Financial Institution Soundness and Resilience

Financial Institution Soundness and Resilience

THE BANKING SECTOR

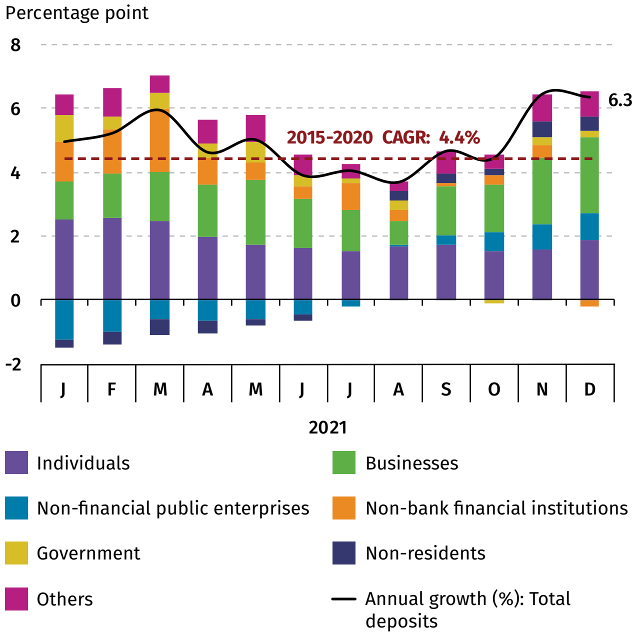
Banks' strong funding and liquidity positions remained supportive of intermediation activities

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).

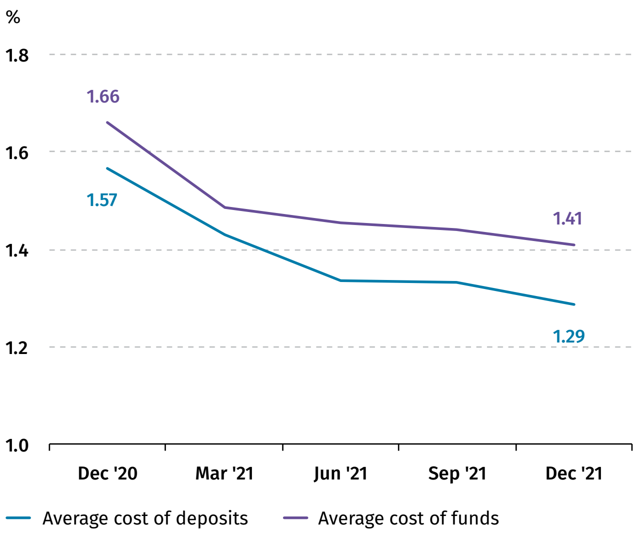
[1] Similar to developments in May 2021, a notable dip in LCR was observed in November 2021 due to maturing deposits from fund managers ahead of the expiry of the income tax exemption for corporate investors on interest or profit earned from money market funds on 1 January 2022 (Chart 2.3). However,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



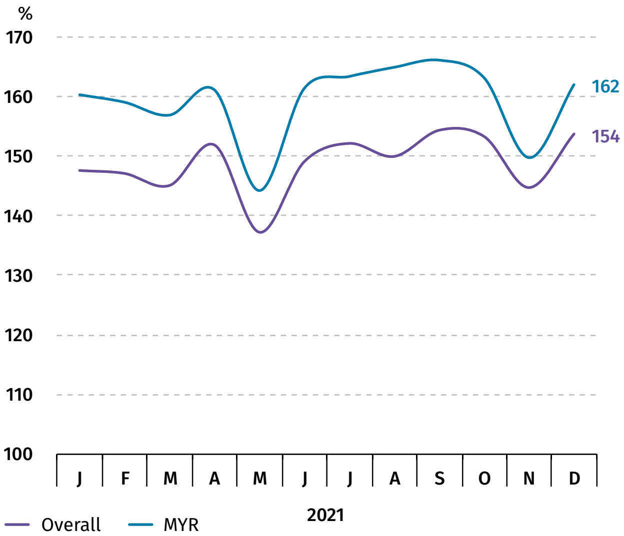
Source: Bank Negara Malaysia

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



Source: Bank Negara Malaysia

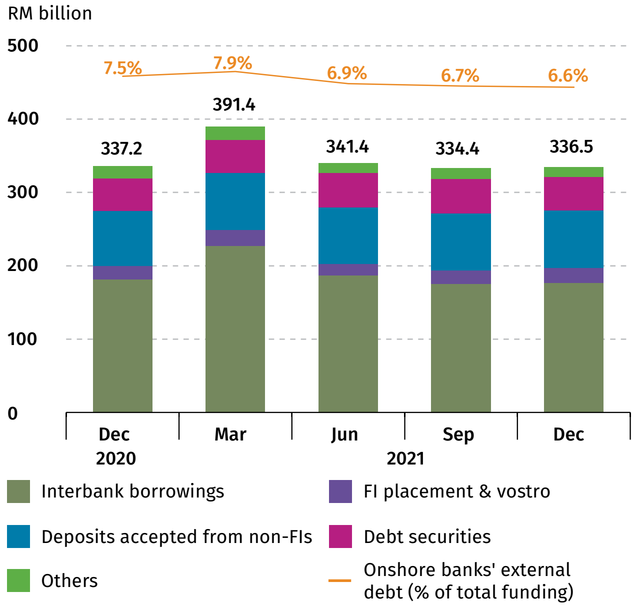
Chart 2.3: Banking System – Liquidity Coverage Ratio



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

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

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

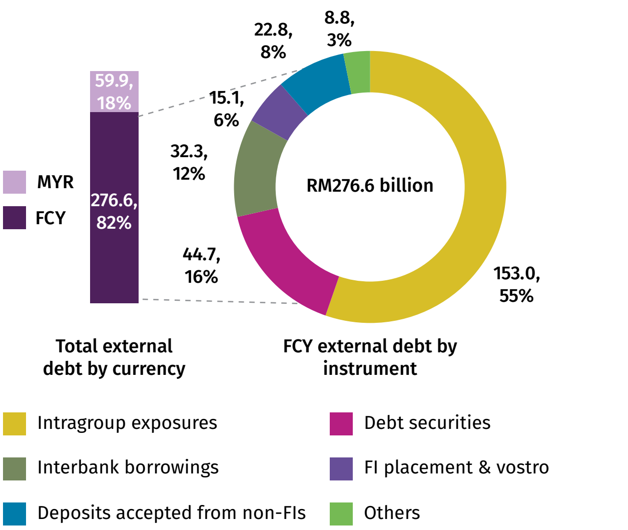
Risks associated with banks' external debt exposures remain low. Banks' external debt continued to decline in the second half of 2021. The reliance of onshore banks[2] on external funding is limited as banks continued to tap on more stable domestic funding sources (Chart 2.4). Maturing intragroup transactions 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.

