# 2. International and Foreign Exchange Markets

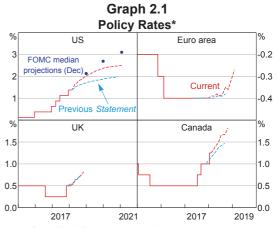
Financing conditions remain accommodative for borrowers amid a broad-based improvement in economic conditions globally. The prices of equities and emerging market assets are considerably higher than a year ago, and credit spreads on corporate bonds have tightened from already narrow levels. More recently, however, the prices of equities have fallen, and measures of market volatility have risen. This has been in part due to an increase in sovereign bond yields, which have risen alongside expectations that some central banks will reduce monetary policy accommodation more quickly than previously thought. Nevertheless, yields remain low by historical standards. This reflects expectations that inflation will remain low in many countries and that the withdrawal of stimulus by central banks will be gradual and limited.

In some advanced economies, central banks have already begun to move to less accommodative monetary policy settings in response to tighter labour markets and the prospect of growth remaining above trend. In particular, some central banks have increased their policy rates and some have ceased or reduced their pace of asset purchases (with further reductions anticipated later in the year). Many central banks in emerging markets have also indicated that their easing cycles are complete. In China, authorities have continued to address risks in the financial system by pursuing tighter regulatory policies that limit credit creation by non-bank entities. This has contributed to a tightening in Chinese financial market conditions.

Most currencies, including the Australian dollar, have appreciated against the US dollar.

## **Central Bank Policy**

The gradual unwinding of very accommodative monetary policy settings by some central banks has continued in recent months. This has occurred as the global economy has strengthened and spare capacity in labour markets has diminished, prompting expectations that inflationary pressures will eventually build. Market participants expect that policy rates in a number of advanced economies will rise over the coming year and that net asset purchases by central banks will decline substantially (Graph 2.1; Graph 2.5).



Dashed lines indicates market expectations
 Sources: Bloomberg; Board of Governors of the Federal Reserve System;
 RBA: Thomson Reuters

The US Federal Reserve has continued to remove monetary stimulus gradually. In December, it increased its policy rate by 25 basis points, the third increase in 2017 (Table 2.1). It has also continued to reduce its holdings of US Treasuries and mortgage-backed securities according to its earlier announced plans for a gradual reduction in its balance sheet. The Federal Reserve has noted that the economic outlook remains strong

**Table 2.1: Monetary Policy** 

	Policy rate Per cent	Most recent change	
Euro area <sup>(a)</sup>	-0.40	$\downarrow$	Mar 16
Japan <sup>(a)</sup>	-0.10	$\downarrow$	Jan 16
United States <sup>(b)</sup>	1.375	$\uparrow$	Dec 17
Australia	1.50	$\downarrow$	Aug 16
Brazil	6.75	$\downarrow$	Feb 18
Canada	1.25	$\uparrow$	Jan 18
Chile	2.50	$\downarrow$	May 17
India	6.00	$\downarrow$	Aug 17
Indonesia	4.25	$\downarrow$	Sep 17
Israel	0.10	$\downarrow$	Feb 15
Malaysia	3.25	$\uparrow$	Jan 18
Mexico	7.25	$\uparrow$	Dec 17
New Zealand	1.75	$\downarrow$	Nov 16
Norway	0.50	$\downarrow$	Mar 16
Russia	7.75	$\downarrow$	Dec 17
South Africa	6.75	$\downarrow$	Jul 17
South Korea	1.50	$\uparrow$	Nov 17
Sweden	-0.50	$\downarrow$	Feb 16
Switzerland <sup>(b)</sup>	-0.75	$\downarrow$	Jan 15
Thailand	1.50	$\downarrow$	Apr 15
Turkey	8.00	$\uparrow$	Nov 16
United Kingdom	0.50	$\uparrow$	Nov 17

<sup>(</sup>a) Marginal rate paid on deposits at the central bank (b) Midpoint of target rate

and that the recent reductions in US business. and personal taxes are likely to provide a modest boost to demand. The majority of Federal Open Market Committee (FOMC) participants have judged that much of the recent softness in inflation has reflected transitory factors and that tightness in the labour market will spur higher inflation this year. Some FOMC participants have also observed that broader financial conditions remain accommodative, despite the gradual removal of monetary stimulus, and that the persistence of highly accommodative financial conditions could pose risks to financial stability.

FOMC participants expect to increase the policy rate by a further 75 basis points this year. Market participants' expectations for the level of the policy rate have increased over the past few months, but they remain below the FOMC's median projections beyond 2018.

