



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Financial Stability
Review
Second Half

2021

FSR



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Preface

This Financial Stability Review – Second Half 2021 provides Bank Negara Malaysia’s assessment on current and potential risks to financial stability and the resilience of the Malaysian financial system to sustain its financial intermediation role in the economy. It also reports on any actions that have been taken to manage risks to financial stability and contains box article(s) on topics of special interest.

This publication is intended to promote greater awareness on issues and developments affecting financial stability.

This document uses data available up to 31 December 2021, unless otherwise stated.

The Financial Stability Review - Second Half 2021 is available in Portable Document Format (PDF) at www.bnm.gov.my

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Key Highlights on Financial Stability Review – Second Half 2021

Financial institutions remained well-positioned to support economic recovery

Banks maintained healthy capital and liquidity buffers to support financial intermediation

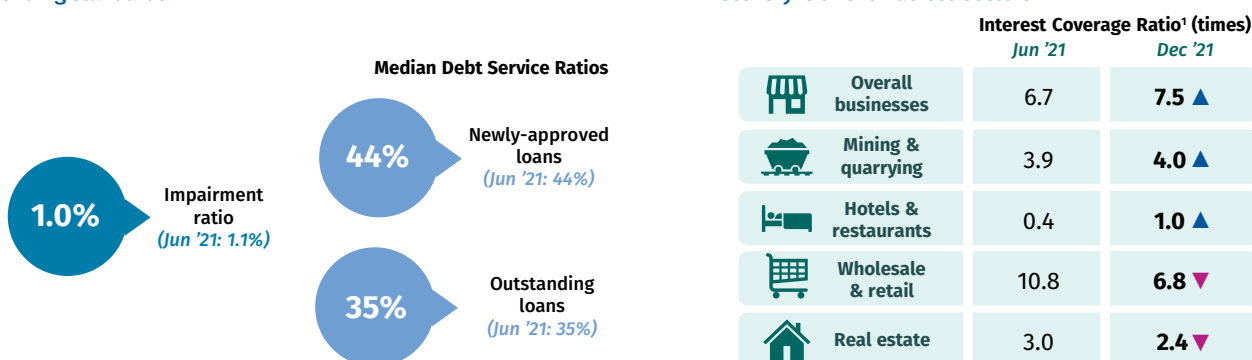
Insurers and takaful operators remained well-capitalised above regulatory minimum



Credit risks from the household and business sectors remain manageable, supported by improving economic conditions and on-going repayment assistance

Households: Asset quality continues to be underpinned by sound lending standards

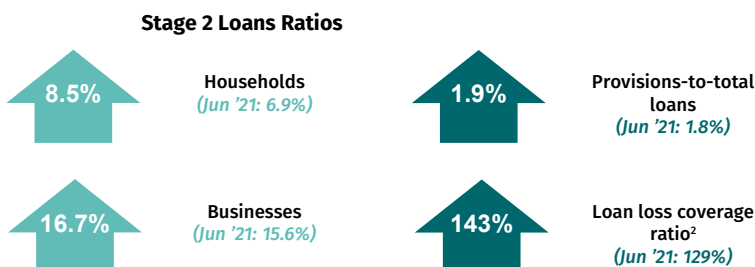
Businesses: Improvement in overall financial performance but recovery is uneven across sectors



Banks remain well-buffered against credit risks amid the transition to more targeted support measures

Sustained build-up of provisions against potential rise in impairments

Continued assistance available for distressed borrowers

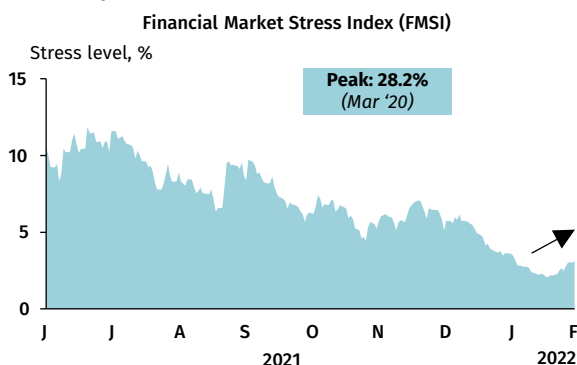


- Financial Management and Resilience Programme (URUS) and other programmes managed by AKPK
- Bespoke repayment assistance by financial institutions
- BNM Funds for SMEs

Domestic financial market conditions remained orderly despite increased volatility in global markets

Domestic stress levels have risen but remain well below the onset of the pandemic

Orderly market conditions to be preserved, supported by several key factors



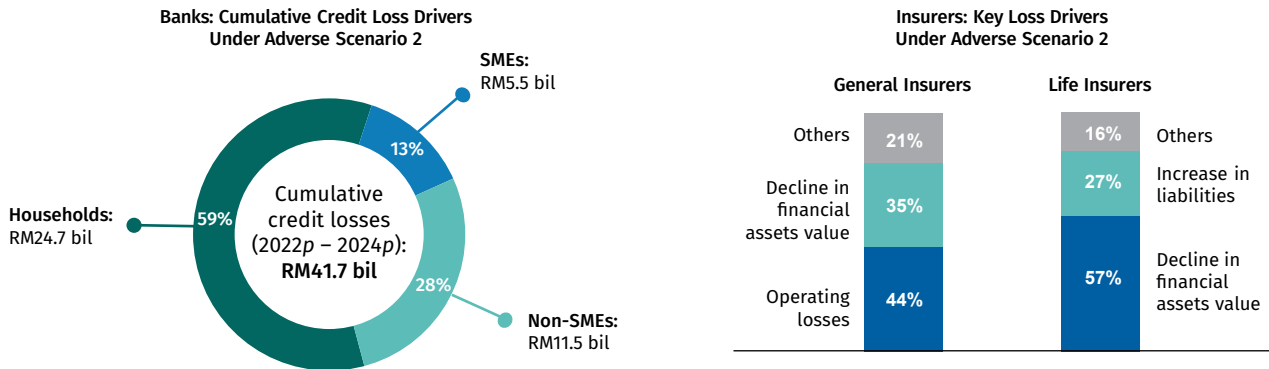
- Active market risk management and hedging strategies by financial institutions and corporates
- Deep and liquid domestic markets, supported by diverse investor base
- Exchange rate flexibility serves as an absorber from external and domestic shocks

¹ Prudent threshold for interest coverage ratio is two times.

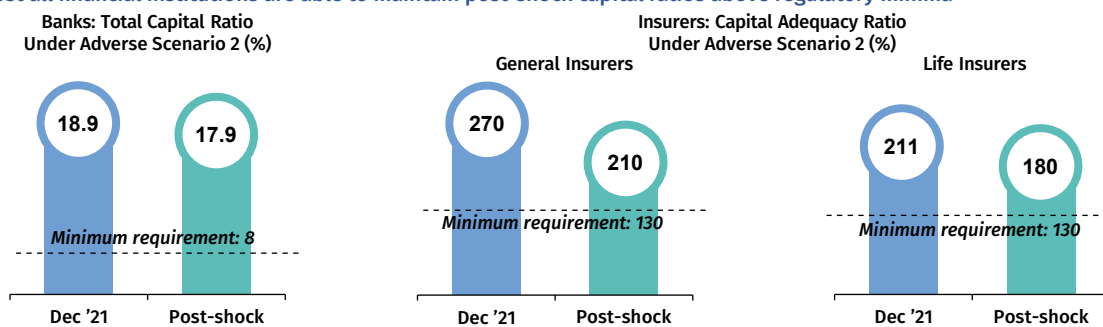
² Including regulatory reserves.

Stress tests affirm financial institutions' ability to support economic recovery

Credit and market risks remain key drivers of losses for banks and insurers, respectively, under the latest stress test which incorporates more conservative assumptions...

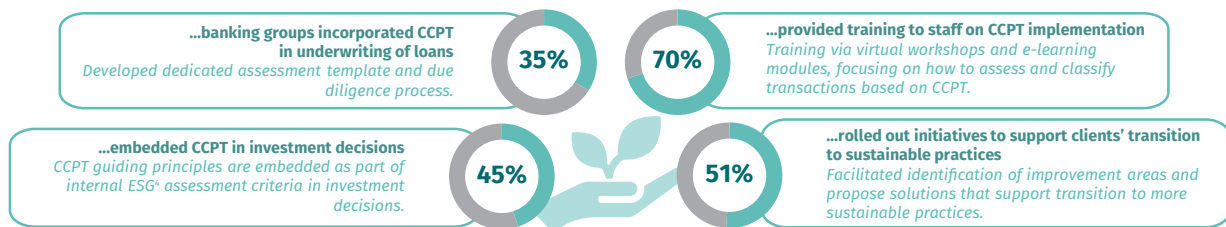


...but almost all financial institutions are able to maintain post-shock capital ratios above regulatory minima



Box Article: Implementation of the Climate Change and Principle-based Taxonomy (CCPT) in the Financial Sector

Steady progress of CCPT implementation³ among banking institutions, insurers and takaful operators

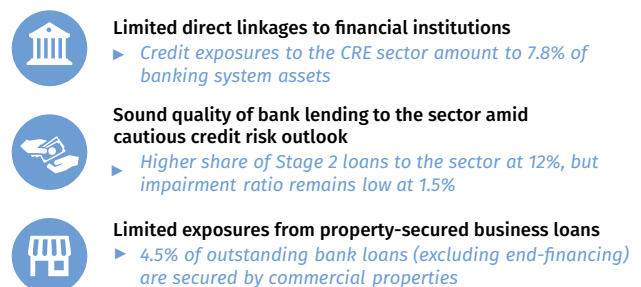


Box Article: Evolving Spaces in the Wake of the Pandemic: Vulnerabilities from the Commercial Real Estate (CRE) Sector

Pandemic-induced shifts in the CRE sector may worsen existing oversupply conditions...



...but risks to financial stability remain low



p Projected

³ Based on a stocktake exercise conducted on 38 banking groups/institutions, 53 insurers and takaful operators (life, family and general) and six reinsurers and retakaful operators.

⁴ Refers to Environment, Social and Governance (ESG).

Source: Bank Negara Malaysia

Overview



Overview

Global financial markets experienced increased volatility in the second half of 2021 which continued into 2022. This was largely driven by expectations of monetary policy normalisation in the United States, tensions from the military conflict in Ukraine and continued challenges from the COVID-19 pandemic. Domestically, a surge in COVID-19 cases and the rise in global bond yields also led to some market stress. Domestic bond yields could experience further upward pressure amid market expectations of larger incoming government bond supply. Conditions in domestic financial markets are, however, expected to remain orderly. This will continue to be supported by Malaysia's deep and liquid bond market, diverse investor base, as well as positive real yields.

Credit risk remained a key focus for banks as they continued to build up provisions to buffer against a potential rise in impairments. This ensured the continued resilience of banks to support financing activities necessary for a sustained economic recovery. Similarly, insurers and takaful operators (ITOs) remained resilient and well-positioned to continue supporting the protection needs of households and businesses. Financial institutions have remained vigilant in managing their risks given continued uncertainty posed by domestic and global developments. This, coupled with their strong capital and liquidity buffers, has helped preserve domestic financial stability during the year. Updated stress tests conducted by the Bank continue to affirm the resilience of capital buffers of banks and insurers to withstand potential losses under severe macroeconomic and financial shocks, while sustaining support for economic recovery.

The financial performance of businesses continued to improve in the second half of 2021, although recovery remains uneven. The share of firms-at-risk declined further to 20.9% (3Q 2020 (peak): 31.9%). Lower leverage, more prudent controls over expenses, and a gradual recovery of economic activities

were major contributing factors to improvements in business performance. In addition, firms that successfully pivoted towards digitalisation and greater automation of their operations have also been observed to fare better during the more recent episodes of operating and mobility restrictions. The quality of business borrowings has not, so far, shown significant deterioration, owing to support measures that remain in place, particularly for SMEs. Leading indicators from banks, while elevated, point to a recovery in the operating environment as business loans with increased credit risk grew at a slower pace. Average monthly repayments have also surpassed pre-pandemic levels.

With the prolonged pandemic, SMEs remained more vulnerable given their smaller cash buffers and generally thinner profit margins. SMEs, therefore, continued to make up the bulk of firms benefitting from repayment assistance. The share of SME loans under repayment assistance also remained high. It should be noted, however, that new rescheduling and restructuring (R&R) applications by SMEs have decelerated from its peak in July 2021. This indicates greater confidence among SMEs of their ability to service their debt. Further improvements in business resilience amid a steady recovery in earnings will lift firms' debt-servicing capacity. Measures supporting the economy under Budget 2022, existing credit guarantee schemes and on-going R&R by banks will also support business recovery and mitigate risks of a significant rise in impairments.

The debt-servicing capacity of household borrowers continued to be supported by positive growth in household financial assets, available assistance for borrowers facing temporary repayment difficulties, and improving economic and labour market conditions. Although repayment assistance under the PEMULIH package saw a higher take-up across all income groups, this partly reflected the flexible enrolment criteria which also covered borrowers

whose incomes have not been affected and are therefore more likely to be able to continue servicing their loans. Concerns, however, remain over some segments of household borrowers that are highly leveraged or have low financial buffers. This includes household borrowers under repeat repayment assistance with debt service ratios above 60% and employed in sectors most impacted by the pandemic – they account for around 1.7% of total banking system loans. As support measures are gradually unwound, these borrowers could face difficulties servicing their loans. However, risks to the banking system remained contained. For borrowers who are still unable to service their loans, more targeted repayment assistance provided through the Financial Management and Resilience Programme (URUS) and other programmes remain in place. Banks also continue to offer repayment assistance packages to distressed borrowers which are tailored to their financial circumstances. Over the longer term, the depletion of household retirement savings poses considerable risks to households. As the economy recovers, it is important for households impacted by the pandemic to gradually re-build their financial buffers. Labour market and social protection reforms will be key towards raising income levels and securing household resilience in the long run.

Some improvements in housing market activity were visible heading into 2022, although the number of unsold houses remained high. Disruptions caused by the pandemic partly contributed to the slower clearance of unsold housing stock. Nonetheless, the high number of unsold houses continues to reflect pre-existing affordability issues. This has worsened since the onset of the pandemic amid some weakening in income. Supply-side adjustments have continued with more housing launches shifting towards lower- and mid-price market segments. However, broader reforms to improve housing affordability remain critical to contain the debt burden of households and mitigate risks of future financial hardship. In the commercial real estate (CRE) sector, the shift towards flexible working arrangements and accelerated pace of digitalisation arising from the pandemic will continue to transform how physical spaces are utilised. These trends could exacerbate existing oversupply concerns in selected CRE segments such as office and retail spaces. Direct linkages between the CRE sector and financial system are largely contained, thereby substantially mitigating risks to financial stability. However,

further progress in resolving excess supply remains important given the high multiplier effects of the construction sector to the broader economy. Large planned incoming supply of office and retail spaces continues to pose risks.

Banking system profitability was sustained in the second half of 2021 on the back of a pick-up in lending and low funding costs. Gradual improvements in the financial condition of borrowers as the economy recovers will further support banks' earnings going forward. Credit costs are expected to remain elevated due to the emergence of defaults/delinquencies once support measures are withdrawn. However, further additions to provisions are likely to be more modest given the sizeable buffers already built up and continued support for more vulnerable borrowers. This is reflected in banks' aggregate loan loss coverage ratio which remains close to its recent historical high. Banks' capital positions also remained strong. These buffers crucially preserve the capacity of banks to absorb potential unexpected losses amid a still challenging operating environment, and enable them to support households and businesses' financing needs through the cycle.

Aggregate profitability declined for insurance and takaful funds, mainly driven by weaker investment performance. The impact of COVID-19 claims and the December floods on the profitability of ITOs remained manageable. Claims arising from the recent floods were the largest payout by the industry for a flood event over the past decade. Notwithstanding this, economic losses were substantially higher, reflecting the underinsurance of flood risks by households and businesses. Looking ahead, the recovery in insurance and takaful business growth remains contingent upon the economic outlook. Higher revaluation losses from investments could potentially materialise given expectations of further increases in yields in 2022. ITOs are expected to remain resilient, supported by pre-existing financial buffers. The impact of further planned liberalisation of motor and fire tariffs on general ITOs' profitability is also expected to be manageable given the gradual approach towards implementation. Further progress on this front aims to encourage more competitive and risk-based pricing, increased product options for consumers, and investments in technology to improve the claims process.

Ensuring operational and cyber resilience remains a key focus of the Bank and financial institutions. This comes amid an increasing reliance by financial institutions on third party service providers, higher cloud adoption and rising ransomware threats. Operational incidents and losses remained small and isolated, reflecting significant investments and measures by financial institutions to strengthen cyber defences and recovery capabilities. However, risks of reputational damage are likely to have increased, with closer attention needed to manage such risks as part of financial institutions' incident response plans.

Effectively managing the effects from climate risks will also be an area of focus for the Bank and the industry in the coming years. Beginning July 2022, financial institutions will start to report exposures in line with the Climate Change and Principle-based Taxonomy (CCPT) to the Bank, in turn paving the way for financial institutions to make TCFD-aligned¹ climate-related financial risk disclosures from 2024. Financial institutions remain committed to support the transition to lower carbon activities by their customers and are actively taking steps to increase engagements to better understand the transition plans and financing needs of these customers.

¹ Refers to recommendations by the Task Force on Climate-related Financial Disclosures.

Key Developments in the Second Half of 2021

9	Market Risk
12	Credit Risk
16	<i>Box Article: Evolving Spaces in the Wake of the Pandemic: Vulnerabilities from the Commercial Real Estate Sector</i>
28	Operational Risk

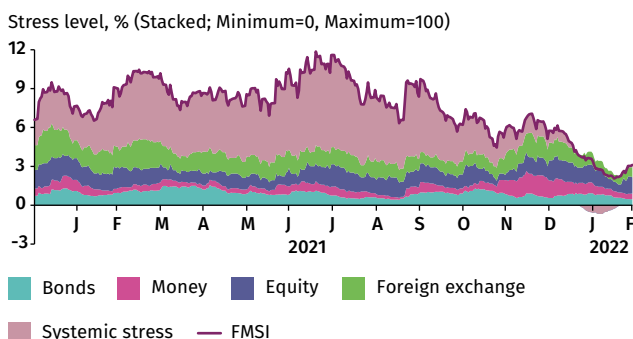
Key Developments in the Second Half of 2021

MARKET RISK

Domestic financial market conditions remained orderly despite volatility in global markets

Global financial markets experienced increased volatility throughout the second half of 2021 which continued into 2022.¹ The US Federal Reserve's acceleration of tapering plans and expected monetary policy normalisation saw investors shifting away from riskier asset classes. The spread of the Omicron variant and uneven vaccination rates across the world also affected global recovery and added to the volatility in global financial markets. On the domestic front, market stress rose in July and again in late September before gradually declining towards the end of 2021 (Chart 1.1). This followed more restrictive containment measures introduced in response to a surge in domestic COVID-19 cases in

Chart 1.1: Financial Market – Financial Market Stress Index (FMSI)



Note: The FMSI reached a peak of 28.2% at the onset of the COVID-19 pandemic in March 2020.

Source: Bloomberg, Reuters and Bank Negara Malaysia estimates

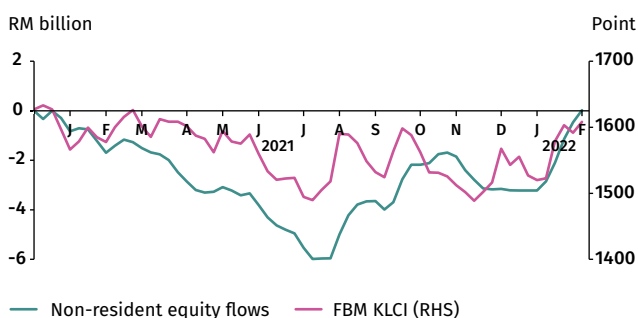
¹ Assessments refer to the period between July 2021 and February 2022 unless otherwise stated.

July and the rise in global bond yields, particularly long-term US Treasury (UST) yields amid rising inflation and expectations of a well-entrenched global recovery, in late September. Escalating geopolitical tensions towards the end of February 2022 further contributed to the risk-off sentiment in global markets including Malaysia. Despite these developments, domestic stress levels remained well below the levels observed at the onset of the COVID-19 pandemic between March and April 2020.

The domestic equity market continued to underperform most of its regional peers. Performance was weighed down by profit-taking activities in some healthcare and technology counters after the significant rise in prices of these counters in 2020. Additionally, market sensitivity to news flows on environmental, social, and governance (ESG) concerns on certain listed companies also contributed to the underperformance. Domestic institutional investors turned net sellers of domestic equities (2021: -RM12.0 billion; 2020: +RM8.2 billion; 3-year average: +RM8.8 billion) for the first time in three years, although the impact on equity prices was cushioned by sustained purchases by domestic retail investors and some non-resident investors. Retail investor activity increased further to account for 35% (2020: 34%) of total value traded in the equity markets and remains well above the three-year average share of 24%. Similar to earlier observations, retail investments have not, so far, been associated with an increase in leverage.² Household loans to purchase quoted shares remained small and stable at 0.5% of total banking system loans, unchanged from the 5-year average share of banking system loans. Non-resident participation in the equity market fell further to 20.1% (3-year average: 22.8%) of Bursa Malaysia's market capitalisation (Chart 1.2) on continued net selling by non-resident investors in the second half of 2021. This reversed in the first two

² Banks remained the key provider of share margin financing, accounting for close to three quarters of outstanding share margin financing in the domestic market.

Chart 1.2: Financial Market – Cumulative Non-resident Equity Flows and Performance of the Domestic Equity Market



Source: Bloomberg

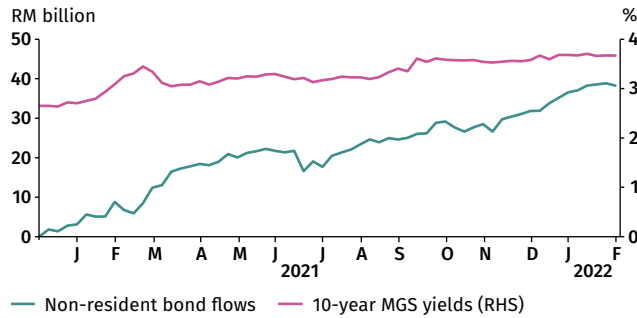
months of 2022 with net non-resident inflows (January to February 2022: +RM3.2 billion) recorded in tandem with rising commodity prices. Risks of heightened domestic market volatility remain. Escalating geopolitical tensions could lead to a global risk-off sentiment with spillovers into the domestic market. Actions by major commodity buyers and producers may also influence prices of commodity-related stocks. These factors, against a backdrop of rising global interest rates and domestic risk factors, could pose risk to domestic equities in 2022.

The bond market continued to record non-resident inflows

The domestic government bond³ market recorded non-resident net inflows amounting to RM17.4 billion between July 2021 and February 2022 (Chart 1.3). This was due in part to yield seeking activities and the increase of Malaysia's weightage in the JP Morgan Government Bond Index – Emerging Market (GBI-EM). Consequently, the share of non-resident holdings in the government bond market increased to 25.3% (June 2021: 25.1%; 5-year average: 24.4%) as at February 2022. Domestic institutional investors, such as banks, non-bank financial institutions (NBFIs) and insurers and takaful operators (ITOs), also remained active players in the government bond market. The healthy bid-to-cover (BTC) ratio (July 2021-February 2022 average: 2.14 times) reflects the sustained demand for Malaysian government bonds.

³ Refers to both Malaysian government bonds and sukuk, unless otherwise stated.

Chart 1.3: Financial Market – Cumulative Non-resident Bond Flows and Performance of the Domestic Bond Market



Source: Bank Negara Malaysia and Bloomberg

Despite strong non-resident inflows, yields on 10-year MGS increased by 39 bps to a peak of 3.68% in mid-October 2021 (end-June 2021: 3.29%) and remained around this level up to February 2022. This largely reflects the anticipated upward trajectory in global bond yields and higher domestic government bond issuances in 2022. The impact of higher bond yields on financial institutions has remained manageable thus far.⁴ The corporate bond market also continued to function smoothly. Sustained demand for corporate bonds as investors sought higher returns amid the low yield environment led to a moderation in yield spreads between 10-year AAA papers and 10-year MGS (July 2021-February 2022 average: 52.6 bps; July 2020-February 2021 average: 57.3 bps). Gross corporate bond issuances remained healthy as corporates took advantage of lower borrowing costs, although issuances remained below levels in 2020 (July-December 2021: RM54.9 billion; July-December 2020: RM65.5 billion), reflecting the uneven economic recovery in 2021.

For the rest of 2022, domestic bond yields are likely to experience further upward pressure amid monetary policy normalisation in the US and similar market expectations domestically, coupled with anticipated higher incoming government bond supply. This could lead to higher borrowing costs for financial institutions, businesses and the Government. Financial institutions would also

⁴ Based on a sensitivity analysis of banks' balance sheets to bond yield movements, an increase in bond yields of up to 89 bps and higher resultant funding costs could reduce banks' aggregate profits before tax and total capital ratio by up to 11% and 1 ppt, respectively. A similar bond yield shock could reduce the profitability of life and family funds, and general funds by up to 85% and 29%, respectively. Please refer the Chapter on 'Market Risk' in the Financial Stability Review for First Half 2020 for more details.

be susceptible to increased risk of higher mark-to-market losses from their investment portfolio. However, active risk management and hedging strategies, as well as strong liquidity buffers of financial institutions are expected to substantially mitigate any impact from higher bond yields.⁵ Malaysia's deep and liquid market, sustained demand for government bonds from the diverse investor base, as well as positive real yields will also continue to support orderly market conditions.