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).

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

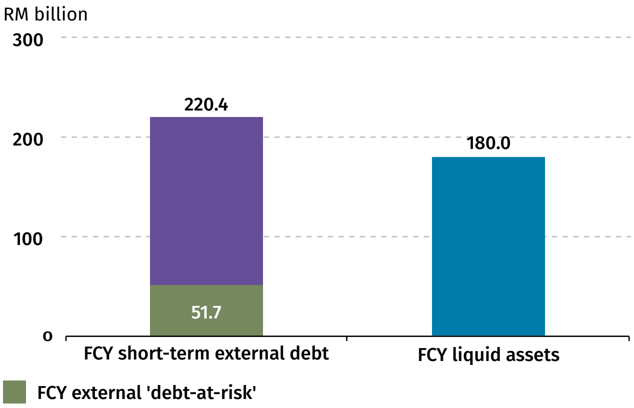
[3] Banks' external debt-at-risk comprises financial institutions' deposits, interbank borrowings, and short-term loans from unrelated non-resident counterparties, which are considered more susceptible to sudden withdrawal shocks.

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

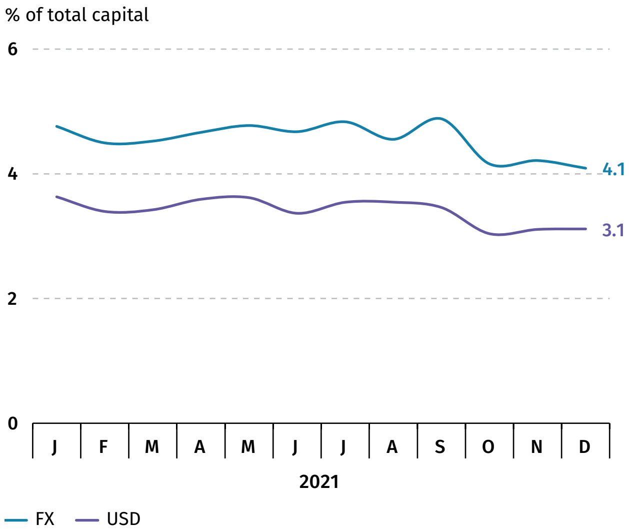


Note: Liquid assets comprise cash and cash equivalents, unencumbered debt securities held and interbank placements.

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

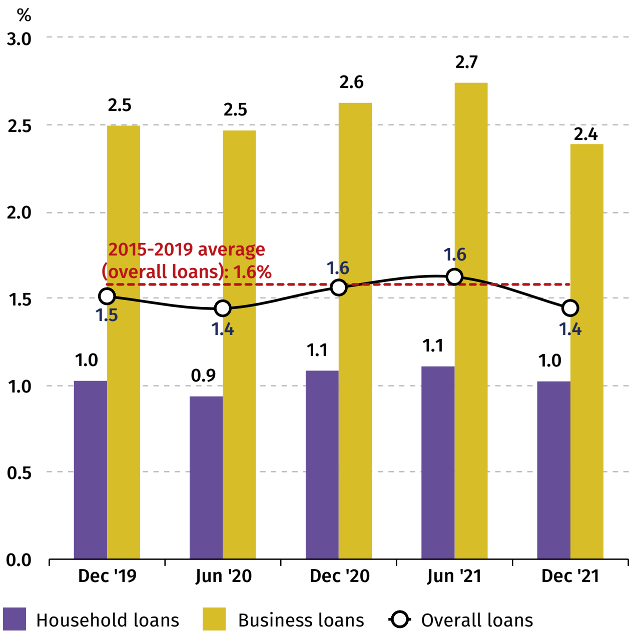


Source: Bank Negara Malaysia

Banks remain cautious amid the uncertain credit risk outlook

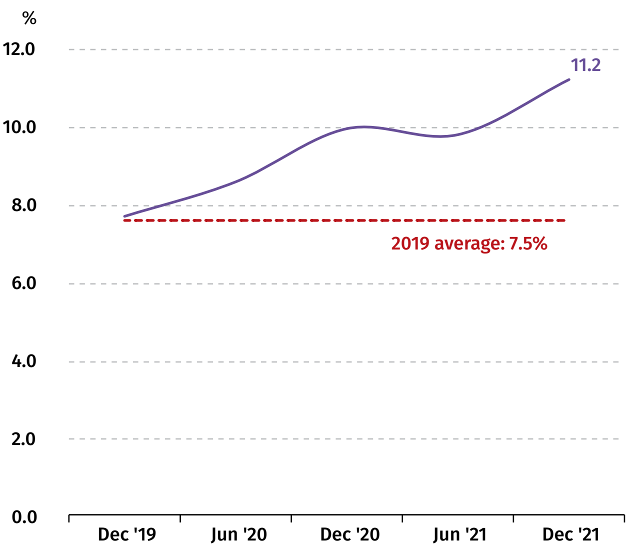
Ongoing assistance measures for households and businesses affected by the pandemic continued to support banks' asset quality by averting a premature materialisation of defaults among distressed but viable borrowers. Consequently, banking system gross and net impaired loans ratios remained low at 1.4% 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



