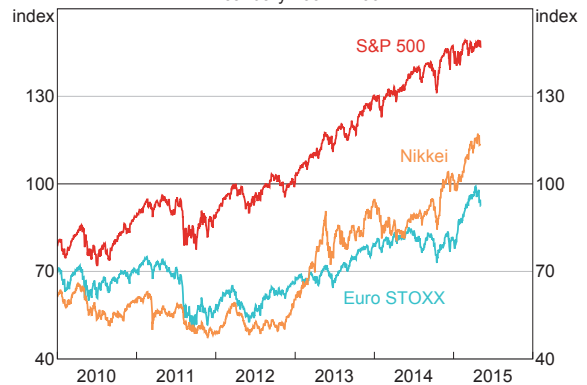
Major US banks reported a substantial increase in earnings in the March quarter compared with both the previous quarter and a year earlier. The increases were generally driven by declines in legal expenses compared with the large charges in the previous quarter and higher advisory and trading revenues,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

Table 2.2: Changes in International Share Prices
 Per cent

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

Source: Bloomberg

Graph 2.14
Major Share Price Indices
 1 January 2007 = 100



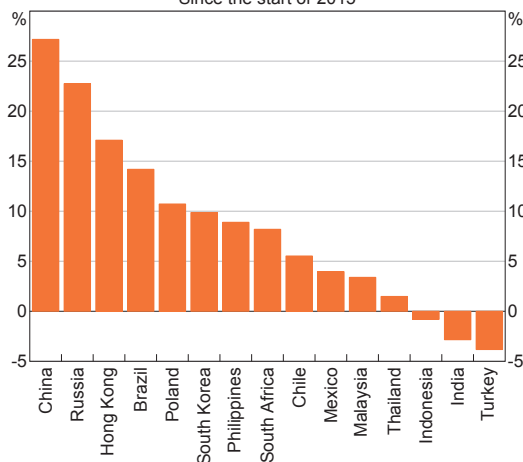
Source: Bloomberg

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

with allegations of foreign exchange benchmark manipulation.

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

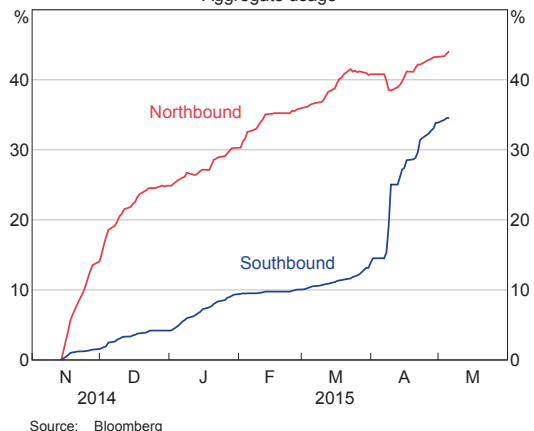
Graph 2.15
Changes in Emerging Market Share Price Indices
Since the start of 2015