Between July 2021 and February 2022, the ringgit depreciated by 1.2% to close at 4.1993 against the US dollar, in line with the movements of other regional currencies. Despite the recent move by the US Federal Reserve to raise its Federal Funds Rate by 25 bps and heightened geopolitical tensions,

adjustments in the onshore foreign exchange (FX) market remained orderly. Average daily onshore FX transaction volume amounted to USD11.3 billion (3-year average: USD11.7 billion), while the 1-month MYR/USD implied volatility averaged at 4.1% between July 2021 and February 2022 (3-year average: 4.6%; 2021 regional average: 5.6%). Looking ahead, movements in the ringgit exchange rate are expected to be influenced by stronger domestic economic recovery, further monetary policy normalisation in the US and developments surrounding the military conflict in Ukraine. Amid continued uncertainty in the global economic outlook, flexibility in the exchange rate will continue to serve a critical role as a shock absorber by facilitating appropriate adjustments in the external sector and cushioning the domestic economy from adverse global shocks.

⁵ Refer to the Chapter on 'Financial Institution Soundness and Resilience' for further details.

CREDIT RISK

Overall financial performance of businesses improved, but risks remain amid an uneven recovery

During Phase 1 of the National Recovery Plan (NRP)⁶ which began in June 2021, firms across many sectors, especially those in the non-essential and high-touch segments,⁷ faced severe business disruptions following the reimposition of strict containment measures and mobility restrictions. However, as the containment measures were relatively less restrictive compared to the first Movement Control Order (MCO) in March 2020, some sectors were not as severely affected and quickly recovered once operating restrictions were eased in August. Of note, firms in the construction, manufacturing, restaurants and recreational activities sectors began to show signs of recovery towards the end of 2021. Firms that successfully pivoted towards greater digitalisation and automation of their operations were observed to fare better through episodes of operating and mobility restrictions. The recovery in businesses was also supported by some pent-up demand.

Reflecting these developments, the overall financial performance of businesses continued to improve, with the median interest coverage ratio (ICR)⁸ and operating margin increasing to 7.5 times and 7.6% (2Q 2021: 6.7 times and 7.2%; 2015-2019 average: 6.2 times and 6.6%), respectively (Chart 1.4). Corporates continued to shore up financial buffers and were cautious in taking on new debt. The aggregate cash-to-short-term debt ratio (CASTD)⁹ of businesses was sustained above the long-term average at 1.4 times (2015-2019 average: 0.9 times), while the debt-to-equity ratio stood lower at 21.8% (2015-2019 average: 23.2%). The share of firms-at-risk¹⁰ also continued to decline (4Q 2021: 20.9%; 3Q 2020, peak: 31.9%; 2015-2019 average: 21.4%) amid lower leverage, more

prudent controls over expenses in line with tighter cashflows, and a gradual recovery of economic activities.

These improvements, however, masked the uneven recovery observed in some sectors (Chart 1.5). Mining activities weakened due to lower production of both crude oil and natural gas following the closure of several facilities for maintenance purposes. Sustained weakness in tourism activity continued to affect the hotel sector. Average hotel occupancy rates remained below pre-pandemic levels, despite the strong pick-up in the fourth quarter of 2021 following the reopening of domestic inter-state borders. In the commercial real estate sector, pre-existing oversupply conditions continued to weigh on vacancy and rental rates of office and retail space. Demand for office and retail space has also been affected by more entrenched work-from-home arrangements and shifts in consumer behaviour towards online purchases (refer to the Box Article titled 'Evolving Spaces in the Wake of the Pandemic: Vulnerabilities from the Commercial Real Estate Sector'). While the major floods in December led to sudden operational disruptions, the overall financial impact on businesses was limited given the temporary nature of the loss in output and income.

Among listed entities, larger firms¹¹ generally remained financially resilient. The median ICR and operating margin for these firms stood at 7.5 times and 13.7%, respectively. Larger firms typically have multiple and more diversified revenue streams to support earnings, and higher capacity to roll out cost-efficiency measures. This has helped to mitigate losses arising from disruptions caused by the strict containment measures and mobility restrictions during Phase 1 of the NRP. Looking ahead, supply-related disruptions¹² and higher input costs could continue to weigh on corporate earnings. However, financial buffers accumulated over the years, particularly among larger firms, are expected to cushion the impact from these developments. Banks have remained vigilant over heightened risks from their larger corporate borrowers, as reflected in the intensified borrower engagements, proactive loan classifications and

⁶ There are four phases of the NRP, with Phase 1 having the most restrictive containment measures. During Phase 1 of NRP, only essential services were allowed to operate, with an operating capacity of 60% and 40% for private and public sectors, respectively.

⁷ Non-essential and high-touch segments include restaurants, hotels and recreational activities.

⁸ Prudent threshold for ICR is two times.

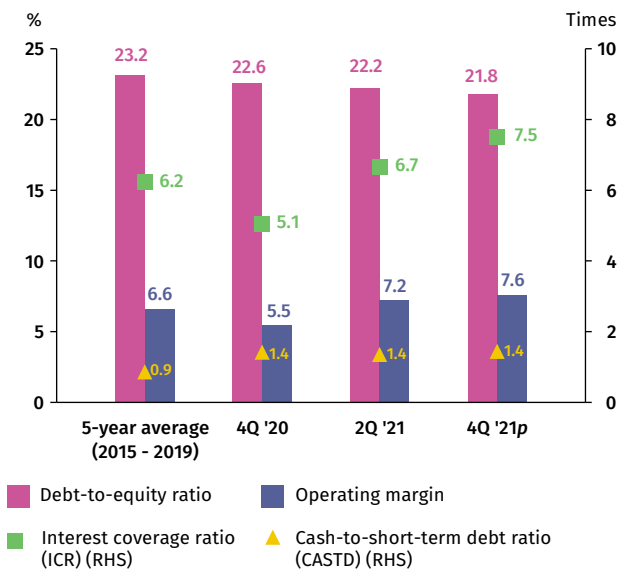
⁹ Prudent threshold for CASTD is one time.

¹⁰ Firms-at-risk are defined as listed non-financial corporates with ICR below the prudent threshold of two times.

¹¹ Based on the financials of top 120 listed companies which accounted for about 85% of Bursa Malaysia's market capitalisation.

¹² For instance, these may include labour shortages and adverse weather conditions which can result in lower oil palm output.

Chart 1.4: Business Sector – Key Financial Performance Indicators



p Preliminary

Note: Prudent thresholds for ICR and CASTD are two times and one time, respectively.

Source: S&P Capital IQ and Bank Negara Malaysia estimates

Chart 1.5: Business Sector – Operating Margin and Debt-servicing Capacity Indicators for Selected Sectors



p Preliminary

Note: 1. Prudent threshold for ICR is two times.

2. [...%] refers to loans to the sector as a share of total banking system loans.

Source: S&P Capital IQ and Bank Negara Malaysia estimates

continued use of management overlays to bolster provisions for vulnerable corporate borrowers. This has shored up the resilience of banks against potential risks of a significant deterioration in asset quality.¹³ Banks also continue to be forthcoming in working with viable corporate borrowers to pre-emptively reschedule or restructure their debt to help restore cashflows and avert premature failures.

Compared to larger corporates, SMEs were more affected by the pandemic given their smaller cash buffers and generally thinner profit margins. The stricter containment measures in the third quarter of 2021 had constrained revenues for a high number of SMEs. Based on a survey conducted by the Bank between October and November 2021, almost half of the SME respondents reported a decline in revenue. Among these SMEs, a majority faced a drop in revenue of up to 50%.¹⁴ High input costs and labour shortages added further pressure

on operating expenses and the production capacity of SMEs. Some SMEs were also affected by the floods in December. Given these challenges, SMEs continued to make up the highest number of firms benefitting from repayment assistance (95% of total business loan accounts approved for rescheduling and restructuring (R&R)).

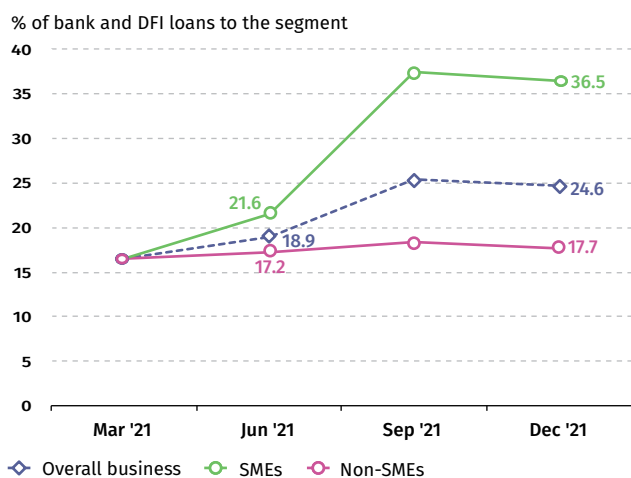
SME loans under repayment assistance remained high at 36.5% of total SME loans (or 5.7% of total loans from banks and development financial institutions (DFIs)) (Chart 1.6). The share of SMEs that rolled over their repayment assistance with banks also edged higher towards the end of 2021. This was mostly driven by SMEs in the hotels, wholesale and retail trade, and transport and storage sectors that experienced a slower recovery. New R&R applications by SMEs have, however, moderated significantly from its peak in July 2021 (Chart 1.7),¹⁵ indicating greater confidence among SMEs of their ability to service their debt. Repayment assistance and other measures by financial institutions, the Government and the

¹³ Refer to the Information Box on 'Banking Institutions' Provisioning Practices to Mitigate Elevated Credit Risk from the Pandemic' in the BNM Financial Stability Review for First Half 2021 for further details.

¹⁴ Meanwhile, surveys from the Federation of Malaysian Manufacturers (FMM) and the Associated Chinese Chambers of Commerce and Industry of Sarawak (ACCCIS) indicated that more than 80% of respondents saw revenues decline due to the NRP.

¹⁵ The spike in July coincided with the re-introduction of R&R with more flexible conditions under the PEMULIH package during the NRP.

Chart 1.6: Business Sector – Share of R&R Loans by Segment



Source: Bank Negara Malaysia

Bank, including flood relief programmes,¹⁶ have also contained any notable increase in defaults among SMEs. Nevertheless, SMEs in sectors most affected by the pandemic are closely monitored by banks as support measures are progressively unwound. A sustained economic recovery will mitigate credit losses from banks exposures to SMEs. For SMEs that continue to face difficulty servicing their loans, enhancements to debt workout mechanisms for SMEs under the Credit Counselling and Debt Management Agency (Agensi Kaunseling dan Pengurusan Kredit, AKPK) could help avert large-scale insolvencies.¹⁷

Financing remains available for viable and creditworthy borrowers

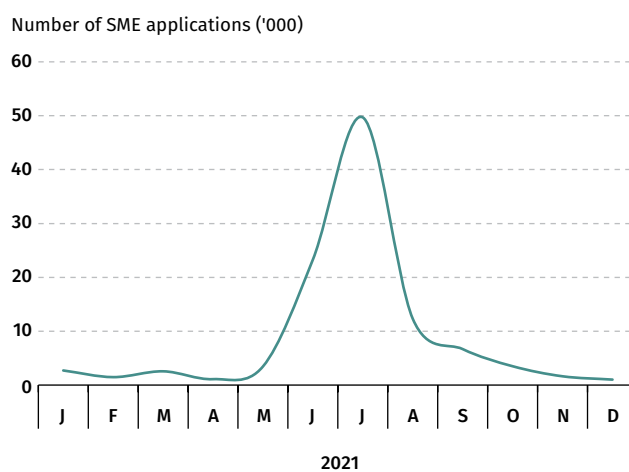
Banks continued to facilitate credit intermediation activities in the second half of 2021. Outstanding business loans¹⁸ expanded by 4.8% (June 2021: 1.3%) on an annual basis. This was driven by sustained demand for working capital loans. Loan disbursements recorded a strong growth in 2021, reversing the negative growth observed in the

¹⁶ The Bank established the Disaster Relief Facility 2022 (DRF), a RM500 million financing facility made available to SMEs, including microenterprises, affected by the December 2021 floods. A maximum amount of financing of up to RM700,000 is available per SME and up to RM150,000 per microenterprise. DRF can be used by SMEs (i) to cover the costs of repairs and/or replacement of assets for business use (e.g., plants and machinery) which have been damaged by floods; and/or (ii) for working capital.

¹⁷ Refer to the Information Box on 'Debt Resolution Mechanisms for Viable Businesses Facing Temporary Financial Distress' in the BNM Financial Stability Review for Second Half 2020 for further details.

¹⁸ Refers to loans and financing from the banking system and DFIs.

Chart 1.7: Business Sector – Monthly R&R Applications by SMEs



Source: Bank Negara Malaysia

previous year (2021: 27.1%; 2020: -5.7%), in line with the gradual re-opening of the economy. Loans to SMEs were further bolstered by the additional allocation under BNM's Fund for SMEs¹⁹ (BNM's Fund) amounting to RM10 billion in 2021. Since the onset of the pandemic, financing of close to 53,000 SME accounts has been approved under BNM's Fund, amounting to RM19 billion. Notably, there has been growing interest in the SME Automation and Digitalisation Facility,²⁰ indicating increased efforts among SMEs to pivot their operations and enhance productivity in the new normal. This will support business resilience over the longer term. Meanwhile, corporates continued to tap on the bond market for funds (2021 annual growth of outstanding corporate bonds: 4.2%; 2020: 6.6%).²¹ External debt of corporates²² expanded at a faster pace (2021: 15.3%; 2020: 5.2%; 5-year average: 7.5%), driven by a number of companies that raised external funding to support their overseas operations and intercompany borrowings of multinational corporations in Malaysia.

¹⁹ Facilities under BNM's Fund include the Targeted Relief and Recovery Facility (TRRF), Agrofood Facility (AF), Business Recapitalisation Facility (BRF), Low Carbon Transition Facility (LCTF), SME Automation and Digitalisation Facility (ADF), All Economic Sectors Facility (AES), Micro Enterprises Facility (MEF), PENJANA Tourism Financing (PTF), and High Tech Facility – National Investment Aspirations (HTF-NIA). For further details, refer to www.bnm.gov.my/covid19/

²⁰ SME Automation and Digitalisation Facility is aimed at incentivising SMEs to automate processes and digitalise operations to improve productivity and efficiency.

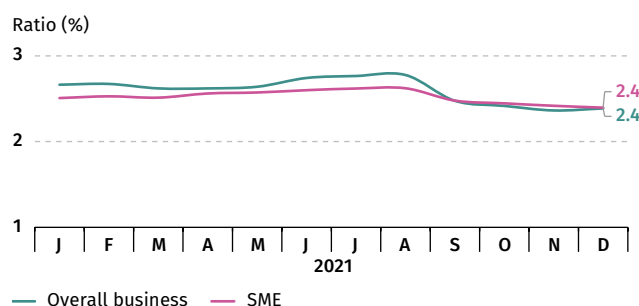
²¹ Refers to both bonds and sukuk, including short-term papers, unless otherwise stated. Excludes issuances by Cagamas, financial institutions and non-residents.

²² These instruments include offshore loans, offshore bonds and notes, and non-residents holdings of domestic debt securities.

Risks from higher corporate debt levels remained limited. Given the uncertainty in business prospects and uneven recovery in business conditions, firms generally remain cautious in taking on new debt as reflected in the lower annual business loan applications (2021: -3.6%; 2020: -11.1%). Average monthly repayments in 2021 have also surpassed pre-pandemic levels by 21%. Growth of outstanding business loans and corporate bonds consequently remained around or below pre-pandemic averages (2021: 4.8% and 4.2%, respectively; 2015-2019 average: 4.9% and 9.7%, respectively). Despite a slight pickup towards year end, overall net corporate bond issuances moderated compared to the previous year (2021: RM21.4 billion; 2020: RM30.7 billion). A survey to banks²³ also suggests that near-term concerns surrounding cashflow, rather than high overall leverage, remain the key contributor towards SME loan rejections. This indicates that current SME leverage remains within banks' risk tolerance levels.

The quality of business borrowings has not, so far, shown significant deterioration. The overall business loan impairment ratio remained low at 2.4% (Chart 1.8), owing to support measures that remain in place, particularly for SMEs. While leading indicators from banks remain elevated, they also reflect improvements as loans with increased credit risk²⁴ grew at a slower pace (2021: 13.5%; 2020: 36.4%). During the year, eight corporate bond issuers (or 0.7% of total outstanding domestic bonds; 2020: 5 issuers or 2.2% of total outstanding domestic bonds) were downgraded due to firm-specific vulnerabilities. Risks from non-financial corporates' external debt also remained largely contained. Three-quarters of corporate external exposures are of medium- to longer-term tenures and largely hedged against exchange rate volatility. This mitigates repayment, rollover and currency risks for these corporates. External debt-at-risk²⁵ for corporates remained low at 6.6% (2020: 6.9%) of total corporate external debt.

Chart 1.8: Business Sector – Gross Impaired Loans



Source: Bank Negara Malaysia

An improvement in business conditions is expected to further support asset quality going forward. Business sentiment picked up towards the end of 2021 following the gradual easing of movement restrictions. Corporate default risk²⁶ indicators have continued to improve (4Q 2021: 0.224%; 2Q 2021: 0.396%; 4Q 2020: 0.787%). The business sector outlook, however, remains subject to downside risks, including from the durability of economic recovery amid developments surrounding the pandemic. As noted earlier, these risks are assessed to be mitigated in the near term by the following factors:

- i. Improvements in business resilience on the back of a recovery in earnings since 2020 will lend some support to firms' debt-servicing capacity;
- ii. Measures supporting the economy under Budget 2022,²⁷ existing credit guarantee schemes²⁸ and on-going R&R by banks will continue to support firms and mitigate risks of a potential spike in business impairments; and
- iii. Established informal debt resolution mechanisms to facilitate efficient debt workouts between borrowers and lenders will help contain widespread premature bankruptcy proceedings.

Over a longer horizon, stress tests conducted by the Bank further affirm that banks' capital buffers are sufficient to absorb a potential increase in credit losses from the business sector, including from large, listed firms, under adverse stress scenarios.²⁹

²⁶ As tracked by the Bloomberg Default Risk (DRSK) indicator which measures the probability of default over a one-year horizon for the sample of Bursa-listed firms. The indicator is based on the Merton distance-to-default measure, along with additional economically and statistically relevant factors.

²⁷ These include the increase of RM4.5 billion in the second half of 2021 allocated under BNM's Fund for SMEs and additional RM20 million to aid micro-entrepreneurs from low-income groups through iTEKAD.

²⁸ Credit guarantees by Credit Guarantee Corporation Malaysia Berhad (CGC) and Syarikat Jaminan Pembiayaan Perniagaan Berhad (SJPP).

²⁹ Refer to the section on 'Assessing the Resilience of Financial Institutions' for further details.

²³ The Credit Officer Opinion Survey to Banks (3Q 2021) covered respondents from 15 banks, comprising domestic banking groups, locally-incorporated foreign banks and DFIs.

²⁴ Classified as Stage 2 loans under the Malaysian Financial Reporting Standard 9 (MFRS 9).

²⁵ Based on offshore loans raised and bonds issued by high-risk corporate borrowers.

Evolving Spaces in the Wake of the Pandemic: Vulnerabilities from the Commercial Real Estate Sector

Globally, the commercial real estate (CRE) sector has been impacted by the pandemic, as movement restrictions adversely affected economic activity and the demand for commercial property. The world also experienced pivotal shifts in working and spending patterns. These will likely have a lasting impact on how future physical spaces are utilised, particularly office and retail commercial spaces. In many countries, the size of the CRE sector, its heavy reliance on debt funding, and strong interconnectedness with the real economy make the CRE sector a potential source and amplifier of risk to financial stability. Adverse shocks such as the recent COVID-19 pandemic can negatively impact CRE prices and the financials of CRE borrowers. This in turn increases risk to lenders, and reduces investments into CRE, with knock-on effects on the financial sector and real economy. Such issues are less pervasive in Malaysia, given that the size of the CRE market and its direct linkages to the financial system are smaller than most other countries.¹

This article comprises three sections. The first section explores key structural trends observed in the CRE sector, including examples of how industry players globally and locally are adapting to the changes. The second section examines the various conceptual linkages that exist between the CRE sector and financial sector, including those beyond direct credit exposures to the banking system. The article then concludes with a discussion on the potential implications for financial stability and the broader economy in Malaysia.

Recent structural trends in the commercial real estate market

The CRE sector, like many others, has seen pivotal shifts brought on or accelerated by the pandemic, many of which will likely continue well after the health crisis recedes. Globally, three structural trends are notable: a greater shift towards flexible working arrangements, the accelerated pace of digital transformation, and an increased focus on health and safety.

While the pandemic has accelerated the adoption of flexible working arrangements, it has not removed the need for office spaces altogether. Various workplace surveys indicate the continued need and desire for employees to return to the office for at least part of the week when movement restrictions ease. According to a survey on office worker preferences,² 81% of Malaysian office workers believe the workplace will continue to be vital, at least in the short term. This reflects the importance attached to social interactions in physical settings which continue to be a key aspect of office life in Malaysia. Office spaces will thus need to be able to accommodate hybrid working arrangements and evolving needs of tenants, with flexible space and design features for emerging work patterns. This entails investing in tools, technologies and infrastructure that would allow effective remote working. These demands are likely to further reduce the appeal of older buildings compared to newer buildings equipped with more modern and sophisticated infrastructure. In major cities such as London and Singapore, old office buildings are increasingly being re-purposed in response to changing tenancy needs, with some buildings converted into dwellings and art centres. While this process has been going on for some time before the pandemic, it has been further accelerated by the effects of the pandemic.

The rise of e-commerce is also expected to transform, rather than replace, the role of physical shopping malls. In Malaysia, online retail trade activity grew on average by 18.4% in 2021,³ with e-commerce expected to nearly double its current share of total retail sales within the next two years.⁴ Retailers and mall owners have responded to this shift by pursuing omni-channel retailing and offering convenience services as they strive to balance the high-touch shopping experience that consumers desire, against their need for a safe and efficient shopping experience. More retailers are also re-configuring their physical presence in malls to offer a

¹ For many European countries, direct lending to the CRE sector comprised on average a third of total bank lending to businesses in 2019, reaching higher than 50% in the United States and Estonia (Source: International Monetary Fund, 2021).

² Savills Survey published in November 2021. Survey respondents comprised 50% non-managerial, 40% managerial and 10% senior management.

³ See Chapter 1 of the Economic and Monetary Report 2021.

⁴ E-commerce comprised 7% of total retail sales in 2020 and is forecasted to grow to 12% by 2023 (Source: Euromonitor and eMarketer).

novel and more immersive experience,⁵ in order to maintain their appeal to customers who have become more accustomed to shopping online.

Physical distancing norms have also rapidly transformed the way people inhabit and interact in physical spaces. Measures that promote safety, health and wellbeing introduced during the pandemic have become the new norm, particularly for commercial spaces with high footfall such as shopping malls, offices, and hotels. This is likely to stay even after the lifting of restrictions. Safety-conscious tenants and visitors will increasingly seek spaces that pay careful attention to hygiene and sanitisation procedures and are equipped with the requisite facilities. A survey of Malaysian office workers reveals that 70% of respondents place high importance on cleanliness and 69% on air quality to be comfortable in a workplace.⁶ Commercial building owners have begun incorporating designs that promote contactless access, such as facial recognition, hands-free doors, and touch-free elevator systems. Regular deep cleaning of premises and UV disinfection systems are also among the more visible changes introduced in many commercial spaces to attract and retain tenants, as firms increasingly strive to provide a safe working environment for their employees and visitors.

Financial stability risks from the commercial real estate sector

Historically, CRE markets have posed major risks to the balance sheets of financial institutions, playing an amplifying role in financial crises globally. This was the case in Sweden in the 1990s, as well as in countries such as Ireland and the United States during the 2007-2009 Global Financial Crisis, where disorderly adjustments in CRE prices contributed to financial stress.⁷

In general, risks to financial stability posed by the CRE sector have been observed to be more significant than the housing market.⁸ Three key factors contribute to this. First, lending to the CRE sector is typically concentrated in loans for construction and development, which tends to be riskier than loans to purchase properties (i.e., end-financing). Given the large scale of commercial development projects, financing for such projects can be sizeable, commonly involving syndication across multiple banks. If such loans are improperly structured or monitored, the failure of a single project could lead to significant losses upon default and potentially affect multiple lenders simultaneously. Second, construction periods are inherently longer for commercial developments compared to residential projects.⁹ This can result in situations where a temporary increase in rentals for commercial spaces prompts construction that outstrips the underlying demand, creating an oversupply that takes longer for the market to absorb. Third, default probabilities for CRE loans can be more cyclically sensitive compared to housing loans. Like housing markets, evidence suggests that CRE markets are closely intertwined with business cycles.¹⁰ During an economic downturn, however, borrowers in the CRE sector have less incentive to avoid default compared to housing loan borrowers, who tend to be predominantly owner-occupiers.

Developments in the CRE sector can also affect the financial system through the collateral channel. Borrowers, specifically businesses, pledge properties they own as collateral to obtain bank financing. When the market value of the CRE asset increases, businesses can access more loans while maintaining the same financing margin. Conversely, a sudden price decline in the CRE collateral could increase potential losses to banks in the event of default.

⁵ Examples include malls that feature more indoor recreational activities (e.g., skating rink, rock climbing gym) and retailers offering 'experience concierge' or social media-ready photo backdrops and on-demand personal stylists to enhance the retail experience.

⁶ Source: Savills Survey (November 2021).

⁷ See Englund (1999), Ellis and Naughtin (2010), and Olszewski (2012).

⁸ The difference in impact during the Global Financial Crisis was particularly apparent in the United States, the United Kingdom and Ireland, where CRE prices fell by 20-30 percentage points more than house prices. For a more in-depth discussion of the contributing factors, see Ellis and Naughtin (2010).

⁹ This is common in Malaysia, as the construction of commercial buildings is not required by law to be completed within a specified period, unlike residential projects (e.g., 2 years for landed residential properties).

