

3. The Australian Financial System

The financial system has continued to support the economy, facilitated by the strong capital and liquidity positions of financial institutions at the onset of the pandemic. The banking system has easily met the demand for credit during the pandemic, both initially as large businesses sought to bolster their liquidity by drawing down credit facilities and requesting new lines of credit and subsequently as housing loan demand has increased (Graph 3.1). Temporary loan repayment deferrals have also provided material support to the cash flows of borrowers affected by the pandemic. In addition, the superannuation industry accommodated households' withdrawals of \$34 billion of funds through the early access to superannuation scheme.

Capital markets have also continued to meet the financing needs of large businesses. Listed companies have raised around \$40 billion of equity since April. The amount raised constitutes

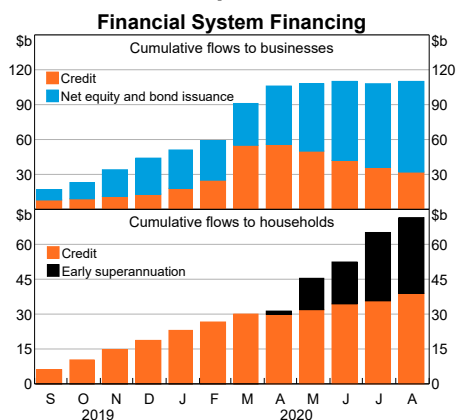
the most rapid accumulation of capital from the Australian stock market since the global financial crisis. Most of this has been raised by sectors that are more heavily affected by the pandemic. The pace of bond issuance in the domestic market by non-financial corporates has also increased since May.

The financial system remains well placed to withstand the economic effects of the pandemic, while supporting households and businesses. However, there will be increased challenges over the year ahead as government support tapers and loan repayment deferrals end.

Banks have provided for material future credit losses, yet remain profitable

Australian banks recorded a five-fold rise in the charge for bad and doubtful debts over the first half of 2020, as they increased provisions for expected credit losses arising from the economic effects of the COVID-19 pandemic. Increased provisions resulted in aggregate profits falling by around 50 per cent compared with the previous half year, and return on equity (ROE) declining to well below its average of the past three decades (Graph 3.2).^[1] Nonetheless, the current level of bad and doubtful debts remains relatively low, and Australian banks' profitability continues to be above that of banks' in most other comparable economies. Profit outcomes were similar across the major banks' domestic operations and their New Zealand subsidiaries, reflecting the similar set of challenges in each country.

Graph 3.1



Sources: ABS; ASX; Bloomberg; Private Placement Monitor; RBA

Major and mid-sized Australian banks have raised an additional \$8 billion in forward-looking provisions since the start of the year, bringing the stock of total provisions to 0.8 per cent of the value of their total loans outstanding. These provisions were raised in anticipation of future losses. Realised losses (net write-offs) and non-performing loans remain low at this stage, partly due to the range of temporary measures implemented to support household and business finances during the pandemic, including government payments. In addition, the Australian Prudential Regulation Authority (APRA) has allowed banks to continue to classify most loans under deferral as part of a COVID-19 support package as performing (consistent with regulators internationally; see 'Chapter 1: The Global Financial Environment'). Loan performance is expected to deteriorate as these support measures are unwound and banks are required to make a more considered assessment of whether deferred loans are non-performing (see 'Chapter 2: Household and Business Finances in Australia'). This will weigh on bank profits if their current provisions are insufficient to absorb these losses.

Profits are also likely to be constrained by forecast weak credit growth and ongoing pressure on net interest margins. One factor weighing on the outlook for margins is the low

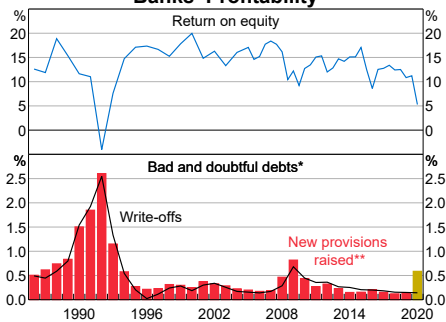
interest rate environment, in particular as banks' hedges on their non-interest bearing deposits gradually roll onto lower rates. However, the pressure on margins should be at least partly offset by low funding costs, including from the Bank's Term Funding Facility (TFF).

