2. International and Foreign Exchange Markets

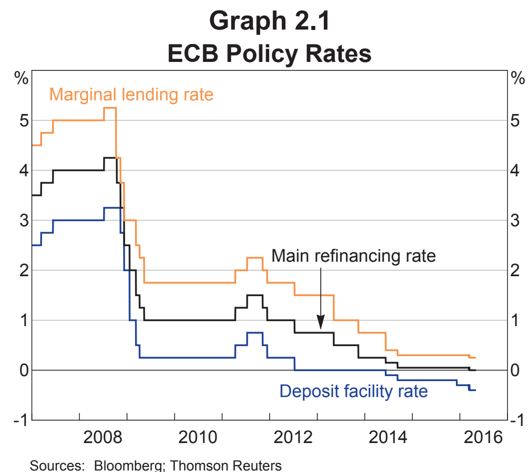
Sentiment in global financial markets has improved over the past few months as concerns about the outlook for the Chinese economy have eased and commodity prices have increased from their recent troughs. Current and expected policies of the major central banks continue to be an important driver of developments in global financial markets, with the European Central Bank (ECB) easing policy further and expectations for further policy tightening by the Federal Reserve being scaled back, which contributed to a depreciation of the US dollar and a decline in major market sovereign bond yields. The Japanese yen has appreciated sharply over recent months following the Bank of Japan's (BoJ) announcement of a negative policy rate.

Central Bank Policy

The ECB eased policy further at its March meeting to address concerns about low inflation. The package of policy measures included a reduction in interest rates, an expansion of asset purchases and an enhanced term funding facility for banks. The ECB lowered the interest rate on its deposit facility by a further 10 basis points to –0.40 per cent and the interest rates for its main refinancing operations and marginal lending facility by 5 basis points to 0 per cent and 0.25 per cent, respectively (Graph 2.1).

The ECB also increased its monthly asset purchases by €20 billion to €80 billion and widened the scope of eligible assets to include bonds of investment-grade corporates (excluding banks). The reduction in policy rates and changes to the asset purchase program were supplemented by a new round of

Graph 2.1
ECB Policy Rates

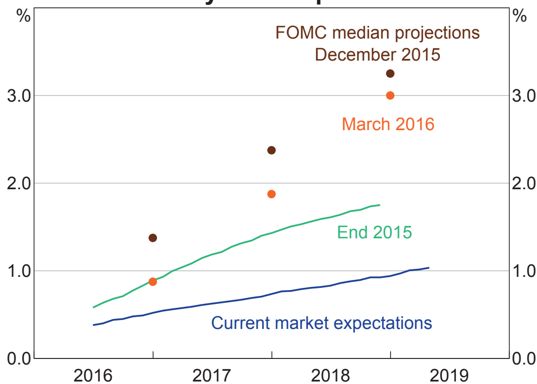


Sources: Bloomberg; Thomson Reuters

four targeted long-term refinancing operations (TLTRO II) starting in June 2016, which will provide four-year term funding (with optional repayment after two years) to euro area banks. The maximum amount that can be borrowed through TLTRO II is 30 per cent of a bank's eligible stock of business and personal loans (this compares to a maximum of 7 per cent under TLTRO I, which have been disbursed quarterly to banks since September 2014), implying total TLTRO II borrowing could be as much as €1.7 trillion. The interest rate at the time the loan is extended will be the main refinancing rate (currently 0 per cent), but can be as low as the deposit rate (currently –0.40 per cent) if the bank meets certain benchmarks for lending to the private sector.

The US Federal Open Market Committee (FOMC) left the target range for the federal funds rate at 0.25–0.50 per cent at both its March and April meetings. The March decision reflected the

assessment of the majority of members that heightened global risks warranted caution in adjusting monetary policy. The FOMC toned down references to these risks in April, but cautioned about slightly weaker developments in the domestic economy. Consistent with these concerns, the FOMC reduced the median projections for the path of its policy rate for 2016 and 2017 by 50 basis points at the March meeting (Graph 2.2). Nonetheless, the pace of adjustment projected by the median FOMC member remains faster than the pace implied by market pricing: the most recent FOMC projections suggest two policy rate increases this year, while markets have priced at most one increase.



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

The BoJ has left its policy stance unchanged since the introduction of a negative interest rate on certain deposits in late January, though at its April meeting it pushed back the date by when it expects to achieve its 2 per cent inflation target to early 2018. The BoJ has been adjusting its tiered interest rate system to ensure only a small share of central bank deposits (currently around 10 per cent) attracts negative interest rates. At its March meeting, the BoJ exempted deposits of money reserve funds at trust banks from negative interest rates and allowed a greater proportion of deposits of banks participating in the BoJ's funding-for-lending programs to incur zero interest rather than a negative rate.