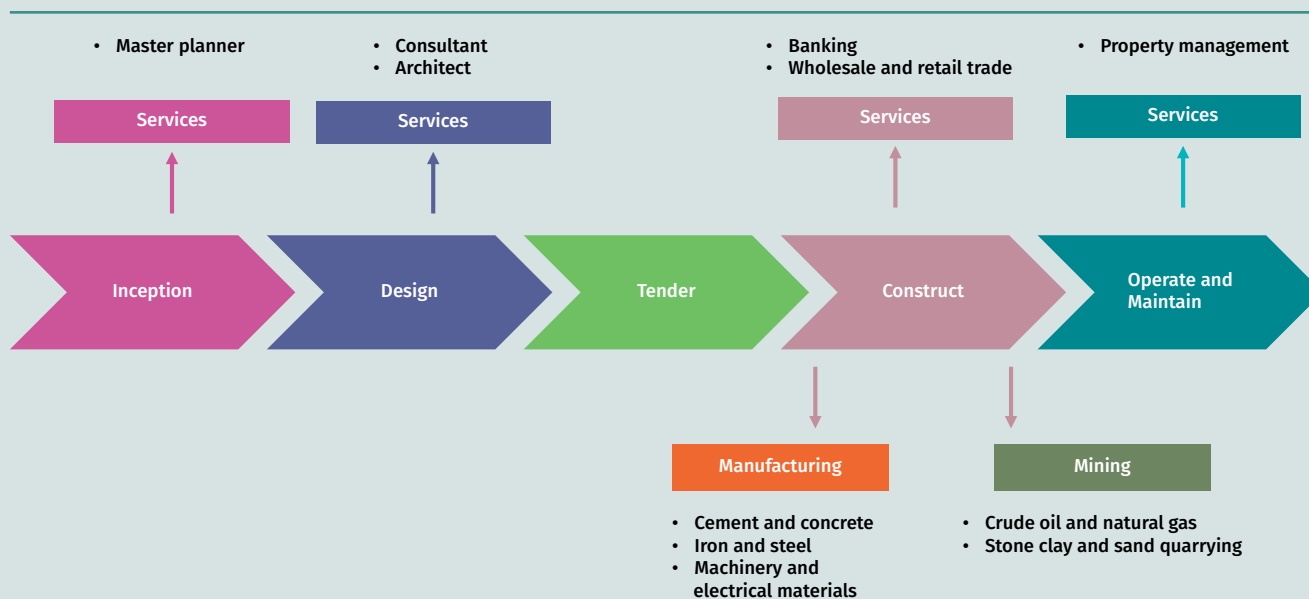
¹⁰ See the European Systemic Risk Board's 'Report on commercial real estate and financial stability in the EU' (2015).

Risks to financial stability can also arise from transmission channels between the CRE sector and the financial system which are less direct.

First, commercial and residential real estate share common production factors such as land and building materials. Therefore, prices in one property segment are likely to influence values in the other property segment, especially within the same location. Thriving commercial spaces also add value to, and improve property values in surrounding neighbourhoods, as residents can benefit from proximity to amenities typically offered by retail spaces.¹¹ Conversely, it can be inferred that prolonged weaknesses in commercial properties may weigh on the prices of other surrounding properties and affect future house prices in the vicinity.

Second, the share of CRE to construction sector value-added accounted for 11% in 2021 (0.4% of GDP). While the construction sector only constitutes a small share of the overall Malaysian economy (2021: 3.7% of GDP), it is highly integrated with other economic sectors through both backward and forward linkages. These linkages have the potential to create high multiplier effects to the economy. More specifically, the manufacturing, services and mining sectors are key segments within the CRE supply chain, where construction of CRE relies heavily on inputs from these related industries (Diagram 1). As such, a slowdown in CRE activity would not only affect the construction sector, but also activities across other related industries.

Diagram 1: Illustration of Primary Level Value Chain of the Construction Industry



Source: Bank Negara Malaysia and Construction Industry Development Board

Third, the construction sector and its related industries also play a significant role in creating employment opportunities for both the skilled and unskilled workforce. This is especially true in Malaysia, where the number of workers employed in the construction and real estate sectors remain sizeable, comprising 9% and 7.3% of total workers, respectively, as at the fourth quarter of 2021.¹² In the event of a shock to the CRE sector, a deterioration in employment and income conditions could adversely impact the ability of affected workers to service their debt. A recent study conducted by the Department of Statistics, Malaysia found that employees in the construction sector and real estate services were among those particularly affected during the pandemic, with slightly over half of respondents employed in these sectors suffering a decrease in monthly income due to the pandemic.

¹¹ See Kam et al (2015) and Sale (2015) for case studies on the impact of locational attributes to house prices in Mukim Rawang, Malaysia and South Africa, respectively.

¹² Source: Department of Statistics, Malaysia.

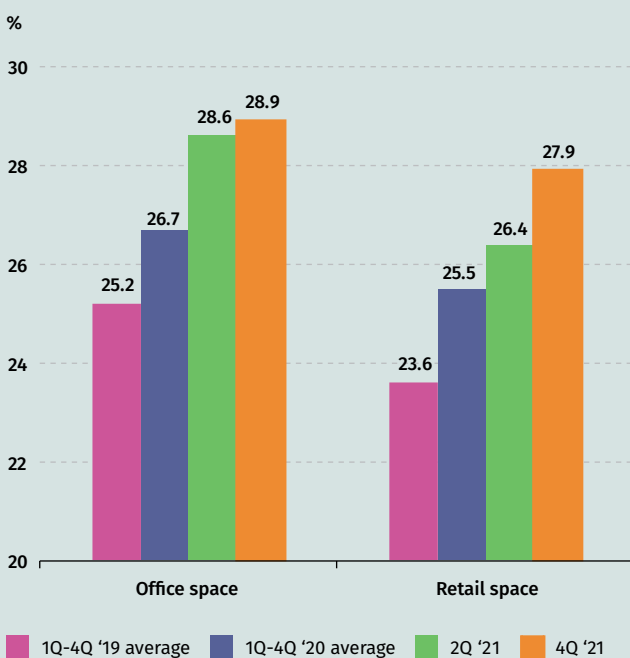
These indirect transmission channels can lead to a broader deterioration in banks' asset quality arising from exposures to businesses in industries related to the CRE sector, residential property lending and households that are employed across the supply chain.

Implications of post-pandemic structural trends on financial stability

In Malaysia, post-pandemic structural trends are likely to add to pre-existing imbalances. Vacancy and rental rates have worsened since the onset of the pandemic (Chart 1) and could take longer to improve given the structural shifts observed.

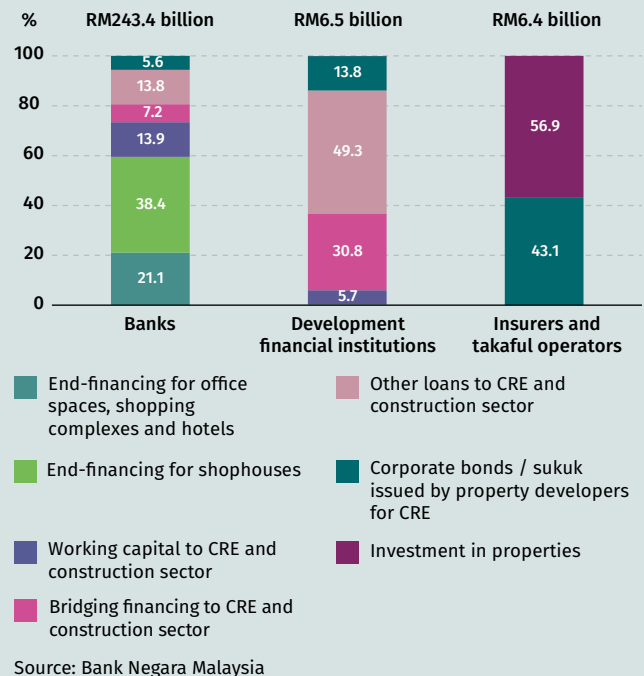
Direct linkages between the CRE sector and the financial system are, however, limited thus substantially mitigating risks to financial stability. Relative to many countries,¹³ linkages between the CRE sector and the financial system are significantly lower in Malaysia, with credit exposures to the CRE sector comprising 7.8% of total banking system assets. The share of CRE exposures to overall property exposures of financial institutions has declined in the past decade, reflecting banks' cautiousness towards the sector. The largest share of bank exposures to CRE is in the form of end-financing for the purchase of shophouses (Chart 2). Historically in Malaysia, trends for shophouses typically follow developments in the housing market, which makes shophouses more resilient relative to other CRE segments, further mitigating financial stability risks.¹⁴ The quality of overall bank lending to the sector is also sound, with impairment ratios remaining low at 1.5%. The share of Stage 2 loans has risen to 12% (June 2021: 9.4%), in line with an expected deterioration in asset quality as a result of COVID-19 developments. This increase, however, to some extent reflects conservative loan staging and provisioning practices of banks during the pandemic in view of continued uncertainty in the credit outlook.¹⁵

Chart 1: Vacancy Rates for Office and Retail Space in Klang Valley



Source: Jones Lang Wootton

Chart 2: Financial Institutions' Exposures to the CRE Sector



Source: Bank Negara Malaysia

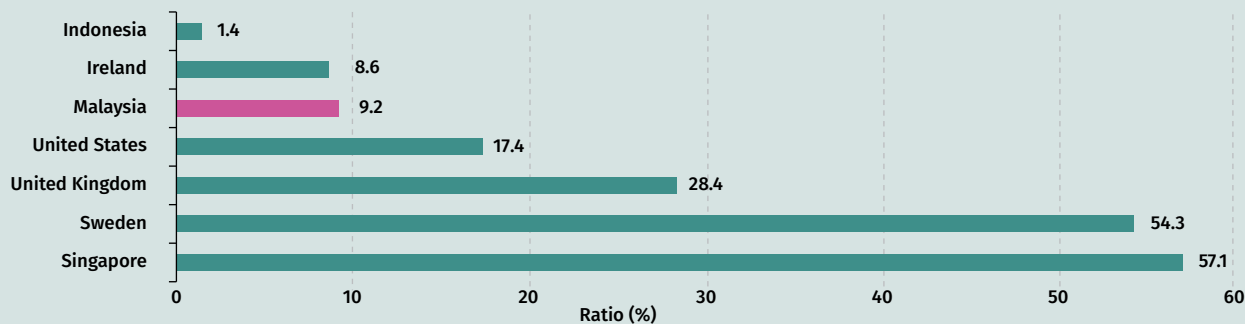
¹³ See footnote 1.

¹⁴ This reflects the significant portion of loans to purchase shophouses by households (57% share by value and 73% by number of accounts). Refer to the Chapter on 'Risk Developments and Assessment on Financial Stability' in the BNM Financial Stability and Payment Systems Report 2017 publication for details.

¹⁵ Refer to the Chapter on 'Financial Institution Soundness and Resilience' for further details.

Risks from broader contagion are also contained by the relatively small CRE market in Malaysia (Chart 3). Experience shows that foreign investors and cross border flows to CRE can amplify boom-bust cycles.¹⁶ However, the limited presence of foreign investors in the property sector in Malaysia (0.3% of total property transactions in 2020) reduces the likelihood of cross border investments amplifying contagion risk. Meanwhile, Malaysian real estate investment trusts (REITs), which are mostly funded by large institutional investors such as pension funds, remain a nascent and small market, representing less than 3% of total Bursa market capitalisation.¹⁷ While the larger¹⁸ REITs experienced sharp declines in income during the pandemic, the impact on financial institutions has been relatively muted given their limited holdings.

Chart 3: CRE Asset-to-GDP Ratio by Country



Note: Total CRE asset value is measured by the size of professionally-managed real estate investment estimated by MSCI Incorporated.

Source: MSCI Incorporated and Bank Negara Malaysia estimates

From the collateral channel, 4.5% of outstanding bank loans (excluding end-financing for the purchase of property) are secured by CRE. 92% of this are extended to businesses for working capital and construction purposes. About 186,000 units of commercial properties were used as collateral by businesses to secure loans totaling RM76 billion or 12.1% of outstanding bank loans to businesses. Businesses in the wholesale and retail trade sector make up a much higher proportion of such loans, with mainly shops owned by the borrowers being pledged as collateral. Credit risks from property-secured business loans are limited, as reflected by the low impairment ratio (2.3%), with the bulk (88%) of property-secured loans to businesses fully collateralised against the property value. Borrowers from the wholesale and retail trade sector who operate out of their own premises also have a strong incentive to meet their loan obligations in order to continue operating from the premise. Loans extended to households employed within the construction and real estate sector are also low at 7.7% of total banking system loans to households, thereby significantly mitigating risks arising from this channel. Importantly, financial stability risks from the CRE sector continue to be mitigated by prudent lending and provisioning standards that are observed by banks.¹⁹ This is further reinforced by strengthened prudential requirements applied to CRE lending. Notably, to finance development and construction projects, banks are expected to effectively manage risk concentrations and consider a broad range of factors when assessing the viability of projects. This includes demographic indicators (e.g., population and employment trends), as well as industry trends that could weigh on current and prospective lease terms, rental rates, and valuations.

While pre-existing issues of commercial property oversupply have so far not posed a significant risk to the financial system and broader economy, a sharp and protracted slowdown in CRE activity could have an indirect negative impact on other industries such as the manufacturing sector, ancillary business services (e.g., transportation, architectural, legal support, valuers, and property consultants) and wholesale trade providers. This could in turn affect employment prospects within these sectors and eventually weigh on the debt-servicing capacity among some households. As such, progress in resolving the existing glut, compounded by large incoming supply of office and retail spaces, remains important. More specifically, the long-term sustainability of the overall CRE sector will require stronger resolve and effort by industry players to re-strategise and, where needed, reform commercial spaces to take into account growing risks to prices and the structural shifts shaping demand.

¹⁶ See Aizenman and Jinjarak (2009).

¹⁷ Source: CEIC Data.

¹⁸ The top 5 REITs by market capitalisation experienced declines in income averaging 34% in 2021 compared to pre-pandemic income levels.

¹⁹ Refer to the Information Box on 'Banking Institutions' Provisioning Practices to Mitigate Elevated Credit Risk from the Pandemic' in the BNM Financial Stability Review for First Half 2021 for further details.

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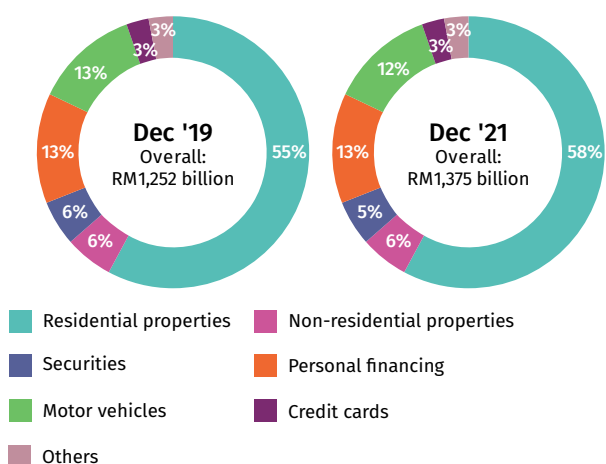
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Credit risk from the household sector remains manageable, supported by continued assistance for distressed borrowers, and improving economic and labour market conditions

Household debt³⁰ grew at a slower pace of 4.1% (June 2021: 5.5%) year-on-year as at December 2021 due to the reimposition of containment measures in the third quarter. The growth in debt was primarily driven by housing loans as households took advantage of incentives under the Home Ownership Campaign which ended on 31 December 2021. Compared to the pre-pandemic period, housing debt – generally considered to be less risky – as a share of household debt has increased. Meanwhile, personal financing (-0.3%) and outstanding credit card debt (-1.3%) recorded declines in the second half of 2021 over the same period in 2020, in line with lower discretionary spending during periods of stricter containment measures. Consequently, the share of consumption credit as a proportion of aggregate household debt declined further to 31.1% (December 2019: 32.7%) (Chart 1.9). Quarter-on-quarter, household borrowing picked up towards the end of the year as movement restrictions eased (Chart 1.10). The ratio of household debt-to-GDP declined to 89% on the back of stronger nominal GDP growth (Chart 1.11) but remains on the higher end compared to regional economies (Chart 1.12).

Chart 1.9: Household Sector – Composition of Debt by Purpose

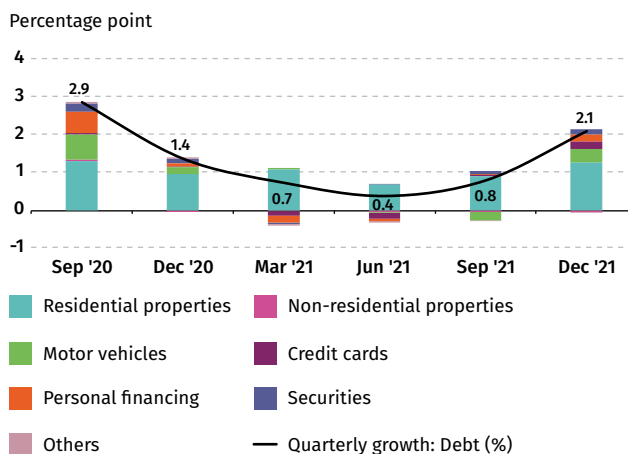


Note: Figures may not add up due to rounding

Source: Bank Negara Malaysia

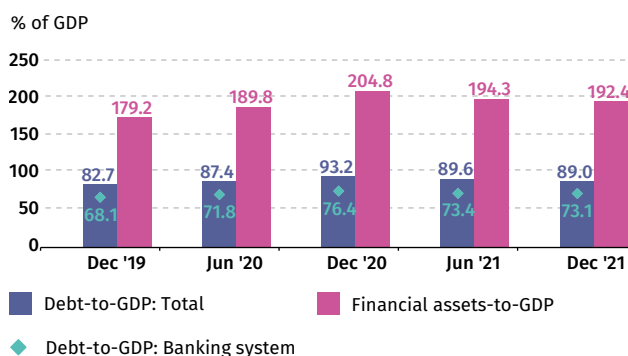
³⁰ Extended by both banks and non-bank financial institutions.

Chart 1.10: Household Sector – Quarterly Growth of Debt



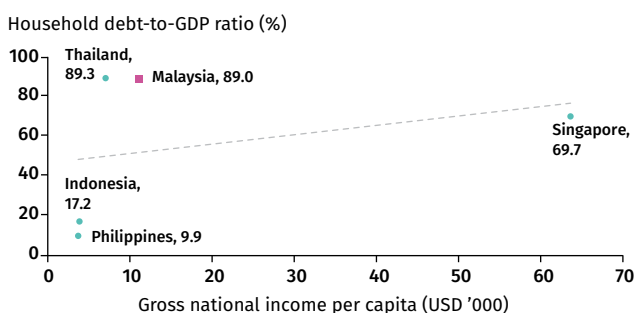
Source: Bank Negara Malaysia

Chart 1.11: Household Sector – Key Ratios



Source: Bank Negara Malaysia, Bursa Malaysia, Department of Statistics, Malaysia, Employees Provident Fund and Securities Commission Malaysia

Chart 1.12: Cross-country Comparison of Household Debt



Note: 1. Figures are based on the latest available data published.
2. Household debt-to-GDP ratio for Indonesia and Philippines covers banking system household debt only and sourced from Bank for International Settlements and national authority, respectively.

Source: Bank Negara Malaysia, Bank for International Settlements, national authorities, World Bank and Bank Negara Malaysia estimates

Bank lending to households was sustained (4.3% year-on-year growth; June 2021: 5.2%) in the second half of 2021. About 71% of new banking system disbursements³¹ were to borrowers earning more than RM5,000 per month. Lending standards remained sound with the median debt service ratios (DSRs) of newly-approved and outstanding household loans maintained at 44% and 35% (June 2021: 44% and 35%), respectively. Around two-thirds of new loans approved in 2021 had DSRs below 60%, little changed from the share before the pandemic. Overall, the share of borrowers with DSRs exceeding 60% has also remained stable at around a quarter of total household borrowers. The bulk (67%) of these credit exposures are held by borrowers earning more than RM5,000 per month who typically have larger buffers to sustain loan repayments in the event of financial shocks. Most of these loan accounts continue to be performing with impairment levels among these borrowers remaining low at 0.7%. Forward-looking indicators such as the share of loans classified by banks to be of higher risk for this segment, however, point to an expected increase in impairments (Stage 2³² loans ratio: 9.6%; June 2021: 7.4%) largely in line with trends observed for overall household loans.

Banks remain forthcoming in providing access to home financing. With close to 60% of household debt comprising housing debt, risks can arise from higher-than-expected incidents of default, as well as losses in the event of default, due to the softer housing market. This risk is assessed to be contained as households remain generally resilient against a potential decline in house prices and weaker rental market activity. As at end-2021, the median loan-to-value (LTV) ratio of outstanding housing loans stood at 65.2% (March 2020: 66.5%). This provides ample buffers for borrowers against a steep correction in house prices.

The growth in housing loans continues to be driven by owner-occupiers,³³ who accounted for two-thirds of the increase in housing debt. Borrowers earning below RM10,000 per month accounted for close to 90% of new housing loans approved to owner-occupiers. The bulk of these newly-approved loans were to first-time home buyers with higher margins of financing. In the second half of 2021, 73.6% of house financing to first-time home buyers have

LTV ratios exceeding 90%. Such financing can be associated with a higher possibility of falling into negative equity³⁴ position. Nonetheless, credit risks from first-time home buyers are partly mitigated by mortgage guarantees and prudent loan affordability assessments carried out by the banks. In particular, prudent loan affordability assessments remain crucial in averting long-term financial hardship and exclusion which can result from households losing their homes to foreclosure. Housing unaffordability,³⁵ however, remains a major barrier for households to access home financing. Broader reforms to improve housing affordability therefore remain important to reduce the debt burden of households in line with what they can afford and avert risks of future financial hardship.

Despite the search for yield given the low interest rate environment, there have been limited signs of credit-fuelled speculative investments in the housing market. On an annual basis, the growth in housing loans taken by owner-occupiers (+7.4%) continued to outstrip that by household investors³⁶ (+5.7%). Credit risks are typically higher among household investors who are more likely to default if their housing loans fall into negative equity or when faced with a loss of rental income. Banks have maintained prudent lending standards when financing household investors by applying lower DSR and LTV ratios compared to borrowers who are owner-occupiers. Consistent with this, about 75% of household investors are those earning more than RM5,000 per month. Meanwhile, new financing extended to household investors earning below RM5,000 per month are largely associated with house purchases in the lower- and mid-priced market segments (below RM500,000). Risks of a sharp correction in house prices in this market segment are generally lower given sustained demand. Further, prudent DSRs were observed for this borrower segment, in line with their affordability (around 70% of borrowers had DSR below 60%). In addition, only 1.2% of investors were in a negative equity position. Collectively, these factors continue to mitigate risks stemming from debt exposures of household investors. Overall, total bank exposures to investors with impaired loans or in a negative equity position remained low. The share of investors' Stage 2 loans increased further to 2.2%

³¹ Excludes credit cards.

³² Refers to exposures that have exhibited deterioration in credit risk, for which banks are required to set aside provisions based on lifetime expected credit losses under Malaysian Financial Reporting Standard 9.

³³ Proxied by individual borrowers with one housing loan.

³⁴ Where the outstanding housing loan exceeds the collateral value, in this case, the house price.

³⁵ Refer to the Information Box on 'Developments in the Residential Property Market' for further details.

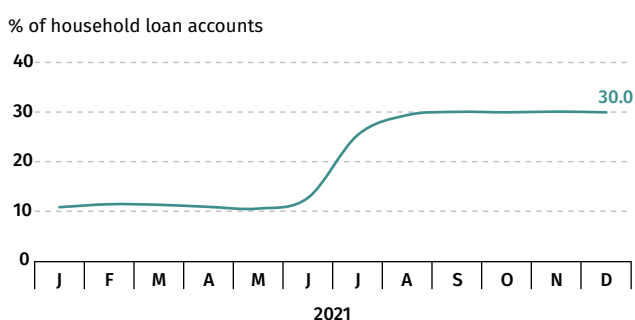
³⁶ Household investor refers to an individual borrower with more than one housing loan.

of total bank exposures to households (June 2021: 1.4%). This increase is largely in line with the higher share of total household loans classified as Stage 2 by banks following banks' pre-emptive loan staging practices for loans under repayment assistance.³⁷ Given the flexible enrolment criteria for existing repayment assistance programmes, actual debt-servicing capacity of household investors may be better than implied by the higher share of borrowers currently under repayment assistance.

Repayment assistance has helped distressed household borrowers stave off further damage to their finances

The take-up of repayment assistance rose sharply in the second half of 2021 to 30% of household loan accounts or 35.7% of outstanding household loan exposures³⁸ (June 2021: 12.8% and 16%, respectively) (Chart 1.13). More borrowers, across all income groups, opted for repayment assistance under the PEMULIH package given the flexible enrolment criteria which also extended assistance to those not already experiencing income loss or reductions. The flexible enrolment criteria also saw a higher share of loans under moratoria compared to reduced instalments. Borrowers earning less than RM5,000 per month remained the main beneficiaries of repayment assistance (60% of new accounts under repayment assistance between July and December 2021).

Chart 1.13: Household Sector – Accounts under Repayment Assistance



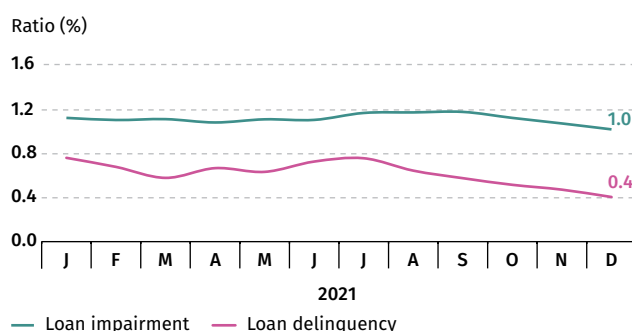
Source: Bank Negara Malaysia

³⁷ Refer to the Chapter on 'Financial Institution Soundness and Resilience' for further details.

³⁸ Or 20.6% (June 2021: 9.3%) of total loans from banks and DFIs.

