3. The Australian Financial System

The Australian financial system has remained resilient through a tumultuous year for the economy and financial markets.

After a substantial decline in the first half of 2020, banks' profitability recovered in the second half and analysts expect it to strengthen further in 2021. This has helped raise banks' capital positions from already strong levels. Banks have abundant liquidity and funding. Measures of banks' asset quality have deteriorated a little in recent months as loan repayment deferrals have come to an end and support for households and businesses has tapered. However, banks had increased their provision balances to absorb the impact of future defaults.

Available information also points to other financial institutions being resilient. The financial impacts of the pandemic tested the liquidity management of superannuation funds, but their systems proved effective in navigating this challenge (see 'Box C: What did 2020 Reveal about Liquidity Challenges Facing Superannuation Funds?'). General insurers remain well capitalised and have increased their provisions for potential business interruption claims arising from the pandemic. However, the life insurance industry has to address longstanding issues that continue to result in losses. Financial market infrastructures have recently experienced some operational disruptions, underscoring the importance of continually assessing and improving their resilience

There are a number of other longer-term challenges for financial institutions to manage. The risks posed by information technology (IT) malfunctions and malicious cyber attacks are growing and a significant event could threaten financial stability. Another challenge will be to manage the broad range of risks arising from climate change. These do not currently pose a substantial risk to financial stability, but they could over time if climate change risks to Australian financial institutions grow and are left unaddressed. And financial institutions need to continue to maintain a focus on governance and embed a healthy culture to address the misconduct that has become apparent over the past few years.

Banks resilience is supported by their profitability ...

Profitability recovered over the second half of 2020 as banks raised provisions for credit impairments at a slower pace than in the initial stages of the pandemic (Graph 3.1). Bad debts will rise over 2021 as fiscal support is reduced and a small share of loans previously granted repayment deferrals move into arrears (see below). However, banks have bolstered their stock of provisions in anticipation of these losses. Current provisions are around 40 per cent above recent years, though still below the levels in the aftermath of the global financial crisis. Net interest income was broadly unchanged over 2020, while costs increased a little relative to income. Analysts expect banks' headline return on equity (ROE) to continue to recover over the coming year, and be above their cost of equity.

As interest rates have fallen a larger share of bank deposits has paid low interest rates (between zero and 25 basis points). This can squeeze net interest margins (NIMs) because as rates fall, deposits that already receive zero or very low interest rates have not been repriced lower in line with lending rates or the return on liquid assets.

Despite this, the evidence for Australia is that lower rates do not have a meaningful impact on overall bank profitability. Lower rates are generally associated with a small reduction in banks' NIMs, but this effect is offset by a reduction in borrowers' debt-servicing burdens (lowering bad and doubtful debts) and an increase in aggregate demand. NIMs are also being supported in the current environment by the broad reduction in banks' funding costs. Funding costs are estimated to have fallen by a little more than the cash rate since the start of 2020 because of a shift in the composition of deposits (towards cheaper at-call deposits) and the Reserve Bank's package of policy measures (including availability of cheap funding provided by the Term Funding Facility (TFF)).^[1]

Financial market indicators also suggest investors are confident that banks' future earnings will remain resilient. Banks' share priceto-earnings ratios have risen since the middle of last year and the implied cost of capital has declined relative to other listed companies (Graph 3.2). More generally, estimates of the equity risk premium for listed companies (the implied cost of equity minus the risk-free interest rate) indicate that increased risk-taking by investors has not unduly bid up the prices of equities over 2020, since the equity risk premium is marginally above its average of recent years.

... and strong capital ratios

Australian banks' profitability over recent years has enabled them to build substantial capital buffers to absorb future losses. Their Common Equity Tier 1 (CET1) capital ratios are substantially above their prudential minimum requirements, giving them large management capital buffers in addition to 21/2-31/2 percentage points of regulatory capital buffers (Graph 3.3). Reflecting this, the 4 major banks' capital ratios on an internationally comparable basis are estimated to be towards the top of the range of similarly sized banks globally and at a level that has historically been sufficient to withstand almost all previous banking crises.^[2] Mid-sized and smaller banks are also well capitalised. Additional capital over regulatory minima for





these banks are generally similar to, or larger than, those of the major banks.