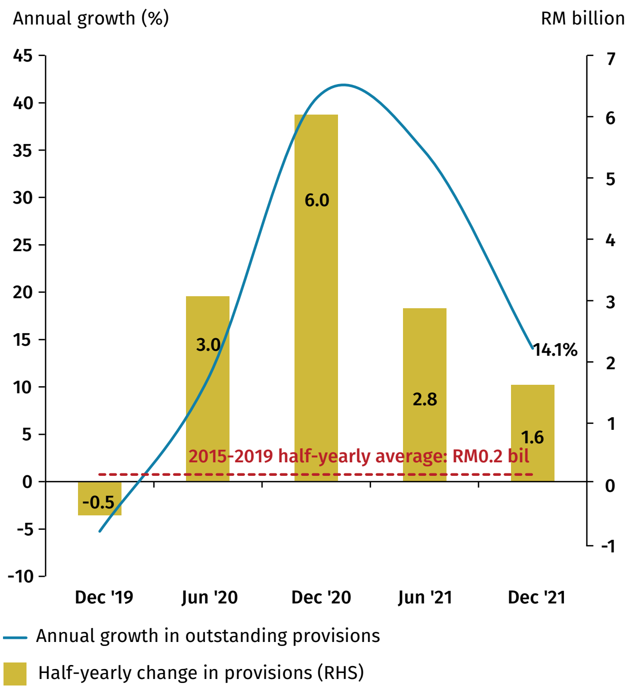
Source: Bank Negara Malaysia

[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

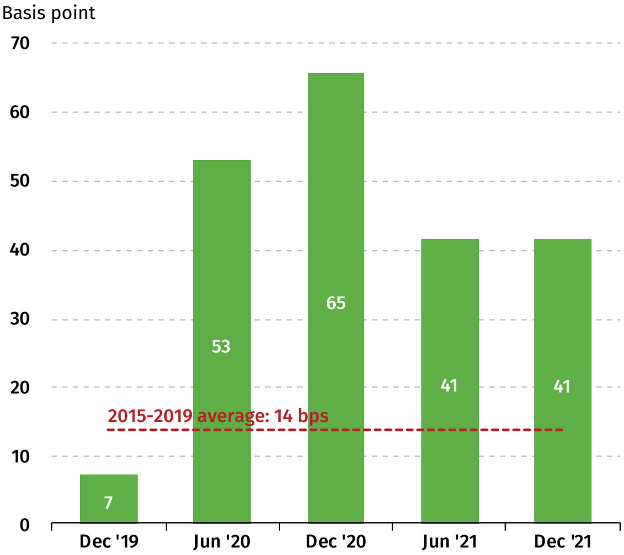
In line with the higher share of Stage 2 exposures, overall provisions rose further to 1.9% (June 2021: 1.8%) as a share of total loans. While the increase in provisions has been more moderate (2H 2021: +RM1.6 billion; 1H 2021: +RM2.8 billion) due to the sizeable accumulation of provisions earlier in 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

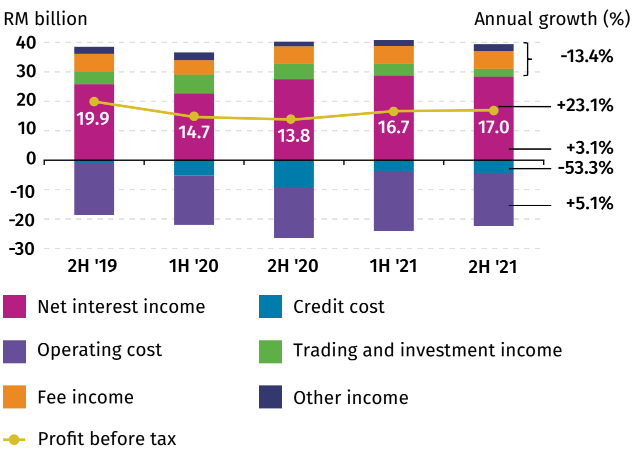
Chart 2.11: Banking System – Annualised Credit Cost Ratio



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 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.

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

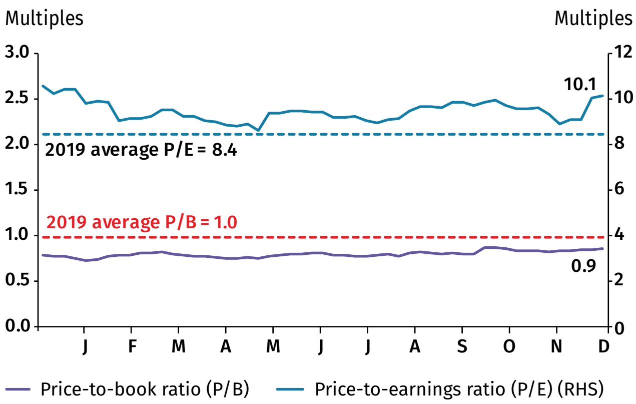


Note: Annual change computed based on figures for 2H 2020 and 2H 2021.

Source: Bank Negara Malaysia

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 tests[5] 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.

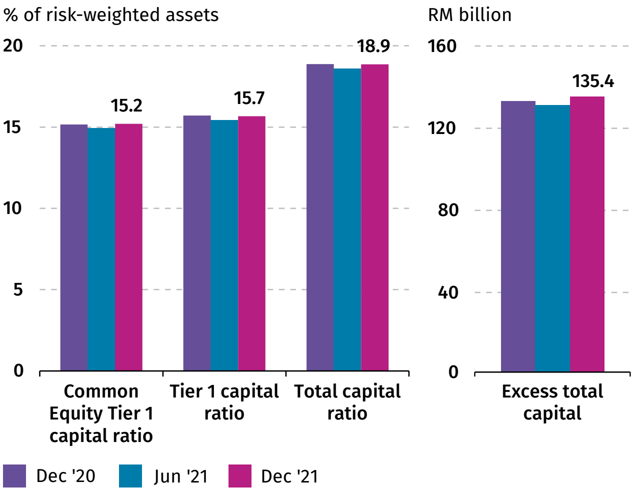
Source: Bloomberg

[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



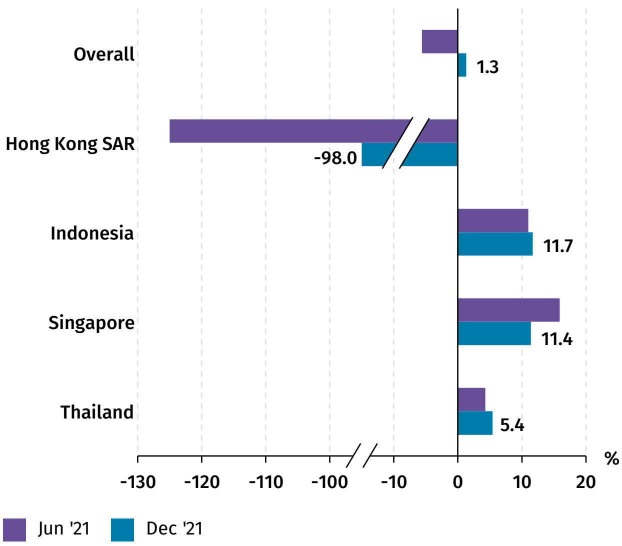
Note: Excess total capital refers to total capital above the regulatory minimum, which includes the capital conservation buffer requirement of 2.5% and bank-specific higher minimum requirements.

