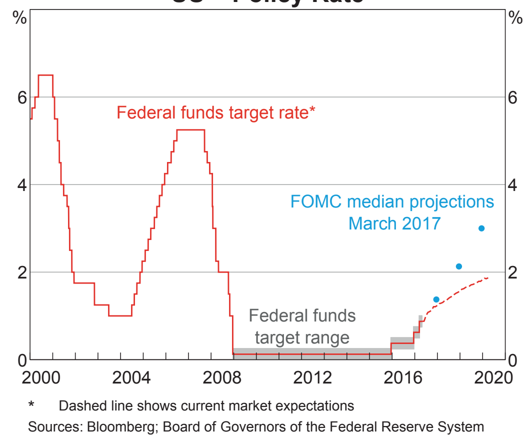
2. International and Foreign Exchange Markets

Financial market sentiment remains generally buoyant, supported by expectations of a sustained pick-up in economic growth globally and receding concerns of disruptive political developments. Against the backdrop of the more favourable economic outlook, the US Federal Reserve raised its policy rate in March and market expectations for further monetary stimulus from other central banks have been scaled back. Nonetheless, policy rates remain very low historically and some central banks continue to purchase large quantities of assets. Moreover, financial conditions remain very favourable. Yields across a range of markets are low and credit spreads are narrow, equity market valuations are at relatively high levels and measures of market volatility are generally low.

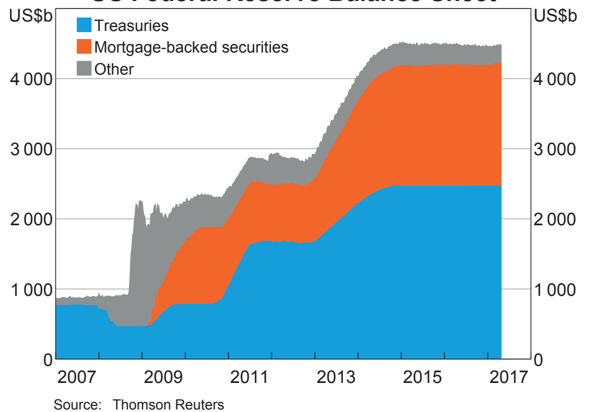
Central Bank Policy

The Federal Open Market Committee (FOMC) has continued to gradually increase its policy rate. In March, it voted to raise its target range for the federal funds rate by 25 basis points to 0.75–1 per cent, citing a strengthening labour market and inflation having moved closer to its 2 per cent goal. The median projection of FOMC members is for two more increases in interest rates (of 25 basis points) this year, which is a somewhat faster pace of tightening than that anticipated by the market (Graph 2.1). Minutes from the March FOMC meeting indicated that, if the economy evolves as expected, the Federal Reserve is likely to start reducing its balance sheet in late 2017 by ceasing or at least limiting the reinvestment of maturing securities. The Federal Reserve currently holds around US$4.5 trillion in assets, of which an estimated US$600 billion matures or will be otherwise repaid within a year (Graph 2.2).

The European Central Bank (ECB) has left its policy settings unchanged since announcing an extension of its asset purchase program in December. Since then it has noted that the



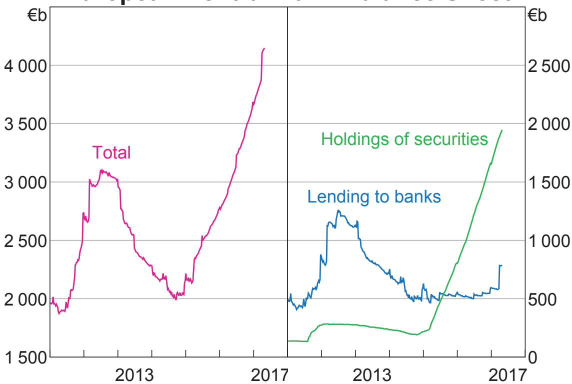
* Dashed line shows current market expectations
Sources: Bloomberg; Board of Governors of the Federal Reserve System



Source: Thomson Reuters

economic recovery has gained momentum and that the risk of deflation has receded. However, it has also noted that underlying inflation has remained subdued and a substantial degree of monetary accommodation is still appropriate. Market prices suggest that the ECB is likely to keep the deposit rate at its current level over the coming year or so, which stands in contrast to the likelihood of a further reduction suggested by market pricing during much of 2016. The final targeted long-term refinancing operation took place in March. Banks borrowed a net €215 billion from the ECB, the largest take-up since the program began, increasing the outstanding amount borrowed by around 40 per cent (Graph 2.3).

