1. The Global Financial Environment

The global financial system has been resilient to the increased uncertainty and sharp economic contraction induced by COVID-19. Setbacks to the economic recovery, such as further virus outbreaks or delays in the rollout of effective vaccines, are a risk to global financial stability. The economic recovery is expected to be slower in some emerging market economies (EMEs), as a result of slower vaccine distribution and preexisting economic and financial imbalances. A slower recovery in EMEs could expose them to sharp capital outflows and higher interest rates than the state of their economies warrant.

The prices of financial assets and housing have continued to increase and are at high levels in a number of economies, raising the potential for increased borrowing, including to take advantage of expected capital gains. Such activity can cause asset prices to overshoot fundamentals and increase vulnerabilities to any subsequent sharp asset price falls. A jump in long-term bond yields, for example from an abrupt reassessment of the risk of inflation, could lead to disruptive falls in asset prices. Most banks are well positioned for higher credit losses because they have strong capital and liquidity positions. However, large unexpected losses associated with a stalled recovery would test the ability of some banks to maintain credit supply.

Internationally, policymakers remain focused on assessing the ongoing effects of the pandemic, sharing information and coordinating actions to mitigate its impact. A renewed focus is addressing risks in the non-bank financial institution (NBFI) sector, including investment funds. Global bodies, as well as national regulators, are also working on ensuring an orderly transition away from London Inter-bank Offered Rates (LIBOR), a key global interest rate benchmark that is being discontinued (see 'Box A: The Transition Away from LIBOR'). In addition, policymakers have resumed their work addressing longer-term risks to the financial system, including those associated with climate change.

Prolonged economic weakness and an uneven recovery are key risks to financial stability

The unprecedented policy response by governments, central banks and other policymakers is contributing to global economic activity recovering from the largest contraction since the immediate aftermath of the Second World War. Progress on vaccine development and rollout has also underpinned expectations for strong economic growth in the next 2 years. For now, however, employment is well below prepandemic levels in many economies.

The recovery and hence risks to financial stability remain dependent on the extent of any new virus outbreaks, and the timely and widespread distribution of effective vaccines. In the near term, financial stress for households and businesses would rise if the recovery were to falter. Financial institutions would also face larger credit losses than currently expected, which could hinder the recovery through tighter financial conditions. In addition, a setback to the recovery could also trigger disruptive falls in asset prices. Over the medium term, a sluggish recovery would keep financial stability risks elevated given the high level of debt in many economies and areas of fragility in some financial systems.

The economic recovery in some EMEs is projected to be slower than in advanced economies as a result of pre-existing economic and financial imbalances, more limited fiscal support and a slower rollout of COVID-19 vaccines. Financial stability risks associated with the pandemic will therefore be more persistent in EMEs. Rising government bond yields in advanced economies will then present a dilemma for some FMF central banks between supporting their domestic economies with low policy rates, or raising policy rates to prevent capital outflows. This dilemma would be compounded if government bond yields were to rise substantially in advanced economies due to an increase in the risk of higher inflation. There are signs of some capital outflow pressure in South Africa, Turkey and some South American countries.

Financial conditions could even tighten in some advanced economies if their economic recovery and inflation expectations lag those in the United States, where there is a very large fiscal stimulus. This is because government bond yields in other economies tend to move with those in the United States, and so yields would likely rise in other advanced economies (absent a policy response).

Equity and corporate bond prices indicate an optimistic outlook

Progress on vaccines, expectations of additional stimulus in the United States and sustained low interest rates have supported a further rise in financial asset prices. Major equity indices are on average about 15 per cent higher than their level before the pandemic. The rebound following large falls early in the pandemic has been particularly strong in the United States and especially technology stocks. High equity prices reflect low long-term interest rates, with equity risk premiums around where they have been for much of the past decade (Graph 1.1). Also contributing to the high level of equity prices is that while corporate earnings fell sharply, by 20 per cent in the United States, they are expected to make a strong recovery. Nonetheless, there are a few segments with high valuations relative to traditional pricing metrics, including some technology companies and some smaller companies in the United States, where there has been a sharp increase in retail trading activity. While leverage among retail investors remains low, recent events around the hedge fund Archegos highlight that highlyleveraged and opaque investments in a small number of assets can lead to significant losses among financial market participants.