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

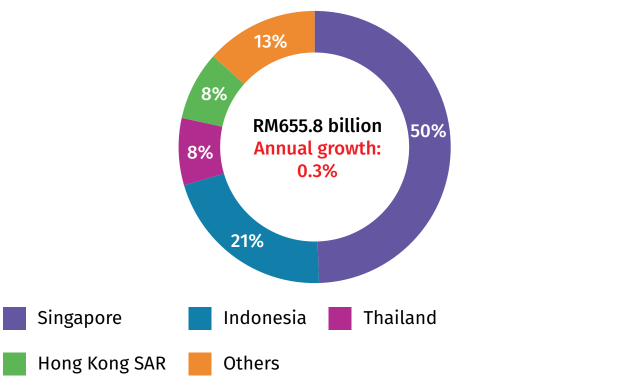
Chart 2.15: Banking System – Return on Equity of Overseas Operations by Jurisdiction



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

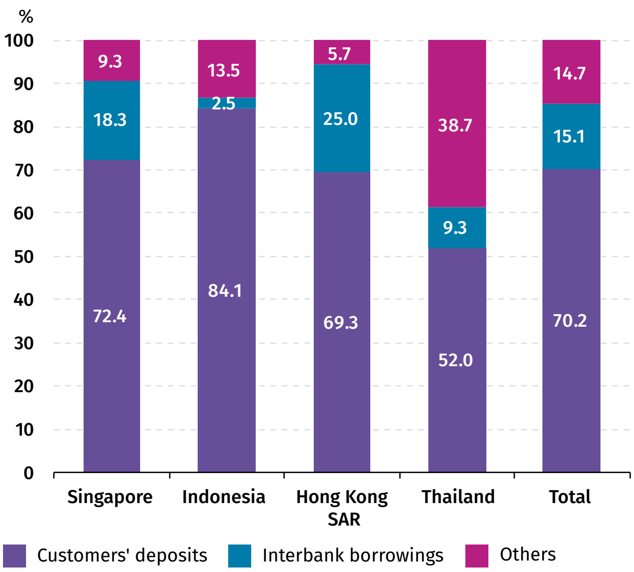


Source: Bank Negara Malaysia

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.

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]

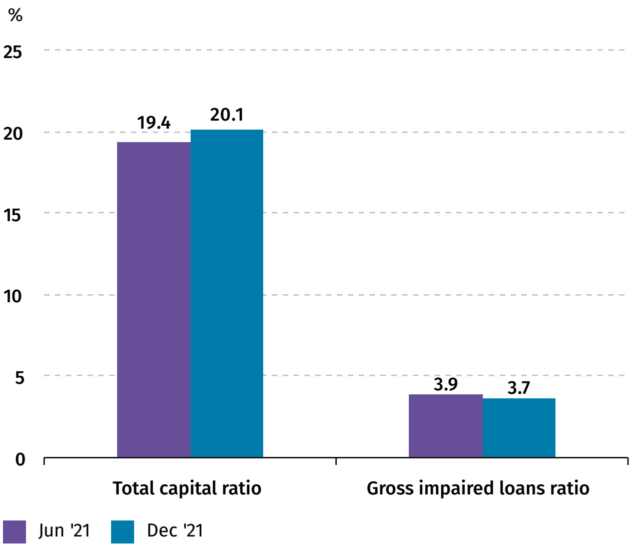
Chart 2.17: Banking System – Funding Profile of Major Overseas Operations



Note: Figures may not add up due to rounding.

Source: Bank Negara Malaysia

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.

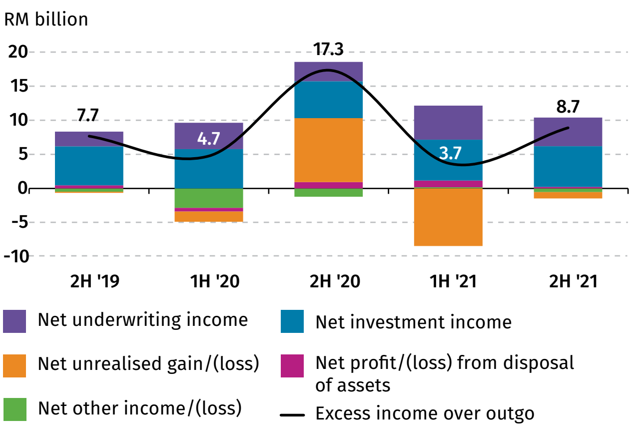
THE INSURANCE AND TAKAFUL SECTOR

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 premium[7] 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 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 holidays[8] 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%

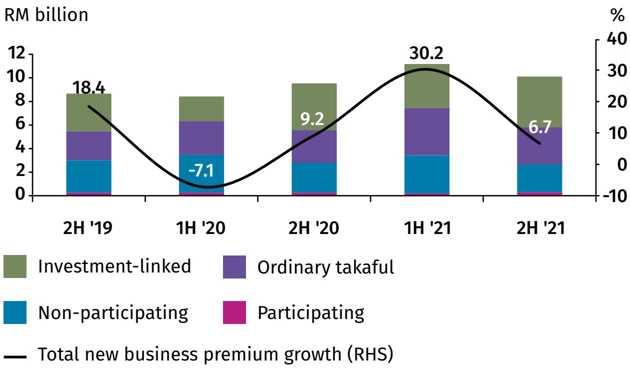
Chart 2.19: Life Insurance and Family Takaful Fund – Composition of Income and Outgo



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

Source: Bank Negara Malaysia

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



Source: Bank Negara Malaysia

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

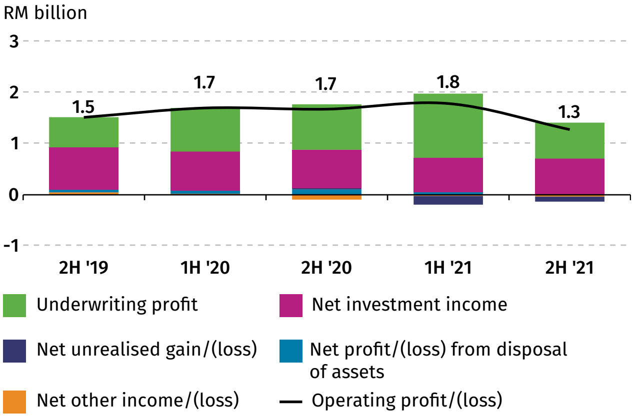
8 A premium holiday refers to continued insurance/takaful coverage despite an absence of premium payments and applies to products with the premium holiday feature already in place such as investment-linked products. This flexibility is available to policyholders if the investment value in the unit fund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



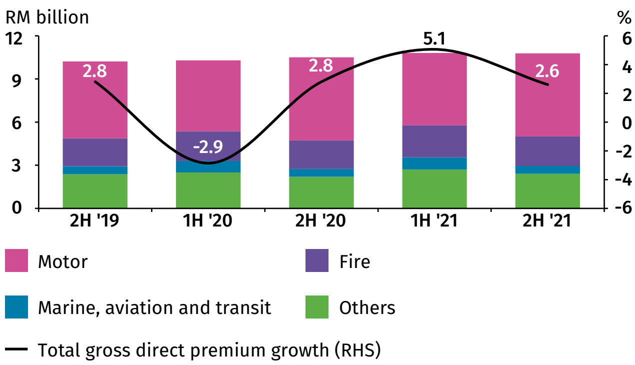
Source: Bank Negara Malaysia

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 losses[11] 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 (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

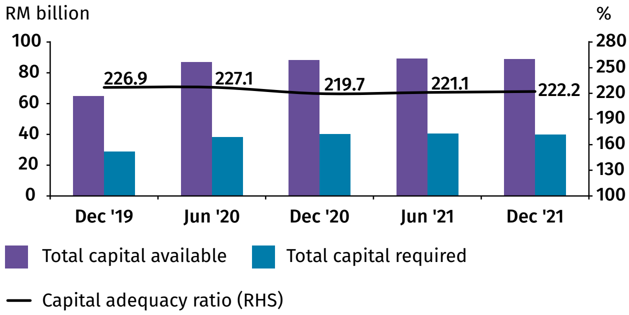
[11] Refers to estimated loss after taking into consideration proportional and facultative reinsurance arrangements.