Banks have also been able to increase their capital ratios since the onset of the pandemic. CET1 capital ratios for the banking system as a whole rose by over 100 basis points over this time, with around \$16.9 billion in additional CET1 capital being generated. More than half of this came from retained earnings, reflecting continued profitability and reduced dividend payout ratios (in line with guidance from the Australian Prudential Regulation Authority (APRA)). The remainder mostly reflected NAB's \$4.25 billion in new issuance in the June guarter last year and new issuance associated with dividend reinvestment. Looking ahead, planned asset sales are expected to provide further support to banks' capital positions.

In recognition of banks' healthy capital positions, and the improved economic outlook, from December 2020 APRA relaxed its guidance on banks' dividends. However, banks will need to retain sufficient capital to ensure they have the capacity to continue to provide credit to the real economy and in doing so support the economic recovery from the COVID-19 recession.

Liquidity in the banking system is also high

Banks' holdings of high-quality liquid assets (HQLA) have increased over the past year, facilitated by ample access to low-cost funding (in part due to RBA bond purchases) and low demand for credit. This, in combination with the undrawn portion of the TFF (which is treated as a liquid asset), has caused banks' liquidity coverage ratios (LCRs) to rise substantially compared with late 2019 (Graph 3.4). The increase has been even more pronounced for smaller banks than for the 4 major banks. LCRs are currently above banks' targeted levels but could shift back to within targets over the next 12 months. Banks' LCRs could reduce when the window of taking up remaining TFF allowances expires on 30 June 2021. The size of this reduction will depend on the extent to which banks draw down on remaining allowances as well as how TFF funds are invested. Many banks have indicated in liaison that they plan to take up most or all of their remaining allowances ahead of the deadline.

APRA recently approved requests from banks for a reduction in their allocations under the Reserve Bank Committed Liquidity Facility (CLF), reducing the total CLF available by \$84 billion to \$139 billion. The CLF is intended to be large



** Some banks have capital ratios above 20 per cent (not shown Sources: APRA; RBA



enough to offset the limited amount of HQLA available in Australia due to low levels of government debt. Over the past year, issuance of Australian Government Securities and semigovernment bonds has increased significantly to fund the fiscal policy response to the pandemic. In its announcement APRA noted that if the amount of government securities outstanding continues to increase beyond 2021, the CLF may no longer be required in the foreseeable future.

Banks have ample access to low-cost deposit and other funding, and have reduced their funding from wholesale debt. Spreads on shortterm and long-term wholesale debt have fallen to historically low levels, given reduced supply and market conditions. Strong demand for Australian banks' debt is highlighted by spreads declining for Tier 2 debt, even though the major banks need to raise more of this debt to satisfy APRA requirements for Total Loss Absorbing Capacity.

Banks will need to manage future refinancing requirements

The TFF has lowered banks' funding costs and provided them with ample liquidity. However, banks will face a sizeable refinancing task when these funds must be repaid in 2023/24. Banks have drawn \$81 billion that is due for repayment by around September 2023, and could draw an additional \$109 billion by June 2021 (of which \$16 billion has already been drawn) that would be due for repayment after 3 years. Together with bonds maturing, banks will need to refinance around \$120 billion in the 6 months around each of these dates (Graph 3.5). This will be banks' largest ever refinancing task, though there are many factors that will influence how challenging it proves to be (including demand for loans over coming years).

Banks have a number of options to manage these repayments. These include raising debt in wholesale markets at the time, spreading out the refinancing task before and/or after the TFF expiration and managing the timing mismatch through holding excess liquid assets. Liaison with banks indicates that they are carefully planning for this task and will choose based on the relative cost and efficiency of these options closer to the time. In doing so, banks are also mindful of the potential impact of expiring TFF funds on their Net Stable Funding Ratios, which could fall by up to 4 percentage points (from a current level that is 24 percentage points above their minimum requirement).

Banks' non-performing loans have risen

Measures of banks' asset quality have deteriorated somewhat in recent months (Graph 3.6). This trend is likely to continue over coming months given the unwinding of support measures such as JobKeeper (see 'Chapter 2: Household and Business Finances in Australia'). The end of APRA's concessional treatment for loan repayment deferrals in March will also lift loan arrears, as APRA's concession allowed most loans on deferral as part of a COVID-19 support package to be treated as 'performing'. The quality of Australian banks' New Zealand assets has also declined.