Spreads between yields on corporate bonds and sovereign bonds have narrowed to prepandemic levels, including for very low rated borrowers (Graph 1.2). Low interest rates are an important factor driving this, which was previously assisted by purchases of corporate bonds by some central banks. The compression in spreads is despite an increase in corporate bond defaults and credit downgrades, which are expected to increase further. Risks in corporate credit markets had already been increasing in



the lead-up to the pandemic. Credit ratings declined (particularly in the investment grade market) and lending standards in leveraged loan markets weakened.^[1] Issuance volumes have also been strong. Since March 2020, firms in the United States and euro area have issued almost US\$2 trillion of corporate bonds, about 30 per cent more than in the previous year.

The large rise in asset prices could encourage increased borrowing to take advantage of expected capital gains. This would increase the risk from disruptive corrections in prices. Such a correction could occur if government bond yields were to increase sharply, including if there is a sudden rebound in inflation expectations and if investors demand more compensation for uncertainty. This risk has been partly realised recently, as inflation expectations increased in the United States with the recent passage of an additional large stimulus package, though inflation expectations are not elevated. In late February, the increase in yields was exacerbated by low liquidity in government bond markets. The illiquidity was not as severe as in the turmoil of March 2020 and did not generally spill over to other asset markets.

Investment funds have the potential to amplify asset price declines given the leverage and liquidity risks at some funds, with these risks contributing to the market dislocation seen in

March 2020.^[2] International regulators, including through the Financial Stability Board (FSB), are working to address these vulnerabilities as part of a broader work program to address risks in NBFIs.^[3]

Housing prices and credit growth are also rising in many economies

Housing price growth has increased in many economies since mid 2020, in part reflecting expectations that interest rates will remain very low for an extended period (Graph 1.3). Price growth accelerated in the latter part of 2020 and in recent months annualised rates of growth were 5 per cent in the United Kingdom, 15 per cent in Norway, 20 per cent in Sweden and the United States, 30 per cent in Canada, and 40 per cent in New Zealand. In addition to low interest rates, housing demand has been boosted by government policies that have supported household income and directly increased housing activity. Higher housing prices improve households' balance sheets, increase economic activity (via the wealth effect and activity associated with building and selling housing) and mitigate near-term risks that banks will incur significant losses on mortgage lending.

Increases in housing prices have been accompanied by stronger credit growth, resulting in rising household indebtedness,







including in economies where household debt was already high such as Canada, New Zealand and Sweden (Graph 1.4). Declines in lending standards would accentuate risks to financial stability from a fall in housing prices and household income.

In New Zealand, housing price growth has been widespread across the country. Housing credit growth has also increased, reflecting higher growth in lending to both investors and owner occupiers, including first home buyers. Growth in investor credit increased sharply after the Reserve Bank of New Zealand (RBNZ) removed loan-to-valuation ratio (LVR) lending restrictions at the start of the pandemic. These restrictions had limited banks' high-LVR lending: for investors to 5 per cent of new lending at LVRs above 70 per cent and for owner occupiers to 20 per cent of new lending at LVRs above 80 per cent. The share of loans with LVRs between 70 and 80 per cent held by investors increased from 3 per cent before the loan restrictions were removed, to a peak of 10 per cent in October 2020, but then decreased to 7 per cent in January 2021. Rents have also been rising at a faster rate than overall inflation for several years, consistent with long-running housing supply constraints and demand for housing that was partly driven by an increase in population growth from mid 2019 to early 2020.



The New Zealand Government and the RBNZ have recently implemented several policies designed to deliver more 'sustainable' housing prices, including by dampening investor demand to help improve affordability for first home buyers. In March 2021, the RBNZ reinstated the LVR restrictions that had been in place prior to the pandemic. LVR restrictions will be further tightened from May so that no more than 5 per cent of banks' new mortgage lending to investors can be at LVRs above 60 per cent.

In addition, the New Zealand Government has directed the RBNZ to consider the impact on housing prices when making monetary and financial policy decisions. The RBNZ's financial policy will take into account the government's objectives. The Monetary Policy Committee's targets will remain unchanged, but the RBNZ will outline the effect of its monetary policy decisions on the government's objectives. The New Zealand Government has also implemented several other policies, including extending the period in which investors have to pay capital gains tax after selling a property to 10 years (from 5 years), the removal of interest deductibility for investors and measures to increase housing supply.

To date, few other jurisdictions have implemented policies to address risks in housing markets. Authorities in Korea announced several measures to increase housing supply, including building 1.5 million properties over the next 4 years, allowing housing to be built on government property (such as military sites) and relaxing building height limits. The Canadian government intends to implement a nationwide tax on foreign property purchases (British Columbia and Ontario have their own taxes) and the Bank of Canada Governor has stated there are preliminary signs of 'excess exuberance'.

