

1. The Global Financial Environment

International financial developments can affect Australia through financial and economic links. Consequently, this *Review* pays particular attention to potential risks emanating from economies that have significant trade or financial links with Australia, both direct and indirect. These include the United States, Europe, China, Japan and New Zealand.

The global risk outlook has been influenced by factors pulling in different directions since the previous *Review*. Vulnerabilities in international financial systems remain elevated although some have eased slightly. However, global economic growth has slowed and downside risks to activity seem to have risen. This increases the likelihood of a sharp decline in growth which could be detrimental to financial stability. Banking systems overall have become more resilient since the financial crisis and better able to weather a major downturn. Nonetheless, European banking systems remain vulnerable to slower growth because of legacy and structural factors that continue to weigh on profitability. Other parts of the global financial system may also still be sensitive to a slowdown, particularly as the level of debt globally is high.

In line with the weaker growth outlook, some risky asset prices fell sharply late last year. However, asset prices have since recovered and generally remain at high levels, supported by very low risk-free interest rates and low compensation for risk. So the risk of a broad-based fall in asset prices remains elevated. Such a fall could lead to financial stress given greater

investor risk-taking in the extended low interest rate, low volatility environment.

Low interest rates, as well as governments' responses to the financial crisis, have underpinned a large rise in global debt over the past decade. High global debt levels leave households, corporates and sovereigns in a range of economies vulnerable to adverse shocks. Sovereign debt levels remain especially high in Europe. While sovereign debt sustainability concerns have eased recently, they could quickly re-escalate. This could undermine financial and economic stability, including by exacerbating banking sector vulnerabilities. Sovereign debt is also increasing in the United States given large budget deficits, despite strong economic conditions. Lending standards in the United States have generally eased and leverage in the corporate sector has also risen to historically high levels. However, the ratio of corporate debt to GDP remains lower in the United States than in many other economies.

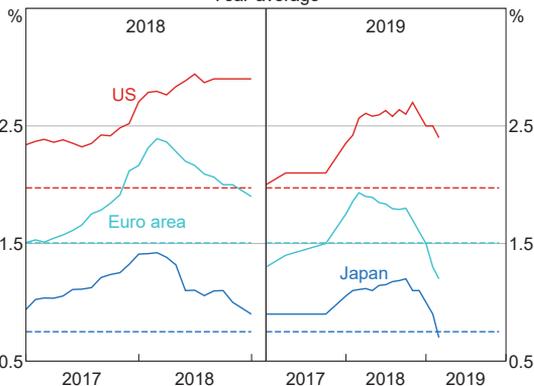
Corporate, and increasingly household, debt in China is high relative to income. A large share has also been financed through opaque non-bank channels. Efforts to reduce financial stability risks continue to gain traction. But the regulatory tightening has restricted the supply of funding and is one factor contributing to the slowdown in growth. So while longer-term vulnerabilities in China are gradually easing, the likelihood of a near-term trigger has seemingly risen. As a result, near-term risks to financial stability appear to have increased.

Vulnerabilities associated with external borrowing and macroeconomic imbalances also persist in some emerging market economies (EMEs). However, sentiment towards EMEs has stabilised over recent months, reducing near-term risks. Some Asian EMEs are exposed to slower growth in China and any further increase in trade tensions.

Global growth has slowed and downside risks have increased ...

Growth remains around trend in many economies, which continues to support global financial stability. However, growth has moderated from its previous strong pace in 2017 and early 2018. Near-term growth forecasts have also been revised down to varying degrees, though to a lesser extent in Australia's main trading partners (Graph 1.1). Downside risks to growth have also increased. These include the delicate balance between sustaining economic and financial stability in China, ongoing trade tensions, and political uncertainties in Europe. The realisation of downside risks to growth could undermine global financial stability, including by reducing the capacity of highly leveraged borrowers to service their debts.

Graph 1.1
Evolution of GDP Forecasts*
Year-average

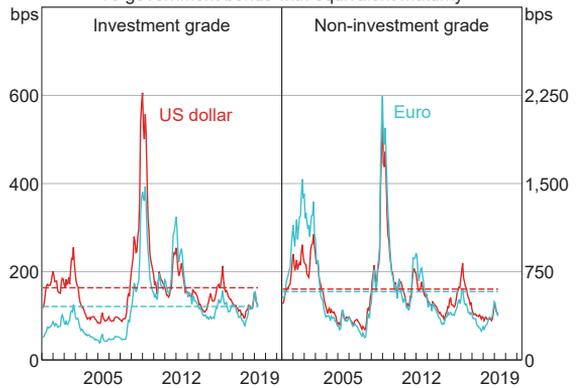


* Dashed lines represent the average estimates of potential growth for 2018–19
Sources: Consensus Economics; national sources

... yet compensation for risk remains low

In line with these developments, the compensation that investors require for bearing risk rose late last year. However, risk premiums have declined in recent months alongside central bank signals that monetary policy will be more accommodative than earlier anticipated. Credit spreads generally remain below their historical averages, especially for non-investment grade debt (Graph 1.2).

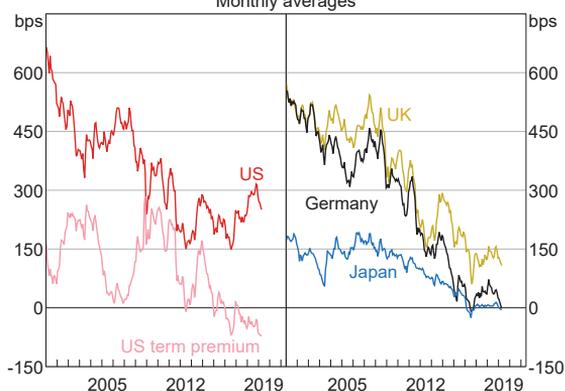
Graph 1.2
Corporate Bond Spreads*
To government bonds with equivalent maturity



* Dashed lines represent averages
Sources: ICE Data is used with permission; RBA

Government bond yields in major advanced economies also remain low, and have declined over the past six months (Graph 1.3). Recent falls are consistent with the downward revisions to forecasts for global growth, inflation and policy interest rates. Term premiums remain historically low, suggesting that investors are still willing to accept minimal compensation for bearing the risk of changes to the expected path of policy rates, inflation and economic growth. Low government bond yields continue to underpin high prices for many assets, because these risk-free rates are central to the valuation of assets.