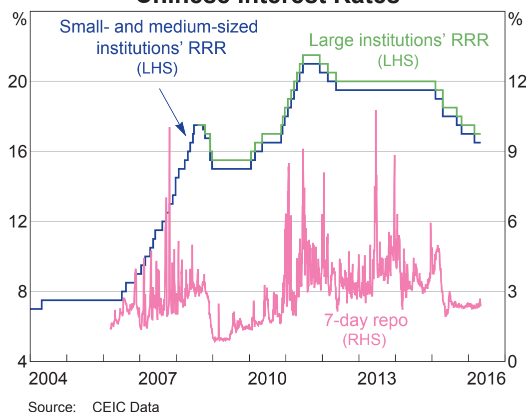
A number of other central banks have also eased policy in recent months (Table 2.1). The Swedish Riksbank reduced its policy rate by 15 basis points to –0.5 per cent and the Reserve Bank of New Zealand lowered its policy rate by 25 basis points to 2.25 per cent, amid concerns that persistently low inflation could make it harder to achieve inflation targets in both countries. The Riksbank also announced that it will extend its government bond purchase program over the second half of 2016. Norway's central bank also reduced its policy rate by 25 basis points in March, noting that growth prospects for the Norwegian economy had softened.

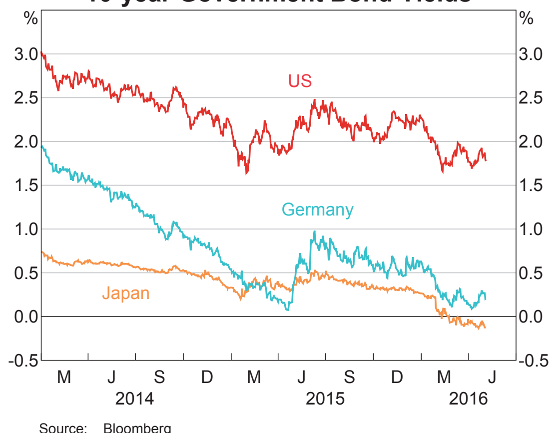
The People's Bank of China (PBC) lowered system-wide reserve requirement ratios (RRRs) by 50 basis points in late February, to be 300 basis points below their end-2014 levels (Graph 2.3). The reduction in

Table 2.1: Monetary Policy

	Policy rate Per cent		Most recent change
Euro area[a]	–0.40	↓	Mar 16
Japan[a]	–0.10	↓	Jan 16
United States[b]	0.375	↑	Dec 15
Australia	1.75	↓	May 16
Brazil	14.25	↑	Jul 15
Canada	0.50	↓	Jul 15
Chile	3.50	↑	Dec 15
India	6.50	↓	Apr 16
Indonesia	6.75	↓	Mar 16
Israel	0.10	↓	Feb 15
Malaysia	3.25	↑	Jul 14
Mexico	3.75	↑	Feb 16
New Zealand	2.25	↓	Mar 16
Norway	0.50	↓	Mar 16
Russia	11.00	↓	Jul 15
South Africa	7.00	↑	Mar 16
South Korea	1.50	↓	Jun 15
Sweden	–0.50	↓	Feb 16
Switzerland[b]	–0.75	↓	Jan 15
Thailand	1.50	↓	Apr 15
Turkey	7.50	↓	Feb 15
United Kingdom	0.50	↓	Mar 09

(a) Marginal rate paid on deposits at the central bank
(b) Midpoint of target range
Sources: Central banks; RBA; Thomson Reuters





RRRs appears to have been a response to domestic liquidity needs arising from capital outflows and Chinese New Year rather than a signal of substantial policy easing, as evidenced by interbank interest rates having remained at low and stable levels.

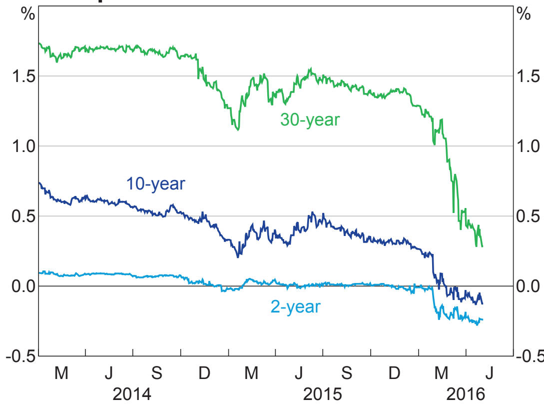
Among other emerging market central banks, both the Reserve Bank of India and Bank Indonesia have eased their policy rates recently to boost economic activity, amid expectations of a further decline in inflation. Bank Indonesia has reduced its policy rate by a total of 75 basis points this year to 6.75 per cent. In contrast, the central banks of Mexico and South Africa raised their policy rates by 50 and 25 basis points, respectively, to stem inflationary pressure mainly arising from further exchange rate depreciation.