Banks have large capital buffers that can be used to absorb losses ...

The Australian banking system entered the pandemic with a much stronger capital position than in previous downturns. Banks' aggregate Tier 1 capital ratio is almost double what it was in 2007 (Graph 3.3). On an internationally comparable basis, the four major banks' Common Equity Tier 1 (CET1) capital ratios are estimated to be well within the top quartile of global banks and at a level that has historically been sufficient to withstand almost all previous bank crises.^[2] Lending standards in Australia in recent years have also been generally good, which has not always been the case in the lead-up to these past international banking crises, meaning current capital levels make the banking system even more robust. The capital ratios of mid-sized banks operating in Australia are comparable with those of the major banks (Graph 3.4).

Graph 3.2

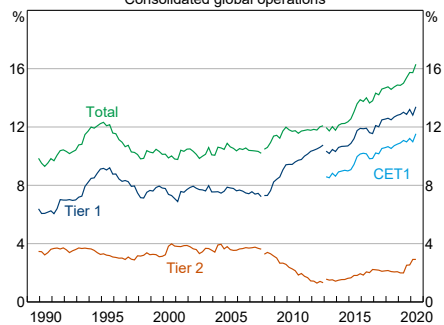
Banks' Profitability



* Relative to net loans; major banks only
 ** Last observation for the first half of 2020 is annualised
 Sources: APRA; Banks' profit releases; RBA

Graph 3.3

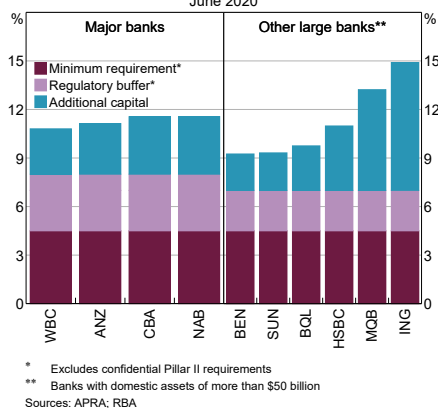
Banks' Capital Ratios* Consolidated global operations



* Per cent of risk-weighted assets; break in March 2008 due to the introduction of Basel II for most ADIs; break in March 2013 due to the introduction of Basel III for all ADIs
 Source: APRA

Large banks' capital ratios have been stable despite the large increase in provisions, as banks retained a greater share of their earnings this year. Retained earnings added more than 20 basis points to capital ratios over the first half of 2020, offsetting growth in risk-weighted assets. The contribution of retained earnings would have been half this amount had banks paid dividends in line with recent practice rather than limiting payments to shareholders in line with APRA's guidance. In addition, National Australia Bank raised \$4 billion in capital in the June quarter through new equity issuance. This was achieved even though its shares were trading below their book value at the time, demonstrating the banking system's ability to access capital markets even in strained conditions. The high starting level of capital and ongoing support from retained earnings means Australian banks are well placed to continue lending during the recovery (see 'Box C: The Use of Banks' Capital Buffers'). APRA has also announced that it does not expect banks to meet the 'unquestionably strong' capital benchmarks for now (though all banks currently do) and committed to ensuring that its future expectations for capital will allow banks to rebuild their capital buffers in an orderly manner.