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



Source: Bank Negara Malaysia

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

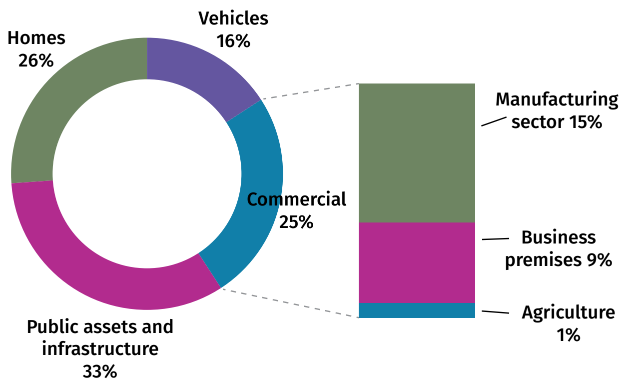
Overall economic losses[13] from the December flood events were estimated to be at RM6.1 billion, with about RM2.6 billion incurred by the retail sector, and RM3.5 billion by the commercial and public sectors (Chart 2.24). Around 36% of these losses were insured/covered. In absolute terms, this was the 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.

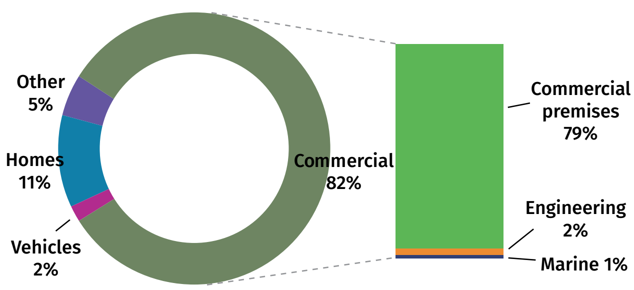
Despite a higher level of coverage relative to earlier periods, the December floods highlight the significant underinsurance of flood risks. Gross insured/covered losses[14] from the floods were estimated to be RM2.2 billion. Most of these losses were from the commercial sector where coverage levels 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 cover[16] (Chart 2.26). Surveys[17] 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



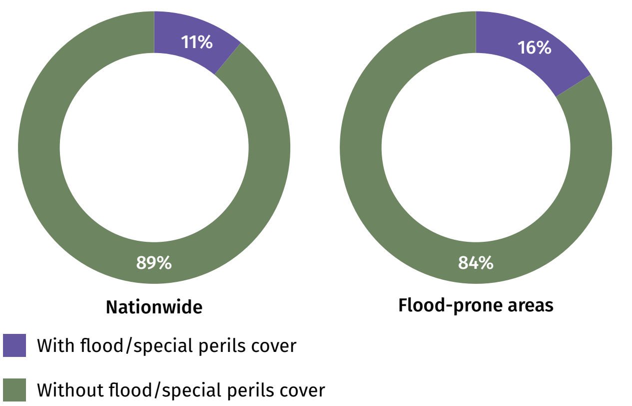
Source: Special Report on Impact of Floods in Malaysia 2021 released by Department of Statistics Malaysia on 28 January 2022

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



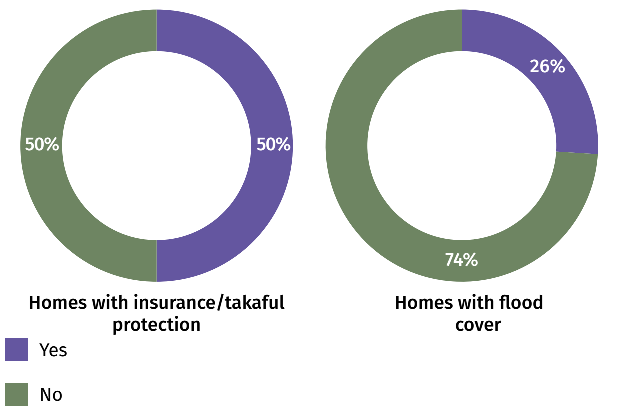
Source: Bank Negara Malaysia

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 rates[18] 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 2020[21] 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

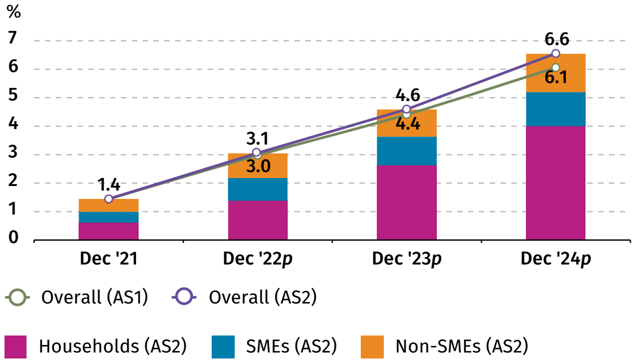
Section	Key Assumption Change
Credit risk models	• Revised definition of vulnerable business sectors[1]
Repayment assistance	• No repayment assistance or R&R for household and business loans throughout the stress horizon[2]
Credit costs	• Estimated based on the highest coverage ratios[3] in 2020 and 2021, as opposed to 2020 quarterly average
Net interest income	• 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	• 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.