Sovereign Debt Markets

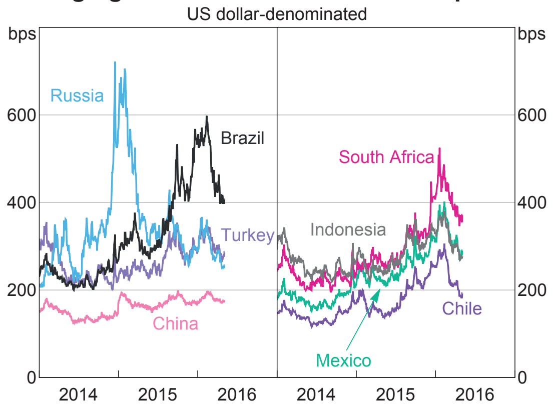
Ten-year sovereign bond yields in major developed markets have fallen since the beginning of the year, reflecting additional easing measures announced by the ECB and the BoJ, as well as a scaling back of expectations of further increases in the US policy rate target (Graph 2.4). Yields on 10-year US Treasuries have declined by around 50 basis points, with commentary from Federal Reserve officials over recent months about the need for caution in tightening monetary policy contributing to the fall. Yields on 10-year German Bunds have declined to around their historic low following the ECB's announcement of additional policy measures. Yields on German short-term sovereign securities have also declined materially since the beginning of 2016. Around 30 per cent of euro area government debt securities are currently trading at yields below zero.

The yield on 10-year Japanese government bonds (JGBs) fell below zero for the first time in February, following the BoJ's announcement of a negative deposit rate, and has been little changed since then at around –0.10 per cent (Graph 2.5). Yields on very long-term JGBs have also declined sharply and around two-thirds of JGBs are currently trading at yields below zero. In addition to ongoing purchases by the BoJ, foreign residents have continued to be net purchasers of JGBs so far this year, particularly of long-term bonds.

Spreads on bonds issued by governments in the European periphery over German Bund yields of equivalent maturity have narrowed since mid February as market sentiment has improved, although spreads on Greek and Portuguese bonds remain well above the levels recorded in late 2015. In particular, concerns remain about the Greek Government's ability to negotiate an acceptable package with creditors and legislate the required reforms in time to receive further bailout funds, which will allow it to meet upcoming large debt



Source: Bloomberg



* To US Treasury bonds; duration matched

Sources: JP Morgan; Thomson Reuters

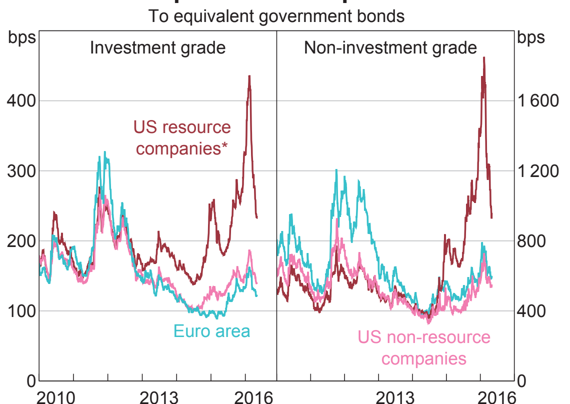
repayments (including €750 million due to the International Monetary Fund (IMF) and €2.3 billion due to the ECB in June and July 2016).

Yields on emerging market local currency-denominated sovereign bonds have generally declined since the start of the year, albeit to varying degrees across countries, consistent with the falls in US Treasury yields. Yields on Brazilian government bonds fell with rising anticipation of a change in the country's government as a consequence of the ongoing presidential impeachment process. Spreads to US Treasuries on emerging market US dollar-denominated sovereign bonds have narrowed considerably since the start of the year, with higher commodity prices supporting bonds of commodity-exporting countries (Graph 2.6). Argentina issued US$16.5 billion in government bonds to international investors in a heavily oversubscribed offering, the first such debt offering since the country defaulted in 2001. Part of the proceeds has been used to pay holdout investors, who have agreed to a settlement after previously blocking the Argentine Government from making payments on the restructured debt from the 2001 default.

Credit Markets

Conditions in both developed and most emerging corporate bond markets have eased since mid February, consistent with the improvement in financial market sentiment and higher commodity prices. Borrowing costs have fallen, largely driven by a narrowing in credit spreads (Graph 2.7). In contrast, conditions in Chinese corporate bond markets have tightened.

Alongside the increase in commodity prices, spreads on resource-related corporate bonds in the United States have fallen sharply since their peak



* Energy, metals, mining and steel sectors

Sources: Bank of America Merrill Lynch; RBA; Thomson Reuters

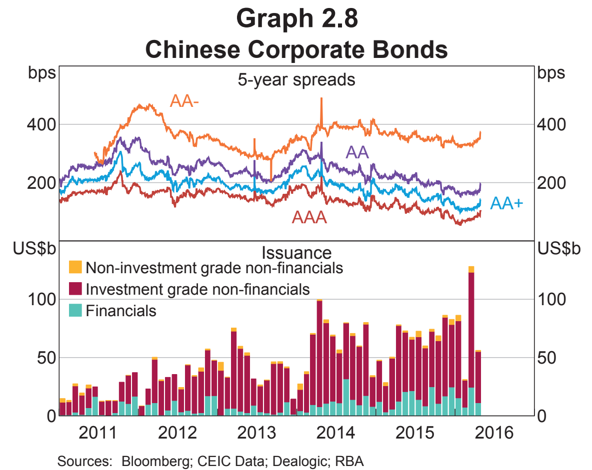
in mid February, reversing much of their increase since mid 2015. Nevertheless, spreads on these bonds remain elevated, consistent with the low level of commodity prices. Reflecting the elevated spreads, borrowing costs for non-investment grade resource companies are above historical averages. The default rate on US non-investment grade bonds has increased steadily from 2 per cent in mid 2015 to around 4 per cent, driven largely by resource company defaults.