Graph 3.4
CET1 Capital Ratios
June 2020

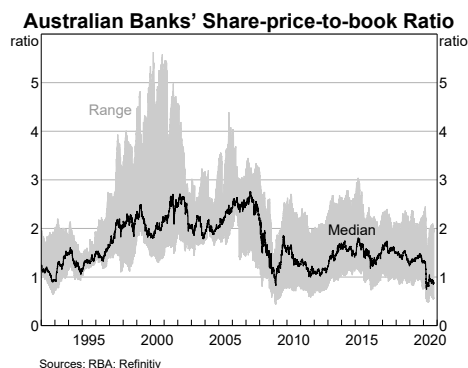


Market pricing implies that investors have confidence in banks' regulatory capital positions and their ability in future to meet their cost of capital. Share-price-to-book ratios have recovered from low levels in March, to be around one for most banks (Graph 3.5). However, these ratios are still considerably below their pre-COVID-19 levels, reflecting a decline in the earnings outlook and a reduction in investors' risk appetite.

... and stress tests suggest they should remain above minimum capital levels even in a prolonged recession

Stress test simulations on the banking system estimate the change in bank capital in specific economic scenarios. Under a baseline scenario in which GDP and the unemployment rate evolve in line with the baseline scenario from the August 2020 *Statement on Monetary Policy* (SMP), while property prices are assumed to fall only slightly, CET1 capital ratios for major and mid-sized banks are estimated to decline by 140 basis points (Graph 3.6). The decline in capital would be materially larger, at almost 200 basis points, if GDP and the unemployment rate evolve as in the downside scenario from the SMP, and property prices are assumed to fall by around 20 per cent. Capital depletion of this magnitude would be much larger than at any time since 1990/91, but given banks' substantial

Graph 3.5



capital holdings would still leave their CET1 ratios comfortably above their capital conservation buffers.

The stress test model highlights several characteristics of the sensitivity of banks' capital to macroeconomic outcomes:

- Capital losses in the model accelerate as the assumed shock to the economy deepens. For example, increasing the fall in GDP and property prices and the rise in unemployment by 25 per cent causes capital losses to rise by 20 per cent, but increasing the change in these variables by 75 per cent causes capital losses to rise by 80 per cent.
- The model highlights how the interaction between rising unemployment and falling GDP with falling property prices results in larger capital losses. Intuitively this is because if a borrower loses their job but has positive equity, they can sell their home to repay their loan or, if they have negative equity but retain their job, they can continue to pay their mortgage. However, if they lose their job *and* have negative equity, the bank is likely to incur a loss. As a result, the capital loss when the fall in GDP, the rise in

unemployment and the fall in property prices are *all* 75 per cent larger than in the downside scenario is larger than the sum of the impacts when each of these variables are *individually* shocked.

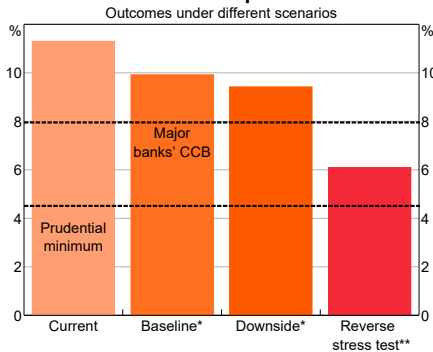
- While a more prolonged economic contraction results in larger losses, it also provides banks with longer to earn profits from their performing loans, thereby generating capital. These effects are broadly offsetting in many situations.

These stress test simulations are subject to considerable uncertainty due to a combination of factors. One is the lack of recent experience in Australia with substantial bank losses, meaning the estimated relationships between economic outcomes and loss rates are untested. This could result in the decline in capital being materially larger than forecast, even if economic conditions evolve as assumed. This uncertainty is amplified, because as noted above, capital losses become disproportionately larger as economic contractions become more severe. A second factor is that the unusual nature of this recession means the historical relationships between GDP, the unemployment rate and house prices may not hold tightly. A third factor driving imprecision in model-based capital projections stems from the considerable uncertainty about the economic outlook.

