BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Annual Report 2021

BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Statutory Requirements

In accordance with section 13 of the Central Bank of Malaysia Act 2009, Bank Negara Malaysia hereby publishes and has transmitted to the Minister of Finance a copy of this Annual Report 2021 together with a copy of its Financial Statements for the year ended 31 December 2021, which have been examined and certified by the Auditor-General. The Financial Statements will also be published in the Gazette.

For the purposes of section 115 of the Development Financial Institutions Act 2002, the annual report on the administration of the Development Financial Institutions Act 2002 and other related matters for the year ended 31 December 2021 is incorporated in this Annual Report.

Nor Shamsiah Yunus
Chairman
Board of Directors
30 March 2022

Contents

Nor Shamsiah Yunus
Governor, Bank Negara Malaysia

Foreword

The year 2021 began with the hope that the pandemic would stabilise, bringing with it a return to normalcy for the global and Malaysian economy. With the vaccination programme kicking off – and eventually gaining full speed – a possible path out of the pandemic began to emerge as the economy started to gradually reopen. But the exit was not clear-cut, as challenges remained throughout the year. On the public health front, new variants of the virus led to further waves of infection. This led to the reintroduction of movement restrictions across the globe. Apart from the pandemic, Malaysia also experienced one of the worst floods in recent history. This impacted livelihoods and resulted in the loss of lives.

Against this backdrop, the Bank's focus in the past year was to support Malaysia's transition through and out of the crisis. To that end, we continued to deploy a wide range of tools to cushion shocks to the economy and financial system, working within our mandates to promote monetary and financial stability. We ensured accommodative monetary and liquidity conditions, keeping the Overnight Policy Rate at the lowest rate in our history. Amidst heightened volatility in global financial markets, we also took measures to preserve investor confidence in Malaysia's financial markets. We worked with the industry and partners to evolve assistance programmes by aiming to position affected individuals and businesses on a firmer path to recovery. This included incorporating debt management and financial planning in the assistance programmes, as well as funding more sustainable ways to rebuild for the future. We also intensified public engagement efforts about these measures, taking steps along the way to make our communications more relatable to various audiences.

Even as we contended with these immediate challenges, we continued to strengthen foundations for the future. The silver lining of any crisis, after all, is the window of opportunity for reform and renewal. It was thus timely that we launched the Financial Sector Blueprint 2022-2026 earlier this year. It set out a vision for the next five years, as well as the strategies that will get us there. Complementing this, we also initiated a review on our monetary policy framework, looking to ensure continued effectiveness amid the broader forces of change shaping the economic and financial landscape ahead. This will consider how monetary policy transmission and financial intermediation may be affected in a more digitalised economy, amid emerging innovations such as decentralised finance (DeFi). Climate change will also be a key consideration, given the potential implications on growth and inflation dynamics – be it due to shocks arising from extreme weather events, or structural shifts in the transition to a low-carbon economy.

Some of our longer-term reform efforts are already underway, with major inroads made in the past year. A key area is digital financial services. We have worked to ensure that our regulatory framework remains fit-for-purpose for new business models and technologies. We look forward to the expected positive impact from the entry of digital banks in Malaysia. We will also pave the way in the coming year for digital insurers and takaful operators to follow suit. This will further enhance access, quality, efficiency and customisability of financial services, focusing in particular on underserved market segments. Working together with other central banks, we have also taken active steps to learn about central bank digital currencies while remaining vigilant over broader developments in the space of digital assets. This ensures that we remain ready and responsive to formulate policy responses, where appropriate – be it to capitalise on the opportunities, or to protect against the risks.

Efforts on the sustainability front also gained significant traction. Key building blocks are being put in place to support the effective management of climate-related risks and encourage financial flows to climate-aligned activities. In the coming years, we will press ahead to further strengthen the foundations for greater climate resilience in the financial sector, while enabling the financial sector to support an orderly transition to a greener economy. As we do so, a key focus will be to look at climate change issues in tandem with broader nature-related risks, such as those related to biodiversity loss.

As I write this, Malaysia has joined the growing number of nations that are transitioning towards endemicity. With the world learning to live with COVID-19, restrictions will likely be eased over time, setting the stage for a rebound in the global economy. For a small and open economy like Malaysia, this is a positive development – although it has to be taken with a healthy dose of caution. The risk of resurgence still remains, and could make the path towards endemicity less straightforward than one might expect.

More broadly, we may not yet be out of the woods even if we successfully come out of the pandemic. From the recent spate of floods in Malaysia to geopolitical conflicts, the past two years have underscored how quickly the operating environment can change, with new risks and opportunities continuously emerging. It is important that Malaysia's economy not only recovers, but does so in a strong and sustainable way.

Being in a continued state of preparedness is thus one of our top priorities in the year ahead. We are committed to ensure the Bank's policies and tools are ready to respond swiftly and effectively to downside risks that could derail Malaysia's economic recovery. A key focus will be to manage potential inflationary pressures and ensure orderly financial market conditions, as policy settings are adjusted from unprecedented levels of monetary accommodation. Ensuring a strong financial system also remains paramount to support a strong and durable recovery. Across these efforts, our public policy objectives will have a clear and common focus, which is the Bank's mandates of promoting monetary stability and financial stability. Our policy focus will also continue to take a longer-term view – beyond immediate issues and challenges – to strengthen and preserve strong foundations for Malaysia's economic prosperity and sustainability.

At the same time, we will continue to enhance our communications and outreach initiatives across all available channels – both physical or digital. Through these channels, we aim to help the general public and business community better understand the Bank's role and functions. Our responsibilities and powers are governed by law and we operate within these limits. On many issues, we continue to work with the Government and other authorities to advance the nation's best interests on policy responses and actions that are not within the Bank's remit. Beyond explaining what we do and why, we also seek to listen and better understand the concerns and challenges faced by our diverse stakeholders, including the general public. Our hope is that over time, a better understanding of these issues will help us be more effective, while aligning expectations with the core mandates of the Bank.

Making all of this happen will also call for us to continuously improve and reinvent ourselves as an organisation. To this end, we will continue to take measures to ensure that the Bank's staff, structures and systems are future-ready. These include efforts to reinforce the strong culture and values of the Bank.

We aim to sharpen behaviours and practices that are crucial for the increasingly complex and uncertain landscape ahead, such as collaborating more effectively across disciplines and adopting more agile ways of working. In keeping people engaged, we will also continue to enhance the work environment and adapt hybrid arrangements that strive to protect the well-being of our staff. We are also diversifying and strengthening our talent pool – be it to recruit the nation's best at the entry level, or to upskill existing staff in relation to future-critical competencies. As an organisation, we will also want to make the best out of technology, with digital infrastructure and tools helping us do more with less.

Indeed, 2021 – like 2020 – has been yet another challenging year. I want to take this opportunity to express my sincere thanks to everyone in the Bank for their unwavering commitment to serve and act in the best interest of the nation through these uncertain times. I want to also express my utmost gratitude for the Board for their guidance and oversight. Though there is some cause for optimism in the path ahead, we remain vigilant. Whatever the challenges or opportunities on the horizon, the Bank will remain steadfast in serving our mandates with the highest standards of professionalism and integrity.

Nor Shamsiah Yunus

Our Role

Our Role

Our Role

Bank Negara Malaysia is Malaysia's central bank. Our principal objective is to promote monetary stability and financial stability conducive to the sustainable growth of the Malaysian economy. The Bank derives its mandate and powers from the Central Bank of Malaysia Act 2009 and other laws that it administers.[1]

In our role to promote monetary stability, the Bank formulates and conducts monetary policy to keep inflation low and stable, while ensuring that it is supportive of sustainable economic growth. We are also mandated to promote an exchange rate regime consistent with the fundamentals of the economy.

To promote financial stability, the Bank regulates and supervises financial institutions to promote their safety and soundness. We oversee money and foreign exchange markets to promote their integrity and orderly functioning. We also exercise oversight over payment systems to foster safe, efficient and reliable payment systems and payment instruments. In addition, we regulate the conduct of financial institutions and intermediaries in order to provide appropriate protection to financial consumers.

The Bank plays a key role in promoting a progressive and inclusive financial system. This takes into account the changing needs of the Malaysian economy and its people, and the central role of finance in the nation's economic and social progress.

Our pursuit to develop and deepen both the conventional and Islamic financial system also recognises that a well-developed financial system is one that can help absorb shocks, and therefore contributes to the country's resilience.

The Bank carries out a number of other important functions. These include issuing currency, and holding and managing the country's foreign reserves. The Bank is also the financial adviser, banker and financial agent of the Government. Together with other government and law enforcement agencies, we play a role in helping to prevent the criminal abuse of financial services. Additionally, the Bank has been responding to climate risk, firstly through appropriate regulation and supervision of financial institutions, to support an orderly transition to a low-carbon economy; and secondly by embedding sustainable practices in our own operations.

In all the Bank does, it does in the best interest of the nation.

[1] Other key legislation includes the Financial Services Act 2013; Islamic Financial Services Act 2013; Development Financial Institutions Act 2002; Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001; Money Services Business Act 2011; and the Currency Act 2020.

Promoting Monetary Stability

The Bank's Monetary Policy Committee (MPC) formulates monetary policy to achieve price stability while giving due regard to economic developments.[1] The MPC assesses the outlook for inflation and economic growth in Malaysia, aided by analysis carried out by the Bank.[2]

Monetary Policy in 2021

The COVID-19 pandemic continued to shape the global economic landscape in 2021. As the world adapted to the new normal and vaccinations became prevalent, the global economy gradually recovered. However, the recovery path was uneven across countries. Economies with better progress in their vaccination programmes were able to ease measures introduced earlier to contain the pandemic. This allowed for activities to resume. Sizeable fiscal and monetary measures provided substantial support to the global economy. However, the strength of the recovery was dampened by the spike in COVID-19 cases, amid the spread of new variants of concern. The global economy was also confronted with financial market volatility, supply chain disruptions, higher commodity prices and labour shortages. Several of these factors resulted in inflationary pressures,[3] amid a recovery in demand as economies began to reopen.

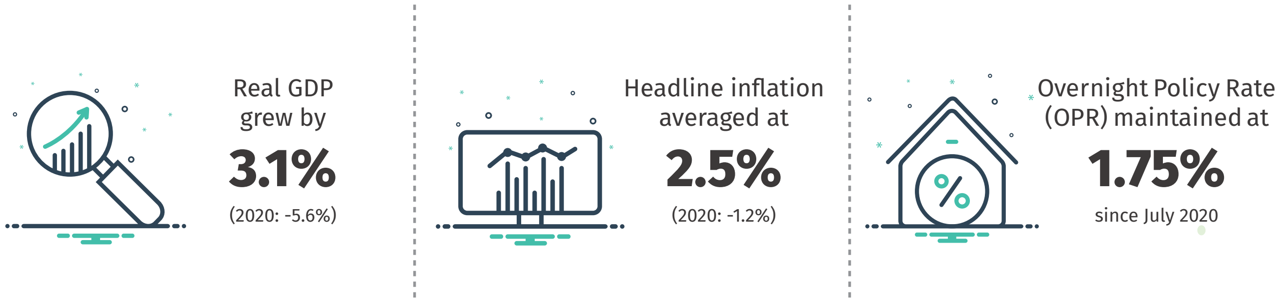
The Malaysian economy was also on the path of recovery in 2021. However, as local COVID-19 cases began to surge in May 2021, the Government had to re-introduce strict nationwide containment measures under the first phase of the National Recovery Plan (NRP) in June 2021. This affected the recovery momentum. Nonetheless, the swift progress of the National COVID-19 Immunisation Programme enabled economic sectors to gradually reopen in the third quarter of the year. Strong exports and continued policy aid for households and businesses also lent support to domestic growth. Overall, the Malaysian economy saw a moderate recovery, with GDP growing by 3.1% in 2021 (2020: -5.6%).

Headline inflation averaged higher at 2.5% (2020: -1.2%).[4] The higher cost due to rising global oil prices and supply chain disruptions led to some upward price pressures for certain categories of consumer goods and services. Nevertheless, underlying inflation remained subdued for the year amid a gradual recovery in demand and weak labour market conditions.

After reducing the Overnight Policy Rate (OPR) by a total of 125 basis points to a historic low of 1.75%, the Monetary Policy Committee (MPC) kept the OPR unchanged in 2021. The committee assessed that in the environment of subdued inflation and limited risks of financial imbalances, the low interest rate environment was needed to continue to provide support to the domestic economic recovery that still faced downside risks mainly due to pandemic uncertainties. In addition, fiscal and financial measures helped ease the burden of households and businesses and thus, supported the economic recovery.[5]

1 The MPC meets six times annually to decide on monetary policy. More information on Malaysia's monetary policy and the MPC can be found in the 'Governance' section of this report.
2 Includes surveillance assessments, simulation results, scenario analysis, research findings and forecasts.
3 Particularly in advanced economies and several emerging market economies.
4 This was primarily due to base effects from low fuel prices in 2020, as well as revisions in the electricity tariff rebates.
5 More details on the analysis behind the MPC's decisions can be found on the Bank's website in the Monetary Policy Statements, the BNM Quarterly Bulletins, as well as Chapter One of the Economic and Monetary Review 2021.

Chart 1: 2021 Key Domestic Figures at a Glance



Source: Bank Negara Malaysia and Department of Statistics, Malaysia

In line with the accommodative monetary policy, the Bank's monetary operations continued to ensure conducive domestic liquidity conditions. This facilitated the orderly functioning of the domestic financial markets and financial intermediation in the economy. The Bank conducts monetary operations using a range of instruments.[6] One of these tools is the Statutory Reserve Requirement (SRR). While the SRR ratio was unchanged at 2.00% in 2021, the flexibility for banks to use Malaysian Government securities[7] to meet SRR compliance was extended from 31 May 2021 to 31 December 2022.[8] This was to provide sustained liquidity support during the economic recovery.

The Ringgit Exchange Rate

Malaysia adopts a flexible exchange rate regime, where movements in the ringgit exchange rate are determined by the market. This flexibility in the exchange rate is critical to help the economy withstand external shocks by facilitating adjustments in Malaysia's international transactions.[9] As a highly open economy that faces large cross-border capital flows, this flexibility can occasionally lead to significant volatility in the ringgit exchange rate. This is particularly evident when investors reacted to major global and domestic developments, including uncertainties surrounding the COVID-19 pandemic.

The Bank's role is to ensure an orderly functioning of the ringgit exchange rate market and that the volatility in the ringgit exchange rate is not excessive and disruptive. This is to mitigate negative impact to domestic economic activity as businesses are able to plan and undertake trade and investment transactions with more certainty. In doing so, the Bank supports the orderly functioning of the domestic foreign exchange market by ensuring sufficient liquidity through two-way foreign exchange interventions during periods of market stress. The Bank also continues to deepen the foreign exchange market and promote access to hedging instruments to enable businesses to better manage their foreign exchange risks.

Analysis and Research

In supporting the MPC and advising the Government, the Bank undertook thorough and timely analytical surveillance, as well as in-depth research.

In 2021, key immediate focus areas included assessing the strength of Malaysia's economic recovery based on pandemic developments.[10] We evaluated the global semiconductor chip shortage and its impact on the Malaysian economy.[11] We also updated the economic impact estimates of domestic

6 More information on the various instruments used can be found in the 'Monetary Operations' section of the Bank's website.
7 Malaysian Government Securities (MGS) and Malaysian Government Investment Issues (MGII).
8 As announced on 20 January 2021.
9 For example, when the exchange rate depreciates, domestic goods and goods sold abroad (exports) become cheaper relative to goods from abroad (imports). This will incentivise an increase in exports relative to imports, thereby improving the trade balance. Consequently, these will lead to an increase in consumption, investment and inflation in the domestic economy. The opposite applies for an appreciation in the exchange rate. Broadly, the strength of such transmission will depend on the responsiveness of the price and volume of traded goods to the exchange rate, the relative share of the tradable sector and the extent of financial frictions in the domestic economy (e.g., limitation in exporters' and importers' production capacity due to borrowing constraints).
10 Refer to the Second Quarter 2021 BNM Quarterly Bulletin White Box titled 'Malaysia's 2021 Growth Outlook: Baseline and Scenarios' on the Bank's website for the analysis.
11 Refer to the Second Quarter 2021 BNM Quarterly Bulletin Box Article titled 'The Global Chip Shortage: Implications and Opportunities for Malaysia' on the Bank's website for the analysis.

containment measures. In addition, we analysed price-setting practices of domestic businesses amid the pandemic.

The Reference Rate Framework (RRF) was also enhanced. This was following our evaluation of its effectiveness in achieving the intended outcomes since it was first introduced in January 2015.[12] Under the revised RRF, which will become effective on 1 August 2022, the reference rate, which is the Standardised Base Rate (SBR), will be the same across banks and linked solely to the OPR. This facilitates effective monetary policy transmission as adjustments to loan repayments will take effect following an OPR change. It also enhances transparency and comparability of retail lending rates across banks.[13]

As the financial and economic advisor to the Government, the Bank contributed to a number of policy groups. These were focused mainly on economic priorities, namely pandemic management efforts, investment, and labour. More broadly, we also provided policy inputs for the Twelfth Malaysia Plan (Rancangan Malaysia Kedua Belas, RMKe-12). Further to this role, the Bank also provided views and advice on other platforms. The Governor is also a member of the Economic Action Council (EAC),[14] Malaysia Social Protection Council (MySPC),[15] and the Fiscal Policy Committee (FPC).[16]

The Bank supported the Government in epidemic management through cross-agency collaboration, in particular with the Ministry of Health under the Crisis Preparedness and Response Centre (CPRC). Among the inputs provided were projections on the potential impact of lockdowns on growth and employment, which helped to inform containment strategies by the Government. In addition, we assisted in data-driven COVID-19 epidemic management, leveraging on large-scale data analytics to aid operations and vaccine effectiveness research.[17,18]

Our ongoing research on quality investments to drive development in new growth areas culminated in an enhanced investment policy framework with the development of the National Investment Aspirations (NIA).[19] It also led to the formation of the National Investment Council, as announced by the Government in April 2021.[20] During the year, the Bank's contribution was focused on detailing the implementation plan of the New Investment Policy together with the relevant Government ministries and agencies. This included identifying the priority areas for investment and refining the framework to attract and realise quality investments that are aligned with the NIA.

Meanwhile, our policy advocacy work leveraged on our research on longer-term pandemic effects on the labour market. Recommendations included a collaboration platform between authorities, industry, academic and civil society in designing education policies; strengthening interlinkages between social security benefits and Active Labour Market Policies (ALMPs); as well as extension of employment insurance and training scheme coverage to vulnerable groups. In particular, education and training policies should also be aligned with the goals of the NIA towards higher creation of and demand for high-skilled and knowledge-based workers.

---

12 The intended outcomes of the RRF are to (a) facilitate effective transmission of monetary policy decisions; (b) promote a transparent reference rate that enables meaningful comparison of loans/financing products across financial service providers (FSPs) to allow consumers to make informed decisions; and (c) reinforce sound and efficient practices in the pricing of floating-rate retail loans/financing facilities by FSPs.
13 The new framework only applies to new floating-rate loans and financing for individuals.
14 The EAC is responsible for identifying and addressing current economic issues, as well as recommending and developing policies to ensure sustainable economic growth.
15 MySPC is responsible for coordinating a comprehensive and integrated social protection agenda.
16 The FPC is responsible for strengthening public finances, undertaking fiscal reforms and preserving long-term fiscal sustainability.
17 Suah et al. 2021. "PICK-ing Malaysia's Epidemic Apart: Effectiveness of a Diverse COVID-19 Vaccine Portfolio" Vaccines 9, no. 12: 1381. https://doi.org/10.3390/vaccines9121381.
18 Suah et al. Forthcoming. "Waning COVID-19 Vaccine Effectiveness for BNT162b2 and CoronaVac in Malaysia: An Observational Study" International Journal of Infectious Diseases. https://doi.org/10.1016/j.ijid.2022.03.028.
19 The NIA outlines the key criteria for quality investments, which will be used as basis for comprehensive reforms of Malaysia's investment policies. In particular, it focuses on attracting investments that will increase economic complexity, create high-skilled jobs, expand and integrate domestic linkages, develop new and existing clusters, and improve inclusivity. For more information, please refer to the box article titled 'Securing Future Growth through Quality Investments' in the BNM Economic and Monetary Review 2019 and the Ministry of International Trade and Industry's website (https://www.miti.gov.my/NIA/).
20 The NIC is responsible for shaping the overall national investment agenda. This includes collaborating with stakeholders across the ecosystem to ensure investment policies and strategies are streamlined to national interests and targeted at addressing key national challenges.

Going Forward

The Bank remains focused on facilitating a sustainable economic recovery in 2022. This is against the backdrop of fast-evolving conditions and uncertainties surrounding COVID-19 developments, geopolitical conflicts and supply chain disruptions, among others. To this end, the monetary policy stance will continue to be driven by data and their implications on the overall outlook for domestic inflation and growth. In addition, the Bank's other policies,[21] as well as other macroeconomic policies, remain key in facilitating a sustainable recovery and avoiding overburdening any single policy tool. Monetary operations will ensure sufficient liquidity in the foreign exchange, money and Government bond markets. They will also complement our other policies to ensure the smooth functioning of domestic financial markets and financial intermediation. Furthermore, the Bank will continue to work with the Government on relevant policy measures to see the economy through the crisis and strengthen its resilience for the future.

The Bank will also continue to optimise our existing communication platforms amid the high uncertainty environment. For example, this can be achieved through the increased engagements with analysts to clarify details on the economic and financial developments, as well as the risks to the outlook.

Going forward, the economic and financial landscape will continue to evolve. The pandemic will likely result in structural shifts in economic and financial linkages, such as from the economic scarring on the labour market and potential changes in inflation dynamics – both of which have yet to be fully understood given that adjustments are still in motion. Furthermore, key elements of change also include the accelerated pace of digital technology, threats to environmental sustainability, and the move towards a larger role of market-based financing, among others, as outlined in the Financial Sector Blueprint 2022–2026.

One of the focus areas would be the digitalisation of finance, which includes digital currencies, assets, and banks, financial technology, decentralised finance,[22] as well as a shift away from physical cash. This is a profound change that is already taking place, and will continue to be a dominant theme going forward. In assessing how it would reshape the dynamics of the financial sector, the Bank will also deep dive into the interactions with the transmission of monetary policy. In turn, this could guide policy advice to support the Bank's stance on digital finance from a monetary stability perspective.

Another key area of study would be climate change, in light of the severe impacts it could have on the macroeconomic environment. Importantly, we strive to better understand these effects and its implications for the conduct of monetary policy. A key component of this includes enhancing our surveillance and forecasting to holistically consider the transmission of physical and transition risks. The Bank, through its membership in the Network for Greening the Financial System (NGFS),[23] will continue to cooperate with other central banks towards understanding how climate change should be considered in terms of the framework and implementation of monetary policy.

In view of the imminent changes in the economic and financial environment, as well as prospective shocks, the Bank will continue to assess the robustness of our monetary policy framework. Ultimately, this is to ensure that our monetary policy framework remains relevant and fit-for-purpose in safeguarding the central bank's ability to achieve its monetary policy mandate and as a byproduct, to reinforce the resilience of the financial system and the macroeconomy.

[21] These include regulatory flexibilities, supervisory measures, the establishment of financing facilities and other financial policies.

[22] Decentralised finance aims to provide financial services that seeks to bypass financial intermediaries, such as banks, by using automated protocols on blockchains, and stablecoins to facilitate fund transfers.

[23] The NGFS is a network comprising central banks and financial supervisors across the globe with the objective of accelerating the scale-up of green finance and developing recommendations for central banks' role in addressing climate change.

Cost of Living Revisited: Causes and Consequences

If your recent shopping experience left the impression that prices have been higher, this was certainly the case for several key items. As such, the cost of living has lately resurfaced as a prominent concern affecting Malaysian households. This article examines the sources of rising cost of living in 2021, their consequences, and some guiding principles to address the issue.

A. Cost of Living and CPI Inflation

Let's take a step back and review the difference between cost of living and inflation. Cost of living goes beyond price increases, and although it is related to the concept of inflation, they are distinct. **Cost of living refers to the amount of household spending, including financial obligations (e.g. car and housing loans), to maintain a certain standard of living.**[1] Given that spending patterns are unique to households' income level, location and consumption baskets, among others, cost of living differs from one household to another.

Consumer Price Index (CPI)[2] inflation, which captures the increases in consumer prices, is often used to assess changes in cost of living. But there are several reasons why consumers may feel that CPI inflation is not reflective of price changes that are observed on a day-to-day basis. Firstly, **CPI inflation tracks the price changes for a fixed basket of items that represents the average spending pattern among households.** This makes it a useful indicator for the conduct of macroeconomic policies, such as monetary policy, which aim to affect the broader economy. However, as there are varying spending patterns among households and different price changes across locations, CPI inflation does not reflect changes in individual cost of living. For instance, comparing across states, inflation in Terengganu was the highest in 2021 at 3.4%, compared to the national average of 2.5%.[3]

Secondly, while CPI inflation only considers the rate of change in prices of goods and services, changes in cost of living also take into account the income perspective. Households feel the pressures of rising cost of living not only when prices increase, but also when incomes do not increase at the same pace, eroding their purchasing power.

Thirdly, households' perceptions of the increase in cost of living can be different from CPI inflation as highlighted in the Box Article "Inflation: Perception vs. Reality" in the BNM 1Q 2017 Quarterly Bulletin. This is because households use different information sets when assessing changes in cost of living. Namely, households' perceptions are predominantly driven by price changes in items that are frequently purchased, such as groceries or eating out, as opposed to more durable items. This is referred to as frequency bias, and can be measured by the Everyday Price Index (EPI). The EPI is constructed using items which are more frequently purchased (at least once a month).

Moreover, there can be a tendency for households to remember price increases and not decreases. This is referred to as memory bias, which can be measured by the Perceived Price Index (PePI). The PePI is constructed based on the same basket of items as EPI, but only considers price increases. Items with price declines are assumed unchanged in the construction of PePI. These perceived indicators are summarised in Table 1, and generally exhibit a higher inflation rate compared to CPI inflation, as shown in Chart 1.

---

1 The concepts of cost of living and inflation have been elaborated in the box article "Inflation and the Cost of Living" in the 2015 BNM Annual Report and the white box "Inflation, the Cost of Living and the Living Wage" in the 2018 BNM Annual Report.
2 Compiled by Department of Statistics, Malaysia.
3 It is important to note that these are referring to the change in cost of living due to a rise in prices based on geographical locations. However, cost of living may also be affected by other structural factors such as income level, rural and urban considerations, and size of households.

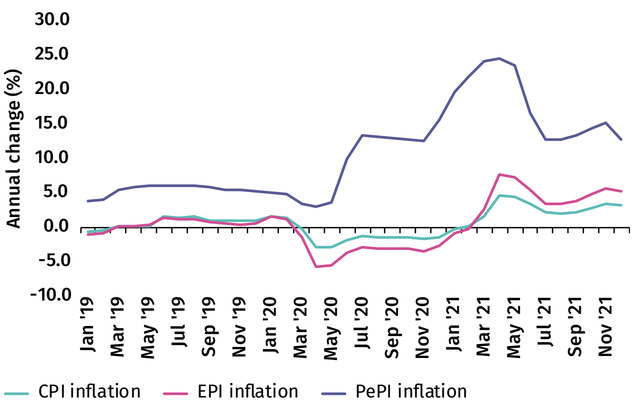
Table 1: Differences Between CPI, EPI and PePI Inflation

	CPI	EPI	PePI
Definition	Index of the prices of a fixed basket of goods and services that represents the average spending pattern among households	Index of the prices of frequently purchased consumer items (at least once a month)	A further refinement to the EPI, where it attempts to incorporate memory bias in addition to frequency bias
Construction	• The consumption basket is determined by household expenditure survey	• Incorporates frequency bias by taking only items from the CPI basket which are purchased at least once a month • Excludes big ticket items, infrequently purchased items and contractually fixed items	• Items in PePI are the same as EPI. However, the index only captures price increases
Annual change (2010-2019)	2.1%	2.6%	7.5%

Note: A comprehensive discussion of CPI and measures of perceived inflation is available in the BNM Q1 2017 Quarterly Bulletin Article: "Inflation: Perception vs. Reality".

Source: Bank Negara Malaysia, Department of Statistics, Malaysia and Bank Negara Malaysia estimates

Chart 1: Evolution of CPI, EPI and PePI Inflation

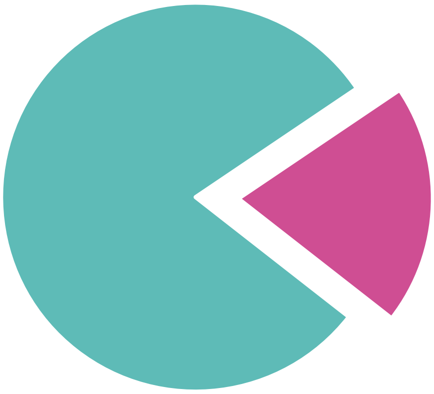


Source: Bank Negara Malaysia, Department of Statistics, Malaysia and Bank Negara Malaysia estimates

B. Causes of Cost of Living Pressures

A closer look at price movements in the CPI basket revealed that price pressures had been driven by specific items (Chart 2). These constituted about 20% of the CPI basket. Some of the most marked price increases were those of essential and frequently-purchased food items, such as *fresh chicken* and *eggs* (Table 2). Several non-food items were also affected, such as *furniture and furnishings* and *materials for maintenance & the repair of dwellings.* On the other hand, most items within the CPI basket had either modest price increases or even experienced price declines (Table 3). On balance, the overall CPI inflation was contained even as some items saw elevated prices.

Chart 2: Percentage of CPI Basket With Elevated Inflation in 2021



* The weighted average is estimated by taking the inflation of individual items, and calculating their weighted average. The figures might not add up to the official CPI inflation of 2.5% due to different methodology.

** While consumer electricity tariff was unchanged for most of 2021, electricity bill discounts from April-December 2020 meant that it had been much lower in 2020. Consequently, electricity inflation, defined as the increase from a year ago, was elevated for most of 2021.

*** While prices of retail fuel remained largely unchanged throughout 2021 (RON95 ceiling price: RM2.05/litre), the prices were much lower in 2020 (average RON95 price: RM1.67/litre), therefore leading to the high inflation number for fuel.

Note: An item is deemed to be experiencing elevated inflation if it recorded year-on-year inflation of more than one standard deviation above its historical average in any given month in 2021. The calculation uses 2011-2019 averages and standard deviation, at the granularity of 4-digit of the CPI basket.

Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates

Table 2: Examples of Marked Price Increases

Consumer items	**Average inflation in 4Q 2021** (year-on-year change, %)	**Average inflation 2011-2020** (year-on-year change, %)
Fresh chicken	13.9%	1.9%
Eggs	10.5%	1.7%

Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates

Table 3: Examples of Price Declines

Consumer items	**Average inflation in 4Q 2021** (year-on-year change, %)	**Average inflation 2011-2020** (year-on-year change, %)
Shoes and other footwear	-0.7%	-1.9%
Household textiles	-0.3%	-0.8%

Source: Department of Statistics, Malaysia and Bank Negara Malaysia estimates

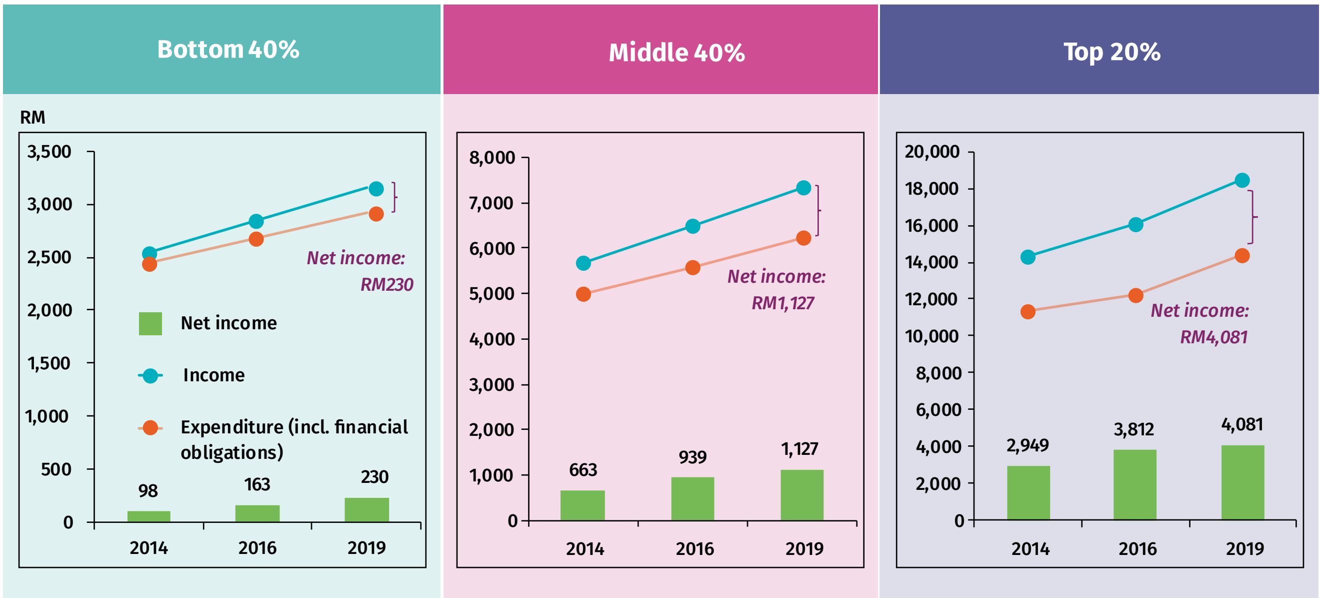
The price pressures for these selected items were due to both global and domestic factors. Globally, the pandemic has hampered the production and distribution of goods as containment measures were imposed. As major economies reopened at a fast pace from around early 2021, industry reports[4] pointed towards a prolonged difficulty faced by global producers to meet the rapidly rising demand. For example, freight costs became elevated partly due to container shortages. This led to higher import prices, eventually affecting some domestic producers. As these cost pressures persisted, some firms have passed on the higher costs to their customers.

In addition, energy prices (crude oil and natural gas) have become more expensive worldwide.[5] While the direct impact to Malaysia was contained due to price ceilings on RON95 and diesel, there were indirect effects, for instance through costlier fertiliser (a by-product of natural gas). Furthermore, global prices of food grains such as soybean and corn reached multi-year highs in 2021.[6] For countries like Malaysia that rely on imports of these items as animal feed, this has resulted in increased costs for livestock operators, which filtered into higher chicken and egg prices for consumers.

4 These reports include Shearing (2021) and Desilver (2021).
5 The price of Brent crude oil was on average 67% higher in 2021 compared to 2020, while natural gas was 187% higher. Source: World Bank Commodities Price Data.
6 In 2021, The FAO food price index increased by 28% compared to 2020, while the cereals index increased by 27% during the same period. Source: Food and Agriculture Organization of the United Nations.

Domestically, some food producers also faced difficulties to immediately meet the increased consumer demand as restrictions were lifted. Adverse weather conditions compounded these difficulties, for instance, by causing price increases for fresh vegetables at end-2021. Taken together, all these factors combined are pushing prices higher.

Diagram 1: Average Monthly Income and Expenditure (Including Financial Obligations) for Households in Different Income Groups



Note: The 2018 BNM Annual Report Box Article: "Inflation, the Cost of Living, and the Living Wage" also provides net income figures for 2014 and 2016. Nonetheless, figures differ slightly due to the exclusion of financial obligations in the previous article.

Source: Bank Negara Malaysia estimates based on Report of Household Income and Basic Amenities Surveys 2014, 2016 and 2019, Report on Household Expenditure Surveys 2014, 2016 and 2019, Department of Statistics, Malaysia

C. Implications to Cost of Living

What do these mean for cost of living? While higher prices pose difficulty for households, the severity varies from one household to another. Firstly, consider the B40 households, which spend relatively more on food (35% of monthly consumption expenditure) as opposed to the M40 (30%) and T20 households (23%).[7] The implication is that when price pressures are driven by food items, cost of living pressures are disproportionately experienced by lower-income households.

Secondly, the pandemic has brought about weak income growth. This means that in the face of marked price increases, some households face greater difficulty sustaining their consumption. To the extent that lower-income households have a relatively smaller net income (income net expenditure and financial obligations), this leaves them relatively more vulnerable to cost of living pressures (Diagram 1).

D. Managing Cost of Living

Multiple solutions have been implemented by the Government to mitigate the rising cost of living. In the short term, these include price regulations on key essential items (e.g. fresh chicken, fuel and cooking oil) and income transfers to vulnerable households.[8]

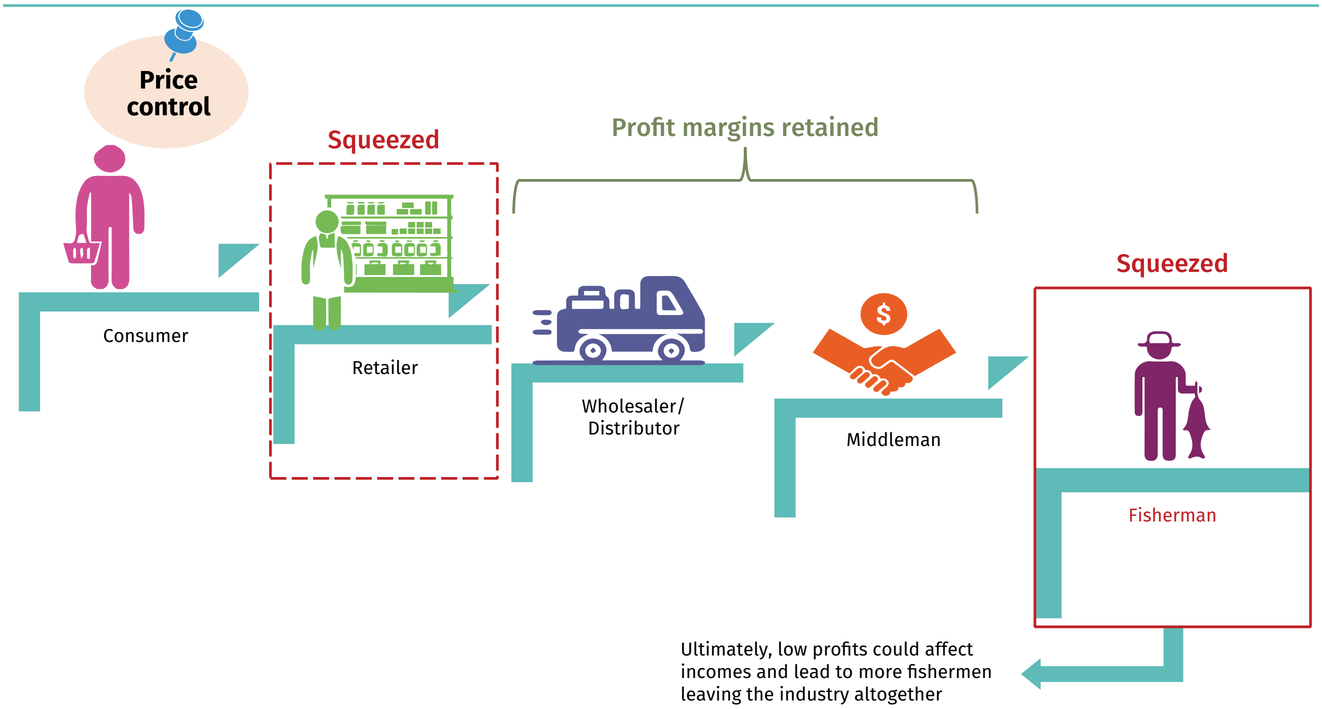
[7] Findings from 2019 Household Expenditure Survey, Department of Statistics, Malaysia. The shares reflect the sum of food & non-alcoholic beverages, and food away from home.

[8] For example the Bantuan Keluarga Malaysia programme, which involves direct cash assistance for targeted groups including B40 households and individuals, single parents and senior citizens.

While short-term measures such as price controls can benefit consumers in some circumstances,[9] they may introduce long-term repercussions[10] and therefore should be guided by certain principles. As a stylised illustration along the fish supply chain (Diagram 2), when price controls are implemented at the retailers' stage, players in the supply chain with greater market power could be incentivised to retain their existing high profit margins by squeezing the profit of weaker players such as fishermen. Over the long run, this may displace fishermen from the fishing industry, harming vulnerable groups which the policy intends to protect.

Other than reducing margins of vulnerable players in the supply chain, the pervasive use of price controls could result in supply shortages. Therefore, policies should be implemented with an understanding of the trade-offs involved, especially to ensure that the underserved are not left worse off.

Diagram 2: An Illustration of Price Control Effects on the Fish Supply Chain



Source: Adapted from Guenette (2020), Abu Dardak et al (2015), Bank Negara Malaysia (2015) and Ghosh and Whalley (2004)

Over the long term, as cost of living is a function of both income and costs, addressing it requires action on both fronts. While the pandemic has caused a significant shock to income, the economic recovery provides a window of opportunity to pursue policies intended to create jobs with high productivity and correspondingly higher income. Meanwhile, addressing costs requires an examination of the supply chain. This includes diversifying food import sources to mitigate concentration risk. Moreover, incentivising quality investments in the agro-food sector could better safeguard food prices against future shocks. Given undue reliance on low-productivity practices and with the threat of disruptions from climate change, such a measure can reduce the risk of cost of living from being amplified in the long run.[11]

The elevated cost of living is a long-standing issue at the centre of many households' lives. It is recently exacerbated by the pandemic which has disrupted supply chains and resulted in supply-demand imbalances. Short-term solutions, while warranted in some circumstances, would not prevent this issue from recurring and may result in unintended consequences. Consequently, structural reforms addressing both income and cost factors are essential to enhance households' resilience against future shocks.

[9] Ghosh and Whalley (2004) showed that price controls of rice in Vietnam has improved the welfare of consumers. Bank Negara Malaysia (2015) highlighted that price controls benefit intended target groups by ensuring that the prices of key necessities remain stable and affordable, particularly for economies at early stages of development when a substantial part of the population is living in poverty.

[10] Guenette (2020) documented some of the trade-offs associated with price controls.

[11] Vulnerabilities in the agro-food sector in Malaysia is covered in the box article "Closing the Food Gap: The Role of Structural Improvements in Agrofood Sector" in the BNM 3Q 2021 Quarterly Bulletin.

References

Abu Dardak R., Zakaria, M.H., Nazmi, M.S., Ab Halim, N., Rusli, R, Suhaimee, S. (2015). Roles of Cooperative Movement as Middlemen to Increase the Efficiency of Agricultural Marketing in Malaysia, Food and Fertilizer Technology Center for the Asian and Pacific Region.

Bank Negara Malaysia (2021). Closing the Food Gap: The Role of Structural Improvements in Agrofood Sector, Box Article in BNM 3Q 2021 Quarterly Bulletin.

Bank Negara Malaysia (2019). Inflation, the Cost of Living and the Living Wage, White Box in BNM Annual Report 2018.

Bank Negara Malaysia (2017). Inflation: Perception vs. Reality, Box Article in BNM 1Q Quarterly Bulletin.

Bank Negara Malaysia (2016). Inflation and the Cost of Living, Box Article in BNM Annual Report 2015.

Bank Negara Malaysia (2015). Price Reforms: Motivation, Impact and Mitigating Measures, Box Article in BNM Annual Report 2014.

Desilver, D. (2021). Inflation has risen around the world, but the U.S. has seen one of the biggest increases. Pew Research Center.

Ghosh, M., & Whalley, J. (2004). Are Price Controls Necessarily Bad? The Case of Rice in Vietnam. Journal of Development Economics, 73(1), 215-232.

Guenette, J. D. (2020). Price Controls: Good Intentions, Bad Outcomes. World Bank Policy Research Working Paper, (9212).

Household Income, Expenditure and Basic Amenities Survey 2014, 2016 and 2019, Department of Statistics Malaysia.

Shearing, N. (2021). An Anatomy of Supply Shortages. Capital Economics.

Promoting Financial Stability

The Bank's mandate is to promote financial stability conducive for sustainable economic growth. We discharge this mandate by ensuring that the financial system is resilient and can withstand shocks throughout economic cycles. This involves promoting strong and well-managed financial institutions. It also includes fostering safe and reliable clearing and settlement systems, and ensuring orderly financial markets. Ultimately, a sound and stable financial system facilitates the continuous delivery of effective services to financial consumers.

Financial Stability Priorities in 2021

2021 was another challenging year for the economy and financial sector. The Bank had to be agile and responsive in addressing risks from the COVID-19 pandemic to safeguard financial stability. During the year, the government reintroduced two Movement Control Orders (MCOs) to ease the pressure on the healthcare system and contain the resurgence of the pandemic. Malaysia also suffered one of the worst floods in recent history which tragically caused loss of human lives, damaged properties, and impacted livelihoods. Our regulatory and supervisory priorities therefore were anchored to deliver three key outcomes. First, to help ease the financial strain of individuals and businesses affected by the pandemic and flood. Second, to ensure the financial system is well-positioned to support a quick and sustainable recovery of the economy. Third, to pave the way for long-term structural reforms to address current and emerging risks in the financial sector.

Financial Sector Relief Measures

Relief measures by banks

Throughout 2021, banks supported customers who continued to face difficulties servicing their loan/financing obligations. These include repayment/payment assistance packages with standardised features and application processes to enable assistance to be rolled out swiftly and seamlessly. Unlike the automatic moratorium on all individual and SME loans implemented during the nationwide lockdown in the first half of 2020, customers who needed assistance could apply for it. This reflected the move towards more targeted assistance as the economy gradually re-opened, while ensuring that customers facing a slower or uneven recovery of their financial circumstances would continue to receive help. Customers who did not qualify for the standardised assistance packages could also apply for more tailored repayment/payment assistance offered by their banks.

In the first half of 2021, the standardised assistance packages were targeted at B40 individuals, including microenterprises, who had become unemployed or had experienced a significant reduction in income.

Following the reimposition of stricter movement controls in June 2021, the scope of the assistance was expanded under the government's *Pakej Perlindungan Rakyat dan Pemulihan Ekonomi* (PEMULIH). Under PEMULIH, all individuals and microenterprises could apply for assistance. In addition, the standardised assistance packages were also extended to SMEs who were unable to operate due to the movement restrictions. The PEMULIH application window was open until

31 December 2021. In order to encourage affected customers to come forward, they were reassured that their credit histories under the Central Credit Reference Information System would not be affected by requests for repayment/payment assistance throughout 2021. Key figures on repayment/payment assistance programmes are highlighted in Diagram 1.

Given the uneven recovery across firms and industries, and the disproportionate impact of income shocks on more vulnerable households, banks, together with AKPK (*Agensi Kaunseling dan Pengurusan Kredit*) launched the Financial Management and Resilience Programme (URUS) in October 2021. URUS aims to help the most vulnerable B50 bank customers transition from existing repayment assistance to more holistic financial and debt management support. Through URUS, bank customers benefit not only from debt restructuring, but also AKPK's advisory, education and income support programmes. Financial management plans developed for customers under URUS take into account *all* their debt obligations across financial institutions. Customers under URUS will also receive periodic check-ins by AKPK counsellors to understand their latest financial condition and review their repayment/payment plans. This is intended to help customers manage their overall financing costs. As of 18 March 2022, 6,336 individuals have enrolled into URUS.

In response to the floods in December, the banks also extended help to their flood-affected customers. Consequently, the URUS application deadline was extended from 31 January 2022 to 31 March 2022. Eligible flood-affected customers who have enrolled for banks' flood assistance can still apply for URUS after the end of this assistance or by 31 July 2022.

In addition, customers can choose other advisory and assistance packages by banks and AKPK to manage their financial obligations. These include the Debt Management Programme for distressed individuals as well as the Small Debt Resolution Scheme for SMEs. SMEs may also obtain financing

Diagram 1: Highlights of Repayment/Payment Assistance

Aimed at easing customers' financial burden and avoiding permanent scarring of the economy

April to September 2020	October 2020 to May 2021	June to December 2021
8.3m customers including **250k SMEs**	**1.5m** customers including **49k SMEs**	**2.8m** customers including **96k SMEs**
Sudden halt in economic activities due to imposition of movement restrictions	**Gradual reopening of economy**	**Reimposition of new movement restrictions**
6-month automatic moratorium for eligible customers. Customers who chose to continue repayments/payments could opt out.	Targeted repayment/payment assistance for individuals and businesses who were affected by the impact of movement restrictions.	• Repayment/payment assistance was broadened to cover a wider range of affected individuals and businesses. • Upon gradual upliftment of movement restrictions in October 2021, banks and AKPK introduced URUS for individual customers who require additional assistance in 2022 (see Diagram 2).

Alternatively, customers can opt for customised repayment assistance offered by banks

Source: Bank Negara Malaysia

Diagram 2: Key Features of the Financial Management and Resilience Programme (URUS) and Other AKPK Programmes

What is URUS?

A holistic assistance package to assist vulnerable customers with prolonged cash flow difficulties due to COVID-19.

Offers repayment/payment assistance and development support to build customers' long-term financial resilience.

Who qualifies for URUS?

Customers who meet the four criteria:

- Household income of up to RM5,880;
- Loss of employment or >50% reduction in income;
- Financing must not be 90 days past due (performing); and
- Financing is under a repayment/payment assistance programme as at 30 September 2021.

What help is given under URUS?

A personalised financial plan that is tailored to each individual, to best help him/her manage debts and plan finances. This is complemented by financial education and advisory services to help build financial resilience.

3-month interest/profit waiver

and

Financial education and advisory services from AKPK
This includes assistance to apply for income enhancement programmes with AKPK partners

+

Repayment/Payment Assistance Programme
Reduced financing instalments or moratorium, in line with customers' affordability

What other programmes does AKPK offer?

Debt Management Programme (DMP)
- Customised assistance to financially distressed individuals.
- AKPK will work with individuals and banks to develop personalised repayment plans based on their affordability.

Financial Resilience Support Programme (FIRST)
- Comprehensive assistance to individuals and microenterprises affected by COVID-19 and do not qualify for URUS.
- Comprises financial assistance and development support programmes.

Small Debt Resolution Scheme (SDRS)
- For SMEs that face difficulties in servicing their debts with single or multiple financial institutions.
- Facilitate debt workouts without resorting to legal recourse.

Source: Bank Negara Malaysia

from various BNM funds. More details are found in the chapters "Promoting a Progressive and Inclusive Financial System" and "Promoting a Progressive and Inclusive Islamic Financial System".

Relief measures by insurers and takaful operators

Insurers and takaful operators (ITOs) extended their COVID-19 relief measures to 2021. Following through from the year before, ITOs allowed affected policyholders/takaful participants to defer their life insurance premium and family takaful contribution for three months in 2021. Life insurers also offered a six month interest-free repayment period for policyholders to resume their premium payments. These measures helped to reduce policyholders'/ takaful participants' financial burden and ensure continuity of protection. Other support measures included the restructuring of insurance policies and takaful certificates, waiving of fees and charges, and faster claims processes. Policyholders/takaful participants were also provided the option to temporarily switch to cheaper products and later revert to the original coverage without further underwriting. Alternatively, policyholders/takaful participants could opt for lower premium/takaful instalment plans to ease cashflow constraints.

To encourage testing, ITOs also increased the sum pledged to the COVID-19 Test Fund (CTF) from RM8 million to RM10 million in 2021. The CTF was fully utilised by August 2021 and benefited about 59,000 recipients. Even though most policies/certificates do not cover pandemic-related expenses, some ITOs extended help by providing extra coverage for COVID-19 expenses on an ex-gratia basis. This included reimbursement for key expenses related to COVID-19, such as post-vaccination complications and treatment for side effects at private hospitals.

The industry also provided proactive support to flood-affected customers, including those who did not have flood or special perils cover for their motor vehicles. Claims processes were made faster and simpler, including advance payments and waiver of certain documents to provide swift assistance. Some ITOs also provided free towing services for stranded vehicles. *Persatuan Insurans Am Malaysia* (PIAM), the general insurance industry association, also set up a Corporate Social Responsibility Flood Relief Fund to subsidise the mechanical clean-up cost (excluding repair) at selected workshops.

The recent flood reinforced the importance of protection against unexpected financial losses. More ITOs now offer motor insurance/takaful products which automatically cover flood-related damages. Moving forward, the Bank will work with the industry and Government to explore public-private partnerships in efforts to expand protection coverage against climate-related and business interruption risks, particularly for small businesses. This includes establishing public-private insurance pools to support the ITOs' capacity to offer more sustainable, inclusive and affordable solutions for such risks.

Enhanced communication strategies to support relief measures

During the year, we intensified efforts to increase public awareness of the various assistance programmes available to affected customers. We also ensured communications are accurate, consistent, and widely and swiftly disseminated. This helps to ensure consumers are aware of and reach out for the available assistance, if needed.

These efforts were also pursued in tandem with the Financial Education Network (FEN).[1] More information on FEN and their initiatives are found in the chapter "Promoting a Progressive and Inclusive Financial System".

We also engaged directly with various stakeholders in our communication strategy. We met government agencies, business chambers, consumer associations and other relevant stakeholders. Feedback was also obtained through the Repayment Assistance Survey and other channels to ensure the assistance provided was efficiently executed. These measures allowed us to monitor the efficacy of the relief measures. In addition, it provided immediate inputs for timely responses by the Bank.

[1] The FEN member institutions are the Bank, Securities Commission Malaysia, Ministry of Education, Ministry of Higher Education, Malaysia Deposit Insurance Corporation, Employees Provident Fund, *Agensi Kaunseling dan Pengurusan Kredit*, and *Permodalan Nasional Berhad*. FEN formulated the National Strategy for Financial Literacy 2019-2023, a five-year roadmap to elevate the financial literacy of Malaysians and to empower Malaysians to:
(a) save, manage and protect their finances;
(b) plan and ensure a sustainable future; and
(c) protect themselves from fraud and financial scams.

Diagram 3: Communication Strategies on Assistance Programmes

We used a range of communication strategies to ensure the assistance programmes were operationalised smoothly and effectively. In doing so, the Bank played four different roles to ensure that information was disseminated in a timely manner, widely available, and consistent.

The Bank as a referral point for information

Via BNMLINK, the Bank continued to be the referral point for financial consumers, providing information on relief measures (e.g. moratorium, repayment/payment assistance, SME funds).

In 2021, engagement with the public remained high, with around **300,000** interactions throughout the year.

The Bank as a listening ear

The Bank conducted the Repayment Assistance Survey to ensure proper execution of relief measures. The survey provided insights on challenges faced by financial consumers in accessing the assistance and facilitated the Bank's engagement with financial institutions to address these challenges.

As of 31 December 2021, the Bank assisted more than **12,800** complaints via the survey, with **93%** of complaints successfully resolved.

The Bank as a collaborator

The Bank actively collaborated with both public and private sectors, including ministries, agencies, associations, digital and gig platforms to amplify the effectiveness of our outreach efforts.

The Bank, as a member of FEN, actively collaborated with various parties and reached out to more than **5,000,000** consumers.

The Bank as an advocate and educator

The Bank conducted various outreach programmes to raise awareness on the various relief measures and improve financial literacy among the public, including small businesses.

- **30** radio interviews reaching **>300,000** listeners.
- The **Virtual Financial Advisory Clinic** held during the **Financial Literacy Month (FLM)** by FEN in October 2021 brought together **22** banks to provide help and advice to consumers.

Source: Bank Negara Malaysia

Strengthening the regulatory framework

Financial institutions remained largely pre-occupied with managing the impact of COVID-19 during the year. Noting this, our regulatory focus continued to prioritise expanding the operational capacity of financial institutions to support their customers, addressing current and emerging risks (including climate-related risks), and strengthening operational resilience. The key policy issuances are summarised in Diagram 4.