Graph 1.3
10-year Government Bond Yields
 Monthly averages



Sources: Bloomberg; RBA

The prices of some assets – particularly bonds – are vulnerable to a destabilising correction if risk-free rates and risk premiums rise from historically low levels. Possible triggers include higher expected inflation, which would push up risk-free rates, or a spike in risk premiums because of a negative growth shock or geopolitical event.

Investors have generally been taking on more risk in the low interest rate environment, leaving them more exposed to asset repricing. In particular, some investors have moved into lower-rated, illiquid or longer duration assets. A notable example of this has been investors' increased willingness to hold BBB-rated bonds earning low interest rates. At the same time, the covenants attached to speculative-grade corporate loans in North America, Europe and Asia have been loosening. The average duration of outstanding bonds has also risen in many markets since the early 2000s, which reduces refinancing risk for borrowers but increases interest rate risk for investors.¹

Asset price falls could be exacerbated by procyclical investor behaviour and changed market characteristics. Bond market liquidity has declined in the post-crisis period. This is partly

because of new regulations that have increased the capital required for providing market-making services (Basel III) and restrictions on proprietary trading by US firms (*Dodd-Frank Act*). Lower liquidity could amplify the price response from any sell-off. Many open-ended bond funds have a liquidity mismatch which could exacerbate price falls if managers need to sell bonds in an illiquid market to meet redemptions. Leverage has also increased for many non-bank entities since the financial crisis. In the United States, hedge fund borrowing rose by 50 per cent between 2015 and mid 2018, and is concentrated in a small number of large funds. Large price falls could force highly leveraged investors to unwind positions with implications for asset markets.

The increased use of algorithmic, or automatic, trading strategies may also amplify price movements. While these strategies can be highly diverse, some have shown a tendency to quickly withdraw liquidity and sell assets into falling markets (but also to quickly inject liquidity as markets recover). Such strategies may have contributed to the growing, though still small and infrequent, number of 'flash events' that have occurred in various financial markets (such as the recent Japanese yen flash event).² To date, flash events have been short-lived and have not threatened financial stability. However, these events are generally not well understood.

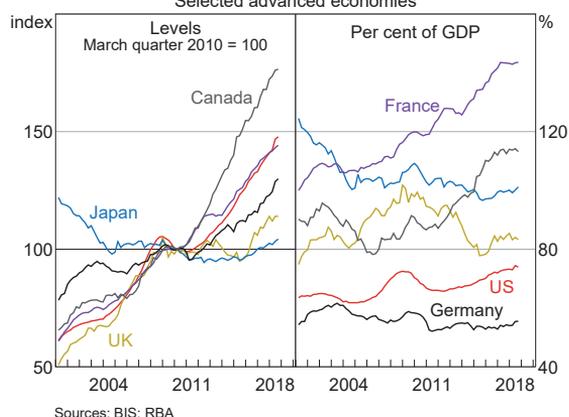
Non-financial corporate debt has been rising strongly in North America

Non-financial corporate debt has grown strongly in a range of advanced economies, particularly in the United States, Canada and France (Graph 1.4). Firms with high debt levels are

¹ For more details on the increase in investor risk taking, see RBA (2018), 'Box A: Low Interest Rates and Asset Price Risk', *Financial Stability Review*, April, pp 15–18.

² For further details on the recent Japanese Yen flash event, see RBA (2019), 'Box B: The Recent Japanese Yen Flash Event', *Statement on Monetary Policy*, February, pp 24–27. Other prominent flash events include the May 2010 equity flash event and the October 2014 US Treasury flash event.

Graph 1.4
Non-financial Corporate Debt
Selected advanced economies



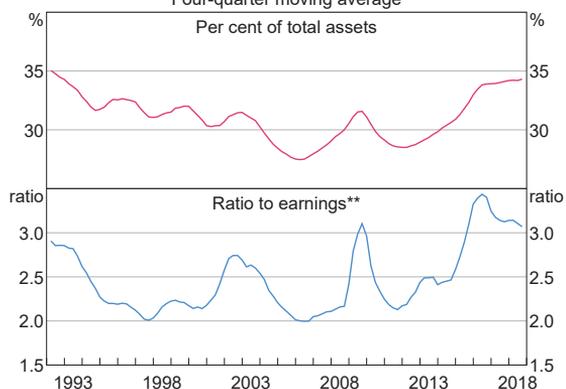
Sources: BIS; RBA

generally less resilient to adverse income, interest rate and funding shocks, and are more likely to respond to these shocks by sharply reducing investment and other spending.

In the United States, corporate debt has risen to be at the high end of its historical range relative to firms' assets and earnings (although corporate debt is still lower than in many other economies relative to GDP; Graph 1.5). Leverage has risen most for riskier borrowers, such as non-investment grade rated firms. Lending standards have eased and lending spreads have generally narrowed. This suggests credit quality has declined at the same time there has been a rise in debt. In line with this, the share of lower-rated debt has risen in the investment grade bond market (Graph 1.6). This increases the risk that ratings downgrades could trigger a burst of selling by investors with constrained mandates.