Graph 2.3
European Central Bank Balance Sheet



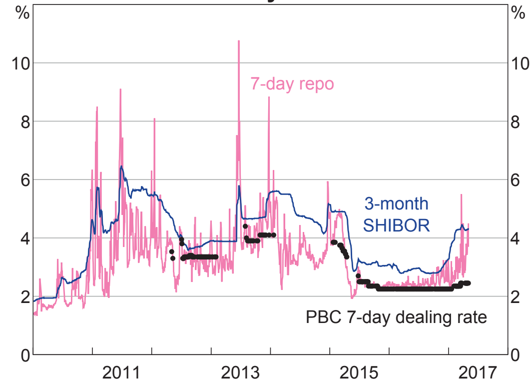
Sources: European Central Bank; Thomson Reuters

The Bank of England (BoE) has left policy unchanged since August last year and, while it has reiterated that the next move in interest rates could be in either direction, its current economic forecasts imply a modest withdrawal of stimulus in the coming years. The BoE has almost completed its scheduled purchases of UK government and corporate bonds and the program is not expected to be extended.

The Bank of Japan (BoJ) has left both its deposit rate and its 10-year Japanese government bond yield target of around zero per cent unchanged since September and has continued to purchase assets at close to the pace seen last year. The BoJ has noted that the domestic economy continues to recover and reiterated its view that inflation will increase steadily towards its target. However, it has said that risks to the outlook – particularly from global developments – remain skewed to the downside and that very accommodative monetary policy remains appropriate. The BoJ has also noted that it does not believe that higher US Treasury yields compel it to increase its target for Japanese yields.

In China, money market interest rates have increased in 2017 (Graph 2.4). The rise has been accompanied by two 10 basis point increases to the interest rates on a number of the People's Bank of China's (PBC's) lending facilities, which reflect the PBC's desire to reduce leverage in the financial system. In March, money market rates rose noticeably for a time following news that some small financial institutions had defaulted on money market loans. These were the first defaults in this market and followed reports that larger banks have become more hesitant to provide funding to smaller institutions because of regulators' increasing scrutiny of banks' balance sheet growth.

Graph 2.4
Chinese Money Market Rates



Source: CEIC Data

Elsewhere, the Bank of Mexico increased its policy rate, citing the need to keep inflation expectations anchored (Table 2.1). Conversely, the Swedish Riksbank extended its asset purchase program,

and several emerging market central banks eased monetary policy, including the central banks of Brazil, Chile and Russia, which all reduced their policy rates in response to softer domestic activity and a decline in rates of inflation.

Table 2.1: Monetary Policy

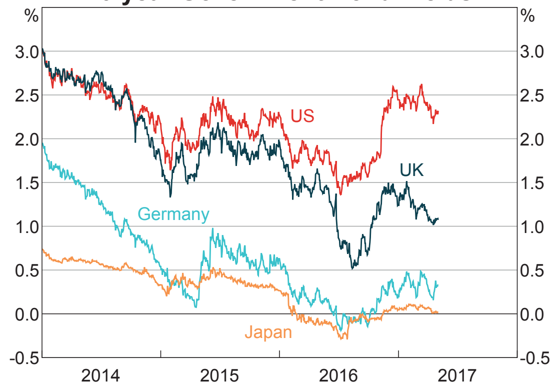
	Policy rate Per cent		Most recent change
Euro area[a]	–0.40	↓	Mar 16
Japan[a]	–0.10	↓	Jan 16
United States[b]	0.875	↑	Mar 17
Australia	1.50	↓	Aug 16
Brazil	11.25	↓	Apr 17
Canada	0.50	↓	Jul 15
Chile	2.75	↓	Apr 17
India	6.25	↓	Oct 16
Indonesia	4.75	↓	Oct 16
Israel	0.10	↓	Feb 15
Malaysia	3.00	↓	July 16
Mexico	6.50	↑	Mar 17
New Zealand	1.75	↓	Nov 16
Norway	0.50	↓	Mar 16
Russia	9.25	↓	Apr 17
South Africa	7.00	↑	Mar 16
South Korea	1.25	↓	Jun 16
Sweden	–0.50	↓	Feb 16
Switzerland[b]	–0.75	↓	Jan 15
Thailand	1.50	↓	Apr 15
Turkey	8.00	↑	Nov 16
United Kingdom	0.25	↓	Aug 16

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

Sovereign Debt Markets

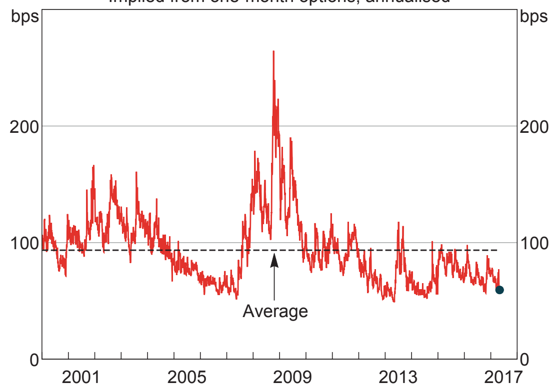
With economic data and central bank policy evolving largely as expected, movements in major market sovereign bond yields have been modest, on balance, since late 2016 (Graph 2.5). Measures of bond market volatility remain low (Graph 2.6).