Diagram 4: Key Policies and Consultative Documents Issued in 2021

Building Climate Resilience

Inculcating prudent and sound climate risk management in the financial system.

Climate Change and Principle-Based Taxonomy Guidance Document

Facilitates financial institutions in assessing and classifying economic activities that contribute to climate change mitigation and adaptation.

Climate Risk Management and Scenario Analysis Exposure Draft (ED)

Defines proposed requirements and guidance on climate risk management and scenario analysis.

Strengthening Insurance and Takaful Regulations

Ensuring adequate protection of policyholders'/takaful participants' interests, and capital framework for ITOs is effective in responding to risks.

Management of Participating Life Business ED

Strengthens requirements for the effective management of participating life businesses. This includes enhancements to the uses and resolution of estate (i.e. excess assets over liabilities in the participating fund that are not attributable to any policyholder).

Risk-Based Capital Framework for Insurers and Takaful Operators Discussion Paper (DP)

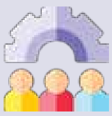
Explores proposed enhancements to the capital adequacy framework for insurers and takaful operators, as part of the Bank's multi-phased review of the overall solvency framework.

Promoting Operational Resilience

Ensuring financial institutions are able to respond and continue to deliver critical services during periods of operational disruptions.

Operational Risk Reporting ED

Outlines requirements on the monitoring, identification, assessment, and reporting of Operational Risk exposures and events.



Business Continuity Management ED

Enhances current requirements to strengthen financial institutions' preparedness to withstand operational disruptions and improve their operational resilience.

Enhancing Recovery Planning

Enhancing ability of financial institutions to recover and restore their long-term viability under stress conditions.

Recovery Planning Policy Document (PD)

Outlines expectations on the development and maintenance of recovery plans for financial institutions.

Promoting Good Financial Market Conduct

Promoting the integrity and professionalism of market participants to maintain the efficiency of, and public confidence in, Malaysia's wholesale financial markets.

Code of Conduct for Malaysia Wholesale Financial Markets PD

Stipulates principles and standards to be observed by wholesale financial market participants.

Best Practices on Wholesale Financial Market Conduct for Banking Institutions

Further guidance on best practices and controls on managing market conduct risks.

Source: Bank Negara Malaysia

Supervisory priorities and approach
Our approach to supervision is risk-based and forward looking. We conduct on-site examinations and off-site analysis of information gathered from financial institutions and through market surveillance.

As the COVID-19 pandemic constrained our ability to conduct on-site examinations, we placed greater reliance on off-site assessments. This was complemented by increased virtual engagements with financial institutions' senior management. These engagements helped us to address new areas of emerging risks in a timely manner. In addition, we strengthened the rigour of our stress tests to enable us to identify potential vulnerabilities in the banking system very early on.

During the year, we ran a multi-year supervisory stress test. This allows us to compare with the results of the stress tests done by banks. Together, the outcomes of the stress tests supported informed assessments on the resilience of each bank.

Notwithstanding current low impairments, we continued our supervisory focus on credit risk. We continued to closely monitor and update our outlook for credit risk developments under a range of economic scenarios. We also stepped up our reviews on loans/financing under repayment/payment assistance and corporate debt exposures. These insights informed our assessments on banks' risk management practices and the adequacy of their buffers against potential future losses.

For the ITO sector, our supervisory assessments continued to focus on the impact of higher claims and weaker investment performance amid an environment of lower new business growth and increased competition. We also continued to monitor corrective actions in several ITOs to strengthen their management of operational (including fraud and money laundering/terrorism financing (ML/TF)) risks.

MFRS 17, the new accounting standard for insurance contracts will come into effect from 1 January 2023. The new standard entails a holistic overhaul of the way ITOs measure and recognise their income in the financial statements. As such, ITOs have intensified their preparations, including making changes to their internal systems and processes, to comply with MFRS 17. We continued to closely monitor their implementation plans to ensure that ITOs will be ready to implement the new standards in 2023. A few ITOs are also planning to commence parallel reporting by the third quarter of 2022.

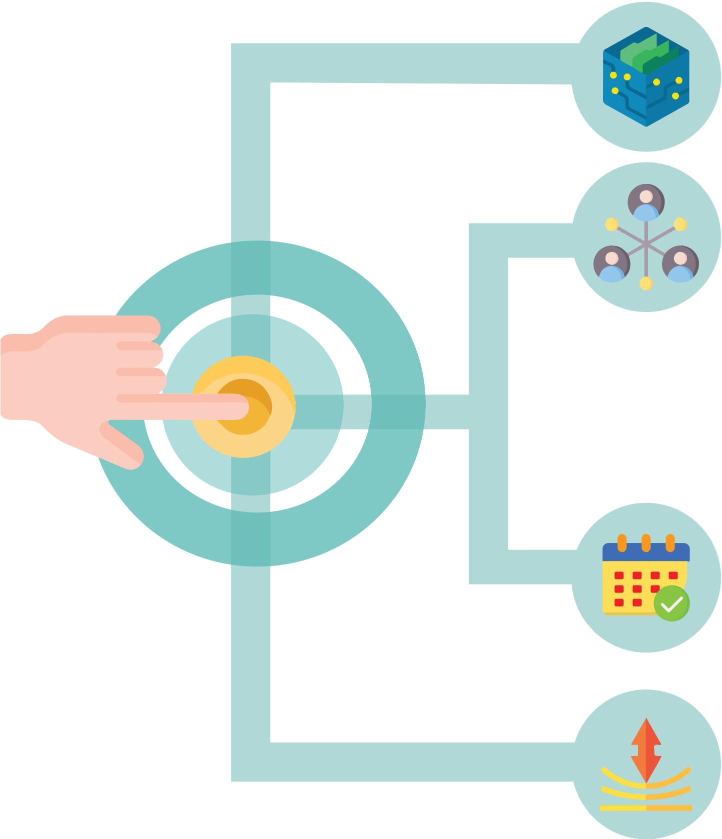
The Bank also stepped up oversight of financial institutions' business conduct to ensure customers are treated fairly, particularly given the financial challenges faced by individuals and businesses during the pandemic. We reviewed banks' repricing and recovery practices, including foreclosures and repossessions. We also reviewed their disclosures to borrowers in implementing the repayment/payment assistance programmes, especially on the effect of repayment/payment deferrals on the overall borrowing/financing cost. In the case of Islamic banks, attention was also given to ensuring compliance with Shariah requirements in implementing payment assistance.[2] Supervisory actions were taken against financial institutions that did not meet expected standards of fair repricing practices. This includes directions to improve disclosures, obtain customers' consent and refund unfair charges to customers.

Operational risk and cyber resilience
Prolonged remote working and greater digitalisation bring new challenges to financial institutions in managing operational resilience. In this respect, we conducted a thematic review to assess how this has impacted financial institutions' ability to respond to operational disruptions. Financial institutions have updated their business continuity plans and disaster recovery plans to account for major operational disruptions. Measures have also been put in place to ensure continuity of critical services during periods of disruption. A key measure has been the implementation of split operations, particularly for critical business functions such as treasury operations. Frequent engagements and coordination of contingency plans with critical third party service providers (TPSPs) have also become a more prominent feature of business continuity plans. Financial institutions have also largely retained infrastructure developed for remote working – either as part of their permanent post-pandemic working environment or as a contingency arrangement.

[2] To ensure consistent practices across Islamic banks, the Shariah Advisory Council (SAC) issued a resolution to clarify and provide guidance on how profit should be recognised. The SAC also issued a prohibition on compounding of profits for facilities under payment assistance. Further details may be found in the chapter "Promoting a Progressive and Inclusive Islamic Financial System".

Diagram 5: Strengthening Financial Institutions' Cyber Resilience

The Bank's key initiatives to continuously improve the cyber resilience of the industry



Deployment of FinTIP

The **Financial Sector Cyber Threat Intelligence Platform (FinTIP)** collects, aggregates and analyses cyber threat data in real time from various sources. FinTIP also disseminates real-time cyber alerts to the industry.

Regular engagements with financial institutions and stakeholders

- Expansion of the **Cyber Working Group (CWG)** which comprises 11 financial institutions as members.
- Continued engagements with ASEAN central bankers via the **Cybersecurity Resilience and Information Sharing Platform (CRISP).**
- Greater scrutiny of IT third party service providers (TPSPs) through reviews and industry engagements via the **Head of Operational Risk Consultative Group.**

Preparations for BNM RE4CT

The **BNM Real-time Exercise against Cyber Threats (BNM RE4CT)** is a cyber drill exercise to gauge industry cooperation during a widespread cyber attack. Financial institutions will also be able to test their internal preparedness and improve their knowledge on cyber incidents.

Continuous Roll-out of CRMA

The **Cyber Resilience Maturity Assessment (CRMA)** is a self-assessment tool to complement on-site IT supervision. It provides insights on financial institutions' cyber risk and cyber security control maturity levels.

Source: Bank Negara Malaysia

The Bank also conducted ongoing reviews on financial institutions' risk management of Information Technology (IT) TPSPs. This is in light of greater adoption of digital platforms and cloud computing. Most financial institutions maintained sound risk management practices, although in some institutions, further enhancements are needed to further strengthen their preparedness against extreme adverse events. The Bank will continue to work with financial institutions, and collaborate with other regulators and relevant Government agencies such as the Malaysian Communications and Multimedia Commission to strengthen the management of risks in this area.

In 2021, the Bank intensified supervisory monitoring on financial institutions' cyber responses and recovery strategies as indicated in Diagram 5. This was conducted as part of the overall operational resilience assessment.

Engagements with other regulators and supervisors

We continued our close engagements with international and domestic regulators during the year. Through this platform, we shared our policy and supervisory responses to address risks from the COVID-19 pandemic. We also deliberated the effectiveness of these responses and considerations in determining the unwinding of these measures. As different jurisdictions have their own recovery paths, such sharing among regulators provided useful insights for us in calibrating our policy responses.

In addition, supervisory cooperation continued to focus on ensuring effective oversight of our financial institutions with significant overseas operations, and local subsidiaries of large international financial groups. We participated in supervisory colleges for 10 insurance groups and six banks in 2021. These continue to be important platforms for regulators to exchange views and supervisory assessments of the financial institutions especially under the current uncertain environment.

We also continued to actively participate in international prudential and climate-related committees[3]. The discussions at these forums were insightful in informing our decisions in key areas such as COVID-19 risks and recovery measures, climate change and digitalisation.

On the domestic front, the Bank and Securities Commission Malaysia led further progress in improving the climate resilience of our financial sector through the Joint Committee on Climate Change (JC3). This continues to be pursued in close collaboration with financial institutions and other domestic regulators. Further details can be found in the chapter "Towards a Greener Financial System".

Enforcement Actions

The Bank uses a range of tools to promote the stability and integrity of the financial system. Through our supervisory activities, we identify practices and conduct which can affect the safety of individual financial institutions and impair public confidence in the financial system. These range from minor to serious breaches of our rules and regulations. Depending on severity, we take supervisory and/or enforcement actions against errant individuals and entities. Supervisory actions are generally preventive and corrective in nature. In contrast, enforcement actions are more punitive and signals the Bank's intolerance of serious misconduct. In deciding which tool to deploy, we consider multiple factors including the impact and severity of the non-compliances, as well as the Bank's enforcement objectives.

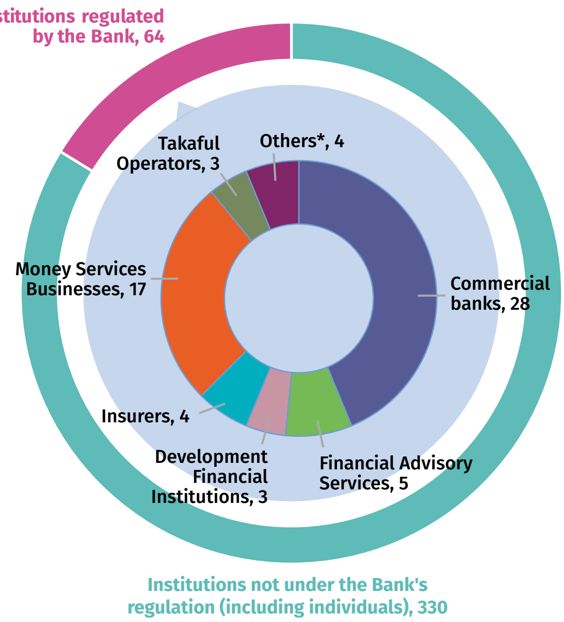
In 2021, we took 394 supervisory and enforcement actions. Examples of past actions include private reprimands, revocation of licence, monetary penalties and directions to implement remediation programmes to address gaps in risk management and controls within financial institutions.

In addressing illegal financial activities during the year, we issued five cease and desist orders against illegal money services operators. Additionally, we opened four investigation papers against operators of illegal money services business and financial schemes. The Bank also secured convictions against two illegal money services businesses.

In combating financial scams by entities presenting themselves as financial institutions regulated by the Bank, we regularly update the Bank's Financial Consumer Alert List. This allows consumers to check whether these entities are regulated by the Bank. Consumers are advised to refer to official sources of information, such as the Bank Negara Malaysia website whenever such claims are made.

Chart 1: Breakdown of Supervisory and Enforcement Actions in 2021

Majority of enforcement actions were imposed on institutions/individuals not regulated by the Bank.



* Investment bank (1), Islamic bank (1), Foreign Banking Institutions (2)

Source: Bank Negara Malaysia

[3] These include the: (i) Basel Committee on Banking Supervision (BCBS); (ii) International Association of Insurance Supervisors (IAIS); (iii) Executives' Meeting of East Asia-Pacific Central Banks (EMEAP); (iv) Islamic Financial Services Board (IFSB); (v) Network for Greening the Financial System (NGFS); and (vi) ASEAN Taxonomy Board.

Moving Forward

The financial landscape is set to undergo rapid changes in the coming years. These changes will be driven by technological advancements, demographic shifts, and climate change.

In line with our mandate on financial stability, our regulatory and supervisory priorities will be anchored on five areas:

(i) Continue to preserve a strong financial sector that effectively performs its intermediation function. This will enable the sector to provide countercyclical support throughout economic cycles and facilitate financial development as highlighted in the Financial Sector Blueprint 2022 to 2026.

(ii) Require financial institutions to treat consumers fairly.

(iii) Ensure our regulatory framework is in line with international standards and best practices, where appropriate and relevant, and Shariah requirements.

(iv) Build internal capacity on emerging risks, particularly areas related to climate risks and digital assets.

(v) Adopt regulatory and supervisory technologies to enhance our efficiency and effectiveness.

These five areas will help to foster the development of a sound, progressive and inclusive financial sector. These will also help to enhance our capacity to deliver our financial stability mandate.

Promoting a Progressive and Inclusive Financial System

The Bank remains steadfast in promoting a progressive and inclusive financial system to meet the needs of Malaysians.

Our commitment towards a progressive and inclusive financial system is embedded in the Central Bank of Malaysia Act 2009. In 2021, we focused on enhancing access to financial products and services, especially for those affected by the prolonged pandemic. We continued initiatives to accelerate digitalisation of financial services and deepen the domestic financial markets. Efforts were also placed to strengthen financial resilience among households, and micro and small and medium enterprises (MSMEs).

While we continue to advance the development of the financial sector, we prepared our strategies for the next five years. The strategies are outlined in the Financial Sector Blueprint 2022-2026 (Blueprint). They aim to advance the financial sector to serve the economy effectively.

Accelerating Digitalisation of Financial Services

Digitalisation of financial services intensified in early 2020 and has continued to accelerate. In 2021, online banking transactions grew by 41.5% while e-wallet transactions increased by 74.4% compared to the previous year. Further details are provided in the chapter on "Promoting Safe and Efficient Payment Services".

Recognising the role of digital financial services in driving financial inclusion and efficiency, we actively pursued a range of policies to support innovation that can better serve Malaysians.

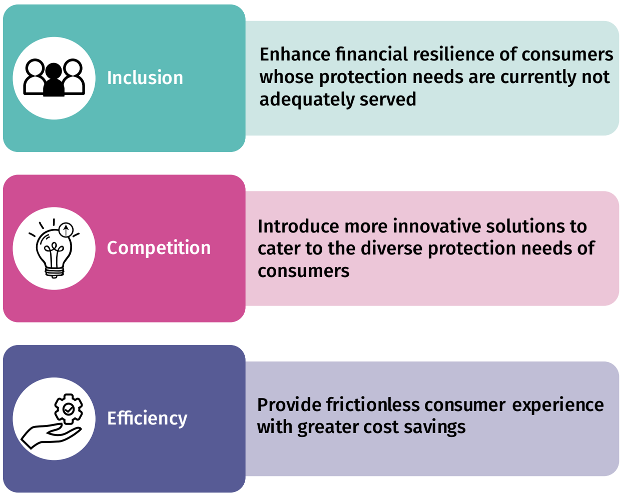
Since its launch in 2016, the Fintech Regulatory Sandbox (Sandbox) continues to provide a safe and conducive environment for fintech solutions with genuine value proposition to experiment with innovative financial solutions and new business models. Temporary regulatory flexibilities are provided to enable this, commensurate with relevant safeguards to protect the public during the experimental phase.

In 2021, the Sandbox received strong interest with 13 applications, nearly double from the previous year. Of these, the Bank approved four applications for further assessment for live testing. The rest of the applications were withdrawn by the participants upon consultation with the Bank. These withdrawn applications either lack preparedness for live testing or did not warrant Sandbox testing given absence of regulatory impediments.

Sustaining the trend recorded the previous year, interest in insurtech continues to grow. Nearly half of the Sandbox applications in 2021 were insurtech-related solutions. Four insurtech companies are currently live testing their solutions in the Sandbox. These companies currently offer digital insurance, peer-to-peer takaful and aggregator services. Four more companies have advanced to the preparation stage for subsequent live testing in 2022. Lessons learnt from insurtech companies in the Sandbox are expected to inform the finalisation of the Digital Insurers and Takaful Operators (DITOs) framework. This is an example of evidence-based policy formulation that facilitates innovation whilst managing the associated risks. Learning from this experience, the Bank will further enhance the Sandbox as indicated in the Blueprint.

The Bank issued a Discussion Paper on the Licensing Framework for DITOs in January 2022. This document outlines the proposed entry requirements for digital players, especially those with innovative solutions to address critical protection gaps, enhance consumer experience and elevate trust. More specifically, the licensing of DITOs aims to increase the protection coverage of households and businesses, encourage healthy competition and drive efficiency gains (Diagram 1). To this end, the Bank will take a balanced approach that encourages innovation, while promoting financial stability and protecting consumer interests. Licensing of DITOs is aimed to take place in 2023.

Diagram 1: Value Propositions for DITOs



Source: Bank Negara Malaysia Discussion Paper on Licensing Framework for DITOs

Following a 6-month application period which ended on 30 June 2021, the Bank received a total of 29 applications for the digital bank license. The Bank had evaluated these applications against an assessment framework guided by Schedule 5 and Schedule 6 of Financial Services Act 2013 and Islamic Financial Services Act 2013. The assessment framework also placed emphasis on advancing financial inclusion through innovative solutions.

The successful digital banks are expected to demonstrate the necessary capacity and resources to meet the prudential and technological requirements to operate sustainably as a digital bank. They are also expected to implement credible business strategies focused on promoting financial access and responsible usage of finance among the unserved and underserved segments.

Deepening of Financial Markets

The Bank continued implementing measures to further deepen the domestic financial markets. In 2021, we focused on governance, accessibility and liquidity.

To improve the integrity of financial benchmark rates, the Bank launched the Malaysia Overnight Rate (MYOR) as the alternative reference rate (ARR). This initiative is in line with global reforms on the Interbank Offered Rate (IBOR). The introduction of MYOR runs in parallel with the existing Kuala Lumpur Interbank Offered Rate (KLIBOR). The MYOR encourages the usage of benchmark rates that are more robust[1] and eases the transition towards transaction-based rates.

Following a positive pilot programme, the Bank allowed non-resident banks to trade ringgit-denominated interest rate swap (IRS) without any underlying commitment with onshore banks or its Appointed Overseas Offices (AOOs). This initiative is expected to deepen the IRS market as a liquid instrument while lowering hedging costs.

Further refinements to the Foreign Exchange Policy (FEP) were also implemented in April 2021. These measures aim to attract foreign direct investment while providing greater flexibility to export-oriented industries. They include removal of the export conversion rule, settlement of domestic trade in foreign currency, extension of the repatriation period for export proceeds, netting-off of export proceeds, and undertaking of commodity derivatives hedging with non-resident counterparties.

In December 2021, the Bank published a revised policy document on the Code of Conduct for Malaysia Wholesale Financial Markets. The policy document sets out principles to be observed by wholesale market participants to uphold the integrity and principles of fair market practices. This is essential to foster confidence and preserve financial stability.

[1] MYOR is administered and calculated by the Bank as the volume-weighted average rate of unsecured overnight Ringgit interbank transactions, including the Bank's overnight monetary operations (excluding Standing Facilities). It adheres to the International Organization of Securities Commissions (IOSCO) principles. This is in contrast to IBORs (e.g., KLIBOR), which relies on judgement by submitters from the financial markets.

In 2022, the Bank in collaboration with market participants through the Financial Markets Committee (FMC) remains committed to further enhance resilience of the domestic financial markets. The areas of focus include the collateralised funding market and sustainable financing, among others. To this end, the Bank continues to welcome constructive feedback from stakeholders to progressively develop the Malaysian financial markets.

Enhancing Access to Financial Products and Services

Enhancing physical accessibility

Malaysia has achieved a high level of financial inclusion compared to most regional peers.[2] The high accessibility and usage of basic financial services (Diagram 2) has been supported by a multi-pronged approach taken to expand the network of physical access points, particularly in non-urban and rural locations.

Diagram 2: Accessibility and Account Ownership in Malaysia

Physical financial access points (offering basic financial services i.e. deposit and withdrawal)	Available in 95% of sub-districts (*mukim*) as at end-2021 (2011: 46%)
Active deposit accounts	96% of adult population with at least one active deposit account as at end-2020 (2011: 87%)

Source: Bank Negara Malaysia

Agent banks[3] remain as important financial access points in remote areas with limited connectivity. Since their inception in 2012, agent banks have facilitated a total of 239 million transactions amounting to RM20.9 billion as at end-2021. In 2021, 21 million transactions valued at RM2.5 billion were transacted at agent banks (2020: 22.6 million transactions, amounting to RM2.1 billion). Agent banks are also key in promoting cashless transactions in remote areas. In 2021, e-wallet transactions at agent banks rose by 99.6% to 25,000 transactions, amounting to RM3.5 million.

The Bank further enhanced access to financial services, particularly to help households and micro businesses cope with financial challenges during the pandemic. To this end, the Bank reviewed the Agent Banking regulatory framework to enhance the role and effectiveness of agent banks. The revisions in the Exposure Draft on Agent Banking issued in July 2021 aim to increase accessibility and usage of financial products among the unserved and underserved segments. They also aim to facilitate the transition towards digitalisation. We expect to issue the policy document in 2022.

To widen access to basic financial services, more mobile banks *(bank bergerak)* were deployed to areas with inadequate financial access points, under Pakej Perlindungan Rakyat dan Pemulihan Ekonomi (PEMULIH).[4] As at end-2021, six mobile banks of Bank Kerjasama Rakyat Malaysia Berhad and four mobile banks of Bank Simpanan Nasional were deployed under PEMULIH. These ten mobile banks penetrated more than 30 underserved *mukims* in Kedah, Kelantan, Pahang, Johor, Selangor, Sabah and Sarawak. In 2022, more units will be deployed by participating financial institutions (FIs). Starting from 2022, mobile banks will offer advisory services and digital onboarding support to catalyse digitalisation within rural communities. Meanwhile, PayNet continued to install its ATMs in selected underserved areas. These ATMs can be used by customers of various banks and improve availability of cash access points in the country.

Promoting inclusive financial product offerings

Insurance and takaful protection can provide valuable support in times of need, especially for low-income households or individuals with insufficient savings. The Bank issued the Policy Document on Perlindungan Tenang (PTPD) in July 2021 to provide an enabling and fit-for-purpose regulatory framework

[2] The level of financial exclusion (% of adults) in Malaysia was 4%, compared to the overall ASEAN financial exclusion level of 30.15%, as at August 2020. (Source: UNCDF (2021). "Measuring Progress 2020: Financial Inclusion in Selected ASEAN countries").

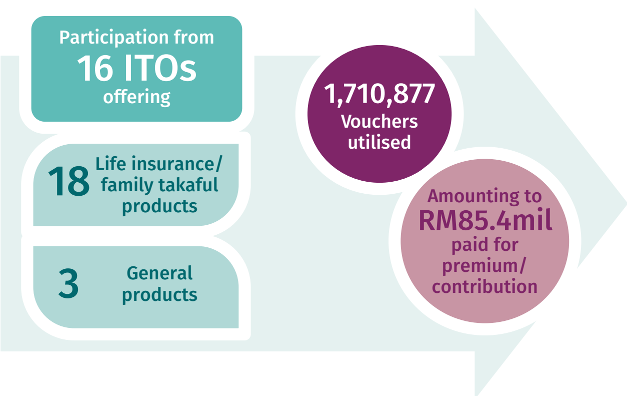
[3] Local communities have convenient access to basic financial services at agents appointed by six participating FIs, namely Malayan Banking Berhad, RHB Bank Berhad, Bank Islam Malaysia Berhad, Bank Simpanan Nasional, Bank Pertanian Malaysia Berhad and Bank Kerjasama Rakyat Malaysia Berhad.

[4] In June 2021, the Government provided an allocation of RM18 million under PEMULIH, for domestic financial institutions to deploy mobile banks in rural and remote areas.

for the Perlindungan Tenang initiative. This initiative aims to encourage insurers and takaful operators (ITOs) to offer products that are suitable for the unserved and underserved segments. Such products should meet the principles of affordable, accessible, good value, easy to understand, and easy to buy and claim. The PTPD provides further operational flexibilities aimed at encouraging access to, and the supply of, microinsurance and microtakaful products to meet the needs of these segments. This includes reviewing relevant requirements to expand the network of Perlindungan Tenang distribution partners. Flexibilities have also been provided to enable Perlindungan Tenang products to be combined with other financial products and value-added services such as telemedicine to increase take-up.

Since its launch in 2017, Perlindungan Tenang has benefitted more than 2 million consumers. Around RM10.2 million claims were paid out as at end-2021. The implementation of the RM50 Perlindungan Tenang Voucher (PTV)[5] programme since September 2021 has further encouraged the take-up of Perlindungan Tenang products. At end-2021, 1.7 million vouchers amounting to RM85.4 million have been utilised to purchase Perlindungan Tenang products (Diagram 3).

Diagram 3: Implementation Progress of Perlindungan Tenang Voucher Programme With RM50 Voucher (as at 31 December 2021)



Source: Insurance Services Malaysia Berhad

[5] The PTV is a Government initiative in collaboration with the insurance and takaful industry to expand social protection for low-income consumers/households. The programme entails voucher allocation for eligible Bantuan Keluarga Malaysia recipients to purchase a new Perlindungan Tenang product or renew their existing Perlindungan Tenang protection plan.

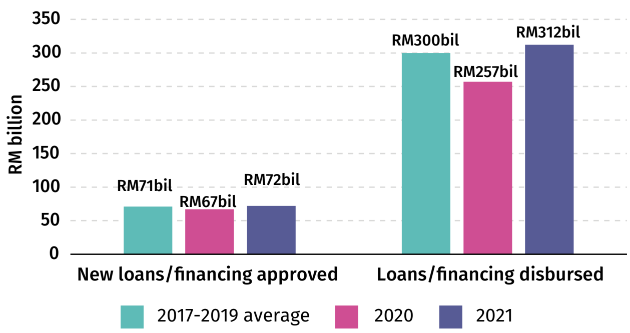
The pandemic highlighted the importance of strengthening the social protection system. Recognising this, the Government extended the PTV programme for another year in 2022 and increased the voucher value to RM75. The PTV programme was also enhanced to enable the voucher to be redeemed for comprehensive motor insurance or takaful for a motorcycle with engine capacity of 150cc and below. The Government also extended the stamp duty exemption for Perlindungan Tenang products with premiums and contributions below RM150 (increased from RM100). This is effective from 1 January 2022 until 31 December 2025.

Ensuring continuous access to finance for businesses

The Bank continued to facilitate the availability of, and access by businesses to financial support and assistance amid the pandemic. This includes supporting funding and guarantee schemes for viable MSMEs, as well as education and capacity building initiatives implemented in collaboration with Government agencies and the financial sector (Diagram 4). MSMEs are critical to the country's economic growth as they contribute significantly to the economy and employment.

As shown in Chart 1, during the year, domestic FIs approved more than RM72 billion of new loans/financing to 134,000 SME accounts (2020: RM67 billion of new financing to 146,000 accounts; 2017-2019 average: RM71 billion to 121,000 accounts). Correspondingly, a total of RM312 billion of SME financing was disbursed, exceeding the 2020 and pre-pandemic levels (2020: RM257 billion; 2017-2019 average: RM300 billion). Beyond financing from FIs, a wider range of funding instruments is key to support the growth of SMEs going forward (Diagram 4).

Chart 1: Performance of SME Financing



Source: Bank Negara Malaysia

Diagram 4: Financing Models for SMEs to Support Malaysia's Economic Transformation

Banks provide financing and cashflow needs of SMEs, complemented by various support measures

Highlights of SME Financing in 2021

	RM	% yoy
Outstanding financing (Dec 2021)	320bil	4.9%
Financing approved	72bil	8.4%
Financing disbursed	312bil	21.6%

Complemented by BNM's Fund for SMEs

Available support measures by the Government and financial sector

Access to Financing & Grants	Banks & DFIs: SME, AGRO BANK, BSN, AgroFood Financing Fund, SJPP, CGC, SME BANK, MyCIF, penjana Kapital, iTekad, MySMEBina, MySMEBekal
Financial Relief	• Repayment Assistance • PRIHATIN Special Grant • Wage Subsidy Programme • Aid for tour operators • Income tax deferment • Electricity bill discount • Carry forward losses • Tax deductions
Digitalisation & Upscaling	MOSTI, MDEC, SMART Automation Grant, Go-eCommerce, 100 Go Digital, LOKAL, SME Digital Accelerator
Debt Advisory & Redress	AKPK URUS FIRST, MyKNP, SME Help Desk, SDRS
Capacity Building	SMECORP, FEN, CEDAR

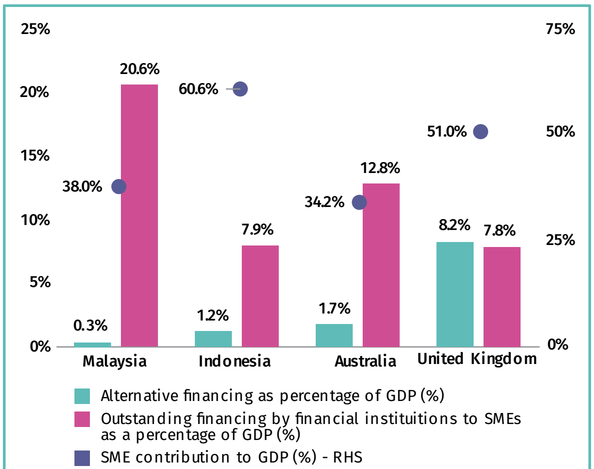
Traditional debt-based financing funded from bank deposits are a suitable match for businesses with regular repayments and risks that are well-understood. However, reliance on this type of financing poses challenges:

1. Heavy reliance on debt-based financing leads to unsustainable over-leveraging
2. New, innovative and 'asset light' companies, with a higher risk-return profile require equity-based financing and not traditional bank lending
3. Markets with rapid expansion of debt outpacing economic growth may suffer prolonged economic downturn and adverse effects on productivity

Source: Bank Negara Malaysia and Organisation for Economic Co-operation and Development

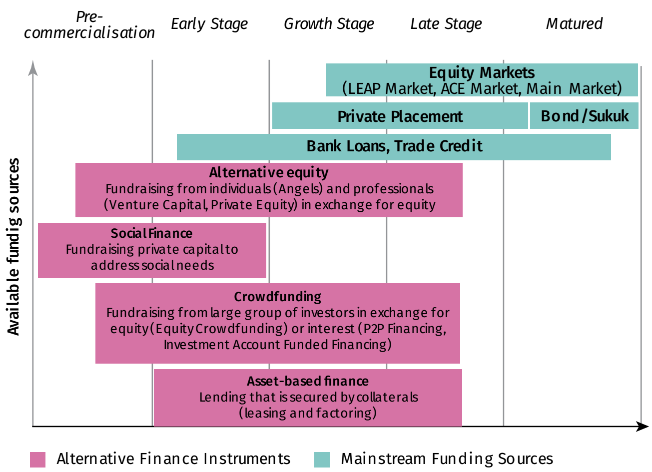
Beyond bank financing, alternative sources of financing and financial instruments are key to support the growth of innovative firms and promote longer-term financial stability

However, Malaysia's alternative finance ecosystem is still underdeveloped compared to other countries



Data is from 2018
Alternative finance in this chart includes leasing and factoring finance provided by banks and non-banks, VC, PE, P2P lending and ECF

Efforts and broad strategies are required to develop a wider range of funding instruments to better meet the diverse funding needs of SMEs across the business lifecycle



Source: Bank Negara Malaysia and Securities Commission

Going forward following the Financial Sector Blueprint 2022-2026, sustaining and growing the alternative finance ecosystem is one of the strategies that the Bank will pursue together with the Securities Commission Malaysia and relevant partners in the ecosystem, including players in the financial industry.

Source: Bank Negara Malaysia, Financial Sector Blueprint 2022-2026

Since the start of the pandemic, BNM's Fund for SMEs has assisted more than 52,000 SMEs including microenterprises, which employ over 1 million people.[6]

The BNM's Fund for SMEs (BNM's Fund) continued to remain available to complement the larger provision of SME financing by FIs. The allocation under BNM's Fund increased significantly from RM9.1 billion as at end-2019, to RM31.1 billion as at end-2021. Total allocation and targeted sectors of key facilities under BNM's Fund are provided in Diagram 5. As at end-2021, RM10.3 billion worth of funds were available to new applications.

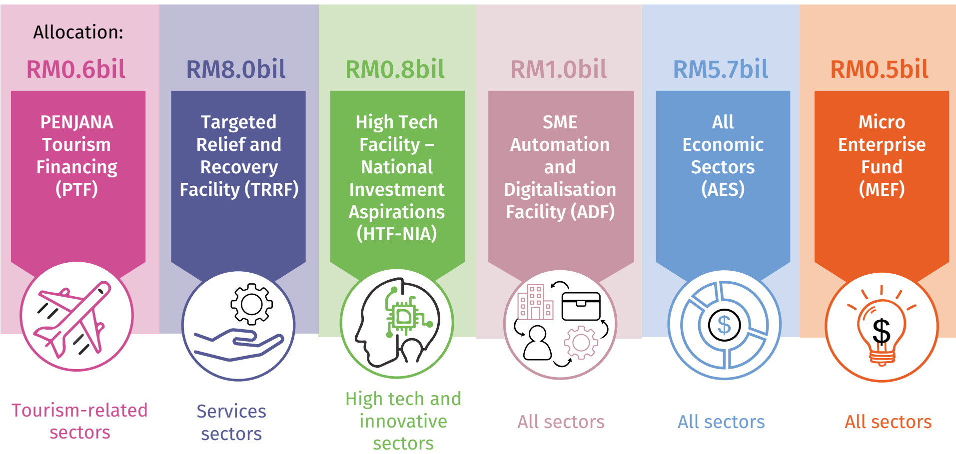
In 2021, several further enhancements were made to the facilities under BNM's Fund. We continuously engaged with SMEs in key sectors to understand their challenges and ensure that changes made correspond to their needs. As a result, allocations were increased, and more flexible features were introduced for selected facilities under BNM's Fund.[7]

Two new facilities in BNM's Fund were announced under Budget 2022, namely the Business Recapitalisation Facility and Low Carbon Transition Facility (Diagram 6). These facilities assist SMEs in strengthening their capital structure and to support green financing.

Diagram 5: Key Facts of Selected Facilities Under BNM's Funds for SMEs in 2021

BNM's Fund for SMEs was further enhanced and upsized in 2021 to ease cashflows for SMEs while supporting recovery and growth of targeted segments

Selected BNM's Fund for SMEs[1]



Enhancements made in 2021

- **Two new facilities under Budget 2022: Business Recapitalisation Facility (RM1 billion) & Low Carbon Transition Facility (RM1 billion)**
- **Allowed PTF and the TRRF to be used for refinancing to reduce overall borrowing costs[2]**

Of the total RM31.1 billion allocated, RM10.3 billion remains available (as at Dec 2021)

[1] Other facilities include the Agrofood (AF) Facility and the Disaster Relief Facility (DRF). Excludes the RM10 billion Special Relief Facility (SRF) which has been fully utilised.
[2] Up to 30% for the TRRF and 50% for the PTF.

Source: Bank Negara Malaysia

[6] The data refers to SMEs including microenterprises and covers the period between March 2020 and December 2021 (Source: Bank Negara Malaysia).

[7] Examples of accommodative features are providing MSMEs the option to defer payment on interest/profit portion for 12 months, and to use 50% of the approved financing to refinance existing debt from FIs and other creditors.

Diagram 6: New Facilities in BNM's Fund for SMEs Announced Under Budget 2022

- **To support SMEs to recover and grow while managing their level of indebtedness through innovative financing solutions such as equity financing and blended finance**

- **To encourage SMEs to adopt low carbon practices**
- **In line with the Government's target to make Malaysia a net-zero carbon emission economy by 2050**

Source: Bank Negara Malaysia

The Bank also focused on strengthening the microfinance ecosystem and improving access to financing for microenterprises. Under BNM's Fund, the allocation for Micro Enterprises Facility was increased to RM500 million and expanded to include self-employed individuals, gig workers on digital platforms[8] and participants of the iTEKAD[9] programme. Details on the Bank's initiatives to advance social finance are covered in the chapter on "Promoting a Progressive and Inclusive Islamic Financial System".

During the year, the economy was also impacted by the floods. This prompted us to activate the Disaster Relief Facility (DRF) under BNM's Fund twice. For SMEs affected between November 2020 and January 2021, an allocation of RM200 million was made available between February to July 2021. The DRF was again activated in December 2021 with an allocation of RM200 million, following the severe flooding across various states. The allocation was later raised by RM300 million in January 2022, bringing the total allocation to RM500 million. We also added other enhancements to the DRF implementation in 2021. In addition, FIs and Development Financial Institutions (DFIs) provided restructuring and rescheduling of financing to those affected by the floods.

Apart from SMEs, we worked with the financial industry to enhance access to financing for Mid-Tier Companies (MTCs), recognising their role in supporting a sustainable recovery. In particular, we conducted studies and engagements with MTCs to better understand their financing challenges. A key outcome was our collaboration with Syarikat Jaminan Pembiayaan Perniagaan (SJPP) in designing and implementing the PEMULIH Government Guarantee Scheme (PGGS). The PGGS aims to assist MTCs and SMEs in revitalising their businesses, by allocating guarantees amounting to RM20 billion. It has since spurred FIs to develop new financial products dedicated to MTCs.

[8] Gig workers on digital platforms as defined by PENJANAGIG i.e. individuals involved in carrying out tasks or work through a service provider platform on digital applications to earn income (https://gig.perkeso.gov.my/).

[9] iTEKAD is a blended social finance programme by Islamic banks which offers seed capital, microfinancing and structured training to microentrepreneurs. Participants of the iTEKAD programme are eligible low-income microentrepreneurs, including those affected by COVID-19, subject to terms and conditions outlined by respective participating FIs.

The nation's credit guarantee mechanism continued to facilitate bank lending amid an environment of heightened risks during the pandemic. The Credit Guarantee Corporation Malaysia Berhad (CGC) and SJPP remain as key players in the SME financing ecosystem. In 2021, they continued to increase their guarantee capacity to support SME financing. New schemes were introduced to cater for specific needs of businesses, such as relief for businesses affected by the pandemic and floods. SJPP and CGC have also continued to adopt a portfolio guarantee mechanism to improve the turnaround time for guarantee approvals.

SMEs that face repayment problems with multiple FIs continued to be assisted under the specialised and comprehensive debt rescheduling and restructuring assistance programme through the Small Debt Resolution Scheme (SDRS). As at end-2021, SDRS has assisted 1,400 SMEs to reschedule and restructure their debt amounting to RM2.3 billion.

DFIs as a key enabler to enhance inclusivity and access to financing

DFIs play an important role in supporting the development agenda of the nation. This is demonstrated by DFIs' crucial countercyclical role during the pandemic. In 2021, DFIs recorded a growth of 3.6% in financing outstanding to RM159.3 billion (end-2020: 7.7% to RM153.7 billion). Over 485,000 B40 accounts and 65,000 business entities gained new financing from DFIs in 2021, with approval amounting to RM23 billion and RM4.5 billion respectively. The share of approved SME financing accounts by DFIs accounted for almost 20% of total SME financing accounts approved by FIs in 2021, higher than the pre-pandemic share (2019: 13%). In addition, the market share of financing approved for microenterprises by DFIs increased to almost 40% in 2021, compared to 26% in 2019.

The higher approvals were driven by Government schemes and lending programmes by DFIs. These initiatives extended financing to the underserved segments through more flexible product features.[10] The DFIs also offered advisory services and e-training to help SMEs build capacity to tide them over. Some DFIs mobilised social finance to develop entrepreneurs through special programmes. This includes seed funding for *asnafs* to start a business for source of income.

To better align the roles of DFIs with national goals and aspirations, we issued the Policy Document on Corporate Strategic Plan for DFIs (CSP) in May 2021. The CSP provides guidance to DFIs on the development and implementation of sound corporate strategies that are aligned with their developmental mandates and long-term viability. A key component of the CSP is the adoption of a Performance Measurement Framework (PMF) which captures the broader contributions of DFIs beyond financing. For example, the PMF quantifies the private funds crowded-in by DFIs for the underserved segments and the new jobs created through projects financed by DFIs. The indicators reported under the PMF are dynamic to reflect the prevailing economic priorities for DFIs.

Leveraging on the PMF, we continued efforts to enhance the transparency and accountability of DFIs in delivering their mandates. We embedded the PMF into the DFIs' governance, business planning and operations. We also encouraged public disclosure of their performance. We continued to refine our supervisory approach for DFIs to better reflect their developmental efforts and achievements. We aim to ensure that the DFIs are prioritising national development sustainably without compromising their financial safety and soundness.

Of note, phase one of the planned merger of four DFIs[11] was concluded successfully in November 2021. The merger between Bank Pembangunan Malaysia Berhad and Danajamin Nasional is part of an ongoing plan to reform the DFI landscape. The synergy from this merger is expected to enhance the DFIs' lending capacity and provide more financial and advisory support to businesses. Looking ahead, there is prospect to further strengthen the performance and developmental impact of DFIs industry by continuing strategic consolidations of other key DFIs in order to harness more benefits from the economies of scale. These mergers also aim to achieve optimisation of public resources and better alignment towards national development priorities.

[10] Examples are moratorium for up to one year, lower instalment amounts, simpler requirements on documentations during the application process, affordable financing rates, and inclusion of informal segments as eligible borrowers.

[11] Bank Pembangunan Malaysia Berhad, Danajamin Nasional Bhd, Small Medium Enterprise Development Bank Malaysia Bhd (SME Bank) and Export-Import Bank of Malaysia Bhd (EXIM Bank).

Enhancing Financial Literacy of Malaysians

Financial literacy plays a significant role in promoting a stable, progressive and inclusive financial system.

The COVID-19 pandemic has led to substantial job losses and reduced income of many households. These have resulted in short- and long-term impacts such as higher debt levels and reduced savings. One of the key lessons that the pandemic has taught us is the importance of financial literacy. It has underlined the need to strengthen financial resilience to deal with unprecedented events.

During this challenging period, the Bank worked closely with Financial Education Network (FEN) members and partners to rapidly roll out digital content to help consumers make informed and better financial decisions (Diagram 7).

This includes the virtual Financial Literacy Month 2021 (FLM2021). With the theme "Navigate Your Finances: Stay Safe and Act Wisely," FLM2021 focused on guiding vulnerable groups towards financial recovery. The outreach via multiple digital platforms has widened FLM2021 reach to many parts of Malaysia, including Sabah and Sarawak (Diagram 8).

FEN continues to provide consumers with access to financial education solutions. Various financial education programmes were also organised for specific groups such as parents, students, youth, gig workers and MSMEs. We have increased awareness on insurance and takaful through PTV campaigns and the MyDuitStory 2.0 short video competition for university students and trainee teachers (Diagram 9).

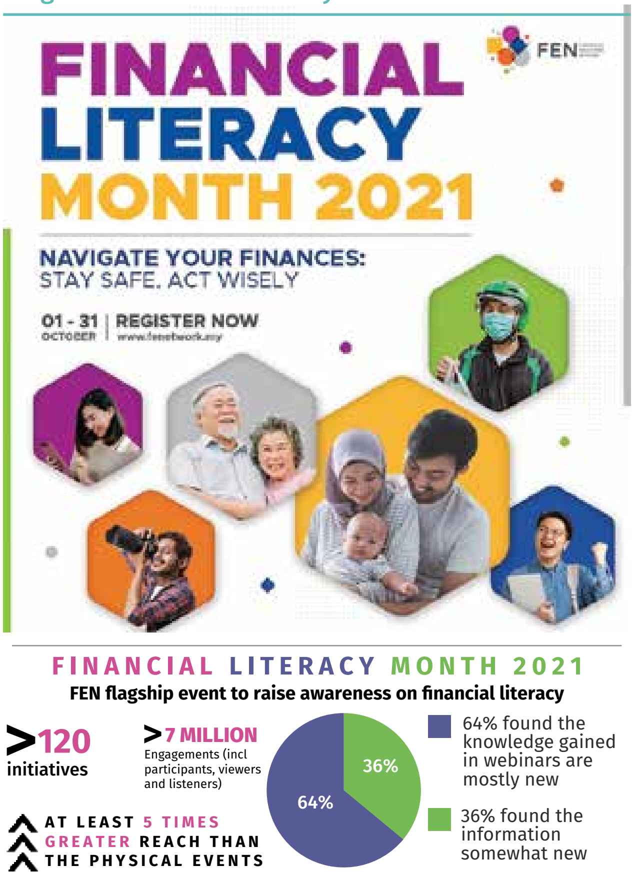
The FEN Navigational website was launched in October 2021 as a one-stop financial education platform for all life stages. It contains more than 800 financial literacy tools and resources by 24 members and partners (Diagram 10).

Diagram 7: FEN's Key Initiatives and Engagement Levels in 2021

MyDuitStory	Short video competition to raise awareness on importance of personal financial management among university students	>1.3M Reach	
Radio Interviews	Interview sessions with BNM officials at regional radio stations to enhance awareness and knowledge on topics affecting consumers on the ground	>600K Listeners	
Webinars	Series of webinars covering issues affecting consumers and personal financial management for individuals and MSMEs	>1.3K Webinars	>270K Viewers
Digital Financial Education Collaterals	Educational information on various financial literacy topics to guide consumers to make informed financial decisions	>5M Reach	>20K EngagementsWS
Media Appearances	Panel discussion and TV interviews on financial literacy	FORUM PERDANA EHWAL ISLAM: 397K views; BULETIN UTAMA: 17.6K views, 76 shares; 39K views (entire news section)	SELAMAT PAGI MALAYSIA: 1,6K views, 28 shares; 163 views

Source: Financial Education Network

Diagram 8: Financial Literacy Month 2021



Source: Financial Education Network

Diagram 9: MyDuitStory 2.0 Short Video Competition

Source: MyDuitStory social media platforms (Facebook and Instagram)

Diagram 10: FEN Navigational Website

Source: FEN Navigational website at www.fenetwork.my

The FEN Strategic Plan was developed in 2021 to set a roadmap to achieve the desired outcomes of the National Strategy for Financial Literacy 2019-2023 (NS) and the 12th Malaysia Plan. The FEN Strategic Plan outlined the approach for impactful collective actions by FEN members. It also incorporates a focus on research and measurement frameworks to sustain impactful financial education programmes (Diagram 11).

In addition, Agensi Kaunseling dan Pengurusan Kredit (AKPK) provides an online educational module entitled ‘Rumahku’. It provides comprehensive advice to first-time home buyers to help them make prudent financial decisions. Besides providing advice on the financing application process, Rumahku teaches consumers on financial and non-financial aspects to consider when deciding to buy a house and getting home financing. Through this, consumers learn about the risks and responsibilities of taking a home financing, and the options to reduce the cost of financing. Such options include paying off the financing more quickly through higher instalments. Diagram 12 illustrates how longer financing tenures lead to higher costs of financing. As at 31 January 2022, Rumahku has helped 273,274 individuals on their house financing matters.

Diagram 11: Key Initiatives by FEN in 2021

FEN Strategic Plan 2021 - 2025 to chart the work by FEN in the next five years. This is to enable FEN to achieve the objectives and desired outcomes of the National Strategy for Financial Literacy 2019-2023

Financial Literacy Core Competency for Malaysian Adults (FLCC) as a reference to develop well-designed and targeted financial education programmes for Malaysian adults in all life stages

Financial Capability and Inclusion Demand Side (FCI) Survey 2021 that serve as a basis to develop effective financial education interventions and assess financial capability and inclusion level of Malaysians

FEN Community of Practice as a knowledge management platform for FEN members to gain insights on latest FE trends and knowledge and build their capacity

Source: Financial Education Network

Diagram 12: Impact of Longer Housing Loan/Financing Tenures on Financing Cost

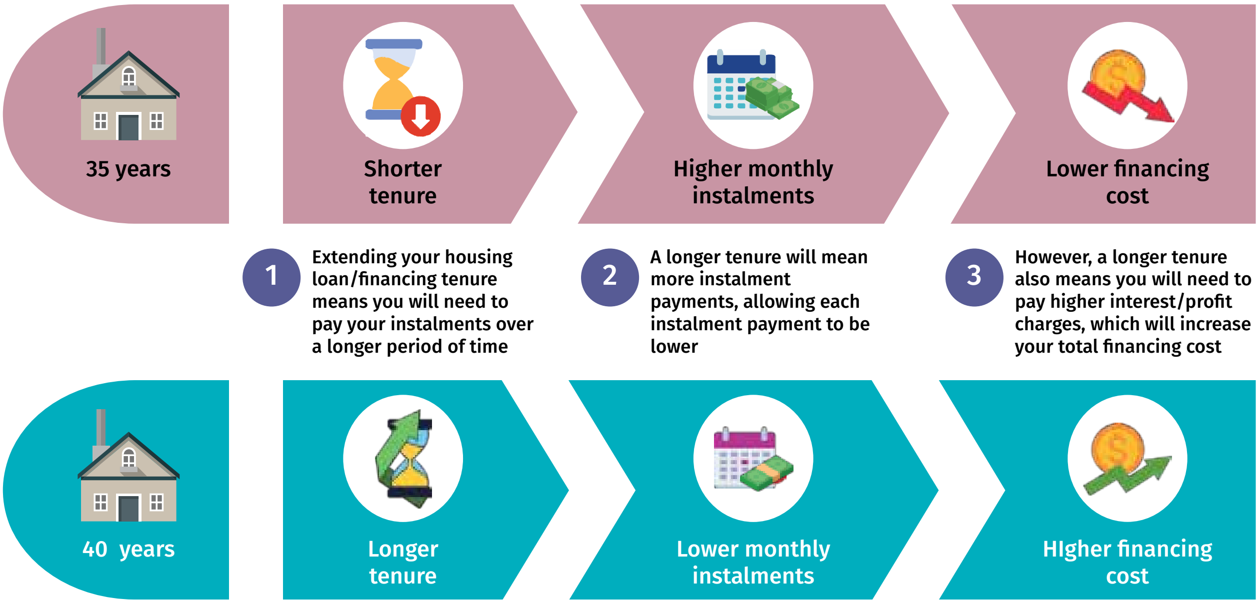
What is the impact of extended housing loan/financing tenures?

Assuming the following loan/financing terms:

RM300,000 loan/financing amount

3.0% financing rate

Loan/financing tenure	35 years	40 years	Impact
Monthly instalment (RM)	1,155	1,074	- RM81 only
Total cost of financing (RM)	484,911	515,498	+ RM30,587



Source: Bank Negara Malaysia

Going Forward

Our focus for 2022 will be in line with the developmental and regulatory priorities outlined in the Blueprint. For more information on the Blueprint, please refer to the article below.

The Bank is committed to elevate the financial well-being and resilience of households and businesses. We will continue to address the financial inclusion gaps, focusing on higher take-up rates alongside more responsible usage of financial products and services to enhance overall well-being.

Enhancing access to financial services for the underserved segments and ensuring that financing needs of businesses are met remain our key priorities. To diversify the range of funding instruments tailored to the broad spectrum of SMEs and MTCs, the Bank continuously collaborates with the Securities Commission Malaysia in advancing the development of alternative finance.

To further close these financing gaps, we will also focus on fostering market dynamism in the retail banking value chain – expanding choices for financial consumers and removing market frictions. Greater dynamism can be achieved through the operationalisation of the licensed digital banks and the implementation of the Open Data strategy.

We will also strengthen financial protection for households and businesses by undertaking various reforms. This includes improving the efficiency of processing motor claims, raising the quality of services for insurance policyholders, and ensuring long-term sustainability and affordability of private medical and health insurance/takaful.

Financial Sector Blueprint 2022-2026

The Financial Sector Blueprint 2022-2026 (Blueprint) was launched on 24 January 2022. It sets out the Bank's approach to financial development in the next five years. This is supported by key strategic thrusts to spearhead the desired outcomes and targets envisioned for the financial sector in 2026 (Diagram 13).

The Financial Sector Masterplan 2001-2010 and Financial Sector Blueprint 2011-2020 were key in strengthening the foundation for Malaysia's financial development journey. Today, Malaysia's financial sector is more advanced and competitive. To effectively navigate uncertain times in the path ahead, the sector must continue serving the Malaysian economy from a position of strength. A financial sector that is agile, resilient and diversified is critical to support a sustainable economic recovery and facilitate economic reforms over the longer term. Financial institutions must keep pace with emerging needs of households and businesses while responding effectively to a wide range of scenarios.

The Blueprint aims to create an enabling environment for the next phase of development. Importantly, it seeks to ensure that finance continues to serve the needs of the real economy – that is, to improve lives and livelihoods.

Our regulatory efforts will focus on fostering the right conditions for market dynamism and sustainable development outcomes. We will seek to remove undue barriers to competition and innovation, as well as to address market gaps and failures. Priority will be given to ensure the effectiveness of three key market mechanisms:

- Ecosystem enablers. Promote 'co-opetition' efforts for critical ecosystem enablers;
- Market access. Address undue barriers to market entry, while ensuring orderly exit; and
- Market discipline. Strengthen conditions for market discipline and consumer empowerment.

We will also intensively promote sustainable development objectives. This includes advancing value-based intermediation, financial inclusion, climate resilience and environmental sustainability. Across these efforts, the Bank continues to be firmly anchored on its monetary and financial stability mandates.

Harnessing the benefits of developments made in the past two decades, the financial industry is well positioned to play a stronger role in leading economic and financial transformation in the coming years. At the same time, achieving the outcomes envisioned demands the support and involvement of many. The Bank will continuously engage and work with all stakeholders for this purpose.

