

Our Role

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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.

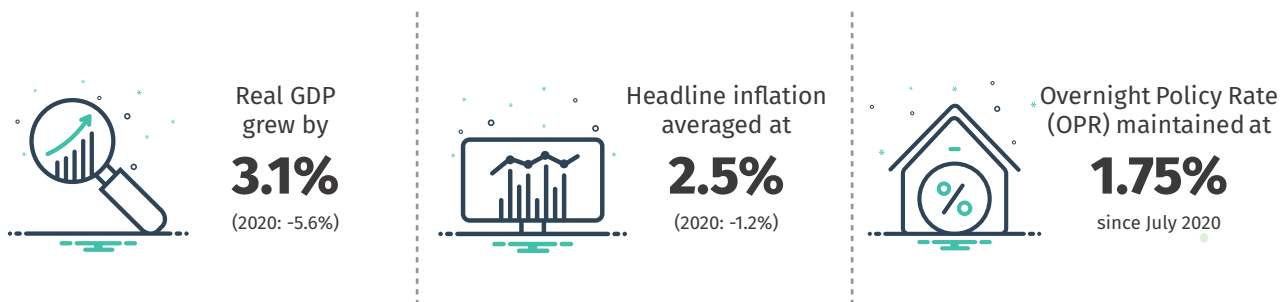
² Includes surveillance assessments, simulation results, scenario analysis, research findings and forecasts.

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 securities⁷ 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.

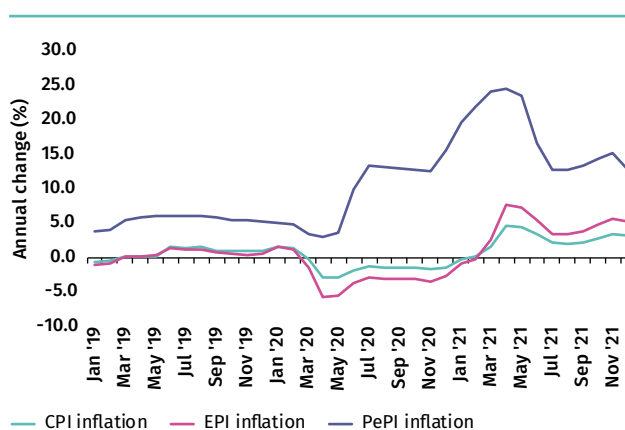
Table 1: Differences Between CPI, EPI and PePI Inflation

	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	<ul style="list-style-type: none"> The consumption basket is determined by household expenditure survey 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 reports⁴ 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.

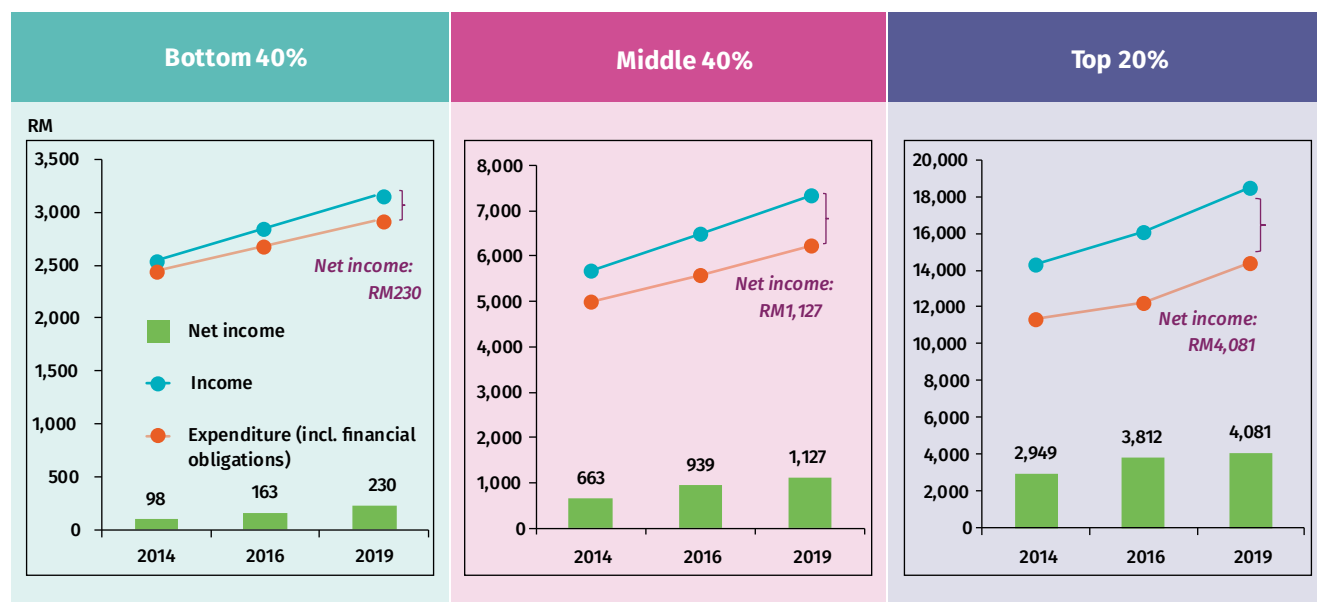
⁴ These reports include Shearing (2021) and Desilver (2021).