Spreads on bonds of US non-resource companies have also fallen as sentiment has improved. In particular, spreads on financial corporations' bonds have now reversed most of their increase since the start of 2016.

In the euro area, the improvement in conditions has been supported by the ECB's announcement that its asset purchase program would be extended to include bonds issued by non-bank investment-grade corporates. Spreads on these bonds have fallen by around 35 basis points since the announcement, while spreads on investment-grade bank bonds have fallen by less.

Issuance of both US and euro area corporate bonds has recovered after slowing in early February, in part due to corporations having postponed issuance while market conditions were volatile. Most notably, Apple and Exxon Mobil each raised US$12 billion in the second half of February, while brewer AB InBev followed its large bond issue in January by raising a further €13 billion in March.

Chinese corporate bond issuance was strong in the March quarter, with record high gross issuance in the month of March (Graph 2.8). Issuance by companies in the real estate and construction sectors grew quickly over the year to March, with growth concentrated in the onshore local currency-denominated market. However, issuance was lower in April and the number of planned corporate bond issues that have been cancelled has increased, reportedly due to concerns in the market over recent missed bond payments by some corporates,

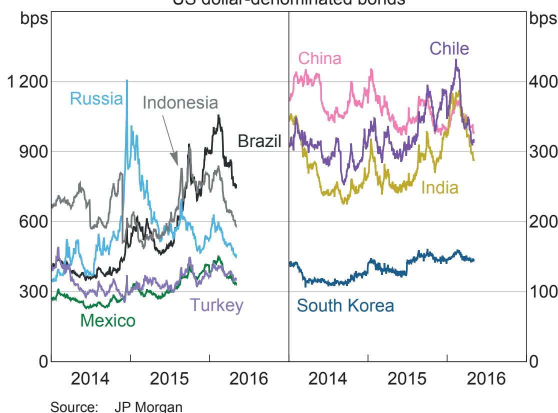


including some state-owned enterprises. Local currency-denominated corporate bond spreads have widened considerably over April, alongside heightened concerns about deteriorating corporate conditions and missed bond payments, to be back around their levels of mid 2015. Local government bond issuance remained strong in the March quarter, consistent with the continuation of the local government debt swap program.

Chinese authorities have stated they are considering a debt-for-equity swap program to reduce the debt burden of large companies in 'overcapacity' industries. Additionally, Chinese authorities have reportedly granted quotas to six large banks allowing them to issue asset-backed securities with non-performing loans as underlying assets.

Spreads to US Treasuries of US dollar-denominated bonds issued by emerging market corporations outside of China fell alongside higher commodity prices and the improvement in market sentiment (Graph 2.9). The narrowing in spreads was particularly pronounced for Indonesian and Brazilian corporations, consistent with the falls in sovereign spreads for those countries. New issuance remains relatively subdued, with cumulative gross issuance by emerging market corporations in the year-to-date at its slowest pace since 2009.

Graph 2.9
Emerging Market Corporate Bond Spreads
US dollar-denominated bonds

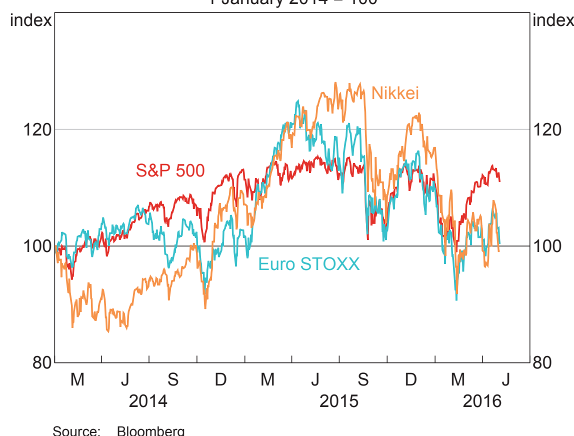


Source: JP Morgan

Equities

After sharp price declines of about 10 per cent between early January and mid February, equity prices in many economies have risen considerably and recovered most of their losses (Graph 2.10; Table 2.2). Share prices in the energy and materials sectors have seen the strongest increase, underpinned by a rise in the price of oil and other commodity prices. Share prices in Japan are a notable exception, which have declined alongside the appreciation of the Japanese yen. Overall, volatility declined and was relatively low over March and April.