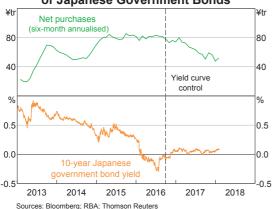
The European Central Bank (ECB) has maintained very accommodative policy settings. In January, the ECB reduced its pace of net asset purchases from €60 billion to €30 billion per month, in line with previously announced plans. The ECB has stated that asset purchases will continue until at least September, or longer if needed to support a sustained rise in inflation, and it does not expect to raise its policy rate until well beyond that time. However, the FCB has indicated that its forward quidance could soon be revisited because the broad-based improvement in economic conditions across the euro area has given it greater confidence that inflation will rise towards the target. Market pricing implies that the ECB is expected to begin to raise its policy rate in early 2019.

The Bank of Japan (BoJ) has left its policy settings unchanged since late 2016. It expects inflation to pick up towards its target over the coming years as economic growth remains above potential and the labour market remains tight. Under the BoJ's policy of 'yield curve control', it continues to purchase Japanese government bonds to maintain the yield on 10-year bonds around zero. The volume of bonds the BoJ has needed to buy to meet this target has declined noticeably since the policy was introduced (Graph 2.2). The BoJ has noted that, given its now large holdings of Japanese government bonds, further purchases are likely to have a bigger impact on bond yields than was the case initially. The BoJ has stated that it is too early to discuss the timing of an exit from its extremely accommodative policy settings.

The Bank of Canada (BoC) increased its policy rate by 25 basis points in January to 1.25 per cent. The BoC observed that the economy is operating at

Sources: central banks: RBA: Thomson Reuters

Graph 2.2
Bank of Japan Purchases
of Japanese Government Bonds



around capacity and that inflation is close to target. However, it noted that uncertainty surrounding the future of the North American Free Trade Agreement (NAFTA) is clouding the economic outlook. Market participants expect the BoC to increase the policy rate by a further 50 basis points over 2018.

In Sweden, the Riksbank ended its asset purchase program in December, though reinvestments of maturing assets will continue. The Riksbank noted that expansionary monetary policy settings have supported economic activity and have been necessary to maintain inflation around target. The Riksbank expects to begin to raise the policy rate gradually around the middle of 2018.

# Sovereign Debt Markets

Government bond yields in advanced economies have risen in recent months (Graph 2.3). The rise has occurred as market participants have increased their expectations for the withdrawal of monetary policy accommodation by central banks and after the US government passed tax cuts. In the United States, a large part of the rise in yields reflects an increase in market-based measures of inflation compensation. This is consistent with the recent modest pick-up in inflation and wage outcomes. It also suggests

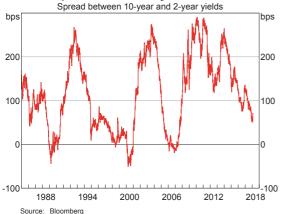
Graph 2.3 10-year Government Bond Yields 3.0 3.0 2.5 2.0 Canada 1.5 1.5 1.0 0.5 0.5 0.0 0.0 -0.5 -0.5 2016 2018 2014 2015 2017 Source: Bloomberg

that market participants expect that the US tax measures will stimulate demand more so than supply and hence add to inflation more so than to long-term growth.

Over the past year, yield curves have flattened substantially (Graph 2.4). This has been especially evident in Canada, the United States and the United Kingdom, where central banks have increased their policy rates and short-term yields have risen in response. In contrast, long-term yields have risen less and remain at low levels by historical standards. In part this reflects a view that the real neutral interest rate is likely to remain low and the benign outlook that market participants have for inflation, both of which imply lower long-term yields than otherwise. While some analysts note that a flattening yield curve has presaged economic slowdowns in the past, the slope of the yield curve remains positive and around levels that have been consistent with reasonable growth in the past.

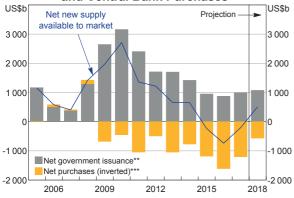
There is some risk that government bond yields could rise significantly further over the coming year. One factor that could lead to such a rise in government bond yields is the scaling back of central banks' purchases and the resulting increase in the net supply of government bonds available to the market (Graph 2.5). Nevertheless,

Graph 2.4
Slope of US Treasury Yield Curve



Graph 2.5

Net Issuance of Sovereign Bonds
and Central Bank Purchases\*



- \* Aggregated data for euro area, Japan, UK and US
- \*\* 2018 projection based on official estimates
- \*\*\* 2018 projections based on central bank guidance; BoJ purchases projected to continue at recent pace Sources: central banks; national sources; RBA; Thomson Reuters

central banks' holdings of bonds are likely to remain substantial and the reduction in central bank purchases is generally expected to have only a modest effect on yields. Government bond yields could also rise sharply if inflation increases by more than is expected, which could lead to a rise in inflation risk premia and a larger increase in central bank policy rates than is currently expected. Higher yields on government bonds could lead to a significant repricing of many other assets, resulting in losses for investors

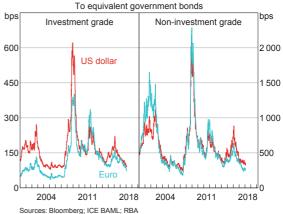
and less favourable funding conditions for businesses, households and governments.