Current indications are that the increase in nonperforming loans will be modest. The vast majority of borrowers that requested loan repayment deferrals in 2020 have subsequently



Graph 3.5 Banks' Refinancing Task

been able to resume repayments, and banks entered 2021 with a very low share of nonperforming loans. Most loans, including those in arrears, are well secured and the resilience of property prices to date - particularly for residential property – should further limit potential losses for lenders (and enable borrowers struggling with repayments to sell without losing much of their previously accumulated equity). The government's announcement of the SME Recovery Loan Scheme will also support credit quality by offering cheap loan refinancing to firms that have been heavily affected by the pandemic but are otherwise healthy.^[3] Banks have also raised substantial provisions in anticipation of expected credit losses (as noted above) and they have scope to raise further provisions (while remaining profitable) if the need arises.

Even if economic conditions were to deteriorate significantly, stress tests suggest that banks would remain sound. APRA recently assessed whether banks could withstand a severe economic contraction, in which GDP fell by 15 per cent, unemployment rose to over 13 per cent and national housing prices fell by over 30 per cent.^[4] This is much worse than any of the downside scenarios presented in the



Sources: APRA; RBA

Statement on Monetary Policy over the past year. APRA's modelling showed that the aggregate CET1 capital ratio across all banks would decline materially under this scenario to 6.6 per cent but remain well above the prudential minimum of 4.5 per cent. The main driver of the declines is credit losses, of which losses on business credit contribute a bit less than half, while losses on residential mortgages contribute around onethird. Rising risk weights account for most of the remaining declines in capital ratios. Consistent with this, the RBA's reverse stress testing model implies that it would take a recession comparable to the Great Depression for CET1 capital ratios to fall below 6 per cent.^[5] Nonetheless, both APRA's and RBA's results are subject to considerable uncertainty and it is possible that greater stress could arise from factors that are not well captured by the modelling.

APRA is refining the regulatory framework for banks ...

In December, APRA released an update of its proposed revisions to the capital framework.^[6] These revisions will not require the banking system to raise additional capital, but will increase the flexibility of bank capital and improve the allocation of capital to risk. The reforms also embed the 'unquestionably strong' benchmark within the capital framework and more closely align the measurement of capital ratios with recently revised Basel III standards.

One of the aims of the proposed revisions is to build greater flexibility into the capital framework, so as to increase the ability of banks to use capital and continue to lend during periods of stress. This is addressed by banks having larger capital conservation buffers and raising the default level of the countercyclical capital buffer to 100 basis points (from zero). The non-zero countercyclical capital buffer will provide APRA with greater capacity to reduce capital requirements in response to changes in systemic risks.

The reforms will also make the capital framework more risk sensitive, which will reinforce the incentive for sound lending practices. In particular, higher-risk types of housing loans such as investor, interest-only, and highly leveraged loans will require banks to hold more capital than equivalent owner-occupier principal & interest loans. The average risk weight on residential mortgages will also increase for the banking system as a whole, while there will be an offsetting decline in risk weights on business lending. APRA expects to finalise the framework in 2021 and implement it from January 2023.

... and oversaw an orderly bank exit

Xinja, a small 'neobank' that received its full banking license in September 2019, announced in December 2020 that it would hand back its banking licence and return all deposits to customers. This decision was made in light of Xinja's inability to secure enough capital to offset its depletion of cash (resulting from paying more for deposits and operating expenses than it received on its assets, which did not yet include loans). APRA had been working with Xinja for some time prior to ensure that if an exit was required, it would be orderly. In the event, APRA's contingency planning arrangements worked broadly as anticipated and in the space of just a few weeks more than 99 per cent of deposits were returned directly to customers (with the remainder returned via new accounts at NAB). In light of this experience, and what it learnt from other new Australian banks that received their licence in recent years, APRA is strengthening its requirements for granting new banking licences. The revised expectations place a greater focus on the longer-term sustainability of business models.^[7]

Risks in non-bank financial institutions remain contained ...