Risks are elevated in industries most affected by the pandemic and for small businesses

Corporate indebtedness increased over 2020 in advanced economies, including among the lowest rated borrowers, supported by accommodative financial conditions. Much of this borrowing was to increase firms' liquidity buffers, and some firms began to repay these funds over the second half of last year. Defaults in the corporate bond market and credit rating downgrades have increased over the past year, but remain below their global financial crisis (GFC) levels in both the United States and Europe (Graph 1.5). However, defaults are expected to increase further over 2021.

The increase in corporate stress that is evident in rising bond defaults is yet to be seen in banks' non-performing loans (NPLs) due to moratoriums on bank loan repayments and insolvencies, and other support for businesses. Business failures fell in 2020 despite large contractions in economic activity; in most OECD economies there were around 10 to 30 per cent fewer insolvencies in 2020 than in 2019. However, insolvencies started to pick up in the second half of 2020 in the euro area. Advanced economies that experienced rapid growth in corporate debt prior to the pandemic such as Canada, France, Switzerland, and the United



States, and those with a slower recovery in corporate earnings, are more vulnerable to significant rises in corporate defaults and insolvencies going forward.

While earnings in some industries picked up in the second half of 2020 in line with the economic recovery, earnings are expected to remain weak in the consumer discretionary and industrials (includes airlines and airport services) sectors. The energy sector has been supported by stronger oil prices recently, with prices around 60 per cent higher than their level in October 2020, but its earnings outlook remains uncertain and highly dependent on the pace of the economic recovery. These 3 sectors account for a considerable amount of debt at a higher risk of default as their ability to service debt deteriorated significantly over 2020 (Graph 1.6).

Parts of the commercial real estate (CRE) sector have also been especially hard-hit by the pandemic. Delinquency rates in the US commercial mortgage-backed securities market remain relatively high despite having fallen from their peak in June 2020. Delinquency rates are around 16 per cent for hotel loans and



12 per cent for shopping mall loans. Marketbased valuation indicators, including the prices of real estate investment trusts (REITs) and property indices, indicate that there have been falls in the value of retail, hotel and some office properties in a number of countries. This is especially so in countries dependent on tourism such as France, Italy and Spain. Some REITs face liquidity risks as they will be exposed to margin calls if CRE valuations decline and cause their gearing to breach covenant limits. Valuation metrics in Australia have also fallen for retail and office property (see 'Box B: Risks in Retail Commercial Property').

Globally, small and medium-sized enterprises (SMEs) appear more vulnerable in the near term than larger businesses. SMEs are disproportionately in service industries more constrained by the pandemic, and they also generally have lower liquidity buffers and more limited options for obtaining funding. This is particularly the case since lending standards have tightened for SMEs in many economies. As a result, SMEs have relied more on bank forbearance and government-guaranteed loans to assist them through the pandemic. Loan forbearance and some other temporary support measures have already been, or will soon be, unwound in many economies, which will lead to an increase in insolvencies and banks' reported SME NPLs if the recovery in activity is not rapid.

Globally, banks have been resilient to rising credit losses, but some would be tested by large rises in defaults

The regulatory reforms implemented following the GFC have been important in enhancing banks' resilience. The median of advanced economy banks' Common Equity Tier 1 (CET1) capital buffers increased by around 7.5 percentage points between the GFC and the start of the pandemic. The policy responses to the pandemic have also boosted household and business cash flow and so limited their financial

distress. Banks have therefore been able to continue to lend to households and businesses, although conditions for new lending to small businesses and some sectors most affected by the pandemic have tightened considerably.

Advanced economy banks' profitability generally increased in late 2020 (Graph 1.7). Provisions for expected losses decreased significantly in most jurisdictions as the likelihood of a very severe and persistent global economic contraction has moderated. In addition, regulatory stress tests in major jurisdictions continue to indicate that most banks will be able to withstand losses implied by severely adverse scenarios without breaching minimum regulatory capital requirements. Therefore, many banks have been able to resume, or announced plans to resume, payments to shareholders that were partly halted by regulators last year to strengthen banks' capital positions.

Banks' NPLs to date have not increased significantly because of the policy response, including loan repayment deferrals, loan guarantees and job support programs. But these support measures have started to unwind and most of those remaining are scheduled to wind back or expire this year. The share of loans with loan repayment deferrals has fallen from the peaks in mid 2020 in major jurisdictions,





particularly for housing loans. To date, the performance of loans that have come off repayment deferrals has generally been positive. Large Canadian, UK and US banks have reported that around 90 per cent of loans for which deferrals expired have been performing. However, delinquencies at small businesses remained elevated towards the end of 2020 in the United States.