Given the substantial uncertainty about the economic outlook, and noting the caveats of the imprecision of the stress test model, it is informative to consider how severe economic conditions would need to be for bank capital to breach particular levels. Such a 'reverse stress test' suggests that for a major bank's CET1 ratio to fall below 6 per cent, conditions would need to deteriorate substantially more than currently envisaged. One scenario that results in a major bank's CET1 falling below 6 per cent is property prices declining by 50 per cent, GDP declining by 20 per cent and the unemployment rate rising to 20 per cent. A downturn of this

Graph 3.6

Banks' CET1 Capital Ratios



* GDP and unemployment evolve as per the August SMP baseline and downside scenarios; additionally, property prices (housing and commercial) fall around 5 per cent in the baseline and 20 per cent in the downside scenarios

** Scenario required for one bank's CET1 ratio to breach 6 per cent; this involves GDP falling by around 20 per cent, the unemployment rate rising to around 20 per cent and property prices falling 50 per cent

Sources: APRA; RBA

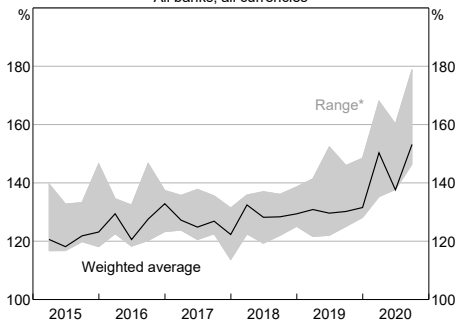
magnitude has not been observed since the Great Depression, suggesting that the likelihood of an Australian major bank failing is very low. The modelled resilience to extreme stress results from banks' \$100 billion in surplus CET1 capital (over this 6 per cent level), close to \$1 trillion in excess collateral and that they generate \$40 billion in pre-provision profits each year.

Banks' liquidity positions have strengthened considerably

Strong growth in household and business deposits, along with the additional funding made available by the Reserve Bank's TFF, which was expanded and extended in September, has helped ensure that banks currently have ample funding. Excess funding is being invested in high-quality liquid assets. In combination with the undrawn portion of the TFF, this has caused banks' liquidity coverage ratios – which measure holdings of liquid assets relative to the potential outflows that could occur in a short-lived but severe stress scenario – to rise (Graph 3.7). This accumulation of liquid assets has been only partly offset by a rise in forecasts for potential net cash outflows in a stress scenario, as deposits by superannuation funds and non-financial businesses (both of which are treated as more likely to be withdrawn) have increased considerably.

Graph 3.7

Liquidity Coverage Ratio
All banks, all currencies



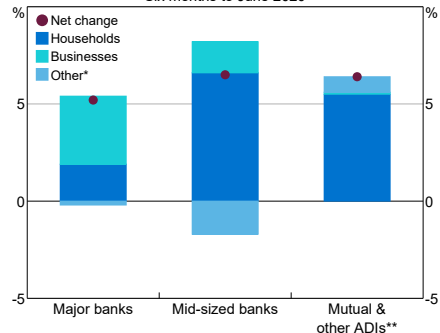
* From the 20th to 80th percentile
Sources: APRA; RBA

Deposit growth, particularly in household and non-financial business deposits, has been strong for all categories of banks over the first half of the year (Graph 3.8).^[3] Deposits increased most rapidly in the early stages of the pandemic, but have continued to grow in recent months. As a result, the share of household and non-financial business deposits in major and mid-sized banks' total funding (on a globally consolidated basis) has risen by 2 percentage points since the start of the year, with a corresponding decline in the share of wholesale funding, particularly offshore wholesale funding.