There are also indications of declining credit quality in the leveraged loan market. Leveraged loans are loans to non-investment grade or already highly levered firms, which are often onsold to institutional investors. Loan covenants – which limit risk-taking by borrowers and provide other protections to investors – have weakened considerably (Graph 1.7). This has

Graph 1.5
US Non-financial Corporates' Gross Debt*
Four-quarter moving average

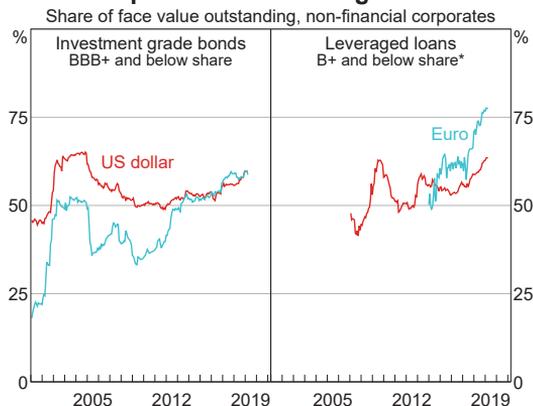


* Based on a sample of publicly listed non-financial corporates in the Russell 3000 index

** Earnings is before interest, tax, depreciation and amortisation

Sources: Bloomberg; RBA

Graph 1.6
Corporate Credit Rating Profile
Share of face value outstanding, non-financial corporates



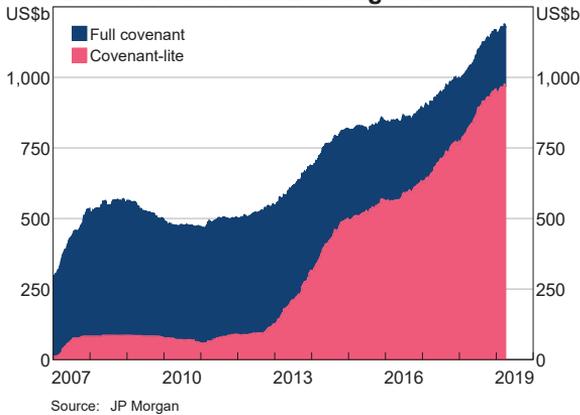
* Excludes non-rated firms

Sources: ICE Data is used with permission; JP Morgan

occurred alongside robust investor demand for higher-yielding and floating-rate assets, which has resulted in record issuance over recent years. There is also some evidence that the share of debt held by firms with very high leverage has increased, and that buffers within borrowers' capital structures have declined. But leveraged loans remain less risky for investors as they are secured variable-rate obligations and senior to unsecured bonds.

Graph 1.7

US Dollar Institutional Leveraged Loan Market



More broadly, assessing the balance of risks from the growth of leveraged loans is difficult. A significant proportion is onsold in collateralised loan obligations (CLOs). Banks often retain some CLOs, but typically only the safest senior CLO tranches, and have relatively limited indirect exposure to CLOs. This contrasts with their much larger exposures to risky securitised products in the lead-up to the financial crisis. Further, the strong presence of non-bank investors, which typically have much lower leverage and more stable funding bases than banks, also reduces the concentration of exposures in the banking system. And, while growth in leveraged loans has been rapid, this has partly reflected investors shifting away from the somewhat riskier high-yield bond market.

However, banks may have larger exposures than can be determined from their disclosures, including through undrawn credit lines and loans to non-bank investors. Banks may also have reduced incentives to maintain strong lending standards for leveraged loans because most are sold to other investors. Funding provided by some non-bank lenders, such as hedge funds, may also prove to be unreliable in the event of a downturn. This is one reason why banks are typically only keeping a small stock of these loans on their balance sheet before selling them.

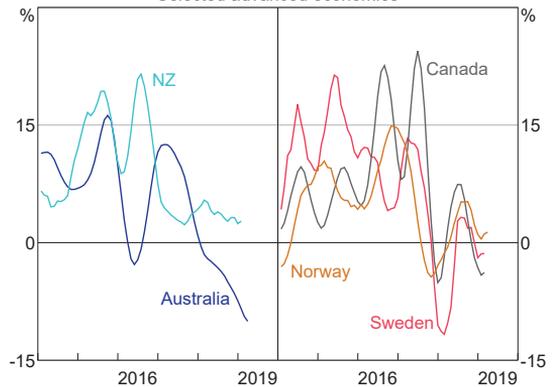
Growth in household debt and housing prices continues to slow

In a number of smaller advanced economies, growth in household debt has slowed and housing prices have stabilised or fallen following an earlier rapid rise (Graph 1.8). There have been some common elements to the change in momentum, including: weaker foreign investor demand; tighter macroprudential policies to restrain higher-risk lending; reduced expectations about future housing price growth; new housing supply; and, for some, rising interest rates.

Graph 1.8

Housing Price Growth*

Selected advanced economies



* Six-month annualised growth to latest three months
Sources: Canadian Real Estate Association; CoreLogic; Eiendomsværdi AS; Finn.no; RBA; Real Estate Norway; REINZ; Valueguard AB, Sweden

Highly indebted households are more vulnerable to financial stress, and so can pose a risk to financial stability. Accordingly, slower growth of housing debt and prices, together with higher lending standards, has helped to lessen the build-up of vulnerabilities for borrowers and lenders. In response, macroprudential policies have been eased in some economies, such as New Zealand. However, housing price falls may have resulted in some recent purchasers having negative equity in their homes, increasing both the likelihood that borrowers in arrears will default and the size of ensuing losses. If large falls

in housing prices were to weigh on economic growth, this could impact employment and wages growth, making it harder for some households and businesses to service their debt.

Commercial real estate prices continue to rise

Commercial real estate prices remain high in a number of advanced economies after rising over recent years, including in the United States, Sweden and some euro area countries. Price increases have generally outpaced rents in an environment of very low long-term interest rates. If interest rates were to rise and investors downgrade valuations in light of returns on alternative assets, prices could fall sharply. Banks in some jurisdictions have large exposures to the commercial property sector, which in the past have been a significant source of losses. However, stress test results suggest that higher capital buffers have given banks significant scope to absorb losses on their commercial property and other credit exposures without breaching minimum capital requirements. Tighter lending standards for commercial real estate loans, and weaker loan demand, have also reduced vulnerabilities in the United States recently.