Source: Bloomberg

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

Graph 2.16
Shanghai-Hong Kong Stock Connect Quota
Aggregate usage

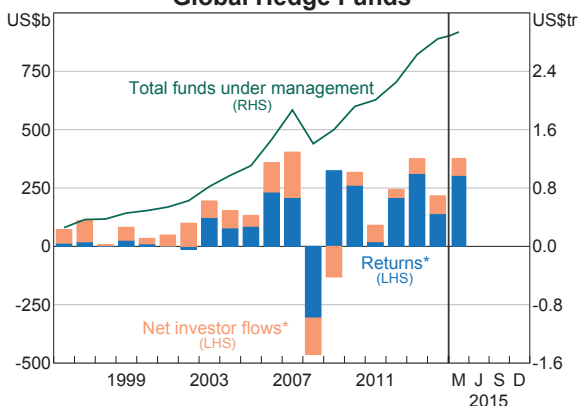


Source: Bloomberg

Hedge Funds

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

Graph 2.17
Global Hedge Funds



* Annualised for 2015 data

Sources: Hedge Fund Research, Inc.; RBA

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

Foreign Exchange

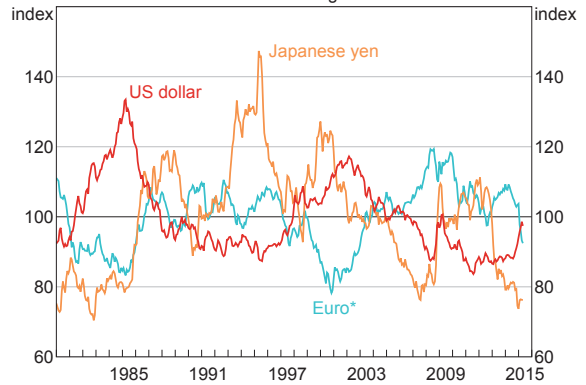
Foreign exchange markets have continued to be influenced by the stance, both current and prospective, of monetary policy in the major advanced economies, particularly the United States and Europe. The euro has depreciated by 8 per cent on a trade-weighted basis and by 9 per cent against the US dollar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

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

Graph 2.19

Real Trade-weighted Indices

1980–2015 average = 100



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

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

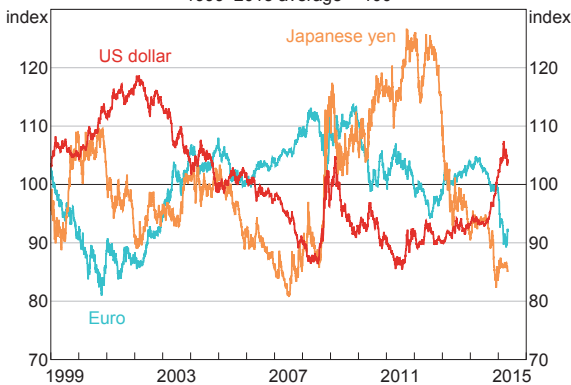
| | Over 2014 | 2015 to date |
|--------------------|-----------|--------------|
| Brazilian real | 12 | 15 |
| European euro | 14 | 7 |
| Swedish krona | 21 | 5 |
| Indonesian rupiah | 2 | 5 |
| New Zealand dollar | 5 | 4 |
| Mexican peso | 13 | 4 |
| South African rand | 10 | 4 |
| Canadian dollar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

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

Graph 2.18

Nominal Trade-weighted Indices

1999–2015 average = 100



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

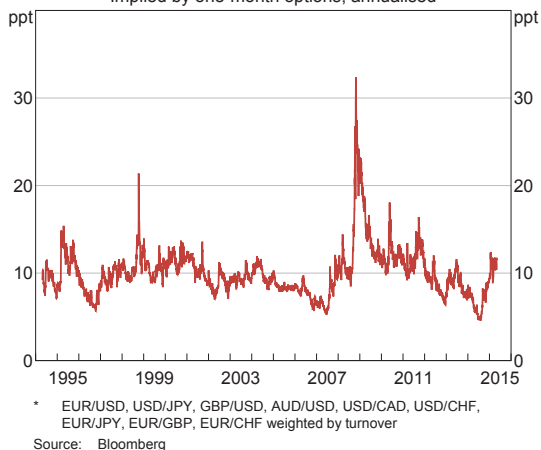
recently and the US dollar is now around 3 per cent lower than its peak in mid March. Notwithstanding the recent depreciation, the US dollar is 12 per cent higher than its mid 2014 low although it is still only around its multi-decade average on a real trade-weighted basis.