Graph 2.5
10-year Government Bond Yields



Source: Bloomberg

Graph 2.6
US Bond Market Volatility
Implied from one-month options, annualised

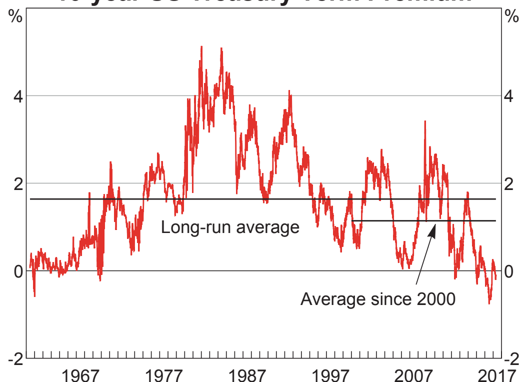


Source: Bloomberg

In the United States, 10-year Treasury yields have declined a little from their early 2017 levels. This may in part reflect waning expectations for fiscal stimulus. Nonetheless, yields remain close to the levels established following the US election. While long-term yields have declined, short-term yields have risen alongside the increase in the US Federal Reserve policy rate, resulting in a flatter yield curve.

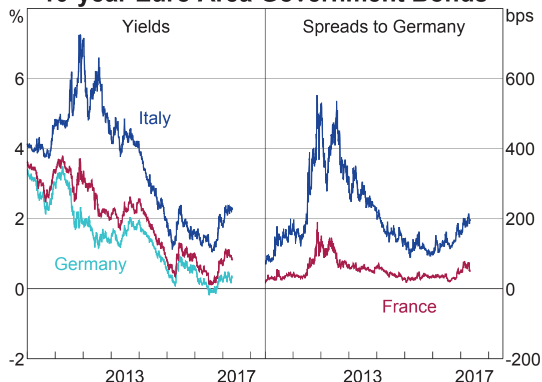
Estimates of the US term premium – the additional compensation investors require for holding long-term bonds – have remained around zero this year after rising a little from the lows reached in mid 2016 (Graph 2.7). One factor that has contributed to this low level

Graph 2.7
10-year US Treasury Term Premium



Source: Federal Reserve Bank of New York

Graph 2.8
10-year Euro Area Government Bonds



Source: Bloomberg

of the premium is strong foreign demand for US Treasuries. In particular, Japanese and euro area residents made sizeable purchases of US Treasuries over 2016 in response to the influence of BoJ and ECB purchases in their respective domestic sovereign bond markets. Since late 2016, however, Japanese residents have been net sellers of US Treasuries and net purchases by euro area residents have slowed substantially.

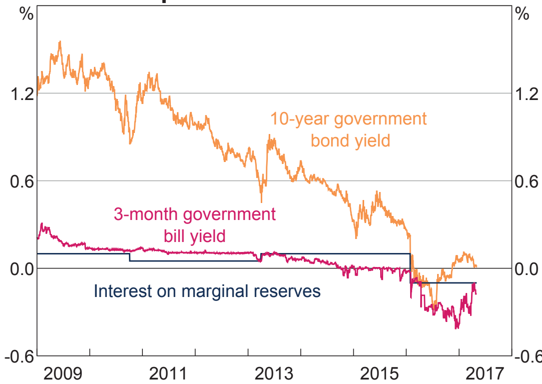
In Europe, movements in yields on 10-year German government bonds have largely reflected changing market expectations of ECB policy settings and shifting perceptions of the prospects of euro-sceptic candidates in national elections in several European countries (Graph 2.8). The uncertainty around election outcomes resulted in yields on many European government bonds rising and spreads to German government bonds widening since the start of the year, though more recently spreads have narrowed following the results of the first round of the French election.

In the United Kingdom, yields on 10-year government bonds have gradually declined since the beginning of the year, as some weaker-than-expected economic data of late has renewed concerns over economic growth prospects following the United Kingdom's decision to exit the European Union. Nonetheless, day-to-day developments relating to the exit, including the formal triggering of Article 50 in late March and the April announcement of an early election, have had little effect on the UK sovereign bond market.

Yields on 10-year Japanese government bonds have remained close to the BoJ's target of around zero per cent, consistent with its yield curve control policy (Graph 2.9). However, yields on short-term Japanese government debt have risen over recent months, largely because of a reduction in BoJ purchases of short-term debt securities and an increase in the BoJ's lending of these securities through its market operations in the lead-up to the end of the fiscal year.

In emerging markets, yields on local currency-denominated sovereign bonds have generally declined since the beginning of 2017 and foreign capital has flowed back into emerging economy bond markets following large outflows after the US election (Graph 2.10). This reflects a further improvement in the outlook for global growth and reduced expectations of protectionist US trade policy.