Information technology-related operational risks are significant

Financial institutions and financial market infrastructures (FMIs) are particularly vulnerable to operational risks related to their information technology systems, including cyber attacks. Financial institutions are increasingly reliant on information technologies, interconnected networks and common third-party service providers. Many have legacy systems that may be prone to outages. The sophistication and frequency of cyber attacks is also growing.³

³ For more detail see RBA (2018), 'Box D: Cyber Risk', *Financial Stability Review*, October, pp 55–58.

Cyber attacks could undermine financial stability by causing financial losses, reputational damage and service disruptions – all of which can threaten the operations and viability of individual institutions, their counterparties and FMIs. Attacks that compromise data integrity, availability and/or confidentiality could have particularly large adverse effects. For example, compromised data could impair the ability of counterparties and FMIs to execute or process transactions, which could rapidly raise liquidity and default risks. Financial institutions and regulatory bodies are increasing their focus on monitoring and enhancing cybersecurity. It is particularly difficult to evaluate the scale of this risk as limited information is publicly available on the frequency, severity and nature of attacks.

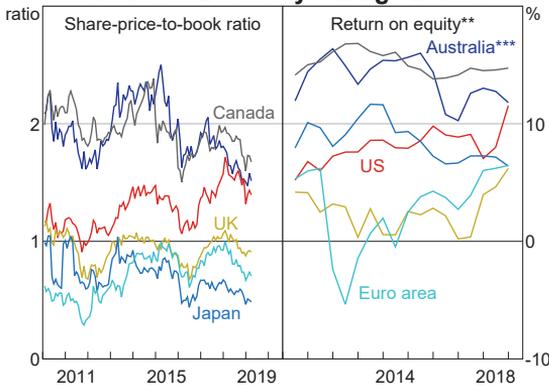
Advanced economy banks have strengthened further, but vulnerabilities remain

The resilience of banking systems in the advanced economies has continued to build. Most banking systems have now implemented the core elements of the Basel III capital and liquidity reforms. Implementation of other post-crisis reforms has also continued to advance. This includes the 'too-big-to-fail' and over-the-counter derivative reforms, as well as the final revisions to the Basel III standards. Profitability and asset quality has been maintained or improved against a backdrop of generally favourable growth.

Banks' funding costs generally remain low, consistent with the low level of risk-free interest rates. However, spreads on bank debt widened significantly late last year (though most of the widening has since reversed). The widening in spreads partly reflected increased concerns about downside risks to economic growth and low liquidity in money markets. Bank share prices globally also fell sharply in late 2018, reflecting

flatter yield curves and the rise in risk premiums more generally, as well as country-specific factors. The falls in share prices were largest in Europe and Japan, where valuations were already very low because of structural challenges to bank profitability (Graph 1.9). In contrast, the share prices of US and Canadian banks fell by less in 2018 and have rebounded more strongly this year. Compared to their European and Japanese peers, large North American banks have relatively high profitability and net interest margins.

Graph 1.9
Advanced Economy – Large Banks*

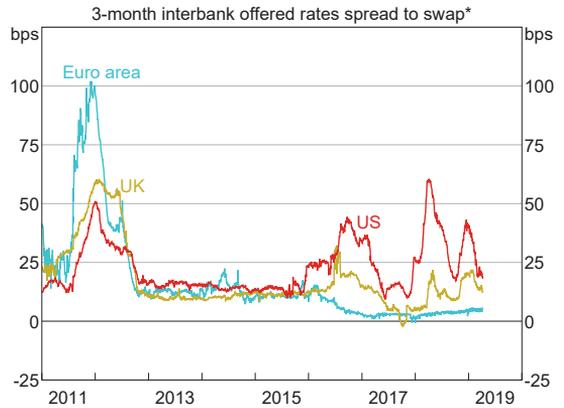


* Number of banks: Australia (4), Canada (6), Euro area (36), Japan (4), United Kingdom (4) and United States (18); reporting periods vary across jurisdictions
 ** Ratio of earnings after tax to shareholders' equity excluding minority interests
 *** Australia's ROE figure for December 2018 is semi-annualised September quarter data
 Sources: APRA; RBA; S&P Global Market Intelligence

Money market spreads have been more volatile than in recent history, especially in the United States (Graph 1.10). This partly reflects both a greater focus on risk management by market participants and enhanced financial regulation. For example, regulations in some jurisdictions can create an incentive for large banks to reduce their balance sheets at year end. This appears to have been contributing to higher spreads through these periods as banks withdraw from the market.

Some non-US banks are especially vulnerable to lower liquidity in US money markets. A sharp

Graph 1.10
Interbank Markets



* LIBOR for the US and UK; EURIBOR for the euro area
 Source: Bloomberg

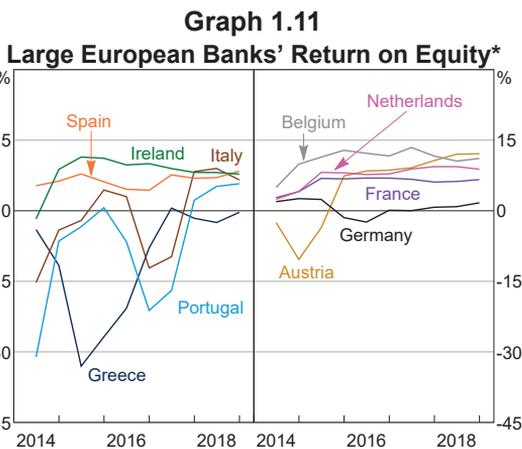
tightening in money market conditions could make it difficult for these banks to obtain short-term funding, exposing US dollar liquidity mismatches. This could force these banks to curtail lending or sell assets to repay maturing funding, potentially transmitting market stress. While these banks sometimes turn to foreign exchange swaps to meet short-term currency needs when money markets tighten, the swap market may not be a reliable alternative in times of stress.