Around \$45 billion of bonds issued by major and mid-sized banks have matured since the beginning of April, and a further \$100 billion will mature over the next nine months. For most of these banks, these maturities are fully offset by their TFF allowances. Major and mid-sized banks collectively withdrew their \$70 billion of initial TFF allowance before the initial draw-down period expired at the end of September. Under the expanded TFF, these banks have \$77 billion in additional and supplementary allowances remaining to draw by June 2021. Credit spreads in secondary markets have narrowed considerably, partly due to the lack of recent and prospective bond issuance, implying that banks

Graph 3.8

Deposit Growth
Six months to June 2020



* Includes financial institutions and other deposits (domestic and offshore); excludes foreign currency, intragroup deposits and non-negotiable certificates of deposit

** Excludes foreign banks
Sources: APRA; RBA

could issue new bonds at relatively low cost if needed. The scale of TFF borrowings will create a large refinancing task for these banks in 2023/24. However, banks have considerable flexibility to manage this by pre-emptively issuing bonds and/or repaying TFF funds early, should they be concerned about the capacity of bond markets to absorb the required issuance.

Some smaller ADIs could record sizeable losses, but are well capitalised

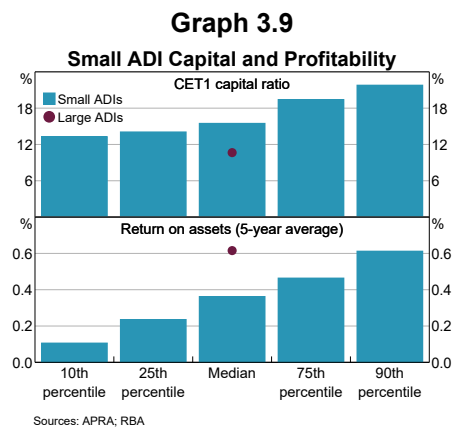
The majority of smaller authorised deposit-taking institutions (ADIs) – those with less than \$50 billion of assets – have CET1 capital ratios of at least 15 per cent (Graph 3.9). This provides them with considerable resilience to withstand the economic effects of the pandemic. However, these ADIs can be more susceptible to losses than their larger counterparts, as they tend to generate lower earnings that can be used to offset credit impairments. Some small ADIs also have exposures that are more concentrated either geographically or to borrowers who work in specific industries, making losses more likely if these regions or industries are significantly affected by the pandemic. These factors suggest that some smaller ADIs could become unprofitable in a weak economic recovery, such as the downside scenario discussed above. However, the strong capitalisation of small ADIs means that for their capital ratios to fall below minimum requirements, their loss rates would need to be much higher than estimated in the downside stress test simulations discussed above.

Policy support has significantly alleviated funding constraints for non-bank lenders, allowing them to resume lending

Asset-backed securities (ABS) markets experienced some dysfunction during the height of market stress in March and early April, causing some non-bank lenders to cancel

planned residential mortgage-backed securities (RMBS) issuance. There was also limited ability for these firms to expand their warehouse funding from banks at that time. In response to the associated uncertainty about the future availability of funding, many non-bank lenders actively slowed their lending. Funding availability has since improved, partly as a result of the Government’s Structured Finance Support Fund (SFSF), which is administered by the Australian Office of Financial Management. The SFSF has purchased ABS directly at issuance and in the secondary market (freeing up capacity for investors to recycle these funds into new issuance), and invests in securitisation warehouses. RMBS (and other ABS) issuance by non-bank lenders has now resumed and is at similar levels to recent years, although pricing is still at higher spreads than prior to the pandemic (Graph 3.10). This improvement in funding availability has allowed non-bank lenders to start pricing loans more competitively.

Reduced investor appetite for higher-risk lending has also affected non-ADIs that do not fund their lending with securitisations. These firms mostly lend to businesses. For some, support from the SFSF (in the form of investments in warehouses) has reduced pressure. However others, including those that rely on equity funding, are likely to be facing more difficulty. This includes real estate



investment funds lending for commercial property development (see 'Chapter 2: Household and Business Finances in Australia'). Nonetheless, liaison suggests that these firms are well placed to withstand a period of reduced activity and resume lending when conditions recover.

General insurance profits have declined, but insurers remain well capitalised ...