Graph 2.10
Major Share Price Indices
1 January 2014 = 100



Source: Bloomberg

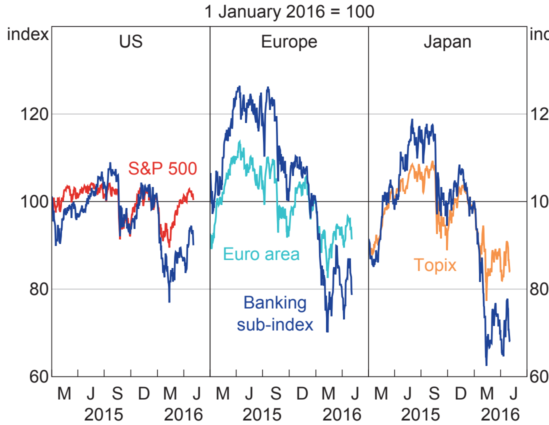
Table 2.2: Changes in International Share Prices
Per cent

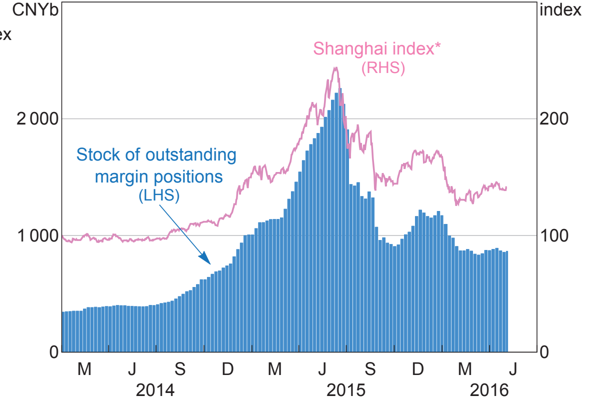
	Over 2015	2016 to date
United States – S&P 500	–1	0
Euro area – STOXX	8	–9
United Kingdom – FTSE	–5	–2
Japan – Nikkei	9	–15
Canada – TSE 300	–11	5
Australia – ASX 200	–2	0
China – MSCI All China	2	–13
MSCI indices		
– Emerging Asia	–8	–3
– Latin America	–11	13
– Emerging Europe	–4	6
– World	**–1**	**–3**

Source: Bloomberg

Bank share prices have risen since mid February, but are still well below their levels at the beginning of the year (Graph 2.11). The sell-off in bank shares – particularly in the euro area and Japan – reflected a broad range of concerns, including a weaker outlook for economic growth, persistently high levels of non-performing loans in some countries (in particular in Italy and Greece), the impact on bank profitability of a low interest rate environment and relatively flat yield curves (which reduce the profitability of banks' long-term lending) as well as a number of bank-specific concerns.

Major US banks reported that net income declined notably in the March quarter compared to the same quarter last year, generally driven by a sharp decline in institutional banking revenues (in particular, from fixed income trading), and a notable increase in provisions for credit losses in relation to exposures to the energy sector. These falls were partially offset by an increase in net interest income from the traditional banking business. The Federal Deposit Insurance Corporation and the Federal Reserve found shortcomings in the 'living wills' (recovery and resolution plans in the event of financial distress or failure) of five large US institutions: JP Morgan,





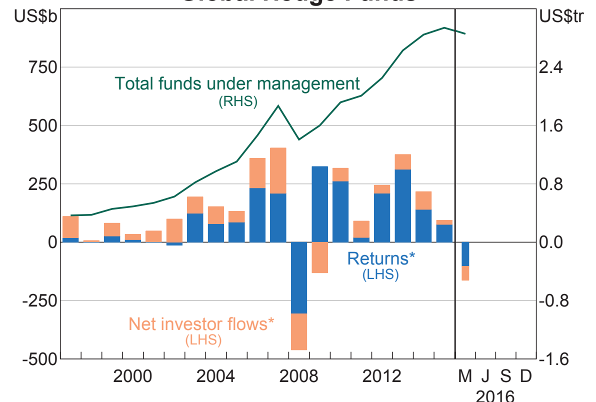
Bank of America, Wells Fargo, State Street and Bank of New York Mellon. The institutions have until October 2016 to address the identified deficiencies or face potential regulatory sanctions, which may include higher capital requirements. Most European banks also reported a decrease in earnings, largely driven by a decline in trading revenue.

Share prices in most emerging markets have outperformed those in advanced economies since mid February and over 2016 to date, reflecting higher commodity prices (most notably oil) and an increase in capital inflows. Of note, Brazilian equity prices have increased by about 20 per cent since the start of the year, more than offsetting the falls in 2015.

Chinese share prices have recovered some of their falls in early 2016 and have been less volatile recently (Graph 2.12). Overall, Chinese margin financing is only a little above its level in mid February, despite a resumption of short-term lending by China Securities Finance Corporation to brokerage firms for margin trading and an easing of capital requirements for brokerages by the China Securities Regulatory Commission.

Hedge Funds

Global hedge funds recorded an asset-weighted return on investment of –2.2 per cent over the March quarter of 2016, underperforming a balanced portfolio of global bonds and equities (Graph 2.13). This follows a 0.5 per cent return on investment over the December quarter for the sector and a return close to zero over 2015. The global hedge fund losses in the March quarter primarily stem from equity hedge funds, in particular those with large exposures to the technology and healthcare sectors. Funds focused on emerging markets did a little



better, led by the outperformance of funds targeting Latin American securities amid a rebound of Brazilian equity prices. Investors made net withdrawals from hedge funds for the second consecutive quarter, marking the largest quarterly outflows since 2009. Overall, assets under management declined by 1.4 per cent over the quarter to US$2.9 trillion.