Japanese bank profitability continues to be weighed down by very low interest rates and a fall in loan demand reflecting demographic factors. Large Japanese banks have been able to partially offset low domestic banking profits by increasing their offshore activities, including investing in CLOs. This lending continues to be partly funded from short-term wholesale markets, resulting in foreign currency liquidity risks. By contrast, smaller regional banks have responded to pressure on their profitability by increasing their lending to riskier domestic firms.

Generally better economic conditions in Europe in recent years have helped to boost bank profitability and loss-absorbing capital ratios. Stocks of non-performing loans (NPLs) have declined further in the euro area, mainly through

asset sales, to around €600 billion (down from a peak of around €1 trillion). These developments have led to some improvement in European banks' resilience.

However, European banks still face challenges that raise their vulnerabilities. In particular, profitability remains low in some jurisdictions because of still high levels of NPLs (Graph 1.11). Related to this, there is ongoing uncertainty about the size of eventual credit losses and their impact on banks' capital buffers. Many banks also face structural challenges associated with high cost bases, subdued revenue generation and overcapacity. Some banks might also face higher funding costs over the next few years from issuing more expensive 'bail-inable' liabilities. These challenges are reflected in very low share price valuations, especially in Italy and Germany.

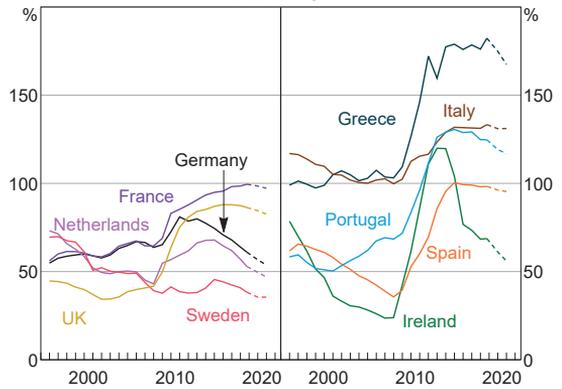


* Ratio of earnings after tax to shareholders' equity excluding minority interests
Source: S&P Global Market Intelligence

Sovereign debt remains a vulnerability in Europe

Some European countries have high sovereign debt levels (Graph 1.12). This raises the risk that debt sustainability concerns will re-emerge. This would increase funding costs and could cause difficulties in rolling over or raising new debt. Sustainability concerns could rise in response to

Graph 1.12
Sovereign Debt*
Per cent to GDP

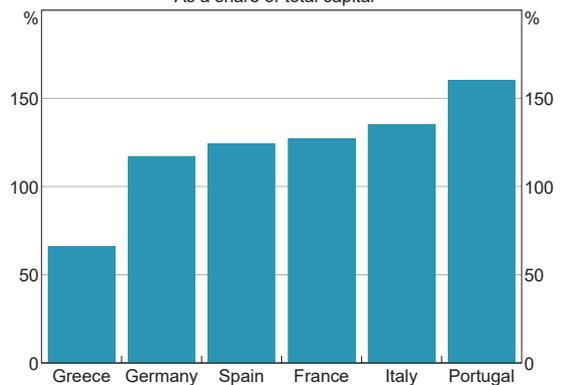


* 2018 data as of 30 September; 2019 and 2020 data are European Commission forecasts
Source: European Commission

a further slowing in global growth or increased political uncertainty. Euro area banks continue to hold large amounts of sovereign debt (Graph 1.13). This could give rise to concerns about bank losses or failure in any sovereign stress, with this feeding back onto the sovereign.

This risk was highlighted in Italy last year. Italian sovereign spreads widened by as much as 200 basis points because of concerns about the fiscal policies and Eurosceptic views of the new government (Graph 1.14). The sustained increase

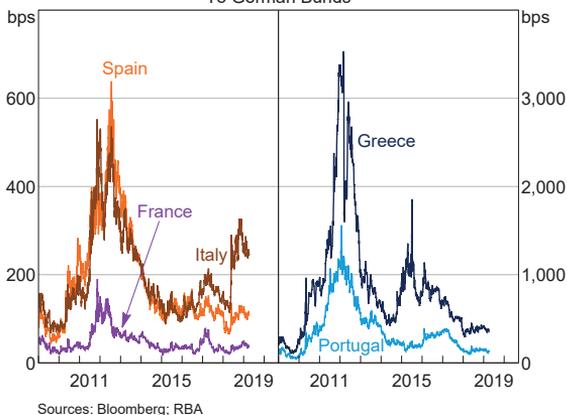
Graph 1.13
Large Banks' Domestic Sovereign Exposures*
As a share of total capital**



* Includes debt securities, loans and advances and derivatives; data as at 30 June 2018

** Includes Tier 1 and Tier 2 capital
Sources: EBA; RBA

Graph 1.14
Euro Area 10-year Government Bond Spreads
 To German Bunds



in Italian sovereign risk has affected the Italian banking sector, including by reducing the value of banks' sovereign debt holdings and increasing the cost of banks' wholesale funding. But to date there has been no contagion to other parts of the euro area.

The United Kingdom's exit from the European Union (Brexit) continues to pose some tail risks to financial stability in Europe. The exit date has been pushed back to allow more time to reach agreement on the withdrawal terms. But there remains the risk that no deal is reached, resulting in a disorderly Brexit. This could have a large negative effect on financial stability and output growth in Europe, particularly in the United Kingdom. The authorities have put in place extensive contingency plans to mitigate the immediate risks to financial stability, and the delayed exit date provides more time to prepare. However, the extent of businesses' preparation is uncertain, and risk of unforeseen challenges remains significant.