Diagram 13: Overview of the Financial Sector Blueprint 2022-2026

Advance digitalisation of the financial sector

(e.g., non-bank access to RENTAS, simplified tracks for Regulatory Sandbox, digital insurers/takaful operators)

Elevate the financial well-being of households & businesses

(e.g., financial education and impact monitoring, microinsurance/micro-takaful development, consumer protection reforms)

Position the financial system to facilitate an orderly transition to a greener economy

(e.g., effective implementation of taxonomy, mandatory disclosure of climate risks, climate risk stress test)

Fund Malaysia's economic transformation

(e.g., supportive credit guarantee ecosystem, regulatory framework for alternative finance)

Advance value-based finance through Islamic finance leadership

(e.g., deepening of Islamic financial and capital markets, alignment of Shariah contracts' application)

Desired outcomes and targets for 2026

Three broad themes

Finance for all

- ✓ Diverse choices for customers, including 'digital first' solutions
- ✓ Strengthened financial safety nets
- ✓ Confident and capable financial consumers

Finance for transformation

- ✓ Growth in alternative finance
- ✓ Deeper global integration, with continued leadership as an international gateway for Islamic finance
- ✓ Vibrant and dynamic financial landscape

Finance for sustainability

- ✓ Wider adoption of value-based intermediation (VBI) to serve the economy, community and environment
- ✓ Steady progress in greening finance and financing green

Key targets and milestones*

- Narrowing of gap between Malaysia's **OECD/INFE financial literacy scores** and the average score of OECD members
- Increase in **e-payment per capita** at CAGR of higher than 15%
- **Insurance/takaful penetration** rate of 4.8% - 5.0% (as % of GDP)
- Doubling of number of individuals subscribed to **microinsurance/microtakaful**
- Enactment of **consumer credit law and oversight body**
- Single **licensing regime** for financial advisors and financial planners
- Steady growth in **alternative finance** channelled to new, innovative enterprises
- Faster, cheaper, more accessible **cross-border payments**
- More than 50% of new financing is for **green and transitioning activities**
- Steady growth in **VBI-aligned assets**

* Selected areas, not representative of the Blueprint as a whole

Source: Financial Sector Blueprint 2022-2026

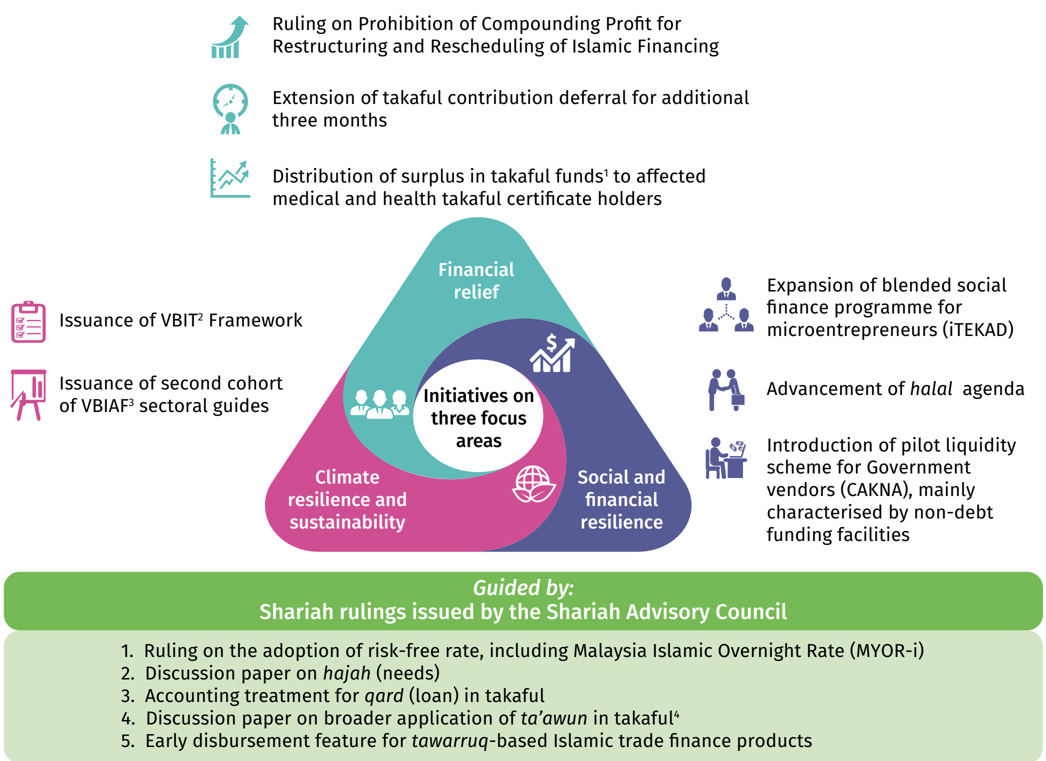
Promoting a Progressive and Inclusive Islamic Financial System

The Bank has, amongst others, a principal objective to develop a dual financial system that is sound, progressive and inclusive. For the Islamic financial system, our focus in recent years has been to further strengthen the role and contribution of Islamic finance in supporting socio-economic developments, in line with the United Nations Sustainable Development Goals (SDGs).

Much emphasis in 2021 was centred on supporting the economic recovery, assisting financially-distressed customers and pursuing initiatives to shore up social and climate resilience. These initiatives (Diagram 1) were guided by Shariah rulings that provided operational clarity for Islamic financial business.

Overall, the Islamic banking and takaful industry remained resilient and agile. The industry also continued to grow at a faster pace than conventional counterparts, albeit from a relatively smaller base (Diagram 2). This has enabled the industry to step up support for businesses and households, especially throughout the challenging period during the pandemic. Efforts were intensified through extended and targeted financial relief programmes, alongside greater access to new financing, as well as protection needs (Diagram 3).

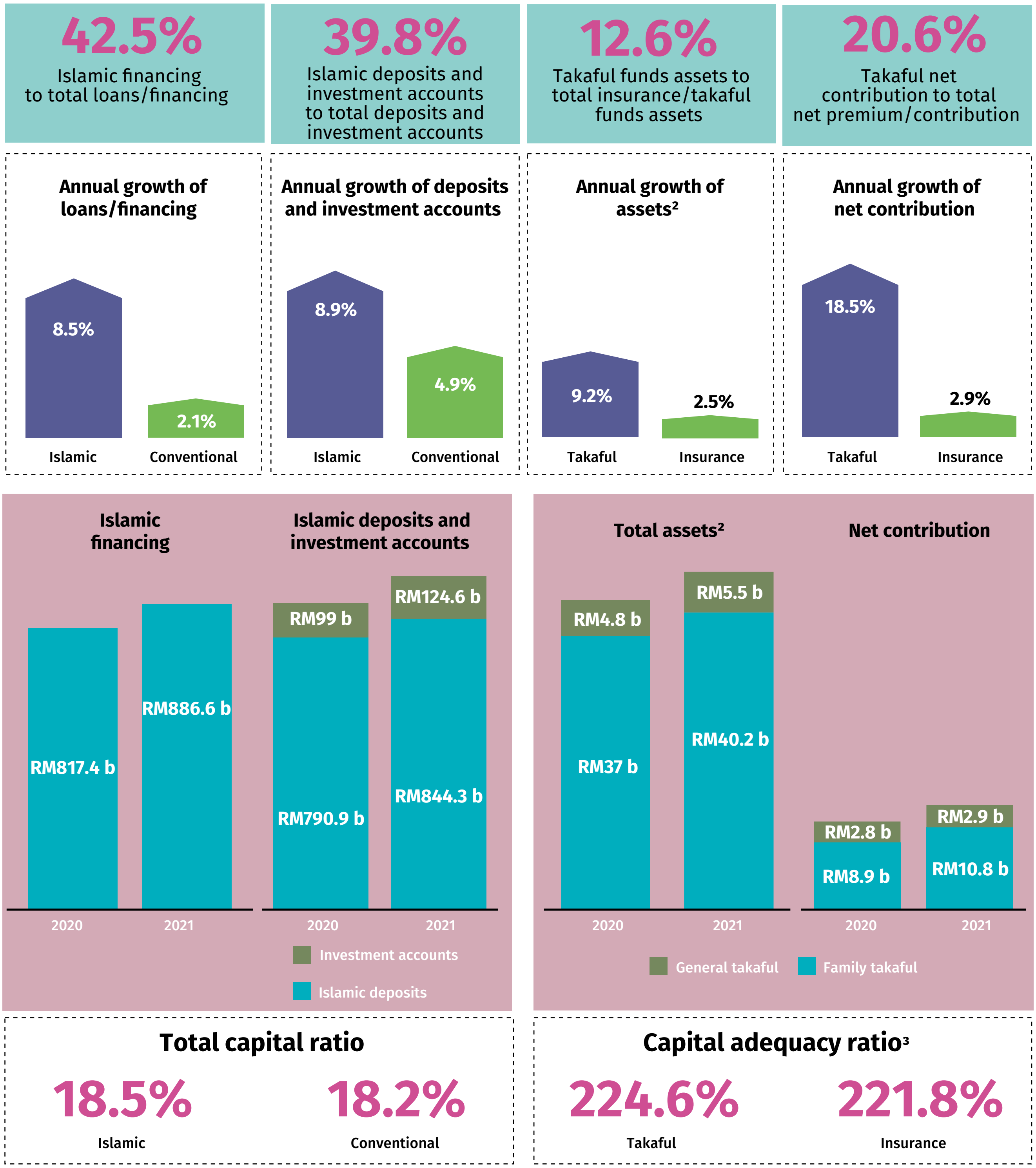
Diagram 1: Initiatives for Islamic Finance in 2021



Notes:
[1] From takaful operators' portion.
[2] Value-based Intermediation for Takaful.
[3] Value-based Intermediation Financing and Investment Impact Assessment Framework.
[4] Issued on 11 March 2022.

Source: Bank Negara Malaysia

Diagram 2: Growth of Islamic Banking[1] and Takaful Industry in 2021



Notes:
[1] Includes development financial institutions, except for total capital ratio.
[2] Refers to takaful funds or insurance funds total assets.
[3] Inclusive of retakaful operators and reinsurance companies.

Source: Bank Negara Malaysia

Diagram 3: Contribution to Financial Inclusion and Economic Activities in 2021

A. Increasing financial inclusion

18.6%
Higher penetration rate[1] of family takaful
(2020: 17%)

27%
Higher growth in financing disbursed to microenterprises and SMEs
(2020: 9.8%)

B. Supporting the economy

8.6%
Sustained household financing growth to meet household demand
(2020: 10.8%)

8.7%
Higher business financing growth to meet business demand across economic sectors
(2020: 5.2%)

RM153 billion
Higher sukuk issuance to fund real economic sectors[2]
(2020: RM136 billion)

1.2%
Increased Islamic finance contribution to Malaysia's GDP
(2020: 1%)

Notes:
[1] The ratio of total number of family takaful certificates in force to total population.
[2] Refers to agriculture, construction, communication and utility infrastructure (electricity, gas & water), manufacturing, transportation, retail trade, hotels, restaurants, Government & other services.

Source: Bank Negara Malaysia and Department of Statistics Malaysia

Cushioning the Impact of COVID-19 on Businesses and Households

Initiatives to assist the industry's customers affected by the pandemic continued during the year.[1] This was supported by specific rulings from the Shariah Advisory Council of Bank Negara Malaysia (SAC). For example, in prohibiting the compounding profit for restructuring and rescheduling (R&R) of Islamic financing for all customers, the SAC considered the principles of public interest (*siyasah syar'iyyah*) and the benefit and harm (*maslahah* and *dharar*) to customers (Diagram 4).

The takaful industry also came forward by allowing certificate holders to defer paying contributions for an additional three months.[2] Meanwhile, a few takaful operators took the initiative to channel their portion of distributable surplus in takaful funds to medical and health takaful certificate holders. This provided the certificate holders with extra coverage for treatment costs that are not covered under pandemic exclusions.

Developing Progressive Shariah Rulings

The SAC is committed in issuing progressive Shariah rulings to ensure viable and agile Islamic finance landscape and operations. In 2021, several Shariah rulings were issued not only to address pressing issues, but also to strengthen long-term developmental impact on the Islamic finance ecosystem in Malaysia (Diagram 5).

[1] As at December 2021, approximately 423,376 accounts with outstanding amount of RM73 billion were assisted through restructuring and rescheduling.
[2] Applicable to certificate holders who were granted an earlier deferral and were timely in repaying the deferred contributions.

Diagram 4: Shariah Principles Underpinning the Ruling to Prohibit Compounding of Profit for R&R of Islamic Financing

	During COVID-19	Extended to business-as-usual situation
Effective date	10 August 2020 (acts as a temporary measure)	30 June 2021 (applicable to all R&R of Islamic financing under the business-as-usual situation)
Objective	Reduce financial burden of customers who are adversely affected by the economic and financial implications of COVID-19[1]	Ease customers' debt burden and improve confidence towards industry's genuine care for customers in difficult times[2]
Basis of ruling	Based on beneficence (*ihsan*) that aims to ease financial hardship (*masyaqqah*) of customers affected by the COVID-19 pandemic	Based on public interest (*siyasah syar`iyyah*) that aims to avoid amplification of profit (compounding profits) and safeguard the contracting parties' interests
Applicability	Affected customers[1]	All customers
Shariah requirements	• The principal amount of R&R Islamic financing shall be equivalent to the outstanding principal amount of original financing (subject to no additional financing extended) • Calculation of new profit for R&R Islamic financing must exclude any accrued profit and late payment charges from the original financing	

Expectation

Strengthen the concept of justice and compassion *(adl* and *ihsan)*
Aim to strengthen the concept of justice and compassion practised by Islamic financial institutions

Give benefits *(maslahah)* to contracting parties
Prohibition brings greater benefits to the contracting parties

Improve Islamic finance business
Changing the "norms" towards greater alignment with value-based principle in order to deliver the intended objectives of Shariah (*maqasid* Shariah)

Notes:
[1] Islamic financial institutions are to seek the advice and guidance from the respective Shariah committee. Islamic financial institutions may also extend similar treatment to other customers at their own discretion.
[2] Aligning with value-based principle advocated by Islamic finance.

Source: Bank Negara Malaysia

Diagram 5: Shariah Rulings Issued in 2021

Key ruling and its immediate objective	Long-term developmental impact
1. Discussion paper on *hajah* (needs) Provide tools for Islamic financial institutions to manage existing risks and continuously innovate in line with evolving operating landscape	Standardise *hajah* definition and scope for Islamic finance – ensure uniformity of its interpretation and implementation
2. Ruling on the adoption of risk-free rate (including MYOR-i) in line with global financial benchmark reform Facilitate transition from London Inter-Bank Offered Rate (LIBOR) to a new alternative reference rate for foreign currency transactions and provide clarity on Shariah status of the new MYOR-i for Islamic overnight money market transactions and wholesale banking products	Establish credible Islamic financial benchmark that complies with global standards e.g. as outlined by the Financial Stability Board – facilitate Islamic money market development
3. Discussion paper on broader application of *ta'awun* in takaful[1] Ensure that broader application of *ta'awun* would preserve the fairness and interest of takaful participants	Facilitate greater wealth circulation within the wider society via takaful product offerings – risk protection to improve financial resiliency
4. Accounting treatment for *qard* (loan) in takaful Provide guidance on MFRS17 (Insurance Contract) for takaful operators on accounting measures for *qard* transactions between shareholders' fund and takaful fund	Facilitate informed decision by takaful participants via faithful representation of Shariah expectation for Islamic finance transactions
5. Early disbursement feature for *tawarruq*-based Islamic trade finance products Allow Islamic financial institutions to make early payment to third party for timely execution of *tawarruq* transactions. This feature is intended to address operational constraints during urgent needs and the Islamic financial institutions are required to ensure robust system capabilities and sound operating procedures are in place	Act as a temporary measure that will incite Islamic financial institutions to establish a robust long-term infrastructure that enables timely execution of *tawarruq* transactions

Notes:
[1] Issued on 11 March 2022.

Source: Bank Negara Malaysia

Encouraging Inclusive and Diverse Financial Solutions

We continued to prioritise developmental initiatives. For the year, we focused on the following:
- Building social resilience;
- Promoting climate resilience and sustainability; and
- Advancing *halal* trade and business.

Building social resilience

In 2021, the industry explored ways to further integrate social finance in Islamic financial services. New financial solutions were offered to empower microentrepreneurs, advance healthcare and education, and facilitate giving back to the community. The Islamic banking industry also took steps to improve distribution of philanthropic capital[3] through a new platform, myZakat. The platform channels *zakat* funds from Islamic financial institutions to *asnaf*[4] microentrepreneurs. This platform complements the existing myWakaf platform that was introduced in 2017 (Diagram 6).

The article on "Empowering Microentrepreneurs Through Expansion of iTEKAD" showcases progress and impact derived from the implementation of iTEKAD programme.

Advancing social finance requires a conducive ecosystem that mobilises funds more efficiently and implements the programmes in a practical manner. As the industry explores greater use of social finance to deliver tangible social outcomes and expand its outreach, it will be essential to leverage on technology and build the necessary supporting infrastructure. This will help lower the cost of operating the programmes and increase efficiency gains. Examples include a shared database of potential beneficiaries, mobile-based impact reporting tools and alternative credit scoring tools to better reflect the risk profile of targeted segments.

Diagram 6: Social Finance Platforms in Malaysia

myZakat
Digital *zakat* intermediation platform[1]
(new in 2021)

- Facilitate distribution of *zakat* fund – RM0.4 million contributed by six participating Islamic banks
- Funds used by *asnaf* microentrepreneurs as seed capital or to purchase business equipment
- Offer financial and business training via partners i.e. Amanah Ikhtiar Malaysia (AIM) and Agensi Kaunseling & Pengurusan Kredit (AKPK)

myWakaf
Digital cash *waqf* platform[1]
(since 2017)

- *Waqf* collection increased to RM8.2 million (2020: RM7.6 million) with three fully funded projects
- Ongoing fund mobilisation for education, health and community empowerment e.g. school building, mobile dental clinic and affordable housing

Notes:
[1] Coordinated by Association of Islamic Banking and Financial Institutions Malaysia (AIBIM).

Source: Bank Negara Malaysia and AIBIM

[3] Philanthropic capital includes Islamic social finance instruments such as donation (*sadaqah*), endowment (including cash *waqf*) and alms (*zakat*).
[4] A group of people worthy of receiving *zakat* contribution such as the destitute and poor.

Empowering Microentrepreneurs Through Expansion of iTEKAD

In 2021, the iTEKAD programme expanded with two additional banks coming on board. The financing solutions offered were also more diverse with the use of donation, social impact investment[5] and cash *waqf* instruments in addition to returned *zakat* for the seed capital component. The respective banks also expanded collaboration with new implementation partners to enhance outreach and impact of the programme (Diagram 7). A pilot programme in 2021 facilitated a 'test-and-learn' approach to enhance the implementation of iTEKAD (Diagram 8).

Diagram 7: Participation of More Islamic Banks and Diverse Implementation Partners

	Since 2020	New in 2021	
Islamic banks	Bank Islam Malaysia Berhad	Bank Muamalat Malaysia Berhad	CIMB Islamic Bank Berhad
Programme name	iTEKAD Microfinancing	iTEKAD Mawaddah	CIMB Islamic Rider Entrepreneur Programme
Programme structure	Returned *zakat*[1] and microfinancing facility	Returned *zakat* and two-tier *mudarabah* investment[1]	Internal CSR[2] grant, cash *waqf* and microfinancing facility
Value added propositions	*Zakat* funded purchase of business equipment	Facilitation of *halal* certification process	CSR[2] and *waqf* funded motorcycles and entrepreneurship training programme for beneficiaries, with prospective opportunity for business financing if required
Target beneficiaries	B40 and *asnaf* microentrepreneurs	*Halal* microentrepreneurs	Individuals from B40 and *asnaf* categories
Outreach	Kuala Lumpur, Perlis and Selangor	Nationwide	Klang Valley
Implementation partners • State Islamic Religious Councils (SIRCs) • Social enterprises • NGOs • Universities	• Majlis Agama Islam Wilayah Persekutuan • SME Corporation Malaysia • Majlis Agama Islam dan Adat Istiadat Melayu Perlis[3] • Teraju Ekonomi Asnaf Sdn. Bhd.[3]	• People Systems Consultancy Sdn. Bhd. • Serunai Commerce Sdn. Bhd.	• Yayasan Belia Malaysia • Foodpanda (Malaysia) Sdn. Bhd. • Taylor's University

Notes:
[1] Seed capital.
[2] Corporate social responsibility.
[3] New in 2021.
Source: Bank Negara Malaysia, Bank Islam Malaysia Berhad, Bank Muamalat Malaysia Berhad and CIMB Islamic Bank Berhad

[5] Investment with the intention to generate tangible, measurable and beneficial social outcomes.

Diagram 8: Key Learnings From Pilot Programme for iTEKAD Implementation

Key learning points	Improvement measures
Effective partnership is critical to ensure smooth programme implementation	Expand network of implementation partners with bespoke value-adding services and ability to widen outreach
Diverse financial structures that cater to specific needs of participants	Design innovative instruments with flexible terms based on unique risk profiles, financing capabilities and business sectors
Impact evaluation and transparent reporting are vital for success of programme	Measure meaningful impact seamlessly and disclose periodically using appropriate digital tools and communication mediums

Source: Bank Negara Malaysia, Bank Islam Malaysia Berhad, Bank Muamalat Malaysia Berhad and CIMB Islamic Bank Berhad

The Bank also continuously monitored the performance of iTEKAD programme. This is to ensure it delivers positive impact to the ecosystem (Diagram 9).

Diagram 9: Performance and Impact Evaluation of iTEKAD Programme

Performance of iTEKAD to date[1]

172 total microentrepreneurs
2020: 57 | 2021: +115

comprises:

15 business sectors

40% / 60%

96% completed training

from:

5 states
Wilayah Persekutuan, Selangor, Perlis, Kedah & Johor

RM2.2 million
total financing and investment disbursed to 121 microentrepreneurs with completed training
2020: 0.5 million | 2021: +1.7 million

RM0.8 million
total philanthropic capital mobilized
2020: 0.04 million | 2021: +0.76 million

Evaluation on iTEKAD impact through 4 key dimensions[1]

Business Growth:
- 32% generated average monthly sales more than RM4,000
- 30% have asset value above RM10,000 to run business viably

Employment:
- Microbusinesses sustained operations and jobs:
  - 40% self-employed
  - 54% retained 1 to 3 employees
  - 6% retained 4 to 10 employees

Financial Resilience:
- 64% saved on average up to RM2,000 of business income per month
- Forms of savings include bank deposits and other investments

Digital Upskilling:
- 100% conduct online sales
- 16% started using e-wallet payment for business transactions
- 5 businesses run official websites with secured payment gateway

Notes:
[1] All figures are as at 31 December 2021.

Source: Bank Negara Malaysia, Bank Islam Malaysia Berhad, Bank Muamalat Malaysia Berhad and CIMB Islamic Bank Berhad

Our efforts to expand iTEKAD nationwide continued by building strategic relationships and awareness among key stakeholders. During the Majlis Munaqasyah Pengurusan Hal Ehwal Islam Negeri-Negeri Di Bawah Naungan Yang di-Pertuan Agong on 9 November 2021, the six states under Yang di-Pertuan Agong's patronage expressed commitment to support the expansion of iTEKAD. The Government also announced a grant allocation of RM20 million in Budget 2022 to accelerate expansion of iTEKAD. The grant is intended to augment the seed capital component offered by participating banks in iTEKAD. These initiatives further support the scaling up of the programme to reach more targeted beneficiaries. In 2022 onwards, the Bank envisions more financial institutions to participate in iTEKAD with greater innovation when integrating social finance in financial services. These would support the mainstreaming of social finance as an integral component of the financial system.

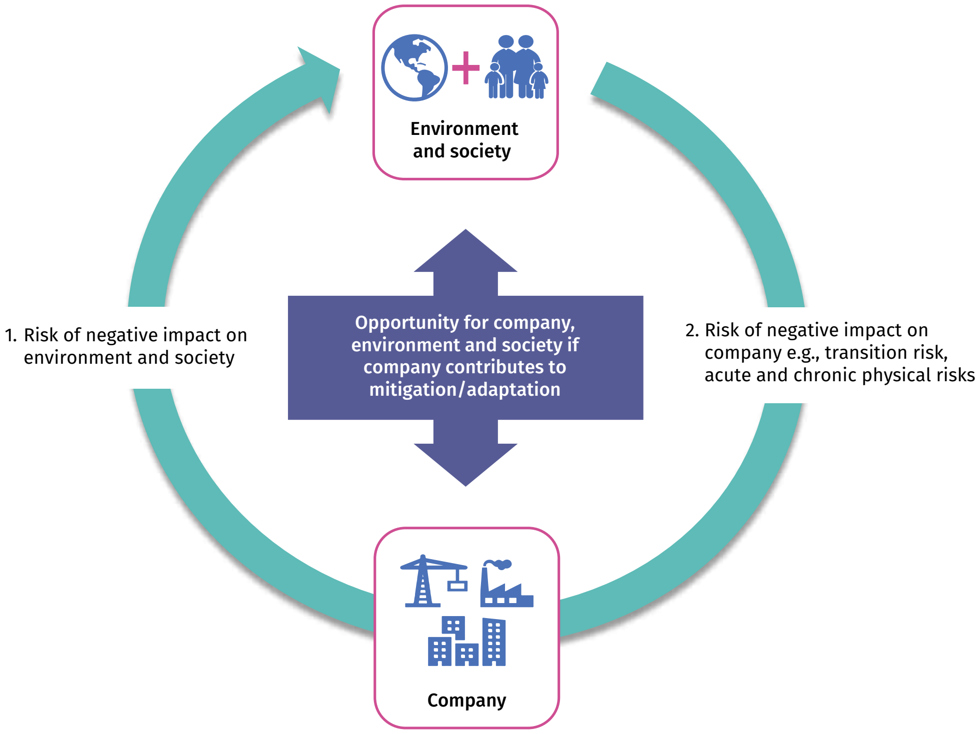
Deputy Governor Abdul Rasheed Ghaffour at Majlis Munaqasyah Pengurusan Hal Ehwal Islam Negeri-Negeri Di Bawah Naungan Yang di-Pertuan Agong.

Promoting climate resilience and sustainability

The Bank continued to support the Islamic finance community in enhancing sustainability and climate resilience within the financial system. To advance industry-led initiatives, we partnered with the Value-based Intermediation (VBI) Community of Practitioners (CoP) and Value-based Intermediation for Takaful (VBIT) Steering Committee in developing strategic frameworks and building industry capacity. For instance, we worked with technical experts and industry players via the VBI CoP to develop the second cohort of Value-based Intermediation Financing and Investment Impact Assessment Framework (VBIAF) sectoral guides. These guides on the oil and gas, construction and infrastructure and manufacturing sectors are finalised in the first quarter of 2022. The sectoral guides place greater emphasis on the dual materiality of sustainability-related risks (Diagram 10). This will deepen understanding on the transmission channels of sustainability-related risk and in turn strengthen the financial industry's risk management capability against sector-specific sustainability risks. These guides also complement the implementation of the forthcoming Climate Risk Management and Scenario Analysis Policy Document, as well as Climate Change and Principle-based Taxonomy.

For the takaful industry, the VBIT Framework was issued in conjunction with the Joint Committee on Climate Change (JC3) Flagship Conference in May 2021. This marks a key industry milestone in advancing VBI. The VBIT Framework serves as an overarching guidance in implementing VBI practices and values in takaful business based on four underpinning thrusts (Diagram 11).

Diagram 10: VBIAF Sectoral Guides Emphasise the Impact of Dual Materiality From Sustainability-Related Risks



Source: Bank Negara Malaysia and European Commission

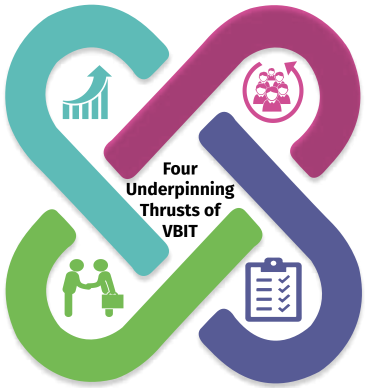
Diagram 11: Four Underpinning Thrusts of VBIT

Financial resilience

Ability to bounce back from financial shock

Best conduct

Practice that is deemed to be most superior because it leads to the best results



Community empowerment

Process of enabling people to gain control over the factors and decisions that shape their lives

Good self-governance

Ability to conduct operations in an ethical and socially responsible manner, without depending on regulatory intervention

Source: Malaysian Takaful Association

Advancing halal trade and business

Supporting Malaysia's halal agenda

The *halal* sector has been identified as one of the high impact industries to propel the growth of Malaysia's economy in the 12th Malaysia Plan. By 2025, the sector is expected to contribute 8.1% to the national gross domestic product (GDP) and generate RM56 billion in export revenue. We are supporting this national agenda by working closely with relevant Government agencies in the *halal* sector, such as the Halal Development Corporation. Initiatives in 2021 include playing advocacy role[6] for Islamic finance strategies[7] to support the implementation of the Halal Industry Masterplan 2030.

In advancing the value proposition of Islamic finance to *halal* businesses, we also took part in notable international events. These include the World Halal Business Conference 2021 and IFN Asia Forum 2021. This is part of our ongoing collaboration with Islamic financial institutions to foster greater awareness and take-up of Islamic finance by the *halal* sector.[8]

At the industry level, a wider range of solutions and *halal* integrated platforms that meet specific needs of *halal* companies are now being offered (Diagram 12). For example, *halal* companies can leverage on the financial institutions' strategic partners and network to gain access to new market opportunities and advisory services. There are also dedicated funds packaged with a capacity building component for businesses, including SMEs (Diagram 13).

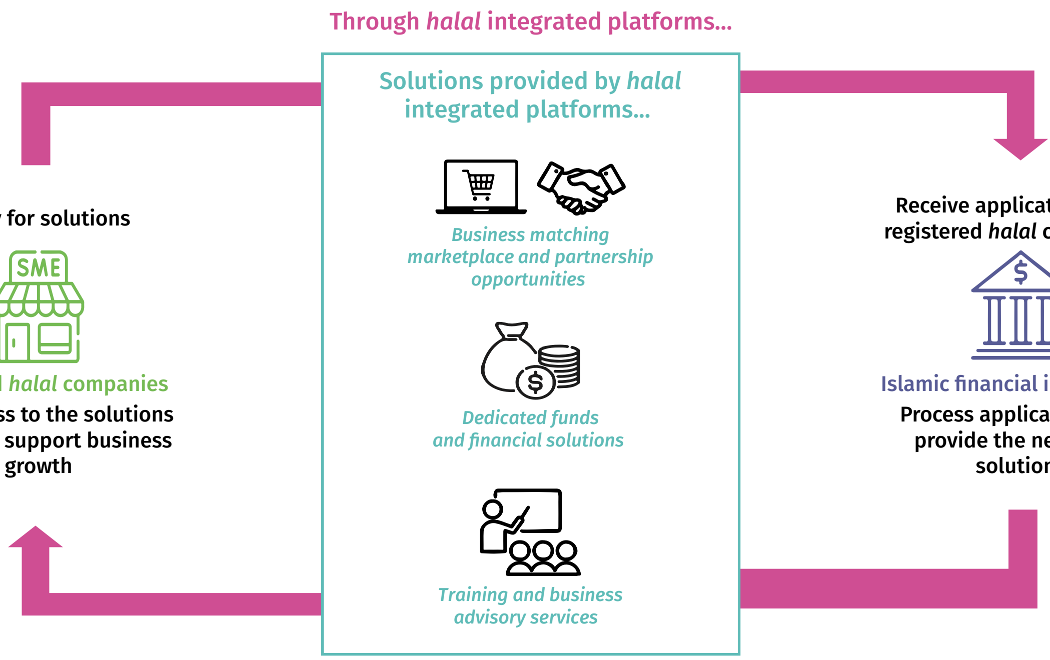
Assistant Governor Adnan Zaylani Mohamad Zahid (left) and Deputy Governor Abdul Rasheed Ghaffour (right) at IFN Asia Forum 2021 and World Halal Business Conference 2021 respectively.

6 Co-developed communication kits with Islamic financial institutions for *halal* companies on available Islamic financial solutions and participation in Government agencies' programmes related to the development of *halal* industry.

7 Initiatives include (i) greater adoption of Islamic financial solutions by *halal* businesses; (ii) establishment of dedicated fund; and (iii) comprehensive solutions to facilitate the growth of *halal* companies.

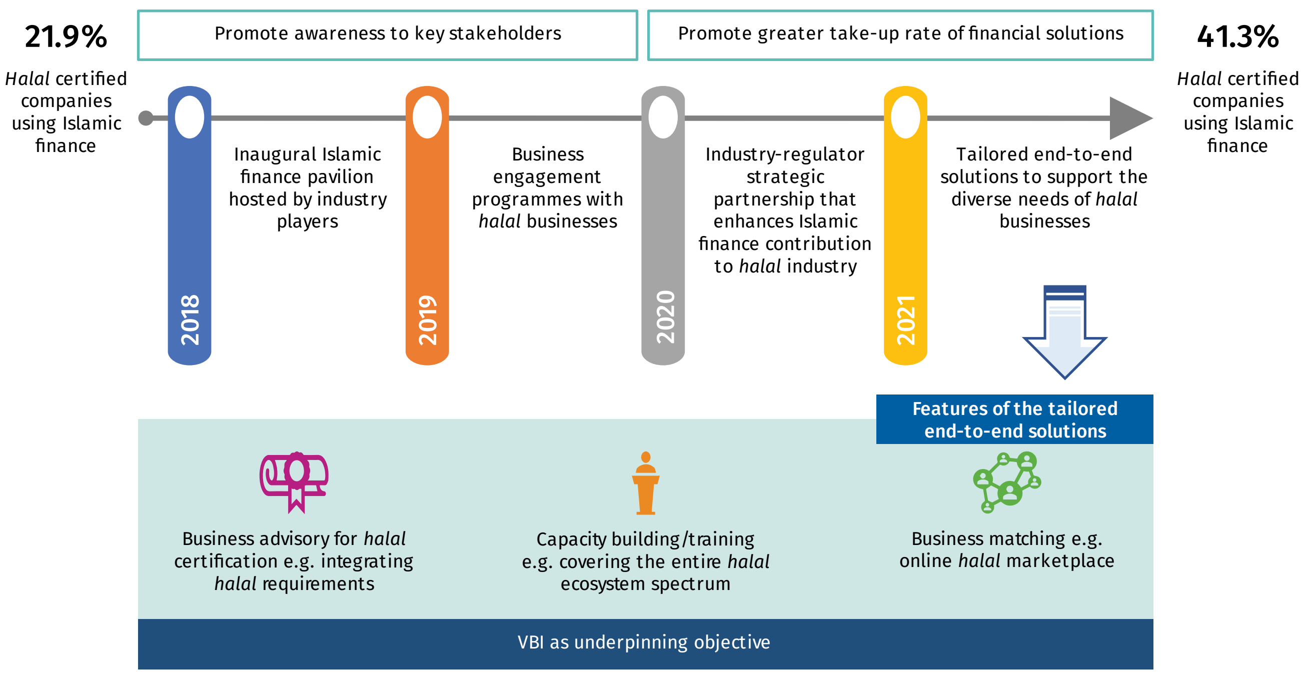
8 As at September 2021, 41.3% of 7,496 Malaysian *halal* certified companies has utilised Islamic finance, amounting to RM20 billion.

Diagram 12: Illustration of *Halal* Integrated Platforms Mechanism



Source: Halal Development Corporation and Islamic financial institutions' websites

Diagram 13: Evolution of Initiatives to Encourage Greater Take-Up Rate of Financial Solutions Offered by Islamic Financial Institutions and Features of the Solutions



Source: Bank Negara Malaysia, Halal Development Corporation, Islamic financial institutions and Jabatan Kemajuan Islam Malaysia

Piloting new solutions through CAKNA scheme

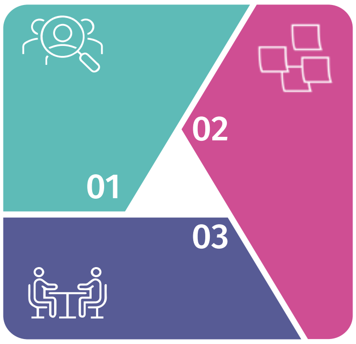
In March 2021, we rolled out a pilot liquidity scheme for Government vendors, known as CAKNA. The scheme helps to ease cash flow constraints by allowing vendors to exchange approved invoices for advance payment, at a discount before the invoice maturity date. Developed as a non-debt structure, the scheme offers vendors access to liquidity without increasing their borrowings.[9] We also collaborated with the Ministry of Finance as well as pilot participating Ministries and Islamic banks to further enhance the scheme to better serve the vendors' cash flow needs (Diagram 14).

Advancing Global Partnership and Collaboration

On the global front, we continued to intensify our international collaborations and presence on three broad areas (Diagram 15). Firstly, we participated in key international events and dialogues including sharing our experiences on VBI and social finance initiatives. Secondly, we constantly supported global demand for Islamic finance expertise through partnerships and award recognition. Thirdly, we provided continuous strategic commitment towards global Islamic finance regulatory development through representations at various committees and working groups of the Islamic Financial Services Board (IFSB) and Islamic Liquidity Management Corporation (IILM).

Diagram 14: Public-Private Collaboration to Expand CAKNA Scheme

"Graduated" CAKNA scheme



1 Ministries
Full scale implementation with participation opened to all Ministries

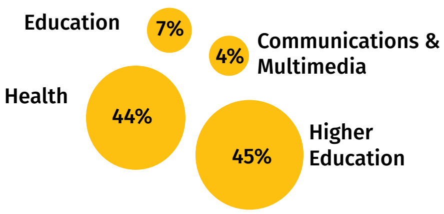
2 Funding structure
Options to be introduced at earlier stages of contract ("pre-shipment")*

* Current practice – post verification of invoices by Government agencies

3 Financial institutions
Wider participation including conventional banks and development financial institutions

Snapshot of pilot CAKNA scheme

- RM70 million worth of facilities (mainly for SMEs) approved for 17 vendors and >RM36 million of applications are being processed
- Utilisation of facilities by Government vendors under 4 pilot Ministries:



- Key learning points from pilot scheme:
  - Attractive facility features in garnering traction: Competitive rate, facilitative non-debt structure (funding facility with no recourse to the buyer) and flexible funding sizes
  - Enabling environment in supporting smooth implementation: Automated onboarding process, conducive tax framework (nominal stamp duty treatment) and high awareness among Government agencies and vendors

Source: Bank Negara Malaysia, IBFIM and pilot participating banks (i.e. CIMB Islamic Bank Berhad, Maybank Islamic Berhad, MBSB Bank Berhad and RHB Islamic Bank Berhad)

[9] There will be no recourse to vendors as the respective Ministries will make direct repayments to the financial institutions.

Diagram 15: Three Broad Areas of International Collaborations and Presence in 2021

Active participations and knowledge sharing in key international events and platforms

- Shared Malaysia's Islamic finance experience at various platforms, among others the OIC-COMCEC* Central Banks Forum, 15th and 16th Financial Cooperation Working Group of COMCEC
- Participated as resource persons for the Malaysian Technical Cooperation Programmes that were organised by industry players to signify Malaysia's commitment to South-South Cooperation
- Featured Malaysia's experience on VBI and social finance initiatives in various international publications

* OIC-COMCEC refers to Organisation of Islamic Cooperation-Standing Committee for Economic and Commercial Cooperation.

Partnership to support development of global Islamic finance

- Hosted the 3rd Roundtable Meeting of Centralised Shariah Advisory Authorities (CSAA). The CSAA is a platform established for Shariah boards at both central bank and national levels to deliberate on Shariah matters in Islamic finance
  - Attended by more than 50 delegates from 16 countries and three standard-setting bodies
  - Key discussions include emphasising the importance of sound framework to ensure Shariah boards' probity, integrity and competency as well as to provide Shariah guidance in navigating through any unprecedented crisis
- Islamic finance is one of the pillars in the transformation of Islamic Development Bank (IsDB) regional hub in Kuala Lumpur into a global Center of Excellence (CoE), aspired to spur more linkages between Malaysia and other IsDB member countries in Islamic finance
- The Royal Award for Islamic Finance introduced two new categories i.e. Emerging Leader Prize and the Impact Challenge Prize as part of the efforts to support advancement of innovative ideas in Islamic finance

Continuous strategic commitment towards global regulatory development

- Contributed to strategic and technical aspects of the IFSB and IILM through representations at the–
  - IFSB Council and Executive Committee 2020-2022 (as Deputy Chairman)
  - IFSB Technical Committee 2019-2021 (as Deputy Chairperson from July 2020, Acting Chairman from November 2020)
  - IILM Governing Board and Board Executive Committee
  - IILM Board Audit Committee 2020-2023 (as Chairman)
- Representations in seven IFSB's working groups and task forces, among others–
  - Revised Solvency Requirements for Takaful/Retakaful Undertakings (as Chairperson)
  - Revised Capital Adequacy Standard for Islamic Banking Sector
  - Core Principles for Islamic Finance Regulation – Takaful Segment

2022 highlights

GLOBAL ISLAMIC FINANCE FORUM

THE ROYAL AWARD FOR ISLAMIC FINANCE™

Malaysia will host the Global Islamic Finance Forum (GIFF) 2022 alongside The Royal Award for Islamic Finance in the fourth quarter of 2022. GIFF is a global prestige event that brings together top minds and scholars in deliberating future strategies for the global Islamic finance industry.

Source: Bank Negara Malaysia

The upcoming flagship events in the fourth quarter of 2022, namely The Royal Award for Islamic Finance (The Royal Award) and Global Islamic Financial Forum (GIFF), will continue the development journey of Malaysia's Islamic finance. The Royal Award is jointly led by us and the Securities Commission Malaysia. It is intended to recognise outstanding and inspiring individuals with significant contributions to the advancement of Islamic finance. For 2022, we expanded the award with two new prizes (Diagram 16).

Going Forward

Our priorities in 2022 will be guided by the Financial Sector Blueprint 2022-2026. We will continue to work with the industry to advance value-based finance and strengthen Malaysia's position as a global gateway for trade, investment and business activities. These initiatives will elevate the role and contribution of Islamic finance to socio-economic developments in Malaysia and globally.

Diagram 16: Snapshot on The Royal Award 2022

THE ROYAL AWARD
FOR ISLAMIC FINANCE™

Established in 2010, the prestigious award recognises outstanding and inspiring individuals who have made significant contributions to the advancement of the Islamic financial services industry.

In conjunction with The Royal Award, two new prizes are introduced:

Impact Challenge Prize	Catalyse support for Sustainable Development Goals through innovative solutions based on Shariah principles, by creating positive and tangible impact in strengthening the economic and social resilience of the financially impacted communities
	Themed 'Advancing the Sustainability Agenda', this is organised in collaboration with the World Bank Group Inclusive Growth and Sustainable Finance Hub in Malaysia and supported by the Malaysia Digital Economy Corporation
	The prize is awarded up to two winners with solutions that evidence inventiveness, impact, feasibility/commercial viability and scalability
Emerging Leader Prize	Aspire young talents to advance innovative growth in Islamic finance
	Widen participation from Islamic finance community for a concerted effort in developing the sector
	The prize is open to individuals aged 40 and below, who have served in their area of expertise in Islamic finance for at least five years

Source: Bank Negara Malaysia

Promoting Safe and Efficient Payment Services

Payments are vital in enabling economic activities. They help people and businesses make transactions conveniently, such as buying groceries, shopping online, paying suppliers and sending money overseas. We regulate and supervise industry players to maintain confidence and promote the safety, efficiency, reliability and integrity of payment services.

During the year, the Bank remained focused on ensuring that payment services continue operating at high levels of safety, efficiency, reliability and integrity. We devoted significant resources towards strengthening the regulatory and oversight frameworks and encouraging wider adoption of electronic payment (e-payment) and electronic remittance (e-remittance) services. This forms part of the efforts to help households and businesses capitalise on the upsides of digitalisation, while managing its associated risks. We also continue to promote improvements to key payment infrastructures to ensure they are future-ready to cater to the evolving needs of the economy.

Key Payment Trends

Usage of e-payment services continued to gain further traction. It recorded a higher growth of 30.2% to 7.2 billion transactions in 2021 (2020: 5.5 billion, 13.5%). The increase is almost double than that recorded in the pre-pandemic period (five-year average volume and growth of e-payments for the period 2015 - 2019: 3.6 billion transactions and 16.2%, respectively). On average, a person in Malaysia made 221 e-payment transactions, up from 170 transactions in 2020 (Diagram 1). In contrast, the usage of cheques has steadily declined. The number of cheques cleared decreased to 48.3 million in 2021 (2020: 59.9 million). Cash withdrawn from Automated Teller Machine (ATM), a proxy of cash usage, recorded 779.6 million transactions valued at RM386.3 billion in 2021. While slightly higher from last year[1] (2020: 768.7 million transactions, valued at RM377.3 billion), it remained below the pre-pandemic level, reflecting the steady shift away from cash to digital payments.

Contactless and online payments remained as consumers' preferred e-payment methods, as they are safer and more convenient. For payment at physical premises, contactless card transactions accounted for about two out of every three card transactions in 2021, up from one out of every two card transactions in 2020. In general, card transactions, both contact and contactless, registered a growth rate of 30.9% in 2021. This is twice the five-year average pre-pandemic growth (16.4%). Online banking transactions registered a 41.5% increase to 3.5 billion transactions (2020: 2.5 billion). Similarly, e-wallet[2] transactions increased by 74.4% to 1.1 billion transactions (2020: 0.6 billion). More merchants are also accepting e-payments. The total number of merchant registrations for DuitNow QR service increased by 59.4% to 1.1 million as at end-2021, from 0.7 million merchant registrations as at end-2020.[3]

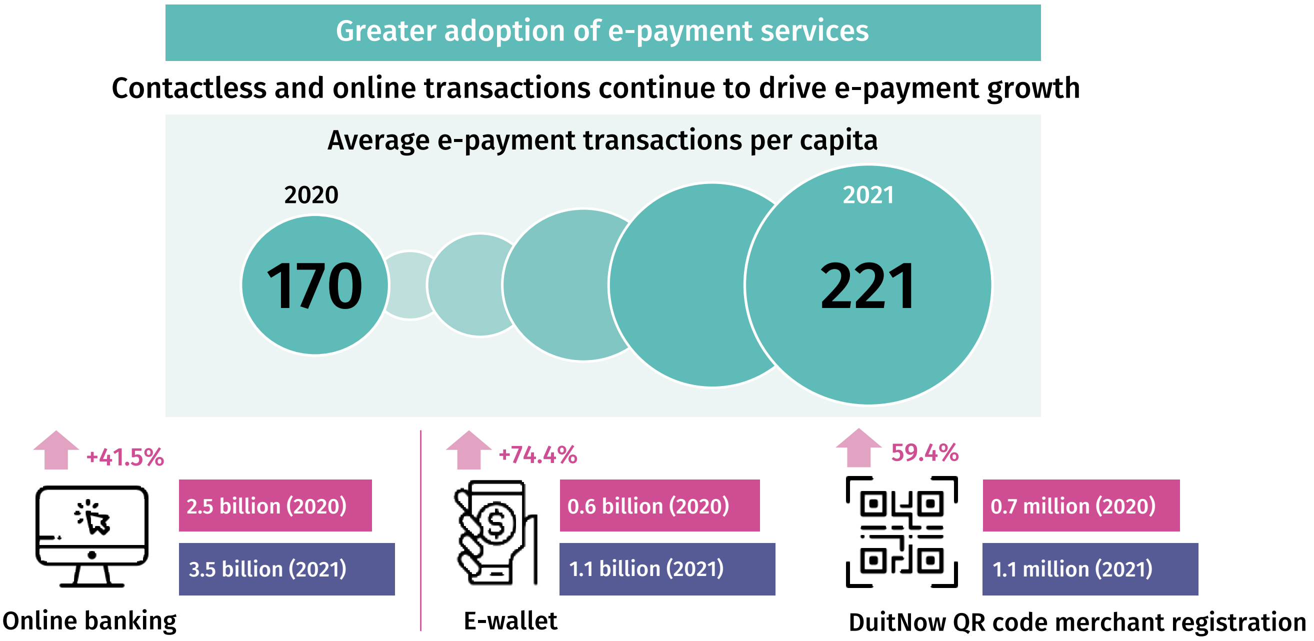
Similar trend was also observed in the e-remittance services offered by licensed non-bank remittance service providers (RSPs). In 2021, total outward e-remittance transactions increased

[1] Similar to the experience in 2020, the higher growth of currency-in-circulation (CIC) recorded in 2021 is likely driven by precautionary holdings of cash. Members of the public held extra cash for comfort and security in light of the economic uncertainty brought about by the pandemic. This experience was not unique to Malaysia, as many other countries reported a similar phenomenon.

[2] E-wallet refers to network-based e-money which allows users to make transactions via the Internet, mobile phones or other electronic devices.

[3] DuitNow QR is the national Quick Response (QR) code solution in Malaysia that allows merchants to accept payments from customers of different participating banks and e-wallet operators using a unified QR code.

Diagram 1: Greater E-Payment Adoption



Source: Bank Negara Malaysia

significantly (Diagram 2). Accordingly, e-remittances represented a larger share of total outward remittances made via RSPs at 40.0%, up from 24.8% in 2020. This was driven, among others, by the lower cost of e-remittance, which at 1.9% of the remittance amount, stood well below the 3.0% target set under the United Nations' Sustainable Development Goals (UN SDGs). The electronic Know-Your-Customer (e-KYC)[4] method has also widened access to e-remittance services by making both retail and corporate customers' on-boarding process relatively easier.

Notwithstanding the increase in e-remittance services, the total outward remittances conducted via RSPs declined by 3.0% to RM25.8 billion (2020: RM26.5 billion). This was primarily attributed to the lower remittances by migrant workers, on account of the subdued economic conditions. Business-to-business remittances, in contrast, grew by 72.2% to RM3.1 billion (2020: RM1.8 billion). This is mainly due to more RSPs, especially the larger players that offer digital services, increased their focus in the business-to-business segment.

The money changing and wholesale currency businesses also remained subdued in 2021. The sectors registered negative growth for the second consecutive year at -67.8% to RM7.4 billion (2020: RM22.8 billion), and at -39.1% to RM6.5 billion (2020: RM10.7 billion), respectively, due to their high dependence on international tourism and cross-border travel.

Diagram 2: Greater E-Remittance Adoption

E-remittance gained stronger traction

Higher usage
RM10.3 bil
Total value of outward e-remittance

Stronger growth
56.2%
Increase in e-remittance value from previous year

Lower cost
1.9%
Compared to 3.0% target set under the UN SDGs

Source: Bank Negara Malaysia

[4] e-KYC is a customer on-boarding process where the customer's identity and other necessary details are verified electronically.

Ensuring Safe and Resilient Payment Services

The payment systems in Malaysia remained resilient and operated without any material disruption throughout 2021. RENTAS,[5] Malaysia's large value payment system, and the retail payment systems continued to record a high system availability of above 99.9%.

Enhancing oversight on payment services

The Bank assumed RENTAS operations from Payments Network Malaysia Sdn. Bhd. (PayNet) from 1 July 2021. This was aimed at further strengthening the end-to-end risk management of RENTAS. The Bank now owns, operates and provides the infrastructure and technology support for RENTAS. Under this new arrangement, the independence of the Bank's regulatory and supervisory oversight function continues to be preserved. This is achieved through the clear segregation of roles and reporting structure between the oversight and operator functions for RENTAS within the Bank,[6] in line with international standards.[7]

The Bank remains committed at ensuring safe and resilient payment systems. During the year, the Bank focused its oversight activities on the following key risk areas, namely cyber resilience, consumer data protection, critical service providers (CSPs),[8] money laundering and terrorism financing (ML/TF) and payment fraud (Diagram 3).

Diagram 3: Focus of the Bank's Oversight

Cyber resilience	• Overall cyber risk management remains sound and measures are in place to mitigate cyber threats. • CPMI expectations are being adhered to and enforced through regulatory requirements, such as the policy document on Risk Management in Technology (RMiT) and supervisory expectations.
Consumer data protection	• There were no major concerns on the governance and safeguards in handling consumer information. • Notwithstanding this, action plans have been identified by the payment industry to further strengthen controls.
Critical service providers (CSPs)	• Major payment system operators have sound measures in place to mitigate potential risks that may arise from CSPs' operations. • To further strengthen such measures, the Bank required major payment system operators to strengthen their internal capabilities to ensure ongoing robust management of CSPs, in line with the CPMI expectations.
Money laundering / terrorism financing	• The Bank leveraged on advancements in technology and data analytics for supervision and surveillance on ML/TF and illegal payment service operators. • The Bank and industry associations jointly organised a series of capacity building programmes aimed at strengthening collaboration and operational resiliency amongst members.
Payment fraud	• Overall payment fraud ratio remains low and stable, with various safeguard measures implemented. • The Bank continues to actively promote inter-agency collaboration to address fraud through the Steering Committee on Electronic Payment Fraud and Scam Risk[1].

[1] The committee, which was established in 2014, includes representatives from relevant government agencies and financial industry, such as the Malaysian Communications and Multimedia Commission (MCMC), Cyber Security Malaysia, Polis Diraja Malaysia (PDRM), Association of Banks in Malaysia (ABM), Association of Islamic Banking and Financial Institutions Malaysia (AIBIM), Internet Banking Task Force (IBTF), Malaysian Risk Management Task Force (MRMTF), National Cards Group (NCG), Industry Cyber Working Group (ICWG) and PayNet.

Source: Bank Negara Malaysia

5 Real-time Electronic Transfer of Funds and Securities System.

6 The oversight and operator functions for RENTAS are overseen by two different Deputy Governors in the Bank. A dedicated Financial Market Infrastructure Committee, which includes external members with relevant knowledge and experience, has also been established to strengthen the operations, development and risk management of RENTAS.

7 The Principles for Financial Market Infrastructures (PFMI) issued by the Committee on Payments and Market Infrastructures (CPMI) of the Bank for International Settlements (BIS) and the International Organization of Securities Commissions (IOSCO).

8 CSPs refer to critical service providers providing critical functions or services to financial institutions.

With effect from 1 August 2021, the regulation and supervision of the payment services industry, including money services business (MSB),[9] were integrated within the Bank. This reflects the growing interlinkages between payment, remittance and money changing activities, and aims to reduce regulatory fragmentation, maximise potential synergies and further strengthen capabilities within the Bank to effectively oversee the fast-changing payment services landscape.

On the enforcement front, the Bank revoked one MSB licence and one e-money approval. We also imposed administrative monetary penalties on three payment service providers and issued 27 supervisory letters due to non-compliances and lapses in operations. Such actions have led to a stronger compliance culture and control measures adopted by the payments and MSB industry as recognised in the National Risk Assessment 2020/2021 exercise.[10]

Policy Responses to Emerging Risks and Market Development

In 2021, we reviewed several policies aimed at enhancing the safety and efficiency of payment services, while strengthening user protection and public confidence (Diagram 4).

In alleviating the impact of the pandemic on the MSB industry, the Bank provided several relief measures, such as suspending the requirements on staff training allocations and waiving the annual licence fees applicable to money changers for 2021 and 2022.

Diagram 4: Policies Reviewed by the Bank in 2021

Policy	Description
New policy document	
Merchant Acquiring Services	To strengthen the safeguards at protecting merchants' and customers' interest while using e-payment services. The policy focuses on managing risks associated with settlement risk, financial risk, fraud risk, and technology and cyber risks.
Exposure drafts	
Payment Card Framework	To ensure the cost of accepting payment cards continues to remain fair and reasonable. This is undertaken via revision of interchange fee ceilings and strengthening of merchants' ability to manage payment card acceptance cost.
E-Money	To strengthen the safety and reliability of e-money, and preserve customers' and merchants' confidence in using or accepting e-money as a mode of payment.
Payment System Operators	To ensure the safety, efficiency and reliability of payments systems. It is also intended to preserve public confidence in the payment systems and in the use of payments instruments.
Money Services Business	To further elevate the standards of professionalism and compliance in the industry, strengthen industry safeguards against the risks of money laundering and terrorism financing, and enhance consumer protection.