#### **Credit Markets**

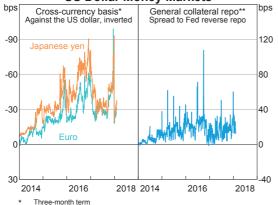
Credit market conditions for corporations remain favourable. In line with the trend of 2017, the spread between yields on corporate and government bonds has declined further in recent months (Graph 2.6). In most market segments, corporate bond spreads are at their lowest levels since the financial crisis. The favourable financial conditions for corporations have been supported by the strengthening global economy, and resulting pick-up in corporate earnings and decline in default rates, as well as a decline in macroeconomic volatility. These conditions encouraged corporate bond issuance over 2017, though issuance slowed into the year end. As noted in the Bank's October 2017 Financial Stability Review, some investors may be underestimating the downside risks they face.

Conditions in US dollar money markets tightened markedly toward the end of last year. Financial market intermediaries reduced their US dollar lending as they sought to minimise the size of their balance sheets over the year-end period for regulatory purposes (Graph 2.7). Conditions

Graph 2.6
Corporate Bond Spreads



Graph 2.7
US Dollar Money Markets



\*\* Overnight term

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

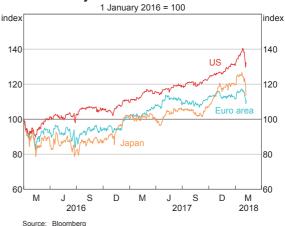
in US dollar funding markets have eased in early 2018, particularly in foreign exchange swap and repo markets.

## **Equity Markets**

Equity prices have fallen recently following a rise in sovereign bond yields (Graph 2.8). Market participants have begun to reassess the outlook for global inflation and the speed of withdrawal of monetary accommodation. Measures of market volatility have increased after a prolonged period during which they were very low (see 'Box A: The Period of Low Volatility in Financial Markets'). Nonetheless, equity prices are much higher than a year ago, reflecting the strengthening global economy and expectations of ongoing strength in corporate earnings over the next few years (Graph 2.9). Increases in equity prices over the past year have outpaced the growth in expected earnings and, as a result, measures of valuation have risen in a number of sharemarkets (Graph 2.10).

In the United States, equity prices have been supported by recent tax cuts which are likely to boost corporate earnings. The corporate tax rate has been lowered from 35 per cent to 21 per cent and there have also been reductions

**Graph 2.8 Major Share Price Indices** 



Graph 2.9



#### Graph 2.10 Equity Valuations\*



\* Latest observations estimated by RBA

Sources: RBA; Thomson Reuters

Source: Thomson Reuters

in personal taxes. Market analysts estimate that the tax cuts will increase the after-tax earnings of large US companies by around 7–9 per cent in 2018. The tax measures also implement a territorial tax system whereby the bulk of US companies' overseas earnings will no longer be subject to US tax. To encourage companies to repatriate some of the estimated US\$2–3 trillion of prior overseas earnings that are held offshore, all of these earnings will be subject to a one-off tax (at a lower rate) instead of being taxed upon repatriation as previously occurred.

Despite their recent fall, share prices in Japan have increased considerably since the re-election of Prime Minister Abe in October, which reinforced expectations that stimulatory economic policies would continue. Prices have also been supported by solid growth in the earnings of Japanese companies, boosted by strong demand from east Asia.

European equity prices have increased by less than those in other markets over the past year or so. This is partly due to the appreciation of the euro over the period, which has weighed on the equity prices of exporters and import-competing companies. The sectoral composition of the European market also helps to explain the less vigorous growth of European equity prices. In particular, the technology sector (for which share prices globally increased by more than any other sector over the past year) accounts for a smaller share of the European market than of the US and Asian markets.