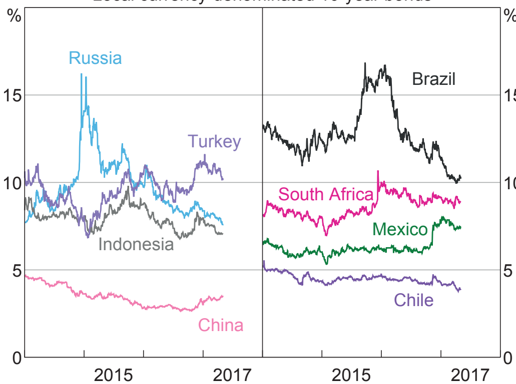
Graph 2.9
Japanese Interest Rates



Sources: Bank of Japan; Bloomberg

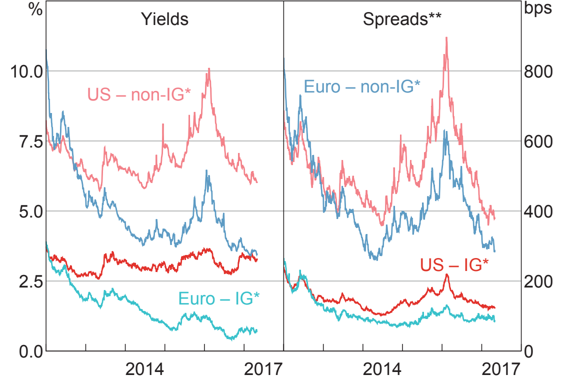
Graph 2.10
Emerging Market Government Bond Yields

Local currency-denominated 10-year bonds



Sources: Bloomberg; Thomson Reuters

Graph 2.11
Corporate Bond Yields and Spreads



* IG refers to investment grade

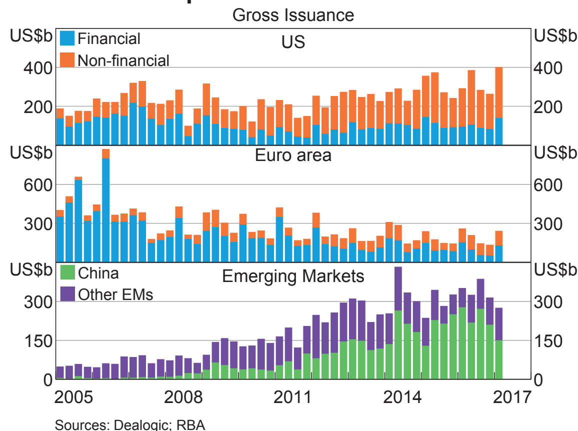
** To equivalent government bonds

Source: Bloomberg

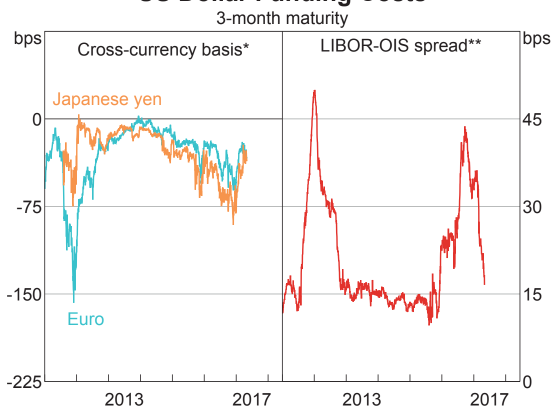
Credit Markets

Investor appetite for corporate fixed income securities has remained robust in 2017 and borrowing conditions in credit markets continue to be very favourable, despite the rise in the US policy rate and a scaling back of expectations for further monetary stimulus elsewhere. Yields on US dollar- and euro-denominated investment grade bonds remain at low levels by historical standards and spreads to government bonds have narrowed (Graph 2.11). Yields on non-investment grade bonds – having declined sharply in 2016 – have declined further over the year to date. The positive sentiment has extended to US dollar-denominated bonds issued by emerging market corporations, for which yields have declined and spreads have narrowed since the beginning of 2017. The favourable conditions are due to a range of factors, including the positive outlook for growth and the gradual approach to monetary tightening by the US Federal Reserve. Reflecting these factors, corporate bond issuance has been strong, particularly in the United States where 2017 issuance by US corporations has been the highest on record (Graph 2.12). Issuance by euro area and emerging market firms has also increased relative to late 2016. Conversely, credit market conditions have tightened somewhat in China. Yields on Chinese corporate bonds have been rising since the start of the year and corporate bond issuance has been weak compared with 2016, partly as a result of tighter interbank funding conditions and regulatory measures aimed at reducing leverage and speculative activity in financial markets.

Funding conditions in other markets have also become more accommodative this year. The cost of borrowing US dollars in exchange for other currencies has fallen considerably from its peak in late 2016, particularly in exchange



for Japanese yen (Graph 2.13). This reflects both demand and supply factors. There has been a reduction in the demand for US dollar-denominated assets from non-US investors and a reduction in demand for funding such assets via the foreign exchange swap market. On the supply side, investors have been more willing to lend US dollars due to a reduction in US Treasury bill issuance after the temporary suspension of the debt ceiling expired.[1] The cost of borrowing US dollars in money markets relative to risk-free rates has also declined, as has the cost of borrowing US dollars in repo markets that use Treasury securities as collateral.