Source: Bank Negara Malaysia

[9] Money services business refers to money changing, remittance and wholesale currency business.

[10] The National Risk Assessment (NRA) is an assessment of the country's exposure to prevailing crimes (domestic and foreign) and vulnerabilities of various sectors to money laundering and terrorism financing risks.

Beyond the regulated activities, the Bank also monitors new market developments to ensure they do not pose any undue risks to the public. One such emerging development is 'Buy Now Pay Later' (BNPL) schemes. It allows customers to make payments in instalments with zero interest. However, there may be other charges levied on the customers (e.g. processing fees and late payment fees). In some cases, the total charges levied by BNPL providers on the customers may be higher than the total interest and charges imposed by conventional lenders. BNPL schemes offered by non-bank operators currently do not fall within the regulatory purview of the Bank or any regulatory agency. As such, we are working together with the Ministry of Finance and Securities Commission Malaysia to enact the Consumer Credit Act (CCA) in 2022. The CCA will strengthen regulatory arrangements for all consumer credit activities, including BNPL schemes offered by non-bank operators. For BNPL schemes offered by, or in partnership with banking institutions, the banking institutions are expected to observe practices that are consistent with the responsible lending expectations. To further mitigate the risks that BNPL schemes may encourage consumers to spend beyond their means, we have also worked with the Financial Education Network to educate the public on the risks of using BNPL schemes (Diagram 5).

Diagram 5: Public Education on BNPL Schemes Shared via Social Media

Source: Bank Negara Malaysia

Fostering Greater Adoption of E-Payment Services

The Bank and the industry continued to promote e-payment services as a safer and more convenient way of making payments. In view of restrictions on face-to-face interactions, we leveraged on the mainstream and social media platforms extensively for our public engagements (Diagram 6). This has also enabled us to reach a wider audience and disseminate information faster. Additionally, communication materials, including short videos and infographics were shared via mainstream and social media channels throughout the year to different target audience. The Bank also intensified financial education and awareness programmes on the basic security measures that users can take to protect themselves from financial scams and frauds.

Efforts were also targeted towards educating the public, especially foreign workers, on the availability and convenience of e-remittance services. This includes broadcasting videos in foreign languages via social media channels. The digitalisation efforts have also been encouraging, particularly in the remittance sector, with 65.9% of RSPs currently offering digital services. This continues to be supported by responsive regulations that enable MSB players to on-board corporate customers digitally. Similar regulatory arrangements are in place for individual customers. Additionally, e-payment options for MSB services have been made more widely available by MSB players.

Diagram 6: Communication Materials Disseminated to the Public

Source: Bank Negara Malaysia

The Bank partnered with key stakeholders to encourage the adoption of e-payments among the public. For instance, the Bank supported the implementation of the eBelia programme under Budget 2021. Under this initiative, Malaysians between 18 and 20 years old who were full-time students in Malaysia were eligible to receive RM150 in e-wallet credits. We also collaborated with the Ministry of Domestic Trade and Consumer Affairs via the Retail Sector Digitalisation Initiative (ReDI) to expand e-payment adoption among micro and small enterprises in Kuala Berang, Terengganu and Kapit, Sarawak. Additionally, we collaborated with the Federal Agriculture Marketing Authority (FAMA), where 78%, or 500 from 640 merchants at the Urban Transformation Centre (UTC) Kelantan have been on-boarded to accept e-payments (Diagram 7).

Diagram 7: Promoting Use of E-Payments Among Merchants and Consumers

Source: Bank Negara Malaysia

Futureproofing Key Payment Infrastructures

The Bank has been spearheading RENTAS's migration to the ISO 20022 standard,[11] in collaboration with the industry. The adoption of the ISO 20022 standard by financial institutions in Malaysia will enhance payment efficiency, facilitate greater risk management and offer value-added services to customers. The migration will be undertaken in two phases. During Phase 1 from June 2022 to June 2024, RENTAS will support both the existing ISO 15022 standard and the new ISO 20022 standard. RENTAS will be equipped with a centralised translator to facilitate message conversion between the two standards. Phase 2 will commence in July 2024 where all financial institutions will have adopted ISO 20022, and ISO 15022 support will be discontinued. In 2021, we worked with the industry to finalise the ISO 20022 message specifications. With the finalised specifications, the majority of RENTAS participants have initiated their migration exercise to meet the Phase 1 deadline of June 2024.

Efforts to modernise the domestic payment systems, including the roll-out of the Real-time Retail Payments Platform (RPP),[12] have brought about cheaper, faster and more convenient domestic payment services. However, cross-border payments continue to be fraught with challenges such as higher cost, slower speed, limited access and insufficient transparency. In Malaysia, about 80% of the cross-border payments are settled through a correspondent banking arrangement.[13] A single cross-border payment could pass through multiple correspondent banks. Each leg of the transaction takes time and effort to process,[14] which often results in slow and costly cross-border payments.

As a small and highly open economy, improvements in cross-border payments have the potential to create substantial efficiency gains, thus enhancing our trade competitiveness. To this end, we continue to work towards enhancing the safety and efficiency of cross-border payments. For instance, the Bank has been working with our counterparts in several ASEAN countries to facilitate the linking of real-time payment (RTP) systems. This considers the strong economic ties between Malaysia and these countries in terms of trade, tourism activities and remittance flows. To date, the Bank has facilitated the establishment of bilateral payment linkages with Thailand and Indonesia. A similar arrangement with Singapore is also in progress.

Besides enhancing existing payment arrangements, we have also devoted efforts to strengthen Malaysia's capacity to capitalise on new cross-border payment innovation. For instance, the Bank is collaborating with BIS Innovation Hub and global partners on two proof-of-concept projects to enable faster and cheaper cross-border payments. First, the Bank is a participant of Project Nexus which seeks to explore the feasibility of linking up the RTP systems multilaterally to enable cross-border payments within 60 seconds. Second, we also participate in Project Dunbar, which seeks to test the use of wholesale central bank digital currency (CBDC) for cross-border payments via a shared multi-CBDC platform. Both projects are closely aligned with the G20 Roadmap to Enhance Cross Border Payments and are targeted to complete in 2022.

Going Forward

The Bank will continue to intensify efforts towards ensuring that key payment systems and services remain safe, efficient, resilient and reliable. Together with the industry, we will actively pursue a collaborative and market-driven approach to reduce barriers to adoption, increase public confidence and future-proof the country's key payment infrastructures.

In ongoing efforts to reap the advantages of digitalisation while managing the associated risks, the Bank will be guided by the objectives and initiatives outlined in the Financial Sector Blueprint 2022-2026, which charts our path forward. We are committed to advancing the four strategies outlined in the Blueprint[15] to ensure Malaysia's payment services continue to support the current and emerging needs of the Malaysian economy.

---

[11] ISO 20022 is an internationally recognised messaging standard for the financial industry with enhanced data, structured messaging format and flexibility to adapt to new technologies.

[12] RPP is a shared payment infrastructure that facilitates instant and seamless payments between bank accounts and e-money accounts.

[13] Correspondent banking is an arrangement which facilitates funds to be transferred across borders using a network of banks. Once a fund transfer is initiated at the source bank, the funds are transferred to one or more intermediary banks (correspondent banks) before it reaches the beneficiary's account in the destination bank.

[14] For example, due to the need to pre-fund multiple nostro accounts and ensure compliance with multiple legal regimes.

[15] The four strategies as stipulated under Strategic Thrust 3: Advance Digitalisation of the Financial Sector of the Blueprint are: (1) Futureproof key digital infrastructures; (2) Support a more vibrant digital financial services landscape; (3) Strengthen cyber security readiness and responsiveness; and (4) Support greater use of technology for regulation and supervision.

Real-Time Payment System Linkages for Efficient Cross-Border Payments

With the roll out of the Real-time Retail Payments Platform (RPP) since December 2018, fast, convenient and low-cost[1] domestic payment services have become a norm for users. Two services are currently offered on the RPP, namely DuitNow Transfer and DuitNow QR services. With the DuitNow Transfer service, a sender can transfer funds instantly by using the recipient's mobile phone number.[2] Likewise, the DuitNow QR service allows customers to use any participating bank or non-bank e-wallets to scan the DuitNow QR code to make payments. Merchants would also be able to accept payments seamlessly from any participating bank or non-bank e-wallets through a single unified DuitNow QR code. This reduces the need for merchants to display multiple QR codes from different e-wallet providers.

At the regional level, efforts have also been initiated to improve the efficiency of cross-border payments. This aims to tackle the pain points in cross-border payment services which are slower and more costly[3] than domestic payment services. To this end, the Bank has facilitated the establishment of bilateral payment linkages with Thailand and Indonesia. Similar arrangement with Singapore is also in progress (Diagram 1).

By linking the RPP with the real-time payment system of another country, users in both countries would benefit from faster and cheaper cross-border payments. For instance, funds will be paid into the recipient's account instantly compared to one to two working days typically for conventional cross-border payment services.[4] Before confirming payment, users will be provided upfront with the applicable fee and foreign exchange rate which are competitively priced. The Bank also continues to encourage more interested e-wallet providers to participate in the linkages. This would broaden the access of instant cross-border payment services to consumers and merchants.

Diagram 1: Status of Bilateral Linkages

Partner countries[1]	Cross-border QR payments	Cross-border P2P fund transfers
Thailand	Live	Under development
Indonesia	Live	In discussion
Singapore	Under development	Under development

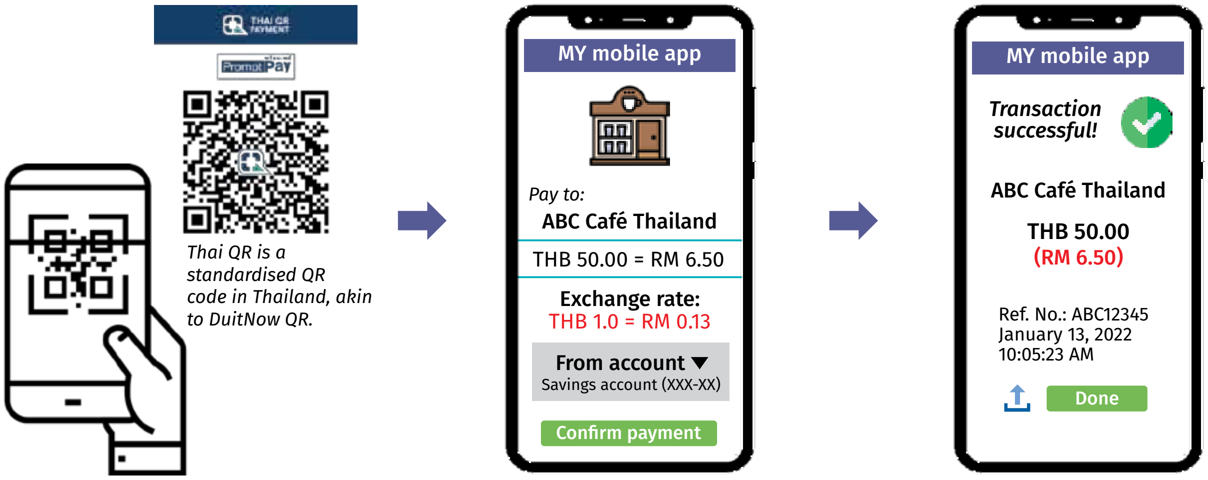
[1] Please refer to PayNet's DuitNow Transfer and DuitNow QR websites for list of participating financial institutions (FIs).

Source: Bank Negara Malaysia

[1] DuitNow Transfer service is free for fund transfers of RM5,000 and below. As for fund transfers above RM5,000, the transaction fee is capped at RM0.50.
[2] Other common identifiers supported by DuitNow Transfer include national registration identity card (NRIC) number, passport number and business registration number.
[3] Cross-border payments generally flow through correspondent banking arrangements. Key pain points associated with such arrangements include high costs and slow speed due to reliance on multiple intermediaries (e.g. liquidity costs to pre-fund multiple nostro accounts, and longer processing time due to varying levels of operational efficiency, local requirements and cut-off times across the multiple intermediaries). In 2021, the average cost of making cross-border remittance via non-bank remittance service providers was 2.2% of the transaction value, while the average cost for e-remittance was 1.9% of the transaction value.
[4] For example, foreign telegraphic transfers and payment cards.

Diagram 2: Steps for Making Cross-Border QR Payment

1. **Scan the merchant's QR code using your mobile payment app.**
2. **Insert amount and verify payment details before confirming payment.**
3. **Once successful, you will receive a notification displaying the amount paid in both currencies.**



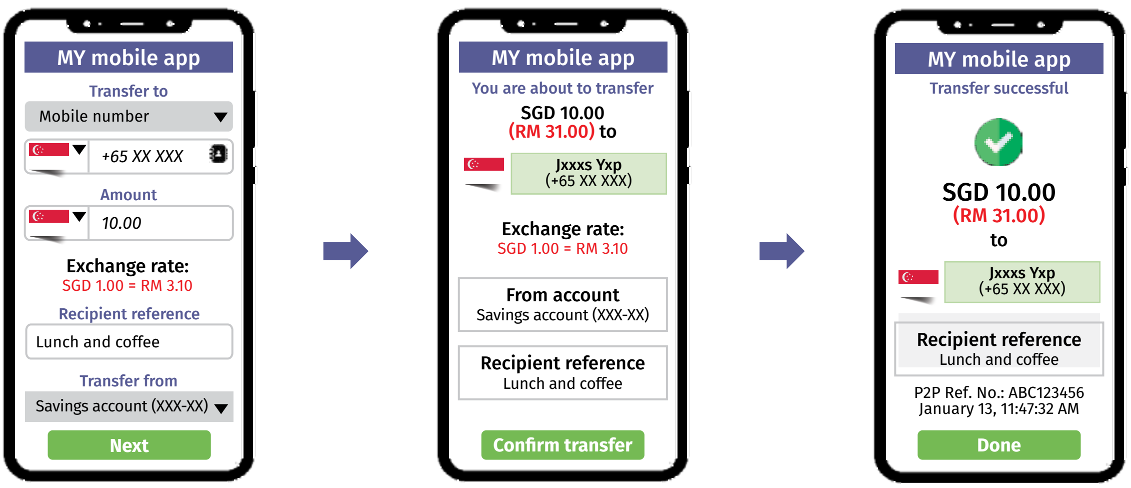
Customer scans Thai QR using a Malaysian mobile payment app.

Note: The above diagram is for illustration only. The actual user interface may vary across participating FIs.

Source: Bank Negara Malaysia

Diagram 3: Steps for Making Cross-Border P2P Fund Transfer

1. **Insert the recipient's mobile number and payment amount.**
2. **Verify the payment details before confirming payment.**
3. **Once successful, you will receive a notification displaying the amount paid in both currencies.**

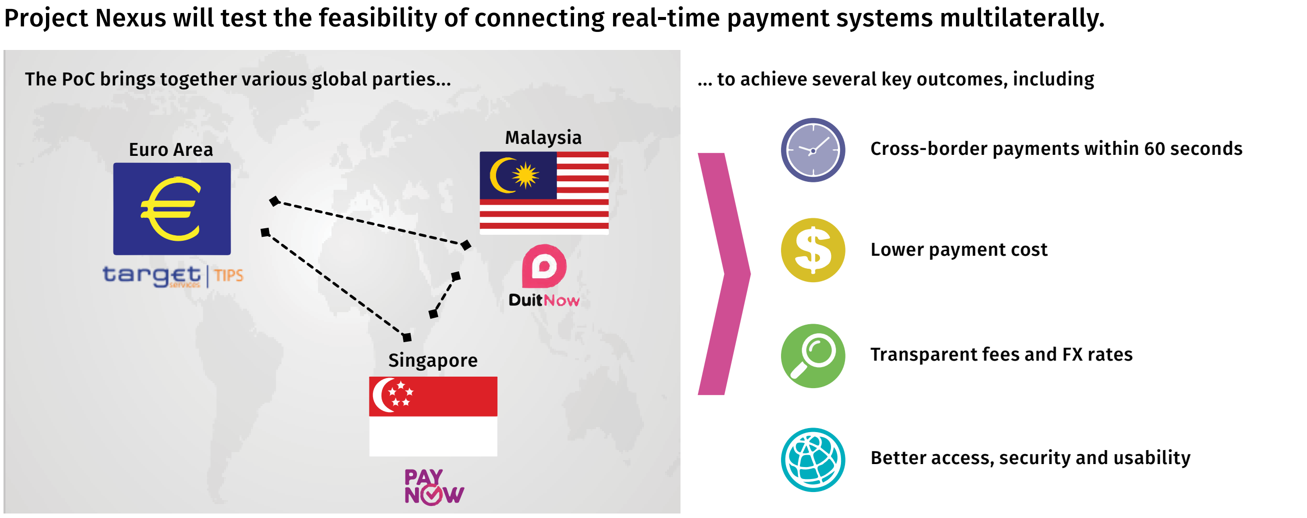


Note: The above diagram is for illustration only. The actual user interface may vary across participating FIs.

Source: Bank Negara Malaysia

Building on the success of bilateral payment linkages, the Bank and PayNet are collaborating with the BIS Innovation Hub and other international partners in the Project Nexus proof-of-concept (PoC)[5] initiative. This aims to explore the feasibility of connecting multiple real-time payment systems globally to enable cross-border payments within 60 seconds. The findings will inform the future development of a global network of real-time payment systems[6] to enable fast and seamless cross-border payments.

Diagram 4: Overview of Project Nexus



Source: Bank Negara Malaysia

[5] The PoC will not process live payments and will not be available for individuals and businesses to use at this juncture.
[6] Globally, more than 60 countries have implemented real-time payment systems.

Proceeding With Caution: Balancing Opportunities and Risks of Digital Assets

Introduction

The payments landscape has evolved in significant ways to keep up with the demand for more efficient payment services that are faster and cheaper. Supported by technological advancements and a vibrant market, cash usage is increasingly being replaced by digital payment methods such as contactless cards and mobile e-wallets. Meanwhile, the adoption of privately-issued digital assets is gaining traction. Originally established as an alternative means of payments,[1] the digital asset ecosystem has evolved to serve various applications beyond payments.

Evolution of Digital Assets

Digital assets are digital representations of value[2] that can be digitally traded or transferred and can be used for payment or investment purposes. Digital assets primarily leverage on cryptography[3] and distributed ledger technology (DLT).[4] Such technologies enable digital assets to be transacted without the need for intermediaries.

Since the launch of Bitcoin in 2009, the global digital asset landscape has evolved rapidly. As at end-2021, there were about 9,000 different types of digital assets with a total market capitalisation of USD2.6 trillion, 3.5 times higher than at the beginning of 2021.[5] Generally, digital assets can be classified into two main categories – unbacked digital assets and stablecoins (Diagram 1).

1. **Unbacked digital assets** are digital assets whose value is determined by its market demand and supply. These digital assets have their own unit of account and are not denominated in any fiat currency. To date, digital assets continue to function primarily as a speculative asset class instead of a payment method.[6] This is due to various drawbacks including high price volatility, vulnerability to cyber threats and issues relating to scalability and energy consumption. For instance, Bitcoin's value reached a high of USD65,000 in April 2021 before falling by 50% just a week later. Between 2011 and 2021, approximately USD12 billion in digital assets have been stolen through cyber hacks. The Bitcoin network is able to process only up to 10 transactions per second (TPS) compared to 65,000 TPS for conventional payment systems such as Visa. The environmental impact arising from the large energy consumption of digital assets presents another cause for concern.[7]

2. **Stablecoin** is a type of digital asset that aims to maintain a stable value relative to a specified asset, or a pool of assets. As the name suggests, stablecoins manage the price volatility of digital assets by pegging their value to an underlying asset (e.g. fiat currency or commodities) or using an algorithmic protocol.[8]

---

[1] For example, the introduction of Bitcoin was envisioned to be a peer-to-peer version of electronic cash that would allow online payment to be sent directly from one party to another without going through a financial institution. However, digital assets such as Bitcoin have not become a mainstream payment instrument due to various limitations including high price volatility, vulnerability to cyber threats and lack of scalability.

[2] This does not include digital representation of fiat currencies (Financial Action Task Force (FATF) (2021, p.10), Financial Stability Board (FSB) (2022, p.25)). Fiat currency refers to currency notes and coins issued by a sovereign body, e.g. Government or central bank of a country, which is recognised as legal tender and can be used to settle a debt or payment obligation in that country.

[3] Cryptography is the conversion of data into private code using encryption algorithms, typically for transmission over a public network (FSB (2022, p.25)).

[4] DLT is a means of saving information through a distributed ledger, i.e. a repeated digital copy of data available at multiple locations (FSB (2022, p.25)).

[5] However, digital assets remain small relative to the global financial system – its peak estimated market capitalisation of USD2.6 trillion is equivalent to around 1% of global financial assets. Despite its rapid growth, direct connections between digital assets and the broader financial system are currently limited. Episodes of price volatility have also been contained within digital asset markets and have not spilled over to other financial markets (FSB (2022, p.6)).

[6] Merchant payments using digital assets were estimated to be about USD6 billion in 2021, a tiny fraction of the USD10 trillion global e-commerce market (Nuvei (2022, p.19)).

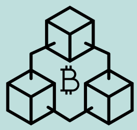
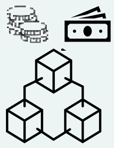
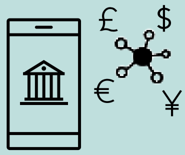
[7] For example, the Bitcoin network consumed 132 TWh in 2020 equivalent to the power consumption of Argentina (Rahul Singh (2021)). In addition, the energy consumed for 1 Bitcoin transaction could power 1.2 million Visa transactions (Nuvei (2022, p.7)).

[8] The algorithmic protocol helps to maintain a stable value by adjusting the supply of stablecoins in response to changing demand.

Subject to the effectiveness of the value stabilisation mechanism, stablecoins are more likely to be used as a payment method compared to unbacked digital assets. In 2021, the total global market capitalisation of stablecoins has grown four-fold to over USD157 billion. At present, stablecoins are used primarily as a mechanism to store proceeds from digital asset investments to protect against volatility. Although the use of stablecoins for payments remains limited, this may change in the future as global payment companies start to integrate with the digital asset ecosystem, particularly with stablecoins.

The developments in the digital asset ecosystem have also fuelled the growth of decentralised finance (DeFi). DeFi comprises financial services that are provided without intermediaries, using automated DLT protocols (smart contracts) and stablecoins to facilitate fund transfers.[9] As at end-2021, the global size of DeFi has grown to USD100 billion compared to just USD15 billion a year ago. This is driven largely by the growth of decentralised exchanges that allow users to trade digital assets without an intermediary and decentralised credit platforms that match borrowers and lenders.

Diagram 1: Comparison Between Digital Assets and Central Bank Digital Currencies (CBDC)

	Digital assets		CBDC
			
Type	**Unbacked digital assets** (e.g. Bitcoin, Ethereum)	**Stablecoins** (e.g. Tether, USD Coin)	**Central bank digital currencies** (e.g. Sand Dollar, e-CNY)
Issuer	No identifiable issuer	Private entity	Sovereign body (e.g. Government, central bank)
Primary use case	Investment	Payments	Payments
Underlying value	Subject to market demand and supply	Value is backed by underlying assets or stabilised by controlling market supply	Value is backed by a sovereign body (e.g. Government, central bank)

Source: Bank Negara Malaysia, Financial Stability Board and Bank for International Settlements

Breaking Down the Pros and Cons

Potential for more efficient and inclusive financial services

Advocates have long stressed the potential for digital assets to advance efficiency in financial services. Efficiency gains include further service automation, improved liquidity management, and faster and cheaper settlement. This is particularly relevant for cross-border payments. Today, most cross-border payment services rely on correspondent banking arrangements (Diagram 3.1). A single cross-border payment could pass through multiple layers of intermediaries. This ultimately translates into slower speed and higher fees for users. The decentralised and tokenised[10] form of digital assets make it possible to transfer value instantly on a peer-to-peer basis without the need for intermediaries.

---

[9] The DeFi ecosystem revolves around two elements: (i) novel protocols for trading, lending and investing, and (ii) stablecoins, which are crypto-assets that facilitate fund transfers and aim to maintain a fixed face value vis-à-vis fiat currencies, mainly the US dollar (Aramonte et al. (2021, p.21)).

[10] This refers to a feature of digital asset created through the process of tokenisation, which is a process of digitally representing an asset on distributed ledger. Tokens issued exist on the ledger and carry the rights of the assets they represent, acting as store of value (Organisation for Economic Co-operation and Development (OECD) (2021, p.13)).

Beyond payments, digital assets have the potential to enhance access to financial services. Depending on the design, a digital asset can be made universally accessible to users with a smartphone and basic Internet access. This could significantly expand access to the underbanked and unbanked communities. Likewise, financial services enabled through digital assets such as initial coin offering (ICO)[11] and decentralised lending platforms could act as an alternative source of funding for those who face higher barriers to access conventional financial services.

Potential risks to the broader economy

Digital assets however also come with risks that must be managed. The widespread usage of digital assets for payments may lead to currency substitution, akin to '*digital dollarisation*'. In the event digital assets become widely used as a means of payment instead of Ringgit, this may undermine the efficacy of the Bank's monetary policy.[12] Consequently, this may impact the Bank's ability to manage inflation and implement effective counter-cyclical policies to foster sustainable economic growth.

Digital assets could also give rise to macro-financial risks, affecting both the financial system and economy. If the public find it more attractive to keep their savings in digital assets such as stablecoins, this could cause large shifts of deposits away from banks. Such shifts may increase the banks' dependence on costlier and less stable funding sources (e.g. wholesale deposits). This may in turn drive up the cost of financing for borrowers and increase vulnerabilities to bank runs. Stabilisation mechanisms during periods of systemic stress – such as deposit insurance, countercyclical capital and liquidity measures and liquidity backstop arrangements – that support bank-intermediation activities would also be rendered less effective. Digital assets could also be exploited to circumvent foreign exchange policy measures. This could lead to destabilising capital flows and complicate the management of exchange rate volatility. Exposure of financial institutions to digital assets could also lead to heightened liquidity, market, credit, and operational risks for these entities.

Digital assets may be a conduit for money laundering and terrorism financing due to the lack or absence of customer identification. There are also consumer protection concerns posed by digital assets. For instance, the largely unregulated parts of the digital asset ecosystem have contributed to lax controls by the digital asset intermediaries. This has made digital assets vulnerable to cyber hacking and theft, which in turn put users at risk. The public who invest in digital assets without adequately understanding the risks could also lose their wealth through large swings in the value of digital assets or via digital asset-related fraud.

Additionally, new sources of risk are emerging, particularly from stablecoins and DeFi. Stablecoins can experience runs if investors doubt the value of the underlying assets used to back the stablecoins.[13] Large-scale redemptions of the stablecoins may trigger a fire sale of the underlying assets. This could create disruptions in financial institutions and markets (e.g. short-term funding markets) in which such assets are invested. If DeFi becomes widespread, its vulnerabilities and growing interconnectedness with the financial system[14] might undermine financial stability. Such vulnerabilities include high leverage,[15] liquidity mismatches,[16] and limited shock absorbers such as banks which can provide liquidity during periods of stress.[17]

[11] ICO is an operation through which companies, entrepreneurs, developers or other promoters raise capital for their projects in exchange for digital tokens or coins that they create (FSB (2018, p.17)).
[12] Dollarisation can impede central banks' effective implementation of monetary policy and lead to financial stability risks through currency mismatches on the balance sheets of banks, firms, and households (IMF (2021, p.52)).
[13] Stablecoins backed by short-term securities (with illiquid secondary markets) or crypto-assets are susceptible to investor runs due to liquidity mismatches and exposure to market risks. The viability of stablecoins hinges on investors' trust in the value of the underlying assets. Opaqueness and lack of regulation can easily erode such trust (Aramonte et al. (2021, p.31)).
[14] Financial institutions may be exposed to DeFi (i) on the asset side, through loans granted to and equity investments in DeFi or crypto-related entities that offer services on DeFi platforms, and (ii) on the liability side, through funds deposited, and FI commercial papers held, by stablecoin arrangements (Aramonte et al. (2021, p.31)).
[15] For example, funds borrowed on DeFi platform can be re-used to serve as collateral in other transactions. This allows investors to build increasingly large exposure for a given amount of collateral (Aramonte et al. (2021, p.29)).
[16] Stablecoins play a central role in facilitating trading, lending, and borrowing activity in DeFi. Accordingly, the liquidity mismatches highlighted earlier for stablecoins would impact the DeFi ecosystem.
[17] Unlike traditional finance where banks may have access to central bank balance sheet (e.g. lender of last resort facilities), DeFi relies exclusively on private backstops (collateral) to mitigate risk with no shock absorbers that can come in during stress periods (Aramonte et al. (2021, p.30)).

Prudent and Pragmatic Approach Towards Digital Assets

At their current size, digital assets are not likely to pose systemic risks to the financial system. This however may not be the case if the rapid growth continues. Given this, we are pursuing a prudent and pragmatic approach to promote responsible innovation, while ensuring the attendant risks are adequately managed.

Addressing the impact of digital assets to monetary and financial stability

Due to the various limitations highlighted earlier, there are risks involved in the use of digital assets as payment instruments. Digital assets are not recognised as legal tender in Malaysia and are not payment instruments that are regulated by the Bank. We have periodically issued cautionary statements to remind the public to exercise caution when dealing with digital assets.

Notwithstanding this, the Bank recognises the potential benefits of stablecoins, particularly for enhancing cross-border payments. Hence, we are exploring the appropriate regulatory approach to manage and mitigate risks associated with stablecoins. Given the international dimensions involved in cross-border payments, we will be guided by the principles issued by international standard setting bodies to ensure appropriate regulation, supervision, and oversight of stablecoin arrangements.

Beyond payments, the Securities Commission Malaysia (SC) regulates digital asset activities involving the trading of digital assets via digital asset exchanges (DAX), issuance of digital assets for fundraising via Initial Exchange Offering (IEO), and the provision of digital asset custodian (DAC) services. To foster collaboration, we have entered into a coordinating arrangement with the SC to ensure digital asset activities comply with the regulations of both regulators. For instance, we worked with the SC to ensure digital asset intermediaries comply with all relevant regulatory requirements to mitigate potential circumvention of foreign exchange policy measures and provisions under the Currency Act 2020.

In view of the broader impact to monetary and financial stability, the Bank has formed a Digital Currency Research Hub (the Hub). Through the Hub, which is staffed by a multi-disciplinary team, we seek to achieve several goals. First, we aim to accelerate our understanding of the current landscape and evaluate the implications of developments in the digital asset ecosystem. Next, we seek to strengthen our surveillance framework and develop appropriate policies to manage risks while promoting innovation. This may include measures to strengthen regulatory and supervisory frameworks and enhance international collaboration to promote responsible innovation in the digital asset space while mitigating negative spillovers.

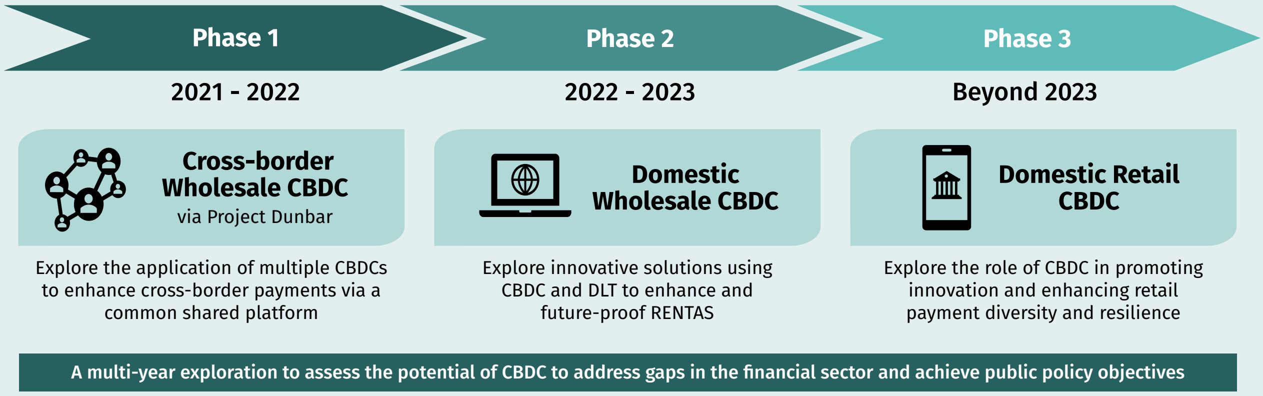
Building internal capacity on CBDC

Although digital assets may have limitations, the underlying technology (e.g. DLT) can be harnessed for other applications including the issuance of CBDC. The domestic payment systems are highly efficient and existing monetary and financial policy tools continue to be effective. While this reduces any pressing need to issue CBDC in the immediate term, we are actively scaling up our technical and policy capabilities to support our ability to issue CBDC for prospective use cases that could offer a higher level of benefits for Malaysia. To this end, we have commenced a multi-year CBDC exploration through a proof-of-concept (POC) with three phases (Diagram 2).

The POC will explore the potential for CBDC to address existing challenges, with priority given to CBDC applications for wholesale payments. For this, the Bank has collaborated with international partners on Project Dunbar to assess the potential of CBDC in addressing the frictions in cross-border payments (Diagram 3). Such international partners comprise the BIS Innovation Hub, the Reserve Bank of Australia, the Monetary Authority of Singapore and the South Africa Reserve Bank. The project aims to develop prototype shared platforms for cross-border transactions using multiple CBDCs, also known as multi-CBDC network (Diagram 3.2). Such a network enables participating financial institutions to transact directly with each other using CBDCs. By eliminating the need for intermediaries, this would significantly reduce the time and cost of cross-border payments. According to a study by Ekberg et al.,[18] a full-scale multi-CBDC network which facilitates 24/7, real-time cross-border payments could reduce the cost of cross-border transactions by approximately USD100 billion annually.

[18] Ekberg, J, T Chia, M Ho and L Liu (2021): Unlocking $120 billion value in cross-border payments, Oliver Wyman and JP Morgan Report, November 2021 at p.27.

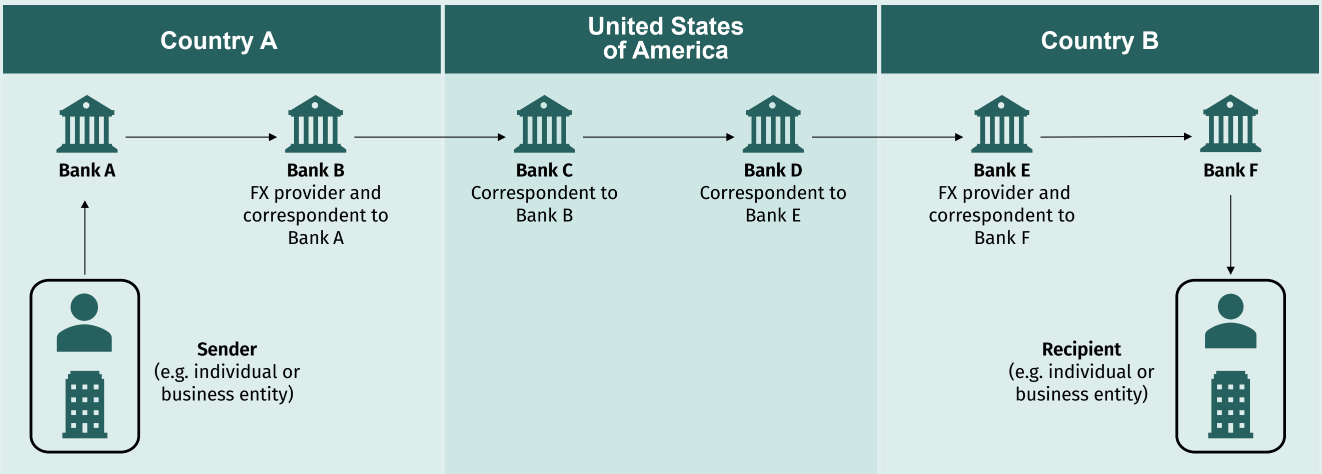
Diagram 2: Malaysia's CBDC POC Roadmap



Source: Bank Negara Malaysia

Diagram 3: Overview of Project Dunbar

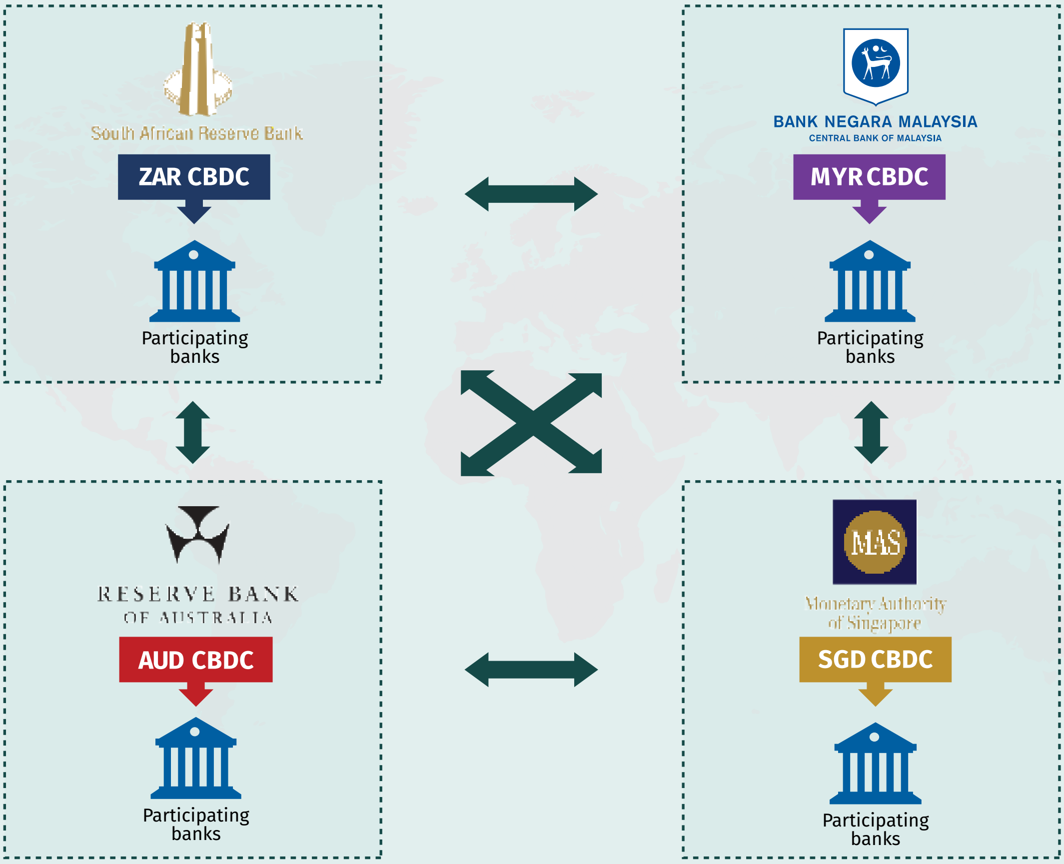
Diagram 3.1: Current Cross-Border Payment Model – Correspondent Banking Arrangement



- This diagram illustrates a typical cross-border payment flow where the transaction is routed via the US correspondent banking network.
- A single cross-border payment could pass through multiple correspondent banks.
- Each leg of the transaction takes time and effort to process, resulting in slow and costly cross-border payments.

Source: Adapted from Ekberg et al. (2021, at p.6)

Diagram 3.2: Proposed Cross-Border Payment Model Under Project Dunbar – Multi-CBDC Platform



- A single multi-CBDC shared platform to connect multiple central banks and participating banks.
- Banks can hold and transact in both local and foreign CBDCs issued by the central banks.
- This allows banks to pay each other directly in CBDCs, thus eliminating the need for intermediaries.

Source: Bank Negara Malaysia and Bank for International Settlements

Looking Ahead

We aim to adopt a prudent yet pragmatic approach to digital assets in light of the complexities and uncertainties involved. This will ensure that we can harness the benefits while mitigating the associated risks. In view of the interlinkages and potential spillover effects, we will also continue to support public-private partnerships and international collaborative efforts to advance the principles of responsible innovation in the digital asset space.

References

Aramonte, Huang, Schrimpf (2021): "DeFi risks and the decentralised illusion", BIS Quarterly Review, December.

Crystal (2021), Blockchain's Year in Review 2021, December.

Ekberg, J, T Chia, M Ho and L Liu (2021): Unlocking $120 billion value in cross-border payments, Oliver Wyman and JP Morgan Report, November.

Financial Action Task Force, FATF (2021): Updated Guidance for a Risk-based Approach to Virtual Assets and Virtual Asset Service Providers, October.

Financial Stability Board, FSB (2018): Crypto-asset markets: Potential channels for future financial stability implications, October.

Financial Stability Board, FSB (2022): Assessment of Risks to Financial Stability from Crypto-assets, February.

International Monetary Fund, IMF (2020): Digital money across borders: Macro-financial implications, October.

International Monetary Fund, IMF (2021): "The crypto ecosystem and financial stability challenges, in Covid-19, crypto, and climate: navigating challenging transitions", Global Financial Stability Report, October.

Nuvei (2022): "Mystery to opportunity: The future of crypto payments", Whitepaper, February.

Organisation for Economic Co-operation and Development, OECD (2020): "The Tokenisation of Assets and Potential Implications for Financial Markets", OECD Blockchain Policy Series.

Rahul Singh (2021): "How to make cryptocurrency more sustainable", part of the Forum COP26 Live, November.

Issuing Currency

The Bank is the sole issuer of ringgit banknotes and coins, which are the only legal tender in Malaysia. As legal tender, banknotes and coins issued by the Bank are recognised by law to be valid means of payment.

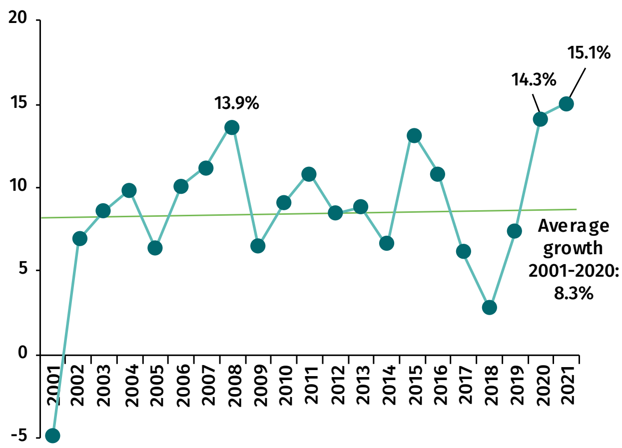
The Bank's mandate is to ensure sufficient supply of ringgit banknotes and coins at all times to meet public demand as well as to maintain high level of quality and integrity for the currency in circulation (CIC). In doing so, we strive to conduct our currency operations in an efficient and cost-effective manner.

Malaysian coins of all denominations are struck with high precision by state-of-the-art minting presses.

Currency in Circulation

The use of physical cash remains the most prevalent means of payment in our economy despite accelerating growth in online transactions and e-payments. As at end-2021, Malaysia's CIC grew by 15.1% year-on-year to RM150.1 billion from RM130.4 billion a year ago. This was the strongest annual growth in the last two decades (Chart 1). Businesses and households preferred to hold extra cash in hand for precautionary reasons amid the prolonged COVID-19 pandemic. Similar trend was observed across many other countries[1] globally.

Chart 1: CIC Annual Growth Rate (%)



Source: Bank Negara Malaysia

Currency Operations

The Currency Act 2020 empowers the Bank to print banknotes and mint coins for circulation in the country. In exercising this power, we procure banknotes from international banknote printers through competitive open tenders and mint coins at our own minting facility, Kilang Wang.

[1] See Ashworth, J. and Goodhart, C A E (2021), The Great COVID Cash Surge: Digitalisation Hasn't Dented Cash's Safe Haven Role, London: Centre for Economic Policy Research.

To ensure the availability of banknotes and coins at all times, the Bank maintains a sufficient stock of currency notes and coins. The demand for cash usually peaks during the festive seasons like Chinese New Year and Hari Raya Aidilfitri as well as year-end holidays. Understanding this seasonality enables the Bank to anticipate demand and maintain the stock of currency at appropriate levels. In anticipating such peak periods, we build up stock through timely delivery of new banknotes from the banknote printers as well as fit banknotes[2] generated from currency processing. There was also sufficient availability of cash during the unexpected severe floods that affected several parts of the country at the end of 2021.

Despite growing demand for cash, the share of coins in CIC fell from 5.1% in the pre-pandemic year of 2019 to 4.3% in 2021. Coins do not command the same status of banknotes as a store of value and a medium of exchange. Coins are much lower in value and cumbersome to handle in large quantities, making the public less likely to deposit excess coins with financial institutions (FIs). It is estimated that about 30% of coins issued by the Bank are "dead coins", which are left unused in jars and drawers. Dead coins do not enter the system for recirculation. Through various efforts, in particular deployment of coin deposit machines by FIs at selected branches, 60.4 million pieces of coins, equivalent to 7.6% of total coins issued in 2021, were recirculated. This represents considerable cost savings to our currency operations. Efforts will continue to recirculate more coins in the system.

To maintain a high quality of CIC, we regularly remove and shred unfit banknotes that are returned by FIs for processing. Removing banknotes that are worn out, limp or soiled ensures that only fit currency that meets the Bank's quality standards remain in circulation. All banknotes received by the Bank will be processed at our Automated Cash Centre (ACC) and five regional offices in Pulau Pinang, Johor Bahru, Kuala Terengganu, Kuching and Kota Kinabalu. Every year, we process up to three billion pieces of banknotes, of which half is carried out at the ACC. The ACC is a highly automated, secure and integrated cash management facility. It is also equipped with advanced integration of information technology (IT) and automated machines, allowing the facility

Automated Guided Vehicles (AGVs) offer safer, faster and completely autonomous handling of banknotes.

to operate around the clock with a high level of precision and control (see the accompanying article entitled ACC: An Automated and Integrated Cash Management Facility).

In 2021, the Bank shredded 24.6% of the total volume of banknotes processed (2020: 23.3%), the highest rate in the last five years. With the general public keeping more banknotes and for longer, a sizeable portion of banknotes in circulation is ageing and would likely does not meet the quality standards required for recirculation. Therefore, a higher shredding rate is to be expected in the near future.

The Bank continues to safeguard the integrity of our CIC to ensure continued high public confidence in the country's banknotes and coins. In 2021, our counterfeiting rate was 0.3 parts per million (ppm)[3] of banknotes in circulation, well below the international counterfeiting benchmark rate of 15 ppm. This was also a record low for our country. It is our practice to continuously collaborate with local enforcement agencies, frontliners in the financial sector and cash handlers to ensure the counterfeiting rate remains low. We continue to educate the general public on how to differentiate between genuine and counterfeit banknotes. High public awareness of security features of the banknotes remains the most effective defence against currency counterfeiting. In the past

[2] Fit banknotes are used banknotes which meet the acceptable quality standards set by the Bank for recirculation.

[3] In other words, for every ten million pieces of genuine banknotes in circulation, only three pieces are counterfeit.

Diagram 1: Currency-Related Infographics Published on Social Media

year, we conducted currency awareness programmes through various channels, including social media platforms (Diagram 1). These programmes also promoted public awareness of the Bank's initiatives, including exchange of unfit banknotes due to flood damage and exchange of defaced banknotes[4] at the counters of any commercial bank nationwide. Besides focusing on physical cash, our programmes also support the Bank's efforts to accelerate progress towards a cashless society as the adoption of technology and digitalisation intensifies.

The Bank's policy is always to prioritise the issuance of fit banknotes whenever possible. Out of 2.72 billion pieces of banknotes issued in 2021, 57% were fit banknotes. This is not only more cost effective but also reduces the carbon footprint given that banknote printing is both water- and energy-intensive.

The Bank also issues commemorative coins to celebrate significant national events. In 2021, the Bank issued five commemorative coins, namely the 75th anniversary of Jabatan Pengangkutan Jalan (JPJ75), 50th anniversary of Pertubuhan Keselamatan Sosial (SOCSO50), 50th anniversary of coin minting in Malaysia (KWG50) and 25th anniversary of Labuan Financial Services Authority (LFSA25). The public issuance of the 50th anniversary of Lembaga Kemajuan Ikan Malaysia (LKIM50) commemorative coin was rescheduled to early 2022 due to delays caused by the unexpected floods at the end of 2021. All coins were minted in sterling silver and Nordic Gold,[5] except for KWG50. The KWG50 coins were minted in copper and Nordic Gold. Several innovative minting techniques were incorporated into the coins

[4] The public will get the full value of the defaced banknotes immediately in 'straightforward' cases. Otherwise their cases will be referred by the FIs to the Bank. The public will receive the value of the defaced banknotes after the case has been assessed by the Bank. Straightforward cases are to meet all the following three conditions:
a) Size of the defaced banknote is two-third or more of the original size;
b) The defaced banknote does not contain any marking on the portrait of the first DYMM Yang di-Pertuan Agong or writings depicting political slogans; and
c) The banknote is not defaced due to markings or writings of words, figures and others.

[5] Nordic Gold is a gold-coloured alloy consisting of copper (89%) with small amounts of zinc (5%), aluminium (5%), and tin (1%).

to enhance the aesthetic appeal, such as introducing odd-shaped coins (in the shapes of a *wau*, *gasing* and *congkak*) and a coin with sapphire-stone insert. For the convenience of the general public, we enabled online orders and payments as well as provided direct deliveries of the commemorative coins purchased to the homes of the buyers.

The Bank conducts auctions of ringgit banknotes with special serial numbers to promote greater appreciation of numismatics amongst the general public. In 2021, the Bank, via an appointed auctioneer, conducted two such auctions. The first was held in May and the second in November 2021. Both online auctions attracted strong interest from collectors and bidders around the world as the bidding process was convenient and accessible.

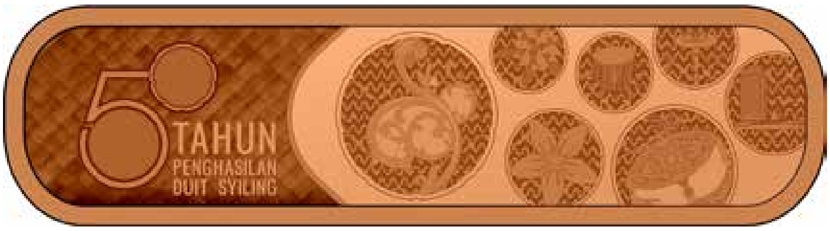
Overall, currency operations nationwide remained uninterrupted in 2021, despite challenges associated with the prolonged COVID-19 pandemic. The availability and accessibility of cash by businesses and households was sustained, whilst maintaining a high quality of CIC and comparatively low counterfeit rate.

Obverse (left) and reverse (right) design of the 75th anniversary of Jabatan Pengangkutan Jalan (JPJ75) commemorative coin. Minted on Nordic Gold.

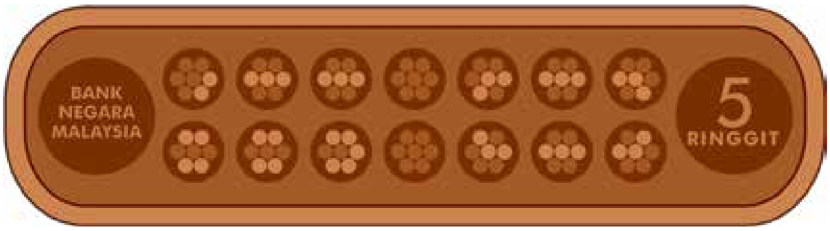
Obverse (left) and reverse (right) design of the 50th anniversary of Pertubuhan Keselamatan Sosial (SOCSO50) commemorative coin. Minted on Nordic Gold.

Obverse (left) and reverse (right) design of the 25th anniversary of Labuan Financial Services Authority (LFSA25) commemorative coin. Minted on coloured sterling silver.

Obverse (left) and reverse (right) design of the 50th anniversary of Lembaga Kemajuan Ikan Malaysia (LKIM50) commemorative coin. Minted on coloured sterling silver.



Obverse



Reverse

Obverse

Reverse

Obverse

Reverse

Obverse and reverse designs of the 50th anniversary of coin minting in Malaysia (KWG50) commemorative coins. Minted on copper.

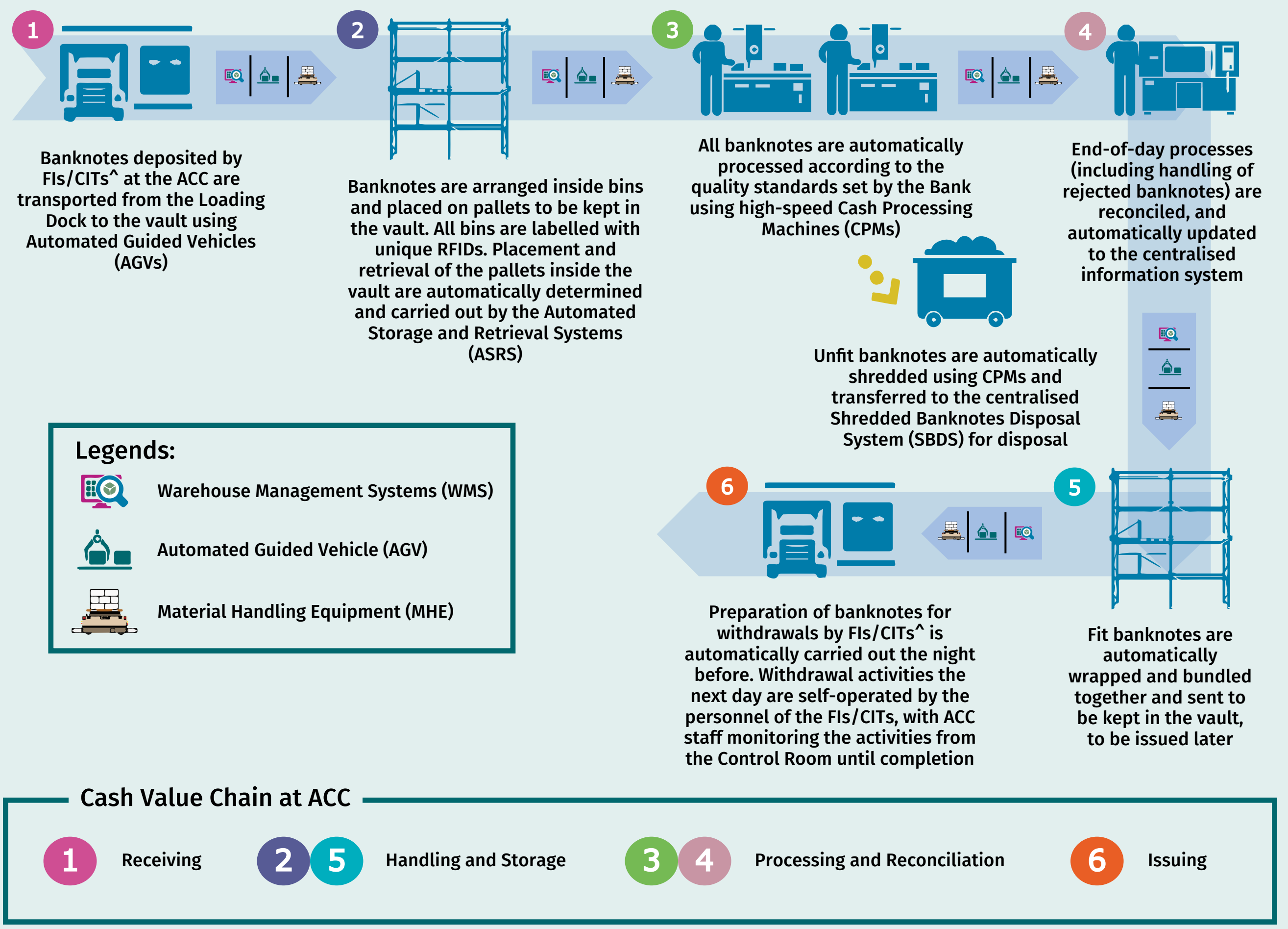
ACC – An Automated and Integrated Cash Management Facility

About three billion pieces of banknotes return to the Bank every year via deposits from financial institutions (FIs). Every single banknote is inspected and sorted according to the pre-set fitness level. Banknotes that are worn out, limp or soiled will be removed from the system, thus ensuring only high quality banknotes go back into circulation. The Automated Cash Centre (ACC), which was built in 2016, serves as the facility with the capability to efficiently process large volumes of banknotes at high speed. The new facility enables the Bank to reduce total manpower strength by 53%, increase processing capacity per machine by 33%, increase throughput[1] handling per hour by 3.5 times and shorten the time taken to handle banknote deposits (from 205 to 45 minutes) and withdrawals (from 125 to 40 minutes) by FIs.