Risks are higher among many euro area and Japanese banks. On average, banks in these jurisdictions have provisioned less for expected credit losses than their peers, and the European Central Bank has raised concerns about under provision (Graph 1.8). Euro area and Japanese banks' willingness to continue to lend would be tested if loan defaults rise by more than currently anticipated.

Banks in the euro area and Japan also tend to have low underlying profitability and equity valuations, partly because of overcapacity and the extended period of low domestic interest rates. The return on equity for euro area and Japanese banks prior to the pandemic was around 4–5 per cent, relative to 11 per cent in Australia and the United States. In addition, Japanese banks serve an ageing and shrinking domestic population, which reduces growth opportunities. Lower margins have induced



Japanese banks to take on substantial holdings of offshore leveraged loans and collateralised loan obligations (CLOs), which are vulnerable to price falls. However, most of the CLO tranches held by Japanese banks are AAA-rated and most banks intend to hold them through to maturity, mitigating the risk of trading losses.

Since the onset of the pandemic, euro area banks' holdings of their home government's bonds have increased on average by around 20 per cent. Deposits have increased given fiscal stimulus payments to households and businesses, reduced opportunities for spending and increased caution. With weak credit demand, banks have invested in the increased supply of sovereign bonds. Euro area corporations have also issued government-guaranteed bank loans, particularly in France and Spain. Both of these factors have increased euro area banks' vulnerabilities to any concerns about sovereign debt sustainability.

Financial stability risks in China remain elevated, despite the strong economic recovery

There are some long-running vulnerabilities in China's financial system that authorities have been working to address. These include elevated levels of corporate debt, weak capital positions among many smaller banks, an opaque and undercapitalised shadow banking system with strong links to the banking system, and widespread perceptions of implicit public sector guarantees. The strong policy response (starting with containing the virus), and the associated economic recovery, have largely contained financial risks for now. Several instances of stress among individual financial institutions (including prior to the pandemic) have not spread to the broader financial system.

However, some of the measures taken by authorities to boost economic activity have increased medium-term vulnerabilities. Corporate debt increased over the past year to around 165 per cent of GDP, as regulators encouraged corporate borrowing, in contrast to their pre-pandemic efforts to slow credit growth (Graph 1.9). While this borrowing was largely from banks and the bond market (rather than NBFIs, also known as 'shadow banks'), risks of financial stress emerging from the corporate sector remain elevated. Defaults on corporate bonds have risen, including by some stateowned enterprises (SOEs). These SOE defaults partly reflect the weaker financial position of some local governments and attempts by authorities to wind back implicit guarantees.

Local government debt has also risen, including among the more indebted provinces, with record bond issuance of CNY4.6 trillion (US\$700 billion) by provinces in 2020 to fund stimulus expenditure. Local governments' use of bonds instead of off-balance sheet entities has increased transparency, but the stock of offbalance sheet debt remains high.

The economic recovery has allowed authorities to resume their focus on lowering financial stability risks. This includes reducing risks in the shadow banking system with measures such as tighter standards for trust investments and a widely expected targeted reduction of outstanding trust loans by CNY1 trillion (US\$150 billion) in 2021. Authorities are also seeking to reduce risks in the real estate sector by instituting a 'three red lines' policy, which places increasingly strict restrictions on debt raising by property developers. However, real estate companies have proved adept in the past at circumventing new regulations designed to reduce risks.

China's large banks remain well capitalised and profitable - on average their CET1 capital ratios are around 12 per cent. Concerns continue to focus on smaller banks with low capital buffers, low provisions, poor asset quality and weaker governance and risk management (Graph 1.10). These vulnerabilities have been exacerbated by the response to the pandemic, including mandating an increase in bank lending to micro and small enterprises at favourable interest rates. Regulators have allowed 2 small banks to issue perpetual bonds to address their capital deficiencies, while in Liaoning authorities have announced that 12 of the province's 15 commercial banks will be merged into a single bank following NPL issues. More generally, in keeping with the trends of recent years, Chinese banks are being encouraged to dispose of NPLs to improve the health of their balance sheets.