Amid ongoing repayment assistance efforts, impairment and delinquency ratios have remained stable at 1% and 0.4%, respectively, as at December 2021 (Chart 1.14). Nevertheless, banks reported a larger share of Stage 2 household loan exposures (December 2021: 8.5%; June 2021: 6.9%). This, coupled with additional management overlays set aside by banks, reflects the general conservatism adopted by most banks to bolster provisioning buffers in the absence of observable actual repayment behaviour for loans under moratoria. The flexible enrolment criteria for repayment assistance have also meant that the take-up of repayment assistance by borrowers could be for reasons other than difficulties in servicing their loans due to a loss or reduction in income. A closer examination of borrowers under repeat repayment assistance indicates that only a small segment of borrowers is more likely to present higher risks. This is due to their higher DSR of more than 60% and the slower recovery in income associated with sectors more adversely impacted by the pandemic. Collectively, they account for only 0.5% and 1.7% of total household borrowers and outstanding banking system loans, respectively. For borrowers that continue to face difficulty servicing their loans, more targeted repayment assistance provided through the Financial Management and Resilience Programme (Program Pengurusan dan Ketahanan Kewangan, URUS³⁹) remains in place. Taken together, these factors could support better-than-expected loan performance for households going into 2022 than implied by banks' loan classification and provisioning practices.

Chart 1.14: Household Sector – Loan Impairment and Delinquency Ratios in the Banking System

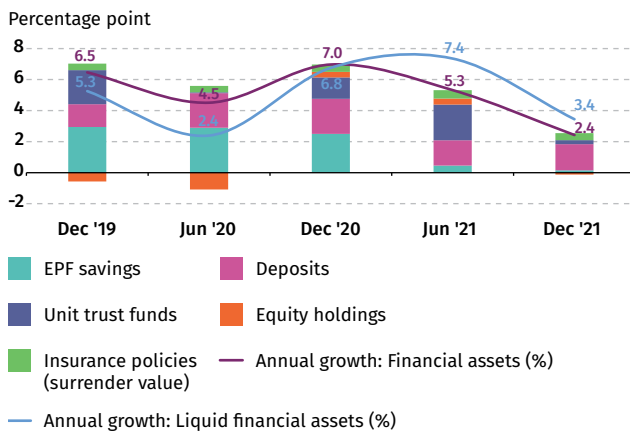


Source: Bank Negara Malaysia

³⁹ URUS is targeted towards the B50 income group under an existing repayment assistance programme who have lost employment or are experiencing a significant reduction in Income. Assistance entails a personalised financial plan that considers borrower's affordability to repay, with relief including a 3-month interest waiver, reduction in instalments for up to 24 months and lower interest rates for unsecured personal loans. Refer to <https://www.akpk.org.my/my/urus> for further details.

Household financial assets grew at a more moderate pace (2.4%; June 2021: 5.3%). This was due to the weaker equity market performance and sizeable drawdowns of retirement savings under various special withdrawal facilities put in place due to the pandemic (Chart 1.15). Concerns remain over the financial resilience of some segments of household borrowers that are highly leveraged and have low financial buffers. Stress tests conducted by the Bank show that under adverse scenarios of income and employment shocks, between 3.8% and 4% of banking system loans could be at risk of default by end-2024 due to borrowers having insufficient financial buffers. The bulk (63.5%) of these at-risk borrowers earn monthly incomes of less than RM5,000.⁴⁰

Chart 1.15: Household Sector – Annual Growth of Financial Assets

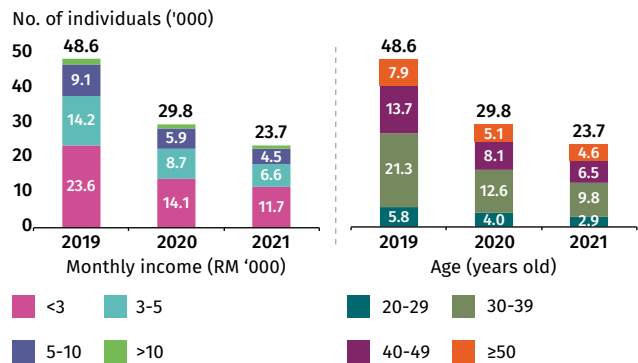


Source: Bank Negara Malaysia, Bursa Malaysia, Employees Provident Fund and Securities Commission Malaysia

Public support measures and repayment assistance offered by banks continue to help financially-distressed households cope with income and employment setbacks. In 2021, 23,711 new borrowers have enrolled into the AKPK's Debt Management Programme to rehabilitate their finances (Chart 1.16). Meanwhile, under URUS, borrowers can benefit from free financial advisory and education programmes aimed at promoting longer-term financial resilience. As of 4 March 2022, 5,657 individuals with total loan exposures of RM2.7 billion have enrolled into URUS. Of this, around half of the borrowers with total exposures of RM1.4 billion are those who have experienced job losses. Beyond URUS, banks continue to offer a range of repayment packages

⁴⁰ Refer to the section on 'Assessing the Resilience of Financial Institutions' for further details.

Chart 1.16: Household Sector – Debt Management Programme Approved by AKPK



Source: Credit Counselling and Debt Management Agency (AKPK)

to borrowers which are tailored to their financial circumstances. Financial institutions have also extended assistance packages to borrowers affected by the flood events in December. Going forward, the improving economic outlook and employment prospects are expected to support overall household debt-servicing capacity.

Latest insights⁴¹ by the Employees Provident Fund (EPF), however, underscore material longer-term risks to household resilience. According to EPF, around 6.1 million EPF members currently have retirement savings of less than RM10,000 in their accounts, of which 3.6 million have less than RM1,000. Further drawdown of retirement savings would increase the financial vulnerabilities of these households over the longer term given already insufficient savings for retirement. Risks would be higher for household borrowers with loan tenures extending into retirement and those who are already retired. As the economy recovers, it will therefore be important to ensure that impacted households are able to gradually re-build their financial buffers. Efforts by the Government to pursue the necessary labour market⁴² and social protection⁴³ reforms will be key towards raising income levels and household resilience in the long run.

⁴¹ Press release dated 31 October 2021 by EPF titled 'EPF Focused on Rebuilding Members' Retirement Savings Following Exceptional Withdrawal Facilities'.

⁴² Refer to the Box Article on 'Getting the Great Reset Right: Structural Labour Market Issues in the Post-COVID-19 World' in the BNM Economic and Monetary Review 2020 for further details.

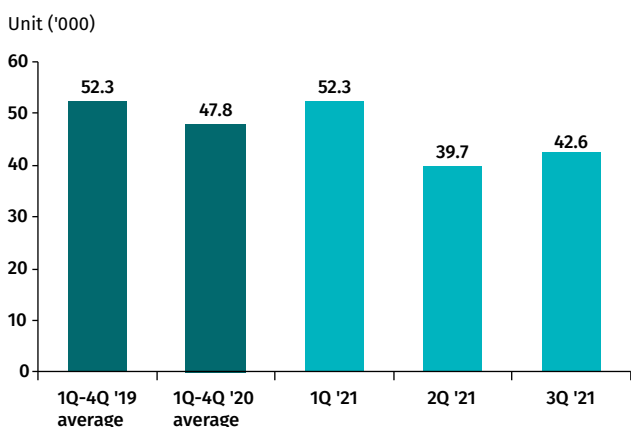
⁴³ Refer to the Box Article on 'A Vision for Social Protection in Malaysia' in the BNM Economic and Monetary Review 2020 for further details.

Developments in the Residential Property Market

The continuation of tighter containment measures from the second quarter of 2021 continued to weigh down housing market activity in the third quarter of 2021. Consequently, while transaction volume increased marginally in the third quarter of 2021, it remained below the quarterly average volume of transactions recorded in recent periods (Chart 1.17). However, market activity is expected to improve in the fourth quarter of 2021 driven by the resumption of economic activities. Correspondingly, higher loan applications were recorded across all price segments in the second half of 2021 (Chart 1.18). The significant increase in loan applications in the final two months of 2021 coincided with the Home Ownership Campaign that ended on 31 December 2021. Improving employment prospects and the low interest rate environment further supported housing demand. Demand for housing was largely driven by owner-occupiers, with 57.3% (1H 2021: 55.8%) of approved housing loans in the second half of 2021 granted to owner-occupiers.

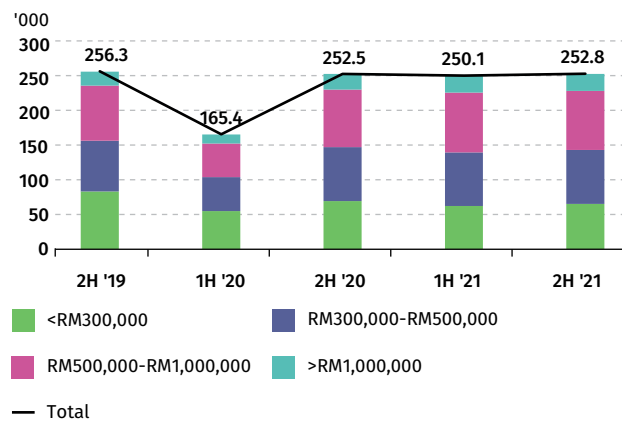
Despite some improvements in market activity, the number of unsold houses remained elevated at 180,702 (2Q 2021: 181,463) units.⁴⁴ Disruptions caused by the pandemic partly contributed to the slower clearance of unsold housing stock despite ongoing home purchase incentives. More broadly, the elevated number of unsold houses reflects pre-existing affordability issues in the housing market, which has worsened since the onset of the pandemic as consumer incomes were affected (Diagram 1.1). In this regard, supply adjustments have continued with more new housing launches shifting towards lower- and mid-price market segments. The share of property launches priced at RM500,000 and below increased significantly in the third quarter of 2021 (3Q 2021: 88.1%; 1H 2021: 67.7%; 2015-2019 average: 65.9%). This should help to cap a further significant increase in unsold housing stock. Nonetheless, the bulk of new launches remain beyond the affordable price segment, with only 35.6% of new launches since 2015 priced below RM300,000, indicating further room for price and supply adjustments to improve overall housing affordability.

Chart 1.17: Property Market – Housing Transaction Volume



Source: National Property Information Centre (NAPIC)

Chart 1.18: Property Market – Volume of Housing Loan Applications by Price Segment



Source: Bank Negara Malaysia

⁴⁴ Of this, 31.4% are overhang units while the remainder (68.6%) are units under construction. Unsold houses are mainly priced above RM300,000 (75.4% of total unsold houses) and high-rise properties, in particular, serviced apartments (36.5% of total unsold houses).

Diagram 1.1: Housing (Un)affordability in Malaysia

What is affordable housing?

A house is considered affordable¹ if:

$$\frac{\text{House Price}}{\text{Annual Income}} \leq 3 \text{ times}$$

Rating	House Price-to-Income Ratio
Severely Unaffordable	5.1 & Above
Seriously Unaffordable	4.1 to 5.0
Moderately Unaffordable	3.1 to 4.0
Affordable	3.0 & Below

Based on this metric, house prices in Malaysia are seriously unaffordable

$$\frac{\text{Median House Price (2020): RM295,000}}{\text{Annual Median Income (2020): RM62,508}} = 4.7 \text{ times}$$

(2019: 4.1 times)

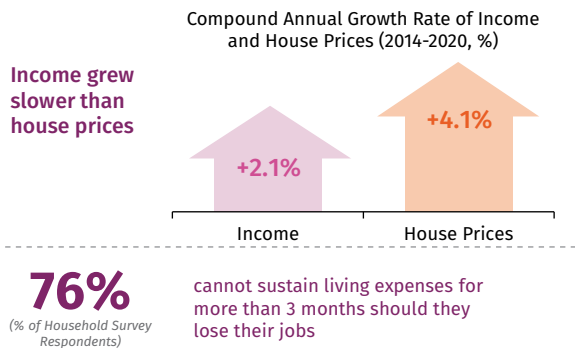
Rating by State
Johor, Perak, Sarawak, Sabah, Kelantan
MALAYSIA, Selangor, Kuala Lumpur, Pulau Pinang, Pahang, Terengganu, Kedah, Negeri Sembilan, Perlis
-
Melaka

Why do Malaysians find houses seriously unaffordable?

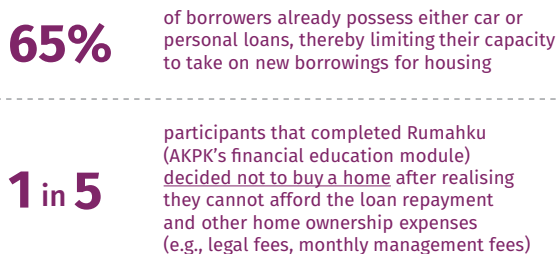
Demand: For some, housing affordability is limited by insufficient income and high indebtedness

Supply: Mismatch in supply – Market failure to provide enough affordable housing²

1 Low income or saving buffers



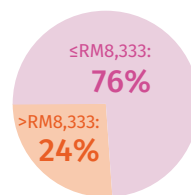
2 Prospective borrowers already highly-indebted



A household earning RM100,000/year³ or RM8,333/month could only afford a house priced up to RM300,000

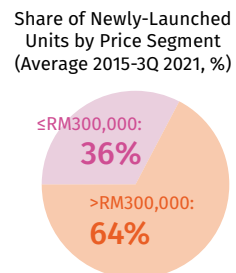
76% of households in Malaysia earn ≤RM8,333...

Share of Households by Monthly Income Group (2019, %)



... but only 36% of newly-launched units are priced ≤RM300,000

Share of Newly-Launched Units by Price Segment (Average 2015-3Q 2021, %)



This has worsened overall housing affordability and increased unsold properties priced >RM300,000 in Malaysia

¹ Based on the Median Multiple approach, as recommended by the World Bank as well as the United Nations (UN). See the box article on 'Demystifying the Affordable Housing Issue in Malaysia' in BNM Annual Report 2016 for more details.

² Based on the National Affordable Housing Policy 2019, the maximum price of affordable housing in Malaysia is RM300,000.

³ Estimated using Median Multiple approach, in which a house is deemed affordable if the house price is not more than 3 times the annual income.

Source: Bank Negara Malaysia, Household Income Estimates and Incidence of Poverty Report, Malaysia (2020) by the Department of Statistics, Malaysia (DOSM), Household Income and Expenditure Survey (2014 and 2019) by DOSM, BNM Survey on Households (2018) and National Property Information Centre

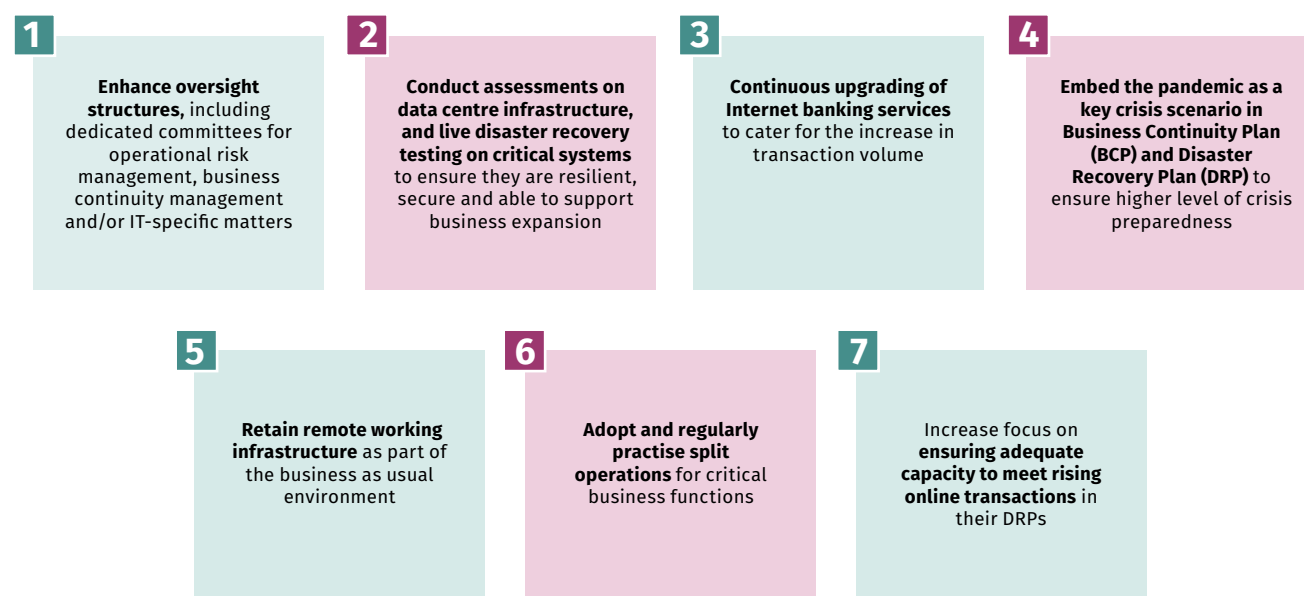
OPERATIONAL RISK

Financial institutions remained operationally resilient but emerging risks warrant continued vigilance

Financial institutions remained operationally resilient, with no major system-wide operational disruptions in the second half of 2021. Operational risk losses also remained small at RM78.4 million (2H 2020: RM137.1 million). This was supported by continuing measures taken by financial institutions to strengthen oversight arrangements and ensure the resilience of technological infrastructure (Diagram 1.2). While the flood events in December led to the temporary closure of a number of branches, financial institutions were able to continue providing essential financial services to the public with almost no disruptions. Remote working arrangements were promptly activated for affected staff. Internet banking and insurance services also remained available to customers in flood-affected areas.

Risks from third party service providers (TPSPs), including their major sub-contractors, remain a top priority for the Bank. The reliance on TPSPs has increased given prolonged remote working arrangements and increased digitalisation of financial services. Financial institutions have intensified periodic reviews of TPSPs' abilities to meet service level agreements (SLA). Contingency plans are largely in place to manage TPSPs' sudden business disruptions. This includes identifying alternate TPSPs and establishing in-house arrangements to manage potential disruptions. To gauge crisis preparedness, more financial institutions are also conducting integrated business continuity assessments with their critical TPSPs. In 2022, one of the Bank's supervisory priorities is to assess the level of reliance and concentrations on major sub-contractors of TPSPs. This will enable the Bank and financial institutions to better understand and manage supply chain risks. Concurrently, the Bank is working to develop common stress test scenarios for technology risks to identify potential vulnerabilities and further strengthen the management of operational risks arising from common TPSPs. This aims to increase resilience against severe operational disruptions associated with the prolonged failure of a major TPSP, both at the institution and industry levels.

Diagram 1.2: Efforts by Financial Institutions to Ensure Operational Resiliency



Source: Bank Negara Malaysia

The Bank continued to provide security advisories to bolster the industry's defences against cyber threats. Rising ransomware incidents led to the issuance of an industry advisory in August 2021 to guide the adoption of better safeguards for key information technology (IT) infrastructure and customer data. The Bank and industry have also increased vigilance against potential cyber risks from the use of open-source software and third-party codes. In December, the National Institute of Standards and Technology (NIST)⁴⁵ reported the discovery of a zero-day vulnerability⁴⁶ with a Common Vulnerability Scoring System (CVSS)⁴⁷ severity level of 'critical'. In response, the Bank issued recommended control measures to the industry to remediate potential risks from any impacted systems and services. The Bank's subsequent supervisory review observed that the industry has taken the necessary measures to minimise this risk by patching the vulnerability or implementing effective workarounds in the absence of a patch. Given the rising number of global and domestic high-profile ransomware and supply chain attacks in the second half of 2021, financial institutions were also encouraged to undertake independent compromise assessments (CA)⁴⁸ to pre-emptively identify compromises to their systems.

Cloud adoption among banks and insurers and takaful operators (ITOs) has increased by almost 50% since the pandemic. This is driven by more entrenched remote working arrangements and financial institutions' digital aspirations. Currently, cloud solutions are being adopted mostly for non-critical applications. However, this is expected to gradually expand to more critical IT services, including to host core insurance and banking platforms. To ensure the adequate management of risks associated with increasing cloud adoption, the Bank will issue supplementary guidance to the Risk

Management in Technology (RMiT) policy document in 2022 to address specific risks in the use of cloud services. This includes addressing misconfiguration risk arising from current gaps in cloud risk management capabilities. Financial institutions will be required to meet enhanced expectations on governance, management of cloud service providers and end-to-end information security controls associated with cloud adoption.

Over the course of the next 12 months, ensuring cyber risk resilience will remain a key focus of financial institutions to reduce operational disruptions.⁴⁹ Other key sources of operational risks identified by financial institutions include regulatory non-adherence, business disruption due to pandemic and natural disasters, human error, and data theft and leakage (Diagram 1.3). The Bank and financial institutions remain vigilant to these risks, with increasing attention given to the protection and recovery of critical business operations in the event of an operational incident. While incidents have not led to wider disruptions thus far, risks of reputational damage have increased, in part due to the increasing influence of social media. This in turn could affect confidence and customer retention. It is therefore important for financial institutions to ensure adequate consideration to the management of reputational risks as an integral part of their incident response plans.

Operations of payment and settlement systems remained efficient and resilient

The Real-time Electronic Transfer of Funds and Securities System (RENTAS)⁵⁰ and major retail payment systems (RPS) continued to maintain high system availability. There were no major incidents, including cyber security incidents, or significant service disruptions in the second half of 2021. Business Continuity Plan (BCP) arrangements remained effective, including throughout the recent flood events. Sound cyber security measures also remain in place, including measures related

⁴⁵ NIST, an agency under the United States' Department of Commerce, maintains the largest publicly available source of vulnerability intelligence known as the National Vulnerability Database (NVD). Vulnerabilities listed in the NVD are ranked according to the CVSS, a widely adopted framework that helps to communicate the characteristics and severity of security vulnerabilities.

⁴⁶ A zero-day vulnerability is a weakness or a bug in a computer system that has been disclosed but no security fix is available yet. A system with zero-day vulnerability is exposed to cyber-attacks until a fix is developed and patched.

⁴⁷ CVSS helps IT teams to prioritise their security efforts, share information, and proactively address areas of exposure or vulnerability. The overall CVSS score of this zero-day vulnerability has been assigned to its highest level i.e., 10 out of 10, which is regarded as 'critical' and warrants immediate attention.

⁴⁸ Compromise assessment uses contextualised cyber threat intelligence and active/passive reconnaissance to detect any anomalies in an IT environment of an organisation.

⁴⁹ Based on the 2021/2022 emerging operational risk survey conducted by the Bank.

⁵⁰ RENTAS is a real-time gross settlement system for interbank fund transfers, debt securities settlement and depository services for scripless debt securities.

Diagram 1.3: Key Emerging Operational Risks and Mitigants



Cyber threat

- Continuous surveillance of cyber threats and timely alerts via the Financial Sector Cyber Threat Intelligence Platform (FinTIP)
- Reinforcement of cyber security controls by financial institutions to mitigate ransomware threats
- Wider coverage of Cyber Resilience Maturity Assessment (CRMA) for deeper insights into the state of industry cyber resilience
- Intelligence-led Bank advocacy e.g., on compromise assessments to detect potential intrusions
- Industry-wide cyber drill to gauge preparedness for systemic cyber incidents



Regulatory non-adherence

- Multi-pronged approach to industry engagement by the Bank:
 - Issuance of annual regulatory calendar
 - Industry consultation prior to roll-out of new policies
 - On-going supervisory interactions
 - Chief Risk Officer Forum
- Adoption of pragmatic policy implementation strategy
- Strengthening of internal controls by financial institutions to ensure compliance with rules and regulations



Business disruption due to pandemic and natural disasters

- Continuous review and improvements to Business Continuity Plans
- Ensure latest updates on Government directives are implemented in a timely and practical manner



Data leakage and theft

- Strengthening of security control features:
 - Access to internal systems via corporate devices only
 - Installation of latest antivirus on all devices
 - Implementation of Mobile Device Management software to prevent data leakages
- Adoption of cryptography techniques e.g., encryption to ensure data security



Human error in executing tasks

- On-going efforts by financial institutions to:
 - Strengthen internal controls and processes
 - Automate manual processes that are prone to human error
 - Review risk points in risk-control self-assessment

Source: Bank Negara Malaysia

to endpoint security. The Bank conducts regular supervisory reviews to ensure the control measures remain effective against new and emerging threats. In this regard, efforts by the operators of RENTAS and key RPS to address gaps identified during the supervisory reviews are largely on track. To further strengthen the operational reliability of key payment infrastructures, the Bank also

issued supervisory expectations to RPS operators to ensure adequate controls are put in place by their TPSPs. The Bank continues to strengthen the operational capacity of RENTAS to respond to future shocks or disruptions. This included further enhancing its BCP to ensure timely recovery of payment systems in the event of a major disruption caused by cyber-attacks.

Financial Institution Soundness and Resilience

33	The Banking Sector
40	The Insurance and Takaful Sector
45	Assessing the Resilience of Financial Institutions
50	<i>Box Article: Implementation of the Climate Change and Principle-based Taxonomy (CCPT) in the Financial Sector</i>

Financial Institution Soundness and Resilience

THE BANKING SECTOR

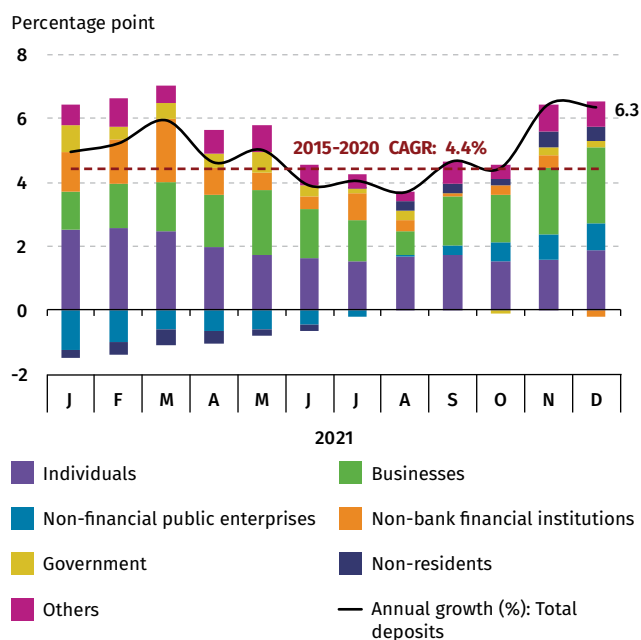
Banks' strong funding and liquidity positions remained supportive of intermediation activities

Banks' intermediation activities continued to be supported by stable funding sources. The aggregate Net Stable Funding Ratio (NSFR) stood at 116.2% as of December 2021, with all banks already meeting the minimum NSFR requirement of 100%. Total deposits increased at a faster pace (December 2021: 6.3%; June 2021: 3.9%) driven by a recovery in business deposits with the reopening of the economy (Chart 2.1). After recording a strong growth in 2020 due largely to the blanket loan repayment moratoria, growth in household deposits has since normalised closer to pre-pandemic levels (December 2021: 4.9%; June 2021: 4.3%; December 2020: 6.6%; 2015-2019 CAGR: 5.1%). Overall deposit growth was also supported by an increase in deposits placed by non-residents. This reflected portfolio inflows into the bond market during the second half of 2021. A sizeable (36%) share of total deposits remained in the form of current and savings accounts (CASA) deposits, keeping banks' funding costs low and relatively stable (Chart 2.2).