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

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

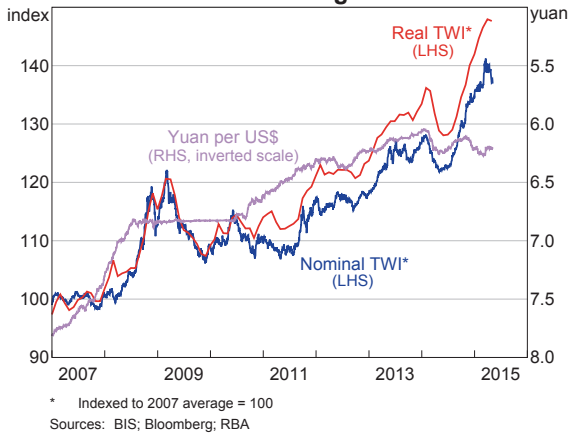
Volatility in the main developed market currency pairs increased from its historical low in early August until mid January but has been little changed since then to remain only slightly above its longer-term average (Graph 2.20). The increase in volatility has been neither disorderly nor inconsistent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

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

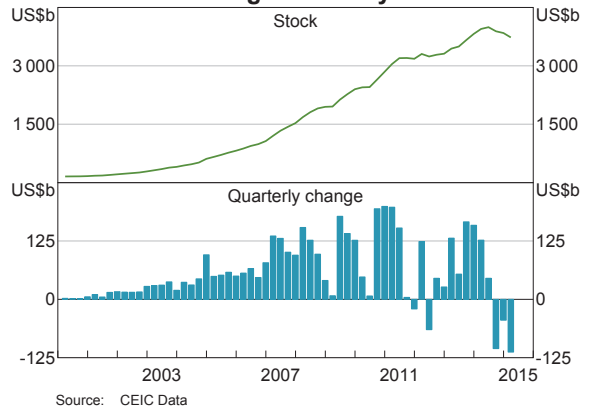


The Chinese renminbi (RMB) has been little changed against the US dollar over 2015 to date to remain around 1½ per cent lower than its recent peak in late October (Graph 2.21). The RMB traded at the bottom of its +/-2 per cent trading band against the US dollar in late February and early March but has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

Graph 2.21
Chinese Exchange Rates



Graph 2.22
Chinese Foreign Currency Reserves



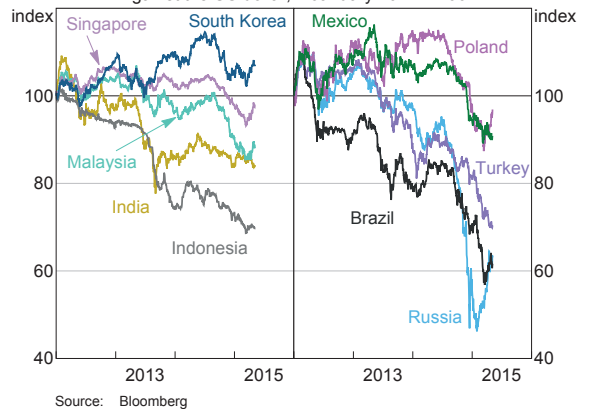
The stock of Chinese foreign currency reserves decreased by US\$113 billion (around 3 per cent) over the March quarter to be around US\$263 billion lower than its peak at the end of June 2014 (Graph 2.22). The decline over the quarter partly reflects exchange rate valuation effects related to the US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

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

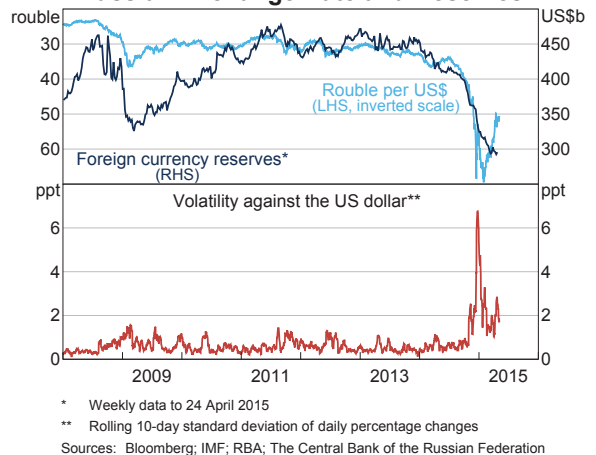
The Russian rouble has appreciated by around 35 per cent against the US dollar since its trough in late January but nevertheless remains around 35 per cent lower than its mid 2014 level. While volatility in the rouble remains above its average of recent years, it is much lower than in late December (Graph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