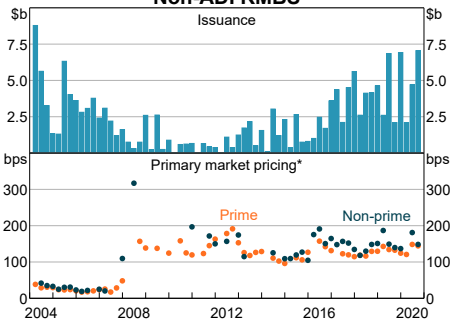
General insurers' profitability more than halved in the first half of 2020, only part of which reflects the effects of the pandemic. The most significant effect of the pandemic has come through large losses on investments due to falls in asset prices. In addition, insurers paid out a modest amount of claims for travel and landlord insurance, and have provisioned for potentially sizeable future claims in business interruption and trade credit insurance. Underwriting performance in the first half of 2020 was mainly affected by factors unrelated to the pandemic. In particular, claims from natural disasters (including hailstorms, floods and bushfires) were much higher than expected, and an increase in personal injury litigation payments has forced insurers to increase their provisions for some long-tailed insurance claims.^[4] Collectively, these factors lifted the ratio of net claims to revenue to its highest level in almost a decade,

and lowered ROE to its lowest level in at least 20 years (Graph 3.11).

The financial effects of the pandemic on insurance are likely to continue to be manageable. However, the extent of insurers' exposures to business interruption policies presents some uncertainty. While business interruption policies were mostly written with an intent to exclude pandemics, there is some uncertainty about whether pandemic exclusions will apply in practice and clarity is being sought from courts about insurers' legal position. In the meantime, many insurers have provisioned for the possibility of some future payouts. Similarly, there has not yet been an acceleration in trade credit claims, consistent with stable insolvency numbers. This could start to increase when insolvent trading laws are reinstated and as policy stimulus winds down. However, neither category of insurance is large enough to challenge the solvency of insurers.

General insurers' ongoing underlying profitability and strong capital positions make them well placed to absorb the impact of higher claims. Many Australian insurers have also strengthened their reinsurance against natural disasters, despite an increase in reinsurance costs, and reduced risk in their investment

Graph 3.10
Non-ADI RMBS

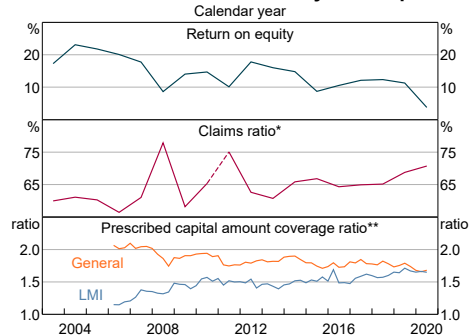


* Face-value weighted monthly average of the primary market spread to bank bill swap rate for AAA rated notes

Sources: Bloomberg; RBA

Graph 3.11

General Insurers' Profitability and Capital



* Ratio of net incurred claims to net premium; change in reporting basis after June 2010

** Eligible capital as a multiple of prescribed capital amount, or minimum capital requirement (prior to March 2013)

Sources: APRA; RBA

portfolios by reducing their holdings of equities and sub-investment grade bonds. A number of insurers have also restricted or suspended dividends to ensure they maintain solid capital buffers. Overall, the industry's capital is now equivalent to 1.7 times APRA's prescribed amount.

Lenders' mortgage insurers (LMIs) are more exposed to the impacts of the pandemic, given expectations for a rise in losses on mortgage lending. LMI profits have already declined because of an increase in claims frequency and COVID-19-related revisions to the expected future value of mortgage insurance payouts. Revenue has also been affected by an industry-wide strengthening of lending standards. However, LMIs are very well capitalised and their internal stress tests suggest they can withstand a substantial rise in payouts.