# **Emerging Markets**

Global demand for emerging market assets has been very strong over the past year. Foreign capital has flowed into these markets, supporting an increase in equity prices over the year, a decline in bond yields and, more recently, an appreciation of a number of emerging market currencies (Graph 2.11). These trends reflect the improved



\* 1 January 2005 = 100

2008

\* Local-currency denominated

2013

\*\*\* Cumulative since end 2004, per cent of initial assets under management

2018

2008

2013

Sources: Bloomberg; EPFR Global; JPMorgan; Thomson Reuters

economic outlook for emerging markets, which has been supported by ongoing strength in global growth, a pick-up in global trade flows and an increase in commodity prices. Investors' ongoing search for yield in the global environment of low interest rates has also contributed to strong demand for emerging market assets.

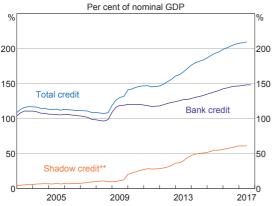
In some cases, the prices of emerging market assets have also been supported by an easing of monetary conditions, which has encouraged domestic activity. Central banks in many emerging markets lowered their policy rates over the past few years as inflationary pressures abated. In a number of countries, particularly Brazil and Russia, policy rates were lowered significantly in response to substantial falls in inflation from very high levels and weakness in economic growth. In recent months, monetary policy settings in many emerging markets have been held relatively steady as inflation has stabilised around target levels.

#### Chinese Financial Markets

Chinese authorities have continued to implement measures to address risks in the financial system. These measures have focused

on: limiting the increase in leverage within the financial system; reducing the reliance of banks on short-term wholesale funding: improving transparency for investors and regulators; and improving regulatory frameworks and closing regulatory loopholes. The measures have resulted in a slowing in the growth rate of some riskier forms of credit, such as non-standard debt, which is not captured by China's official credit measure (total social financing). However, the stock of such 'shadow' credit remains large relative to the financial system as a result of its fast pace of growth over recent years (Graph 2.12). Overall credit growth has remained relatively stable (see 'International Economic Developments' chapter).

Graph 2.12 China - Total Credit\*



- Total credit is the sum of bank credit and shadow credit: seasonally adjusted
- RBA estimate: data available to September 2017 Sources: CEIC Data: RBA: WIND Information

After rising considerably in 2017, Chinese money market rates have risen a little further in recent months. This has occurred alongside the tightening in financial regulations, and follows a five basis point increase in interest rates on a number of People's Bank of China (PBC) lending facilities in response to the US Federal Reserve's interest rate increase in December (Graph 2.13). The PBC has signalled further interest rate increases in 2018 are likely, which may discourage the re-emergence of expectations

Graph 2.13



SHIBOR is an average of the rate at which large banks say they will lend unsecured funds to other banks

Source: CEIC Data

of depreciation of the Chinese renminbi (RMB) and contribute to tighter conditions in China's financial markets in 2018.

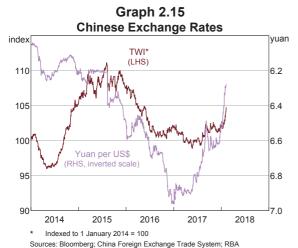
Equity prices have declined recently but remain higher than a year ago (Graph 2.14). Share prices have been supported by growth in corporate earnings as economic conditions have been generally better than expected. The rise has been supported by large increases in equity prices of Chinese technology conglomerates, which have had strong profit results, and the broader outperformance of the technology sector in global equity markets over 2017.

Graph 2.14



- 1 January 2015 = 100
- Based on MSCI onshore shares: 2017 is an estimate Sources: Bloomberg; Thomson Reuters

The RMB has appreciated further against the US dollar in recent months, reaching its highest level since late 2015. The recent appreciation reflects the broad-based US dollar depreciation over the period, with the RMB appreciating modestly on a trade-weighted (TWI) basis (Graph 2.15). In January, the PBC changed the way it determines the daily fixing rate for the onshore RMB, suspending the mechanism that had allowed the PBC to apply discretion over the daily fix. The change was interpreted by the market as a step towards a more flexible RMB and could result in greater volatility in the RMB against the US dollar exchange rate; volatility in the exchange rate remains low relative to other currencies against the US dollar (Graph 2.16).