The continuation of support measures for affected businesses and households, including the extension of loan repayment moratoria, has had a limited impact on banks' liquidity positions. Banks maintained healthy liquidity buffers to withstand potential stress events. The aggregate Liquidity Coverage Ratio (LCR)¹ remained well above the regulatory minimum (Chart 2.3).

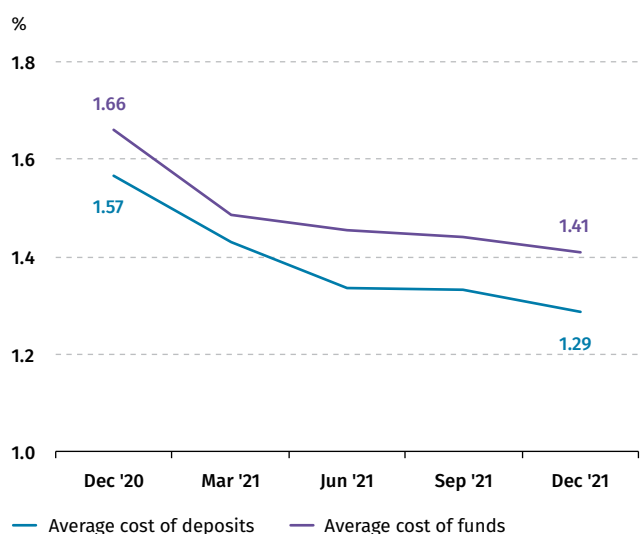
¹ Similar to developments in May 2021, a notable dip in LCR was observed in November 2021 due to maturing deposits from fund managers ahead of the expiry of the income tax exemption for corporate investors on interest or profit earned from money market funds on 1 January 2022 (Chart 2.3). However, LCR for most banks recovered in the following month as the maturing deposits were placed back as corporate deposits.

Chart 2.1: Banking System – Contribution to Growth in Deposits Accepted



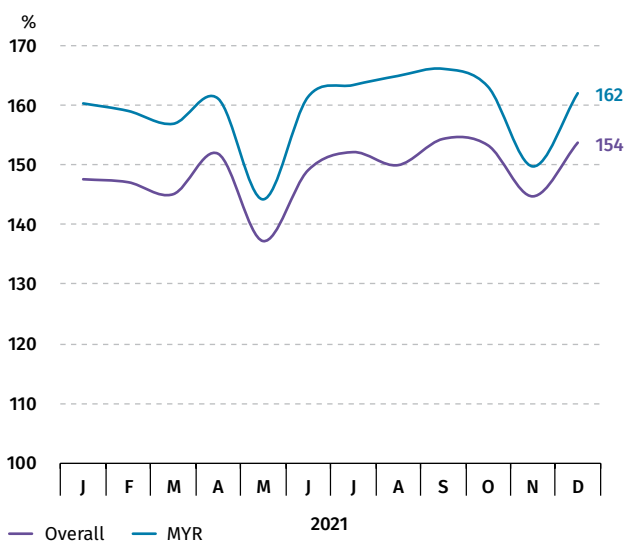
Source: Bank Negara Malaysia

Chart 2.2: Banking System – Average Cost of Deposits and Average Cost of Funds



Source: Bank Negara Malaysia

Chart 2.3: Banking System – Liquidity Coverage Ratio



Note: 1. MYR LCR is calculated based on HQLA and expected net cash outflows denominated in ringgit.
 2. Overall LCR is calculated based on HQLA and expected net cash outflows denominated in all currencies.

Source: Bank Negara Malaysia

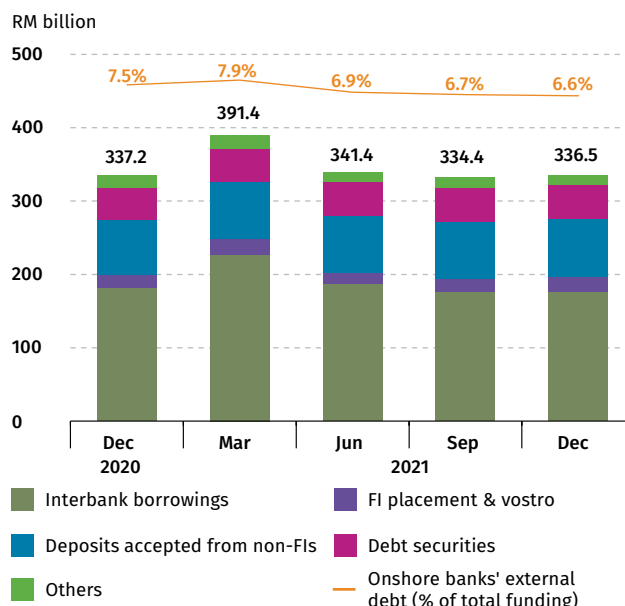
The higher LCR also reflected excess deposits being channelled into high-quality liquid assets (HQLA) such as central bank placements and government bonds amid higher MGS issuances in 2021 as the growth of deposits outpaced that of loans (annual growth of loans, December 2021: 4.5%; June 2021: 3.4%).

Low residual risks arising from banks' external debt exposures

Risks associated with banks' external debt exposures remain low. Banks' external debt continued to decline in the second half of 2021. The reliance of onshore banks² on external funding is limited as banks continued to tap on more stable domestic funding sources (Chart 2.4). Maturing intragroup transactions by banks in the Labuan International Business and Financial Centre (LIBFC) also led to a decline in interbank borrowings. Liquidity risks associated with these borrowings continued to be minimal given the 'back-to-back' nature of the transactions, where the amount, tenure and currency of such intragroup funding received by a bank closely match that of the financing extended by the bank.

² The term 'onshore banks' is used interchangeably with 'banking system'. Both refer to domestic banking groups (DBGs) and locally-incorporated foreign banks (LIFBs).

Chart 2.4: Banks' External Debt – by Instrument



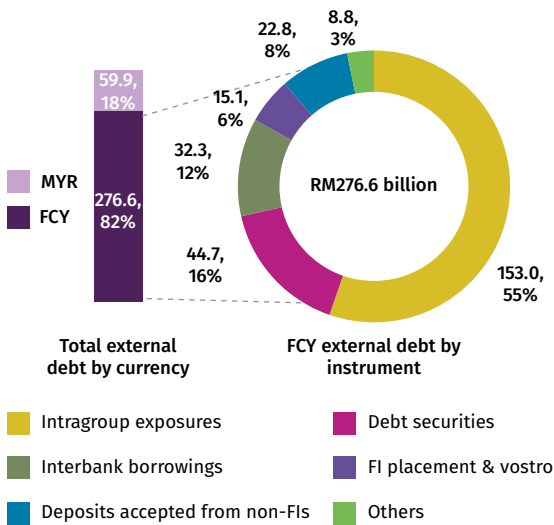
Note: Banks' external debt in this context refers to external debt of DBGs, LIFBs and LIBFC banks.

Source: Bank Negara Malaysia

Banks remained resilient against related stress events such as a potential tightening of foreign currency (FCY) liquidity. Around one-fifth of banks' external debt is denominated in ringgit and thus insulated from exchange rate volatility. A sustained increase in domestic FCY deposits following the improvement in trade activities has also reduced the need for domestic banks to source FCY funding from international interbank markets. Further, the bulk (71%) of banks' FCY external debt are with related parties or in the form of stable long-term debt (Chart 2.5) – these are less susceptible to rollover and withdrawal risks. Banks also continue to hold sizable FCY liquid assets and have access to committed funding lines. On aggregate, banks' FCY liquid asset buffers strengthened further to cover up to 3.5 times (June 2021: 3.1 times) of FCY external debt-at-risk (Chart 2.6).³ Banks also continued to actively manage FCY mismatches commensurate with their risk appetite. As a result, the overall foreign exchange net open position (FX NOP) remained low despite bouts of increased market volatility during the period (Chart 2.7).

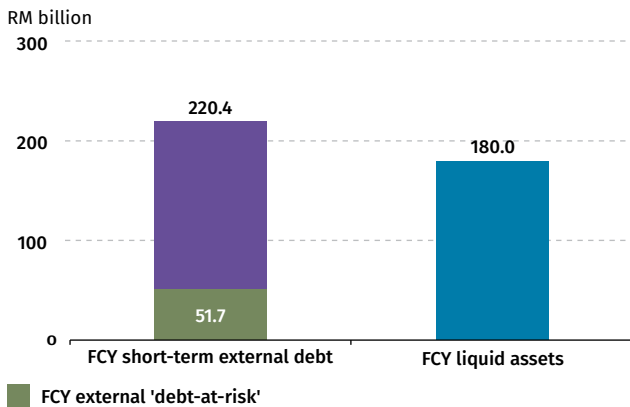
³ Banks' external debt-at-risk comprises financial institutions' deposits, interbank borrowings, and short-term loans from unrelated non-resident counterparties, which are considered more susceptible to sudden withdrawal shocks.

Chart 2.5: Banks' External Debt – by Currency and Instrument



Source: Bank Negara Malaysia

Chart 2.6: Banking System – FCY External 'Debt-at-Risk' and Liquid Assets

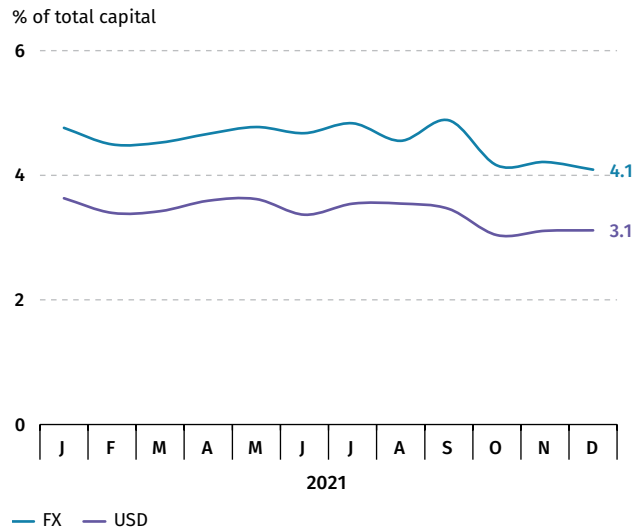


Note: Liquid assets comprise cash and cash equivalents, unencumbered debt securities held and interbank placements.

Source: Bank Negara Malaysia

Looking ahead into 2022, banks are expected to face some tightening in funding conditions. Monetary policy normalisation in advanced economies could lead to outflows from emerging market economies, including Malaysia, and therefore, raise funding costs. Domestically, a preference for higher-yielding fixed deposits among depositors as uncertainty subsides, and banks' renewed competition for deposits to support loan growth as the economy recovers, could also put upward pressure on funding costs. The impact of these developments on banks is, however, expected to remain manageable owing to their strong liquidity and funding positions.

Chart 2.7: Banking System – FX and USD Net Open Positions



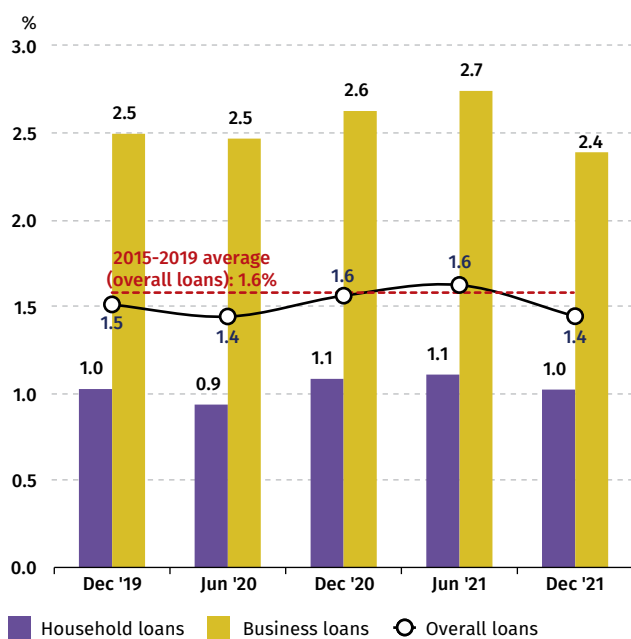
Source: Bank Negara Malaysia

Banks remain cautious amid the uncertain credit risk outlook

Ongoing assistance measures for households and businesses affected by the pandemic continued to support banks' asset quality by averting a premature materialisation of defaults among distressed but viable borrowers. Consequently, banking system gross and net impaired loans ratios remained low at 1.4% and 0.9% of total loans, respectively (Chart 2.8). The regularisation of loan repayments by large businesses and individual borrowers, as well as write-offs by several banks in the second half of 2021, further contributed to a marginal improvement in the gross impaired loans ratio. Notwithstanding this, banks have remained vigilant in managing credit risks despite the rebound in economic activities towards year end, reflecting continued uncertainty around COVID-19 developments. The high take-up of repayment assistance measures under the PEMULIH package, particularly among household and SME borrowers, also delayed the ability of banks to observe repayment behaviour which would have otherwise provided a clearer picture of borrower stress. The proportion of loans classified by banks as Stage 2 increased to 11.2% in December 2021 (June 2021: 9.8%), contributed mainly by individual and SME borrowers (Chart 2.9). This increase largely corresponded to the higher share of loans under repayment assistance (29% of total banking system

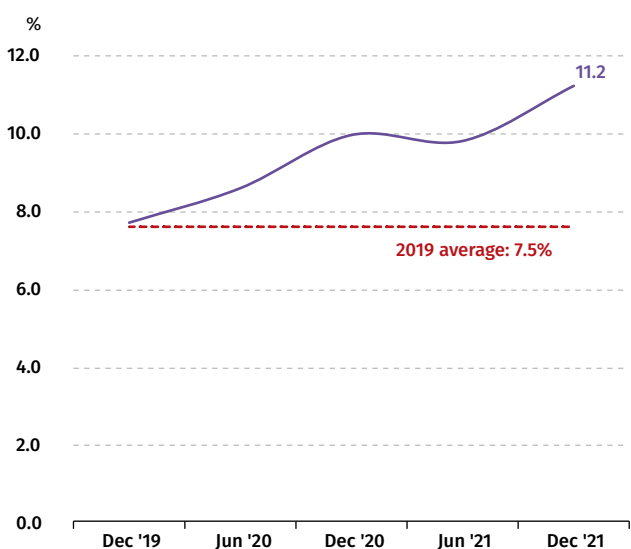
loans; June 2021: 16.2%).⁴ A few banks also reported an increase in Stage 2 exposures following technical refinements to their expected credit loss (ECL) models.

Chart 2.8: Banking System – Gross Impaired Loans Ratio



Source: Bank Negara Malaysia

Chart 2.9: Banking System – Stage 2 Loans Ratio



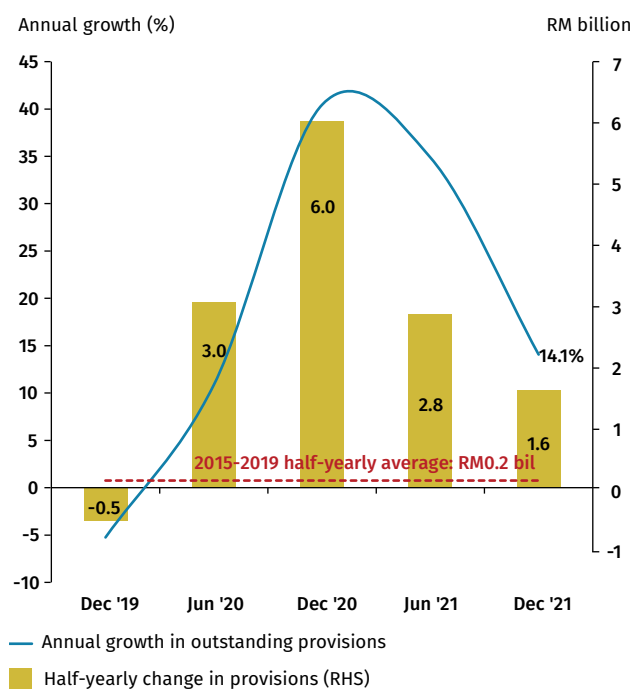
Source: Bank Negara Malaysia

⁴ Refer to the Information Box on 'Banking Institutions' Provisioning Practices to Mitigate Elevated Credit Risk from the Pandemic' in the BNM Financial Stability Review for First Half 2021 for further details.

Banks continued to build sizeable provisions against a potential rise in impairments

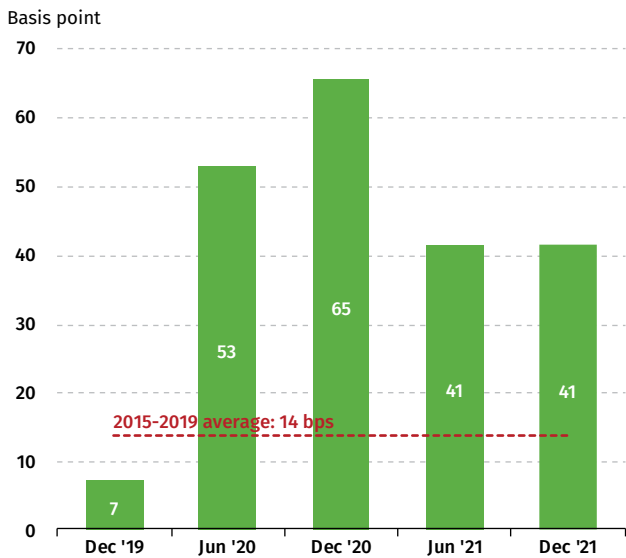
In line with the higher share of Stage 2 exposures, overall provisions rose further to 1.9% (June 2021: 1.8%) as a share of total loans. While the increase in provisions has been more moderate (2H 2021: +RM1.6 billion; 1H 2021: +RM2.8 billion) due to the sizeable accumulation of provisions earlier in the pandemic (Chart 2.10), credit costs remained elevated at 41 bps (June 2021: 41 bps; 2020: 65 bps) (Chart 2.11). Aggregate provisions for Stage 2 exposures accounted for 45% (June 2021: 40%) of total provisions. The continued use of management overlays was also observed across most banks to supplement model-determined provisions. Cumulative management overlays represented 27.7% (2020: 22.6%) of banks' total provisions for loans as at December 2021, underlining a continued focus by banks on bolstering buffers against potential credit losses. With this, the aggregate loan loss coverage ratio (including regulatory reserves) remained high at 142.5% (2015-2019 average: 112.5%).

Chart 2.10: Banking System – Provisions



Source: Bank Negara Malaysia

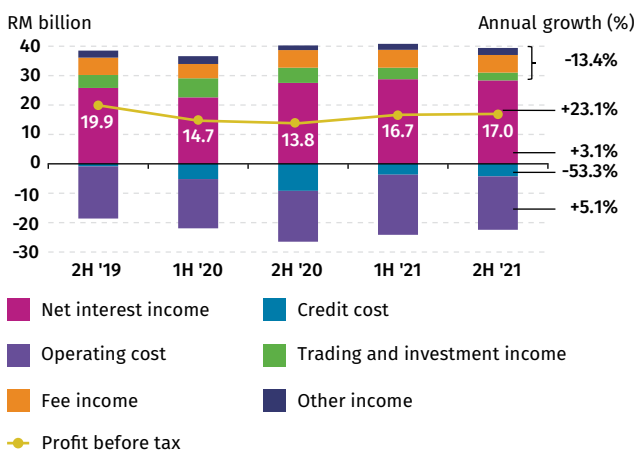
Chart 2.11: Banking System – Annualised Credit Cost Ratio



Source: Bank Negara Malaysia

Banking system profitability was sustained in the second half of 2021. This was supported by the pick-up in lending activities and low funding costs (Chart 2.12), which helped preserve net interest margins (December 2021: 2.11%; June 2021: 2.13%; December 2020: 1.94%). Returns on assets and equity of the banking system stood at 1.1% and 9.7% (1H 2021: 1.1% and 9.7%; 2020: 1% and 8.4%), respectively. Banks benefitted from low funding costs throughout the year as the growth of cheaper CASA deposits (+12.1%) outpaced that of

Chart 2.12: Banking System – Income, Cost and Profit before Tax



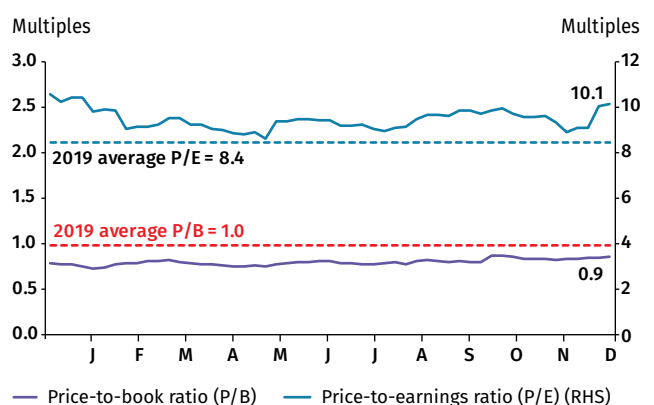
Note: Annual change computed based on figures for 2H 2020 and 2H 2021.

Source: Bank Negara Malaysia

higher-yielding term deposits (+2.2%). The flexibility provided for banks to use holdings of MGS to meet the Statutory Reserve Requirement also contributed to higher interest income as banks allocated excess liquidity into domestic government bonds. This has helped to cushion the impact of elevated credit costs, modification losses from ongoing repayment assistance and lower income from trading and investment activities amid rising bond yields.

Market valuations of publicly listed banks improved in line with the positive outlook for banks' earnings in 2022 (Chart 2.13). This will be supported by sustained growth in lending activities and gradual improvements in the financial condition of borrowers as the economy recovers. Credit costs are expected to remain elevated as relief measures are gradually unwound. However, further additions to provisions are likely to be modest given buffers already built up and continued support for more vulnerable borrowers. Latest stress tests⁵ affirmed the banking system's capacity to absorb higher credit losses under severe macroeconomic conditions. Banks are also not expected to prematurely release provisions, particularly for their household and SME portfolios, until greater visibility on borrower repayment behaviour is gradually restored. Additional modification losses from further repayment assistance for distressed borrowers is also expected to moderate as economic conditions improve.

Chart 2.13: Banking System – Price-to-Book and Price-to-Earnings Ratios of Publicly Listed Banks in Malaysia



Note: Refers to median ratio of all publicly listed banks in Malaysia.

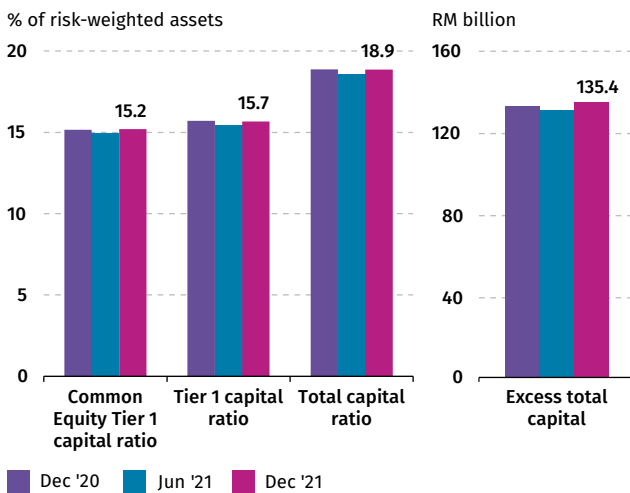
Source: Bloomberg

⁵ Refer to the section on 'Assessing the Resilience of Financial Institutions' for further details.

Strong capital positions preserve banks' ability to support economic recovery

Banks maintained strong capitalisation levels, with excess capital buffers above the minimum regulatory capital requirements of RM135.4 billion (Chart 2.14). These buffers provide banks with an important safeguard against any potential unexpected losses that may materialise amid a still challenging operating environment. This in turn preserves banks' capacity to support households and businesses' financing needs through the cycle. In line with the improvements in overall profitability in 2021, banks paid out higher dividends to shareholders although several of the larger banks have continued to conserve capital by implementing dividend reinvestment programmes. Looking ahead, the recovery in earnings, pre-emptive provisioning practices, and active risk management strategies are expected to continue to support the resilience of banks.

Chart 2.14: Banking System – Capitalisation



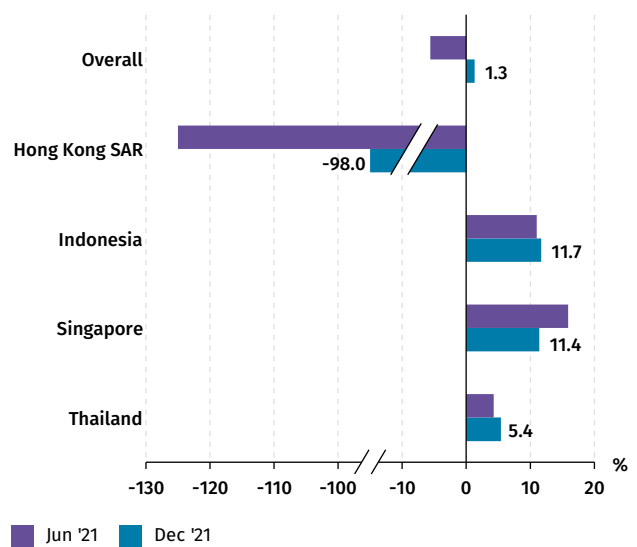
Note: Excess total capital refers to total capital above the regulatory minimum, which includes the capital conservation buffer requirement of 2.5% and bank-specific higher minimum requirements.