Equities

Sentiment in global equity markets has remained buoyant in recent months, supported by the positive outlook for economic growth, which in turn has supported earnings expectations. Despite waning somewhat recently, expectations for corporate tax reform and infrastructure spending in the United States, as well as low interest rates more generally, have also helped to support equity prices (Table 2.2). According to a range of measures, valuations are elevated on a historical basis and, like other financial markets, equity markets have proved resilient in the face of rising geopolitical tensions (Graph 2.14). While measures of equity market volatility, like those for bond markets, have picked up at times, they remain at very low levels (Graph 2.15).

US bank share prices are little changed since the start of the year but valuations still suggest that the US financial sector will ultimately benefit from the administration's deregulatory agenda (Graph 2.16). March quarter earnings for the largest US banks were generally higher than a year ago. Earnings were supported by a rise in net interest income, fixed income trading revenue (due to increased client activity) and investment banking revenue, as well as lower

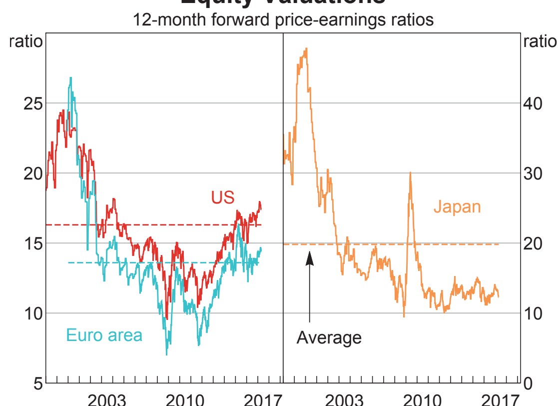
1 The US Government must regularly pass appropriations bills in order to fund many of its activities. If appropriation bills are not passed, many government functions and departments are shut down. In order to *borrow* to fund its appropriations bills, the US Government regularly raises the debt ceiling (which otherwise would be a binding constraint on the gross amount of federal debt outstanding). The debt ceiling was last suspended in November 2015. This suspension expired on 15 March 2017 and the debt ceiling is once again binding. The US Treasury is currently employing 'extraordinary measures' to fund existing government expenditure without increasing the level of federal debt outstanding.

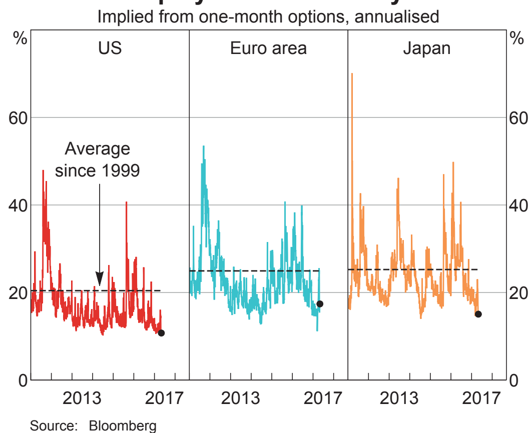
Table 2.2 Changes in International Share Prices

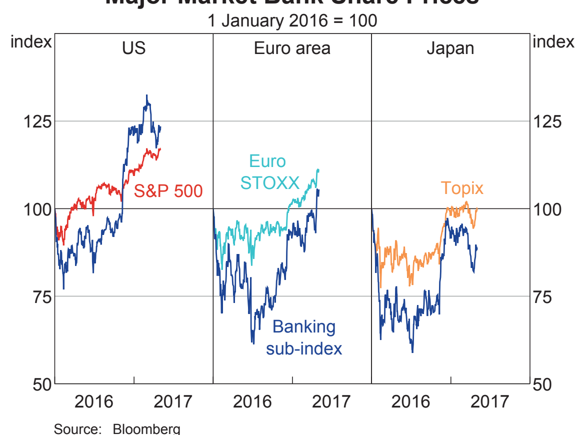
Per cent

	2017 to date
United States – S&P 500	7
Euro area – STOXX	10
United Kingdom – FTSE	1
Japan – Nikkei	2
Canada – TSE 300	2
Australia – ASX 200	4
China – MSCI All China	8
MSCI indices	
– Emerging Asia	13
– Latin America	8
– Emerging Europe	0
– World	**7**

Source: Bloomberg



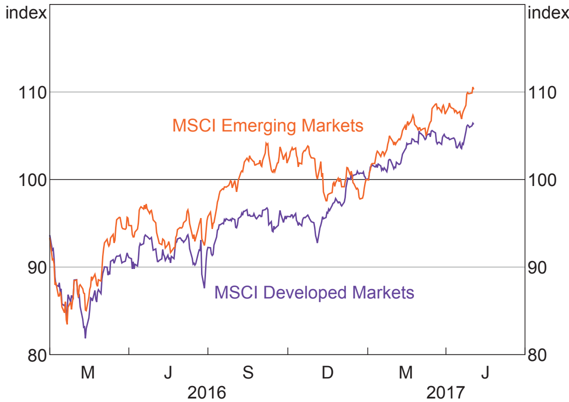




loan-loss provisions stemming from the improved performance of energy portfolios. European bank share prices rose sharply following the result of the first round of the French election and are around their highest level since December 2015. European bank results for the first quarter were also higher than a year ago, supported by higher trading revenues and lower loan-loss provisions, which reflects the improving euro area economy. Japanese bank share prices have declined this year reflecting concerns around some of their large corporate exposures.