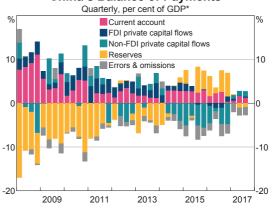
China continues to experience small net private capital inflows, which is in contrast to the large outflows seen in recent years (Graph 2.17). The reversal in private capital flows is consistent with the appreciation of the RMB against the US dollar over 2017 and the tighter enforcement of controls on outbound capital by the Chinese authorities. Non-FDI private capital inflows have been driven by an increase in foreign deposits of RMB with Chinese banks, in part reflecting the unwinding of expectations of RMB

Graph 2.16
Foreign Exchange Market Volatility



 Average of the euro, Japanese yen, UK pound, Australian dollar and Canadian dollar against the US dollar
 Sources: Bloomberg: RBA

Graph 2.17
China's Balance of Payments



\* Positive numbers indicate an inflow to China, negative numbers indicate an outflow from China

Sources: CEIC Data; RBA

depreciation. Also contributing was a pick-up in foreign lending to Chinese entities, a decline in Chinese companies' extension of trade credit to foreigners, and an increase in foreign investment in Chinese debt instruments. In line with these modest net capital inflows, the value of the PBC's foreign currency reserves has been little changed, at just above US\$3 trillion.

A number of European central banks have noted that they plan to allocate some of their foreign currency reserve holdings to RMB, following the ECB's decision to do so last year. RMB assets currently only make up around 1 per cent of total global reserve holdings.

## Foreign Exchange

The US dollar has depreciated against a range of currencies over recent months and is notably lower than at the start of 2017 (Graph 2.18; Graph 2.19). In particular, the euro is around its highest level in recent years against the US dollar

Graph 2.18
Nominal Trade-weighted Exchange Rates



Graph 2.19
US Dollar

Nexical and Percentage change over 2017

Output

Wexico

Singabore

Canada

Wexico

Canada

No.5

-10

Percentage change since the start of 2018

Output

Walaysia

Sweden

Walaysia

Sweden

South Korea

Enro area

Enro area

Enro area

Enro area

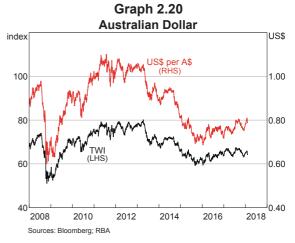
Sources: Bloomberg; Board of Governors of the Federal Reserve

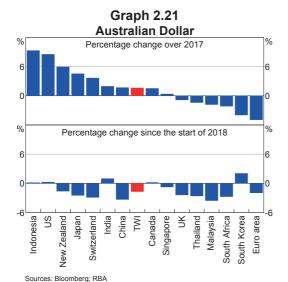
System; RBA

and on a trade-weighted basis alongside a broad-based improvement in economic conditions across the region. An improvement in the global economic outlook (see 'International Economic Developments' chapter) and evolving market expectations for the withdrawal of monetary policy accommodation in other advanced economies have also contributed to the appreciation of a number of other currencies against the US dollar. Commodity prices have generally increased over recent months, which has provided additional impetus for the appreciation of the currencies of some commodity exporting economies, including Australia.

### **Australian Dollar**

The Australian dollar has appreciated against the US dollar over recent months, as have most currencies. But on a trade-weighted basis, the Australian dollar has been in a relatively narrow range for the past two years (Graph 2.20; Graph 2.21). Since the start of 2016, the Australian dollar has appreciated against a number of currencies, with the euro and yen being notable exceptions. Increases in commodity prices have supported the Australian dollar over this period, while a narrowing of interest rate differentials between government bonds in Australia and





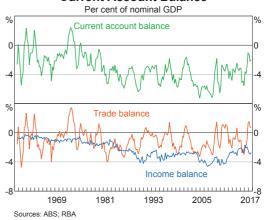
those in other economies have worked in the other direction.

## **Capital Flows**

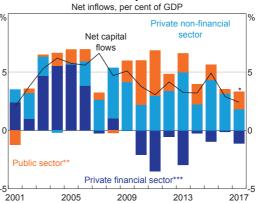
Australia's current account deficit is at a low level by historical standards, consistent with the relatively small difference between Australia's saving and investment (Graph 2.22). The reduction in the current account deficit over recent years has coincided with the trade balance moving into surplus, due to higher resource export revenues. Recent monthly data, however, indicate that the trade balance is again in deficit owing to both higher import values and lower export values. Australia's ongoing net foreign liability position with the rest of the world (and the repayments that are made due to this position) means that the net income balance has remained in deficit.

Net capital inflows to Australia remain modest, consistent with the small current account deficit (Graph 2.23). Over 2017 to the September quarter, there were inflows into the public and non-mining non-financial sectors. The latter partly reflects foreign investors

Graph 2.22
Current Account Balance



Graph 2.23
Australian Capital Flows



- \* Year to September quarter
- \* Excludes official reserves and other RBA flows
- \*\*\* Adjusted for US dollar swap facility in 2008 and 2009 Sources: ABS; RBA

reinvesting earnings in Australian companies. The inflows were partially offset by outflows from the financial sector, as banks repaid foreign-held debt.