The risk to Australia from Brexit seems limited. While Australian investors could suffer some losses on UK and other EU assets, Australian banks have little direct exposure and Australia's trade exposures are small. The main channel to Australia

would be through a generalised tightening in global financial conditions, which is more likely to occur if no deal is reached. While funding costs would rise, Australian banks' access to funding should prove resilient to any disruption to UK and EU funding and derivative markets, provided the disruption does not spread more widely.

Risks in New Zealand have eased

Financial stability risks in New Zealand are of key interest given Australian banks own New Zealand's four major banks. In its latest *Financial Stability Report*, the Reserve Bank of New Zealand (RBNZ) noted that risks had eased but that high household and dairy sector debt continue to be large domestic vulnerabilities.

Growth in housing credit and prices have slowed in New Zealand over the past couple of years and banks have tightened mortgage lending standards. This easing in the build-up of household sector vulnerabilities has allowed the RBNZ to gradually ease restrictions on high loan-to-value ratio lending. Nonetheless, indebted households remain vulnerable to adverse shocks given the prior sharp run-up in housing debt and prices. This is especially so in Auckland, where borrowers are most levered and housing prices have recently fallen after strong growth.

Dairy farm revenues have improved in recent years because of higher dairy prices, allowing indebted farmers to pay down debt. But indebtedness in the dairy sector remains high and concentrated, leaving some farms vulnerable to a downturn in dairy prices or lower production.

The RBNZ, along with the Financial Markets Authority (FMA), have concluded reviews into banking and life insurance culture and conduct. The reviews did not find widespread conduct issues in banks or life insurers, but did identify weaknesses in the governance and management of conduct risks.

The RBNZ is consulting on proposals to increase capital requirements for New Zealand banks as part of a broader review of bank capital. The main proposal would increase the required Tier 1 capital ratio to 16 per cent of risk weighted assets for systemically important domestic banks (up from 8½ per cent).

Vulnerabilities are being addressed in China, but tighter financial conditions and slowing growth are challenging

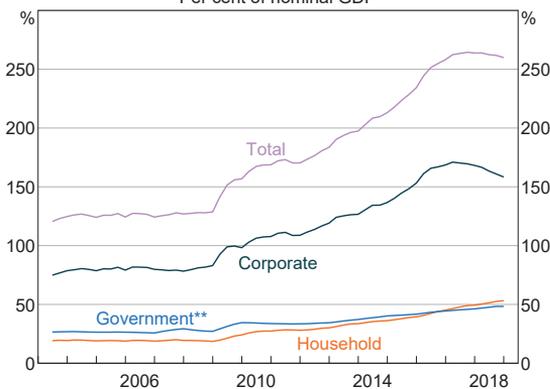
Authorities continue to make progress in addressing the considerable financial vulnerabilities in China. Following reforms and policy actions in recent years, total debt has stabilised relative to GDP (Graph 1.15). The activities of non-bank financial institutions (NBFIs) have also been curtailed. However, slowing economic growth and reduced credit supply from NBFIs will make it harder for firms to service their debt and remain liquid, potentially triggering some instability. This highlights the difficult trade-off between supporting near-term growth and financial stability, and addressing longer-term vulnerabilities. To date, policy

measures to support the economy have been targeted, and the authorities remain committed to containing financial stability risks.

A key vulnerability in China is the high level of non-financial corporate debt (public and private enterprises), which exceeds that in EMEs and most advanced economies relative to GDP. However, various policy initiatives have facilitated the restructuring of corporate debt, especially of state-owned enterprises, which tend to have higher leverage than private firms. For example, the central authorities remain focused on winding down unprofitable companies that rely on loan forbearance to survive (typically in parts of the industrial sector with excess capacity). Other initiatives include a debt-equity swap program and capital injections via mixed ownership reforms, with the authorities recently announcing plans to further encourage participation from private investors.

Local government debt also presents a risk to financial stability in China, with local governments and their corporate financing vehicles having borrowed heavily in the past decade, particularly to fund spending on infrastructure. Over this period, generous access to finance and political incentives to support short-term growth have likely led to some poor investment decisions. Some projects, notably at the city and county level, have been backed by entities with limited revenue streams. A recent debt restructuring program to reduce servicing costs and increase the transparency of local government debt is now largely complete. It appears to have reduced some of the vulnerabilities associated with local government debt. However, local governments' off-balance sheet debt remains large and continues to grow, and fiscal deficits at local governments and related entities are yet to be fully addressed. Further, due to the central government's targeted effort to support the economy, local government

Graph 1.15
China – Non-financial Sector Debt*
Per cent of nominal GDP



* Includes RBA estimates of shadow financing that is not included in total social financing

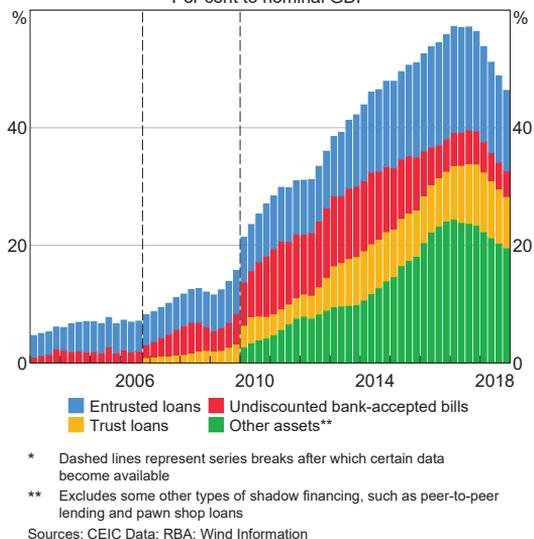
** Includes some borrowing by local government financing vehicles
Sources: BIS; CEIC Data; RBA

bond issuance is expected to increase substantially this year through special bonds to fund specific projects.