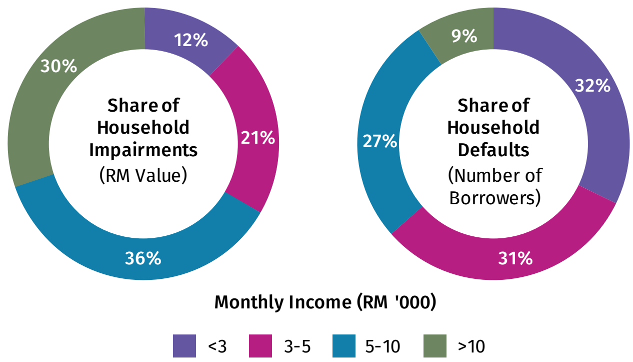
Chart 2.28: Macro Stress Test: Banking System – Impaired Loans Ratio Under Adverse Scenarios 1 and 2



p Projected

Source: Bank Negara Malaysia

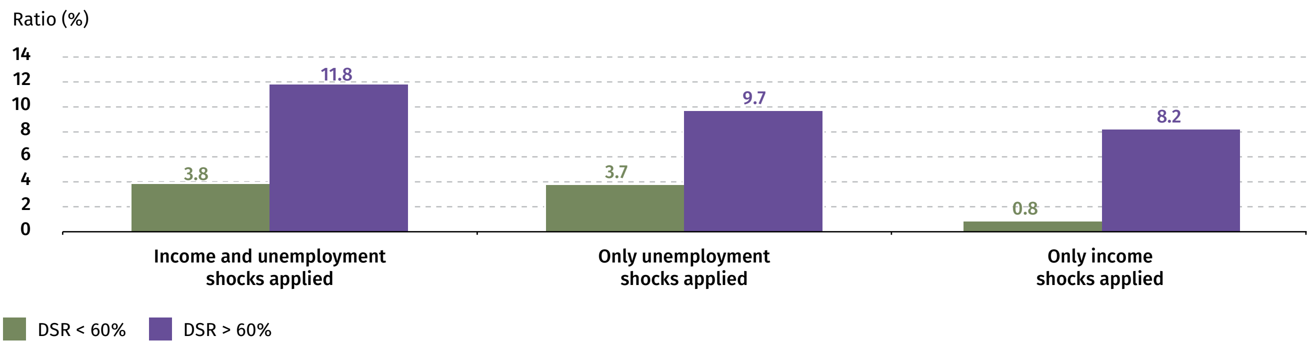
Chart 2.29: Macro Stress Test: Household Sector – Impairment Profile Under Adverse Scenario 2



Note: Figures may not add up due to rounding.

Source: Bank Negara Malaysia

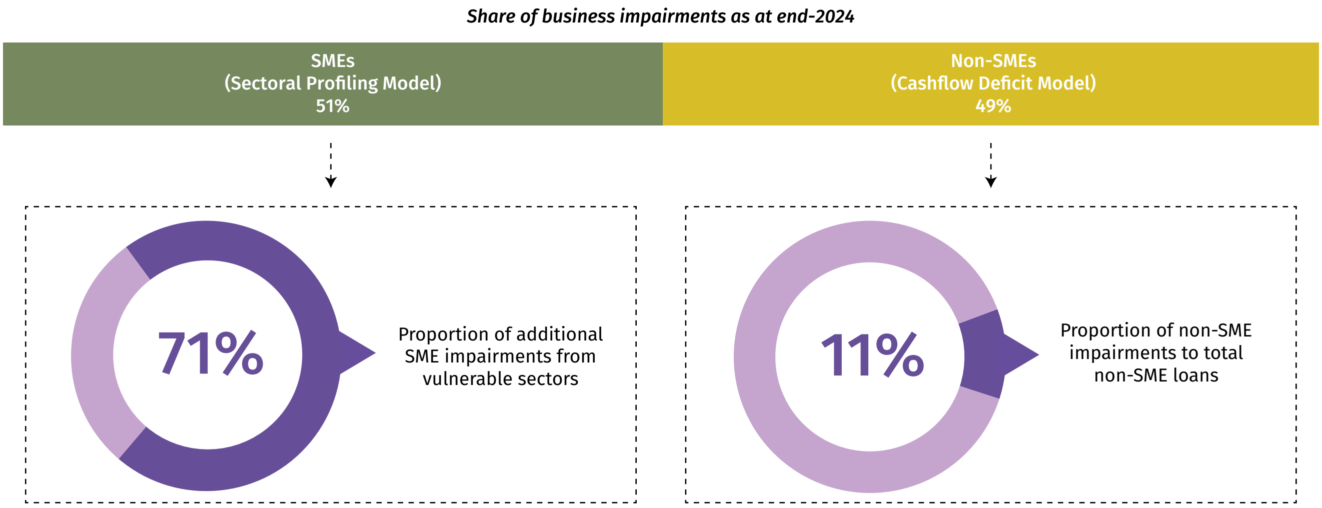
Chart 2.30: Macro Stress Test: Household Sector – Impaired Loans Ratio by Debt Service Ratio (DSR) Group



Note: Economic shocks applied under Adverse Scenario 2.