Share prices in most emerging market economies have more than recovered from their late 2016 declines, as capital has returned to emerging market equity funds in response to the improving global economic outlook and receding expectations of a protectionist US trade agenda (Graph 2.17). Chinese share prices have risen, in part due to a relaxation of futures trading regulations that were imposed by Chinese authorities to counter falling stock prices in mid 2015.

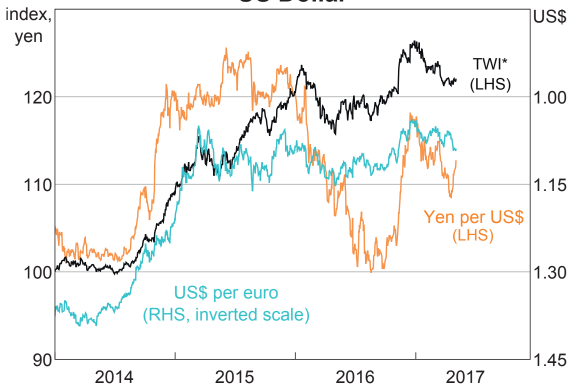
Graph 2.17
Developed and Emerging Market Share Prices



Foreign Exchange

The US dollar has depreciated since the start of the year on a trade-weighted (TWI) basis, as market participants have pared back expectations that the US administration will be able to enact their proposed fiscal stimulus in a timely manner and have come to believe that the administration may not pursue protectionist trade measures as much as earlier anticipated (Graph 2.18). The US dollar is now around its level immediately prior to the US election. The depreciation has been most pronounced

Graph 2.18
US Dollar



against the currencies of economies likely to be particularly affected by any changes to US trade policies (Table 2.3). Indeed, the Mexican peso has appreciated by around 15 per cent against the US dollar since its trough in mid January, retracing its post-election depreciation.

The US dollar has also depreciated against the Japanese yen since the start of the year, reflecting a narrowing in the differential between the yields on US sovereign bonds and those in Japan (consistent with the BoJ's policy of yield curve control, which has limited the movements in longer-term Japanese sovereign bond yields). Notwithstanding its recent depreciation, the

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

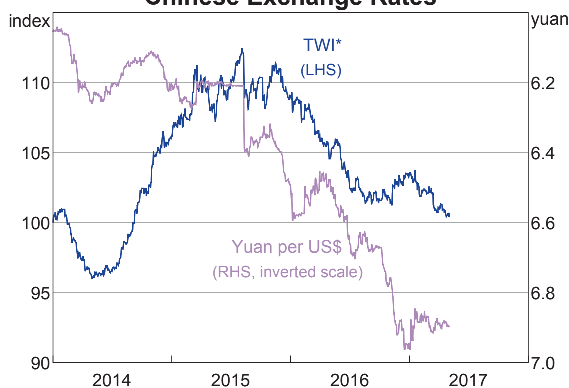
	Over 2016	2017 to date
Canadian dollar	–3	2
Philippine peso	6	1
New Zealand dollar	–1	1
Chinese renminbi	7	–1
Indonesian rupiah	–2	–1
Swiss franc	2	–2
Brazilian real	–18	–3
Swedish krona	8	–3
Australian dollar	1	–3
European euro	3	–3
Singapore dollar	2	–3
Thai baht	–1	–4
Japanese yen	–3	–4
Malaysian ringgit	5	–4
UK pound sterling	19	–4
Indian rupee	3	–5
South Korean won	3	–6
Russian rouble	–14	–7
New Taiwan dollar	–1	–7
Mexican peso	21	–9
Trade-weighted index	**4**	**–3**

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

US dollar has appreciated significantly over the past few years alongside divergent paths for monetary policy in the United States and other advanced economies. The US dollar remains around its highest level in over a decade on a trade-weighted basis.

The Chinese renminbi (RMB) has appreciated modestly against the US dollar over 2017 to date (Graph 2.19). However, since the appreciations of the currencies of many of its major trading partners against the US dollar have been more pronounced, the RMB has depreciated noticeably on a trade-weighted basis. These moves are in contrast to those in the second half of 2016 when the RMB depreciated against the US dollar – reflecting the broad-based US dollar appreciation over that period – but was broadly unchanged on a trade-weighted basis.