Automated Cash Centre (ACC)

The ACC is a fully automated, secure and integrated cash management facility (Diagram 1). It is equipped with state-of-the-art machines, systems and equipment, such as Automated Guided Vehicles (AGV),[2] Automated Storage and Retrieval Systems (ASRS),[3] autonomous robots[4] and high-speed banknote processing machines.

Diagram 1: End-to-End Cash Activities at the ACC



Note: ^ FIs/CITs - Financial Institutions/Cash-in-Transit companies.

Source: Bank Negara Malaysia

---

[1] Throughput is inward and outward movements of banknotes through the cash centre.
[2] AGVs are load carriers that travel along the floor of the ACC without an onboard operator/driver.
[3] ASRS are computer- and robot-aided systems that automatically place and retrieve items from the predefined locations within the facility.
[4] Autonomous robots are intelligent machines that are capable of performing predefined tasks, without explicit human intervention.

Movement of pallets of banknotes into and from the rack inside the vault managed by automated cranes.

Each banknote processing machine is capable of processing up to 2,000 pieces of banknotes per minute.

Automated Storage and Retrieval Systems (ASRS) autonomously handle banknotes inside the vault, turning it into a completely human-free zone.

Minimal human intervention enabling the facility to operate around the clock.

IT/OT Convergence[5]

The Warehouse Management System (WMS)[6] is the ACC's core system (Diagram 2). It controls the processing of banknotes in the ACC. The system determines, tracks and records in real-time every movement of banknotes, logging their timing and denominations. No single banknote is left unaccounted or unrecorded. Based on the first-in-first-out (FIFO) principle, WMS also automates the flow of bins of banknotes for storage in or retrieval from the vault for receiving or issuance respectively.

Diagram 2: WMS Central to the Automated Cash Operations at the ACC

Source: Bank Negara Malaysia

The efficiency of our currency operations has improved significantly, thanks to the enhanced connectivity between the IT systems and automation machines. The convergence of Information Technology (IT) and Operational Technology (OT) enables autonomous robots to replace humans for many tasks in the production chain, enabling non-stop operations. Numerous sensors along the production chain generate volumes of

5 IT/OT convergence refers to the integration of information technology (IT) systems with operational technology (OT) systems, establishing two-way communications with one another.
6 A warehouse management system is a software application that controls the AGVs, conveyor, retrieval and placement of inventory, as well as manage the day-to-day operations of a warehouse facility, which in this case is the ACC.

data. These allow for real-time data analysis and production of immediate data visualisation and alerts. This transforms the ACC into a smart cash management facility with Industry 4.0 elements (Diagram 3).

Diagram 3: Embedded Industry 4.0 Elements Into the ACC Operations

Industry 4.0: Smart Cash Management Facility

Systems Integration	Facilitates agile operating environment, allowing increased system connectivity and production of real time data
Autonomous Robots	Replaces human workers for many tasks in the production chain, with added ability to monitor and transmit data
Internet of Things	Facilitates the connectivity between the IT systems and the OT machines, allowing for transmission of data via sensors
Simulation	Facilitates testing of new enhancements as well as periodic disaster recovery testing to ensure preparedness Simulation activities occur offline with better audit trail
Big Data Analytics	The collection and evaluation of voluminous data from the operation helps real-time decision making Dashboards facilitate timely decision making and planning
Cyber security	Necessary to protect the OT systems from the potential threat of cyber attacks

Source: Bank Negara Malaysia

The advent and convergence of IT and OT enable currency operations to run at high speed with the highest level of precision and control within a secure environment. Currency operations can run around the clock, undertaking voluminous processing of banknotes and preparation of currency withdrawals by FIs at night without human intervention. Our on-site AGVs, cranes and conveyors can 'talk' to each other, work autonomously and synchronise the logistics. This includes the retrieval and palletising the bins of banknotes based on the pre-set instructions for withdrawals the next day.

IT/OT convergence also enables us to scale our currency processing operations to meet withdrawal demands at short notice. This flexibility also allows us to achieve the desired output level with minimal downtime. For instance, throughout the pandemic, our critical functions of banknote deposits and withdrawals by FIs remained uninterrupted. Our ACC engineers were able to resolve operational or technical issues remotely within a short period. IT/OT convergence has also enabled us to unlock and harness the value of OT data from multiple disparate systems into actionable insights. This end-to-end visibility via a dashboard of all activities inside the premise ensures any problems along the processing chain are promptly detected and rectified.

In addition, IT/OT convergence in currency processing operations has also enhanced our ability to optimise currency stock. With the ACC having a higher capacity for processing banknotes, we are able to reduce the backlog of banknotes to be processed, thus resulting in higher banknote turnover. This increases our ability to meet demand for circulation using fit banknotes instead of new ones.

IT/OT Challenges

While the IT/OT convergence drives productivity and efficiency to new heights in our currency operations, it is not without challenges.

First, is the risk of obsolescence. While the mechanical components of the ACC seldom change over the years, its IT components are subject to obsolescence every few years. This requires timely and regular upgrades or replacements. To address this issue, we have completed a comprehensive technological refresh review. Following this, we will implement the recommendations progressively in the next few years.

Second, is the risk of external threats. With interconnectivity with the wider IT systems of the Bank, OT systems of the ACC are exposed to potential threats of cyber attacks. Any gaps in cybersecurity have to be identified and adequately addressed to keep IT and OT systems from being compromised. To this end, we have made extensive investments in IT hardening and cyber resilience to improve our IT/OT security designs and controls alignment with, amongst others, the Guidelines for Secure Industrial Control System, issued by CyberSecurity Malaysia, and other internationally recognised standards, such as IEC62443 Security of Industrial Automation and Control Systems (IACS) and the National Institute of Standards and Technology (NIST) cybersecurity framework.

Third, is the need for a workforce with skills in emerging areas. The combined IT/OT field requires niche expertise. Specialists have to be developed internally given the lack of IT/OT experts locally. Therefore, training and learning are crucial to keep pace with existing and emerging technologies. During the year, we have engaged IT/OT industry experts, developed a customised technical curriculum that fit the nature of our operations and upskilled our staff to obtain technical certifications from the Malaysia Board of Technologists.

ACC as Smart Cash Management Facility

Despite the challenges, IT/OT convergence proves critical in transforming the ACC into a smart cash management facility. Multiple components of the ACC operate autonomously but in sync to process a huge volume of banknotes in a short period of time. With capacity that is highly scalable, we can continue to depend on the ACC to generate significant quantity of fit banknotes for recirculation for many years in the future.

Maintaining Financial Integrity

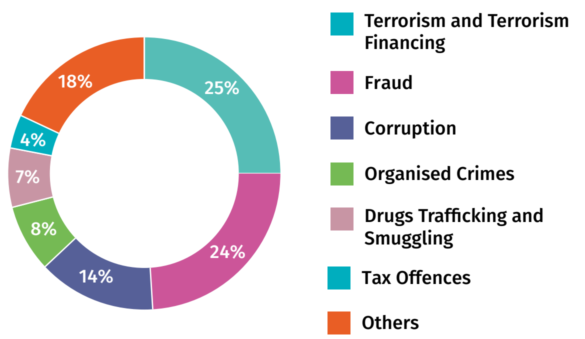
Combating Financial Crime Together With Domestic and International Stakeholders

As the country's Financial Intelligence Unit (FIU), the Bank collects and analyses financial intelligence on suspected money laundering and terrorism financing (ML/TF) activities. The information is disclosed to domestic law enforcement agencies (LEAs) for further action on crimes under their purview. In addition, the Bank collaborates with international partners by exchanging financial intelligence with foreign FIUs. The Bank also assists the Attorney General's Chambers of Malaysia in formal requests by other jurisdictions on criminal investigations and prosecutions.

Effective collaboration between various domestic and international stakeholders is key to combat the increasingly complex and borderless nature of financial crimes. Malaysia's public-private partnerships, known as MyFINet[1] or Malaysia Financial Intelligence Network, continued to meet during the COVID-19 pandemic on virtual secured platforms to discuss cases initiated by the LEAs. These partnerships resulted in swifter and more targeted sharing on crimes such as corruption, securities-related offences and proliferation financing (PF).[2]

The number of Suspicious Transaction Reports (STRs) submitted by reporting institutions have been increasing at around 30% per annum between 2014 and 2021. In 2021, the number of STRs increased by 43% from the previous year to 191,387. Specifically, there was significant increase in STRs on fraud, as criminals took advantage of the pandemic to exploit victims with scams related to medical products, investment opportunity and government assistance programmes. STRs on tax offences have also risen, indicating prevalence of tax avoidance and under-reporting of income. Over 75% of the financial intelligence disclosures made by FIU to the relevant LEAs and foreign FIUs in 2021 were on suspected high-risk crimes.[3] The disclosures supported investigations which led to more than 70 arrests for corruption, organised crimes, smuggling, child sexual exploitation and money laundering activities. These disclosures also contributed to freezing and seizures of criminal proceeds worth more than RM136 million, revenue recovery of more than RM255 million and supporting preventive actions on terrorism and terrorism financing activities.

Chart 1: Percentage of Financial Intelligence Disclosures by Serious Offences in 2021



Note: "Others" include offences related to proliferation financing, human trafficking and migrant smuggling, sexual exploitation etc.

Source: Bank Negara Malaysia

1 MyFINet is an intelligence sharing platform between the public (LEAs) and private (reporting institutions) sectors to assist intelligence gathering and investigations, as well as enhance the private sector's capabilities in detecting suspicious behaviour and transactions relating to serious crimes.

2 PF refers to the financing for the proliferation of weapons of mass destruction (WMD) in accordance with the relevant United Nations Security Council Resolutions.

3 High-risk crimes include fraud, corruption, organised crimes, smuggling, drugs trafficking, as identified under the National ML/TF Risk Assessment (NRA) 2020, as well as terrorism and terrorism financing and PF.

Multi-Pronged Approach to Curb the Use of Mule Accounts and Combat Scams

The Bank continues to work closely with Royal Malaysia Police (RMP) and other stakeholders to ensure timely and appropriate action taken against scam perpetrators and mules syndicates. The Bank has established speedy information exchange mechanism with RMP and issued guidance to financial institutions. The Bank also promotes RMP's central platform for reporting scams and cross-collaboration on awareness programs through social media and public channels. As scam modus operandi is becoming more sophisticated, advanced data analytics is implemented. The aim is to detect syndicated groups involved in operating mule accounts. Connectivity between numerous individuals and companies are analysed to identify networks and key entities of possible syndicated groups. This enables more targeted enforcement against mule accounts.

The National Coordination Committee to Counter Money Laundering (NCC) and NCC Roadmap 2021-2023

In the two decades since its establishment, the NCC continues to drive the national coordination, implementation and monitoring of Anti-Money Laundering, Countering Financing of Terrorism (AML/CFT) initiatives. To date, there are 17 members comprising relevant Ministries, government agencies and AML/CFT regulatory and supervisory authorities. The NCC provides an integrated platform to ensure that Malaysia's actions are cohesive and responsive to emerging risks and ensure Malaysia's compliance with the international standards. This will strengthen the national AML/CFT regime and preserve the integrity of the financial system.

In its capacity as the secretariat, the Bank had in 2021 completed a holistic review of NCC to ensure continued effectiveness in achieving its mandate and objective. The review included realigning the country's strategic focus on AML/CFT given the evolving technological and risk in domestic and global landscapes, as well as implementing targeted measures to address existing gaps and remain responsive to evolving risks. In this regard, NCC approved the NCC Roadmap 2021-2023 which built on the National Strategic Plan 2015-2020 (NSP). The NCC Roadmap covers five strategic areas, namely (i) legal, regulatory and coordination, (ii) risk, (iii) preventive measures, (iv) capacity building and awareness, and (v) enforcement. Key responsibility areas and specific action plans of the relevant agencies and subcommittees are then aligned with the new roadmap.

The NCC Roadmap incorporates recommendations from the recent National Risk Assessment on Money Laundering and Terrorism Financing 2020 (NRA 2020). This serves as the nationwide assessment on Malaysia's exposure to high-risk crimes and sectoral vulnerabilities. The results of the NRA are critical in designing and driving national and institutional AML/CFT policies in a more effective and targeted manner.

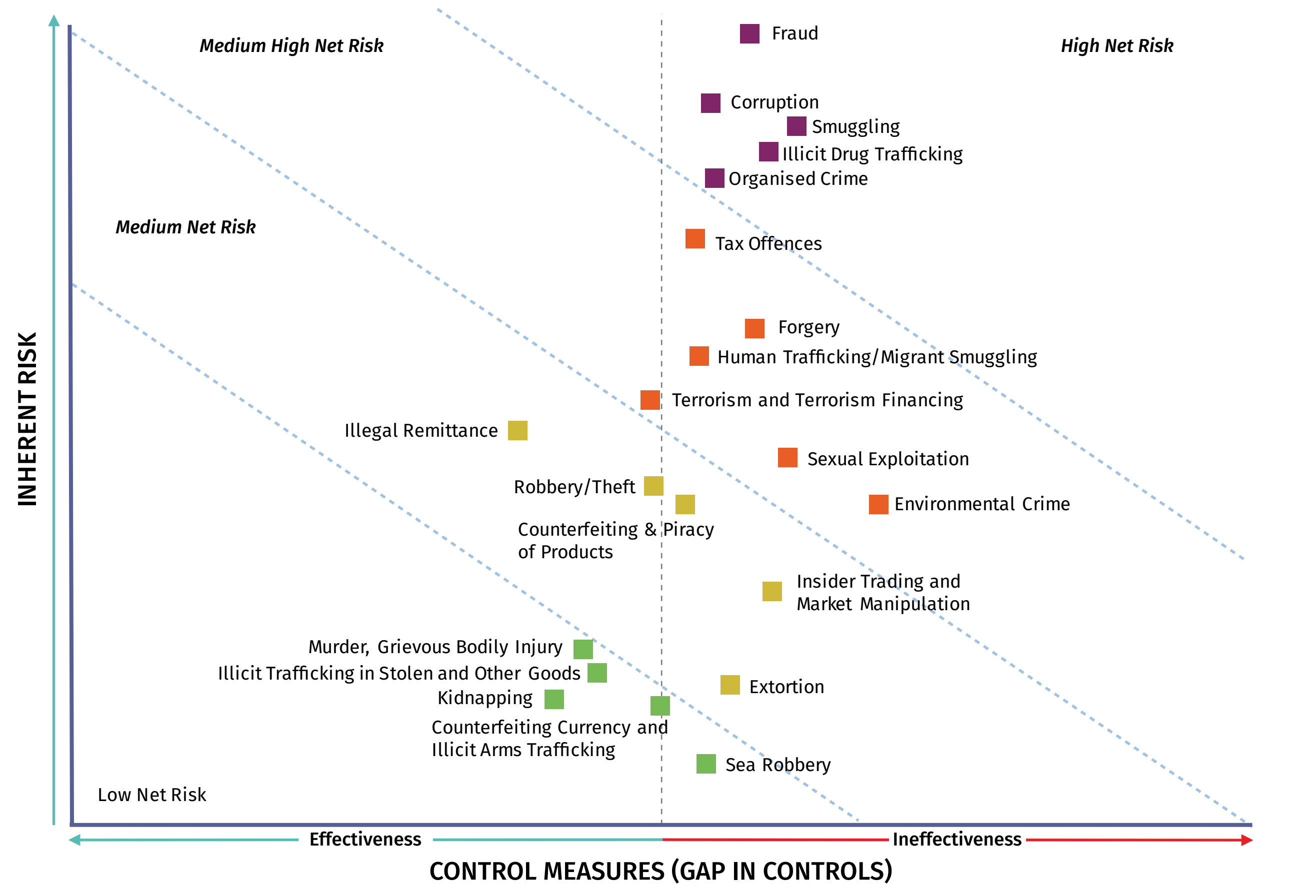
National Risk Assessment on Money Laundering and Terrorism Financing 2020 (NRA 2020)

The Bank, as the competent authority under the Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA), and the secretariat to the NCC, played a pivotal role in coordinating nationwide efforts to conduct the National Risk Assessment 2020. The NRA 2020, is the fourth iteration of a centralised assessment to identify and assess Malaysia's exposure to money laundering and terrorism financing (ML/TF) risks. It is conducted in accordance with the international best practices and recommendations set out by the Financial Action Task Force (FATF).[4]

In July 2021, the NCC endorsed the results of the NRA 2020. Utilising datasets from 2017 to 2019, the NRA 2020 assessed several areas as follows:

- Serious crimes that pose money laundering threats;
- Terrorism and terrorism financing risks; and
- Vulnerabilities of financial and non-financial sectors to ML/TF risks. Key findings on serious crimes, financial and non-financial sectors are summarised in Diagram 1.

Diagram 1: Key Findings on Serious Crimes, Financial and Non-Financial Sectors



[4] The FATF is an inter-governmental body that sets international standards and promotes effective implementation of legal, regulatory and operational measures for combating threats to the integrity of the international financial system.

FINANCIAL SECTORS	Money Laundering			Terrorism Financing		
	Inherent Risk	Control Measures	Overall Net Risk	Inherent Risk	Control Measures	Overall Net Risk
Banking Institutions	High	Acceptable	High	High	Acceptable	High
Non-Bank Issuers of DPIs	Medium	Marginal	Medium High	Medium High	Marginal	High
Money Services Businesses	Medium High	Acceptable	Medium High	Medium High	Acceptable	Medium High
Capital Market Intermediaries	Medium High	Acceptable	Medium High	Medium	Acceptable	Medium
Insurance Intermediaries	Low	Weak	Medium High	Low	Weak	Medium High
Insurance/Takaful Operators	Medium	Acceptable	Medium	Medium	Acceptable	Medium
Moneylenders	Medium	Acceptable	Medium	Low	Acceptable	Low
Non-Bank Financial Institutions	Medium	Acceptable	Medium	Low	Acceptable	Low
Labuan Money Brokers	Low	Marginal	Medium	Low	Marginal	Medium
Leasing Companies	Low	Marginal	Medium	Low	Marginal	Medium
Factoring Companies	Low	Marginal	Medium	Low	Marginal	Medium
Labuan Capital Market Intermediaries	Low	Marginal	Medium	Low	Marginal	Medium
Labuan Factoring Companies	Low	Marginal	Medium	Low	Marginal	Medium
Banking Intermediaries	Low	Marginal	Medium	Low	Marginal	Medium
Pawnbrokers	Low	Acceptable	Low	Medium	Acceptable	Medium
Labuan Banks	Low	Acceptable	Low	Low	Acceptable	Low
Labuan Insurance/Takaful Operators	Low	Acceptable	Low	Low	Acceptable	Low

DNFBP SECTORS	Money Laundering			Terrorism Financing		
	Inherent Risk	Control Measures	Overall Net Risk	Inherent Risk	Control Measures	Overall Net Risk
Dealers in Precious Metals or Precious Stones	Medium High	Weak	High	Medium	Weak	High
Lawyers	Medium High	Marginal	High	Low	Marginal	Medium
Company Secretaries	Medium	Marginal	Medium High	Medium	Marginal	Medium High
Accountants	Medium	Marginal	Medium High	Low	Marginal	Medium
Casino	Medium High	Acceptable	Medium High	Medium	Acceptable	Medium
Registered Estate Agents	Low	Marginal	Medium	Low	Marginal	Medium
Gaming Outlets	Medium	Acceptable	Medium	Low	Acceptable	Low
Labuan Trust Companies	Medium	Acceptable	Medium	Low	Acceptable	Low
Trust Companies	Low	Acceptable	Low	Low	Acceptable	Low

Legend:

Inherent Risk	High	Medium High	Medium	Low
Control Measures	Weak	Marginal	Acceptable	Strong
Overall Net Risk	High	Medium High	Medium	Low

Conducted on a three-year cycle, the NRA exercise has undergone a series of reforms to keep abreast with the evolving risks. The NRA 2013 built a solid foundation for the country's risk assessment, underpinned by the risk indicators adopted from the Asia/Pacific Group on Money Laundering Strategic Implementation Planning Framework. It focused on prevailing inherent risks and vulnerabilities, with no assessment on control measures.

The subsequent NRA 2017 included a major restructuring of the methodology for the assessment to be more comprehensive with in-depth analysis. This includes greater attention to foreign-sourced threats, terrorism financing, institutional vulnerabilities as well as interconnectedness between specific crimes and financial and non-financial sectors.

Guided by the findings of the NRA 2020, a series of recommendations have been outlined to address identified gaps and enhance existing measures. These recommendations include establishing stronger legal and operational frameworks, implementing robust risk mitigation measures, enhancing AML/CFT capacity and capabilities, and strengthening coordination and collaboration.

These actionable items have been incorporated within the five strategic focus areas under the NCC Roadmap 2021-2023, which encapsulates key responsibility areas to be fulfilled by member agencies and relevant ministries. The executive summary of the NRA 2020 can be accessed at https://amlcft.bnm.gov.my/.

Supervision of Designated Non-Financial Businesses and Professions (DNFBPs)[5] and Non-Bank Financial Institutions (NBFIs)

The Bank continued to adapt its supervisory approach in conducting risk-based supervision on DNFBPs and NBFIs. In 2021, greater reliance was placed on virtual and hybrid examinations, off-site monitoring and thematic reviews of DNFBPs' and NBFIs' AML/CFT compliance. In addition, joint hybrid examinations with other AML/CFT supervisors were conducted to promote integration of supervisory efforts whilst increasing supervisory capacity. Application of off-site monitoring tools were also intensified through the issuance of the Data and Compliance Report (DCR2021). The DCR2021 leverages on automation and introduced a new submission portal which resulted in real-time monitoring of submission that facilitated the assessment of risk and compliance rating. A total of 14 DCR support clinics were held to increase awareness and the quality of submissions. As a result, there was a substantial 146% increase in DCR submissions compared to 2020. This was mainly attributed to greater outreach by the industry associations, self-regulatory bodies and other agencies to their respective sectors. Overall, the DCR2021 resulted in better mapping of institutional ML/TF risks as well as the understanding and compliance of the sectors.

The use of automation and data analytics techniques for supervisory analysis through centralisation and visualisation of data across DNFBP sectors has increased the efficiency and effectiveness of supervisory processes. The improved supervisory processes have enabled targeted supervision and monitoring of sectors.

In 2021, the Bank conducted 74 virtual engagements as part of the AML/CFT awareness strategy. A new electronic platform was established as a centralised database of awareness materials to support compliance officers in DNFBPs and NBFIs. In addition, newsletters were issued on AML/CFT topics, including the latest news, guidance, infographic, risk assessment reports and international updates.

To secure more industry-driven efforts, the Bank, under the DNFBP Sub-Committee (DSC) of the NCC, encouraged the establishment of the compliance officer networking groups. The efforts built on the existing AML/CFT committees within self-regulatory bodies and industry associations. This led to the establishment of the Compliance Officers Networking Group (CONG) for Trust Companies which was introduced at the AML/CFT Compliance Conference 2021. Further, the AML/CFT train-the-trainer programme for entities providing legal, accounting and company secretarial services sectors was also launched. The programme is aimed at equipping and producing sector-specific AML/CFT professionals with sound understanding and knowledge of AML/CFT requirements. The train-the-trainer graduates will provide onward training to respective members to better support and sustain improvement in the implementation of AML/CFT measures.

[5] A collective term used to describe casino, gaming outlets, real estate agents, dealers in precious metals or precious stones, as well as individuals and institutions that offer various types of gatekeeping services, namely lawyers, accountants, company secretaries and trust companies.

Managing the Bank

Managing the Bank

Managing the Bank

People

As we steered to meet prevailing priorities through the pandemic, the Bank kept its eye on preparing its people for the future.

The economic landscape and financial industry continue to evolve. Novel applications of technology are unleashing new business models. Simultaneously, they also disrupt incumbent players and pose new risks towards overall stability. Issues such as environmental risks, changing demographics, and inequality also present new policy challenges for Malaysia. These dimensions require fresh thinking and non-traditional approaches for the Bank to fulfil its mandate. Throughout 2021, focus has therefore continued to be on reshaping the Bank to be more agile and effective; equipping our people with the right capabilities and tools; and reinforcing the desired culture values that underpin all our actions.

Working With Agility

To ensure we are always in the state of readiness, the Bank took steps to refresh our structure and optimise our manpower. These entailed streamlining departments' functions to enhance synergies and promoting clearer lines of oversight for areas that were fast evolving. The payments and remittance functions which are being shaped by technological advancements were realigned to improve coordination and alignment, while strengthening the Bank's policy and supervision functions. Responsibilities over financial inclusion, social finance and value-based intermediation will be grouped given their close interlinkages. This would enable holistic strategic directions in the interest of sustainable development objectives.

New units are being formed to support the Bank's supervision of digital banks and strengthened focus on the management of climate-related risks. We also refreshed and streamlined human capital related departments to enhance end-to-end people related support to business lines. As we move forward, we are experimenting with more flexible approaches to deliver key projects and policy initiatives in order to better optimise our talent. The desired outcome of these changes is to promote greater agility, cross collaboration, and talent mobility.

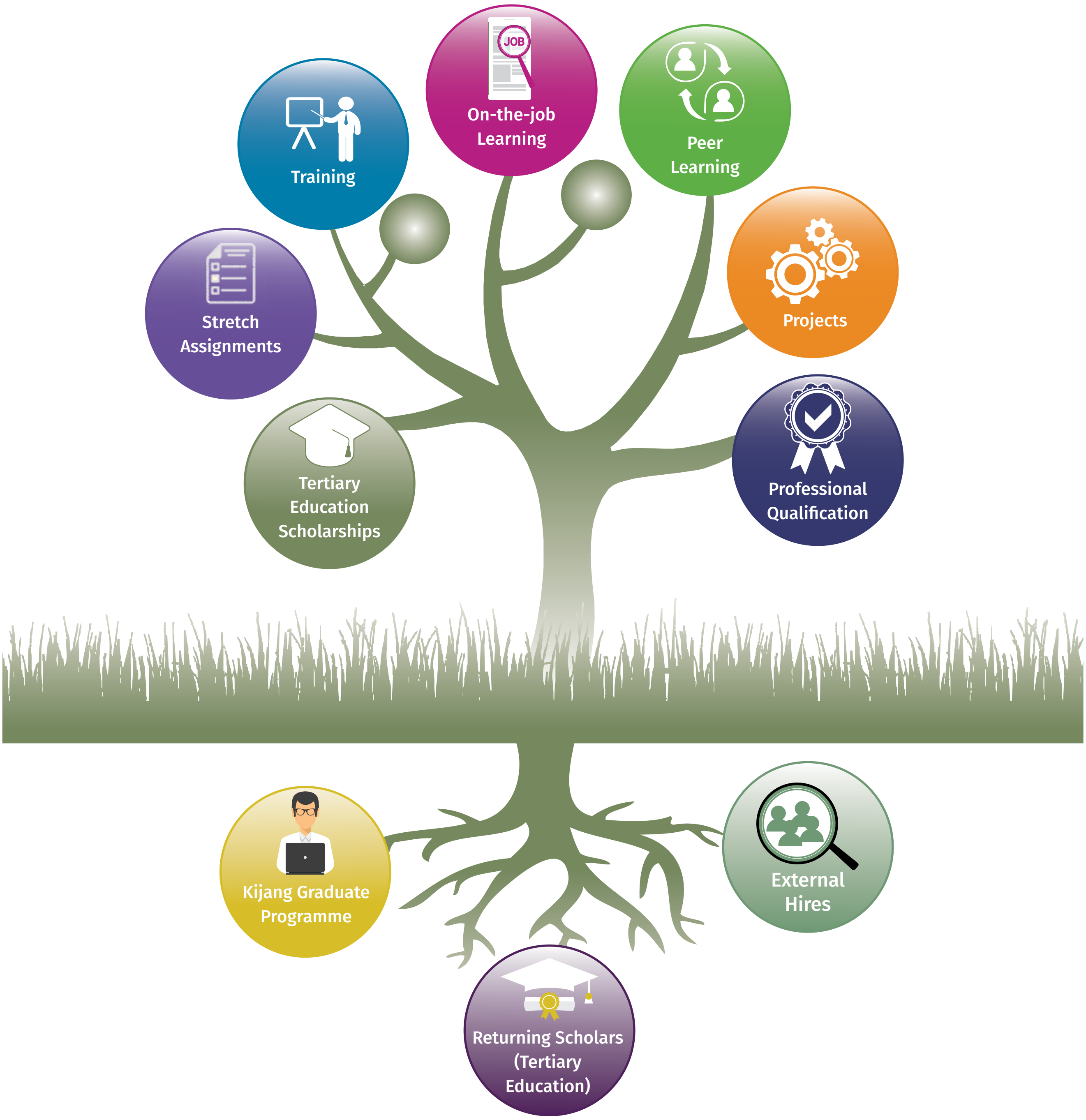
We also invested to make the most of technology to improve our efficiency. This included tools for better remote working collaboration. Platforms for continuous surveillance, assessments and expedient decision making were introduced. These also prepare the Bank for the adoption of a permanent hybrid working arrangement. Remote working and off-site access to the Bank's IT infrastructure pose new risks that were less prevalent when most of our activities were carried out "in office". As such, we ramped up awareness on cybersecurity risks. This took the form of a mix of information sharing, self-guided learning, cyber security testing, and periodic phishing exercises to ensure staff remained vigilant.

Strengthening Our Workforce

The issues confronting central banks today are more complex and diverse. A key element for the Bank to be able to deliver its mandate effectively is to have a workforce that is adaptive and equipped with necessary knowledge and skills. To cope with the rapid changes, new skillsets and capabilities must be mastered quickly. This prompted us to commence a holistic review of technical competencies for all functions in 2021. Whilst the review is on-going, we are prioritising upskilling initiatives in the areas of climate change, digital currency, and data science.

As new issues confront us, the Bank needs a workforce with an agile mindset that can address complex and interconnected issues. We continue to invest to sharpen problem solving and integrated thinking capabilities of our people. This is done through a combination of training, projects and stretch assignments. As part of capacity building, several staff are also on secondment with external organisations, both domestic and internationally. This enabled the Bank to connect better with issues on the ground and be close to discussions that may have bearing on our policy actions. To maintain high standards of excellence, we refreshed the range of professional certifications that our staff can pursue. Additions included certifications in technology related areas and climate change. These complement traditional professional credentials such as finance, accounting, risk management, and financial market operations. Presently, 634 staff holds memberships from professional bodies and credentials recognised by the Bank.

Diagram 1: Multi-Pronged Development Strategies to Nurture Highly Capable Staff

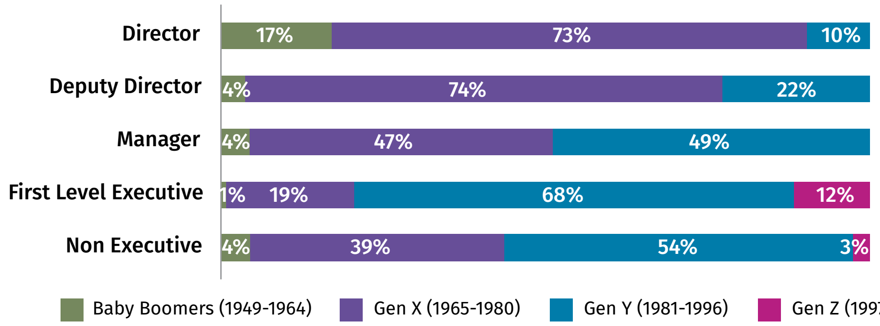


Source: Bank Negara Malaysia

We also sustained efforts to build a strong pipeline of future leaders with the desired repertoire of leadership styles. More emphasis was given to coaching and mentoring others, and strengthening the learning culture. This is to reinforce the culture of imparting knowledge and experience between the different generations of our employees.

Diagram 2: Gender Balanced and Multi-Generational Workforce

Millennials make up the largest segment, at 56% of the Bank's workforce



Headcount: 3130

Job Level	Gender Composition	
Senior Management	56%	44%
Managers	43%	57%
First Level Executive	43%	57%
Non Executive	62%[1]	38%

[1] Higher percentage of male non executive staff is attributed to our Auxiliary Police.

Note: Data as at 31 Dec 2021.

Source: Bank Negara Malaysia

Governor was a panellist for the "Women in Central Banking" webinar organised by the Bank for International Settlements that discussed ongoing efforts by central banks to improve gender diversity. Governor shared the Bank's ethos where everyone, regardless of gender has the opportunity to contribute and make a difference. This is reflected in a balanced representation of women and men across the Bank. To help deal with juggling career and family needs, organisations need to provide the enabling environment, especially with the new working norms.

Source: Bank for International Settlements

The forum brought together over 100 participants from various industries to network and share current and emerging L&D practices that will make an impact on organisational growth.

Source: Bank Negara Malaysia and Petroliam Nasional Berhad

The new ways of working and greater adoption of technology are redefining roles. Most impacted are those in administrative functions, such as clerical and secretarial jobs. The Bank saw this as an opportunity to enrich jobs, and upskill, reskill, and reposition our people. This would enable them to change with the times, whilst continuing to contribute and bring value to the Bank. Towards this end, we designed a structured curriculum to elevate the capabilities of our administrative staff. The areas of focus are on digital fluency, office management, communication, and customer relationship.

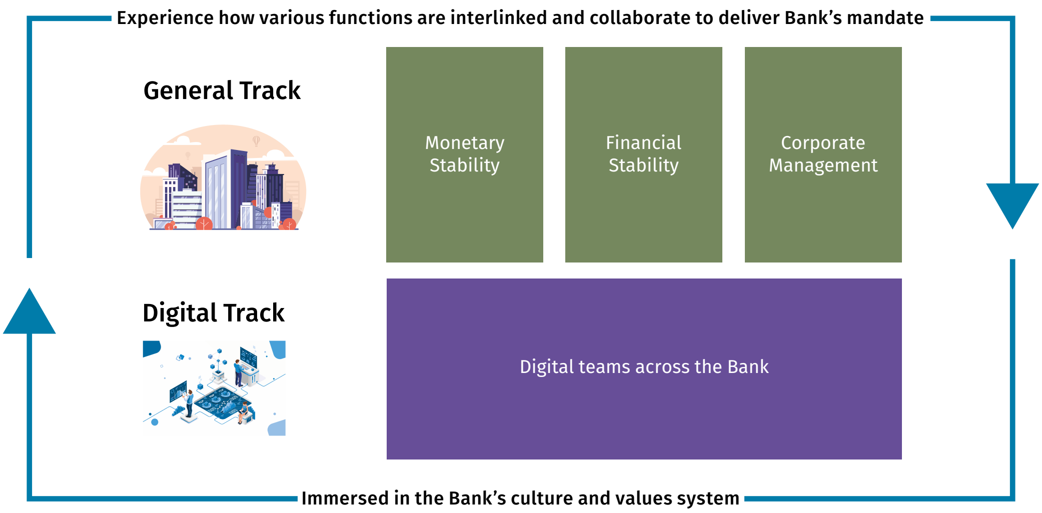
Maximising People Potential

The Bank has a long-standing tradition of nurturing talent from within. In 2021, we made changes to our decision-making structures around talent to provide greater flexibility and empower sector leaders to discuss, decide and plan on their people matters. This includes matters related to roles, development, and mobility. This approach complements existing arrangements on Bank-wide mission critical functions and senior positions which are deliberated at the Management Committee level. The aim is to enhance our approach to actively nurture a deep talent pool from the ground level to middle management levels that are ready to assume bigger roles in the Bank.

We also diversified our entry level recruitment approach through the Kijang Graduate Programme (KGP) in 2021, which attracted talents with diverse background (such as engineering, architecture, and psychology). The programme rotates the participants across departments and functions to enable them to quickly learn the many facets of central banking. *Refer to the article entitled "Kijang Graduate Programme: Talent Agility for a Future Ready Central Bank" for more information on KGP.*

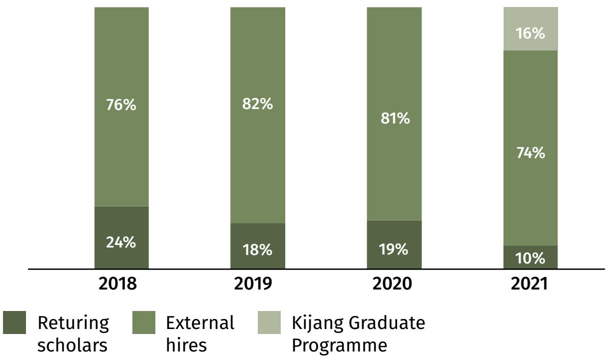
The KGP complements our well-established scholarship programme (since 1962) to nurture young talent as part of our sourcing strategy. In 2021, the Bank awarded scholarships to 53 young Malaysians to pursue their pre-university and undergraduate programmes.

Diagram 3: KGP Participants Undergo Three Department Rotations During the 18-Month Period



Source: Bank Negara Malaysia

Diagram 4: Our Source of Talent

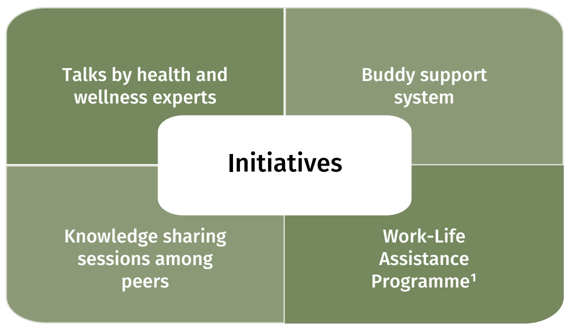


Source: Bank Negara Malaysia

Continuous Support for Staff Through the New Normal

Over the past two years, the COVID-19 pandemic has significantly disrupted our lives and the way we interact with others. Juggling work commitments and family obligations, blurring of office and personal hours, and reduced in-person interactions have taken a toll on physical and mental well-being. The Bank recognised the impact this could have, if left unattended, on the morale and motivation of our employees. During this period, the Bank's senior management intensified engagements with staff from all levels to identify actions that may address issues faced, particularly those experienced by working parents. This led to us rolling out a series of initiatives to help staff navigate through the challenging situation.

Diagram 5: Multi-Pronged Approach to Support Staff on Mental Wellness



[1] The Work-Life Assistance Programme provides a confidential avenue for staff to seek advice and assistance to remain effective in the workplace.

Source: Bank Negara Malaysia

In 2021, the Bank also undertook a broader policy review of staff working arrangements. The revised policy reflected on lessons from the current remote and hybrid working arrangements during the pandemic. It also looked ahead to enable greater organisational agility that would allow us to remain progressive and productive. At the same time, to enable staff to achieve better balance between work and personal lives, flexible working arrangements will be adopted moving forward.

Kijang4U is an informal support group by the Bank's staff and retirees who assists others in escalating concerns via suitable channels.

Source: Bank Negara Malaysia

Ensuring Best Behaviours

In discharging our mandates, it is not only important for us to achieve our mission, but also give due care in the way we deliver it. As an institution that serves in the interest of the nation, our conduct must reflect high standards of excellence, integrity, and professionalism. In 2021, we reviewed our employee Code, which culminated in a new and refreshed Code of Conduct. It sets clearer expectations on the conduct and behaviours among our officers, consistent with our cultural beliefs to promote a collaborative, respectful and diverse working environment.

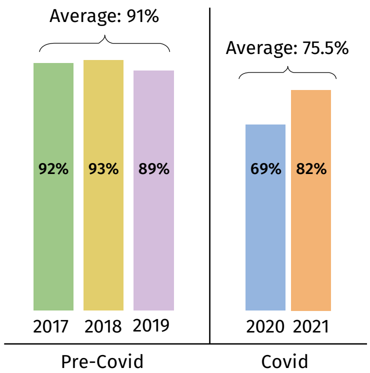
Diagram 6: Continuous Development for Staff, Through Various Channels

Learning and development (L&D) investment over gross salary:
4.20%
[3-year average (2018-2020): 6.05%]

Notes:
- L&D investment comprising learning programmes, international meetings for on-the-job exposure to new insights and networks, staff postgraduate scholarships, leadership profiling and L&D staff costs.
- Lower investment due to continued COVID-19 restrictions on face-to-face learning and international meetings.

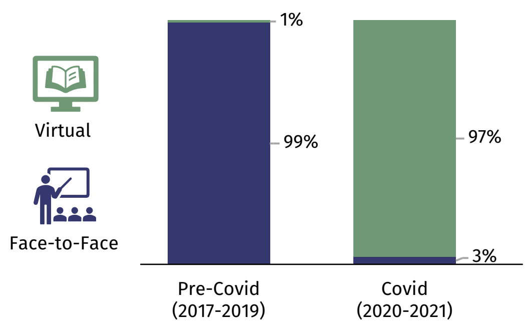
Average learning hours per executive:
45 hours
[3-year average (2018-2020): 41 hours]

Percentage of Staff Trained



Total staff trained:
2,294 staff
[3-year average (2018-2020): 2,501]

Face-to-Face vs Virtual Learning



Increased use of virtual learning

Note :
- Virtual learning covers formal trainings and social learning (e.g. knowledge sharing, roundtable discussion).

Source: Bank Negara Malaysia

Kijang Graduate Programme: Talent Agility for a Future Ready Central Bank

In 2021, the Bank introduced the Kijang Graduate Programme (KGP) as one of several initiatives to develop a more agile and broad-based talent pool whose skills are fungible across the organisation. KGP is an 18-month programme with three rotations on either a “General” or “Digital” track. In the “General” track, graduate analysts rotate across departments in the Monetary Stability, Financial Stability, and Corporate Management sectors. Graduate analysts on the “Digital” track rotate across three tech-centric teams in the Bank. These include both internal-facing teams such as digital infrastructure and cybersecurity, as well as external-facing teams such as data science and IT supervision. Through KGP, the Bank aims to reach a bigger and more diverse pool of high potential young talents, enable them to readily collaborate across departments, and enhance the consistency and quality of new hires through a more consolidated approach to recruitment.

KGP Supports Talent Agility at the Bank in Three Ways:

1. **A more diverse talent pool**
   We focused on the Bank’s unique value proposition as a Central Bank to attract prospective young talents eager for an opportunity to serve the nation. We expanded our outreach initiatives – including enhancing our careers website and hosting our first-ever virtual career information session.

   As a result, were able to attract a larger and more diverse group of applicants for our inaugural KGP intake as compared to previous graduate-level hiring initiatives. We received close to 1,500 applications for the inaugural September 2021 intake. (See Diagram 1 for a profile of shortlisted applicants.)

2. **A structured approach to building collaborative networks**
   Through three rotations across different departments in the Bank, graduate analysts obtain a wider perspective of the different functions at the Bank. Graduate analysts build relationships in these rotations, which they can then leverage later on in their careers at the Bank. We also connect each graduate analyst with a mentor and run internal networking events to accelerate the speed at which graduate analysts build their connections.

3. **A centralised approach to entry-level hiring**
   The graduate programme is designed to identify the best talent through a more consistent approach to entry-level hiring. In addition to desktop resume reviews and standardised tests, the KGP incorporates a group case study and panel interviews with leaders from departments across the Bank. The selection is carried out in a single assessment process for the entire cohort of entry-level roles at the Bank. This promotes a more standardised assessment benchmark across the cohort, as well as a consistent experience for all the candidates.

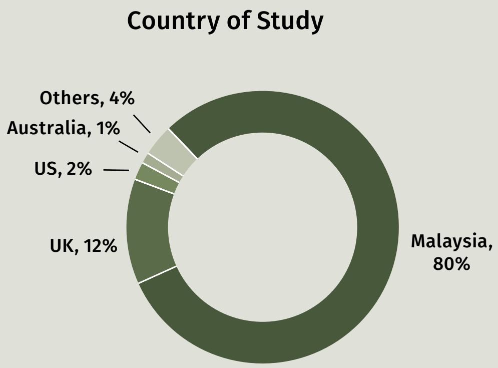
   The Bank welcomes two cohorts of KGP graduate analysts per year, in April and September. Further details of the programme can be found at bnm.gov.my/kgp.

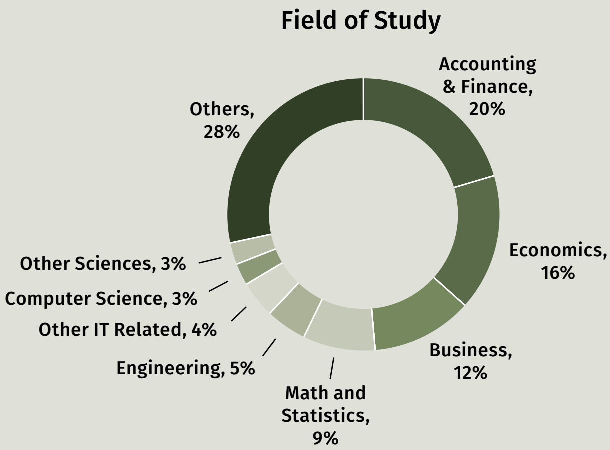
Feedback from participants:

> “ KGP has given me such a tremendous exposure. Currently working with the Innovation Lab, I have been assisting in-house developments and providing digitalisation support to other departments. The learning opportunities have been great! ”

> “ I am positively surprised on the learning opportunities that have arisen so far. The challenges and lessons learnt along the way feed my inquisitive mind. It also helps that there is a strong support system there for whenever I need it; guiding me along the journey to realise my full potential. ”

Diagram 1: Profile of Shortlisted* Applicants





* Shortlisted applicants refer to applicants meeting the specified minimum entry criteria, including academic qualifications.

Towards a Greener Financial System

An orderly and just[1] transition is crucial for Malaysia to avoid major economic and societal impacts and reap green growth opportunities, as we strive towards net zero GHG[2] emissions by 2050.

Introduction

The effects of climate change continue to be widespread and increasingly visible, impacting our nation, economy and financial system. There is growing consensus that urgent actions are needed to decarbonise the global economy to mitigate the rising impact of climate change. Towards achieving this goal, many nations have committed towards net zero GHG emissions in the next three to four decades. For Malaysia, the Government has pledged to achieve this target by 2050.

The Bank spent the year focused on stepping up its response and driving collective action on climate risks within the financial sector. This is crucial in building a financial sector that is resilient to climate change and one that lends support towards greening the economy. Specifically, we continued to play a formative role in building the capacity of our financial institutions. This includes strengthening capabilities to measure, mitigate and protect against climate risks. Within the Bank, we continued to take steps to green our operations. At the macro level, we focused on aligning the financial sector's response to climate risks with national policies and strategies. This includes supporting sustainability-related policies as outlined in the Twelfth Malaysia Plan and the national budget. We also actively provide emerging market views on climate issues at regional and international fronts, especially in relation to climate equity.

More Structured Whole-of-bank Approach

Almost three years into the journey, we continue to strengthen our organisational approach to climate risk. This led to the setting up of the Sustainability Unit (SU) which is tasked to drive our efforts to integrate the green agenda across the Bank's functions and operations. Reporting directly to the Governor and senior management of the Bank, the SU coordinates and oversees the Bank's overall climate strategy and key initiatives. It provides technical and capacity building support to the six tracks of the Bank's key functions (Diagram 1). The SU also interacts with the Bank's Board on climate-related strategies, tapping on their knowledge and experience. At the senior management level, a Deputy Governor serves as the Executive Sponsor to provide broad guidance and direction to the SU. These developments support a sustained focus on and effective execution of our climate strategies.

Today, climate risks are regularly discussed at senior management and Board deliberations. This reflects growing consideration of climate-related risks in all aspects of our operations and functions.

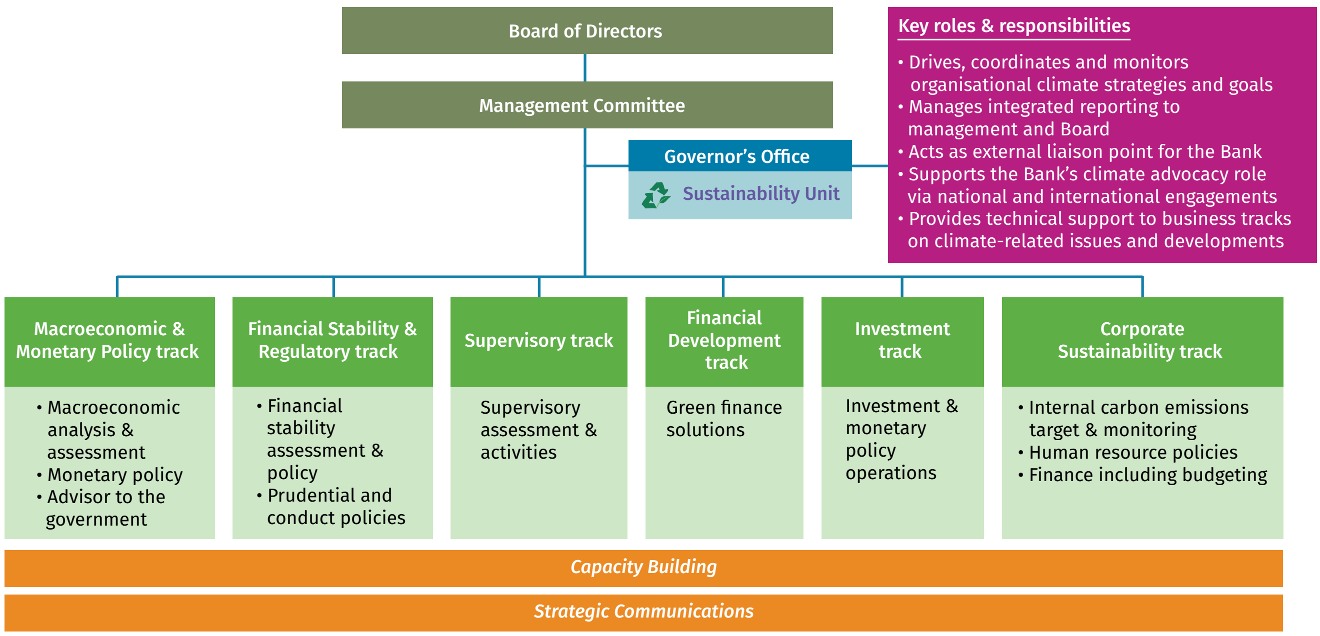
Steady Outcomes in Advancing Climate Agenda

We made further progress in integrating climate-related risk considerations in our core functions (Diagram 2a & 2b). These include our supervisory assessments, prudential framework and assessments of macroeconomic and financial stability. We issued a number of key climate-related policies to further guide our regulatees. As we engage with the industry, we are encouraged that financial institutions are giving greater attention to climate-related risk areas. The

---

1 Fair and inclusive with due consideration and adequate support for affected segments.
2 Greenhouse gases, such as carbon dioxide, methane and nitrous oxide.

Diagram 1: Climate Considerations as an Organisational Priority



financial industry is also stepping up efforts to assist their clients to adopt sustainable practices.

We continued to take concrete steps to reduce our own carbon footprint. As we prepare staff to return to work at the Bank's premises post pandemic, we actively raise awareness of our staff on sustainable practices. On the investment front, we have set a higher target for ESG investments.

During the year, we also ramped up capacity building initiatives within the Bank. Our initiatives included knowledge sharing sessions and a series of structured capacity building programmes. We saw a similar trend within the financial industry. Such initiatives were supported by partnerships between the Bank, the Joint Committee on Climate Change (JC3) and external stakeholders such as FIDE Forum, the Islamic Banking and Finance Institute Malaysia (IBFIM) and entities responsible for the ASEAN Low Carbon Energy Programme.

Greater Cohesive Response via the Joint Committee on Climate Change (JC3)

The Bank and its JC3 co-chair, the Securities Commission Malaysia continued to work closely with the financial industry through the JC3. Since it was formed in 2019, JC3 has led and supported key climate initiatives in the financial sector. Its scope covers risk management, governance and disclosure, products and innovation, engagement and capacity building, and bridging data gaps (Diagram 7).

In 2021, JC3 continued to develop practical tools to aid financial institutions in assessing, managing and disclosing climate-related risks. Notably, we expect all financial institutions to make concrete progress towards disclosures of climate-related risks. This will be supported by the Application Guide on Climate-related Disclosures developed by JC3 for the industry. An additional workstream to address data gaps was also formed. As part of its broader outreach programme, JC3 organised its Flagship Conference which attracted about 6,300 participants from over 40 countries. The event urged the financial industry to step up its response to the climate challenge through calls for a set of concrete actions (Diagram 8). The report on key insights and discussions from the conference can be found at the Bank's website.