General insurers' profitability declined to almost zero in 2020 (Graph 3.7). However, they remain well capitalised and analysts expect their profitability to recover in 2021. Analysts' forecasts for a recovery in profits in 2021 are underpinned by expectations that there will not be a repeat of the factors that reduced profits in 2020. In particular, profits were curtailed by substantial provisioning for potential business interruption (BI) claims arising from the pandemic. Recent floods have lifted claims, but analysts currently expect the impact of natural disaster claims to be less than last year (in part because of increased reinsurance cover following last year's catastrophic bushfires and severe storms). However, there is considerable uncertainty around these expectations. Sharp falls in asset prices in early 2020 also resulted in large investment losses that were only partially reversed as asset prices recovered.

The \$1.7 billion of provisions the major general insurers have raised for potential BI insurance payouts mostly came in response to a court ruling that many such policies did not effectively exclude cover for pandemics, despite that being the insurers' intent. The size of insurers'



exposures to BI claims remains uncertain, in part due to the continuation of legal proceedings on this matter (which are discussed further in 'Chapter 4: Domestic Regulatory Developments'). APRA has closely monitored the potential impact BI could have on insurers and will continue to do so into 2021.

The low interest rate environment also presents some risk to general insurers if they do not reprice policies in response to expected lower investment returns. In addition, insurance policies that cover risks for many years after the policy expires ('long-tailed') face some risk since falling real interest rates increase the discounted value of insurers' future liabilities. While most general insurance in Australia is short-tail (that is, policies where claims are identified and made within about a year), compulsory third party motor vehicle, product and public liability, professional indemnity and workers compensation insurance are all long-tail classes that are exposed to this risk. However, general insurers in Australia mostly mitigate this risk through asset-liability maturity matching.

Lenders' mortgage insurers (LMIs) profitability has been affected by the COVID-19-induced economic downturn, but they retain a very strong capital position. The decline in profits in 2020 resulted from pandemic-related increases in the expected future value of mortgage insurance payouts and an associated increase in their reserves. However, the resilience of the economy, and particularly housing prices, has materially improved the outlook for LMI profits, as has increased demand from first home buyers.

Non-banks have grown their housing lending since late last year, after curtailing it at the height of the pandemic. As funding conditions have improved, issuance of residential mortgagebacked securities (RMBS) by non-bank lenders has risen to high levels and spreads have declined to their lowest levels since 2007 (Graph 3.8). Liaison indicates that credit quality at non-bank lenders has remained sound, both for lending to households and to businesses. One indication of the resilience of the sector has been its ability to manage loan repayment deferrals. Both the share of (prime) customers on deferral at non-banks and the credit quality of their deferred loans (during and after the deferral period) appears to be similar to those of banks.

... though life insurers have significant problems to address ...

The pandemic has had a limited impact on life insurers' profits, other than by depressing returns on investment income. However, longstanding issues continue to result in them making losses (Graph 3.9). Individual disability income insurance has been a major contributor to these losses, reflecting a long period of substantial underpricing and overly generous product features and terms that have resulted in higherthan-expected claims. APRA intervened in late 2019, requiring firms to adjust their insurance policies to make them more sustainable and imposing capital charges until these measures were implemented. While this intervention was temporarily suspended in March 2020 owing to COVID-19, APRA reinstated it in October 2020. The adequacy of firms' responses are currently being assessed by APRA. However, this issue is



expected to persist for some time given the long-term nature of these insurance contracts and the associated large book of legacy business, as well as the potential for increased mental health issues arising from the pandemic.

... and financial market infrastructures (FMIs) continue to focus on improving operational resilience

The operational resilience of FMIs, such as central counterparties (CCPs), securities settlement facilities and high-value payment systems, is important to enable financial system participants to prevent credit or liquidity risks building up. More broadly, this can help to underpin confidence in the operation of capital markets. Recent events have shown the importance of FMIs continually assessing and improving their operational resilience.

In late 2020, ASX experienced a number of significant operational incidents that affected the availability of systems used in trading and settlement of ASX equities and equity options. Problems following a major upgrade to ASX's core equity trading platform, ASX Trade, resulted in the closure of the ASX market for most of the day on 16 November, while ASX's Centre Point order matching service was partially unavailable



Graph 3.9

between 18 and 23 November. An unrelated issue also caused a delay of several hours in the settlement of equity trades on 17 November. The Australian Securities and Investments Commission (ASIC) has commenced an investigation into whether ASX met its obligations under its Australian Market Licence, including whether it has sufficient financial, technological and human resources to operate its markets. The Bank and ASIC have expressed significant concern regarding these incidents and have asked ASX to have an independent review of the incidents conducted in the first half of 2021.