Graph 2.19
Chinese Exchange Rates

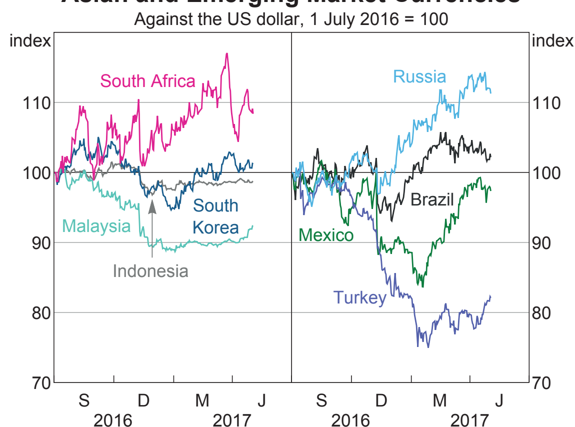


* Indexed to 1 January 2014 = 100
Sources: BIS; Bloomberg; RBA

The euro appreciated following the outcome of the first round of voting in the French presidential election. Over the past few months the euro has fluctuated alongside evolving expectations for European election outcomes and the path of monetary policy in the euro area. The currency is little changed on a trade-weighted basis since the start of the year. Emerging European currencies have moved broadly in line with the euro, including the Czech koruna, which appreciated only a little against the euro following the removal of its exchange rate cap of CZK 27/euro in early April. The UK pound appreciated a little following the announcement of the early UK general election, but remains noticeably lower than its level prior to the referendum on leaving the euro area.

Outside of the currencies exposed to US trade policy developments and emerging European currencies, other emerging market currencies have been mixed (Graph 2.20). Commodity prices have generally stabilised or declined in recent months, which has weighed on the currencies of some commodity exporters. Political developments have also been important. The South African rand has depreciated noticeably against the US dollar since its peak in late March following the removal of the country's finance minister (by the President) and the associated downgrade to its credit rating.

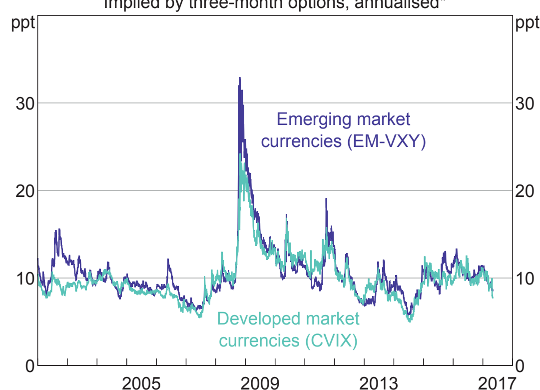
Graph 2.20
Asian and Emerging Market Currencies



Source: Bloomberg

Consistent with bond and equity market volatility, observed and forward-looking measures of volatility have generally fallen since the start of the year for both major and emerging market currencies (Graph 2.21).

Graph 2.21



The gross foreign currency reserves of most emerging market economies have increased since the end of December 2016 (Table 2.4), alongside US dollar weakness in the March quarter. The introduction of a new foreign exchange hedging instrument by the Mexican Foreign Exchange Commission aimed at reducing volatility in the peso has not affected the Bank of Mexico's level of foreign currency reserves because the instrument is settled in pesos.

The value of the PBC's foreign currency reserves has been broadly unchanged over 2017 at around US$3 trillion (27 per cent of GDP; Graph 2.22). Partial data indicate that the pace of net private capital outflows has declined, consistent with the greater scrutiny of capital outflows by the Chinese authorities over the past few months and the depreciation of the US dollar. The Chinese authorities have given foreign financial institutions access to the onshore foreign exchange derivative market to hedge the foreign currency exposure associated with their purchases of Chinese bonds. The authorities have also announced their intention to start a 'Bond Connect' scheme with Hong Kong this year, which would allow

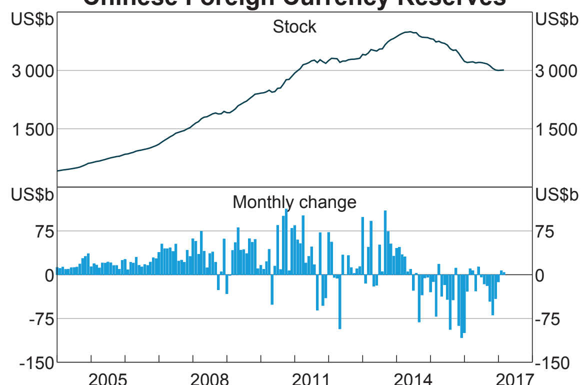
Table 2.4: Gross Foreign Currency Reserves[(a)]

	Percentage change:		Level
	End March 2016 to latest	End December 2016 to latest	US$ equivalent (billions)
China	–6	0	3 009
Saudi Arabia	–13	–5	499
Taiwan[(b)]	1	1	438
Hong Kong	10	3	385
South Korea	1	1	365
Brazil	4	1	359
India	3	3	347
Russia	2	5	323
Singapore	5	5	257
Thailand	3	5	172
Mexico	–1	1	170
Indonesia	14	5	116
Malaysia	0	2	89
Turkey	–11	–7	84

(a) Data to end March for China, Hong Kong, Indonesia, Mexico, Saudi Arabia, Singapore, South Korea, Taiwan, and Thailand; to 14 April for Malaysia; to 21 April for India, Russia and Turkey; to end April for Brazil

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

Sources: Bloomberg; CEIC Data; central banks; IMF; RBA



foreign residents to buy bonds in the mainland via Hong Kong (without a mainland settlement agent) and vice versa.