Graph 2.23
Asian and Emerging Market Currencies

Against the US dollar, 2 January 2012 = 100



Graph 2.24
Russian Exchange Rate and Reserves



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

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

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

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

Table 2.4: Gross Foreign Currency Reserves^(a)

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

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

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

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

Australian Dollar

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

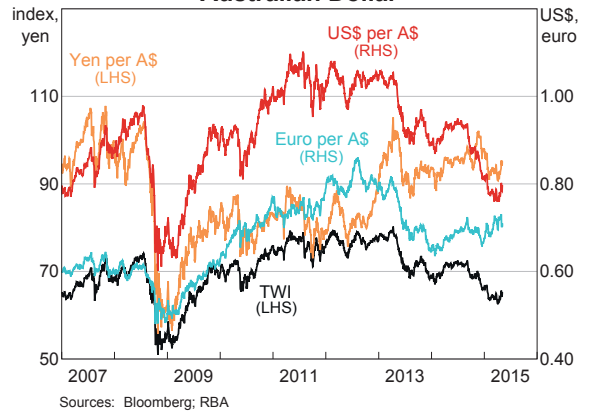
Table 2.5: Changes in the Australian Dollar against Selected Currencies
Per cent

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

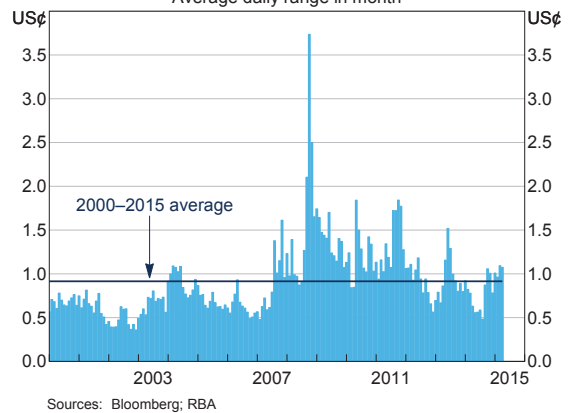
Sources: Bloomberg; RBA

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

Graph 2.25
Australian Dollar



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

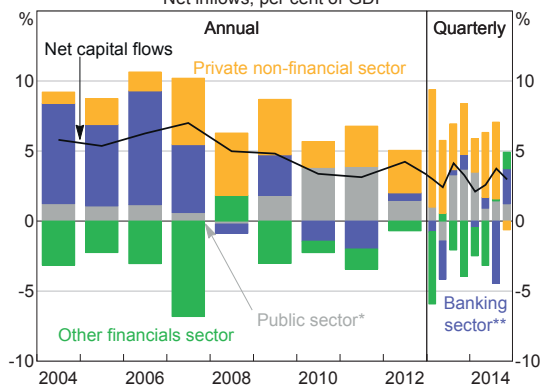


Capital Flows

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

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

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



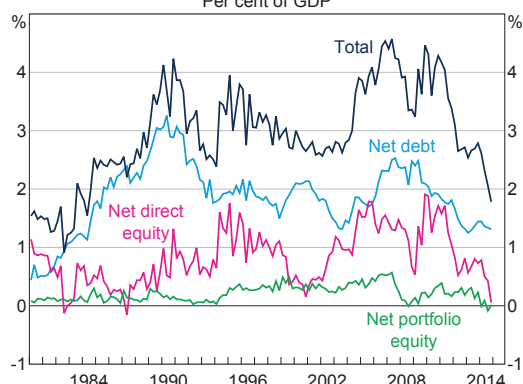
* Excludes official reserves and other RBA flows
 ** Adjusted for US dollar swap facility in 2008 and 2009
 Sources: ABS; RBA

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

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

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

Graph 2.28
Net Income Deficit*
 Per cent of GDP



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