Foreign Exchange

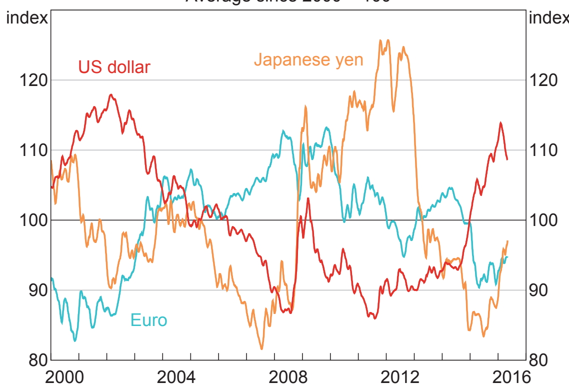
In recent months, foreign exchange markets have primarily been influenced by the current and expected stance of monetary policy in the major advanced economies and an increase in commodity prices.

On a trade-weighted basis, the US dollar appreciated by around 25 per cent between mid 2014 and late January 2016, but has since depreciated by 5 per cent (Graph 2.14; Table 2.3). The depreciation has occurred alongside the FOMC lowering its median projection for the federal funds rate and market participants' expectations for the timing of the next rate increase also being pushed back. The depreciation has generally been more pronounced against the currencies of commodity exporters.

The Japanese yen has moved within a wide range over recent months alongside changes in expectations about further policy easing by the BoJ. Between late January and mid April the yen appreciated sharply, partly reflecting speculation by market participants that the BoJ may be approaching its limit to ease policy further. However, the yen then depreciated alongside increasing expectations of additional policy easing by the BoJ at its April meeting. Following the BoJ's decision to leave its policy stance unchanged, the yen appreciated sharply. Overall, the yen has appreciated by 7 per cent on a trade-weighted basis and by 11 per cent against the US dollar since late January (Graph 2.15).

The euro has appreciated by 6 per cent on a trade-weighted basis and by 9 per cent against the US dollar since its recent trough in late November. The appreciation has occurred despite the ECB's decision to ease policy at both its December and

Graph 2.14
Nominal Trade-weighted Indices*
Average since 2000 = 100



* 22-day rolling average

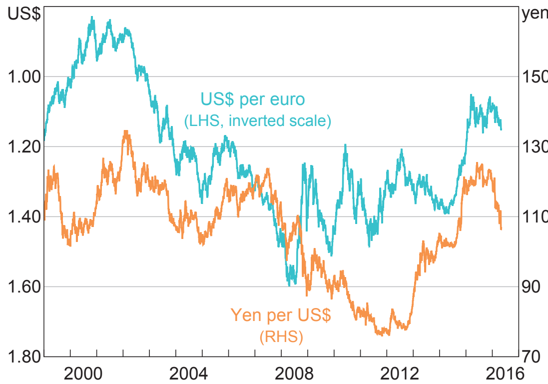
Sources: BIS; Bloomberg; Board of Governors of the Federal Reserve System

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

	Over 2015	2016 to date
Mexican peso	17	3
UK pound sterling	6	2
Philippine peso	5	1
Indian rupee	5	1
Chinese renminbi	5	0
New Zealand dollar	14	–1
New Taiwan dollar	4	–1
South Korean won	8	–2
Australian dollar	12	–2
Thai baht	10	–2
Indonesian rupiah	11	–4
Singapore dollar	7	–4
Swiss franc	1	–4
Swedish krona	8	–4
European euro	11	–5
Malaysian ringgit	22	–6
Canadian dollar	19	–7
Russian rouble	24	–7
Brazilian real	50	–10
Japanese yen	0	–11
TWI	**10**	**–3**

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

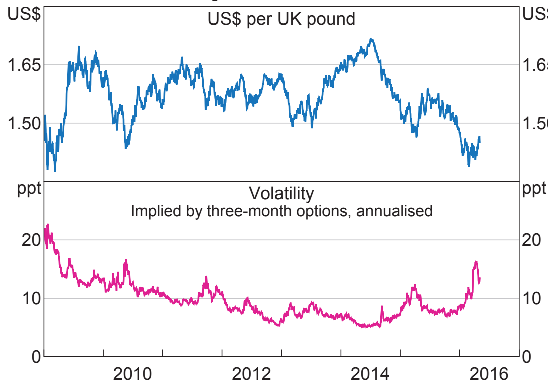
Graph 2.15
US Dollar



Source: Bloomberg

March meetings. Over recent months, the UK pound has been affected by uncertainty around the possibility of Britain exiting the European Union. Relatedly, the upcoming referendum on 23 June has resulted in a sharp increase in forward-looking measures of volatility in the GBP/USD currency pair; in mid April volatility reached its highest level since the UK general election in mid 2010 (Graph 2.16). While the UK pound has appreciated by around 5 per cent against the US dollar since its trough in late February, it remains around 15 per cent lower than its peak in mid 2014.