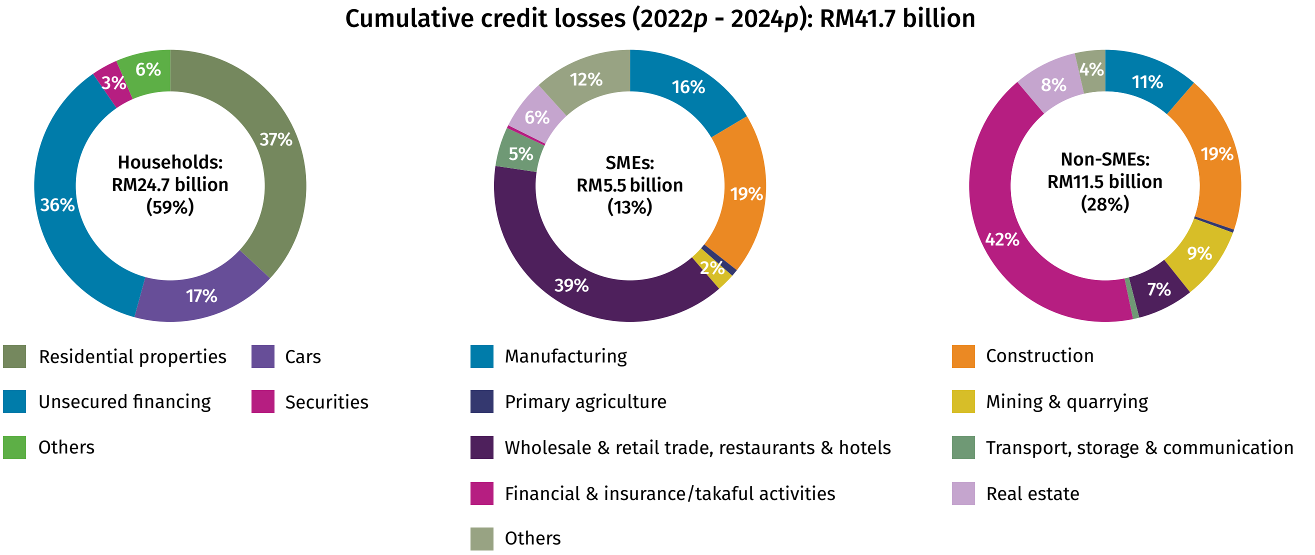
Source: Bank Negara Malaysia

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

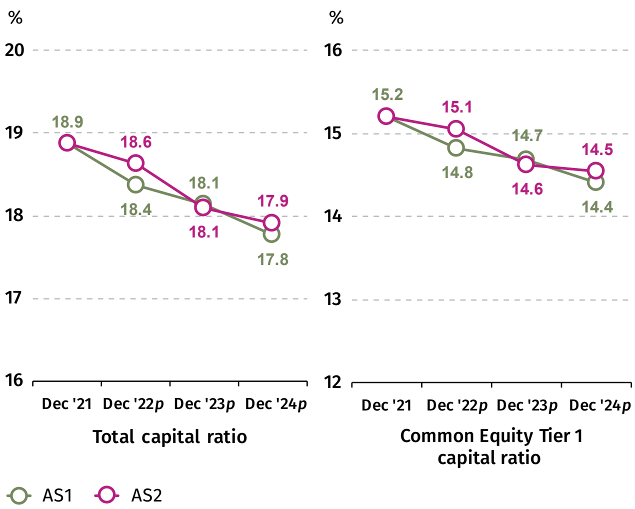
Note: 1. (...) refers to % of overall cumulative credit costs.
2. Figures may not add up due to rounding.

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 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.

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



p Projected

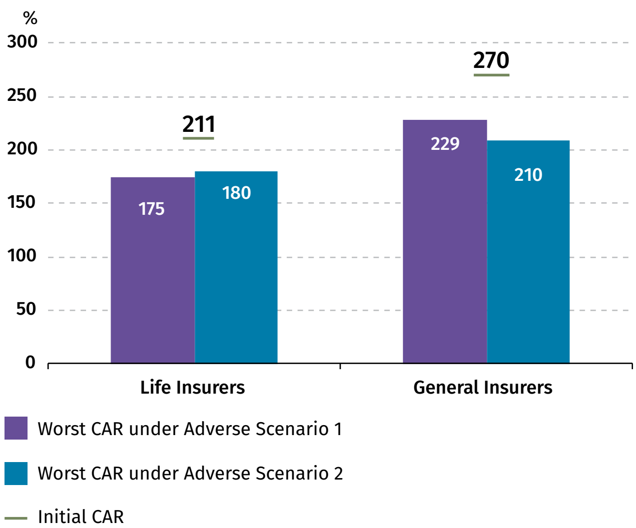
Source: Bank Negara Malaysia

[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.

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.

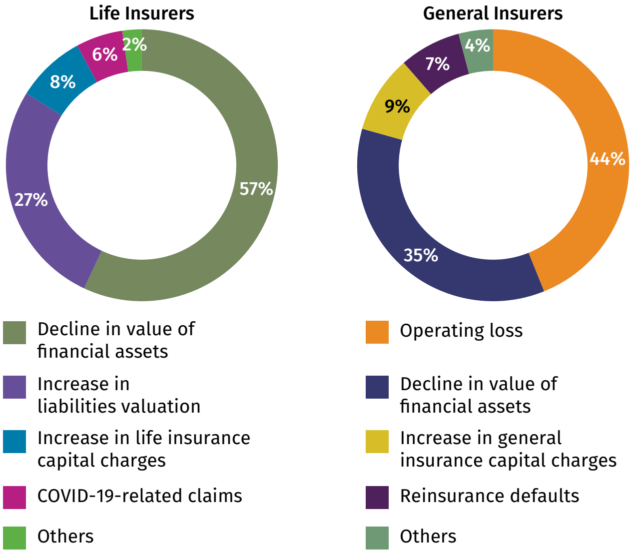
Under both AS1 and AS2, the aggregate capital adequacy ratio (CAR) of life and general insurers remain above the regulatory minimum (Chart 2.33). For life insurers, market risk remains the largest loss driver (Chart 2.34), with rising bond yields and the weak equity market performance affecting their 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



Source: Bank Negara Malaysia

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.

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

[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 risks[1] that businesses must prepare for. Global actions to meet net zero carbon targets[2] 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 (VBIAF) sectoral guides[3] 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

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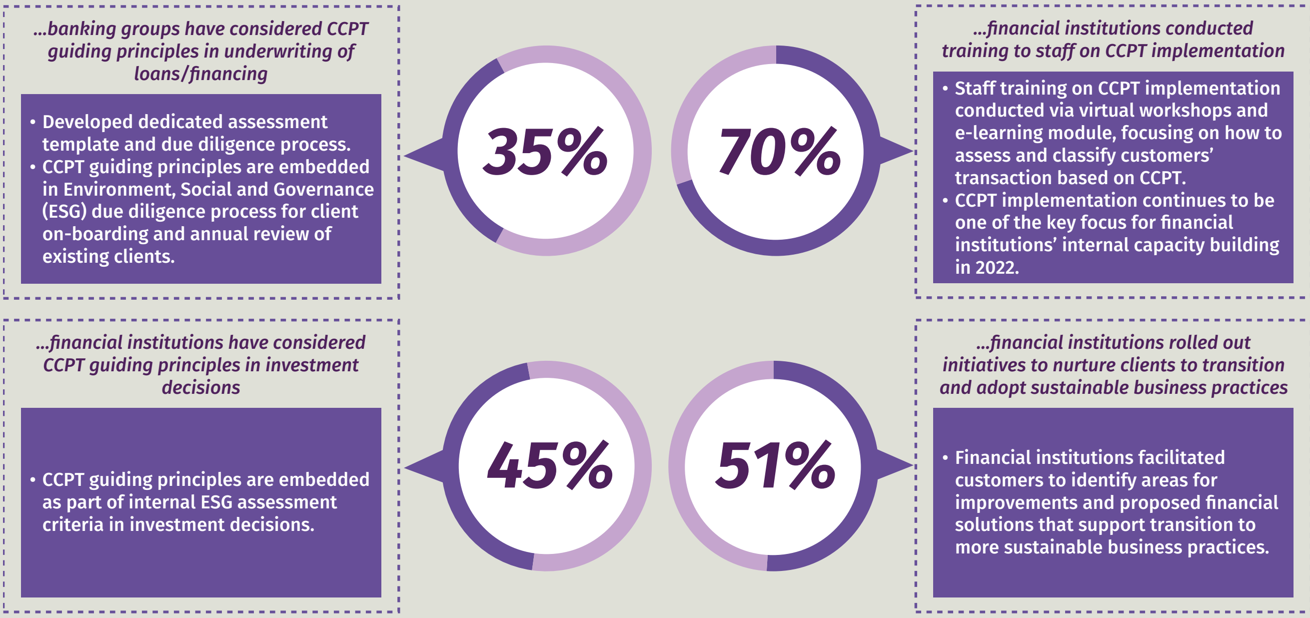
1 Transition risk occurs as a result of adjustments to a low-carbon economy, whereby the adjustments may translate into financial and/or reputational risks. Sources of transition risk include changes in public policy and strategy, legislative and regulatory frameworks (e.g., implementation of mandatory 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-committees[5] – 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 Group[6] (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.