Source: Bank Negara Malaysia

Risks from DBGs' overseas operations remained low

Domestic banking groups' (DBGs) overseas operations mostly remained profitable. However, performance across key markets was mixed relative to the first half of the year (Chart 2.15). Earnings from the largest operations (by asset size) of DBGs in Singapore (Chart 2.16) declined. This was largely due to higher provisions made

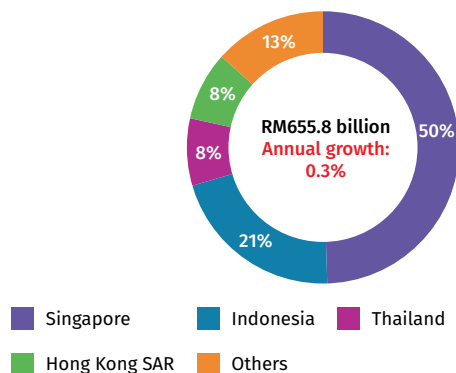
Chart 2.15: Banking System – Return on Equity of Overseas Operations by Jurisdiction



Note: 1. Overall average ROE is weighted by the asset size of selected overseas operations.
2. Average ROE is weighted by the asset size of each domestic banking groups' overseas operations in respective jurisdictions.

Source: Bank Negara Malaysia

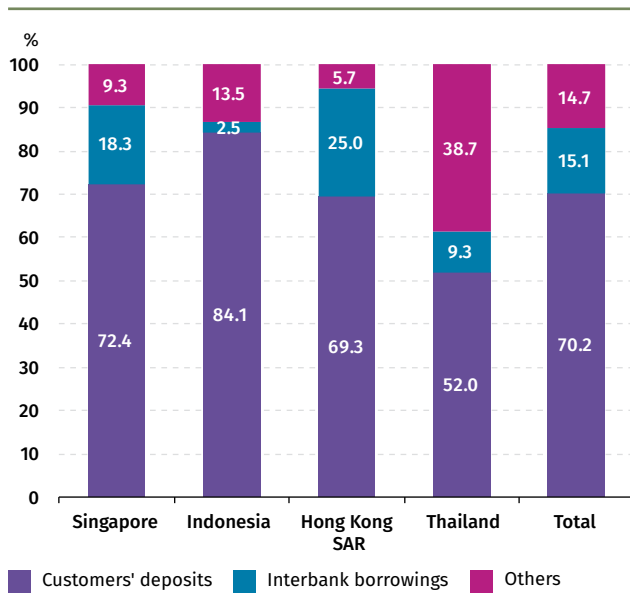
Chart 2.16: Banking System – Asset Profile of Major Overseas Operations



Source: Bank Negara Malaysia

amid elevated credit risks, especially among selected corporate borrowers. In contrast, profitability from operations in Indonesia and Thailand posted marginal improvements in line with economic recovery. Meanwhile, operations in Hong Kong SAR continued to register losses, following a further deterioration in asset quality among specific large borrowers. However, spillovers from operations in Hong Kong SAR to Malaysian parent banks are limited given the relatively small contribution to group-wide earnings.

Chart 2.17: Banking System – Funding Profile of Major Overseas Operations

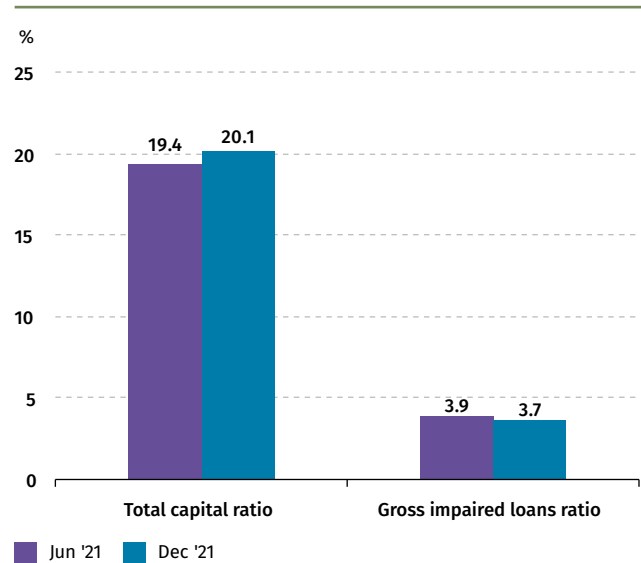


Note: Figures may not add up due to rounding.

Source: Bank Negara Malaysia

Risks posed by DBGs' overseas operations, including the impact from a rise in impairments, remained limited. Major overseas operations are primarily funded by local currency deposits (Chart 2.17). Prudent provisioning practices have also resulted in sizeable loan loss provisions. This is further reinforced by strong localised capital buffers which allow overseas branches and subsidiaries to absorb unexpected losses without parental support (Chart 2.18). The resilience of overseas operations to withstand potential shocks under adverse scenarios is also affirmed by stress tests conducted by the Bank.⁶

Chart 2.18: Banking System – Key Financial Indicators of Overseas Operations



Note: The average key financial indicators are weighted by the asset size of selected overseas operations.

Source: Bank Negara Malaysia

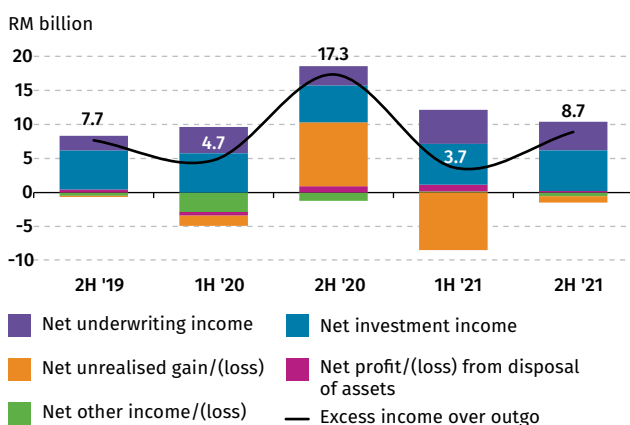
⁶ Refer to the section on 'Assessing the Resilience of Financial Institutions' for further details.

THE INSURANCE AND TAKAFUL SECTOR

Aggregate profitability declined for insurance and takaful funds, driven by weaker investment performance

Insurance and takaful funds recorded a decline in aggregate profitability in the second half of 2021, compared to the same period in 2020. For life insurance and family takaful funds, excess income over outgo dropped to RM8.7 billion (2H 2020: RM17.3 billion) (Chart 2.19). The decline was largely driven by valuation losses from equity and bond investments, reflective of the relatively weaker domestic equity market performance and higher bond yields during the period. Net underwriting income of life insurance and family takaful funds, however, improved to RM4 billion (2H 2020: RM2.9 billion), supported by sustained net premium⁷ income and lower benefit payouts. Fewer surrenders and the continued deferment of non-critical medical treatments contributed to the lower overall benefit payouts compared to pre-pandemic levels. Moving forward, benefit payouts are expected to normalise as economic

Chart 2.19: Life Insurance and Family Takaful Fund – Composition of Income and Outgo



Note: Net underwriting income refers to excess of net premium after deducting benefit payouts, agency remuneration and management expenses.

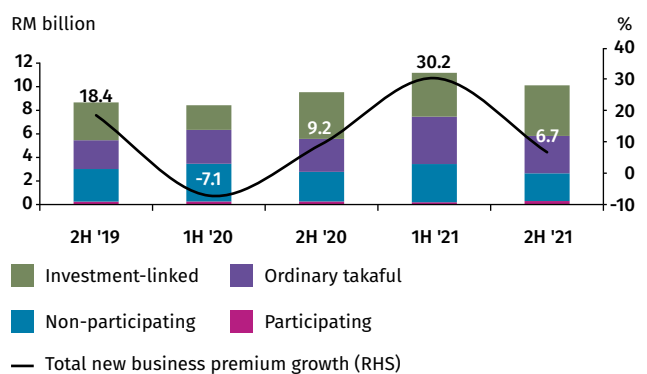
Source: Bank Negara Malaysia

⁷ Refers to both insurance premium and takaful contribution, unless stated otherwise.

and social activities fully resume, and amid better economic prospects which would support higher bonus payments to participating insurance scheme policyholders. The share of premium deferment and premium holidays⁸ remained small at 9.2%⁹ of total premiums in force. Similarly, the impact of COVID-19 claims on profitability remained manageable.¹⁰

New business premiums continued to grow in the second half of the year but at a lower rate (6.7%; 2H 2020: 9.2%) (Chart 2.20). This was due to slower growth in the investment-linked business segment (2H 2021: 8%; 2H 2020: 24%), reflecting base effects from the second half of 2020 when an easing of movement restrictions led to higher sales as public awareness increased. Growth in new business premiums was primarily supported by the Mortgage Reducing Term Assurance/Takaful (MRTA/MRTT) business segment, largely attributed to new housing loans. Additionally, growth in the medical and health business segment also continued to provide some support, amid rising awareness on the importance of insurance and takaful protection. For 2021 as a whole, investment-linked business continued to drive overall new business premium growth, accounting for a higher share of total new premiums at 35.9%

Chart 2.20: Life Insurance and Family Takaful Sector – New Business Premium Growth and Product Composition



Source: Bank Negara Malaysia

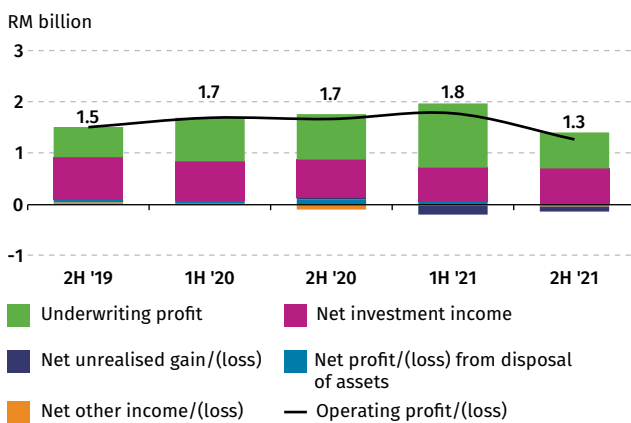
⁸ A premium holiday refers to continued insurance/takaful coverage despite an absence of premium payments and applies to products with the premium holiday feature already in place such as investment-linked products. This flexibility is available to policyholders if the investment value in the unit fund remains sufficient to meet the necessary insurance cost during the premium holiday period.

⁹ Based on a cumulative amount from 27 March 2020 until 31 December 2021.

¹⁰ Refer to the section on 'Assessing the Resilience of Financial Institutions' for further details.

(2020: 32%; 2015-2019 average: 34.4%). This could be attributed to preference among policyholders for greater flexibility in premium payments afforded by investment-linked products given higher uncertainties, and higher take-up of medical coverage commonly sold as riders to investment-linked plans. Insurers and takaful operators (ITOs) also observed greater consumer interest in investment-linked products amid lower-yielding alternative investment options.

Chart 2.21: General Insurance and Takaful Fund – Composition of Operating Profits



Source: Bank Negara Malaysia

General insurance and takaful funds similarly recorded lower operating profits of RM1.3 billion (2H 2020: RM1.7 billion) (Chart 2.21), driven by weaker investment performance and lower underwriting income in the second half of 2021. Underwriting performance was weaker due to higher claims incurred from the motor and fire segments following the easing of movement restrictions and the December flood events. Net estimated losses¹¹ from the flood events amounted to RM958 million, or 16% of total estimated economic losses, reflecting the relatively low levels of coverage, particularly among households and small businesses. The overall impact of the flood events on the profitability of general insurance and takaful funds is expected to remain manageable despite additional claims anticipated in the first quarter of 2022 (refer to the Information Box on ‘Evaluating the Impact of December 2021 Floods on the Insurance and Takaful Sector’ for further details).

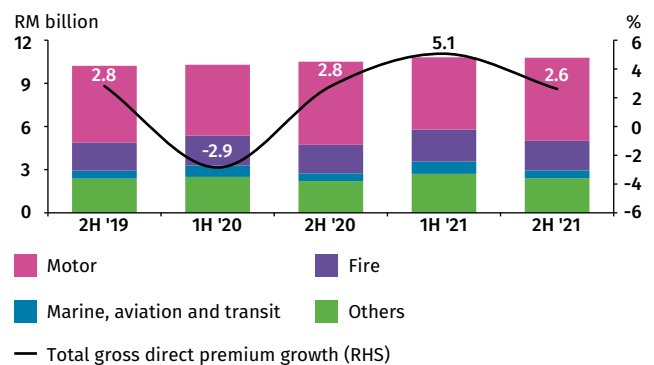
Growth in gross direct premiums continued to lend support to underwriting performance despite some moderation in the motor segment

¹¹ Refers to estimated loss after taking into consideration proportional and facultative reinsurance arrangements.

(Chart 2.22). Amid more competitive conditions with the progressive liberalisation of the motor tariff, motor premiums grew slower on the back of rate reductions across general ITOs. Car sales were also lower due to supply chain disruptions and movement restrictions during the National Recovery Plan (NRP). In addition, some consumers deferred car purchases given the extension of the sales tax exemption to June 2022 and in anticipation of newer vehicle models in 2022. Looking ahead, the Bank will continue to pursue further liberalisation of the motor and fire tariffs to better align pricing and risks, while preserving access to coverage. Further progress on this front aims to encourage more competitive risk-based pricing, increased product options for consumers, and investments in technology to improve the claims process. This will be accompanied by further reforms to improve transparency and raise professional standards across the claims value chain to reduce fraud and leakages, thus keeping premiums affordable over the longer term. Given the phased approach to implementation, which aims to achieve an orderly transition, the impact of further liberalisation to general ITOs’ profitability is expected to be manageable. This is also affirmed by the stress test conducted by the Bank which incorporates effects of intensified competition in the motor and fire segments.

The lower interest rate environment relative to periods before the pandemic has not resulted in any fundamental change to ITOs’ asset allocation. ITOs continued to actively manage their assets amid prevailing financial market conditions. Life and family ITOs marginally shifted from longer-term bonds towards medium-term bonds with

Chart 2.22: General Insurance and Takaful Sector – Gross Direct Premium Growth and Product Composition



Source: Bank Negara Malaysia

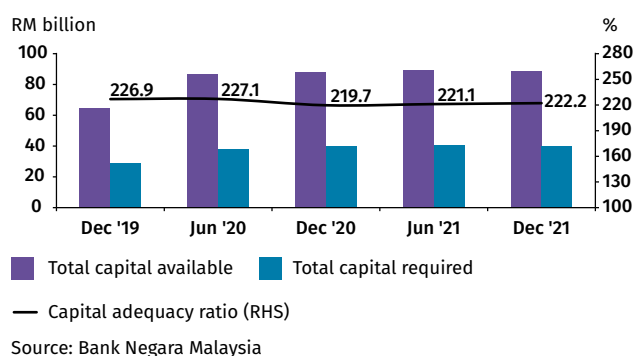
tenures between 3 years and 10 years, in line with strategies to minimise potential mark-to-market losses as prospects of higher yields increased. Overall, however, asset allocations have remained broadly stable relative to periods before the pandemic with the bulk (about 80%) of total investments continuing to be held in MGS/GII, government-guaranteed securities, and papers rated AA and above.

Insurance and takaful sector remains resilient

Moving forward, recovery in insurance and takaful business growth remains contingent upon the economic outlook. ITOs' financial performance also remains highly susceptible to volatility in financial markets due to their sizeable bond and equity investments. Higher revaluation losses on these investments could potentially materialise, given expectations of further increases in yields

in 2022. Nevertheless, ITOs are expected to remain resilient, supported by pre-existing financial buffers. The aggregate capital adequacy ratio (CAR) remained strong at 222.2%, well above the regulatory minimum of 130% (Chart 2.23). Macro stress tests conducted by the Bank also affirm that insurers remain resilient, with sufficient capital buffers to withstand potential shocks even under adverse scenarios.¹²

Chart 2.23: Insurance and Takaful Sector – Capital Adequacy Ratio



Evaluating the Impact of December 2021 Floods on the Insurance and Takaful Sector

Impact on the liquidity and solvency positions of general ITOs is manageable. Flood risk is underinsured, especially in the retail sector

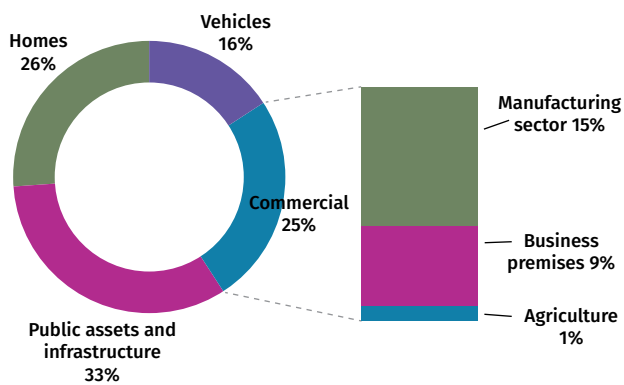
Overall economic losses¹³ from the December flood events were estimated to be at RM6.1 billion, with about RM2.6 billion incurred by the retail sector, and RM3.5 billion by the commercial and public sectors (Chart 2.24). Around 36% of these losses were insured/covered. In absolute terms, this was the largest claims payout by the industry for a flood event over the past decade. The impact of these losses on the liquidity and solvency positions of general ITOs has been manageable, with all direct ITOs expected to maintain positive underwriting performance for the year. General ITOs were supported by sufficient liquid resources and reinsurance/retakaful arrangements, with a significant proportion of flood risk ceded out by general ITOs. Results of the 2H 2021 bottom-up industry-wide stress test, which incorporates significantly higher gross insured/covered losses than observed in the 2021 flood events, also affirm the resilience of the insurance and takaful sector against a severe flood scenario. However, the large losses sustained during the recent floods are expected to lead to a hardening of reinsurance premium/retakaful contribution rates for flood-related cover over the near term. This may also result in a recalibration of retention levels by some ITOs to optimise arrangements for the changing risk profile.

¹³ Based on 'Special Report on Impact of Floods in Malaysia 2021' released by Department of Statistics, Malaysia on 28 January 2022.

¹² Refer to the section on 'Assessing the Resilience of Financial Institutions' for more details.

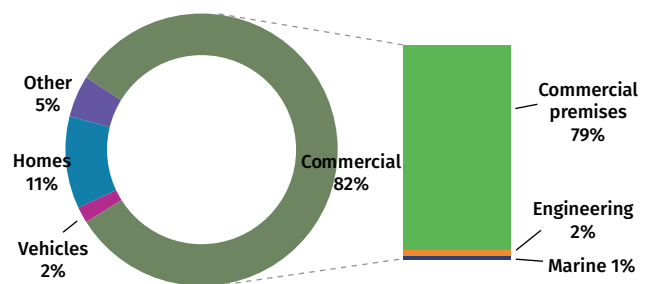
Despite a higher level of coverage relative to earlier periods, the December floods highlight the significant underinsurance of flood risks. Gross insured/covered losses¹⁴ from the floods were estimated to be RM2.2 billion. Most of these losses were from the commercial sector where coverage levels are generally high (Chart 2.25). Within the commercial sector, the bulk of the claim amounts were registered by large corporates, which is in line with their higher level of sums insured/covered and the relatively smaller take-up rate of flood cover by SMEs. Despite coverage against floods becoming more affordable in tandem with the phased liberalisation of motor and fire tariffs, significant gaps remain in flood insurance/takaful protection particularly among households. Only 11% and 16% of motor comprehensive insurance policies/takaful certificates nationwide and in flood-prone areas,¹⁵ respectively, have flood cover¹⁶ (Chart 2.26). Surveys¹⁷ also suggest that many households may not have any form of insurance/takaful cover for their homes, with even less coverage for flood-related losses (Chart 2.27).

Chart 2.24: Composition of Economic Losses from December 2021 Floods



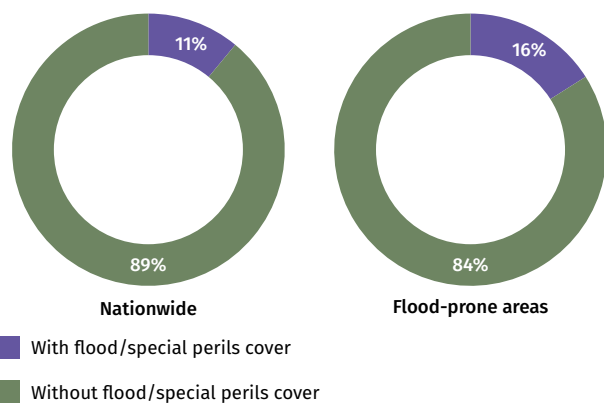
Source: Special Report on Impact of Floods in Malaysia 2021 released by Department of Statistics Malaysia on 28 January 2022

Chart 2.25: Composition of Gross Insured/Covered Losses from December 2021 Floods



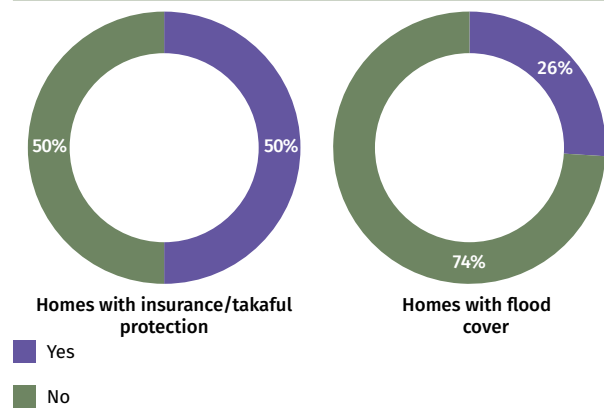
Source: Bank Negara Malaysia

Chart 2.26: Motor Comprehensive Insurance Policies/Takaful Certificates with Flood Cover



Source: Bank Negara Malaysia

Chart 2.27: Insurance/Takaful Cover for Homes



Source: Survey conducted by Zurich Malaysia

¹⁴ Based on an industry survey conducted in January 2022.

¹⁵ Flood-prone areas refer to states that were affected by the December 2021 floods.

¹⁶ Based on an industry survey conducted in January 2022.

¹⁷ Based on a survey conducted on 1,201 Malaysians in September 2021 by Zurich Malaysia as part of their market study on the 'Impact of Pandemic on Protection'. A survey conducted by the Department of Statistics, Malaysia (28 January 2022) focusing on 8 districts affected by the recent floods also indicated significant underinsurance of residential buildings and home contents.

Underinsurance in flood insurance/takaful protection remains prevalent despite a variety of insurance/takaful products available in the market to mitigate financial losses due to floods for both the retail and commercial sectors. This may be attributed mainly to the lack of awareness of the availability and utility of such products, despite the general reduction in rates¹⁸ that have followed the phased liberalisation of motor and fire tariffs.

With the expected increase in the frequency and severity of flood events amid climate change, insurance/takaful protection will play a more important role in strengthening household and business resilience. The Bank is collaborating with ITOs to spur the development of suitable and affordable insurance/takaful products for flood and other climate-related perils. Efforts to further liberalise motor and fire tariffs will also help promote healthy competition among general ITOs. Collaboration between all stakeholders will be important to enhance awareness among households and businesses of the availability and need for these solutions.

¹⁸ For instance, some ITOs have reduced the premium/contribution rates for the special perils extension to motor comprehensive insurance/takaful cover, which cover flood damage to motor vehicles, by up to 70% from the original tariff rates.

ASSESSING THE RESILIENCE OF FINANCIAL INSTITUTIONS

Stress testing is an integral part of the Bank's financial stability framework. The Bank performs a multi-year, top-down macro solvency stress test annually to assess the potential impact of prolonged financial and macroeconomic strains on individual banks and insurers, and the broader financial system. Two adverse but plausible scenarios are adopted to assess the resilience of financial institutions in the event the current economic recovery stalls. The Bank's latest top-down macro solvency stress test has been extended to cover a three-year horizon up to end-2024.¹⁹ The scenarios do not represent the Bank's actual expectations of the trajectory of the economy. Rather, the scenarios have been developed for the purpose of assessing the resilience of financial institutions to withstand large shocks.

The first adverse scenario (AS1) is designed to test financial institutions' resilience to a sharp but temporary shock in the operating environment. It assumes a sharp contraction in GDP growth in the first year of stress with a magnitude of close to three standard deviations below the average growth over the past two decades. The unemployment rate climbs to a peak of 6.9% in 2022 amid a reimposition of a strict six-month nationwide lockdown as the existing vaccination becomes ineffective against a new COVID-19 variant. GDP growth makes a strong V-shaped recovery in 2023 and normalises thereafter. This is supported by relaxed containment measures subsequently. Meanwhile, the unemployment rate remains elevated in 2023 but improves from 2024 onwards on the back of economic recovery.

The second adverse scenario (AS2) assumes a sluggish and L-shaped economic recovery. It aims to test financial institutions' ability to withstand an operating environment that remains challenging over a protracted period. GDP records negative growth in 2022 and 2023 with a cumulative decline of close to three standard deviations from the long-term average growth before a subdued recovery begins in 2024. This scenario assumes that the emergence of new COVID-19 variants of concern leads to multiple, but shorter (three-month) nationwide

lockdowns being imposed in 2022 and 2023. Stressed conditions are compounded by prolonged policy uncertainty, resulting in more widespread business closures and job losses. The unemployment rate peaks at 7.6% in 2023 and remains elevated throughout the stress test horizon given severe scarring effects from the pandemic.