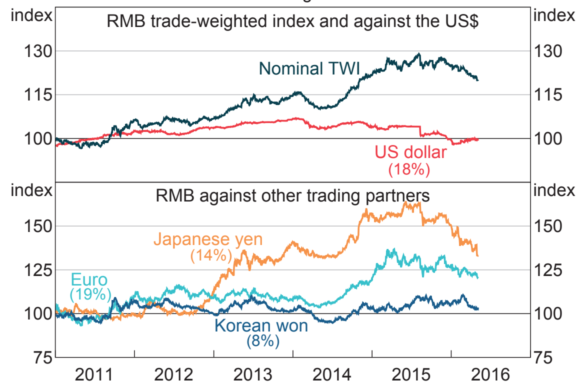
Graph 2.16
UK Pound
Against the US dollar



Source: Bloomberg

The Chinese renminbi (RMB) has appreciated by 1 per cent against the US dollar since its low in early January and has tended to move in a wider range in recent months, consistent with the PBC's policy aim to increase flexibility of the RMB (Graph 2.17). Except for the Chinese New Year period, the spread between RMB exchange rates in the onshore and offshore markets has been minimal. On a trade-weighted basis, the RMB has depreciated by 4 per cent since early January to be 7 per cent below its August 2015 peak. The value of the PBC's foreign currency reserves fell by US$118 billion over the March quarter 2016, largely as a result of a decline in January of around US$100 billion (Graph 2.18). The PBC's foreign

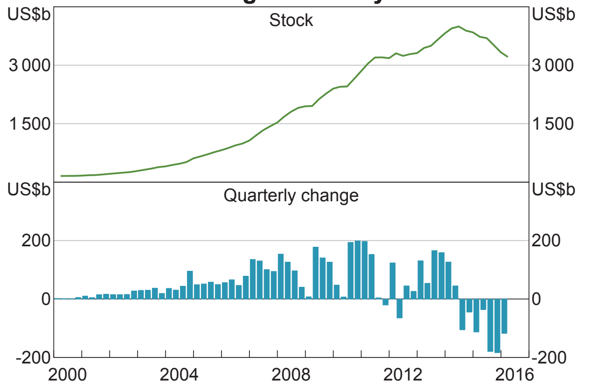
Graph 2.17
Chinese Renminbi*
2011 average = 100



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

Sources: BIS; Bloomberg; RBA

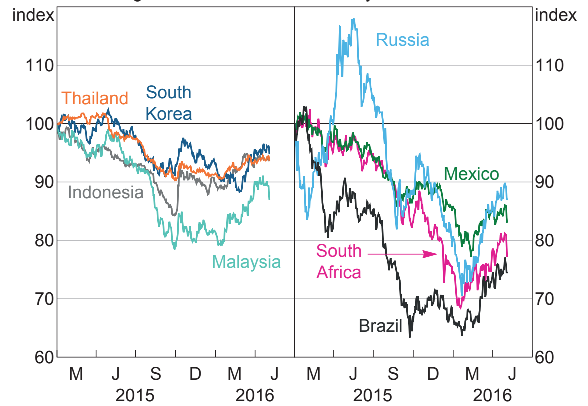
Graph 2.18
Chinese Foreign Currency Reserves



Source: CEIC Data

currency reserves have decreased by US$781 billion (or 20 per cent) since their peak in June 2014.

Most other Asian and emerging market currencies have appreciated against the US dollar since late January (Graph 2.19). The appreciations have typically been more pronounced for the currencies of commodity exporters. Most notably, the Russian rouble has appreciated by 22 per cent, and the Brazilian real, South African rand and Malaysian ringgit have appreciated by between 10–15 per cent alongside gains in oil and other commodity prices as well as a recovery in risk sentiment. In addition to the increase in commodity prices, the appreciation of the Brazilian real has reflected domestic political developments and has occurred despite recent action by Brazil's central bank to curb appreciation pressure on the currency. Volatility in most emerging market currencies remains above its average since 2010.



The gross foreign currency reserves of most emerging market economies have been little changed or increased slightly since the end of December (Table 2.4). Saudi Arabian reserves have continued to decline but at a slower pace

Table 2.4: Gross Foreign Currency Reserves[a]

	Percentage change since:		Level
	End March 2015	End December 2015	US$ equivalent (billions)
China	–14	–4	3 213
Saudi Arabia	–16	–5	576
Taiwan[b]	4	1	432
South Korea	2	0	360
Brazil	–1	0	350
Hong Kong	9	0	348
India	6	3	338
Russia	6	3	316
Singapore	–1	–1	244
Mexico	–8	2	171
Thailand	12	12	166
Indonesia	–4	1	101
Turkey	–6	3	94
Malaysia	–7	3	89
Argentina	10	41	29

(a) Data to end March for China, Hong Kong, Indonesia, Mexico, Saudi Arabia, Singapore, South Korea, Taiwan and Thailand; to 15 April for Malaysia; to 22 April for India, Russia and Turkey; to end April for Argentina and Brazil.
(b) Foreign exchange reserves (includes foreign currency and other reserve assets).
Sources: Bloomberg; CEIC Data; central banks; IMF; RBA

than in late 2015 and early 2016, consistent with IMF projections for a smaller fiscal deficit in 2016. Argentina's gross foreign currency reserves increased by US$6.7 billion following the US$16.5 billion sovereign debt issuance. Since the start of 2016, gross foreign currency reserves have increased by around 40 per cent in Argentina; this also includes a loan to the central bank from a number of commercial banks in late January.