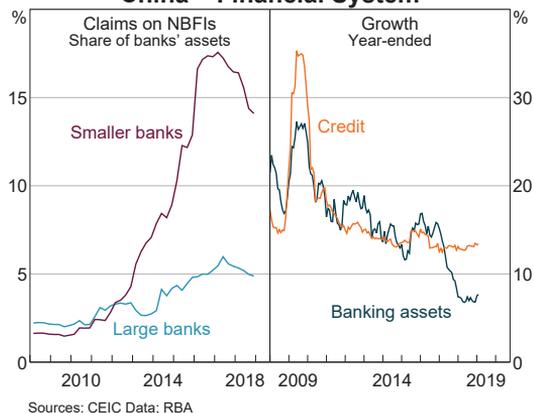
A large part of the increase in corporate debt has been sourced through lightly regulated and opaque NBFIs, which raises further vulnerabilities. This has largely been funded or otherwise facilitated by the banking system, often through short-term investment products issued by NBFIs and purchased or distributed by banks. While NBFIs lending has some benefits, banks have used NBFIs as a vehicle to circumvent restrictions on lending to riskier sectors and to arbitrage some regulatory requirements. Obscure and complex interconnections within and across the NBFIs and banking sectors have emerged. Together, these developments have increased the risk of defaults, liquidity shortages and contagion across the financial sector in the event of a negative shock; risks that could be aggravated if perceptions of implicit guarantees on NBFIs products were to suddenly weaken.

The Chinese authorities have sought to reduce the vulnerabilities associated with NBFIs activities through a wide range of reforms and policy actions over recent years.⁴ In particular: regulatory oversight has been consolidated; the PBC's role in safeguarding financial stability has been expanded; existing regulations have been enhanced and more strictly enforced; and asset management reforms have been finalised. These measures continue to gain traction. Financing provided through NBFIs channels has slowed significantly, and the degree of interconnection between banks and NBFIs is moderating (Graph 1.16). In particular, banks' claims on NBFIs have declined, which has led to slower growth in banking assets. NBFIs claims as a share of smaller banks' assets continued to fall markedly in 2018 (Graph 1.17).

Graph 1.16
China – Selected Shadow Financing*
Per cent to nominal GDP



Graph 1.17
China – Financial System



Reduced lending by NBFIs, as well as greater risk aversion among banks, has tightened the availability of finance in China. This has been especially notable for the private sector, including small businesses and some property developers. Tighter financial conditions have contributed to a slowdown in economic activity and pockets of financial distress. Corporate bond defaults have risen noticeably in the past year, although the increase may reflect

4 For more details, see RBA (2018), 'Box A: Ongoing Financial Regulatory Reform in China', *Financial Stability Review*, October, pp 19–22.

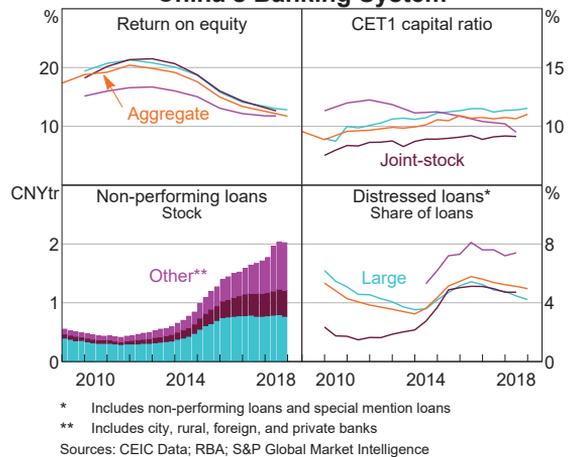
less intervention by the authorities in order to reduce perceptions of implicit guarantees. The default rate also remains low compared with other countries, consistent with the authorities continuing to carefully manage instances of corporate distress.

To support growth in economic activity, Chinese authorities have responded with some targeted easing of fiscal and monetary policy. There has been increased spending on infrastructure, tax cuts, a reduction in Reserve Requirement Ratios, and liquidity injections. Some measures have been specifically aimed at improving financing conditions for the private sector and, in particular, small businesses. Despite these short-term stimulus measures, the authorities' commitment to addressing longer-term financial stability risks appears to remain strong at present.

Vulnerabilities in the Chinese household sector continue to rise. Household debt has grown rapidly over recent years. This is mostly accounted for by housing loans (with short-term consumer loans also rising quickly more recently). As a result, household debt relative to disposable income has increased from 40 per cent in 2008 to 110 per cent in 2017. This is lower than in most advanced economies, but higher than in most other EMEs. Accordingly, Chinese households have become more vulnerable to falls in income or housing prices. Any weakening in housing market conditions would also increase financial pressure on property developers, particularly those that are highly leveraged or already facing funding strains because of the contraction in NBF1 lending. Local governments are similarly vulnerable to weaker housing activity because property-related taxes and land sales are important sources of revenue. However, the authorities have shown they are willing to manage the housing cycle actively by adjusting purchase restrictions and loan-to-value ratio limits, which could mitigate the risk of a sharp housing correction.

Despite slowing economic activity, China's banks remain profitable. However, loan write-offs and the stock of NPLs have increased further, partly reflecting new stricter NPL recognition standards (Graph 1.18). The rise in recognised NPLs at the small rural banks has been particularly large, with their provision coverage ratio coming down considerably. In the period ahead, capital ratios are expected to come under increasing pressure. Financial regulatory reforms have encouraged banks to bring exposures back onto their balance sheets and increase the capital allocated to certain exposures. Small and medium-sized banks, some of which have relatively thin capital buffers, are likely to be most affected given their greater involvement in channelling lending through NBFIs and their greater exposure to private (rather than implicitly guaranteed state-owned) enterprises. To help banks bolster their capital positions, the authorities have recently introduced measures to support perpetual bond issuance by banks.⁵