Diagram 2a: Progress and Outcomes of Initiatives for 2021

Corporate Sustainability
Reducing Carbon Footprint in the Bank's Operations

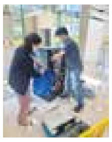
Progress

- **Efficient energy management and monitoring programme led to additional carbon dioxide reduction of 735 tonnes compared to 2020**


- **Modernised composting of food and garden waste by using compost machines at the Bank's premises**

- **Further reduction in use of plastic at the Bank's premises (reduction of 67% in 2021 as compared to 59% in 2020). Introduction of biodegradable corn-starch food take-away packaging in the Bank's cafes starting from mid-January 2022 to replace paper packaging**


- **Launched an electronic recycling waste campaign to manage electronic waste by Bank staff**

- **Continued sustainable currency management by**

(i) recirculating fit banknotes that accounted for 57% of the annual banknotes issuance in 2021;
(ii) using a combination of durable substrates and polymer for banknotes which last longer than paper-based banknotes. As of end-December 2021, polymer banknotes constituted 43.8% of total banknotes in circulation;
(iii) intensifying public awareness on the proper handling of banknotes to extend their usage over a longer time period;
(iv) introducing reusable bins and steel containers at the Bank's banknote processing and coin minting facilities, resulting in a total cost savings of around RM500,000 per year; and
(v) recycling and repurposing by-products from coin production (e.g. used steel drums, wooden pallets, machine oils)

Investment
Factoring Sustainability in the Bank's Investments

Progress

- **Increased investments in assets complying with internationally recognised sustainability principles by more than 50% compared to 2020**
- **Further enriched sources of data (including assessment by rating agencies, ESG rating providers and publicly available information) used to achieve optimal risk-adjusted returns**

Macroeconomic & Monetary Policy
Enhancing Macroeconomic Surveillance & Forecasting

Progress

- **Established modelling frameworks to support holistic assessments of the impact of climate risk on the economy under different climate-related scenarios**
- **Advanced research on post-pandemic growth prospects and potential associated with sustainability outcomes, including opportunities for attracting green investments**

Diagram 2b: Progress and Outcomes of Initiatives for 2021

Financial Stability & Regulatory
Facilitating Regulatory Incentives

Progress

- Issued the Climate Risk Management and Scenario Analysis Exposure Draft for public consultation in December 2021 (14 principles and proposed key requirements shown in Diagram 3)
- Finalised plans for mandatory climate-related financial disclosures by financial institutions regulated by the Bank for industry consultation
- On-going research and assessments on appropriate regulatory incentives to spur green and sustainable finance
- Embarked on preparatory work for an industry-wide implementation of Climate Change Stress Tests in 2024
- Conducted a joint study with the World Bank on the impact of biodiversity risk on the financial sector

Supervisory
Strengthening Resilience to Climate Risk in the Financial Sector

Progress

- Issued the Climate Change and Principle-based Taxonomy (CCPT) in April 2021 and established a CCPT Implementation Group to support implementation by financial institutions
- Issued VBIAF* Sectoral Guides on Palm Oil, Renewable Energy, Energy Efficiency, Oil & Gas, Manufacturing, and Construction & Infrastructure (key features in Diagram 4). The sectoral guides complement the Bank's CCPT (Diagram 5)

Financial Development
Increasing Financial Sector Visibility in National Sustainability Policies

Progress

- Engaged business communities from key economic sectors such as oil and gas, plantation, food and beverage to understand their sustainability practices and value chain sustainability financing needs
- Established Low Carbon Transition Facility (key features in Diagram 6) for SMEs
- Actively contributed financial sector perspectives to national climate policies and strategies through a series of roundtable and bilateral engagements with relevant Ministries and the Economic Action Council, and inputs for deliberations by the Malaysia Climate Action Council (MyCAC)

Capacity Building
Increasing Internal Technical Expertise

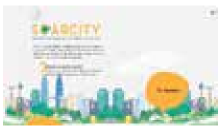
Progress

- Conducted Bank-wide capacity building series on fundamentals of climate change and role of central banks in responding to climate risk (in collaboration with Ernst and Young and the University of Warwick) which benefitted more than 400 staff
- Conducted training on Climate Change and Principle-based Taxonomy and ESG investment which benefitted more than 150 staff in supervision and investment sectors

Strategic Communications
Outreach and Awareness

Progress

- Conducted virtual exhibition entitled SCARCITY: A Matter of Priority (http://museum.bnm.gov.my/scarcity/) to educate the public on the impact of small changes in daily routines to better preserve the environment and to create awareness on why climate change matters to central banks



- Intensification of virtual execution through numerous temporary exhibitions and online educational programmes for the public, including short lessons, contest-based learning and virtual talks which are available across Museum and Art Gallery's social media channels

* Value-based Intermediation Financing and Investment Impact Assessment Framework. The VBIAF Sectoral Guides provide an impact-based risk management toolkit for financial institutions to incorporate ESG risk considerations in their financing and investment decision making process (further details in the chapter "Promoting a Progressive and Inclusive Islamic Financial System").

Diagram 3: The 14 Principles and Proposed Key Requirements for Climate Risk Management and Scenario Analysis for Financial Institutions (FIs)

Governance

- **Principle 1:** Effective oversight of climate-related risks by the Board and senior management of FIs
- **Principle 2:** Sound understanding of climate-related risks by the Board and senior management of FIs
- **Principle 3:** Climate-related risks to be embedded into the internal control frameworks of FIs

Specific requirements include the appointment of a designated senior officer to oversee the effective management of climate-related risks

Strategy

- **Principle 4:** Incorporation of the potential impact of material climate-related risks into business strategies of FIs

Specific requirements include an expectation on FIs to identify and monitor internal climate-related targets consistent with business and risk strategies

Risk Appetite

- **Principle 5:** Climate-related risks to be embedded into the risk appetite framework of FIs, with material risks reflected in the internal capital adequacy assessment process

Specific requirements include the development of climate-related risk metrics for the purpose of setting and monitoring risk limits and thresholds

Risk Management

- **Principle 6:** Integration of material climate-related risk considerations into existing enterprise-wide risk management framework of FIs
- **Principle 7:** Continuous development of data capabilities, tools and methodologies by FIs to effectively aggregate and report material climate-related risks
- **Principle 8:** Consideration of climate-related risks as part of comprehensive risk assessments of FIs
- **Principle 9:** Active monitoring and timely escalation of material and potential climate-related risks
- **Principle 10:** Implementation of appropriate risk controls to manage current and potential impact of material climate-related risks
- **Principle 11:** Understanding of the transmission and impact of climate-related risks on existing risk types. Risk management systems and processes of FIs have to account for material climate-related risks

Specific requirements include ensuring risk management approaches are forward looking, and using scenario analysis to inform the identification and measurement of risks under different time horizons

Scenario Analysis

- **Principle 12:** Employment of scenario analysis by FIs to determine resilience of business strategies to material climate-related risks
- **Principle 13:** Ensure scenario analysis exercises are relevant, following certain prescribed and well-known standards, and conducted at appropriate time horizons and contain sufficient level of granularity

Specific requirements include reviewing the appropriateness of business strategies and business models under a range of climate scenarios

Disclosure

- **Principle 14:** Production of reliable, meaningful and comparable climate-related disclosures

Specific requirements include mandatory climate-related disclosures by FIs in line with the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) by 31 December 2024

Diagram 4: Salient Features of VBIAF Sectoral Guides

VBIAF Sectoral Guides issued

- Palm Oil
- Renewable energy
- Energy efficiency
- Oil & Gas
- Manufacturing
- Construction & Infrastructure

Key components of VBIAF Sectoral Guides

1 Scope

Covers upstream, downstream/supply chain of a sector

2 Sector context

Provides snapshots of key national policies & targets to inform on sector/activity relevance in contributing to national sustainable growth

3 Commercial proposition

Information on the commercial viability of sector and/or certainty of project/companies

4 Impact-based risk management

Salient ESG risks relevant to the sector/activity, its risk transmission, metrics, mitigation reporting & monitoring

1. Expectation for financial institutions to set **internal policy statement** to set clear commitment to support these sectors/activities through a nurturing approach
2. Key **ESG risks and risk transmission** are provided including:
    1. Environment – land access, land-use, land-use change & acquisition, biodiversity loss & deforestation, climate/GHG emissions, water, pollution prevention & resource use efficiency
    2. Social – labour rights & working conditions, occupational safety & health, human rights & community relations
    3. Governance – governance mechanism for sustainability & corruption
3. **Customer on-boarding checklist** based on key impact categories & potential risk transmission channels
4. **Transaction-level risk metrics & risk score** for each risk categories are provided to guide financial institutions in measuring the risks
5. **Certifications** to facilitate financial institutions' due diligence process
6. **GHG calculator/methodology** listed for financial institutions to measure & consider to disclose finance for carbon intensive projects & related risks of their counterparties in line with TCFD recommendations

Diagram 5: Framework and Tools to Support Climate Risk Management

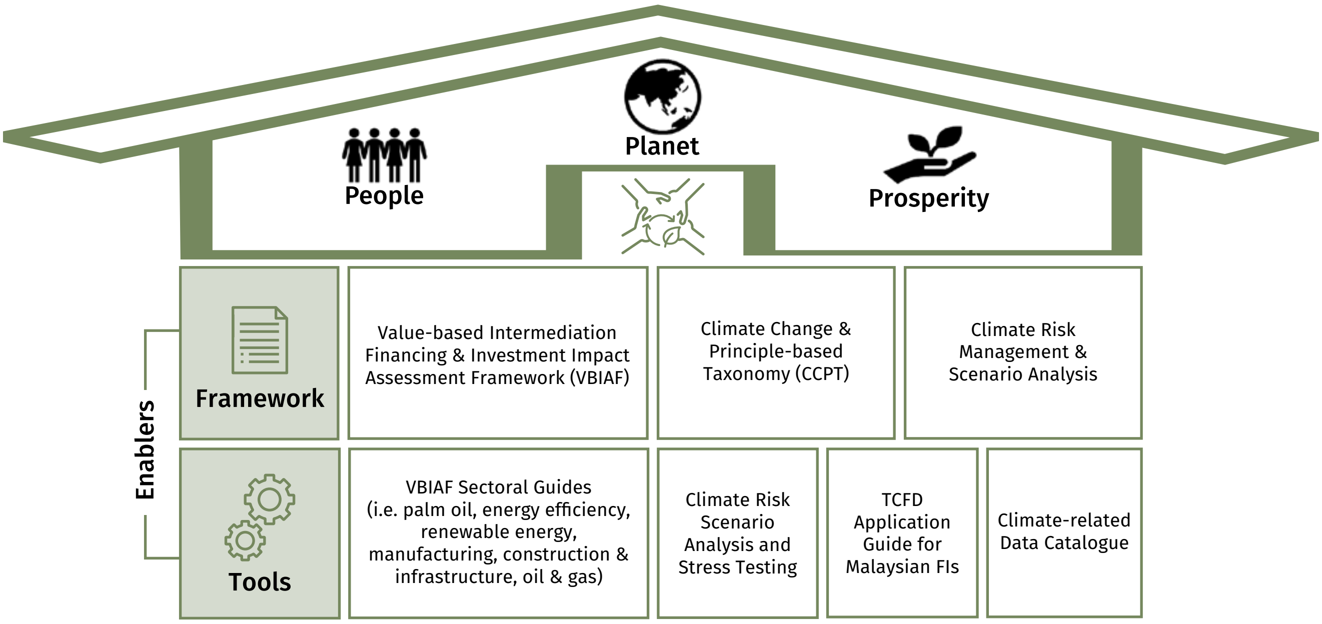


Diagram 6: Key Features of Low Carbon Transition Facility (LCTF)

1 Guidance to Assess and Monitor LCTF

Qualified SMEs
SMEs with clear commitment to transition towards sustainable and low-carbon practices

Transition activities
Develop list of transition activities that are aligned with CCPT's guiding principles and guided by VBIAF Sectoral Guides

Track progress
- Establish mechanism to monitor and track progress of SMEs' transition
- Refer to VBIAF Sectoral Guides for guidance to assess and measure performance of specific sector/activity

2 Key Features

Special feature	Participating Financial Institutions (PFIs) provide financing on a matching basis
Size	RM1 billion from BNM + RM1 billion from PFIs (matching basis)
Purpose of financing	To fund CAPEX or working capital to initiate or facilitate the transition to low-carbon and sustainable operation
Tenure	Up to 10 years
Financing size per SME	Maximum RM10 million
Financing rate to SMEs	Maximum of 5.0% p.a (inclusive of guarantee fee, if any)
Guarantee	Guarantee schemes by CGC & SJPP
Availability	3 February 2022 until full utilisation

Note: CGC - Credit Guarantee Corporation Malaysia Berhad, SJPP - Syarikat Jaminan Pembiayaan Perniagaan Berhad.

Contributing to Regional and International Thought Leadership

On the regional front, 2021 was a significant year for the Bank. We are one of the eight founding members of the newly-formed ASEAN Taxonomy Board (ATB). The ATB is set up to develop, maintain and promote the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy). The ASEAN Taxonomy (Diagram 9) is a multi-tiered taxonomy to cater to varied standards of development and economic activity of ASEAN Member States (AMS). The Foundation Framework outlines a set of guiding principles, supported by qualitative screening criteria. The Foundation Framework can be applied by all AMS as a basis for classifying sustainable finance activities. The Plus Standard builds on the Foundation Framework to provide a more advanced classification system for green activities and investments. It applies science-based metrics and thresholds.

On 10 November 2021, in conjunction with the 26th United Nations Climate Change Conference of the Parties (COP26), the ATB released Version 1 of the ASEAN Taxonomy for consultation. This document sets out the conceptual framework that will form the basis for the principles, technical and operational features of the full ASEAN Taxonomy. We played a key role in the issuance of the document. We chair Working Group 1 that developed the conceptual framework and principles for the Foundation Framework. We are also an active member of Working Group 2 that is developing the Plus Standard. For Malaysia, the CCPT issued by the Bank in April 2021[3] is aligned to the ASEAN Taxonomy.

Internationally, the Bank continued to actively contribute to emerging market perspectives on a number of climate issues. On climate equity, we stressed the importance for advanced economies to consider the disproportionate impact of their policies and actions on emerging economies. Equally important is the need to avoid the risk of financial exclusion. Developed countries have key roles to play. These include to support the transition of economic agents and meet pressing demands for capacity building. They have the means to assist smaller, developing countries adapt to climate change and take mitigating actions. They can contribute by providing capital, technology and expertise. This would improve climate equity and mitigate risks of disorderly transitions. We view these priorities to be critically important to

[3] Details can be found in a box article in BNM's Financial Stability Report 2H 2021.

Diagram 7: Progress of JC3 in 2021

Risk Management	• Established the Climate Change and Principle-Based Taxonomy Implementation Group (CCPT IG). Through the CCPT IG, industry players share knowledge, expertise and progress in implementing the CCPT. This will assist financial institutions (FIs) regulated by the Bank to classify and report their financing and investment activities in line with the CCPT classification from July 2022 • Continued to expand use cases of the CCPT (leveraging the CCPT IG to include other sector-specific cases in line with the VBIAF Sectoral Guides and expanding examples for insurance/takaful underwriting) • Provided input to the Exposure Draft on Climate Risk Management and Scenario Analysis (issued for public consultation end of 2021)

Governance & Disclosure	• Developed an Application Guide on Climate-Related Disclosures to facilitate adoption of recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) and improve quality of disclosures (in preparation of mandatory TCFD-aligned climate-related financial risk disclosures starting 2024)
	  ◦ Issued for public consultation in March 2022
	  ◦ Sets out “basic” and “stretch” recommendations for disclosures on Governance, Strategy, Risk Management, Metrics and Targets

Product & Innovation	• Seven engagements held with business communities from key economic sectors (plantation, oil and gas, food and beverage, property) to gather insights on their transition journey to sustainable practices, including financing needs, and their supply chains • Working to publish a report on financing needs and solutions to support transition in 2022
Engagement & Capacity Building	• About 15 engagements held with the relevant Government ministries and agencies (including the Ministry of Environment and Water, and Malaysian Green Technology and Climate Change Corporation) to promote alignment between the financial sector’s response to climate risks and national climate policies • Completed development of Level 2 of the climate risk-related Foundation Level training programme for the financial industry, in partnership with selected knowledge partners. The programme targets C-suite and Board level participants from financial institutions • Organised the virtual JC3 Flagship Conference "Finance for Change“. The Conference was attended by about 6300 participants from over 40 countries and featured more than 70 local, regional and global speakers

Bridging Data Gaps	• Validated climate-related data needs and availability of data through engagements with sub-committees within JC3 and multilateral organisations. Identified the top 8 climate-related data items most needed for an agreed list of priority use cases including climate risk management, stress testing, scenario analysis, product solutioning and disclosures:
	  ◦ GHG Emission (Scope 1, Scope 2, Scope 3) and forward looking emission targets
	  ◦ Green/sustainable lending/financing and bond/sukuk issuance by counterparty/sector
	  ◦ Non-renewable energy consumption & renewable electricity and other sources
	  ◦ Exposure to physical risks by sector, company and geo-locations incl. weather data
	  ◦ Asset value at risk arising from natural catastrophes by sector/investee
	  ◦ ESG score/rating by company/customer
	  ◦ Water consumption and waste management by customer/counterparty
	  ◦ Biodiversity and deforestation indicators
	• Working on creating a data catalogue for reference by the financial sector to be made available in 2022 (based on the identified top data)

encourage a globally consistent, inclusive and responsible response to climate-related risks by central banks, financial supervisors and the financial industry.

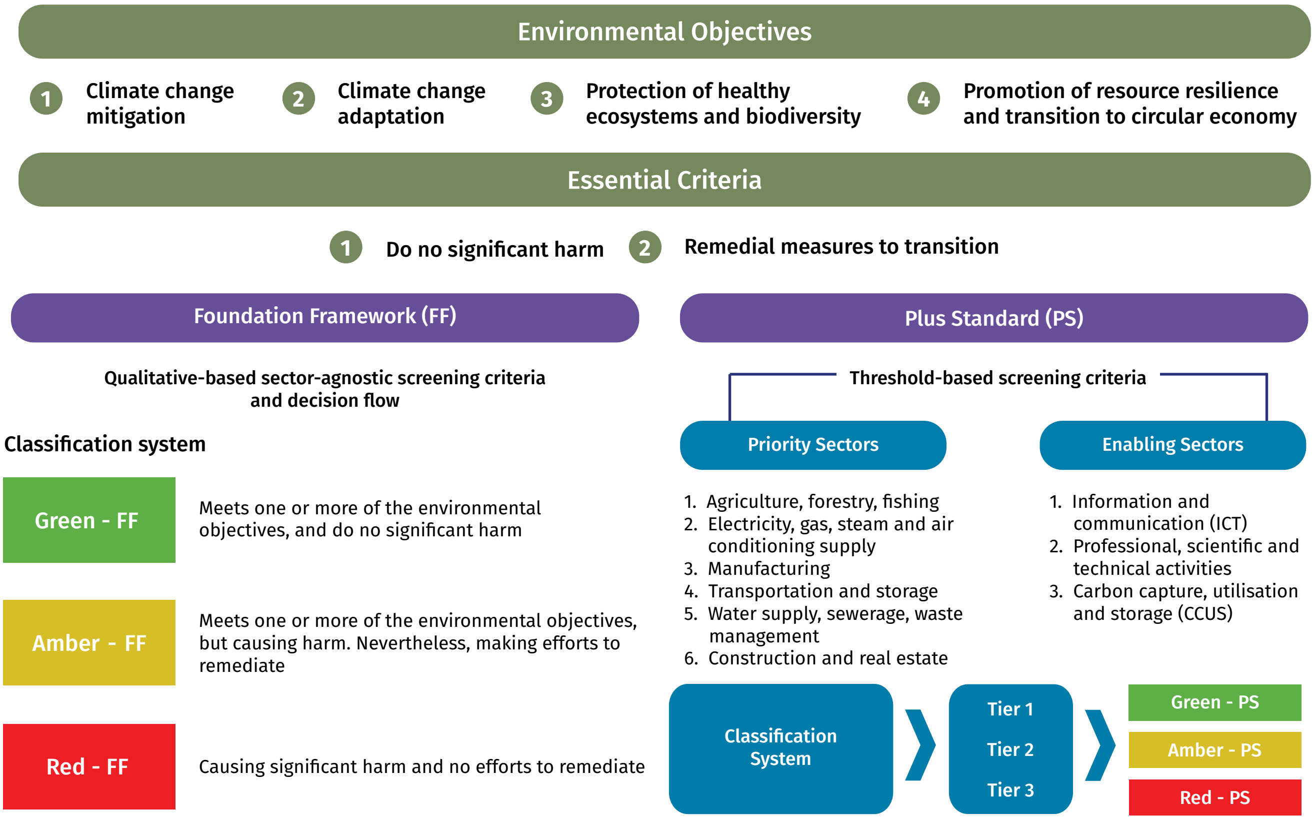
We continued to contribute to various work programmes and events focused on climate-related risks, particularly of the Central Banks and Supervisors Network for Greening the Financial System (NGFS), Executives’ Meeting of East Asia-Pacific Central Banks (EMEAP), and the Bank for International Settlements (BIS). The Bank is a member of the NGFS Steering Committee and five NGFS workstreams. The workstreams focus on microprudential and supervision, macroprudential, scaling up green finance, research, and bridging data gaps. During the year, we issued a Pledge on our commitment in relation to climate risk management, disclosure and capacity building (Diagram 10) in support of the global climate response and work of the NGFS.

Malaysia is a nation that is rich in biodiversity. As we progress efforts on the climate front, we recognise that building capacity on the broader topic of nature loss is crucial to complement our

Diagram 8: Summary of Call to Action From JC3 Flagship Conference Rapporteur Report

Source: https://www.bnm.gov.my/documents/20124/3770663/20210803-JC3-Flagship-Conference-2021-Report.pdf

Diagram 9: Overview of the ASEAN Taxonomy on Sustainable Finance



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

work on climate-related risks. Specifically, we need to understand the interactions between biodiversity and climate risks and how these affect the financial sector. On this front, we participated in the NGFS Study Group on Biodiversity. We also worked closely with the World Bank on a research work on nature-related risks in Malaysia during the year, the first of such study for the Asian region. The outcome of this joint research is a report[4] that focuses on how, and to

[4] An Exploration of Nature-related Financial Risks in Malaysia - https://www.bnm.gov.my/documents/20124/3770663/ibrd-2022-nature-financial-risk.pdf.

Governor Nor Shamsiah Yunus as a panellist in a Fireside Chat at COP26 Finance Day hosted by the World Bank Group and Banque de France.

Governor Nor Shamsiah Yunus as a panellist in a Fireside Chat at BIS-BDF-IMF-NGFS Green Swan 2021 Global Conference.

what extent, banks in Malaysia could be exposed to risks from biodiversity loss and ecosystem damage. The report was recently launched on 15 March 2022 to raise awareness and stimulate dialogue on this important topic.

Increasing Awareness Through Communication

Our senior management and officers participated actively as speakers in climate-related events. This allows us to share our initiatives and views especially on the important role of the financial sector in facilitating an orderly and just economic transition. On the domestic front, these include virtual dialogues organised by the FIDE Forum on The 2050 Net Zero Carbon Emissions Target: Finance's Role, EAC Dialogue organised by the Economic Action Council (EAC) Secretariat and Series 1 of the National OGSE Sustainability Forum organised by Malaysia Petroleum Resources Corporation. At the global level, we also participated in the Minister Level Meeting of the Coalition of Finance Ministers for Climate Action,

Deputy Governor Jessica Chew as a speaker at the World Bank's Sustainable ExchangE Development Series (SEEDS) - Developments in Sustainable Finance in ASEAN.

Diagram 10: Key Features of BNM's Pledge

6 Areas	14 Commitments
Financial stability monitoring and micro-supervision	• Advance preparations for an industry-wide climate change stress test • Incorporate climate-related risks as part of formal supervisory assessments • Develop a Reference Guide on Risk Management and Scenario Analysis for financial institutions (FIs) • Implement structured climate-related technical training for regulatory and supervisory staff
Taxonomy	• Ensure consistent and credible implementation of CCPT
Data gaps	• Lead and provide dedicated resources for JC3 Sub-committee on Bridging Data Gaps – to meet critical data needs of industry to manage climate-and environmental-related risks and structure green solutions
Capacity building & awareness	• Ramp up engagement and capacity building efforts through JC3 • Expand suite of technical programmes developed under JC3 • Support NGFS capacity building initiatives
Disclosure	• Improve climate-related risk financial disclosures • Develop a guide for FIs to adopt climate-related disclosures • Continue to disclose own climate initiatives in BNM Annual Report
Portfolio management	• Strengthen internal frameworks for integrating sustainability factors in own portfolio management • Assess how climate change would feed into monetary policy

the World Bank's Sustainable ExchangE Development Series, ESG GO ASEAN Summit 2021 and the Fireside Chat at COP26 Finance Day.

Climate Risk Management and Target Setting

Today, climate risk is being actively considered in our operations and frameworks. We are taking steps to further deepen our understanding of the underlying risks. We are also building technical capabilities to systematically measure our carbon emissions. This will pave the way towards setting our internal emission targets in 2022.

Going Forward

For Malaysia, achieving net zero GHG emissions by 2050 will protect the environment for our future generations and will also bring about wider economic prosperity. Beyond reducing the risk of catastrophic climate events,[5] as many as 232,000 jobs could be supported in a green industrial revolution. Malaysia can achieve this through capturing green growth opportunities.[6] This includes new green industries such as renewable energy, hydrogen

[5] Estimates by climate scientist suggest global warming would reduce economic welfare for Malaysia, measured by GDP per capita, by between 10-15% by 2100 (Burke, Davis et al., 2018).
[6] See 'Securing Our Future: Net Zero Pathways for Malaysia' Report (WWF-Malaysia & Boston Consulting Group, 2021).

economy, electric vehicle (EV) manufacturing and energy efficiency solutions. An orderly and just transition will also protect the competitiveness of Malaysian businesses. It will cushion the impact from actions by capital providers, customers and trading partners which are sensitive to climate risk.

We aim to further support an orderly and just economy-wide transition for Malaysia through our policies and operations. The transition requires huge sums of private and public sector investments. We therefore focus on supporting and facilitating the financial sector's key role in enabling the transition to a low-carbon economy.

This is consistent with our statutory object to promote a sound, progressive and inclusive financial sector. Many opportunities are available for the financial sector to fund sustainability initiatives. These include projects under the National Investment Aspirations framework, the Malaysia Climate Action Council's plan for Malaysia to be a hub in green economy, services and technology and the Low Carbon Mobility Development Plan 2021-2030.

Overall, our initiatives (Diagram 11) are aligned with the Bank's five-year strategic vision for climate strategies as outlined in the Financial Sector Blueprint on Sustainability.

Diagram 11: BNM's Key Focus Areas for 2022

Risk Management

- Advance industry-wide adoption of the Climate Change and Principle-based Taxonomy and the VBIAF Sectoral Guides
- Continue preparations for an industry-wide Climate Change Stress Test (CCST) in 2024

Governance & Disclosure

- Support wider adoption of climate-related financial disclosures by financial institutions in line with TCFD recommendations

Product & Innovation

- Continue to actively engage business communities including small and medium-sized entrepreneurs (SMEs) from various economic sectors to understand their sustainability practices and value chain sustainability financing needs
  - Aim to widen green finance instruments and address market gaps in sustainable finance. In particular, products and solutions that can assist businesses affected from frequent climate disasters faced by the country such as floods
  - Aim to create greater awareness of SMEs on climate risk and the need to transition to sustainable practices

Engagement & Capacity Building

- Continuously pursue engagements with relevant Government ministries, agencies and authorities to align financial sector priorities with national climate policies
  - Aim to gain clarity on the transition paths for each economic sector that will enable the financial sector to contribute more effectively towards an orderly and just transition by 2050
- Continue working with the industry to deepen the talent pool by offering more in-depth structured technical programmes in climate risk management within the financial sector. Greater collaboration with academia and industry experts will be pursued towards enriching the learning content

Bridging Data Gaps

- Roll out the data catalogue and continue working with JC3 members and partner institutions to further improve the quality, coverage and timeliness of data available from identified sources

Source: Bank Negara Malaysia

Risk Management and Internal Controls

Our role as the central bank exposes us to various risks arising from activities and operations that are undertaken in delivering our mandate to promote monetary and financial stability. For example, our holding and management of international reserves exposes us to market risk and credit risk. Market risk arises when movements in exchange rates, interest rates, and other market prices harm the value of our investments. On the other hand, credit risk arises with the possibility of loss from the default of an issuer or a counterparty.

The Bank is also exposed to non-financial risks that can arise from operational incidents that disrupt critical business operations, with the potential to cause broader systemic disruptions. The Bank also faces possible reputational risks from the conduct of staff, events or incidents related to our operations and policy choices, and interactions with stakeholders.

The Bank manages these risks in an integrated manner through its Enterprise Risk Management (ERM) framework. The framework employs a holistic approach to risk management to ensure that critical risks are systematically identified, assessed, monitored, and managed. This is to ensure that we conduct our operations prudently and responsibly within a tolerable risk parameter.

In addition to formal structures and processes, we continue to foster a strong risk culture. We continually raise awareness among staff at all levels on the key risks identified and managed by the Bank and encouraging open communications on risk. This reinforces the responsibility of all employees across the organisation to manage risks proactively.
The Bank implements a risk governance structure that reflects a shared responsibility between line departments, independent risk management and control functions, and internal audit. The Board of the Bank, supported by the Board Risk Committee (BRC), has the responsibility of providing oversight over the Bank's risk management frameworks and practices. The Board also sets the "tone from the top" in promoting a desirable risk culture across the Bank.

The Bank's Management is accountable for implementing sound risk management frameworks and practices across the Bank. This is operationalised through the Risk Management Committee (RMC) and the Reserve Management Committee (ReMC). These committees meet regularly to deliberate on strategic and critical risks faced by the Bank. In turn, the RMC is supported by the Financial Risk Management Committee (FRMC), Operational Risk Management Committee (ORMC) and Crisis Management Team (CMT). The FRMC and ORMC are responsible for the management of financial and operational risks, respectively. On the other hand, the CMT provides oversight on the Bank's Business Continuity Management by ensuring crisis preparedness as well as coordinating the Bank's response to operational disruptions.

The Bank employs a "three lines of defence" model to facilitate the Board and Management in discharging their risk oversight role. Each of the three lines has a vital part to play in effectively addressing and managing enterprise risks. The first line of defence comprises the line departments. They are responsible for identifying, assessing, monitoring, and managing risks within the Bank's business areas. The second line of defence resides within the risk management function carried out by the Risk Management Department (RMD) and Treasury Risk Management Section (TRMS). RMD provides independent challenge and assessments of risks identified by line departments, supports the development and implementation of risk frameworks and tools, and facilitates an enterprise-wide view of risks managed by the Bank. Meanwhile, TRMS manages and monitors risks related to the investment of reserves, spanning market, credit and operational risk. The Internal Audit Department (IAD) acts as the third line of defence that provides independent assurance on the effectiveness of the Bank's risk management frameworks and internal controls.

The Bank takes on calculated risks in carrying out our mandates effectively. We acknowledge that we cannot eliminate all risks. Rather, we seek to operate within the Board-approved risk appetite and tolerance level. We carefully consider the costs, benefits, and other trade-offs involved in risk control or mitigation. This informs the process for identifying, assessing, prioritising, reporting, and monitoring our financial, operational, and reputational risk exposures.

To manage financial risk, the Bank monitors market, liquidity, and credit risk exposures, and has risk limits and controls in place. The Bank's investments of the international reserves' portfolio are driven by a Board-approved investment benchmark that sets the appetite for long-term risk and returns. Any deviation from the benchmark is controlled using risk limits, clearly defined decision authorities, and investment guidelines. A credit risk framework is in place to outline permissible investments and activities. Controls are also in place to ensure that the Bank allocates its expenditures and manages its finances prudently. These include clearly defined policies and procedures for procurements and payments, approving authorities and a robust budgeting and review process for managing the Bank's general operations. In addition, the Bank has developed an economic capital framework to ensure the Bank will continue to maintain optimal financial buffers to cushion against financial risks amid global market uncertainties.

To manage non-financial risks, the Bank identifies and proactively monitors risks through leading and lagging key risk indicators. These risks include, but are not limited to, information technology, cybersecurity, people, legal, business disruption, and physical security risk which are transversal in nature. Apart from line departments, the management of these risks is supported by selected departments designated as Risk Policy Owners (RPO). RPOs may analyse and report relevant transversal risks to respective oversight committees and propose bank-wide controls and action plans to manage the relevant transversal risks.

Managing Risks During the Pandemic

During the year, the Bank continued to implement measures that are aimed at minimising disruption to our critical operations, ensuring staff safety and wellbeing, and managing vulnerabilities posed by hybrid working arrangements. On the policy making front, the Bank engaged extensively with stakeholders from different segments of society, in particular the affected parties. The aim is to assist the Bank's stakeholders and the public in understanding our policy measures, as well as obtaining feedback on such measures. This has helped to enhance the effectiveness of measures implemented, particularly in supporting households and businesses experiencing temporary financial difficulties while managing longer term risks. The Bank also drew on valuable experience in the past to further strengthen our capacity and flexibility to respond to crises.

Managing Health Risks

In line with the Bank's priority to keep staff safe, stringent standard operating procedures (SOPs) were instituted to prevent infection at the workplace. Measures include appointment of COVID-19 managers among vendors to monitor compliance with SOPs, implementation of split-teams,[1] close-contact tracing and regular testing of staff who work in office. The Bank organised talks by infectious disease experts to educate staff on COVID-19 infection and address vaccination reservations. As the country began to ease movement restrictions and with the majority of staff having completed their vaccination, the Bank gradually increased the number of staff working in the office, with stringent SOPs enforced to prevent workplace infection.

[1] Split-team is one of the preventive strategies that is activated during pandemic outbreaks. It refers to a strategy where the Recovery Team Members (RTMs) are split into two teams and work in two different locations.

The Bank also continued to pay close attention to the mental well-being of staff through regular counselling and mental health programmes, as well as regular virtual engagements with the Bank's leaders.

Business Continuity and Crisis Management

Business Continuity Management (BCM) is a critical aspect in building the Bank's organisational resilience. Staff from Critical Business Functions (CBFs) and Critical Support Functions (CSFs)[2] continue to work in the office on a split-team basis throughout the pandemic period. Staff in critical functions were divided into three recovery teams.[3] Effective and clear lines of communication were also strengthened with relevant external authorities. The Bank continues to enhance its inter-agency arrangements with the Ministry of Finance and Perbadanan Insurans Deposit Malaysia (PIDM) to facilitate swift and effective communications and coordination of policy measures in response to unfolding developments affecting the financial system. This enabled the timely transmission of information, escalation of critical issues and decision-making.

Information Security, Cyber Security, and Technology Risk Management

The Bank remained vigilant against possible disruptions arising from cyber-related incidents. In assessing the Bank's resilience against cyber-attacks, the Bank takes an "assumed breach" position where we operate under the assumption that a breach is inevitable or has likely already occurred. In light of this new approach, the Bank has continuously enhanced our response and recovery capabilities. In addition, identified risks are also managed proactively with strong oversight and support from Management. The Bank also conducted cyber drill exercises in December this year and enhanced cyber hygiene to strengthen the awareness and preparedness of staff in dealing with cyber security incidents. Controls were also put in place to mitigate risks related to remote working, as well as emerging threats such as ransomware and third-party security risks.

Internal Audit

The Board Audit Committee (BAC) provides oversight of the internal audit function of the Bank. This role includes reviewing the adequacy and effectiveness of the Bank's internal controls, compliance with legal and regulatory requirements, and the integrity of the Bank's financial statements.

In discharging this role, the BAC is supported by IAD which provides independent assurance to the BAC on the adequacy, efficiency and effectiveness of the Bank's governance, risk management and internal control processes. Audit activities are conducted in conformance to the requirements of the Institute of Internal Auditors' International Standards for the Professional Practice of Internal Auditing. The principles espoused by the Committee of Sponsoring Organizations of the Treadway Commission's[4] Integrated Internal Control Framework are also embedded in the audit approaches for assessing the Bank's control environment.

The IAD also provides the Minister of Finance with an independent quarterly report of the Bank's international reserve management activities. This is to assure the Minister that international reserves have been managed effectively, in accordance with established policies and guidelines approved by the Board.

Audit priorities in 2021 were aligned to account for the key enterprise risks and changes in the Bank's priorities, including the assessments on current and emerging risks. As a result, the focal coverage of audits conducted was on the Bank's cybersecurity and technology infrastructure, business continuity, stakeholder engagement, human capital management, policy governance and compliance with legal and regulatory requirements (details in Diagram 1).

---

[2] Critical Business Functions (CBFs) and Critical Support Functions (CSFs) are a list of functions that the Bank must be able to perform to meet its mandate. In the event of a disruption, the Bank must restore these functions to ensure the ability to protect the Bank's assets, needs, and safety regulations.

[3] Critical functions include treasury operations, currency management and payment systems.

[4] The Committee of Sponsoring Organizations of the Treadway Commission (COSO) is a joint-initiative advisory group of five professional organisations (i.e., The Institute of Internal Auditors, Institute of Management Accountants, Financial Executives International, American Institute of Certified Public Accountants and American Accounting Association) established to develop and provide thought leadership that enhances governance, risk management and internal control practices.

The IAD has adopted a more dynamic audit approach, facilitated by remote auditing arrangements during the pandemic. On-going close engagements with line departments and leveraging on respective departments' risk insights, allowed timely risk assessments in detecting emerging risks. This also enabled swift reprioritisation of audit plans and resources to focus on key risk areas, in response to uncertainties and challenges presented by the pandemic. In addressing the emerging risks, value propositions and improvement opportunities are highlighted in audit reports to further strengthen governance practices and internal controls.

As a strategic partner in promoting a value-driven culture throughout the Bank, IAD conducts continuous off-cycle audit engagements and sharing of common audit observations. These activities aim to elevate risk awareness among line departments. With effect from January 2020, audit reports have incorporated observations on departments' resource utilisation as part of continuing efforts by the Bank to optimise its operations. This helped improve line departments' economic, effective, and efficient use of resources. Observations of good practices on ethics and risk culture were also embedded as part of audit assessments, in line with international best practices.

Greater advancement in the use of technology and data analytic tools has led to more effective risk identification and in-depth audit assessments. In ensuring that the adequate resourcing of the IAD remains an important priority, the Bank added eight headcounts to support robust and comprehensive assessments of the management of technology risks. Continuous upskilling of auditors remains as one of IAD's forefront initiatives. This was undertaken through a structured training curriculum that encompasses learning priorities to enhance data analytic capabilities and technology acumen. In addition, knowledge transfer through co-sourcing audits and Guest Auditor Programme (i.e., collaborations with the Bank's subject matter experts) for selected audit engagements were also achieved as part of talent development initiatives.

Diagram 1: Focus & Coverage of Audits Conducted in 2021

Audits Focus Areas

- Technology & Cyber Security
- Discharge of Statutory Responsibilites
- Policy & Surveillance
- Data Management
- Related Entities
- Business Continuity
- Communication & Stakeholder Management
- Procurement & Third-Party Risk
- Compliance with Legal & Regulatory Requirements
- Human Capital Management
- Implementation of COVID-19 SOPs

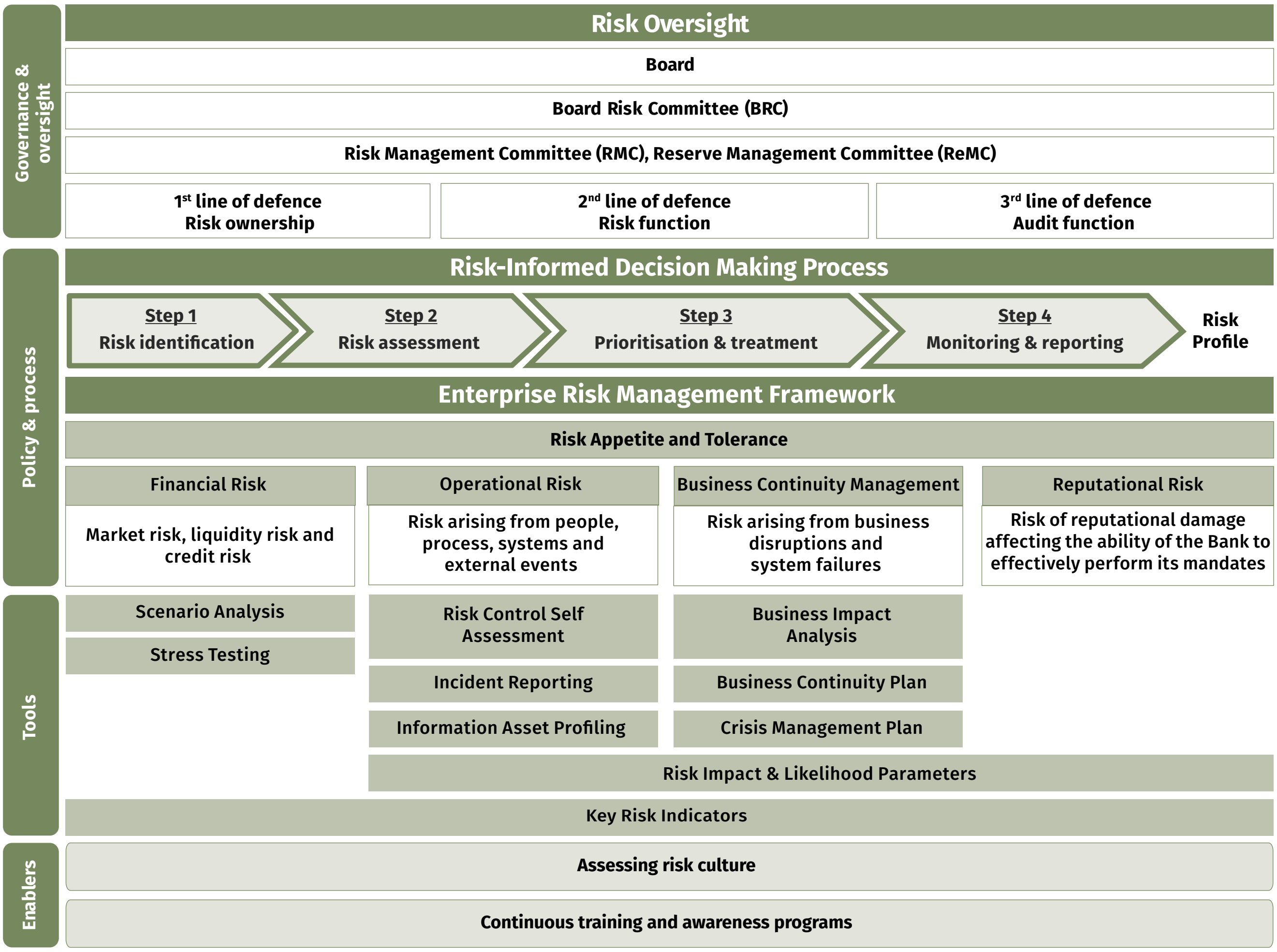
Audits conducted

Technology & Cyber Security	Operational	Related Entities
▪ Cyber Security ▪ Remote Access Management/ Cloud/ Virtual Private Network ▪ Patch Management for IT Systems ▪ RENTAS SWIFT Compliance ▪ RENTAS Infrastructure ▪ RENTAS Information Security Management System ▪ SWIFT Treasury Compliance ▪ SWIFT Transaction Copy Services Compliance ▪ Credit Bureau System ▪ Investment and Money Market Operations Related Systems	▪ Governor's Office ▪ Strategic Communications ▪ Economics ▪ Monetary Policy ▪ Foreign Exchange Policy ▪ Investment Operations and Financial Markets ▪ Financial Surveillance ▪ Financial Intelligence and Enforcement ▪ Data Management and Statistics ▪ Human Capital Management ▪ Currency Management & Operations ▪ Currency Operations (Kilang Wang Bank Negara Malaysia) ▪ Finance ▪ Facility Management Services ▪ Hospitality and Museum ▪ Risk Management ▪ Business Continuity	▪ Credit Guarantee Corporation ▪ Asia School of Business ▪ Islamic Financial Services Board

Source: Bank Negara Malaysia

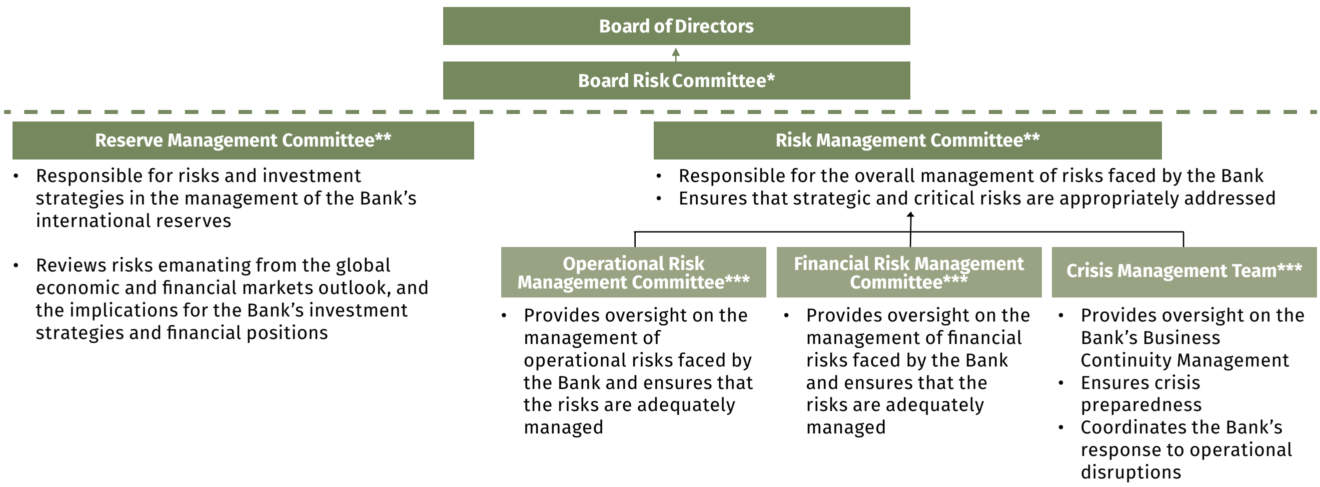
References

Enterprise Risk Management



Source: Bank Negara Malaysia

Risk Management Governance Structure



* Chaired by an Independent Non-Executive Director of the Bank.
** Chaired by Governor.
*** Chaired by a Deputy Governor.

Source: Bank Negara Malaysia

Engaging Malaysians

Our policies and actions affect individuals and businesses in Malaysia. We adapted our communications for the public to understand our mandates and role. In 2021, we focused on reaching out to households and businesses and explaining the mechanisms available to assist those affected by the pandemic and floods.

Introduction

In 2021, one of our top engagement priorities was to ensure affected parties know that help remains available to tide them through difficult times. We also widened our digital outreach to improve getting our messages across to the public. To this end, we increased our digital presence, curated more content, while ensuring our services remained accessible online. We took steps to enhance our communication outputs to make them more relatable to our various audiences. This aims to help our stakeholders to better understand our mandates and role.

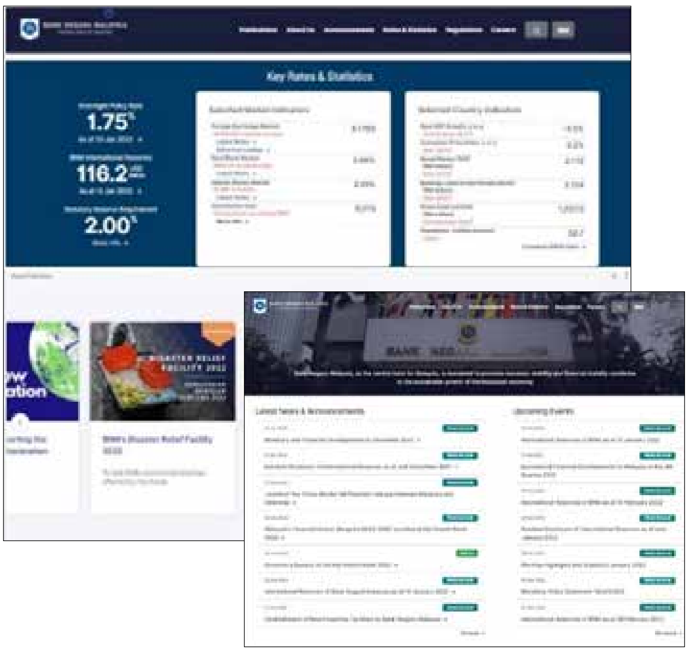
Reassure Affected Parties That Help Remains Available

Throughout 2021, we continued to leverage multiple communication channels to raise awareness on the various avenues and mechanisms available for those affected by the health crisis to seek assistance. We relied on our expanded digital presence to reach the public, while continuing with our engagements with the media and business communities. We also expanded avenues for the public to seek further financial advice and raise issues relating to the relief measures (Diagram 1). To assist those affected by the floods, we swiftly activated the Disaster Relief Facility for micro, small, and medium enterprises (MSMEs) and helped disseminate and explain the assistance offered by the insurance and takaful industry to policyholders.

Enhancing Our Digital Presence

The 'new normal' requires us to adopt new engagement strategies that relies more on digital channels.

In 2021, we began reviewing and enhancing our digital presence, starting with our website. To be more user-centric, we refreshed our website design to ensure visitors can get the information they need within the fewest clicks. We also reviewed the content of our main webpages. For a more mobile-friendly experience, the look and feel of our website is now more responsive to different devices, improving user experience for both mobile device and desktop users.



The Bank's refreshed website aims to improve user experience and access to key information.

Diagram 1: Initiatives to Increase Awareness on Help Available for Those Affected by the COVID-19 Crisis

Repayment Assistance (RA) | **Financing Facilities for SMEs**

Coordinated Awareness Strategy

Integrated awareness initiatives with banking industry:

"Help continues and remains available to those in need"

Collaboration with other platforms to promote BNM's Fund for SMEs and other available assistance

Support programmes by the Government:

Dedicated Channels for Borrowers

Borrowers able to seek advice/raise complaints through:

1) RA survey*
2) Virtual Financial Advisory Clinics (VFAC)**

26,000 interactions via both channels

93% of the RA complaints were resolved

*Dedicated complaints channel set up by BNMTELELINK for borrowers facing difficulties in accessing RA from banks
**Initiated as a one-stop advisory platform for financial consumers to seek assistance from their Financial Service Providers (FSPs)

Increase awareness on available platforms to assist SMEs in accessing financing

Promotion via social media platforms

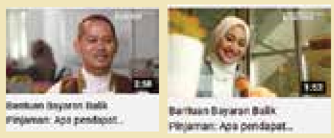
Leveraging on Media

Optimised both conventional and social media platforms to support the dissemination of information to the public

Raising awareness on assistance available

High engagement rates for postings related to COVID-19 assistance

Sharing of experiences



Testimonial videos from borrowers that benefited from the assistance

Engagement with Stakeholders

Continuous engagements with various stakeholders were organised to increase awareness and address issues raised

10 engagements with leaders of 38 SME associations

- ✓ Obtained insights relating to key topics such as repayment assistance (RA), BNM's Fund for SMEs and other available assistance for SMEs
- ✓ Outreach to estimated 4.1 million SME members

Along with 32 engagement sessions at regional level involving

116 business chambers and associations

Source: Bank Negara Malaysia

Recognising the growing expectation from the public for more two-way interaction on issues relating to our mandates, we increased our interactive presence on social media. On top of addressing queries posed by the public, interactions on social media provide us with rapid feedback and insights on the sentiments of our various audiences. These inputs help us identify and prioritise content that addresses key information gaps among the public.

We published an average of four to seven posts per week in 2021, encouraging sustained engagements with our followers. We continue to actively experiment with engagement approaches and use feedback from our analytics to help enhance our content design and messaging. This contributed to a 20% increase in the size of our follower base on most social media platforms (Diagram 2). In addition to having a presence on Facebook, Instagram, Twitter, LinkedIn and Youtube, we also expanded our presence to Telegram to broaden our reach. The Bank is not only leveraging on social media to spread key information, but also to address queries from the public.

Diagram 2: Growth in Social Media Followers on BNM Official Platforms

The size of follower base on most BNM official social media platforms grew by at least 20% in 2021

Facebook	Twitter	LinkedIn
279K (+22%)	295K (+4%)	150K (+46%)

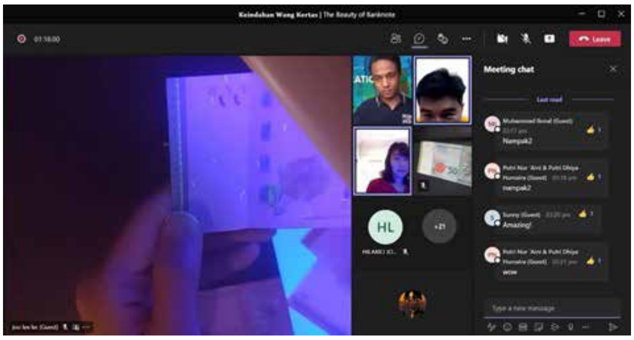
YouTube	Telegram	Instagram
5K (+28%)	2K	20K (+33%)

Source: Bank Negara Malaysia's Social Media

Curating More Digital Content and Experiences

In 2021, our Museum and Art Gallery[1] (BNM MAG) attracted over 9 million visitors, thus sustaining public engagement despite the limitations on physical visits (previously attracted over 5.9 million visitors in 2020). We launched four new virtual exhibitions throughout the year. In addition to the virtual exhibitions, BNM MAG also organised a virtual art bazaar to promote 30 emerging local artists from diverse backgrounds (Diagram 3). These events were complemented with various online educational programmes and e-competitions. The response to these innovative learning experiences was positive as most visitors cited increased awareness and understanding of the topics featured including financial management, currencies through time, financial crime activities, the role of central bank in climate change and socioeconomic development through art.

In line with the reopening of the economy, BNM MAG has since reopened its doors for physical visits in December 2021. Going forward, we will continue to offer a hybrid learning experience, while expanding our range of financial education programmes.



BNM MAG educators demonstrating simple ways to identify authentic Malaysian banknotes via the 'Feel, Look, Tilt, and Check' method.

Educational programmes and learning materials have been made available online through a series of webinars, fun-learning activities, competitions and videos.

[1] BNM MAG provides an informal learning experience that delves into the Bank's roles in the Malaysian economic and financial landscape, numismatic heritage and art through its permanent galleries, exhibitions and educational programmes physically and virtually.

Diagram 3: BNM MAG Virtual Exhibitions and Art Bazaar in 2021

Financial LATeracy

Financial LATeracy is an exhibition which commemorates "Buku Wang Saku", Bank Negara Malaysia's distinctive venture into educating the young on the importance of financial management. The history of "Buku Wang Saku" can be traced back to 1996 when it was a part of a national savings campaign. This was envisioned to provide a strong foundation on financial education to young Malaysians in schools nationwide and is one among many initiatives by Bank Negara Malaysia to nurture Malaysians to become more financially savvy.

SCARCITY: A Matter of Priority

Everyone has a role to play in the climate emergency! SCARCITY, a virtual exhibition, is beneficial for anyone interested in the ongoing climate crisis. Through this exhibition, visitors will be able to explore the intersection between climate change and scarcity through various mediums such as images, videos, and interactive activities.

KERINGAT: Tales of Our Forefathers

KERINGAT illustrates the chronology of events that have shaped Malaysia's socioeconomic development through a range of impressive artworks. The exhibition, comprising more than 50 artworks, showcases the work of our forefathers from the colonial era in Malaya up until the 1980s, primarily featuring sectors of agriculture, fisheries, mining, and small businesses.

Works on Metal: Art Inside the Wallet

In this virtual exhibition, visitors will have the opportunity to explore the historical role of coins as one of the oldest forms of payment and delve into the evolving art of producing coins.

Virtual art bazaar

JARI (Jaringan Akal Kreatif/Creative Mind Network) presents the artworks of 30 emerging artists showcasing unique art styles through diverse mediums. This platform strives to increase the level of awareness and appreciation towards emerging local talents by promoting their artistic abilities and instilling the artists' entrepreneurship skills.

www.museum.bnm.gov.my @BNM.MAG @bnmmag @BNM_MAG

Source: BNM MAG

Assisting the Public – Even From Afar

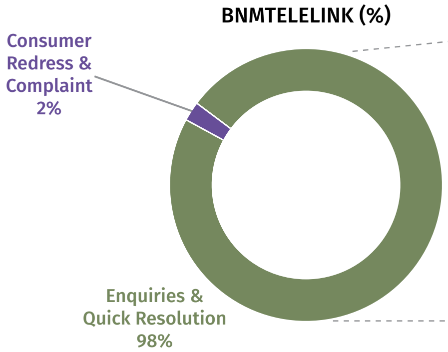
In light of the pandemic, our customer service centres and regional offices were closed to walk-in engagements for most of the year. Despite this, remaining accessible to the public remains our priority. BNMTELELINK became one of our main contact points, where the public and businesses could continue to reach us through phone, email and our online presence. We also offer a Live Chat function on our website to cut down waiting times for those with relatively simple queries.

As a result, despite the physical movement restrictions, we maintained a high number of engagements with around 300,000 interactions in 2021 (2020: 237,016 interactions; 2019: 156,612 interactions) (Diagram 4). Aside from addressing public queries, these interactions provided insights to enhance the content on our website and social media platforms.

Once the pandemic became more manageable in November 2021, we allowed for walk-ins at our customer service centres using an appointment-based system.