Australian Dollar

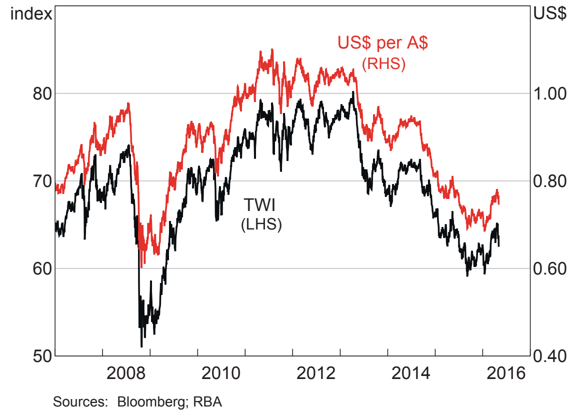
Overall, the Australian dollar is little changed on a trade-weighted (TWI) basis since the previous *Statement* (Table 2.5; Graph 2.20). Between early February and late April the Australian dollar appreciated by 6 per cent on a TWI basis and by 9 per cent against the US dollar, reflecting the markets' response to stronger-than-expected national accounts data, increases in commodity prices (including a 45 per cent increase in the iron ore price), and reduced expectations of the pace of policy tightening in the United States by both the FOMC and the market. However, the Australian dollar then depreciated sharply following lower-than-expected inflation data and the RBA's decision to ease monetary policy in early May.

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

	Over 2015	2016 to date
UK pound sterling	–6	4
Indian rupee	–7	3
Chinese renminbi	–7	3
US dollar	–11	2
New Zealand dollar	2	2
South Korean won	–4	1
Thai baht	–2	0
South African rand	19	–1
Indonesian rupiah	–1	–2
Singapore dollar	–5	–2
Swiss franc	–10	–2
European euro	–1	–3
Malaysian ringgit	9	–4
Canadian dollar	6	–5
Japanese yen	–11	–9
TWI	**–6**	**0**

Sources: Bloomberg; RBA

Graph 2.20
Australian Dollar



Sources: Bloomberg; RBA

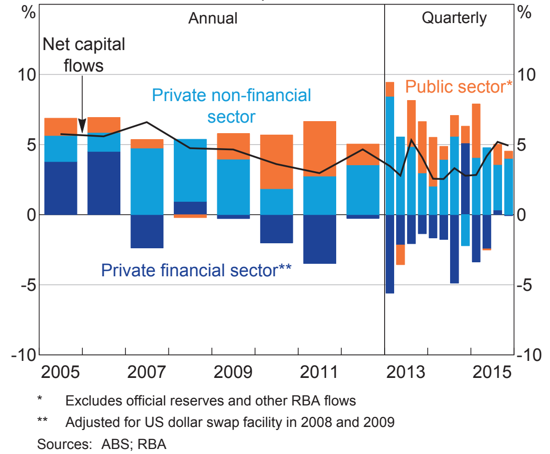
The Australian dollar is currently around 8 per cent higher against the US dollar and 6 per cent higher on a TWI basis than the low it reached in September 2015. In recent months, the average intraday trading range for the AUD/USD exchange rate was slightly above its post-2000 average.

Capital Flows

Net capital inflows to the Australian economy were equivalent to 4.9 per cent of GDP in the December quarter, largely reflecting inflows to the private non-financial sector, in particular the mining sector (Graph 2.21). Within the financial sector, a net outflow from the banking sector in the quarter offset a net inflow to 'other financials' (which includes superannuation funds and other investment funds).

There was a modest net inflow to the public sector in the December quarter. This primarily reflected a net inflow to the general government sector, which was largely proportional to net issuance of Australian Government securities (AGS) in the quarter. As a result, the foreign ownership share of AGS remained unchanged at 63 per cent.

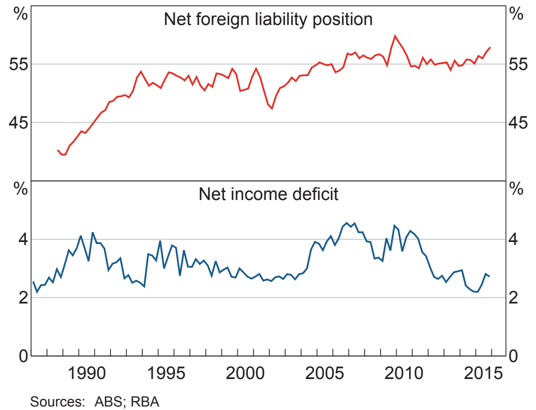
Consistent with net capital inflows in the December quarter, Australia's net foreign liability position increased to 58 per cent of GDP (Graph 2.22). The net income deficit, which largely comprises payments made on Australia's net foreign liabilities, narrowed to 2.7 per cent of GDP in the December quarter, primarily reflecting an increase in the estimated yield received on Australia's foreign debt and equity assets. ✠



* Excludes official reserves and other RBA flows

** Adjusted for US dollar swap facility in 2008 and 2009

Sources: ABS; RBA



Sources: ABS; RBA