... while conditions remain challenging for life insurers

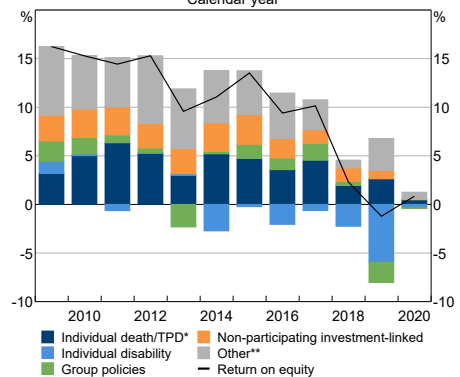
The pandemic has had a limited impact on life insurers' profits, other than depressing returns on investment income. However, long-standing issues continue to depress life insurers' profitability (Graph 3.12). Individual disability income insurance (DII) has been the main contributor to the poor profitability of the industry over recent years, reflecting substantial underpricing, loose product definitions and higher-than-expected claims, particularly for mental health. This issue is expected to persist for some time given the long-term nature of these insurance contracts, the potential for increased mental health issues arising from the pandemic and the pressure to retain market share in a competitive industry. APRA intervened late last year to improve the sustainability of DII insurance by implementing a series of measures to address flaws in product design and pricing, including increasing capital charges.

Superannuation and managed funds have been able to satisfy additional demands for liquidity

Around 3 million requests for access have been approved under the superannuation early release scheme announced in March, with withdrawals to date totalling \$34 billion, or 1.8 per cent of total assets under management. Funds have been able to meet these withdrawals, despite initial concerns for some, because withdrawals have been spread over time and resilient market conditions have enabled funds to easily sell fixed income securities and equities. Funds also fulfilled an elevated number of member requests to reallocate assets towards cash, as falls in investment income prompted members to switch from high- to low-risk investment options. In addition, funds had accumulated large amounts of cash in late March as they chose to not reinvest cash collateral returned by derivative counterparties as the Australian dollar recovered from its mid-month lows.

Managed funds were likewise able to meet sizeable requests for redemptions in March and April. Almost all funds were able to do this without needing to impose limits on withdrawals to cope with these requests or

Graph 3.12
Contributions to Life Insurers' Profitability



* TPD = total and permanent disability
 ** Includes profit from other non-risk business
 Sources: APRA; RBA

receive policy support, in contrast to international peers (see 'Box A: Risks from Investment Funds and the COVID-19 Pandemic'). The imposition of investment gates at a handful of smaller funds did not lead to pre-emptive redemption runs elsewhere or affect the underlying markets more broadly.

Financial market infrastructure dealt effectively with risks arising from increased market volatility and trading volumes

Central counterparties (CCPs) and securities settlement facilities were largely able to clear and settle record volumes of trades in some markets during March 2020, with little interruption to their critical services (Graph 3.13). However, the record volumes of equity trades in March did result in processing delays in ASX's CHESSE clearing and settlement system. Although CHESSE has maintained high levels of system availability in recent years, its age means that it is increasingly difficult to support. ASX plans to replace the CHESSE system with more modern technology and the Reserve Bank's 2020 Assessment of ASX recommends that the system be replaced as soon as this can be safely achieved.^[5] To manage the short-term risk of further capacity constraints in CHESSE, the Australian Securities and Investments Commission (ASIC) placed temporary restrictions on the trading volumes of the nine largest equity market participants, which were revoked in May.

Similarly, the Reserve Bank Information and Transfer System (RITS) was able to smoothly process high levels of wholesale payments in the early stages of the pandemic. RITS also introduced arrangements to reduce the risk that the pandemic will create operational challenges. As discussed in the 2020 Assessment of RITS, most Bank staff transitioned to working-from-home arrangements, while a small number of personnel occupying critical roles remained

onsite at each of the Bank's two operating centres.^[6] Additional personnel were trained and certified to fill critical roles in the event that a large number of Bank staff were infected with or exposed to the virus. The Bank also communicated with RITS members and major RITS feeder systems to ensure a clear understanding of the operational arrangements within the RITS environment.