While other FMIs in Australia have not experienced similar operational issues in recent months, they continue to pursue improvements. For example, the Bank is in the final stages of a multi-year project to refresh the core infrastructure for its high-value payment system, the Reserve Bank Information and Transfer System (RITS). It is also implementing a program of improvements to its IT operational practices that include a number of initiatives aimed at enhancing the operational stability of RITS.

Another requirement for financial participants to be able to manage risk appropriately is for FMIs to be operating when needed. In recognition of this, the London-based CCP LCH Limited (LCH Ltd), which provides clearing services to Australian participants in the over-the-counter interest rate derivatives market via its SwapClear service, has been working to better align its operating hours with the Asia-Pacific markets that it serves. Due to time zone differences, these services are typically unavailable for several hours at the start of the Australian business day and LCH Ltd's participants bear bilateral credit risk exposures to one another until the CCP is able to clear the trades that have been executed. LCH Ltd has brought forward its opening time incrementally in recent years. The Bank's 2020 Assessment of LCH Ltd's SwapClear Service sets a regulatory priority for LCH to

continue this work, while maintaining the resilience of its operations.

Financial institutions need to carefully manage technology risks ...

Risks to financial institutions' IT systems - from both malicious attacks and malfunction require ongoing attention and robust management, both globally (see 'Chapter 1: The Global Financial Environment') and domestically. These risks have grown as digital platforms and service channels become more ingrained and more complex and as a result of the increased incidence of remote working arrangements. They have recently been highlighted by a data breach involving a legacy file sharing service run by Accellion, a third-party technology provider, which affected a wide range of entities including ASIC and the Reserve Bank of New Zealand. The operational disruptions experienced by ASX in November (discussed above) also demonstrate the risks associated with technology malfunction. The constantly evolving nature of cyber risks means it is critical that financial institutions regularly update and upgrade their defences. In recognition of this, Australian regulators have a number of initiatives to support financial institutions' efforts to strengthen cyber resilience (see 'Chapter 4: Domestic Regulatory Developments').

Cyber attacks and incidents are most likely to involve manageable financial losses for specific institutions, but they could have systemic implications in certain circumstances. To be systemic, the impact of cyber attacks and incidents would have to affect multiple institutions, either directly or indirectly. This could occur if they affect third-party providers or software used widely across the financial system. Similarly, if such an incident affected critical nodes, such as an FMI (including payment systems or CCPs) for a prolonged period it could directly impact the ability of firms and households to engage in economic activity and manage risk. The integrity of data is particularly important since it dictates the ability of banks to disburse funds or collect on monies due and, in the extreme, if violated it could raise questions about the institution's solvency. More generally, any data breaches that cause consumers and creditors to lose confidence in the security of the financial system could see banks face liquidity challenges.

... and address the longer-term challenges of climate change

Climate change presents an ongoing challenge for the financial system, by exposing it to risks that will rise over time and, if not addressed, could become considerable.^[8] These financial risks are already beginning to become apparent in some cases. For example, investors in BP and Shell suffered losses as both heavily wrote down the value of their oil and gas assets in June 2020. This was partly in response to the drop in energy prices associated with the pandemic and global recession but also in expectation that the global economic recovery will be associated with an accelerated pace of transition to a lower carbon economy.

One way in which financial institutions are exposed to the physical risks of climate change is via the potentially negative impact it could have on the value of housing collateral in locations that are more affected by climate risk, particularly if these risks become uninsurable. Such regions include agricultural and farming regions in NSW and Queensland, as well as metropolitan areas adjacent to the ocean and waterways. Data show that the share of banks' current mortgage exposures that are in regions projected to experience a material increase in climate damage is around 6 per cent.^[9] Insurers are more exposed to physical risks from climate change through policies covering natural disaster damage to property, motor vehicles, crops and other assets. Banks also face risk from any policy and technological changes intended to minimise climate change ('transition risk'). This is most likely to affect the quality of bank lending to carbon-intensive industries, which account for around 20 per cent of banks' total exposures. Banks and insurers need to measure and address these risks early to mitigate the future financial risk they pose to the institution, and so also to future financial stability.