Australian Dollar

Over the past couple of years, the Australian dollar has traded in a fairly narrow range (Graph 2.23; Table 2.5). This followed a significant depreciation in nominal and real exchange rates from 2013 alongside a decline in Australia's terms of trade (see 'Box A: Australia's Real Exchange Rate'). Recently, the Australian dollar has depreciated a little reflecting a fall in the price of iron ore. Volatility in the Australian dollar remains below average.

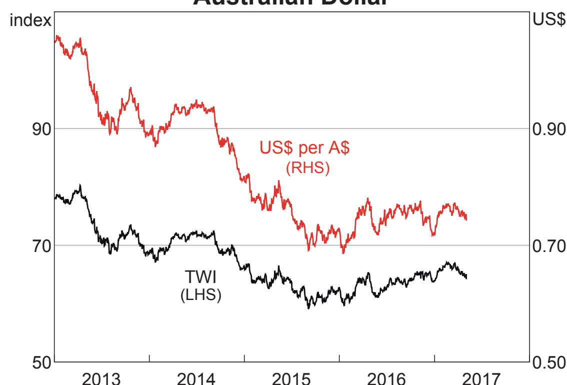


Table 2.5: Changes in the Australian Dollar against Selected Currencies
Per cent

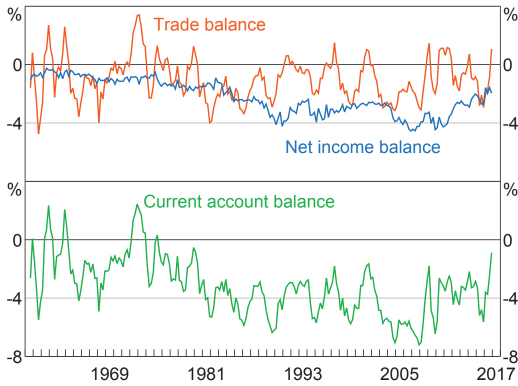
	Over 2016	2017 to date
Canadian dollar	–4	5
New Zealand dollar	–3	4
US dollar	–1	3
Chinese renminbi	6	2
Indonesian rupiah	–3	2
South African rand	–12	1
Swiss franc	1	1
European euro	2	0
Singapore dollar	1	0
Thai baht	–2	–1
Japanese yen	–4	–1
Malaysian ringgit	3	–1
UK pound sterling	18	–1
Indian rupee	1	–3
South Korean won	1	–3
Trade-weighted index	**2**	**0**

Sources: Bloomberg; RBA

Capital Flows

With a narrowing in Australia's saving and investment imbalance, the current account deficit and associated net capital inflows narrowed in the December quarter to their lowest levels since 1980. The trade balance increased in the quarter to register a surplus, largely reflecting higher export revenues from the increase in commodity prices (Graph 2.24). From a longer-term perspective, the narrowing in the current account deficit also reflects a narrowing in the net income deficit, which largely comprises payments made on Australia's net foreign liabilities (which are currently around 60 per cent of GDP). In the past few years, the decline in the net income deficit was mainly the result of higher receipts from foreign equity assets owned by Australian entities. This largely reflects continued flows into offshore equity by Australian superannuation funds and the

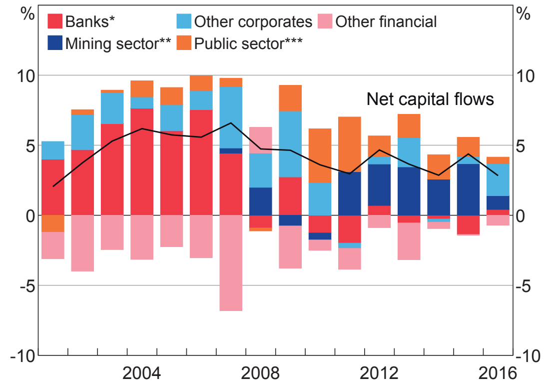
Graph 2.24
Current Account Balance



depreciation of the exchange rate, which increases the Australian dollar value of dividend receipts.

The narrowing in net capital inflows to Australia has largely reflected a reduction in net capital inflows to the mining sector (Graph 2.25). This follows the gradual transition of a number of large liquefied natural gas projects from the investment phase (which had been largely funded offshore) to the production and export phase. ✣

Graph 2.25
Net Capital Flows



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

** Available from 2007 onwards

*** Excludes RBA

Sources: ABS; RBA