Graph 1.18
China's Banking System



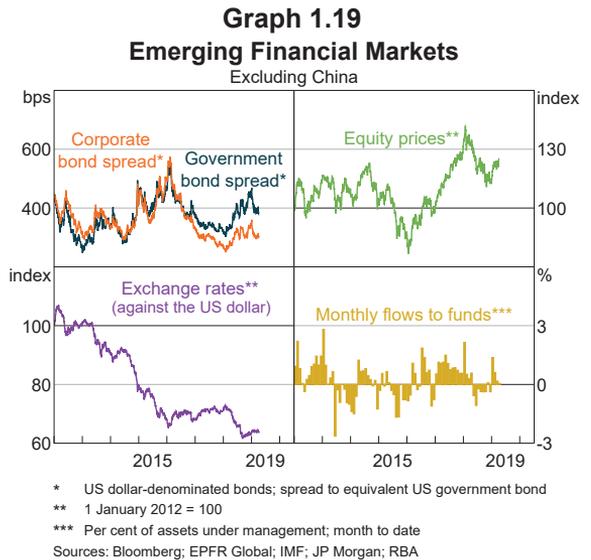
⁵ Perpetual bonds issued by Chinese banks are a type of Alternative Tier 1 capital instrument. They are debt securities with no maturity date that are able to absorb bank losses through principal write-down. Chinese banks previously were not permitted to issue these bonds.

Chinese authorities retain a wide range of economic and financial policy tools to both prevent and address any financial disruption. The state has a large role in both the corporate sector and the financial system, which enables coordinated policy actions that are more complex or not possible in other economies. Nonetheless, if systemic financial disruption were to occur in China, the negative effect on China's economy could be substantial given the widespread vulnerabilities. Financial linkages between China and the rest of the world are generally still small, limiting direct financial spillovers. Rather, a financial disruption would likely be transmitted through China's strong trade links – including with Australia – with second-round effects through slower global growth and a tightening in global financial conditions.

Investor sentiment towards other emerging market economies has stabilised

Following a period of heightened volatility in the middle of last year, investor sentiment towards other EMEs has stabilised. Over recent months, most emerging market currencies have appreciated somewhat, equity prices have risen, bond yields have fallen and capital inflows have picked up (Graph 1.19). This has mainly been driven by changes in the outlook for global financial conditions, particularly as market expectations of a further tightening in US monetary policy have been pared back. Policies have also been implemented in some EMEs to address vulnerabilities, and risks to fiscal positions have eased in others. The economic prospects of oil-importing EMEs have also improved with the decline in oil prices late last year.

In Turkey and Argentina, which were most affected by the deterioration in investor sentiment last year, monetary policy has been



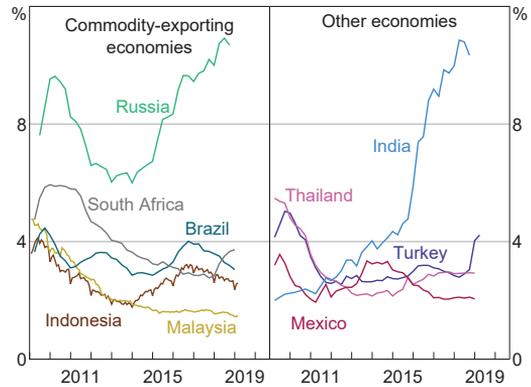
tightened significantly. Authorities in Argentina have also implemented measures to improve that country's fiscal position as part of an IMF assistance package. As a result, economic activity has slowed, with both economies now in recession. Current account deficits have narrowed, partly reflecting weaker domestic demand and exchange rate depreciation. While external pressure has diminished somewhat, these countries remain at risk of financial instability because of tight financial conditions, significant macroeconomic headwinds and sizeable stocks of external debt.

EMEs in Asia were relatively less affected by the volatility last year. In the two decades since the Asian financial crisis, policymakers have made substantial efforts to build more resilient institutions, economies and financial systems. In particular, EMEs in the region generally have much larger foreign currency reserves, stronger current account positions, and lower external debt than other EMEs. However, some Asian EMEs' exposures to global trade and linkages to China make them vulnerable to any further escalation in trade tensions and slowing growth in China.

Despite the recent improvement in investor sentiment, a broad-based retreat from EME assets remains a risk. This could be triggered, for example, by an increase in investors' risk aversion due to weaker global economic growth. The associated tightening in financial conditions in EMEs could exacerbate any perceived vulnerabilities, further undermining investor sentiment. Financial stress could increase in the corporate sector in particular, given the pronounced rise in corporate debt in many emerging markets over the past decade. Firms with unhedged foreign currency debt could be particularly vulnerable.

EME banking systems have been fairly resilient, despite the tightening in financial conditions last year. However, banks in Turkey have increased their provisioning recently amid increasing signs of corporate stress and rising NPLs. The Turkish Government also recently announced plans to support the banking sector, which included public capital injections into state-owned banks and the creation of two funds to purchase bank NPLs. Large stocks of NPLs also continue to weigh on banks in Russia and India (Graph 1.20). But in an encouraging sign, the Reserve Bank of India has announced that six banks with improved asset quality and capital ratios will no longer be subject to the lending restrictions that apply to weak banks. In contrast, concerns about the systemic risks posed by non-bank lenders in India rose following a default by a prominent NBFIL (for more detail see 'Box A: Risks in Non-bank Lending in India'). Despite large loan write-offs during the recent severe economic recession, the performance of the Brazilian banking sector has remained robust. Banks' profitability has been supported by prudent lending standards, as well as high interest margins and fee income.

Graph 1.20
Banking Sector NPLs*
Share of loans



* Definitions of non-performing loans can differ across jurisdictions
Sources: Banking Regulation and Supervision Agency; CEIC Data;

The potential for EME financial stress to spill over to advanced economies has risen over time, due to EMEs' increased size and integration into the global economy. Along with stronger trade links, advanced economies' financial links to EMEs – while relatively small – have grown. Investments in EME corporate debt and equity (especially via mutual funds) have risen. Distress in EMEs could be transmitted through these links and by weighing on financial market sentiment more generally. ✎