Diagram 4: Major Issues or Enquiries Received by BNMTELELINK in 2021

Nature of interactions via BNMTELELINK (%)



Top 5 issues/enquiries raised by the public

Issues/Enquiries
1. CCRIS report retrieval and eCCRIS registration
2. Repayment assistance
3. Freezing, opening and closure of banking accounts
4. Delays in claims processing and customer service of insurance/takaful operators
5. Complaints on financial fraud mainly relating to internet, investment and phone scams

Number of interactions: 304,376

Source: Bank Negara Malaysia

BNMTELELINK reopened to the public (on appointment basis) from 1 November 2021 at the new Asian Institute of Chartered Bankers (AICB) Building in Kuala Lumpur.

Fighting Financial Scams

The increased use of online communications and transactions has also exposed the public to higher risks of financial scams. In 2021, complaints on financial fraud, especially internet, investment and phone scams were among the top five issues raised by the public via BNMTELELINK.

We continuously stepped up our efforts to educate the public on financial fraud in collaboration with other enforcement agencies including the Ministry of Domestic Trade and Consumer Affairs, Securities Commission Malaysia and Royal Malaysia Police. One of our key initiatives is regularly posting alerts on the Amaran Scam page on Facebook, with more than 320 postings throughout the year. Since launching the Amaran Scam page in 2020, it has gained 39,000 followers on Facebook. During the year, we also observed an 11.2% decline in scam-related queries and complaints received by the Bank (2021: 9,158; 2020: 10,187).

On top of that, we broadcasted a seven-episode webinar series on financial scams in conjunction with the Financial Literacy Month in October 2021. To maximise outreach, the webinars were conducted in different languages to reach the Malay, Chinese and Indian communities. This webinar series generated more than 2,300 live- and 118,000 post-views. Among the topics covered are common financial scams in Malaysia such as Get Rich Quick Schemes, Macau Scams, Mule Accounts, Phishing and e-Commerce scams.

In addition, we organised 47 online engagement sessions via state radio stations and virtual webinars on financial fraud at the regional level. The webinars were designed for targeted audiences such as retirees, Government employees and university communities (lecturers, students and staff). These initiatives complement the efforts by the Financial Education Network (FEN) to improve financial literacy in Malaysia (details provided in chapters on "Promoting Financial Stability" and "Promoting a Progressive and Inclusive Financial System").

One of the Amaran Scam episodes from the webinar series targeting the Malay community on online scams entitled "Pancing Data: Dalam Senyap, Duit Lenyap".

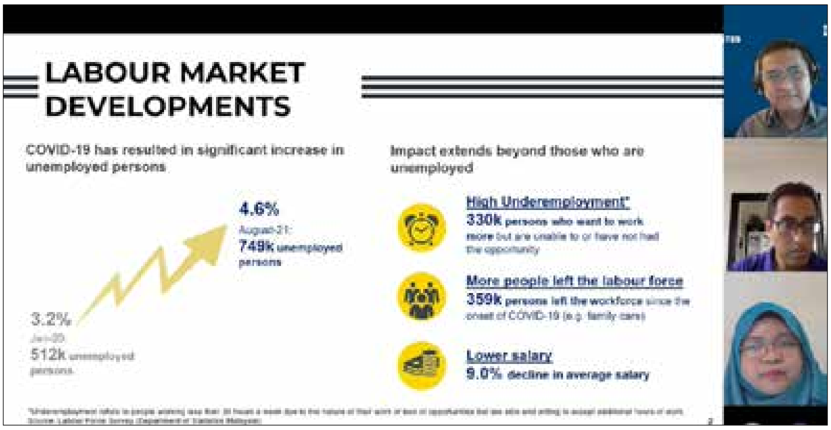
The Amaran Scam webinar series also featured an episode in Mandarin to reach out to the Chinese community.

An episode from the Amaran Scam webinar series conducted in Tamil.

Live webinar on financial fraud participated by the BNM Office in Kota Kinabalu.

Engaging the Youth

The youth is an important segment in influencing the future direction of Malaysia. We engaged more than 700 university students across five universities in 2021 on economic and financial concerns that matter most to them (e.g. job market prospects). We shared our research findings and outlook on the economy and the labour market to increase their awareness and understanding of key policy issues. We leveraged our hiring programmes such as the Kijang Graduate Programme (KGP) to raise awareness on what we do as a central bank. The latest KGP webinar in January 2022 attracted around 300 attendees, while our social media posts on KGP recorded high engagement rates[2] (average: 5.7%).



Engagement between Assistant Governor Fraziali Ismail with students from the University of Malaya and Nottingham University.

[2] Engagement rate is the ratio of engagements (interactions users have with our posting - likes, retweets, comments, shares, and clicks) to reach, which is measured across all social media platforms of the Bank. As a benchmark, the average engagement rate for postings in general across different social media platforms and industries is around 1.5% (Source: Social Insider).

Leveraging our Kijang Graduate Programme to increase awareness on our mandates and role as a central bank.

A More Relatable Central Bank

In addition to our crisis-related communications, we are continuously taking steps to curate content that is more relatable to our audiences of diverse backgrounds. This is to promote better understanding of our mandates and role across a wide spectrum of society.

We do this in multiple ways, beginning with ensuring that our publications are tailored to the targeted audience. Materials for a general audience (e.g. press releases, Annual Report, and website) are written in plain language. We have increased our use of bite-size communications that summarise key takeaways to accompany more technical press releases and publications.

In addition, we are deploying more visuals and infographics that are easy to understand. These pictorial tools are attracting greater interest and generating more conversations among the public on economic and financial developments, as well as our policy measures. The ensuing queries and discussions present opportunities to better explain our actions or to clarify misconceptions. These interactions also offer useful feedback to further elevate the impact and effectiveness of our future communications.

Greater use of visuals and infographics in our publications and communication outputs have increased engagement rates among our audience (above 3% engagement rate).[3]

---

[3] As defined earlier.

Taking the Pulse of the Economy During the Pandemic

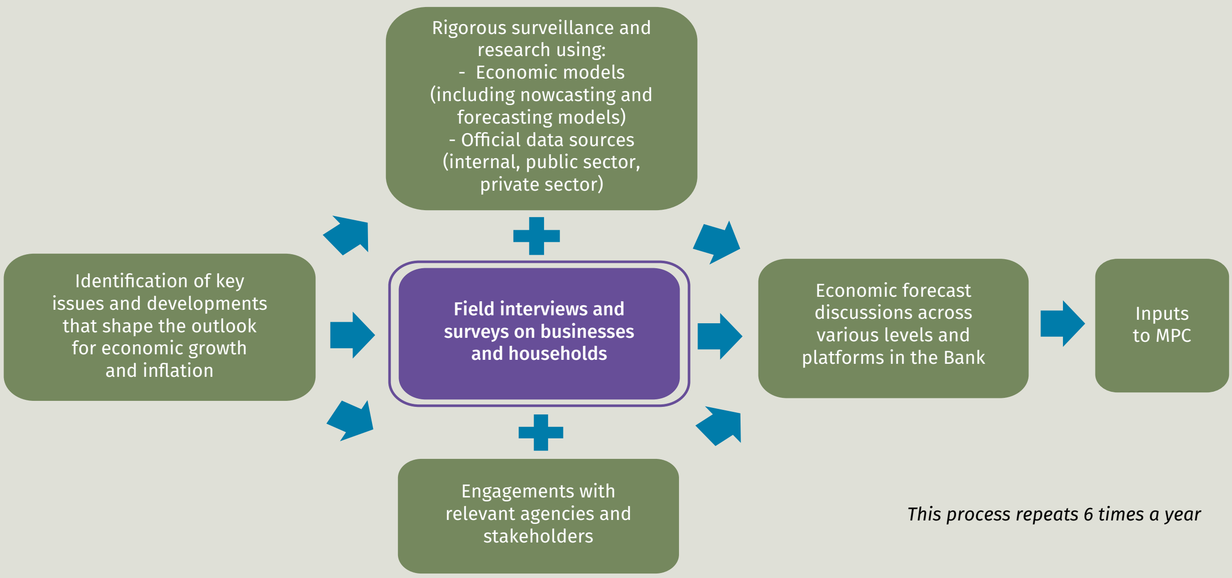
Introduction

The pandemic reshaped the way central banks pursue their mandates in the face of great uncertainty. Among other things, engagements with the public became especially crucial to inform assessments and policy responses. Like many other major central banks globally,[1] Bank Negara Malaysia had stepped up our efforts to listen and speak to the public. Such engagements helped us better understand how evolving developments affected different parts of society and the economy. This improved our capacity to formulate appropriate and targeted policies to support the economy and manage emerging risks. This article aims to feature how such engagements were valuable during the pandemic, with a focus on insights from businesses and households. The first part highlights how they supported monetary policymaking. The second part, meanwhile, focuses on how they helped in formulating other economic and financial policies to mitigate the pandemic's wide-ranging effects.

Part I. Disclosing Real-Time Economic Conditions to Support Monetary Policymaking

The unprecedented nature of the pandemic had made economic forecasting even harder. The economic crisis that was a result of supply and demand shocks following lockdowns had weakened economic relationships observed during normal times. The heightened uncertainty over households and businesses' economic decisions also made real-time data more crucial when quick policy interventions were needed. As such, reliance on ground-level insights became more vital to bridge data gaps with timely, forward-looking, and qualitative information. Such insights complemented the usage of other high-frequency data for economic nowcasting (e.g., data on mobility, electricity generation as well as physical and online spending transactions). They enhanced our knowledge on the current and possible future pathways of the economy when guiding monetary policymaking (Diagram 1).

Diagram 1: How Ground-Level Insights Fit Into Monetary Policy Formulation



Note: MPC refers to Monetary Policy Committee.

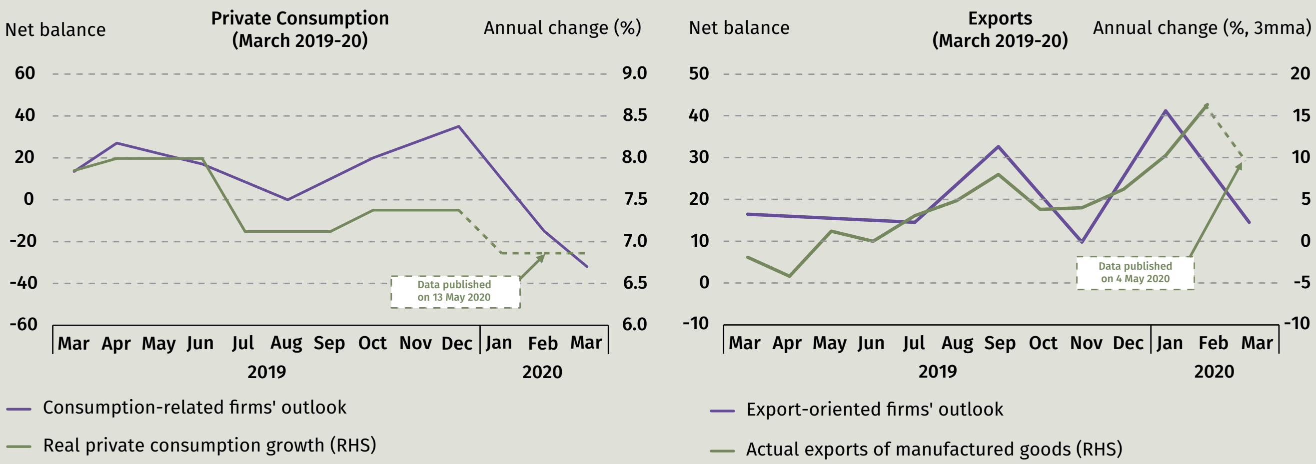
Source: Bank Negara Malaysia

[1] For example, see the article entitled "The ECB's dialogue with non-financial companies", *Economic Bulletin*, Issue 1, European Central Bank (ECB), 2021.

(i) Early detection of turning points for economic forecasting

Insights from interviews with businesses[2] were used to facilitate the detection of turning points for the economy. A case in point was when the demand and export outlook for Malaysia as projected earlier by firms were affected by the COVID-19 outbreak as early as January 2020. During that period, reported cases of infection were still low and largely confined to imported cases.[3] Such early impact from the outbreak was not widely captured by other timely indicators.[4] However, insights obtained through our engagements with the businesses across the country were already suggesting a negative turn in business outlook. Specific industries (e.g., wholesalers, retailers and tourism players) indicated that sales had declined starting January 2020 amid fewer incoming tourists. Meanwhile, export-oriented firms, which at the end of 2019 projected a positive outlook for 2020, were citing increased pessimism in the early part of 2020. These firms indicated that there were delivery delays following disruptions in the global supply chain after parts of PR China went into lockdown. The turnaround in business outlook was thereafter confirmed by official economic data with a lag of two months (Diagram 2). Such real-time insights from the industry were critical in detecting turning points throughout the pandemic and enabled pre-emptive policy calibration when various containment measures were imposed, tightened or relaxed.

Diagram 2: Firms' Outlook for Consumption and Exports vs. Official Data (March 2019-2020)



Note: Firms' outlook is represented as a net balance, which refers to the difference between the proportion of respondents citing better outlook and the proportion of respondents citing worse outlook. This information is obtained every two months, six times a year. Monthly data is then derived by calculating the midpoints for the months without data.

Source: Department of Statistics, Malaysia and Bank Negara Malaysia

(ii) Corroborating evidence to complement quantitative data

Ground-level insights also enhanced our knowledge on the underlying drivers of current and future economic trends. This was most useful when economic conditions differed markedly from projections based on historical trends amidst great uncertainty. For instance, Malaysia's exports data performed better than expected despite the imposition of the Full Movement Control Order (FMCO) in June 2021.[5] Ground-level engagements suggested that this was due in part to firms' adaptability despite limits on labour capacity. Firms in selected industries (e.g., those in the electrical and electronics (E&E) industry) were observed to adapt with relative ease and speed to raise production by relying on their high

[2] Under the Bank's Regional Economic Surveillance programme, industrial engagements are carried out with the business community to gauge real-time business conditions and outlook. Such direct engagements with the business community are built on mutual trust and are treated with strict confidentiality, whereby inputs are used internally to enrich the range of information available to the Bank, particularly to support decision-making by the Monetary Policy Committee (MPC). For more information, please refer to Bank Negara Malaysia Annual Report 2013 Box Article: "Broadening Economic Surveillance through Bank Negara Malaysia's Regional Offices".

[3] For Malaysia, the first sporadic case where the infected person neither travelled to an affected area nor had contact with an infected person emerged on 11 March 2020, and by 14 March, the presence of COVID-19 was reported in every state of the country (Source: Ministry of Health, MOH).

[4] For example, timely indicators such as Google's Community Mobility Reports lack the important context and connectivity to larger economic trends as they are not able to explain whether consumers spend more or less when they reach their destinations.

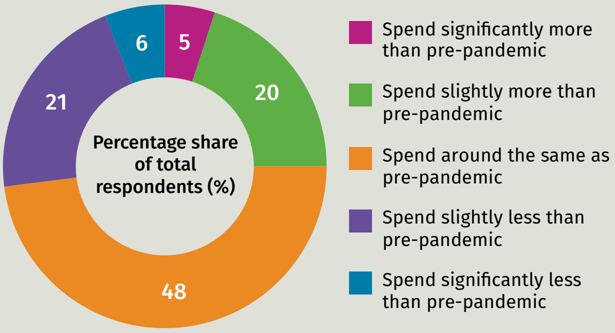
[5] In June 2021, Malaysia's export of goods rose by 27% year-over year and 14% month-over-month (May 2021: 47% and -13%, respectively).

automation level and by increasing the number of working days or shifts. On-the-ground interviews also shed light on how firms' newly expanded production lines could meet rising export demand.

Likewise, we used household-level insights[6] to enrich assessments on issues such as households' spending patterns in the post-pandemic period. As an alternative source of data, qualitative information on households' expectation on spending helped to inform economic forecasts for monetary policymaking. Specifically, they showed that close to half of households surveyed would maintain their pre-pandemic spending behaviour once the economy fully reopens (Diagram 3).

Diagram 3: Households' Expected Spending Behaviour in the Post-Pandemic Period (December 2021)

Close to half of respondents (48%) would maintain their pre-pandemic spending behaviour, if the economy is fully reopened



Source: Bank Negara Malaysia Consumer Sentiment Survey

(iii) Providing nuances across regions and sectors

Moreover, ground-level insights provided the nuances that were otherwise not obvious in national data during the pandemic. This was valuable during the period of diverging economic conditions across regions in Malaysia (i.e., where varying severity of the pandemic required localised measures). By combining regional-level nuances, economic assessments were enhanced at the national level.

Similarly, ground-level insights provided narratives across sectors that were useful to assess the pandemic's impact on the economy. At the onset of the first imposition of Movement Control Order (MCO), there were uncertainties surrounding firms' operating capacity amidst the restrictions. Differences in restrictions by sector, the level of automation as well as the adaptability of businesses were critical considerations in assessing the extent of the impact of MCO restrictions on a particular industry. Interviews with businesses across different sectors were able to provide prompt and pertinent insight on how firms were impacted differently, given the nature of their respective industries. These sectoral-level insights enabled us to estimate the early impact of MCO on the overall economy, thus providing vital information for policy assessments.

Part II. Detecting Ground-Level Issues for Policy Enhancements

Apart from supporting monetary policymaking, engagements with the public served as a feedback loop for us to improve existing policies where needed. During the pandemic, more real-time reactions from households and businesses were captured via targeted engagements. This led us to be more agile in our policy measures to meet the intended policy objectives.

[6] The Bank Negara Malaysia Consumer Sentiment Survey (BNM CSS) commenced in 2013 to bridge information gaps pertaining to consumer expectations on economic growth, inflation, wage growth and borrowing costs.

(i) Strengthened financial capability and empowerment

Our engagements with the public provided important insights related to financial support measures. For instance, a survey on households showed that the rise in applications for moratorium in mid-2021 was not driven only by borrowers in distress. Instead, a third of borrowers that applied for repayment assistance were partly using it to build up precautionary buffers. Direct exchanges with the public via BNMLINK were also useful for early detection of pain points. This included the need to improve the quality of communication on various financial assistances offered. With this timely feedback, the Bank undertook measures alongside the financial institutions to provide information with greater clarity and to lessen information gaps among the public.

Engagements with the public also revealed the need to improve the financial capability and resilience of households and businesses. This was most crucial amidst weaker labour market conditions during the pandemic. We stepped up engagements through both traditional and digital platforms,[7] as well as via the Financial Education Network (FEN),[8] to provide information, clarifications and guidance on important issues. Topics covered included financial fraud, repayment assistance and personal financial management. Specific programmes[9] were held to nudge consumers to seek help early in order to better manage their finances amidst high uncertainty. Awareness programmes were also rolled out to strengthen the outreach and usage of digital financial services. In 2021, more than 220 initiatives were conducted by the FEN members and partners. Over 70% of these initiatives were targeted at the B40, and over 60% were for the youth and adult populations. Most of these initiatives were held virtually, which resulted in a wider reach of more than 5 times compared to those held physically.

(ii) Targeted policy support for business recovery

Insights from engagements and surveys[10] also supported the development and fine-tuning of policies to provide relief and support a sustainable business recovery. For instance, engagements with SMEs validated macro observations that the services sector was the hardest-hit segment.[11] In response, we launched special funds to support the recovery of SMEs in the services sector. Ongoing dialogue with SMEs also helped us to enhance other facilities under BNM's Fund for SMEs, to ensure timely and more targeted access to financing. Overall, BNM's Fund had benefitted over 52,000 SMEs and microenterprises and supported more than 1 million jobs. Various other issues were also revealed, including access to finance among microenterprises and mid-tier companies (Diagram 4). This then led to more policy attention on newly uncovered pockets of underserved segments.

(iii) Improved access to financial services

Engagements with the public also revealed pain points regarding access to financial services. This led to more concerted efforts to bridge the gaps on financial inclusion stemming from the pandemic. Specifically, ground-level insights revealed that mobility restrictions had impacted segments of communities that relied heavily on cash transactions and traditional banking. These communities faced inconveniences in day-to-day financial needs, especially in places where ATMs or bank branches were not easily accessible. Those without bank accounts also faced hurdles during disbursements of Government aid. This was exacerbated by connectivity constraints and lack of interoperable systems that allowed for interbank fund transfers at agent banks in rural communities. To address these issues, more Mobile Banks (Bank Bergerak) were deployed under PEMULIH to expand access to financial services in the underserved areas.

[7] These included webinar sessions, radio segments, email blasts and social media postings.
[8] The FEN member institutions are the Bank, Securities Commission Malaysia, Ministry of Education, Ministry of Higher Education, Malaysia Deposit Insurance Corporation, Employees Provident Fund, Credit Counselling and Debt Management Agency, and Permodalan Nasional Berhad. FEN formulated the National Strategy for Financial Literacy 2019-2023, a 5-year roadmap to elevate the financial literacy of Malaysians and to empower Malaysians to (a) save, manage, and protect their finances; (b) plan and ensure a sustainable future; and (c) protect themselves from fraud and financial scams.
[9] For example, "Seek Help Early" campaign (23 June 2020), a series of Repayment Assistance Clinics (14 sessions conducted in 2020) and Virtual Financial Advisory Clinic (29-31 October 2021).
[10] The Bank conducted 10 virtual engagements in 2021 involving 38 SME Associations (~4.1 million SME members), covering key topics such as repayment assistance, BNM's Fund for SMEs as well as other assistance channels. Meanwhile, periodic and targeted surveys were carried out, complementing the Bank's regular surveillance on SME financing conditions.
[11] These included the wholesale and retail trade, transportation and storage, and tourism sub-sectors.

Diagram 4: Key Issues Obtained From Engagements With Firms and the Corresponding Measures

	Ground-Level Issues	Key Measures/Resolutions
Micro-enterprises	Tight or pressing cashflow; Unemployment and lay-offs	• Increased allocation of Micro Enterprises Facility (MEF), a collateral-free financing scheme • Expanded scope to include self-employed individuals, gig workers on digital platforms and participants of iTEKAD
Small and medium enterprises		• Introduced repayment deferment
	Difficulty in servicing financing facilities from non-bank institutions among tourism players	• Refinancing allowed under special funds to help businesses consolidate and manage cost pressures
	Services sector struggled to remain viable with reintroduction of containment measures	• Increased allocation of Targeted Relief and Recovery Facility (TRRF) to provide relief and support recovery
	Need for financing support to improve productivity via investments in automation and digitalisation	• Increased allocation of the SME Automation and Digitalisation Facility (ADF) and established the High Tech Facility – National Investment Aspirations (HTF-NIA)
	Delays in disbursement of financing facilities	• Guarantee providers encouraged to give guarantees on portfolio basis for financing provided under new facilities in 2021 to reduce turnaround time
	Unsuccessful financing applications	• Advisory assistance provided via MyKNP@CGC
Mid-tier companies	Pockets of challenges amongst automation solution providers and larger manufacturers in terms of access to financing	• Development of new products for mid-tier companies, leveraging on Syarikat Jaminan Pembiayaan Perniagaan (SJPP) guarantees

Note: Mid-tier companies refer to companies with annual revenues between RM50 million to RM500 million in the manufacturing sector and between RM20 million to RM500 million in other sectors.

Source: Bank Negara Malaysia

Agent banks were also allowed to operate during the containment measures to ensure continued access to cash and Government assistance. We also collaborated with PayNet to address urgent cash needs of communities in several underserved areas.[12]

(iv) Enhanced advisory role to the Government

Ground-level insights had further strengthened our policy advisory role to the Government. For example, the prolonged lockdowns revealed multiple pain points for businesses (e.g., inconsistencies in SOPs impeding quick business decisions and disruptions in critical sub-sectors like E&E-related and aerospace). These could potentially threaten Malaysia's strategic position as a key player in the global supply chain. Where relevant, on-the-ground insights on potential risks to the economic outlook were flagged in a timely manner to the Government through various platforms to enrich policy deliberations. This aided the design of national directives on containment measures to minimise disruptions of critical economic activities without compromising on health safety outcomes. This ensured a better footing during the path to recovery.

Conclusion

The pandemic had magnified the value of engagements with both businesses and households. Ground-level intelligence enhanced our knowledge on various economic issues for monetary policymaking and supported policy decisions to mitigate the far-reaching impact of the pandemic. These were highly critical during times of heightened uncertainty. As such, we would like to thank all parties that directly and indirectly contributed towards these efforts. Looking ahead, we will continue to foster mutual trust to build stronger networks with all stakeholders.

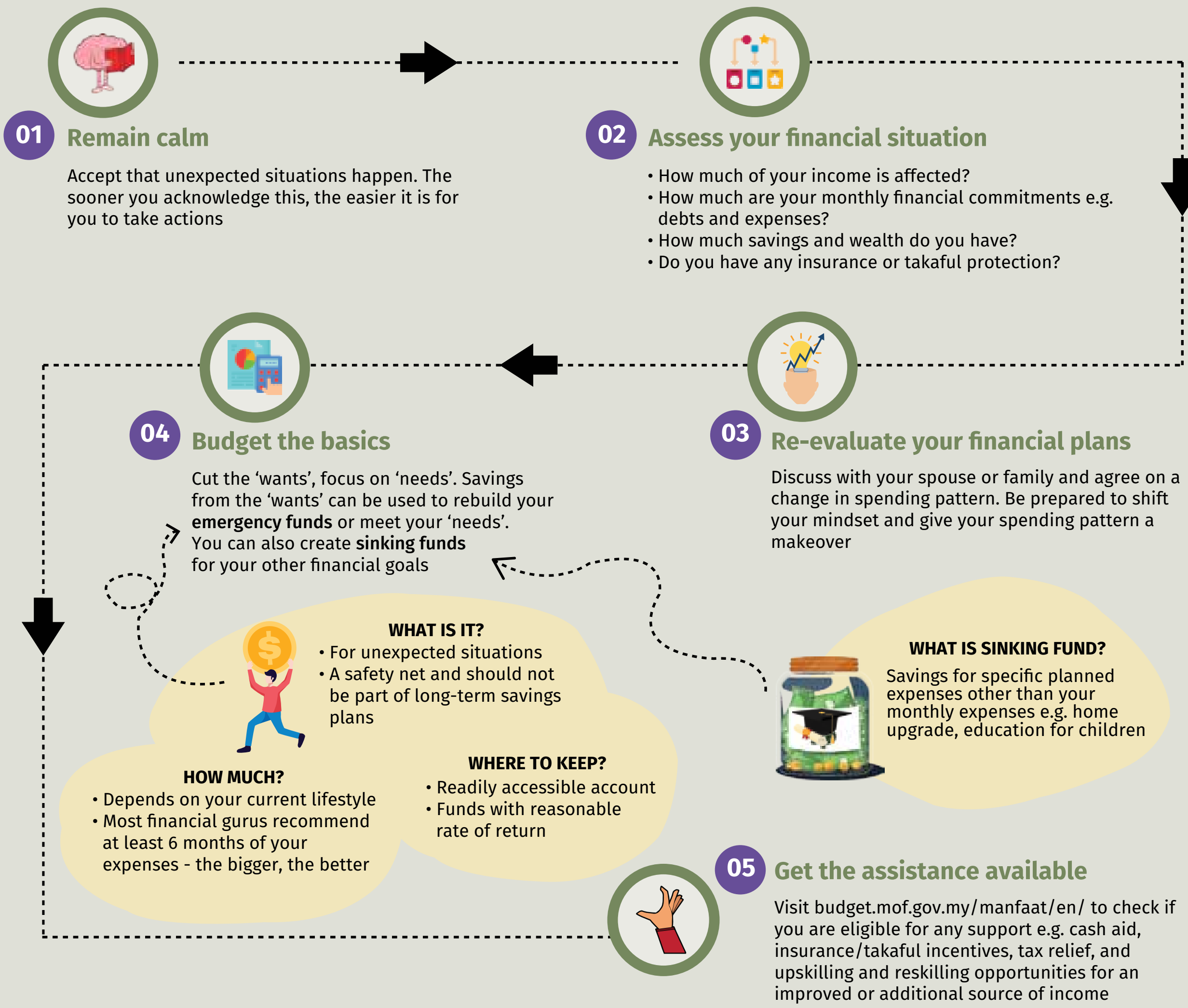
[12] For example, the deployment of white-label ATMs (ATMs that were set up and operated by a non-bank) in 2021. This collaborative effort would expand to include the proliferation of MyDebit Cash Out (MDCO) to increase touchpoints for cash withdrawal moving forward.

Regaining Personal Financial Control During Challenging Times

The year 2021 remained highly challenging. The emergence of new COVID-19 variants, the reimposition of containment measures, a higher level of unemployment, and the unanticipated floods have affected most of us in every aspect of life, from physical and mental well-being to financial hardship. While the Malaysian economy is on its recovery path in 2022, many are still recovering from the financial challenges, depleted savings, and sudden changes in their daily lives.

Unexpected situations can come in many ways. Some can be life-altering like the pandemic, while others could affect financial plans made earlier and require adjustments to those plans. Here are some immediate steps you can take to get a fresh start and regain control of your finances when facing an unexpected situation.

Diagram 1: Take a Step Back to Move Forward



Source: Bank Negara Malaysia

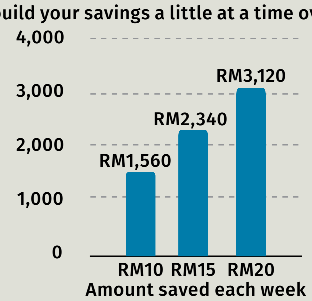
The first step to getting back on track financially is to be aware of the issue, recognise that changes need to be made and be disciplined. At the same time, we need to learn how we can manage our finances to improve our financial position. Managing financial challenges can be daunting, but with the right mindset, information and knowledge, we can be more confident of getting back on track financially and building greater resilience against unexpected situations. Small, incremental changes over time can make a big difference.

There are many money management tips that can help you strengthen your financial foundations. For those who have had to draw on their savings to cope with unexpected events, a key priority is to rebuild savings to make sure you will have that buffer to draw on again the next time you are in need.

Diagram 2: Rebuild Your Savings

Prioritise building emergency funds

- Start by estimating necessary expenses, such as repayment of debts, groceries, education, and health-related - set aside enough each week for these expenses
- Track your spending to reduce unnecessary expenses - this can expedite building your emergency funds



Create sinking funds

Plan and list your one-time, irregular and specific spending

What I'm saving for

A	B	C	D	E	F
	Sinking Fund	Goal (RM)	Target Date	Saved (RM)	Balance (RM)
1	School reopening - shoes, bag, fees	1,000	February	1,000	0
2	Hari Raya Aidilfitri	2,000	March	1,000	1,000
3	Car - takaful and road tax renewal	1,000	June	200	800
4	Birthday present Mama	250	July	100	150
5	Home-related expenses	1,000	September	200	800
6	Private Retirement Scheme	3,000	December	500	2,500
				Total	5,250

How much I need to top-up

How much I should have in my sinking fund

Keep a record of your savings and expenses

Use spreadsheets, envelope budgeting, personal finance apps to help you monitor your finances

Spend within your income

Think before you spend. Focus on your needs rather than wants. Small spending adds up. Review expenses to identify 'leaks' and convert them into savings

If you overspend once in a while, don't be discouraged. It happens even to those who habitually plan their financial affairs. Don't give up – all you need to do is to bounce back quickly and get back on track

Take advantage of digital tools

Some are as simple as budget trackers, while others have the ability to predict consumers behaviour for better financial decision-making

Source: Bank Negara Malaysia

Another key to achieving financial well-being is to grow your wealth, similar to how a business owner grows and expands his business. This means doing more with your savings by diversifying and growing your money.

Diagram 3: Striking a Balance Between Saving and Investing

- Take charge and make decisions that will help your finances grow in the future
- Do comparison shopping for financial products that suit your goals and risk appetite
- Look out for opportunities to increase your income. Acquire new skills and vary your income source
- Learn how to manage finances from credible and reliable sources e.g. Financial Education Network's website www.fenetwork.my
- Learn about changes in the investment landscape including on cryptocurrencies. Be vigilant and only deal with licensed or authorised entities or individuals. Learn more from www.investsmartsc.my
- Be aware that higher returns will come with higher risks. Make sure your investment choices are compatible with your financial goals and the risks you are willing to take
- Be wary of financial scams. Refer to the appropriate authority if in doubt

Enforcement agencies	Bank Negara Malaysia	Ministry of Domestic Trade and Consumer Affairs	Companies Commission of Malaysia	Securities Commission Malaysia	Royal Malaysia Police
Financial fraud related to	• Deposit taking • Foreign currency trade (Forex)	• Direct selling/MLM • Pyramid scheme • Scratch and win • E-commerce	• Interest scheme • Kutu scheme	• Stock/derivative offers • Unit trusts/private retirement schemes • Digital asset (bitcoin) • Peer-to-peer financing and equity crowdfunding	• Fraud cases (investments, loans, gambling, e-commerce, etc.)
Aid channels through	1-300-88-5465 bnm.my/LINK	1-800-886-800 e-aduan.kpdnhep.gov.my	03-22994400 aduan@ssm.com.my	03-62048999 aduan@seccom.com.my	CCID Scam Response Centre: 03-26101559/ 03-26101599 semakmule.rmp.gov.my

Source: Bank Negara Malaysia

Most of us have debts but it is important not to let the debts derail our lives. Hence, managing debt in line with what you can afford is very important.

Diagram 4: Practise Responsible Borrowing

Pay on time. If you have missed a payment, try to pay as soon as possible to avoid any fees and late payment charges

Evaluate your ability to repay. Experts recommend savings to be at 10%-20% of your income. Although experts suggest that total debt be below 40%, do consider your expenditure too before committing to any financing

On average, expenditure on basic necessities accounted for 30% of monthly income

Average Monthly Individual Income and Expenditure by Income Group

(RM)	Gross Income	Net income after statutory deductions[1]	Savings (10% of net income)	Expenditure			Maximum monthly loan repayment
				Total	*Basic*[2]	*Discretionary*[3]	
<3,000	2,053	1,844	184	1,281	798	483	379
3,000-5,000	3,859	3,386	339	2,204	1,299	905	843
5,000-10,000	6,740	5,576	558	3,291	1,847	1,444	1,727
>10,000	15,970	11,808	1,181	6,522	3,484	3,038	4,105

1) Statutory deductions include taxation and contribution to Employees Provident Fund
2) Basic expenditure includes (i) food and non-alcoholic beverages; (ii) housing rental and maintenance; (iii) water, electricity, gas and other fuels; (iv) transportation; (v) communication services; (vi) education; (vii) healthcare
3) Discretionary expenditure refers to lifestyle spendings such as entertainment, clothing and hobbies

Source: Bank Negara Malaysia, Household Income and Expenditure Survey (2019) by Department of Statistics Malaysia

Assess the maximum loan amount you can afford after setting aside at least 10% for savings

Prioritise paying off debt with higher interest/profit rates

When buying goods or services on instalments e.g. buy now pay later, make sure you can afford the full price, not just the instalment amount. Focus on when the payments are due to avoid charges and debt piling up

Seek help early when facing financial difficulties

Talk to your bank as soon as you face or anticipate any problems in repayment

Contact Credit Counselling and Debt Management Agency (AKPK) for financial advice

Lodge a complaint with BNMTELELINK bnm.my/RAsurvey if you have issues with your banks

Regularly re-visit your debt management plan taking into consideration current and expected financial circumstances in the future

AKPK provides free services on financial education, financial advisory, and debt management for individuals and micro, small and medium enterprises

Know your rights when dealing with debt collectors

Ask for an authorisation card and written notice from your bank.
Debt collectors are not allowed to do the following:

- ✓ Use threatening or abusive language to intimidate you
- ✓ Force their way into your property
- ✓ Destroy or remove your personal belongings
- ✓ Visit you at your workplace unless you are not contactable at your place of residence, or you have agreed to the visit
- ✓ Harass your family members, neighbours, friends or employer for information on your whereabouts
- ✓ Contact you at unreasonable hours except between 8:00 am and 9:00 pm
- ✓ Repeatedly approach or contact you with the intention to harass

If you experience any of these, you should lodge a complaint with your bank

Source: Bank Negara Malaysia

Many factors can determine your financial well-being including your state of physical and mental health, how you live your daily life and the extent to which others including your loved ones depend on you. Protecting your health and wealth against known risks therefore could be the most important decision you make to safeguard your financial future and provide for your loved ones.

Diagram 5: Cover Yourself and Your Loved Ones

- Understand the importance of insurance and takaful protection - it gives you financial protection against your known risks and can help you avoid serious financial hardship when unexpected events happen

Find out about affordable protection for your needs including
- insurance/takaful products e.g. *Perlindungan Tenang*
- social protection by Social Security Organisation (SOCSO) e.g. *SPS Lindung* for self-employed and gig workers

Ask the insurance/takaful agent the right questions before purchasing a policy. Read the product disclosure sheet provided by the insurance/takaful agent to understand the main features and risks of the product

- Does the policy cover the risks that I want to insure?
- How much coverage should I have?
- How much premium do I need to pay? Can I afford it in the long-term?
- What are the exclusions under the policy?
- What is the claim process like, documentation needed and how long will it take?

Review your coverage regularly to ensure you are sufficiently protected against risks you may face. Your risks can change over time

Checklist
- ✓ Know your risks – health, flood, fire, accidents
- ✓ Choose which types of coverage you need
- ✓ Shop around for affordable options that suit your needs
- ✓ Seek information/advice from reliable sources e.g. www.mycoverage.my
- ✓ Obtain insurance/takaful to cover your risks
- ✓ Review your coverage and risks regularly

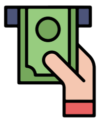
- Understand the importance of estate planning to protect the welfare and interests of your loved ones after your demise, especially your spouse and children

Source: Bank Negara Malaysia

Your retirement may seem far away, but it is best to start your retirement plan as early as you can, not just a few years before you retire. Whether you are a regular nine-to-five worker or run a gig business, you need to create a solid retirement fund that will help you secure a comfortable living after you retire.

Diagram 6: Setting Your Retirement Lifestyle From Today

Envision the kind of retirement life you want and develop a realistic plan to reach your goal



Resist the temptation to early withdraw your retirement savings unless it is absolutely necessary

Consider the impact of hidden costs that can reduce the value of your retirement savings when you decide how to invest for your retirement. This includes inflation, fees and charges

- Learn about retirement schemes available from Retirement Fund (Incorporated), Employees Provident Fund and Private Pension Administrator Malaysia
- If a holistic retirement planning is needed, refer to licensed financial planners

Source: Bank Negara Malaysia

International Engagements

Continued strategic collaboration and constructive policy dialogue with global and regional counterparts were key in informing the Bank's policies in 2021.

Introduction

The COVID-19 pandemic continued to influence the mode of the Bank's international engagements in 2021. Policy discussions shifted from shorter-term focus on immediate relief measures and the impact of movement restrictions, to when and how best to unwind policy support, and the medium to longer term structural policies to better position economies for stronger, resilient, and sustainable recovery.

Engagements and Initiatives in 2021

Enhancing policy thinking and preparedness

International policy focus in 2021 was shaped by several key developments. The availability and quick rollout of vaccines contributed to strong economic recoveries. This allowed some countries to turn their attention towards ensuring a sustainable recovery from the impact of the pandemic, while also preparing for the post-pandemic world. However, the uneven global vaccine rollout also led to concerns over divergent economic recovery across countries.

Faced with similar challenges, the Bank actively participated in various policy dialogues at the international and regional fora. This includes engagements at the International Monetary Fund (IMF), the Bank for International Settlements (BIS), the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), the Association of Southeast Asian Nations (ASEAN) and the ASEAN+3, namely PR China, Japan and Korea. Discussions at these platforms focused on the importance of vaccine equity in narrowing the divergence in economic recovery across countries; COVID-19 policies and exit strategies; and rising inflationary pressures. Emerging issues such as climate change, digitalisation, and inclusiveness were also among the key issues discussed. These discussions provided valuable insights on policy re-calibrations and the necessary post-pandemic pivots. It also presented opportunities for the Bank to share our views on these policy issues and challenges.

As a member of the International Monetary and Financial Committee (IMFC),[1] the Bank put forward some key regional viewpoints. These include the need for IMF policy advice to remain practical, flexible, and country specific, especially during this fragile recovery period. The Bank also emphasised that the process of improving the IMF's surveillance framework should not impose unnecessary burden or constrain authorities' policy space.

As a member of the BIS Central Bank Governance Group, we shared insights and exchanged views on challenges to discharge central bank mandates amid the increasingly complex economic and financial landscape. In addition, as a member of the BIS Markets Committee, the Bank participated actively in research and policy discussions on monetary policy operations and their interaction with financial markets. We are currently part of a study group to analyse selected trends and features of regional foreign exchange markets to address their implications on capital flows and financial system stability in the region.

To enhance Malaysia's preparedness to emerge from the crisis, we also engaged regional counterparts to

[1] Malaysia represented the Southeast Asia Voting Group at the 2021 IMF Spring and Annual Meetings. The IMFC advises and reports to the IMF Board of Governors on the supervision and management of the international monetary and financial system, including on responses to unfolding events that may disrupt the system. While the IMFC has no formal decision-making powers, it has become a key channel for providing strategic direction to the work and policies of the IMF.

learn from each other's experiences. The Bank had a virtual bilateral meeting with the Bank of Thailand (BOT) to discuss macroeconomic developments and challenges, central bank policy effectiveness, and climate change initiatives. In addition, the Bank provided 42 virtual technical assistance for 17 requesting agencies comprising central banks, monetary authorities, and international multilateral institutions during the year. The Bank also participated in the South East Asian Central Banks (SEACEN) Research and Training Centre's virtual Policy Summit on "Challenges and Options in Managing Capital Flows". The Summit aimed to enhance understanding of financial market dynamics while identifying the most efficient policy tools for regional economies to manage large and volatile capital flows.

Strengthening resilience and promoting sustainability for lasting recovery

Bolstering financial safety net: Given global uncertainty, we continued to strengthen our resilience against potential external shocks by enhancing the Bank's external financial safety net. The Bank renewed the bilateral currency swap arrangement with the People's Bank of China (PBOC) in 2021, with a size of RM110 billion/RMB180 billion for a term of five years. The renewal is key to our continued efforts to promote regional financial stability. In addition, the Bank's access to the US Federal Reserve Foreign and International Monetary Authorities (FIMA) repo facility was made permanent in July 2021. The facility was initially established as a temporary facility during the onset of the pandemic in March 2020. Permanent access to the facility further strengthens our ability to address potential short-term US dollar funding constraints. It also provides an additional source of liquidity in the event of a large shock. At the multilateral level, the Bank also supported the IMF's 2021 general allocation of Special Drawing Rights (SDRs) to members amounting to USD650 billion. The allocation added liquidity to the global financial system and bolstered foreign exchange reserves. The allocation also aims to instil confidence and enhance the resilience of the global economy. The Bank also renewed our existing commitments in the IMF New Arrangements to Borrow (NAB)[2] and Bilateral Borrowing Arrangement (BBA).[3] These arrangements supplement IMF's core financial resources amidst increased financing needs of countries affected by the pandemic.

Advancing climate-related and sustainability agenda: The Bank contributed actively to the global and regional agenda on managing climate change risks and sustainability. As one of the founding members of the ASEAN Taxonomy Board (ATB), the Bank led the working group tasked to develop the foundation framework for the ASEAN Taxonomy for Sustainable Finance. The Taxonomy aims to complement national initiatives to facilitate an orderly transition towards a low carbon economy. It will also enable greater comparability and interoperability between national frameworks. The Bank is also leading ASEAN work on capacity building for sustainable finance, specifically for the banking sector. The Bank collaborated with SEACEN to develop the ASEAN Learning Roadmap and Curriculum on Sustainable Finance. It focuses on elevating understanding of climate risks and the challenges they pose to financial and macroeconomic stability. In support of global climate action, the Bank actively contributed to the work of the Central Banks and Supervisors Network for Greening the Financial System (NGFS). Further details on these developments can be found in the chapter "Towards a Greener Financial System".

Advancing Islamic finance: As Malaysia advances its global leadership in Islamic finance, we continued to offer solutions, expertise, and knowledge as well as shape development of international standards for Islamic finance at international fora. This was delivered through the Bank's representations at strategic and technical committees of the Islamic Financial Services Board (IFSB),[4] and participation in various international engagements such as the OIC-COMCEC Central Banks Forum and COMCEC Financial Cooperation Working Group. We also continued to advocate for mutual recognition of Shariah rulings across Islamic finance markets worldwide. This was done through dialogues with Shariah scholars. These engagements allowed for greater sharing of country experiences including in advancing value-based intermediation and in developing a robust social finance ecosystem. More information on the Bank's initiatives in promoting Islamic finance can

2 A multilateral credit arrangement between the IMF and its member countries. After quota resources, the NAB provides a secondary source of financing to the IMF, for the purpose of safeguarding the stability of the international monetary system.

3 Bilateral credit arrangement between the IMF and its member countries. After quota resources and the NAB, the BBA acts as a third line of defence to the IMF's resource envelope, to ensure that the IMF can always meet the financing needs of its members.

4 BNM's capacity at the IFSB includes member of the IFSB Council (Governor), the Deputy Chair of the Executive Committee (Deputy Governor) and members of technical working groups including capital standards for Islamic banks and takaful operators, Shariah governance and core principles for takaful.

be found in the chapter "Promoting a Progressive and Inclusive Islamic Financial System".

Preventing and combating money laundering, terrorism financing and proliferation financing (ML/TF/PF): Malaysia continued to play a leading role in combating financial crimes within the region. As the Co-Chair of the Asia/Pacific Group on Money Laundering (APG)[5] for 2020-2022, Malaysia advanced several initiatives under the Co-Chairs' Priorities. These include the supervision of Designated Non-Financial Businesses and Professions (DNFBP),[6] application of Data Analytics in financial intelligence and strengthening Public-Private Partnerships (PPP). These initiatives provided the avenue for all APG members to discuss, share experience and exchange insights on the latest ML/TF trends and best practices on anti-money laundering and countering financing of terrorism (AML/CFT) collaboration. Further details are provided in the Spotlight Article on "APG Co-Chairs' Priorities: Leading Asia-Pacific in Combating ML/TF/PF".

The Bank also actively participated in other international fora such as the Financial Action Task Force (FATF)[7] and Financial Intelligence Consultative Group (FICG).[8] We supported a number of FATF projects, namely, on Digital Transformation, Environmental Crime, and Migrant Smuggling. The Bank also spearheaded several financial intelligence initiatives in collaboration with our counterparts at FICG. These initiatives aim to address regional issues, particularly in relation to fraud, scams, and corruption proceeds. Additionally, the Bank continued to extend technical experts for mutual evaluations[9] conducted by the FATF and the APG.

Diagram 1: APG Co-Chairs' Priorities 2020-2022: Leading Asia-Pacific in Combating ML/TF/PF

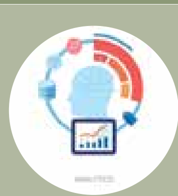
Malaysia has identified and delivered several initiatives to further support the implementation of AML/CFT/CPF measures amongst the APG members.

DNFBP SUPERVISION

- A series of webinars covering regulatory net, risk assessment and risk-based supervision were held virtually throughout the year.
- This priority will form the first step towards establishing a "DNFBP Supervisors' Platform", a permenant platform to allow the APG members to continously share supervisory expertise and experience in addressing common challenges and implementation gaps.

DATA ANALYTICS

- A Data Analytics Webinar focusing on optimising data analytics in financial intelligence analysis by AML/CFT competent authorities was held in October 2021.
- Following the success of the webinar, Malaysia will host a Codeathon in 2022 to trigger more application of data analytics in addressing challenges faced by various parties in the AML/CFT/CPF initiatives.



PUBLIC-PRIVATE PARTNERSHIP (PPP)

- To promote the adoption of best practices of PPP among the APG members. Malaysia, in collaboration with Fintel Alliance (Australia) and the Royal United Services Institute (RUSI) hosted two technical seminars in July and November 2021.
- The seminars brought together members in the region to discuss on the fundamental aspects of PPP, success stories, issues, and challenges, as well as the transformation of PPP moving forward.

Source: Bank Negara Malaysia

[5] The APG is a regional inter-governmental organisation, focusing on ensuring its members effectively implement the international standards set by the FATF. The APG is part of a global network of similar bodies (i.e., FATF-Style Regional Bodies, FSRBs) and is the largest in terms of membership and geographical size.

[6] A collective term used to describe casino, gaming outlets, real estate agents, dealers in precious metals or precious stones, as well as individuals and institutions that offer various types of gatekeeping services, namely lawyers, accountants, company secretaries and trust companies.

[7] The FATF is an inter-governmental body that sets international standards and promotes effective implementation of legal, regulatory and operational measures for combating threats to the integrity of the international financial system.

[8] The FICG is a regional body of Financial Intelligence Units (FIUs) from Southeast Asia, New Zealand and Australia. It is co-chaired by the Australian Transaction Reports and Analysis Centre (AUSTRAC) and Indonesian Financial Transaction Reports and Analysis Centre (INTRAC).

[9] Mutual evaluations are peer-country review system, which analyses the levels of compliance with international AML/CFT standards, as well as effectiveness of measures undertaken by a country.

Deepening integration for trade and investment
Deepening regional financial integration remained among the key priorities for the Bank in 2021. On the payments front, the Bank and BOT launched a cross-border QR payment linkage between Malaysia and Thailand. Early in 2022, the Bank also launched a similar payment linkage with Bank Indonesia (BI). With these payment linkages, consumers and merchants in Malaysia and these countries will be able to make and receive instant cross-border QR code payments. The Bank also plans to establish payment linkages with other ASEAN countries. This will further support the ASEAN Economic Community 2025 Strategic Action Plans for Financial Integration. The Bank expanded the existing bilateral Local Currency Settlement Frameworks (LCSFs) with BI and the BOT in 2021. This is to facilitate wider use of local currencies for trade and investment settlement among regional countries. With the expansion, the LCSFs now provide greater accessibility to ringgit, baht and rupiah-denominated financial services for individuals and businesses.

The Bank also continued negotiating and finalising the country's financial services commitments in several Free Trade Agreements (FTAs). This includes securing access to the international trade network via FTAs such as the Ninth Package of Financial Services Commitments under the ASEAN Framework Agreement on Services (AFAS); negotiating the Malaysia-EFTA Economic Partnership Agreement (MEEPA), as well as reviewing the ASEAN-Australia-New Zealand Free Trade Area (AANZFTA) and Malaysia-Turkey FTA.

Going Forward

The threat of new variants is a reminder that the pandemic is far from over. The uneven global economic outlook, rising inflationary pressure, coupled with heightened uncertainties on global financial conditions will continue to pose policy challenges in 2022. As many economies face similar circumstances, the Bank will continue to leverage international engagements to exchange ideas and support collective efforts to address policy challenges at the regional and global levels. Beyond near term challenges, the Bank remains committed to deeper regional financial integration, and advancing international cooperation on climate change, digital economy, and financial inclusion.

Governance

Governance


AKTA BANK NEGARA MALAYSIA 2009
CENTRAL BANK OF MALAYSIA ACT 2009

Governance

Bank Negara Malaysia is responsible for promoting monetary and financial stability conducive to the sustainable growth of the Malaysian economy. Our governance arrangements ensure that we continue to discharge our mandates effectively as a credible and independent institution. These arrangements are set out by statute – in the Central Bank of Malaysia Act 2009 and other laws that the Bank administers – as well as internal policies developed by the Bank over the years. Our governance framework continues to be aligned with global best practices and promotes accountability and high standards of integrity in discharging our duties and conducting our operations.

Board of Directors

The Board is chaired by the Governor and comprises the Deputy Governors, the Secretary General of the Treasury, as well as Independent Non-Executive Members who form the majority of the Board. His Majesty the Yang di-Pertuan Agong appoints all members of the Board, except the Deputy Governors, who are appointed by the Minister of Finance.

As set out in the Central Bank of Malaysia Act 2009, the Board is responsible for overseeing the management and operations of the Bank to ensure that we remain financially and operationally sound and that our financial resources are utilised effectively and efficiently for purposes of delivering our mandates.

The Board continuously provided oversight and advice on our operations and policy measures throughout 2021. Together with our senior management, the Board provided invaluable perspectives on our key measures on targeted relief and recovery facilities to address the impact of the pandemic and floods as well as the Financial Sector Blueprint 2022-2026.

The Board also actively steered and supported our efforts to achieve organisational excellence. This included continuous efforts to set and maintain the highest standards of ethics and conduct by our staff and strengthening our human capital, culture transformation journey and cybersecurity resiliency.

Board Committees

The Board is supported by three committees consisting solely of Independent Non-Executive Members - Board Governance Committee, Board Audit Committee and Board Risk Committee. Each of these Committees is guided by its own terms of reference to assist the Board in providing oversight of the administration of the Bank.

During the year, these Committees reviewed and deliberated on key matters affecting the Bank, with the objective of ensuring adequate internal checks and balances on the management and operations of the Bank.

	Board Governance Committee (BGC)	Board Audit Committee (BAC)	Board Risk Committee (BRC)
Roles and Responsibilities	• Responsible for overseeing the Bank's governance framework and practices • Reviews and makes recommendations to the Board on the Bank's budget, operating plan and remuneration policies • Recommends to the Board on the appointment and reappointment of members of the Board and other legislated committees of the Bank	• Responsible for the integrity of the Bank's accounts and financial statements • Provides oversight over the adequacy of the Bank's internal controls and compliance with legal requirements and internal guidelines • Reviews and approves the Bank's audit framework, audit charter, internal audit plan and reports, and oversees follow up actions to address material findings	• Oversees the implementation of the Bank's enterprise risk management framework • Responsible for oversight of the Bank's management of financial, operational and information technology, reputational and cybersecurity risks, including its risk governance, structure and accountabilities • Makes recommendations to the Board on the resource allocations for effective management of risks

As the Board is statutorily required to meet at least once a month and in view of the pandemic situation, the Board held most of its meetings virtually. In 2021, the Board secured an attendance rate of 95.5% for Board meetings and 97.4% for Board Committees meetings, as illustrated in the following table:

Designation	Members	Board	BGC	BAC	BRC
Chairman	Nor Shamsiah Yunus	13/13			
Ex officio	Abdul Rasheed Ghaffour	13/13			
	Jessica Chew Cheng Lian	13/13			
	Marzunisham Omar	13/13			
	Datuk Seri Asri Hamidon @ Hamidin (Secretary General of the Treasury)	11/13*			
Independent Non-Executive	Dato Sri Lim Haw Kuang[1]	13/13	10/10		4/4
	Dato' Paduka Sulaiman Mustafa	11/13*	9/10*	6/6	
	Chin Suit Fang[2]	13/13	5/5^	6/6	4/4
	Dato' Dr. Nirmala Menon a/p Y.B. Menon[3]	13/13	4/5^	6/6	4/4
	Tan Sri Mohamed Azman Yahya[4]	12/13*	10/10		4/4

Retired during 2021

Designation	Members	Board	BGC	BAC	BRC
Independent Non-Executive	Dato' N. Sadasivan a/l N.N Pillay[5]	2/3*	3/3	1/2*	

Note:

[1] Retired on 28 February 2022.
[2] Appointed as member of BGC and stepped down from BRC on 27 January 2022, as part of the rotation of Board Committees' memberships.
[3] Appointed as Chairman of BRC on 27 January 2022 to replace Dato Sri Lim Haw Kuang as part of Board's succession planning.
[4] Appointed as Chairman of BGC on 27 January 2022 to replace Dato' Paduka Sulaiman Mustafa as part of Board's succession planning.
[5] Retired on 15 March 2021.
* Absent due to unavoidable prior commitments or health reasons.
^ Non-members attending by invitation, to inform and educate the Independent Non-Executive Members on specific matters under consideration by the Committees.