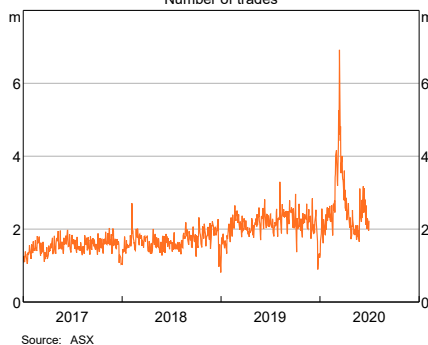
The ASX CCPs have remained financially resilient, but the extreme volatility has highlighted some areas of potential vulnerability that are discussed in the RBA's 2020 Assessment of ASX. These include the potential for ASX's margin models to generate large payment obligations for its participants during times of stress, and limitations on ASX's ability to collect margin against exposures that arise very late in the day. The RBA is working with ASX to address these issues, as well as to consider whether there are any additional stress scenarios that should be taken into account when sizing the CCPs' financial resources.

There remain some longer-term challenges to address as the economy recovers

One ongoing challenge for the financial system is the financial risks arising from climate change. Climate change is exposing financial institutions,

Graph 3.13

CHESSE Cash Equities Trades
Number of trades



and the financial system more broadly, to risks that will rise over time and, if not addressed, could become considerable. These risks for financial stability may arise from both the physical and transition risks of climate change.^[7] Addressing these early will help to both mitigate the transition risks and reduce the scale of the challenge that physical risk poses to financial stability in future. While some work to address the financial risks of climate change has been delayed by the pandemic, including APRA's climate risk vulnerability assessment, other work is continuing. For instance, the Climate Measurement Standards Initiative – an industry-led, collaborative framework that collects a more comprehensive and harmonised disclosure of data on future physical risks and exposures posed by climate change – was recently launched.

Risks to financial institutions' IT systems – from both malicious attacks and malfunction – also require ongoing attention. These risks are heightened as a result of remote working arrangements and associated delays to software updates and patch deployments, but are rising even without that, as systems have become more complex and digital platforms more ingrained. The constantly evolving nature of these risks means it is critical that financial institutions regularly update and upgrade their

defences – including reviewing any short-term solutions established to accommodate the swift transition to working from home. While cyber attacks and incidents are most likely to involve manageable financial losses for specific institutions, if they are broad, and impact confidence, they could have systemic implications.

Finally, financial institutions need to continue to address the culture and governance issues that have become apparent over recent years. If not addressed, these cultural problems can significantly erode financial institutions' profitability through remediation costs and penalties (such as Westpac's recent \$1.3 billion settlement with the Australian Transaction Reports and Analysis Centre) as well as potentially tighter restrictions on their operations. Appropriate culture will be especially important as banks face the challenging task of dealing with customers' loan repayment deferrals and responding more broadly to the economic contraction. In recognition of the importance of these issues, APRA will soon restart work on ensuring remuneration arrangements encourage good practice and culture. ✎

Endnotes

- [1] When making historical comparisons, it is important to bear in mind that the structure of the Australian banking system has changed over time. Relative to today, loss rates in the 1990s recession were inflated by weak lending standards, especially at state-owned banks, and banks' balance sheets were much more business focused and had less collateral backing.
- [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>>.
- [3] For more details on the growth in domestic deposits, see RBA (2020), 'Recent Growth in the Money Supply and Deposits', *Statement on Monetary Policy*, August.
- [4] Insurers increased their reserves for long-tail personal injury claims in response to a recent increase in the number of class action claims.
- [5] RBA (2020), 'Assessment of the ASX Clearing and Settlement Facilities', *Assessment Report*, October.
- [6] RBA (2020), 'Assessment of the Reserve Bank Information and Transfer System', *Assessment Report*, May.

- [7] For more details see RBA (2019), 'Financial Stability Risks from Climate Change', *Financial Stability Review*, October.