Conditions in EMEs have generally improved but financial stability challenges remain

The improvement in EME financial conditions since mid 2020 has come alongside the recovery in economic activity and global trade. Yields on local currency government bonds remain low relative to pre-pandemic levels for most EMEs, despite rising in recent months, while spreads on US dollar-denominated bonds have generally continued to narrow towards pre-pandemic levels (Graph 1.11). In this low interest rate environment, EME sovereigns and corporations have issued significant amounts of local currency and US dollar-denominated debt. This has raised the level of indebtedness for EMEs and placed pressure on domestic banks, which have absorbed much of the local currency issuance. This increase in debt has also increased currency risk where the debt denominated in foreign currency is unhedged, and the risk of capital outflows where local currency or US dollar debt have been purchased by foreign investors

The pandemic is continuing to pose challenges for EMEs, despite the improvement in financial conditions. The resurgence of COVID-19 at the end of 2020 has constrained economic activity,



Sources: Bloomberg; EPFR Global; IMF; JPMorgan; MSCI; RBA

Graph 1.11

while the slower rollout of vaccines and preexisting financial and economic imbalances are likely to lead to a slower recovery in some EMEs than in advanced economies. Many EMEs are not expected to achieve widespread vaccination until at least the end of 2022. Several major EMEs, including Brazil, South Africa and Turkey, entered the crisis with macroeconomic and financial imbalances. Given these challenges, GDP in most EMEs will remain below prepandemic trajectories. With a faster recovery and so rising bond yields in advanced economies, more vulnerable EMEs will face pressures of capital outflows, exchange rate depreciation and rising domestic interest rates, which would hamper the domestic recovery. If capital outflows became disorderly, confidence in investments in EMEs could be undermined and result in broader contagion.

EMEs in east Asia are generally better placed to manage these risks. They entered the COVID-19 crisis with relatively strong macroeconomic fundamentals and banking systems, have generally had better health outcomes than other EMEs, and have since benefited from the recovery in global trade and industrial production. However, banks' ability to extend credit may become constrained as measures, such as the delayed recognition of NPLs, are unwound. In India, the Reserve Bank of India expects bank NPLs to rise from 7.5 per cent in September 2020 to 13–15 per cent by September 2021 (Graph 1.12). Indian banks are also exposed to deteriorating asset quality at NBFIs, which have increased their share of funding from banks (from 34 to 37 per cent) since the COVID-19 crisis began and have received 10 per cent of banks' non-food credit outstanding.

The global financial sector faces ongoing challenges, including from cyber risks and climate change

Cyber incidents pose a significant threat to the stability of the global financial system. The incidence and costs of cyber attacks are increasing. In the past 6 months there have been large-scale, high-profile attacks - including Accellion, Microsoft Exchange and SolarWinds that have impacted financial institutions as well as other entities globally (domestic implications are discussed further in 'Chapter 3: The Australian Financial System'). These events have highlighted the potential for large-scale sophisticated attacks. The International Monetary Fund has estimated that direct losses from cyber attacks could be as large as 9 per cent of total bank net income globally.^[4]

Efficient and effective responses to, and recovery from, a cyber incident are essential to limiting



Graph 1.12

Endnotes

- FSB (Financial Stability Board) (2019), 'Vulnerabilities [1] associated with leveraged loans and collateralised loan obligations', December. Available at <https://www.fsb.org/2019/12/vulnerabilitiesassociated-with-leveraged-loans-and-collateralisedloan-obligations/>.
- For more information on the role of investment funds [2] in the March 2020 market turmoil, see RBA (2020). 'Box A: Risks from Investment Funds and the

these costs and any related financial stability risks. To aid this, the FSB recently published a toolkit of effective practices for financial institutions' cyber incident responses.^[5] The FSB is currently assessing the scope for convergence in the regulatory reporting of cyber incidents.

Climate change and the transition toward a lowcarbon economy pose longer-term risks to financial institutions.^[6] In November, the FSB published a report on these risks, finding that there are channels through which the effects of realised physical and transition risks for financial institutions could be transmitted and amplified, including across borders.^[7] These included asset fire sales, pro-cyclical reductions in bank lending and insurance provision, and reduced sovereign creditworthiness.

Globally, policy work on climate change is progressing in a number of areas, and support has broadened with the recent decision by the United States to re-join the Paris Agreement. The FSB and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS) are exploring ways to promote high quality climate based data and disclosure requirements. The FSB and NGFS have also planned work on assessing, and closing, data gaps to ensure that regulators and investors have sufficient data to evaluate climate risks. A recent Taskforce on Climate-related Financial Disclosures (TCFD) implementation report highlighted progress on TCFD-aligned disclosures by firms.

COVID-19 Pandemic', Financial Stability Review, April, pp 14-19.

- FSB (2020), 'Holistic Review of the March Market [3] Turmoil', November. Available at <https://www.fsb.org/2020/11/holistic-review-of-themarch-market-turmoil/>.
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- [6] See RBA (2019), 'Box C: Financial Stability Risks from Climate Change', *Financial Stability Review*, October, pp 57–61.
- FSB (2020), 'The Implications of Climate Change for Financial Stability', November. Available at <https://www.fsb.org/wp-content/uploads/ P231120.pdf>.