Under both AS1 and AS2, heightened global risk aversion results in large and volatile portfolio outflows from emerging market economies (EMEs). Domestic institutional investors' capacity to intermediate outflows is assumed to be constrained by the deterioration in economic and employment conditions. Bond yields are expected to remain elevated amid sovereign rating downgrades and broad-based risk-off sentiment. As the global economy begins to recover, although in an uneven manner, market expectations of monetary policy normalisation amid inflationary pressures drive bond yields up even further especially in advanced economies, with spillovers to EMEs' financial markets. Against this backdrop, MGS yields rise by up to 120 bps relative to pre-stress levels. The trough for GDP growth in both scenarios is assumed to be at least more severe than that experienced during the Global Financial Crisis (GFC).²⁰ Meanwhile, unemployment shocks applied are notably more conservative than that observed during the Asian Financial Crisis (AFC) and in 2020 to take into account potential scarring effects from the pandemic. The detailed stress test parameters were also informed by the severe economic fallout from the COVID-19 pandemic and our actual experience during the AFC and GFC, the ensuing economic growth trajectory, and the impact on the financial system at that point in time.

The stress test adopts the enhanced methodology set out in the BNM Financial Stability Review for First Half 2020²¹ and Second Half 2020. This stress test maintains conservative assumptions to avoid a potential underestimation of risk. For banks' credit exposures, non-SMEs that exhibit high risk of default are assumed to default on all exposures within the consolidated group. Household borrowers who

¹⁹ The previous stress test exercises were conducted for a two-year horizon, as set out in the BNM Financial Stability Review for First Half 2020 and Second Half 2020 publications.

²⁰ The trough for GDP growth assumed for the stress test is less severe than the trough observed during the Asian Financial Crisis (AFC) and in 2020 (when economic disruptions were more severe during the initial period of the COVID-19 outbreak). This assumption considered the current environment where the economy is on a recovery path.

²¹ Refer to the Information Boxes on 'Key Features of the Enhanced Macro Solvency Simulation for Banks', 'Forecasting Business Impairments: Two-pronged Approach', and 'Forecasting Households' Time to Default' in the BNM Financial Stability Review for First Half 2020 for further details.

default are also assumed to cross-default on all their loans. Further, the stress test does not assume any policy support measures.²² There is also no reversion in loan staging classifications by banks even if improvements in debt-servicing capacity are subsequently observed. Additionally, further refinements were made to selected key assumptions (Table 2.1).

Results affirm the capital buffers of financial institutions remain resilient even under severe simulated shocks

Overall impairments are projected to rise to 6.1% and 6.6% of total banking system loans under AS1 and AS2, respectively, by end-2024, driven by household impairments (Chart 2.28). Under both AS1 and AS2, household borrowers earning less than RM5,000

monthly form the largest share of borrowers projected to default given their thinner financial buffers (Chart 2.29). These borrowers account for about one-third of new impairments by value, reflecting lower amounts borrowed relative to higher-income groups. The stress tests also show that household borrowers with debt service ratios (DSR) exceeding 60% are much less resilient against severe unemployment and income shocks, and are therefore more likely to face financial hardship if these shocks materialise. In contrast, impairment ratios are lower for borrowers with lower DSRs (Chart 2.30), indicating a greater ability to cushion the impact of pay cuts or an erosion in other income. Meanwhile, projected stressed business impairments are driven by SMEs operating in vulnerable sectors and several non-SMEs with pre-existing weak financials (Diagram 2.1). As expected, under AS2, SME impairments are notably higher relative to AS1. This is consistent with their more limited cash buffers to withstand prolonged economic weakness.

Table 2.1: Macro Stress Test – Key Changes in Banking System Stress Test Assumptions

Section	Key Assumption Change
Credit risk models	<ul style="list-style-type: none"> Revised definition of vulnerable business sectors¹
Repayment assistance	<ul style="list-style-type: none"> No repayment assistance or R&R for household and business loans throughout the stress horizon²
Credit costs	<ul style="list-style-type: none"> Estimated based on the highest coverage ratios³ in 2020 and 2021, as opposed to 2020 quarterly average
Net interest income	<ul style="list-style-type: none"> More severe funding cost shocks following sovereign rating downgrades and general risk aversion, amid already elevated yields Interest income losses incurred from interest waivers under URUS
Overseas operations	<ul style="list-style-type: none"> Incorporation of losses from major overseas subsidiaries and branches of domestic banking groups

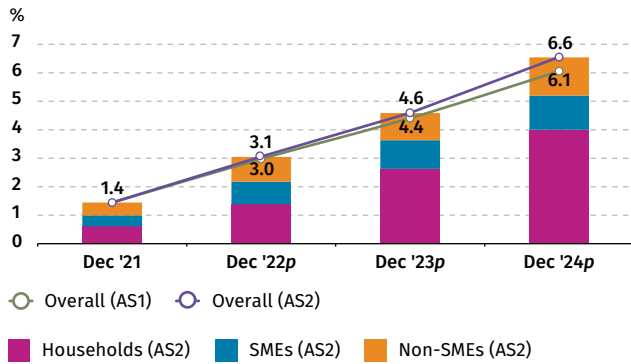
Note:

- ¹ The following sectors are assumed as vulnerable under AS1: wholesale and retail trade, real estate, construction, transport and storage, manufacturing, mining and quarrying, and hotels and restaurants. Vulnerable sectors under AS2 are similar to AS1, except for the exclusion of the manufacturing sector. Under the previous exercise, the manufacturing and mining and quarrying sectors were not included as vulnerable sectors under AS1 although the manufacturing sector was assumed as vulnerable under AS2.
- ² The previous exercise assumes repayment assistance is available for household borrowers in the first quarter of 2021, while the R&R of business loans is available up to the second quarter of 2021.
- ³ Coverage ratios are defined as the ratio of provisions to loans of the same stage defined under MFRS 9. For example, Stage 3 coverage ratio is the ratio of Stage 3 provisions to Stage 3 loans.

Source: Bank Negara Malaysia

²² These may include flexibilities to withdraw from retirement savings, wage subsidy programmes, or cash transfers from the Government.

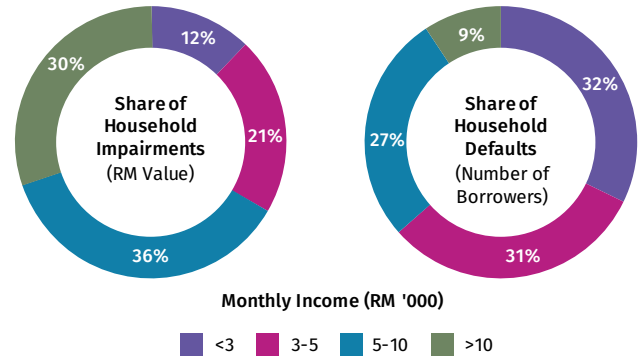
Chart 2.28: Macro Stress Test: Banking System – Impaired Loans Ratio Under Adverse Scenarios 1 and 2



p Projected

Source: Bank Negara Malaysia

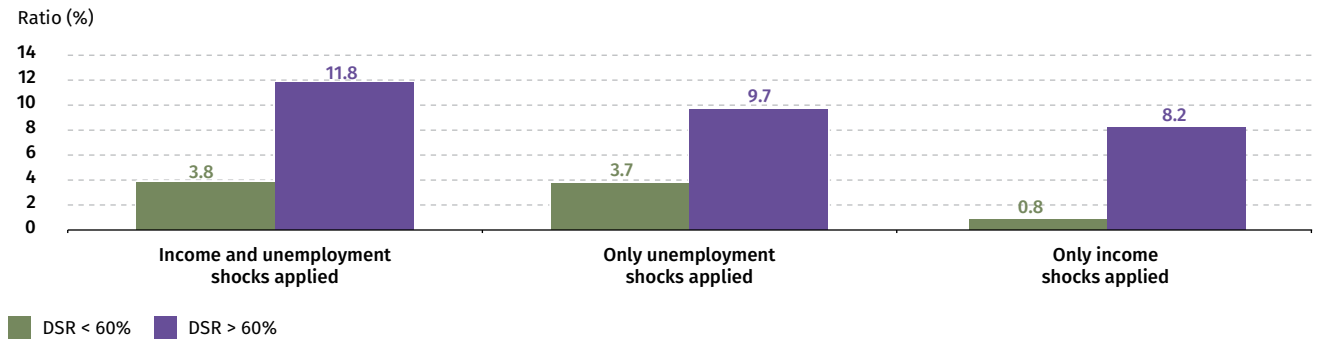
Chart 2.29: Macro Stress Test: Household Sector – Impairment Profile Under Adverse Scenario 2



Note: Figures may not add up due to rounding.

Source: Bank Negara Malaysia

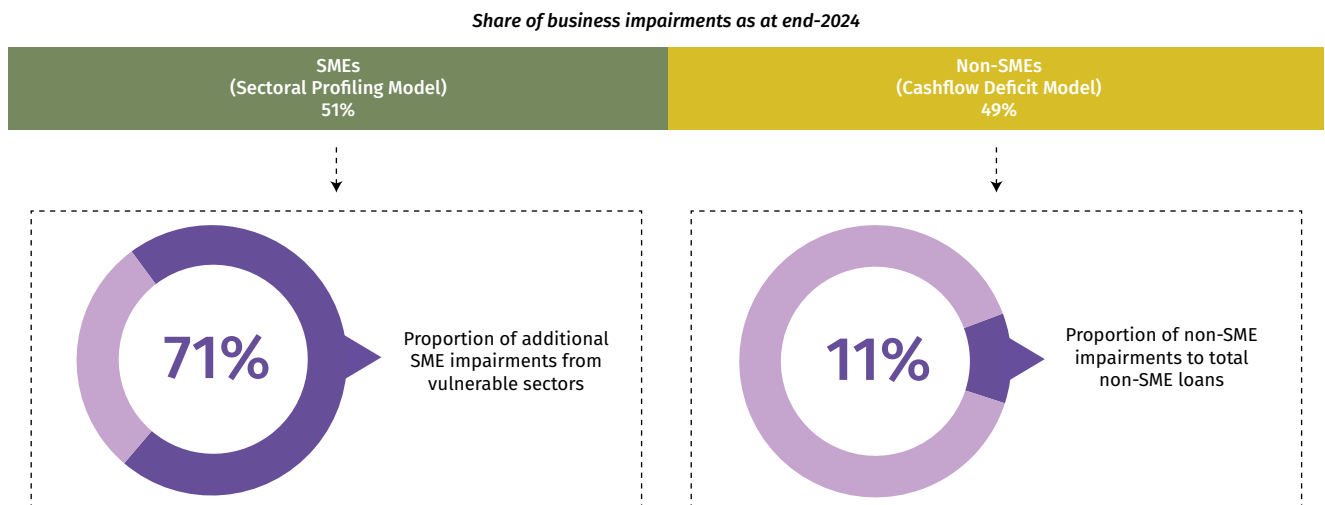
Chart 2.30: Macro Stress Test: Household Sector – Impaired Loans Ratio by Debt Service Ratio (DSR) Group



Note: Economic shocks applied under Adverse Scenario 2.

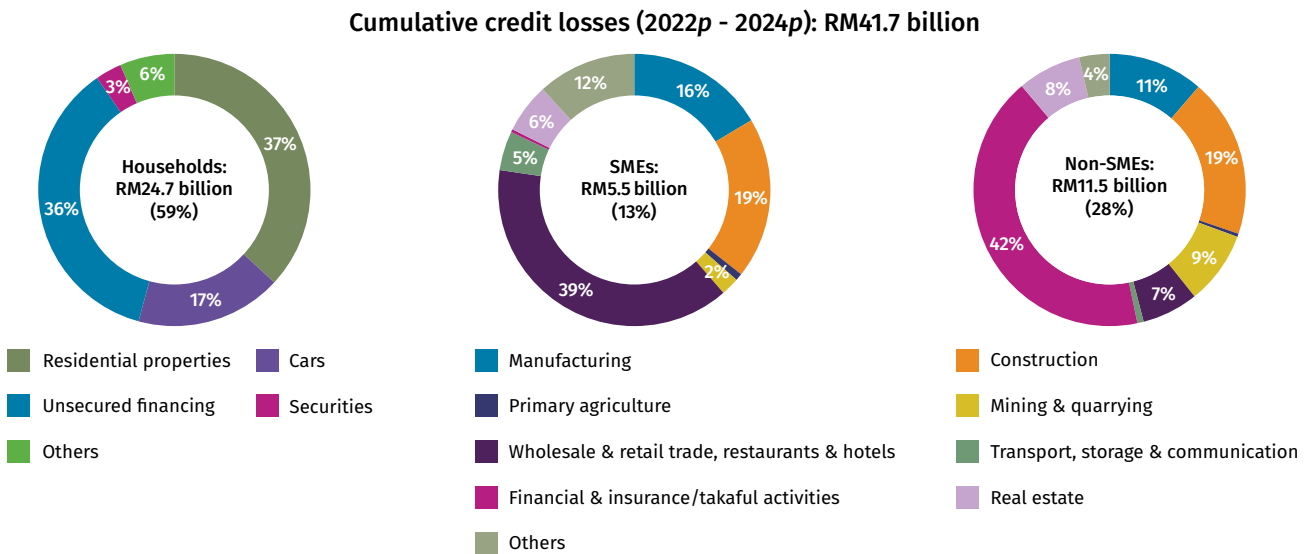
Source: Bank Negara Malaysia

Diagram 2.1: Macro Stress Test: Business Sector – Impairment Profile Under Adverse Scenario 2



Source: Bank Negara Malaysia

Chart 2.31: Macro Stress Test: Banking System – Drivers of Cumulative Credit Losses Under Adverse Scenario 2



p Projected

Note: 1. (...) refers to % of overall cumulative credit costs.
2. Figures may not add up due to rounding.

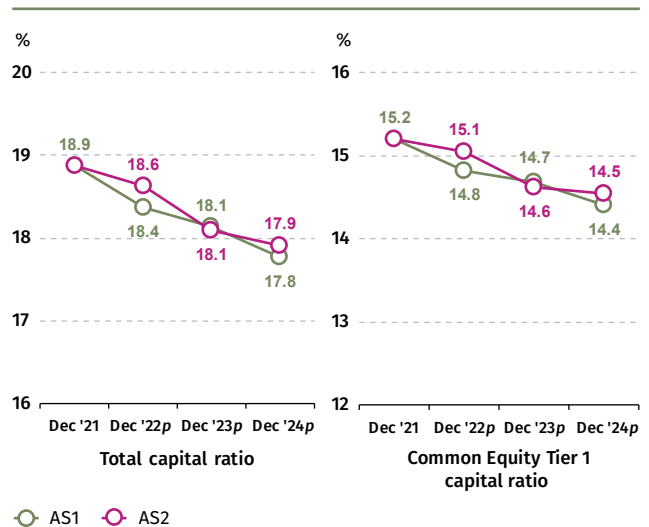
Source: Bank Negara Malaysia

Stress test losses to the banking system continue to be mainly driven by credit risk. Projected cumulative credit costs over the 3-year horizon amount to RM38.4 billion and RM41.7 billion (or 1.8% and 2% of total loans) under AS1 and AS2, respectively (Chart 2.31).²³ Aggregate banking system profits could decline by more than a third, driven by the higher credit costs and lower net interest income as funding costs rise due to the sovereign rating downgrades. The projected rise in yields also results in significant (RM13.3 billion) revaluation losses incurred on bond holdings in the banking book. Losses from overseas operations, while significant for large domestic banking groups (DBGs), do not pose major threats to overall resilience given adequate localised capital buffers maintained at their overseas entities.

Overall, the banking system’s capital ratios remain comfortably above the regulatory minima (Chart 2.32). Almost all banks maintain capital ratios above their internal capital targets, although up to 25 banks (out of 53 banks) are projected to record annual losses during the stress test horizon. Only two

²³ In the previous stress test exercise, the projected cumulative credit costs over a two-year horizon stood at RM19.3 billion and RM26.2 billion under AS1 and AS2, respectively (refer to BNM Financial Stability Review for Second Half 2020 for further details). In comparison, cumulative credit costs for a two-year horizon under this exercise amount to RM23 billion and RM24.4 billion under AS1 and AS2, respectively. The cumulative credit cost under AS2 is lower compared to the previous stress test due to changes in the expected timing of losses associated with the default of selected corporate borrowers.

Chart 2.32: Macro Stress Test: Banking System – Capital Ratios Under Adverse Scenarios 1 and 2



p Projected

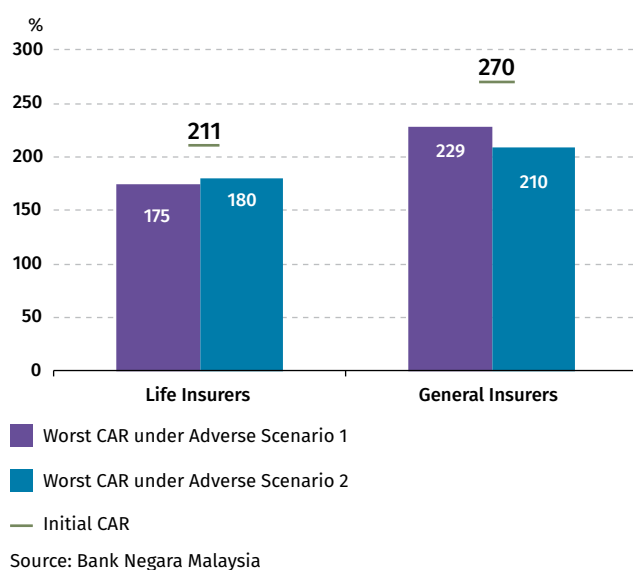
Source: Bank Negara Malaysia

banks (accounting for only 0.5% of total banking system assets) are projected to breach the minimum regulatory capital requirements under these adverse scenarios. Overall, the stress test results affirm that banks can withstand severe macroeconomic and financial shocks and remain well-positioned to support lending to businesses and households as the economy recovers.

For insurers, the latest macro solvency stress test also adopts the same AS1 and AS2 scenarios. In addition, other key insurance-specific assumptions include (i) specific COVID-19-related payments to policyholders, (ii) conservative growth projections of insurance liabilities net of reversals due to claims and surrenders, and (iii) higher general insurance claims ratio due to adverse economic conditions,²⁴ intensified competition in the motor and fire segments, and annual year-end flood events throughout the stress test horizon.

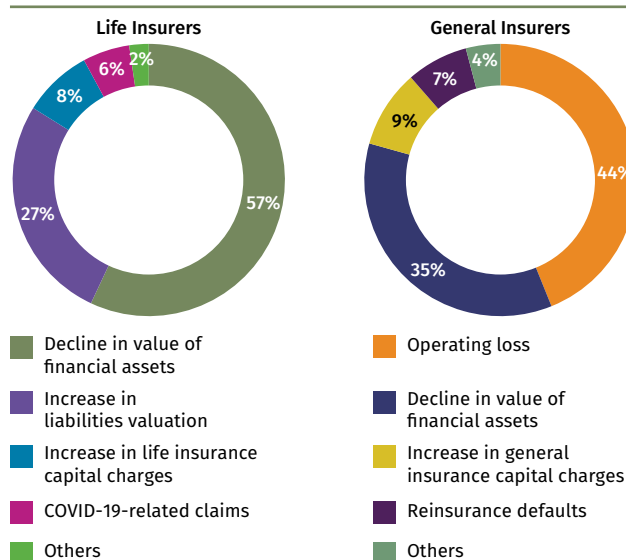
Under both AS1 and AS2, the aggregate capital adequacy ratio (CAR) of life and general insurers remain above the regulatory minimum (Chart 2.33). For life insurers, market risk remains the largest loss driver (Chart 2.34), with rising bond yields and the weak equity market performance affecting their significant holdings of financial assets. However, underwriting income from the assumed recovery in new business premiums and, to some extent, downward revaluation of existing insurance liabilities due to rising interest rates are expected to cushion the impact on CAR. Meanwhile, the capital of general insurers declined due to higher claims from the motor and fire segments, lower premiums amid intensified competition, and revaluation losses on their bond investments. Only one insurer would breach the regulatory minimum post-shock and it accounts for less than 3% of total insurance assets.

Chart 2.33: Macro Stress Test: Insurance Sector – Capital Adequacy Ratio Under Adverse Scenario 1 and 2



²⁴ This is assumed to result in (i) higher cost of motor parts from supply disruptions, and (ii) higher arson and fraud incidences.

Chart 2.34: Macro Stress Test: Insurance Sector – Loss Drivers Under Adverse Scenario 2



Note: Figures may not add up due to rounding.

Source: Bank Negara Malaysia

A bottom-up industry-wide stress test was also conducted in the second half of 2021 to assess the ability of ITOs to manage liquidity risk arising from a prescribed set of severe but plausible insurance risk events, including a flood scenario with a 1-in-200-year severity. Results from this stress test affirm the ability of ITOs to meet their cash obligations under such adverse scenarios. The results are consistent with the Bank’s top-down macro assessment of insurers’ ability to meet short-term liquidity needs under stressed conditions,²⁵ backed by sufficient holdings of liquid assets.²⁶

By design, the stress tests incorporate highly conservative assumptions aimed at testing the resilience of banks and insurers against adverse shocks. The actual impact on financial institutions under the stress scenarios is likely to be less severe and would depend on various factors, including:

- i. Financial institutions’ proactive management actions to shore up capital buffers such as via new issuances or parent injections;
- ii. Ongoing repayment assistance by financial institutions to support households and businesses;
- iii. Recoveries on impaired loans;
- iv. Proactive loan staging and conservative provisioning practices which could reduce future credit costs; and
- v. Policy interventions by the Bank, Government and/or other authorities to mitigate the impact of the shocks and support economic recovery.

²⁵ These may include surrender benefit payouts, COVID-19 related claims and business-as-usual benefit payouts.

²⁶ This refers to cash and deposits, and MGS.

Implementation of the Climate Change and Principle-based Taxonomy (CCPT) in the Financial Sector

In December 2021, Malaysia saw the severe effects of the torrential rain in several parts of the peninsular, the extent of which had not been seen since 1971. Erratic changes in climate patterns are impacting businesses and households with increasing frequency and intensity. This underscores the criticality of the climate challenge before us. The Government's commitment to achieve net zero greenhouse gas (GHG) emissions by 2050 will serve to mitigate future risks to the environment. However, this also gives rise to transition risks¹ that businesses must prepare for. Global actions to meet net zero carbon targets² will further amplify transition risks. Businesses that are slow or have no plans to adopt sustainable practices will risk being displaced and shut out by global markets. This in turn will affect the real economy and could pose threats to financial stability.

Financial institutions have a critical role to play in supporting orderly transitions while managing their exposures to climate risk from lending, investment, and underwriting activities. This begins with assessing exposures to climate-related risks in a consistent and credible way, both within a financial institution and across the industry. To this end, in April 2021, the Bank issued the Climate Change and Principle-based Taxonomy (CCPT) as a framework for financial institutions to assess economic activities and their associated impacts on climate and the broader environment. Consistent with the Bank's expectations for the financial sector to support businesses in transition, the CCPT recognises concrete actions to transform and progressively eliminate or reduce harmful activities. This is important to ensure financial flows meet the funding required to pivot business operations, invest in green technology, and obtain relevant certifications for products and services. To help financial institutions assess and classify economic activities, the Value Based Intermediation Financing and Investment Impact Assessment Framework (VBIIF) sectoral guides³ have been issued alongside the CCPT to provide additional guidance on climate and environmental metrics relevant to specific economic sectors and activities. The sectoral guides also contribute towards mitigating risks of greenwashing.⁴

Current observations on implementation progress and challenges

Beginning July 2022, financial institutions will start to report exposures in line with the CCPT classification system to the Bank. In anticipation of this, financial institutions have ramped up efforts to operationalise the CCPT (Diagram 1). The CCPT guiding principles and classification system are progressively being integrated in existing credit-related processes and assessment templates of financial institutions, including as part of annual or periodic due diligence reviews of existing borrowers. Compared to lending and protection, greater progress can be observed for investment activities where more financial institutions are able to build on existing policies and frameworks for ESG-aligned investments. The most progress is observed in intensified efforts by financial institutions to address gaps in knowledge and competencies in the first and second line of defence to ensure the effective implementation of the CCPT.

Financial institutions remain committed to support clients' transition. Instead of withdrawing support for sectors and activities deemed less green, financial institutions are seen taking a nurturing approach in helping such clients. As financial institutions continue to deepen knowledge and expertise, this will also help shape more focused engagements with clients especially those that present substantial exposures to climate risks. In turn, financial institutions will have better visibility on clients' business strategies and transition pathways

¹ Transition risk occurs as a result of adjustments to a low-carbon economy, whereby the adjustments may translate into financial and/or reputational risks. Sources of transition risk include changes in public policy and strategy, legislative and regulatory frameworks (e.g., implementation of mandatory disclosure requirements and carbon pricing), technological advancements (e.g., lowering the cost of renewable energy) and/or shift in consumer and investor behaviour (e.g., certification mandates and divestment strategies in carbon intensive sectors).

² Net zero carbon is a state of balance between the amount of carbon emitted into the atmosphere, and the amount of carbon removed from it. Net zero carbon target refers to setting a committed timeline to reach net zero carbon emissions.

³ The VBI Community of Practitioners has developed six sector guides i.e., energy efficiency, renewable energy, palm oil, manufacturing, construction and infrastructure, and oil and gas.

⁴ Refers to practices where companies make false or misleading claims about their climate change mitigation and adaptation efforts or exaggerate the extent of their impact.

at a counterparty and sector levels, as well as their alignment to the national transition pathway. Such understanding, combined with greater access to data – an area that is being prioritised by one of the Joint Committee on Climate Change (JC3) sub-committees⁵ – would enable financial institutions to develop more tailored financial solutions based on the specific needs of their clients.

To support its implementation, the CCPT Implementation Group⁶ (CCPT IG) was formed under the JC3. The CCPT IG serves as a reference point and helps to identify implementation issues and recommend appropriate remediation. It also provides a platform for industry players to share knowledge, experience, and progress in implementing the CCPT.