Some work is starting to be done by industry to measure and address the financial risks of climate change. For example, the Climate Measurement Standards Initiative - an industryled, collaborative framework that sets standards for more comprehensive and harmonised disclosure of data on risks posed by climate change - was launched last year. Around half of ASX100 listed financial firms are also disclosing climate risks following the global framework established by the industry-led Task Force on Climate-related Financial Disclosures. Meanwhile, APRA will release a draft of its crossindustry prudential practice guide on the management of climate-related financial risks for consultation later this month, with a view to finalising in the second half of this year. It is also undertaking work on measuring the risks that climate change could pose to banks by conducting a 'climate vulnerability assessment' in 2021, working together with banks and the Council of Financial Regulators. The work domestically is in line with the increasing focus globally by regulators on addressing climate risks in the financial sector.

Endnotes

- See Garner M and A Suthakar (2021), 'Developments in Banks' Funding Costs and Lending Rates', RBA *Bulletin*, March.
- [2] See Dagher J, G Dell'Ariccia, L Laeven, L Ratnovski and H Tong (2016), 'Benefits and Costs of Bank Capital', IMF Staff Discussion Note No 16/04. Available at <https://www.imf.org/en/Publications/Staff-Discussion-Notes/Issues/2016/12/31/Benefits-and-Costs-of-Bank-Capital-43710>.

Culture and governance also need ongoing focus

Financial institutions also need to continue to focus on culture and governance issues that became apparent in recent years. If not addressed, cultural problems can significantly erode public trust in financial institutions. They can also reduce profitability through the payment of hefty remediation costs and penalties (such as those paid by CBA and Westpac for significant breaches of anti-money laundering and counter-terrorism financing laws) or the imposition of tighter restrictions on their operations (including increased capital charges, such as those imposed on the 4 major banks, Macquarie Bank and Allianz). Recent failures to correctly measure various banks' LCRs also show the risks associated with not prioritising the measurement of financial risk.

In recognition of the importance of these issues, APRA recently restarted work on ensuring that remuneration arrangements encourage good practice and culture. It also completed a review of ANZ, CBA and NAB's implementation of the Banking Executive Accountability Regime (BEAR). (Westpac was not included due to ongoing investigations, now complete, into potential breaches of the Banking Act.) APRA found that while each of these 3 major banks had designed adequate frameworks to implement BEAR, they all have further work to achieve acceptably clear and transparent accountability.

- [3] Details of the scheme can be found at the Treasury website. Available at <https://treasury.gov.au/ coronavirus/sme-recovery-loan-scheme>.
- [4] APRA (2020), 'Stress Testing Banks During COVID-19', December. Available at <https://www.apra.gov.au/ stress-testing-banks-during-covid-19>.
- [5] Further discussion of this can be found in RBA (2020),
 'Chapter 3: The Australian Financial System', *Financial Stability Review*, October.

- [6] See APRA (2020) 'A More Flexible and Resilient Capital Framework for ADIs', *Discussion Paper*, December. Available at <https://www.apra.gov.au/sites/default/ files/2020-12/ Discussion%20paper%20-%20A%20more%20flexible %20and%20resilient%20capital%20framework%20for %20ADIs.pdf>.
- See APRA (2021), 'Information Paper ADI: New Entrants – a Pathway to Sustainability', March.
 Available at <https://www.apra.gov.au/licensing-forauthorised-deposit-taking-institutions>.
- [8] See RBA (2019), 'Box C: Financial Stability Risks From Climate Change', *Financial Stability Review*, October.
- [9] High-risk regions are defined here as those in which the average annual loss for hazards is forecast to exceed 1 per cent of the replacement value of the asset. Climate forecasts are taken from XDI (2019), 'Climate Change Risk to Australia's Built Environment', A Second Pass National Assessment, October. Available at <https://xdi.systems/wp-content/uploads/2019/ 10/Climate-Change-Risk-to-Australia%E2%80%99s-Built-Environment-V4-final-reduced-2.pdf>.