Board Induction and Development

Newly appointed Independent Non-Executive Members will undergo a comprehensive on-boarding programme encompassing our key mandates, policy priorities, governing frameworks and operations to enable them to perform their oversight role effectively.

The Independent Non-Executive Members have diverse backgrounds, including in accounting and finance, financial industry, information and technology, risk management and audit. In addition to the skills, knowledge and extensive experience from their respective fields, the Bank benefits from the collective wisdom and insights of the Board as well as their in-depth understanding of issues in the financial, business and public sector. To augment their oversight abilities, our Independent Non-Executive Members continuously participate in various training programmes on contemporary themes and engage in policy discourse with the Bank's management and staff on core issues affecting central banks including monetary policy, digital currencies and financial services, cybersecurity, cloud technologies, climate risks and green finance and human capital development.

Board of Directors

Nor Shamsiah Yunus
Chairman

Appointed to the Board: 1 July 2018

Qualifications
- Bachelor of Arts in Accountancy, University of South Australia, Australia
- CPA Australia
- Malaysian Institute of Accountants

Key Appointments and Directorships
- Chairman, Board of Directors of The SEACEN Centre
- Council Member, Islamic Financial Services Board
- Member, Board of Directors of Perbadanan Insurans Deposit Malaysia
- Member, Governing Board of International Islamic Liquidity Management

Past Experience
- Assistant Director, Monetary and Capital Markets Division, International Monetary Fund
- Deputy Governor, Bank Negara Malaysia. Also served as the ex officio member of Board of Directors of Bank Negara Malaysia during her tenure as the Deputy Governor.

Abdul Rasheed Ghaffour
Ex Officio Member

Appointed to the Board: 16 July 2016

Qualifications
- Bachelor of Economics, University of Malaya, Malaysia
- Master of Business Administration, University of Oxford, United Kingdom

Key Appointments and Directorships
- Member, Board of Directors and Executive Committee of The SEACEN Centre
- Member, *Jawatankuasa Pengurusan Kursi* of Tun Ismail Ali Chair, University of Malaya

Past Experience
- Alternate Executive Director, South East Asia Voting Group on the International Monetary Fund Executive Board
- Assistant Governor, Bank Negara Malaysia

Board of Directors

Jessica Chew Cheng Lian

Ex Officio Member

Appointed to the Board: 1 January 2018

Qualifications
- Bachelor of Commerce (Accounting and Finance), University of Melbourne, Australia
- Chartered Banker Institute (Scotland)
- Asian Institute of Chartered Bankers
- CPA Australia (Associate)

Key Appointments and Directorships
- Member, Board of Directors of Danamodal Nasional Berhad
- Advisor, Board of Directors of Malaysian Accounting Standards Board

Past Experience
- Assistant Governor, Bank Negara Malaysia

Marzunisham Omar

Ex Officio Member

Appointed to the Board: 15 June 2020

Qualifications
- Bachelor of Arts (Economics), University of Cambridge, United Kingdom
- Master of Arts (Economics), University of Cambridge, United Kingdom

Key Appointments and Directorships
- Member, Board of Directors of ASB Management Sdn Bhd
- Member, Board of Directors of Malaysian Investment Development Authority

Past Experience
- Executive Director, International Monetary Fund
- Assistant Governor, Bank Negara Malaysia

Board of Directors

Datuk Seri Asri Hamidon @ Hamidin

Ex Officio Member

Appointed to the Board: 1 May 2020
Secretary General of the Treasury, Ministry of Finance

Qualifications
- Diploma of Public Administration, National Institute of Public Administration (INTAN), Malaysia
- Bachelor of Economics (Honours), University of Malaya, Malaysia
- Master of Economics, Hiroshima University, Japan
- Attended the Harvard Premier Business Management Program

Key Appointments and Directorships
- Chairman, Board of Directors of Retirement Fund (Incorporated)
- Chairman, Board of Directors of 1Malaysia Development Berhad
- Chairman, Board of Directors of GovCo Holdings Berhad
- Member, Board of Directors of Perbadanan Insurans Deposit Malaysia
- Member, Board of Directors of Permodalan Nasional Berhad
- Member, Board of Directors of Tenaga Nasional Berhad
- Member, Board of Directors of Lembaga Tabung Haji
- Member, Board of Directors of DanaInfra Nasional Berhad

Past Experience
- Served for more than 25 years in various Government departments and divisions such as the Economic Planning Unit in the Prime Minister's Department and in the Ministry of Finance.

Dato Sri Lim Haw Kuang*

Independent Non-Executive Member

Appointed to the Board: 1 March 2015

Qualifications
- Bachelor of Science (Computing Science) Degree, Imperial College, University of London, United Kingdom
- Master of Business Administration Degree in International Management, IMD Switzerland (*Formerly known as International Management Institute, Geneva*)

Key Appointments and Directorships
- Chairman, Board of Directors of Sime Darby Overseas (Hong Kong)
- Chairman, Board of Director of Ranhill WorleyParsons Sdn Bhd
- Member, Board of Directors and Executive Director of Ranhill Utilities Berhad
- Member, Board of Directors of Wison Group (China)
- Member, Board of Directors of Century Energy International Holdings Limited
- Special Advisor, SMJ Petroleum Sdn Bhd

Past Experience
- Member, Board of Directors of Sime Darby Berhad
- Member, Board of Directors of Jinxin Fertility Group Limited
- Member, Board of Directors of BG Group
- Member, Board of Directors of ENN Group
- Executive Chairman, Shell Companies in China
- Chairman, Shell Malaysia
- Member, China Council for International Cooperation on Environment and Development
- President, Malaysia Business Council for Sustainable Development
- Director, China Business Council for Sustainable Development

* The Board of Directors wishes to extend our appreciation and gratitude to Dato Sri Lim Haw Kuang, who completed his term on 28 February 2022.

Board of Directors

Dato' Paduka Sulaiman Mustafa

Independent Non-Executive Member

Appointed to the Board: 1 January 2019

Qualifications

- Diploma in Land Use Control and Planning, North East London Polytechnic, United Kingdom
- Chartered Surveying Professional, Royal Institution of Chartered Surveyors, London, United Kingdom
- Royal Institution of Chartered Surveyors
- Royal Institution of Surveyors Malaysia
- Registered Valuer, Estate Agent and Property Manager, Board of Valuers, Appraisers, Estate Agents and Property Managers

Key Appointments and Directorships

- Deputy Chairman, Managing Director and Senior Partner, Jones Lang Wootton (Singham Sulaiman Sdn Bhd)
- Member, Board of Directors of Pelaburan Hartanah Berhad
- Founder, Congenital Heart Foundation Malaysia
- Advisor, Prosper Property Panel of Permodalan Usahawan Nasional Berhad
- Professional Member, World Future Society

Past Experience

- Senior Lecturer, *Universiti Teknologi Malaysia*
- Member, Supervisory Committee of Sime Darby Property Division
- Council Member, *Majlis Agama Islam Dan Adat Melayu Terengganu*

Chin Suit Fang

Independent Non-Executive Member

Appointed to the Board: 1 November 2019

Qualifications

- Malaysian Institute of Accountants
- Malaysian Institute of Certified Public Accountants

Key Appointments and Directorships

- Member, Monetary Penalty Review Committee

Past Experience

- Partner, PwC Malaysia
- Markets Leader for PwC Malaysia and PwCMYVN (Malaysia & Vietnam)
- Corporate Responsibility and Diversity & Inclusion Leader, PwC Malaysia
- Member, PwC Global Gender Advisory Council
- Mentor for Women in Leadership Malaysia by ICAEW & TalentCorp Malaysia

Board of Directors

Dato' Dr. Nirmala Menon a/p Y.B. Menon

Independent Non-Executive Member

Appointed to the Board: 16 March 2020

Qualifications

- Bachelor in Medicine, University of Mysore, India
- Postgraduate qualifications in Insurance Medicine

Key Appointments and Directorships

- Member, Board of Directors of Sime Darby Berhad
- Member, Board of Directors of Aviva Singlife Holdings Private Limited (Singapore)
- Member, Board of Directors of Ramsay Sime Darby Health Care

Past Experience

- Member, Board of Directors of AXA Affin General Insurance Berhad
- Member, Board of Directors of Khazanah Nasional Berhad
- Member, Board of Directors of Avicennia Capital Sdn Bhd
- President and Chief Executive Officer, ING Malaysia Berhad
- Executive Vice President, Head of Designated Markets & Health Asia, Metlife Asia Pacific Limited
- Head of South Asia, ING Asia Pacific Limited
- Medical Officer, Hospital Kuala Lumpur

Tan Sri Mohamed Azman Yahya

Independent Non-Executive Member

Appointed to the Board: 1 June 2020

Qualifications

- Bachelor of Science (Economics), London School of Economics and Political Science, United Kingdom
- Institute of Bankers Malaysia
- Institute of Chartered Accountants in England and Wales
- Malaysian Institute of Accountants

Key Appointments and Directorships

- Chairman, Board of Directors of Symphony House Sdn Bhd
- Chairman, Board of Directors of Sepang International Circuit Berhad

Past Experience

- Chairman, Board of Directors of Pengurusan Danaharta Nasional Berhad
- Chairman, Board of Directors of Ranhill Utilities Berhad
- Chairman, Corporate Debt Restructuring Committee
- Member, Board of Directors of Khazanah Nasional Berhad
- Member, Board of Directors of Sime Darby Berhad
- Member, Board of Directors of AIA Group Limited
- Member, Board of Directors of PLUS Expressways Berhad
- Member to PEMUDAH, Financial Reporting Foundation, Capital Market Advisory Group, Malaysia Special Economic Committee

Board of Directors

Kamarulazman Muhamed

Independent Non-Executive Member

Appointed to the Board: 1 January 2022

Qualifications
- Association of Chartered Certified Accountants, Nottingham Trent University, United Kingdom
- Master of Science in Information System Management, Salford University, United Kingdom

Key Appointments and Directorships
- Founder and Chief Executive Officer, Aerodyne Group
- Adjunct Professor, Universiti Putra Malaysia
- Member, Economic Action Council
- Member, Majlis Kemakmuran Bersama
- Member, Majlis Ekonomi Digital dan 4IR
- President, New Entrepreneur Foundation
- Member, National Robotics Direction Plans Steering Committee
- Member, Malaysian National Aerospace Council

Past Experience
- Exco Member, Economic Planning Unit, Prime Minister's Department
- Business Exco, Majlis Amanah Rakyat
- Director and Country Manager, Computer Associates International
- Audit Manager, Auerbach Hope Chartered Accountants, London

Senior Management

As provided by the Central Bank of Malaysia Act 2009, the Governor is responsible for the management of the Bank in discharging its mandates. In performing these duties, the Governor is assisted by a senior management team consisting of Deputy and Assistant Governors. The Bank's organisation structure is designed to promote clear lines of reporting and accountability across its wide-ranging functions.

Various management committees are established to enable the senior management team and other senior officers of the Bank to deliberate on the Bank's business, and in particular those involving the organisation's strategy and top-most priorities. These management committees include policy committees such as the Financial Stability Committee and the Joint Policy Committee, a committee tasked to deliberate cross-cutting issues and coordinate policies that may have impact on the financial system and the broader economy. The management committees enable the Bank to draw on diverse functional backgrounds and insights across the Bank to arrive at well-informed decisions through open and candid deliberations.

Supported by these structures, senior management sets internal policies and leads the operations of the Bank to ensure that it gives effect to its objects, carries out its functions and uses its resources in a manner that is effective, prudent and consistent with the interests of the Bank, for the benefit of the nation.

Senior Management

Nor Shamsiah Yunus
Governor

Abdul Rasheed Ghaffour
Deputy Governor

Jessica Chew Cheng Lian
Deputy Governor

Marzunisham Omar
Deputy Governor

Norzila Abdul Aziz
Assistant Governor

Adnan Zaylani Mohamad Zahid
Assistant Governor

Abu Hassan Alshari Yahaya
Assistant Governor

Aznan Abdul Aziz
Assistant Governor

Fraziali Ismail
Assistant Governor

Abd. Rahman Abu Bakar
Assistant Governor

Dr. Norhana Endut
Assistant Governor

Suhaimi Ali*
Assistant Governor

*Effective 1 April 2022

BANK NEGARA MALAYSIA
Organisation Structure

Effective 1 April 2022

- **BOARD OF DIRECTORS**
  - **Board Audit Committee**
    - **Internal Audit** – Marina Abdul Kahar
  - **Board Governance Committee**
    - **GOVERNOR** – Nor Shamsiah Yunus
      - **Governor's Office** – Nurashiqin Asri
      - **Ethics and Integrity Office** – Santamarie Shamni Arulanandam
      - **Sustainability** – Madelena Mohamed
      - **Secretary to the Board** – Fazlina Pawan Teh
      - **DEPUTY GOVERNOR** – Abdul Rasheed Ghaffour
        - **ASSISTANT GOVERNOR** – Dr. Norhana Endut
          - **Economics** – Idwan Suhardi Hakim
          - **Monetary Policy** – Dr. Mohamad Hasni Sha'ari
          - **International** – Raja Syamsul Anwar Raja Mohammed Affandi
        - **ASSISTANT GOVERNOR** – Adnan Zaylani Mohamad Zahid
          - **Investment Operations and Financial Markets** – Mohamad Ali Iqbal Abdul Khalid
            - **Financial Market Development**
          - **Foreign Exchange Policy** – Albert See Choon Kwang
          - **Data Management and Statistics** – Ong Li Ming
        - **ASSISTANT GOVERNOR** – Suhaimi Ali
          - **Financial Development and Innovation** – Lau Chin Ching
          - **Islamic Finance** – Madelena Mohamed
          - **Financial Inclusion** – Arlina Ariff
      - **DEPUTY GOVERNOR** – Jessica Chew Cheng Lian
        - **ASSISTANT GOVERNOR** – Aznan Abdul Aziz
          - **Financial Conglomerates Supervision** – Hong Chin Pheng
          - **Banking Supervision** – Mohd Zabidi Md Nor
          - **Insurance and Takaful Supervision** – Hew Ee-Lu
          - **Risk Specialist and Technology Supervision** – Hew Ee-Lu
          - **Payment Services Oversight** – Shahariah Othman
        - **ASSISTANT GOVERNOR** – Fraziali Ismail
          - **Financial Surveillance** – Daniel Chin Shen Li
          - **Prudential Financial Policy** – Cindy Siah Hooi Hoon
          - **Consumer and Market Conduct** – Lim Hsin Ying
          - **Payment Services Policy** – Qaiser Iskandar Anwarudin
          - **Strategic Communications** – Shasha Kartini Ridzam
      - **DEPUTY GOVERNOR** – Marzunisham Omar
        - **Legal** – Izhar Ismail
        - **Financial Intelligence and Enforcement** – Mohd Fuad Arshad
        - **ASSISTANT GOVERNOR** – Abd. Rahman Abu Bakar
          - **Strategic Human Capital** – Nurashikhin Md. Sharif
          - **Human Capital Development Centre** – Kristina Rai
          - **Human Capital Services** – Faizal Muhammad Sudin
        - **ASSISTANT GOVERNOR** – Abu Hassan Alshari Yahaya
          - **Currency Management and Operations** – Azman Mat Ali
          - **Finance** – Affendi Rashdi
          - **LINK and BNM Offices** – Nor Rafidz Nazri
          - **Centralised Procurement** – Shum Sook Yi
        - **CHIEF SERVICES OFFICER** – Shamsuddin Mohd Mahayidin
          - **Facility Management Services** – Razman Samsudin
          - **Hospitality and Museum** – Noreen Zulkepli
          - **Organisational Security Management** – Ahmad Azaharudin Mohd Anuar
        - **CHIEF INFORMATION OFFICER** – Tay Gim Soon
          - **Business Technology** – Victor Khor Eng Swee
          - **Digital Technology Infrastructure** – Ahmad Affzan Mokhtar Anuar
          - **Cyber Security** – Aizuddin Mohd Ghazali
          - **Financial Market Infrastructure** – Noor Hazama Fadhilah Abdullah
  - **Board Risk Committee**
    - **Risk Management** – Beh Cheng Hoon

Statutory Committees

In certain areas, the responsibility for decision-making is placed beyond the direct remit of the Board or Management. These matters are reserved for specific organs created by statute.

Monetary Policy Committee

The primary objective of monetary policy in Malaysia is to maintain price stability while giving due regard to developments in the economy. Under the Central Bank of Malaysia Act 2009 (CBA 2009), the Monetary Policy Committee (MPC) of Bank Negara Malaysia is responsible for formulating monetary policy and the policies for the conduct of monetary policy operations.[1] The MPC decides on the policy interest rate, the Overnight Policy Rate (OPR), to influence other interest rates in the economy.

In carrying out this mandate, the MPC determines the direction of monetary policy based on its assessment of the balance of risks to the outlook for both domestic inflation and growth. The MPC also monitors risks of destabilising financial imbalances given their implications for the prospects of the economy. The MPC meets at least six times a year to decide on the OPR and publishes the Monetary Policy Statement (MPS) following each meeting to explain its decisions.

The MPC comprises the Governor, the Deputy Governors, and not less than three but not more than seven other members, including external members who are appointed by the Minister of Finance upon the recommendation of the Bank's Board Governance Committee. At present, the MPC has nine members, three of whom are external members. The membership of the MPC seeks to bring together a diversity of expertise and experience that is critical for sound monetary policy decision-making.

Members*

Nor Shamsiah Yunus (Chairman)

Abdul Rasheed Ghaffour

Jessica Chew Cheng Lian

Marzunisham Omar

Norzila Abdul Aziz**

Dr. Norhana Endut

Dato' Dr. Gan Wee Beng (*External Member*)**

Nor Zahidi Alias (*External Member*)

Lim Chee Sing (*External Member*)

[1] For a detailed account of the evolution of the MPC and its governance and processes, refer to the 'Box Article: Evolution of the Monetary Policy Committee of Bank Negara Malaysia: Key Milestones over the Years' in the Bank's Annual Report 2015.

* As at 30 March 2022.
** Term ends on 1 April 2022.

Financial Stability Executive Committee

The Financial Stability Executive Committee (FSEC) was established in 2010 pursuant to Section 37 of the Central Bank of Malaysia Act 2009 (CBA 2009). The FSEC supports the Bank's statutory mandate of preserving financial stability through its powers to decide on specific policy measures that may be taken by the Bank to avert or reduce risks to financial stability.

In carrying out this mandate, the FSEC reviews, assesses and decides on proposals tabled by the Bank to:
- Issue orders to a person or financial institution that is not regulated nor supervised by the Bank to undertake specific measures in the interest of financial stability;
- Extend liquidity assistance to a financial institution that is not regulated nor supervised by the Bank, or to the overseas operations of a licensed financial institution in Malaysia; and
- Provide capital support to a licensed financial institution in Malaysia that has ceased to be viable or is likely to become non-viable.

This serves to ensure continuous and effective financial intermediation, including the orderly functioning of the money market and foreign exchange market, and preserve public confidence in the financial system.

The FSEC consists of seven members, a majority of whom are non-executive members who are independent of the Bank's Management. Members are subject to the FSEC's Code of Ethics and Conflict of Interest, which serves to preserve the integrity of the FSEC's decisions. In 2021, the FSEC met twice to discuss risk developments and assessments of financial stability amid an economic environment that remains affected by COVID-19.

Members*

Nor Shamsiah Yunus (Chairman)

Abdul Rasheed Ghaffour

Datuk Seri Asri Hamidin @ Hamidon *(Independent non-executive member)*

Datuk Syed Zaid Albar *(Independent non-executive member)*

Rafiz Azuan Abdullah *(Independent non-executive member)*

Yoong Sin Min *(Independent non-executive member)*

Dato' Abdul Rauf Rashid *(Independent non-executive member)*

* As at 30 March 2022.

Shariah Advisory Council

The Shariah Advisory Council of Bank Negara Malaysia (SAC) was established in May 1997 as the highest Shariah authority for Islamic financial institutions in Malaysia. The Central Bank of Malaysia Act 2009 (CBA 2009) reinforces the roles and functions of the SAC as the authority for the ascertainment of Islamic law for the purposes of Islamic financial business which are supervised and regulated by the Bank.

The SAC assumes a pivotal role in ensuring consistent application of Shariah rulings by the Islamic financial institutions in Malaysia. The Shariah rulings by the SAC serve as a main reference for Islamic financial institutions to ensure end-to-end Shariah compliance in product structuring and implementation of their financial activities. In addition, the CBA 2009 provides that Shariah matters brought to the court or raised in any arbitration proceeding must be referred to the SAC for clarity and certainty.

The SAC provides the Shariah basis for the development of a comprehensive Shariah contract-based regulatory framework for Islamic financial institutions in Malaysia. In this regard, the SAC specifies the essential features of the contracts taking into consideration the various Shariah views, research findings, as well as custom and market practices.

The SAC members are appointed by the Yang di-Pertuan Agong, based on the advice of the Minister of Finance after consultation with the Bank. Currently, the SAC has nine members comprising Shariah scholars and practitioners with vast experience, domestically and abroad in the areas of Shariah, law, Islamic economics, and finance.

In 2021, the SAC met ten times to decide and issue rulings that address pressing issues and strengthen long-term developmental impact on the Islamic finance ecosystem in Malaysia.

Members*

Tan Sri Dr. Mohd Daud Bakar (Chairman)

Prof. Dr. Ashraf Md. Hashim (Deputy Chairman)

Sahibus Samahah Dato' Dr. Haji Anhar Haji Opir

Dato' A. Aziz. A. Rahim

Prof. Dr. Mohamad Akram Laldin

Prof. Dr. Engku Rabiah Adawiah Engku Ali

Dr. Marjan Muhammad

Burhanuddin Lukman

Zainal Abidin Jamal

* As at 30 March 2022.

Monetary Penalty Review Committee

The Monetary Penalty Review Committee (MPRC) is an independent committee legislated under section 238 of the Financial Services Act 2013 (FSA) and section 249 of the Islamic Financial Services Act 2013 (IFSA). The MPRC considers appeals from persons (individuals or institutions) against the administrative monetary penalties or pecuniary remedies imposed by the Bank in exercising its administrative enforcement powers under the FSA, the IFSA and the Development Financial Institutions Act 2002.

The MPRC provides an independent avenue for aggrieved parties to appeal against the Bank's decisions. The MPRC may decide to either confirm the Bank's decision or require the Bank to reconsider and reach a decision in accordance with the findings of the MPRC. The members of MPRC are appointed by the Minister of Finance from among the Independent Non Executive Board Members of the Bank or other external persons upon recommendation by the Bank.

Members*

Tan Sri Hasan Lah (Chairman)

Prof. Dr. Choong Yeow Choy

Chin Suit Fang

Lillian Leong Bee Lian

* As at 30 March 2022.

Our Finances

Our Finances

Our Finances

The Bank manages its finances with the objective of ensuring that it has the resources to discharge its mandates to promote monetary and financial stability conducive to the sustainable growth of the Malaysian economy. In keeping with these mandates, we are committed to being responsible, prudent and disciplined in managing our resources.

Although we are a statutory body, we do not rely on public funds from the Government to support our day-to-day operations. Instead, our operations are funded by income generated from our investments of the country's international reserves. In 2021, we generated a total income of RM14,727 million (2020: RM13,492 million), net of costs associated with managing the international reserves portfolio and conducting monetary operations.

Against this, we incur expenses to manage and administer our operations ("recurring expenditure") and expenses to finance developmental and long term projects in line with our principal objects and functions ("development expenditure"). This includes expenditures incurred for our currency operations and to maintain the country's payment infrastructure. In 2021, these expenditures amounted to RM1,892 million (2020: RM3,219 million).

In 2021, we generated RM12,796 million in net profit after tax (2020: RM10,235 million). Of this, RM7,796 million will be transferred into the General Reserve Fund (2020: RM6,235 million). The remaining RM5,000 million (2020: RM4,000 million) in net profit will be paid as dividend to the Government.

Our assets, as at 31 December 2021, totalled RM551,613 million (2020: RM488,044 million), with RM486,848 million (2020: RM432,373 million) of international reserves portfolio constituting the bulk (88%) of our assets.

Our liabilities arise mainly from deposits by financial institutions (RM159,893 million) and currency in circulation (RM150,065 million).

**CERTIFICATE OF THE AUDITOR GENERAL
ON THE FINANCIAL STATEMENTS OF
BANK NEGARA MALAYSIA
FOR THE YEAR ENDED 31 DECEMBER 2021**

Certificate on the Audit of the Financial Statements

Opinion

I have audited the Financial Statements of the Bank Negara Malaysia. The financial statements comprise the Statement of Financial Position as at 31 December 2021 of the Bank Negara Malaysia and the Income Statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 169 to 184.

In my opinion, the accompanying financial statements give a true and fair view of the financial position of the Bank Negara Malaysia as at 31 December 2021, and of its financial performance for the year then ended in accordance with the Malaysian Financial Reporting Standards (MFRS) and the Central Bank of Malaysia Act 2009 requirements to the extent that it is, in the opinion of the Board of Directors, appropriate to do so, having regard to the objects and functions of the Bank.

Basis for Opinion

The audit was conducted in accordance with the Audit Act 1957 and the International Standards of Supreme Audit Institutions. My responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of my certificate. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Independence and Other Ethical Responsibilities

I am independent of the Bank Negara Malaysia and I have fulfilled my other ethical responsibilities in accordance with the International Standards of Supreme Audit Institutions.

Information Other than the Financial Statements and Auditor's Certificate Thereon

The Board of Directors of the Bank Negara Malaysia is responsible for the other information in the Annual Report. My opinion on the Financial Statements of the Bank Negara Malaysia does not cover the other information than the financial statements and Auditor's Certificate thereon and I do not express any form of assurance conclusion thereon.

Responsibilities of the Board of Directors for the Financial Statements

The Board of Directors is responsible for the preparation of Financial Statements of the Bank Negara Malaysia that give a true and fair view in accordance with the Malaysian Financial Reporting Standards (MFRS) and the Central Bank of Malaysia Act 2009 requirements to the extent that it is, in the opinion of the Board of Directors, appropriate to do so, having regard to the objects and functions of the Bank. The Board of Directors is also responsible for such internal control as the Board of Directors determines is necessary to enable the preparation of the Financial Statements of the Bank Negara Malaysia that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements of the Bank Negara Malaysia, the Board of Directors is responsible for assessing the Bank Negara Malaysia's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting.

Auditor's Responsibilities for the Audit of the Financial Statements

My objectives are to obtain reasonable assurance about whether the Financial Statements of the Bank Negara Malaysia as a whole are free from material misstatement, whether due to fraud or error, and to issue an Auditor's Certificate that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the International Standards of Supreme Audit Institutions will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with the International Standards of Supreme Audit Institutions, I exercise professional judgement and maintain professional scepticism throughout the audit. I also:

a. identify and assess the risks of material misstatement of the Financial Statements of the Bank Negara Malaysia, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

b. obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Bank Negara Malaysia's internal control;

c. evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board;

d. conclude on the appropriateness of the Board use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Bank Negara Malaysia's ability to continue as a going concern. If I conclude that a material uncertainty exists I am required to draw attention in my Auditor's Certificate to the related disclosures in the Financial Statements of the Bank Negara Malaysia or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of Auditor's Certificate; and

e. evaluate the overall presentation, structure and content of the Financial Statements of the Bank Negara Malaysia, including the disclosures and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I have also disclosed to the Board that I have complied with the ethical requirements regarding independence, and communicated with them all relationships and other matters that may reasonably be thought to bear on my independence, and if applicable, action taken to eliminate threats or safeguards applied.

Other Matters

This certificate is made solely to the Board of the Bank Negara Malaysia in accordance with the Central Bank of Malaysia Act 2009 requirements, and for no other purpose. I do not assume responsibility to any other person for the content of this certificate.

(DATUK SERI NIK AZMAN NIK ABDUL MAJID)
AUDITOR GENERAL
MALAYSIA

PUTRAJAYA
17 MARCH 2022

BANK NEGARA MALAYSIA

STATEMENT BY CHAIRMAN AND ONE OF THE DIRECTORS

We, Nor Shamsiah Yunus and Chin Suit Fang, being the Chairman and one of the Directors of Bank Negara Malaysia, do hereby state that in the opinion of the Directors, the financial statements are drawn up so as to give a true and fair view of the state of affairs of Bank Negara Malaysia as at 31 December 2021 and the results of operations for the year ended on that date, in accordance with the Central Bank of Malaysia Act 2009 and the applicable Malaysian Financial Reporting Standards (MFRS) to the extent that it is, in the opinion of the Directors, appropriate to do so, having regard to the objects and functions of the Bank.

On behalf of the Board,

NOR SHAMSIAH YUNUS
CHAIRMAN

24 FEBRUARY 2022
KUALA LUMPUR

On behalf of the Board,

CHIN SUIT FANG
DIRECTOR

24 FEBRUARY 2022
KUALA LUMPUR

BANK NEGARA MALAYSIA

DECLARATION BY THE OFFICER PRIMARILY RESPONSIBLE FOR THE FINANCIAL MANAGEMENT OF BANK NEGARA MALAYSIA

I, Affendi Rashdi, being the officer primarily responsible for the financial management of Bank Negara Malaysia, do solemnly and sincerely declare that the financial statements for the year ended 31 December 2021, are to the best of my knowledge and belief, correct and I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the Statutory Declarations Act, 1960.

Subscribed and solemnly declared)
by the abovenamed at Kuala Lumpur)
this 24 February 2022.)

Before me,

PESURUHJAYA SUMPAH
W 703
MOHD FITRY ABDUL GHANI
01/01/2022 - 31/12/2024
MALAYSIA

BANK NEGARA MALAYSIA

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2021

	Note	2021 RM million	2020 RM million
ASSETS			
Gold and Foreign Exchange	3	455,789	421,775
International Monetary Fund Reserve Position	4	5,950	5,829
Holdings of Special Drawing Rights	4	25,109	4,769
Malaysian Government Papers	5	12,211	11,145
Deposits with Financial Institutions	6	880	2,996
Loans and Advances	7	22,865	17,520
Land and Buildings	8	4,162	4,164
Other Assets	9	24,647	19,846
Total Assets		**551,613**	**488,044**
LIABILITIES AND CAPITAL			
Currency in Circulation		150,065	130,424
Deposits from: Financial Institutions		159,893	146,028
Federal Government		8,587	3,648
Others	10	4,787	15,056
Bank Negara Papers	11	7,911	9,614
Allocation of Special Drawing Rights	4	28,149	7,788
Other Liabilities	12	5,314	4,810
Total Liabilities		364,706	317,368
Capital	13	100	100
General Reserve Fund	14	21,092	14,857
Risk Reserve	15	152,183	144,746
Land Revaluation Reserve	16	736	738
Unappropriated Profits	17	12,796	10,235
Total Capital		186,907	170,676
Total Liabilities and Capital		**551,613**	**488,044**

Notes on the following pages form part of these financial statements.

BANK NEGARA MALAYSIA

INCOME STATEMENT FOR THE YEAR ENDED 31 DECEMBER 2021

	Note	2021 RM million	2020 RM million
Total Income	18	**14,727**	**13,492**
Less:			
Recurring Expenditure	19	(1,305)	(1,251)
Development Expenditure	20	(587)	(1,968)
Total Expenditure		**(1,892)**	**(3,219)**
Net Profit Before Tax		**12,835**	**10,273**
Less: Taxation	21	(39)	(38)
Net Profit After Tax		**12,796**	**10,235**
Unappropriated Profits of the Year	17	**12,796**	**10,235**

Notes on the following pages form part of these financial statements.

BANK NEGARA MALAYSIA

NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2021

1. **General Information**

Bank Negara Malaysia (the Bank) is a statutory body established under the Central Bank of Malaysia Act 1958 which has been repealed by the Central Bank of Malaysia Act 2009. The principal place of business is located at Bank Negara Malaysia, Jalan Dato' Onn, 50480 Kuala Lumpur.

The principal objects of the Bank are to promote monetary stability and financial stability conducive to the sustainable growth of the Malaysian economy. In this regard, the Bank's primary functions are as follows:

(a) to formulate and conduct monetary policy in Malaysia;

(b) to issue currency in Malaysia;

(c) to regulate and supervise financial institutions which are subject to the laws enforced by the Bank;

(d) to provide oversight over money and foreign exchange markets;

(e) to exercise oversight over payment systems;

(f) to promote a sound, progressive and inclusive financial system;

(g) to hold and manage the foreign reserves of Malaysia;

(h) to promote an exchange rate regime consistent with the fundamentals of the economy; and

(i) to act as financial adviser, banker and financial agent of the Government.

2. **Accounting Policies**

The principal accounting policies applied in the preparation of these financial statements are set out below. These accounting policies are consistently applied to both of the financial years presented, unless otherwise stated.

2.1 **Basis of Preparation of Financial Statements**

(a) These financial statements have been prepared in accordance with the Central Bank of Malaysia Act 2009 and the applicable Malaysian Financial Reporting Standards (MFRS). Section 10 of the Central Bank of Malaysia Act 2009 provides that the Bank, in preparing its financial statements, shall comply with the applicable accounting standards to the extent that it is, in the opinion of the Directors, appropriate to do so, having regard to the objects and functions of the Bank. The Directors, having considered the Bank's responsibilities for the formulation and conduct of effective monetary policy and for promoting financial stability, are of the opinion that, it is appropriate to differ, in certain aspects, from the applicable accounting standards.

BANK NEGARA MALAYSIA

(b) The preparation of the financial statements on the basis stated in 2.1 (a) requires the management to make judgements, estimates and assumptions based on available information that may affect the application of accounting policies and the reported amounts of assets and liabilities as well as disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of income and expenses during the financial year. Although these estimates are based on the management's best knowledge of current events and actions, the actual results could differ from those estimates.

2.2 **Measurement Base and Accounting Basis**
The financial statements have been prepared on an accrual basis, using the historical cost convention, except as otherwise disclosed.

2.3 **Foreign Currency Translation**
(a) The financial statements have been prepared using Ringgit Malaysia, the currency of the primary economic environment in which the Bank operates.

(b) Assets and liabilities in foreign currencies are translated into Ringgit Malaysia using the exchange rate prevailing as at the end of the financial year. Transactions in foreign currencies during the year are translated into Ringgit Malaysia using the exchange rate prevailing at the transaction dates.

(c) All foreign exchange gains or losses arising from the translation of foreign currency assets and liabilities are recognised in the Risk Reserve while realised gains or losses upon settlement on Other Assets and Other Liabilities are recognised in the Income Statement.

2.4 **Consolidation**
(a) **Subsidiaries**
Subsidiaries are all entities over which the Bank has control. The Bank controls an entity when the Bank is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.

(b) **Associates**
Associates are all entities over which the Bank has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights.

The Bank does not consolidate the financial performance of its subsidiaries and associates as these entities were established for developmental and financial stability purposes. Investment in subsidiaries and associates are carried at cost and adjusted for any permanent impairment.

2.5 **Gold**
Gold is carried at fair value. Unrealised gains and losses from changes in the fair value on gold are recognised in the Risk Reserve. Realised gains or losses from the sale of gold are recognised in the Income Statement.

BANK NEGARA MALAYSIA

2.6 **Foreign Securities**
Foreign securities comprising fixed income securities and equities are stated at fair value. Fair value changes are recognised in the Risk Reserve or in the Income Statement. Upon derecognition, realised gains or losses are recognised in the Income Statement.

2.7 **Net Profit**
The net profit of the Bank is appropriated in accordance with section 7 of the Central Bank of Malaysia Act 2009 and only realised gains are available for distribution to the Bank's shareholder.

2.8 **Repurchase and Reverse Repurchase Agreements**
The amount under repurchase agreements is reported under Other Liabilities and the difference between the sale and repurchase price is recognised as interest expense in the Income Statement. Conversely, the amount under reverse repurchase agreements is reported under Other Assets and the difference between purchase and resale price is recognised as interest income in the Income Statement.

2.9 **Land and Buildings**
(a) The Bank capitalises all its land while buildings are maintained at nominal cost of RM10 each.

(b) The amount of land capitalised at initial recognition is the purchase price along with any further costs incurred in bringing the land to its present condition.

(c) After initial recognition, land is stated at revalued amount. Professional valuations of the Bank's land will be carried out once every 10 years with any surplus arising on revaluation to be recognised directly in the Land Revaluation Reserve.

(d) Freehold land is not depreciated while leasehold land is amortised over its remaining life. Land (freehold and leasehold) is revalued once in 10 years and fair value is determined from market based evidence undertaken by professionally qualified valuer. Buildings are not depreciated but revalued to a nominal value in the year of acquisition.

(e) Any gain or loss arising from the disposal of land is determined as the difference between the net disposal proceeds and the carrying amount of the land. Upon disposal of land, any surplus previously recorded in the Land Revaluation Reserve is transferred to Unappropriated Profits.

2.10 **Other Fixed Assets**
All other fixed assets are completely written-off in the year of acquisition.

2.11 **Impairment of Assets**
All assets are periodically assessed for impairment losses whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If such an indication exists, an impairment review is performed to assess whether the carrying amount of the asset is fully recoverable.

BANK NEGARA MALAYSIA

2.12 **Currency in Circulation**

Currency in circulation represents banknotes and coins that have been produced and issued by the Bank for use in the economy. Banknotes and coins are recognised in the Statement of Financial Position at face value when they are placed into circulation and derecognised when they are withdrawn from circulation. Expenses incurred in the purchase and production of banknotes and coins are recognised in the Income Statement.

3. **Gold and Foreign Exchange**

	2021 RM million	2020 RM million
Gold	9,370	9,463
Foreign Securities	406,914	382,279
Foreign Deposits	3,549	5,409
Balances with Other Central Banks	22,886	12,842
Others	13,070	11,782
	455,789	421,775

4. **International Monetary Fund (IMF) Reserve Position, Holdings of Special Drawing Rights (SDR) and Allocation of Special Drawing Rights (SDR)**

The IMF objectives are to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth and reduce poverty around the world. The IMF also provides advice and temporary funding to member countries in the event of balance of payments difficulties.

IMF Reserve Position

This consists of the reserve tranche position of Malaysia's quota, lending under the IMF's Financial Transaction Plan (FTP) and New Arrangements to Borrow (NAB). The IMF quota determines a member country's voting strength, the financial contributions to the IMF, the amount of financing the member can access in the event of balance of payment difficulties and the amount of SDRs allocated to the member. Both FTP and NAB programmes are used to provide loans to members.

Holdings of Special Drawing Rights (SDR)

Holdings of Special Drawing Rights (SDR) are an international reserve asset created by the IMF. SDR is periodically allocated to IMF member countries on the basis of the size of member countries' quota. A member may use SDR to obtain foreign exchange reserves from other members and to make international payments, including to the IMF.

BANK NEGARA MALAYSIA

Allocation of Special Drawing Rights (SDR)
This liability to the IMF represents an equivalent amount of SDR received since its inception.

	2021 RM million	2020 RM million
IMF Reserve Position	5,950	5,829
Holdings of Special Drawing Rights (SDR)	25,109	4,769
Allocation of Special Drawing Rights (SDR)	(28,149)	(7,788)
Net position with IMF	2,910	2,810

5. **Malaysian Government Papers**
Malaysian Government Papers refer to holdings of Government debt instruments that are among the instruments that can be used in the Bank's monetary policy operations.

	2021 RM million	2020 RM million
Malaysian Government Securities	10,770	9,939
Malaysian Government Investment Certificates	1,441	1,206
	12,211	11,145

6. **Deposits with Financial Institutions**
Deposits with financial institutions comprise deposits placed by the Bank with financial institutions under section 75(i) and section 100 of the Central Bank of Malaysia Act 2009.

7. **Loans and Advances**
Loans and advances comprise advances extended by the Bank to participating financial institutions under various schemes aimed at achieving greater financial inclusion, development of small and medium-sized enterprises (SME) and to support SMEs affected by COVID-19 pandemic. The extensions of these advances are provided under section 48, section 49 and section 100 of the Central Bank of Malaysia Act 2009.

	2021 RM million	2020 RM million
BNM's Fund for SMEs		
Fund to promote growth and development for SME	4,583	5,650
Special Relief Facility for SME affected by COVID-19	16,183	9,928
PENJANA Tourism and Automation & Digitalisation Financing for SME affected by COVID-19	786	632
Fund for Affordable Homes	1,000	1,000
Others	313	310
	22,865	17,520

BANK NEGARA MALAYSIA

8. **Land and Buildings**

	2021 RM million	2020 RM million
Land, at cost		
Freehold	3,318	3,318
Land, at revaluation		
Freehold	694	694
Leasehold	150	152
	4,162	4,164

	2021 RM million	2020 RM million
Leasehold land		
As at 1 January	152	154
Less: Accumulated Amortisation	(2)	(2)
As at 31 December	150	152

	2021 RM	2020 RM
Buildings, at nominal value		
Freehold	2,240	2,240
Leasehold	1,370	1,370
	3,610	3,610

Freehold and leasehold land, at revaluation, were revalued by an independent valuer on 1 August 2014.

9. **Other Assets**
Included in Other Assets are securities purchased under reverse repurchase agreements and investments in shares and bonds acquired under section 48(1) and section 100 of the Central Bank of Malaysia Act 2009.

	2021 RM million	2020 RM million
Reverse Repurchase Agreements	19,702	14,833
Investments in Shares and Bonds	4,390	4,390
Others	555	623
	24,647	19,846

BANK NEGARA MALAYSIA

	2021 RM million	2020 RM million
Investment in Shares and Bonds		
Subsidiaries	4,257	4,257
Associates	38	38
Other Investments	95	95
	4,390	4,390

10. **Deposits from Others**
A substantial part of these deposits comprises deposits from national institutions, government agencies and public authorities.

11. **Bank Negara Papers**
Bank Negara Papers are papers issued by the Bank as an additional monetary policy tool to manage liquidity in the domestic money market. It also includes Bank Negara Interbank Bills (BNIB) in foreign currency and this is part of the Bank's market operations to manage foreign currency liquidity in the domestic money market.

12. **Other Liabilities**
Other Liabilities include securities sold under repurchase agreements of RM3,152 million (2020: RM2,577 million).

	2021 RM million	2020 RM million
Repurchase Agreements	3,152	2,577
Accruals	1,614	1,858
Others	548	375
	5,314	4,810

13. **Capital**
In accordance with section 6 of the Central Bank of Malaysia Act 2009, the capital of the Bank is RM100,000,000 and owned by the Government of Malaysia.

14. **General Reserve Fund**

	2021 RM million	2020 RM million
As at 1 January	14,857	14,831
Amount approved and transferred to the General Reserve Fund during the year	6,235	26
As at 31 December	21,092	14,857

BANK NEGARA MALAYSIA

Appropriations of net profits to the General Reserve Fund and dividends to the Government are recognised upon the approval by the Board and the Minister as provided under section 7 of the Central Bank of Malaysia Act 2009.

The transfer to the General Reserve Fund for the year ended 2020 of RM6.235 billion was approved by the Minister on 31 March 2021.

15. **Risk Reserve**

The Risk Reserve are financial buffers comprising cumulative transfers of net profits, unrealised gains or losses on translation of foreign currency assets and liabilities and fair value changes from securities carried at fair value.

A market risk measurement framework is used to estimate financial buffers required to cushion unexpected loss arising from unfavourable circumstances not within the control of the Bank.

	2021 RM million	**2020 RM million**
As at 1 January	144,746	131,436
Movements during the year	7,437	13,310
As at 31 December	152,183	144,746

16. **Land Revaluation Reserve**

The Land Revaluation Reserve relates to unrealised surplus of land (freehold and leasehold) upon their revaluation. Upon disposal, the realised surplus relating to the realised asset is transferred to Unappropriated Profits.

17. **Unappropriated Profits**

	2021 RM million	**2020 RM million**
Balance 1 January	10,235	3,526
Less: Appropriations approved during the year		
Transfer to General Reserve Fund	(6,235)	(26)
Dividend paid to the Government	(4,000)	(3,500)
	-	-
Current year's unappropriated profits	12,796	10,235
Balance 31 December	12,796	10,235

In accordance with section 7 of the Central Bank of Malaysia Act 2009, appropriations to the General Reserve Fund and the declaration of dividends to the Government are subject to the approval by the Board and the Minister, and if approved will be recognised in the next financial year ending 31 December 2022.

BANK NEGARA MALAYSIA

The dividend paid to the Government for the year ended 2020 amounted to RM4.0 billion was approved by the Minister on 31 March 2021.

For the year ended 31 December 2021, the Board of Directors recommends a transfer to the General Reserve Fund of RM7.796 billion and dividend payable of RM5.0 billion to the Government.

18. **Total Income**
Total income comprises revenue from foreign reserves management which includes interest and dividends, non-treasury income, realised capital gains or losses, and is stated at net of amortisation/ accretion of premiums/discounts and monetary policy cost.

19. **Recurring Expenditure**
Recurring expenditure are expenses incurred in the management and administration of day-to-day operations of the Bank.

20. **Development Expenditure**
Development expenditure are expenses incurred mainly to finance developmental and long term projects undertaken by the Bank that are in line with its principal objects and functions.

21. **Taxation**
The Bank is exempted from payment of income tax and supplementary income tax as set out in the Income Tax (Exemption) (No. 7) Order 1989. Tax expenses relates to unclaimable withholding taxes on income from foreign dividend and interest and capital gains taxes on sale of foreign investments.

22. **Contingencies and Commitments**

22.1 **Contingent Assets**
Total contingent assets as at 31 December 2021 amounted to RM1,840 million. These comprise the Bank's total funding to the International Centre for Leadership in Finance (ICLIF) Trust Fund of RM1,000 million and International Centre for Education in Islamic Finance (INCEIF) Trust Fund of RM840 million to finance activities related to training, research and development of human resource in banking and financial services managed by Asia School of Business (ASB) and INCEIF, respectively. It is provided in the Trust Deeds that the total funding will be returned to the Bank when these centres become self-sufficient in the future.

BANK NEGARA MALAYSIA

22.2 **Commitments**

Total commitments as at 31 December 2021 comprise the following:

	Note	2021 RM million	2020 RM million
Total Commitments			
Membership with International Monetary Fund (IMF)	(a)		
Unpaid Quota	(i)	15,547	15,417
New Arrangement to Borrow (NAB)	(ii)	3,918	1,883
Bilateral Borrowing Agreement (BBA)	(iii)	1,795	4,017
Investment with Bank for International Settlements (BIS)	(b)	70	70
Swap Arrangements	(c)		
ASEAN Swap Arrangement	(i)	-	1,205
Bilateral Currency Swap Arrangement with			
People's Bank of China (PBOC)	(ii)(a)	105,584	105,706
Bank of Korea (BOK)	(ii)(b)	15,000	15,000
Bank of Indonesia (BI)	(ii)(c)	8,000	8,000
Bank of Japan (BOJ)	(ii)(d)	12,495	12,051
Chiang Mai Initiative Multilateralisation	(iii)	37,918	36,571
Repurchase Agreement with EMEAP Members	(iv)	20,825	20,085
		221,152	220,005

(a) **Membership with IMF**

(i) The Bank has an obligation to pay to IMF SDR2,667 million, equivalent to RM15,547 million (2020: SDR2,665 million, equivalent to RM15,417 million) or in other convertible currencies which represents the unpaid portion of Malaysia's quota in the IMF under the Articles of Agreement.

(ii) The Bank has participated in the New Arrangements to Borrow (NAB), a multilateral credit arrangement between the IMF and its member countries to provide a supplementary source of financing to IMF for the purpose of safeguarding the stability of the international monetary system. As at 31 December 2021, the amount of undrawn credit under the NAB is SDR672 million, equivalent to RM3,918 million (2020: SDR325 million, equivalent to RM1,883 million).

(iii) The Bank has participated in the Bilateral Borrowing Agreement (BBA), which involves bilateral contribution to the IMF for precautionary and financial crisis resolution purposes. The Bank has pledged a USD431 million, equivalent to RM1,795 million (2020: USD1,000 million, equivalent to RM4,017 million) bilateral contribution to the IMF for precautionary and financial crisis resolution purposes effective 1 January 2021.

BANK NEGARA MALAYSIA

(b) **Investment with the Bank for International Settlements (BIS)**
The Bank has a commitment of SDR12 million, equivalent to RM70 million (2020: SDR12 million, equivalent to RM70 million) which refers to the uncalled portion of the 3,220 units of shares held by the Bank in the BIS based on the nominal value of SDR5,000 each using the SDR rate at the date of the Statement of Financial Position.

(c) **Swap Arrangements**
(i) **ASEAN Swap Arrangement**
As at 31 December 2021, the Bank's total commitment is nil as the agreement ended effective 17 November 2021 (2020: USD300 million, equivalent to RM1,205 million).

(ii) **Bilateral Currency Swap Arrangement**
(a) On 23 November 2021, the Bank renewed the Bilateral Currency Swap Arrangement (BCSA) agreement with the People's Bank of China (PBOC) with the objective of promoting and facilitating trade settlement in the local currency between the two countries and preserving regional financial stability. As at 31 December 2021, the Bank's total outstanding commitment under the BCSA is RM105.6 billion (2020: RM105.7 billion).

(b) On 3 February 2020, the Bank renewed the Bilateral Currency Swap Arrangement (BCSA) agreement with the Bank of Korea (BOK) with the objective of promoting bilateral trade and facilitating trade settlement in local currency between the two countries. As at 31 December 2021, the Bank's total commitment under the BCSA is RM15 billion (2020: RM15 billion) and there has been no request to activate the BCSA during the financial year.

(c) On 27 September 2019, the Bank signed Local Currency Bilateral Swap Arrangement (LCBSA) agreement with the Bank of Indonesia (BI) with the objective of promoting bilateral trade and facilitating trade settlement in local currency between the two countries. As at 31 December 2021, the Bank's total commitment under the LCBSA is RM8 billion (2020: RM8 billion) and there has been no request to activate the LCBSA during the financial year.

(d) On 18 September 2020, the Bank signed a Bilateral Swap Arrangement (BSA) agreement with the Bank of Japan (BOJ). This BSA enables both authorities to swap their local currencies for US Dollar and the arrangement will provide up to USD3 billion for both countries. As at 31 December 2021, the Bank's total commitment under the BSA is RM12.5 billion (2020: RM12.1 billion) and there has not been any request to activate the BSA during the financial year.

BANK NEGARA MALAYSIA

(iii) **Chiang Mai Initiative Multilateralisation Arrangement**
The Bank has participated in the Chiang Mai Initiative Multilateralisation (CMIM) arrangement to provide financial support to ASEAN+3 member countries facing balance of payments and short-term liquidity difficulties. The effective date of the CMIM Agreement is 24 March 2010. Under the CMIM arrangement, member countries facing balance of payments and short-term liquidity constraints can obtain financial support in US Dollar through swap arrangements against their respective local currencies. As at 31 December 2021, the Bank's total commitment is USD9.1 billion, equivalent to RM37.9 billion (2020: USD9.1 billion, equivalent to RM36.6 billion) and there was no request for liquidity support from any member country.

(iv) **Repurchase Agreement with Central Banks and Monetary Authorities**
The Bank entered into repurchase agreements totalling USD5 billion, equivalent to RM20.8 billion (2020: USD5 billion, equivalent to RM20.1 billion) with various central banks and monetary authorities under the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) to provide liquidity assistance in times of emergency. As at 31 December 2021, there was no request for liquidity assistance from any counterpart.

23. **Financial Risk Management**
The Reserve Management Committee oversees the assessment, measurement and the control of the investment risks in the management of reserves to be within acceptable levels to ensure that the objectives of capital preservation, liquidity and reasonable returns are met. In undertaking this function, the major risks of the investments fall into the following areas:

(a) **Market Risk**
Market risk is the exposure of the Bank's investments to adverse movements in market prices related to foreign exchange rates, interest rates and prices of bonds and equities. Market risk is assessed and monitored on a daily basis. A benchmark policy approved by the Board of Directors reflects the long-term objectives and acceptable risk-return profile of the investments. Investments may be made in instruments that are different from those in the benchmark. This deviation in investment is controlled through a set of risk management limits, governance arrangements and investment guidelines that are also approved by the Board of Directors. Sensitivity analysis and stress testing are undertaken to assess emerging risks and potential marked-to-market losses from adverse movements and volatility in the market, as well as liquidity conditions.

(b) **Credit Risk**
Credit risk is the risk of default of the issuer of the debt or failure of the counterparty to perform its contractual obligation to the Bank resulting in the Bank not receiving its principal and/or interest that has fallen due in a timely manner. A comprehensive credit risk framework governs the permissible investments and the risk appetite of the Bank, thus ensuring investments in issuers and with counterparties of good credit standing. The framework, which is approved by the Board, also incorporates market-based credit indicators such as ratings implied from financial market prices and internal credit assessment. This enhances the credit risk framework by providing a more dynamic and forward-looking credit assessment.

BANK NEGARA MALAYSIA

(c) **Operational Risk**
Operational risk is the risk of financial losses due to failed internal processes, inadequate controls and procedures, or any other internal or external events that impede operations. Operational risk is mitigated through a risk governance framework and effective implementation of risk controls and limits. A comprehensive operational risk surveillance mechanism is in place to support the identification of emerging risks in the Bank's operations to allow for action to be taken in managing gaps and in mitigating financial losses.

24. **Bank Negara Malaysia Staff Welfare Account (SWA) and Bank Negara Malaysia Staff Welfare Account (Medical Fund) (termed as the 'Medical Fund Account')**
The SWA was established on 1 March 1991 under section 15 (5) and (6) of the Central Bank of Malaysia Act 1958 while the Medical Fund Account was established on 21 June 2006 under section 15 (6) of the Central Bank of Malaysia Act 1958. Both the SWA and the Medical Fund continue to exist under section 83 (4) and (5) of the Central Bank of Malaysia Act 2009.

The SWA is governed under the Bank Negara Malaysia Staff Welfare Account Trust Directions 1991. As stipulated in the Trust Directions 1991, the SWA shall be administered by a committee authorised by the Board (Authorised Committee of the Board). The accounts of the SWA are to be maintained separately from the other accounts of the Bank and shall be audited in the same manner as the Bank's Account. The objective of the SWA is to provide loans to the staff for certain allowable activities, finance the activities of the staff associations and give education excellence awards to the children of staff. The SWA also manages the insurance compensation of the deceased staff received by beneficiaries who have yet to attain the legal age.

In 2021, the Board of Directors and the Minister of Finance approved the proposal to restructure the SWA Account with the repeal of the Trust Directions 1991 to enhance efficiency and effectiveness in the governance of the SWA fund effective 1 January 2022. With the repeal of the Trust Directions, the staff's sports and social activities will be funded by the Bank through the operating budget.

The Medical Fund Account is governed under the Bank Negara Malaysia Staff Welfare Account (Medical Fund) Trust Directions 2006 and Supplementary Trust Directions 2017. The objective is to assist the Bank to meet the medical expenses of eligible retirees and their dependents. As stipulated in the Bank Negara Malaysia Staff Welfare Account (Medical Fund) Trust Directions 2006, the Medical Fund shall be administered by a Medical Fund Committee. The Medical Fund Account is to be maintained separately and shall be audited in the same manner as the Bank's Account.

25. **Related Party Transactions and Balances**

Government of Malaysia
The Bank is related to the Government in terms of ownership. The Bank funds its own operations and maintains organisational and functional independence from the Government. The Bank also acts as financial adviser, banker and financial agent to the Government. In the normal course of its operations, the Bank enters into transactions with related parties and significant balances are presented in these financial statements.

BANK NEGARA MALAYSIA

Significant Related Party Balances

	2021 RM million	2020 RM million
Shareholder		
Government of Malaysia:		
Holdings of Malaysian Government Papers	12,211	11,145
Deposit placements from the Government	8,587	3,648

26. **Approval of Financial Statements**
The Board of Directors approved the annual financial statements on 24 February 2022.