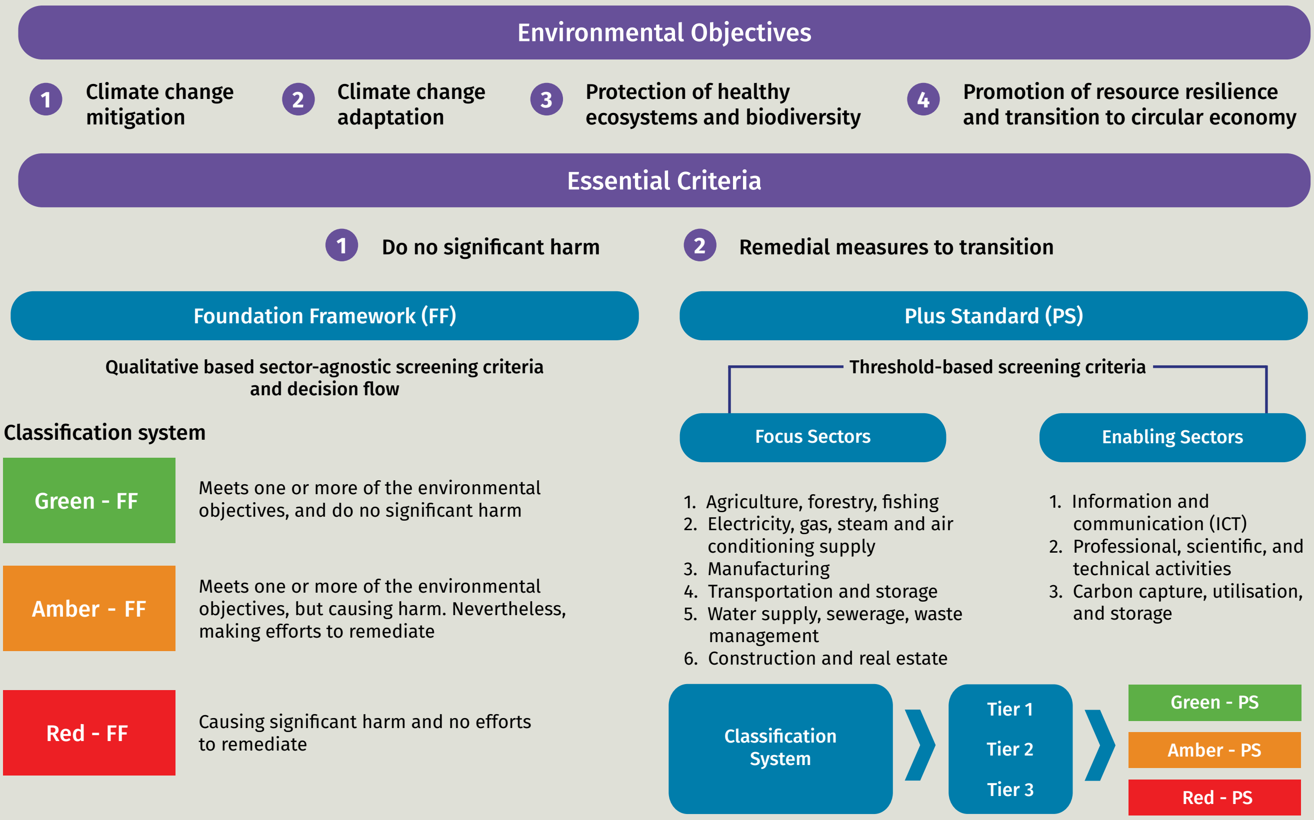
[6] The CCPT IG is established as an industry-driven working group under the JC3 Sub-committee on Risk Management. The working group is co-led by Malayan Banking Berhad and AIA Group and its membership consists of 12 banking institutions and 9 insurers and takaful operators.

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

	Climate Change and Principle-based Taxonomy	ASEAN Taxonomy Foundation Framework (FF)
Overall Framework	• 5 Guiding Principles (GPs)	• 4 Environmental Objectives (EOs) • 2 Essential Criteria (ECs)
	GP1: Climate Change Mitigation	**EO1: Climate Change Mitigation**
	GP2: Climate Change Adaptation	**EO2: Climate Change Adaptation**
	GP3: Do No Significant Harm to the Environment: a. Prevent, reduce and control pollution (air, water and land); b. Protect healthy ecosystems and biodiversity; and c. Use energy, water and other natural resources in a sustainable and efficient manner.	**EO3: Protection of Healthy Ecosystems and Biodiversity** **EO4: Promotion of Resource Resilience and Transition to Circular Economy**
	GP5: Prohibited Activities	**EC1: Do No Significant Harm (to all EOs)**
	GP4: Remedial Measures to Transition	**EC2: Remedial Measures to Transition**
Classification System	**Supporting (C1)** Activities with positive impacts on climate change, and causing no significant harm to the environment	**Green – FF** Meets one or more of the environmental objectives, and do no significant harm
	Transitioning (C2, C3) Activities causing significant harm to the environment, but remedial measures taken to reduce harm	**Amber – FF** Meets one or more of the environmental objectives, but causing harm. Nevertheless, making efforts to remediate
	Watchlist (C4, C5) Activities causing significant harm to the environment and no remedial measures taken to reduce harm	**Red – FF** Causing significant harm and no efforts to remediate
Sector-specific Guidance and/or Thresholds to Guide Assessment & Classification	VBIAF Sectoral Guides as complementary tools to support impact-based risk assessment	ASEAN Taxonomy Plus Standard
	Key guidance and tools provided in the document: 1. Key **ESG risks and risk transmissions** to support identification of risks. 2. **Customer on-boarding checklist** based on the key impact categories and potential risk transmission channels identified. 3. **Transaction-level risk metrics and risk score** for each risk category to guide the financial institutions in measuring the risks. 4. **List of certifications** to facilitate financial institutions' due diligence process. 5. **GHG calculator/ methodology** for financial institutions to measure finance emissions.	Defining threshold-based screening criteria for the selected focus sectors to ensure concrete and measurable commitments undertaken by businesses to decarbonise.
	VBIAF Sectoral Guides	**6 Focus Sectors**
	1. Palm oil 2. Renewable energy 3. Energy efficiency 4. Oil and gas 5. Manufacturing 6. Construction and infrastructure	1. Agriculture, forestry and fishing 2. Electricity, gas, steam and air conditioning supply 3. Manufacturing 4. Transportation and storage 5. Water supply, sewerage, waste management 6. Construction and real estate

Source: Bank Negara Malaysia