Going forward, the systematic reporting of climate risk exposures of financial institutions to the Bank will serve to inform the Bank’s assessments of risks from climate change to financial stability and facilitate engagements with financial institutions on how they are managing such risks and supporting transition activities. It will also pave the way for financial institutions to make climate-related financial risk disclosures aligned with the recommendations of the Task Force on Climate-Related Financial Disclosures which will be mandatory for all financial institutions licensed by the Bank from 2024. In addition, the reporting will assist the Bank in identifying financing gaps that may benefit from further enhancements to, and expansion of, the Bank’s lending facilities for SMEs.

Diagram 1: Progress of CCPT Implementation among Banking Institutions, Insurers and Takaful Operators



Note: Statistics derived from stocktake exercise conducted on 38 banking groups/institutions, 53 insurers and takaful operators (life, family and general) and 6 reinsurers and retakaful operators.

Source: Bank Negara Malaysia

⁵ The JC3 Sub-committee 5 on Bridging Data Gaps is developing a data catalogue that contains information on specific climate-related data such as frequency and data sources relevant for various use cases. The top 8 data items identified, which will be made available to the financial sector by end-2022 are: 1) Scope 1, 2, 3 GHG emissions; 2) Green/sustainable lending/financing and bond/sukuk programme & issuance; 3) Non-renewable energy consumption, renewable and other source; 4) Exposure to physical risks including weather data; 5) Asset value at risk arising from natural catastrophe; 6) ESG score/rating; 7) Water consumption and waste management; 8) Biodiversity, deforestation indicators and geo-mapping.

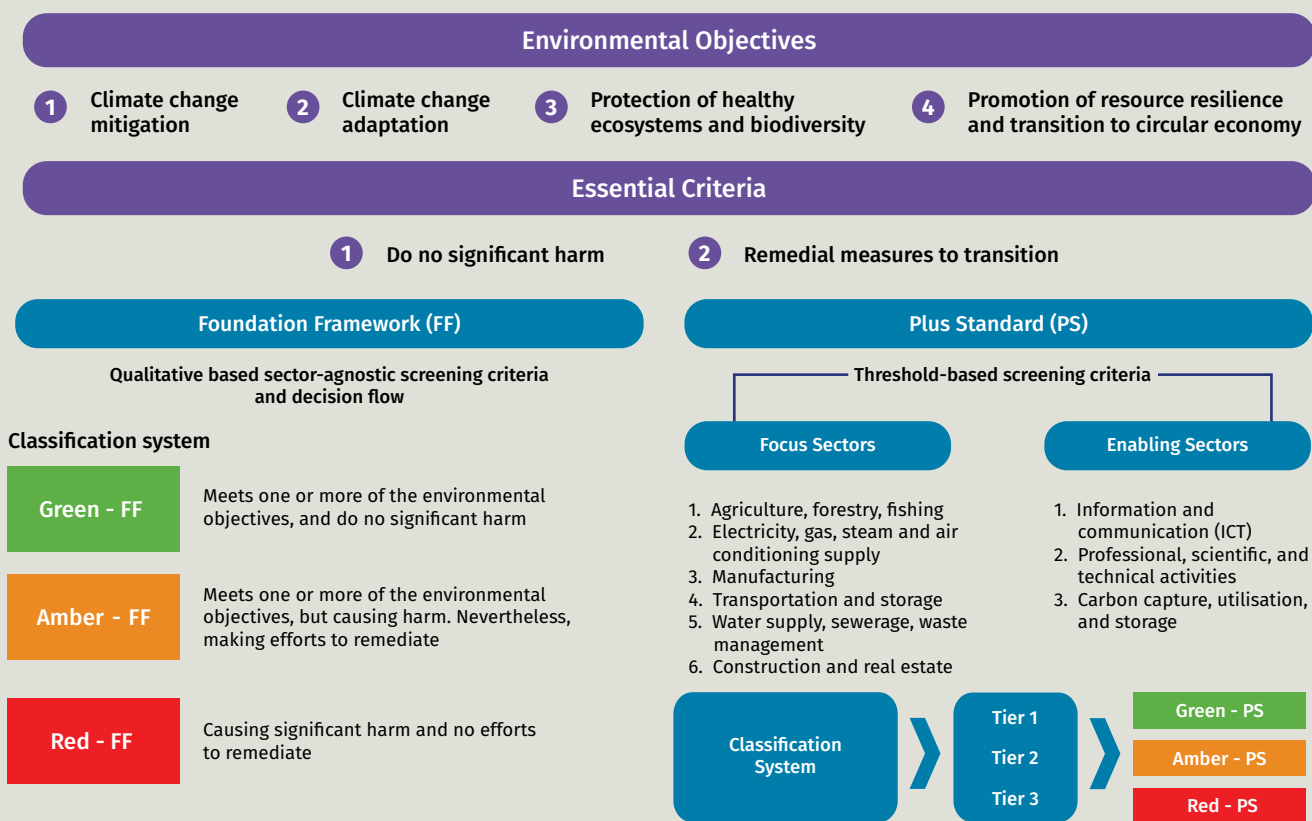
⁶ The CCPT IG is established as an industry-driven working group under the JC3 Sub-committee on Risk Management. The working group is co-led by Malayan Banking Berhad and AIA Group and its membership consists of 12 banking institutions and 9 insurers and takaful operators.

Alignment with the ASEAN Taxonomy

In March 2021, the Bank became one of the eight founding members of the ASEAN Taxonomy Board (ATB) established by ASEAN Central Bank Governors and Finance Ministers to develop, maintain and promote the use of the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy). In conjunction with the Glasgow Climate Change Conference (COP26) in November 2021, the ATB released the ASEAN Taxonomy – Version 1 for consultation.

The ASEAN Taxonomy serves to align national taxonomies across ASEAN member states while allowing for different initial conditions and phases of economic development among member states. To cater for the diversity within ASEAN, the ASEAN Taxonomy adopts a multi-tiered approach comprising a Foundation Framework and Plus Standard (Diagram 2). The principles-based Foundation Framework provides a qualitative assessment of activities that can be adopted by all ASEAN member states. Building on the Foundation Framework, the Plus Standard incorporates metrics and science-based thresholds for assessing and classifying activities and investments that meet green or transition criteria.

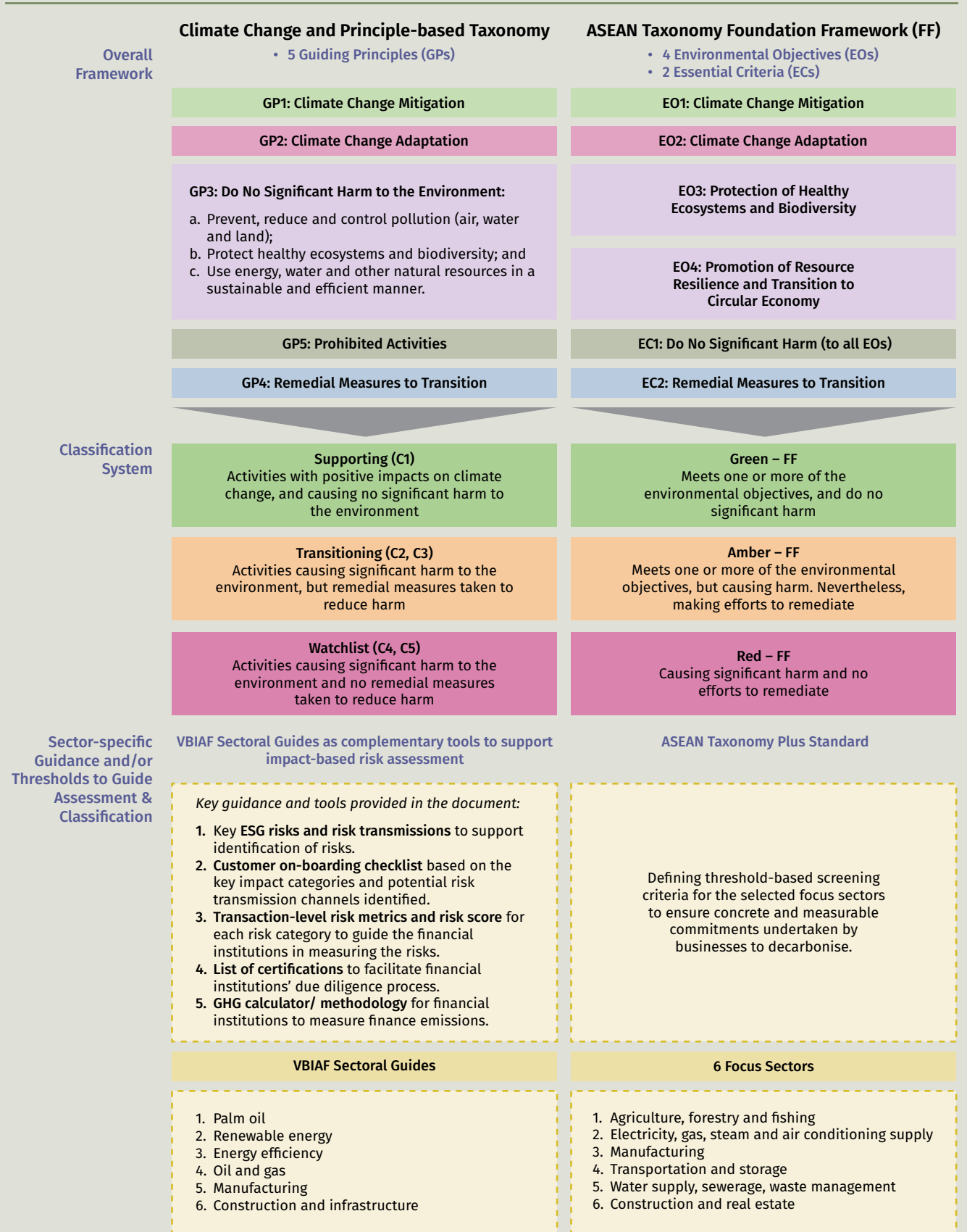
Diagram 2: Overview of the ASEAN Taxonomy



Source: Bank Negara Malaysia, adapted from publication of the ASEAN Taxonomy Board

The CCPT guiding principles are closely aligned with the environmental objectives and essential criteria of the Foundation Framework (Diagram 3). The classification systems are also aligned. This will reduce the regulatory burden for Malaysian financial institutions and businesses which are already preparing to adopt the CCPT. The metrics and thresholds set under the Plus Standard will further complement the ongoing rollout of VBIAF sectoral guides in Malaysia to support the credible implementation of the CCPT domestically and strengthen alignment with the ASEAN Taxonomy.

Diagram 3: Alignment between the ASEAN Taxonomy, CCPT, VBIAF and VBIAF Sectoral Guides



Source: Bank Negara Malaysia

Annex



Table A.1

Key Financial Soundness Indicators

	As at end				
	2H 2019	1H 2020	2H 2020	1H 2021	2H 2021p
	% (or otherwise stated)				
Banking System					
Total Capital Ratio	18.6	18.4	18.9	18.6	18.9
Tier 1 Capital Ratio	15.1	15.2	15.7	15.4	15.7
Common Equity Tier 1 Capital Ratio	14.6	14.6	15.2	14.9	15.2
Return on Assets ¹	1.4	1.0	1.0	1.1	1.1
Return on Equity ¹	12.2	8.8	8.4	9.7	9.7
Liquidity Coverage Ratio	149.1	149.2	148.2	149.1	153.8
Net Impaired Loans Ratio	0.9	0.9	1.0	1.0	0.9
Capital Charge on Interest Rate Risk in the Trading Book to Capital Base	1.2	1.2	1.1	1.1	1.0
FX Net Open Position to Capital Base	4.2	4.8	5.2	4.7	4.1
Equity Holdings to Capital Base	1.6	1.3	1.5	1.3	1.3
Insurance and Takaful Sector					
Capital Adequacy Ratio	226.9	227.1	219.7	221.1	222.2
Life Insurance and Family Takaful					
Excess Income over Outgo (RM billion)	7.7	4.7	17.3	3.7	8.7
New Business Premium / Contribution (RM billion)	9.0	9.0	9.9	11.8	10.5
Capital Adequacy Ratio	206.2	210.6	203.5	207.9	212.0
General Insurance and General Takaful					
Underwriting Profit (RM billion)	0.6	0.9	0.9	1.3	0.7
Operating Profit (RM billion)	1.5	1.7	1.7	1.8	1.3
Gross Direct Premium / Contribution (RM billion)	10.2	10.3	10.5	10.8	10.8
Claims Ratio	59.1	55.9	54.2	52.7	56.4
Capital Adequacy Ratio	279.8	287.1	282.6	270.9	256.9
Household (HH) Sector					
HH Debt (RM billion)	1,251.8	1,265.9	1,320.6	1,335.4	1,374.7
HH Financial Assets (RM billion)	2,712.3	2,749.8	2,901.3	2,896.0	2,971.7
HH Debt-to-GDP Ratio	82.7	87.4	93.2	89.6	89.0
HH Financial Assets-to-Total HH Debt Ratio	216.7	217.2	219.7	216.9	216.2
HH Liquid Financial Assets-to-Total HH Debt Ratio	143.4	143.7	145.2	146.2	144.2
Impaired Loans Ratio of HH Sector ²	1.2	1.0	1.1	1.0	0.7
Business Sector					
Return on Assets	1.6	0.9	1.1	2.1	2.4
Return on Equity	3.2	1.6	2.2	4.0	4.1
Debt-to-Equity Ratio	25.8	24.1	22.6	22.2	21.8
Interest Coverage Ratio (times)	4.8	4.0	5.1	6.7	7.5
Operating Margin	5.7	5.1	5.5	7.2	7.6
Impaired Loans Ratio of Business Sector	2.5	2.5	2.6	2.7	2.4
Development Financial Institutions³					
Lending to Targeted Sectors (% change)	-0.3	3.9	7.7	6.2	3.6
Deposits Mobilised (% change)	2.5	2.0	6.6	7.5	1.4
Impaired Loans Ratio	6.4	5.9	5.1	5.5	4.8
Return on Assets	1.5	1.1	1.1	1.3	1.1

¹ Banking system profits are aggregated at the entity level. The aggregated results are subsequently adjusted for dividend income received from domestic banking subsidiaries (previously added at both the parent and subsidiary levels). Differences in comparative pre-tax figures reported in previous Financial Stability Reviews are estimated to range between 5.5% and 10.7%.

² Refers to both banks and non-bank financial institutions.

³ Refers to development financial institutions under the Development Financial Institutions Act 2002.

p Preliminary

Note: Figures may not necessarily add up due to rounding.

Source: Bank Negara Malaysia, Bursa Malaysia, Department of Statistics, Malaysia, Employees Provident Fund, Securities Commission Malaysia, S&P Capital IQ and Bank Negara Malaysia estimates

Table A.2

Key Financial Indicators: Islamic Banking and Takaful Sectors

	As at end				
	2H 2019	1H 2020	2H 2020	1H 2021	2H 2021 ^p
Islamic Banking System	RM million (or otherwise stated)				
Total Assets ¹	1,020,371.0	1,041,629.6	1,089,540.7	1,139,095.2	1,192,862.4
% of total assets of entire banking system ¹	33.5	33.3	34.2	35.1	35.5
Total Financing ¹	753,609.9	780,376.6	817,403.3	841,507.2	886,607.2
% of total loans / financing of entire banking system ¹	39.2	39.9	41.0	41.5	42.5
Total Deposits and Investment Accounts ¹	826,167.2	859,946.8	889,951.4	933,749.8	968,909.4
Total Deposits ¹	739,130.3	761,993.4	790,905.4	820,390.9	844,293.4
Total Investment Accounts ¹	87,036.9	97,953.4	99,046.0	113,358.9	124,616.0
% of total deposits and investment accounts of entire banking system ¹	37.7	38.1	38.9	39.7	39.8
	%				
Total Capital Ratio	18.5	18.3	18.6	18.4	18.9
Tier 1 Capital Ratio	14.6	14.6	15.0	14.8	15.2
Common Equity Tier 1 Capital Ratio	14.1	14.0	14.5	14.3	14.7
Return on Assets	1.2	0.6	0.7	1.3	1.1
Net Impaired Financing Ratio	1.0	0.9	0.9	0.9	0.7
Takaful Sector	RM million (or otherwise stated)				
Takaful Fund Assets	36,517.6	39,040.1	41,871.2	43,223.1	45,730.6
Family	32,283.8	34,538.5	37,025.5	38,272.5	40,190.6
General	4,233.9	4,501.6	4,845.7	4,950.6	5,540.1
% of insurance and takaful industry	11.2	11.8	11.9	12.3	12.6
Net Contribution Income	5,542.4	5,642.8	5,985.5	7,189.0	6,593.8
Family	4,150.9	4,336.5	4,527.5	5,776.3	5,072.3
General	1,391.4	1,306.3	1,457.9	1,412.8	1,521.5
% of insurance and takaful industry	17.7	18.6	18.2	21.9	19.3
Family Takaful					
New Business Contribution	2,904.0	3,191.8	3,401.9	4,682.1	3,822.6
General Takaful					
Gross Direct Contribution	1,677.2	1,641.2	1,817.1	1,861.7	1,966.4
Claims Ratio (%)	59.5	53.3	58.0	51.8	50.7

¹ Including development financial institutions under the Development Financial Institutions Act 2002.

^p Preliminary

Note: Figures may not necessarily add up due to rounding.

Source: Bank Negara Malaysia

Glossary, Acronyms and Abbreviations



Annualised credit cost ratio

Annualised year-to-date loan loss provisions charged to the income statement as a share of total outstanding loans

Bid-to-cover ratio

A measure of the strength of demand for securities during an auction. It is the ratio of amount of bids received in an auction over the amount sold

Business continuity plan (BCP)

A comprehensive documented action plan that outlines the procedures, processes and systems necessary to resume or restore the business operation of an institution in the event of a disruption

Capital adequacy ratio (CAR)

A measure of the solvency position of an insurer or takaful operator, expressed as the ratio of total capital available to total capital required

Cash-to-short-term debt ratio (CASTD)

Ratio of a corporation's cash to short-term debt, which measures liquidity

Common Equity Tier 1 (CET1) capital

A component of a bank's regulatory capital comprising ordinary shares issued by a banking institution, retained earnings and other reserves

Consumption credit

Financing taken for consumption purposes such as personal financing, motor vehicle financing, credit cards and others

Debt service ratio (DSR)

Ratio of total monthly bank and non-bank debt obligations to monthly disposable income (net of statutory deductions)

Delinquent loan

Loan accounts with 2 months-in-arrears

Disaster Recovery Plan (DRP)

A comprehensive written plan of action that sets out the procedures and establishes the processes for IT systems and requirements that are necessary to support and restore the business operation of an institution in the event of a disruption

Dividend reinvestment programme

A programme offered by banks that allows shareholders to reinvest cash dividends into additional shares of the banks

Domestic banking group (DBG)

Domestically-owned financial group comprising a licensed commercial bank, licensed investment bank and licensed Islamic bank

Economic activity

Activity that entails producing, providing, buying, and/or selling of goods or services

Excess income over outgo

Sum of net underwriting income, net investment income and other income, for all direct life insurers/family takaful operators and life reinsurers

Expected credit loss (ECL)

The weighted average of credit losses with the respective risks of a default occurring as the weights

External debt-at-risk of banks

The proportion of banks' external debt that is more susceptible to sudden withdrawal shocks

External debt-at-risk of corporates

The proportion of external loans raised and bonds issued by high-risk corporate borrowers to total corporate external debt

Financial Market Stress Index (FMSI)

A risk monitoring tool to gauge the stress level in the domestic financial markets and drivers of market stress

Financial Sector Cyber Threat Intelligence Platform (FinTIP)

A technological platform for local financial institutions to rapidly share cyber security threat intelligence and best practices

Firms-at-risk

Listed non-financial corporates with interest coverage ratio below the prudent threshold of two times

Gross direct premium/contribution

Premium/contribution receivable before deduction of commissions, brokerage or other expenses, for all direct general insurers and direct general takaful operators

High-quality liquid assets (HQLA)

Assets that can be easily and immediately converted into cash at little or no loss of value

Household financial assets

Assets that are held by households including deposits, investments in unit trust funds and equities, insurance/takaful policies and Employees Provident Fund (EPF) savings

Household liquid financial assets

Household financial assets excluding EPF savings

Interest coverage ratio (ICR)

Ratio of a corporation's earnings before interest, taxes, depreciation and amortisation to interest expense, which measures debt-servicing capacity

Investment-linked products

Life insurance or family takaful product where the policy/certificate value at any time is partly determined by the value of the investment assets at the time

Liquidity Coverage Ratio (LCR)

The ratio of a bank's high-quality liquid assets (HQLA) to the expected net cash outflows over the next 30 calendar days

Loan loss coverage ratio (including regulatory reserves)

The ratio of total provisions and regulatory reserves to total impaired loans

Loan-to-value ratio

Ratio of a loan to the value of an asset purchased

Locally-incorporated foreign bank (LIFB)

Foreign-owned licensed bank or licensed Islamic bank that is incorporated in Malaysia

Loss given default (LGD)

Percentage of an outstanding claim on a counterparty that will likely not be recovered in the event of a default

Management overlays

Additional provisions set aside on top of provisions derived from ECL models. Management overlays provide model risk adjustments due to data deficiencies or uncertainties not adequately captured by the ECL models

Net impaired loans ratio

The ratio of impaired loans net of specific provisions to total loans net of specific provisions

Net interest margin (NIM)

The difference between interest rates at which banks extend financing and interest rates banks pay for funding, including deposits

Net Stable Funding Ratio (NSFR)

The ratio of a bank's available stable funding (ASF) to the required stable funding (RSF), where ASF refers to funding sources weighted according to their stability, and RSF refers to assets and other off-balance sheet exposures weighted according to their liquidity

Net underwriting income

Insurance premium/takaful contribution income after deducting benefit payouts, agency remuneration, and other expenses, for all direct life insurers/family takaful operators and life reinsurers

New business premium/contribution

Premium/contribution acquired from new policies/certificates for a particular year, for all direct life insurers/family takaful operators and life reinsurers

Nominal GDP

Gross domestic product at current prices

Non-financial corporate

A corporation whose principal activity is the production of goods and/or non-financial services

Operating profit/loss

Sum of underwriting profit/loss, net investment and other income for all direct general insurers/takaful operators and general reinsurers

Premium/contribution deferment

The option for COVID-19-affected insurance policyholders/takaful participants to defer premium or contribution due under life insurance policies and family takaful certificates for three months without affecting the coverage

Price-to-book ratio (P/B)

The ratio of stock price to book value of the share

Price-to-earnings ratio (P/E)

The ratio of stock price to bank's earnings per share for the last 12 months

Real-time Electronic Transfer of Funds and Securities System (RENTAS)

A real-time gross settlement system for interbank fund transfers, debt securities settlement and depository services for scripless debt securities

Real-time gross settlement (RTGS)

The real-time settlement of payments, transfer instructions or other obligations individually on a transaction-by-transaction basis (i.e. gross basis)

Retail payment system (RPS)

A funds transfer system that typically handles a large volume of relatively low-value payments in such forms as cheques, credit transfers, direct debits and card payment transactions

Stage 2 loans

Loans that have exhibited deterioration in credit risk, for which banks are required to set aside provisions based on lifetime expected credit losses, based on the Malaysian Financial Reporting Standard 9

Third Party Service Provider (TPSP)

Entities, including affiliate companies, that provide ancillary services to a financial institution under an outsourcing arrangement

Total capital

A bank's total regulatory capital comprising the sum of CET1, Additional Tier 1 and Tier 2 capital

Transition

The process of changing from one state or condition to another in a given period of time. Transition can be in individuals, firms, cities, regions and nations and can be based on incremental or transformative change (IPCC, 2021)

Underwriting profit/loss

Earned insurance premium/takaful contribution income less net claims incurred, net commissions and management expenses, for all direct general insurers/takaful operators and general reinsurers

Unsold houses

Comprises residential units that remained unsold for more than nine months from the date of launch or after 1 January 1997. These units comprise (i) units completed with Certificate of Completion and Compliance or Temporary Certificate of Fitness for Occupation in the review period; or (ii) units with building plan approval that are under construction

ADF
SME Automation and Digitalisation Facility

AES
All Economic Sectors Facility

AF
Agrofood Facility

AFC
Asian Financial Crisis

AKPK
Credit Counselling and Debt Management Agency

AS1
Adverse scenario 1

AS2
Adverse scenario 2

BCP
Business continuity plan

BRF
Business Recapitalisation Facility

CA
Compromise assessment

CAGR
Compounded annual growth rate

CAR
Capital adequacy ratio

CASA
Current and savings accounts

DBG
Domestic banking group

DRF
Disaster Relief Facility

DSR
Debt service ratio

ECL
Expected credit loss

EPF
Employees Provident Fund

FCY
Foreign currency

FI
Financial institution

FX
Foreign exchange

GDP
Gross Domestic Product

GFC
Global Financial Crisis

HQLA
High-quality liquid assets

HTF-NIA
High Tech Facility – National Investment Aspirations

LCR
Liquidity Coverage Ratio

LCTF
Low Carbon Transition Facility

LGD
Loss given default

LIBFC
Labuan International Business and Financial Centre

LIFB
Locally-incorporated foreign bank

LTV
Loan-to-value

MCO
Movement Control Order

MEF
Micro Enterprises Facility

MFRS
Malaysian Financial Reporting Standard

MGS
Malaysian Government Security

MHPI
Malaysian House Price Index

MRTA/MRTT
Mortgage Reducing Term Assurance/Takaful

MYR
Malaysian Ringgit

NOP
Net open position

NRP
National Recovery Plan

NSFR
Net Stable Funding Ratio

P/B
Price-to-book

P/E
Price-to-earnings

PEMULIH
National People's Well-Being and Economic Recovery Package



Glossary, Acronyms and Abbreviations

R&R

Rescheduling and restructuring

RENTAS

Real-time Electronic Transfer of Funds and Securities System

ROE

Return on equity

RPS

Retail payment system

SLA

Service level agreement

SME

Small and medium enterprise

SRR

Statutory Reserve Requirement

TPSP

Third party service provider

URUS

Financial Management and Resilience Programme

VBIAF

Value Based Intermediation Financing and Investment Impact Assessment Framework