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

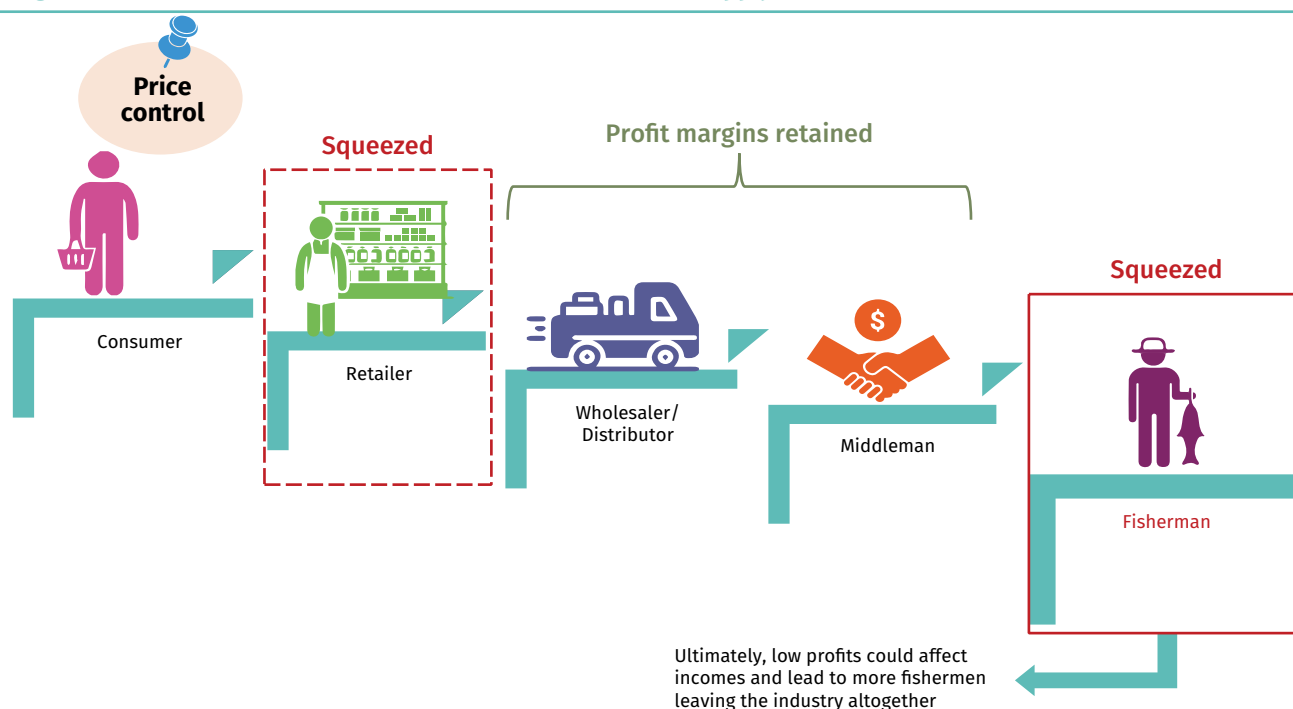
⁷ Findings from 2019 Household Expenditure Survey, Department of Statistics, Malaysia. The shares reflect the sum of food & non-alcoholic beverages, and food away from home.

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 repercussions¹⁰ 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.

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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

Promoting Financial Stability

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.

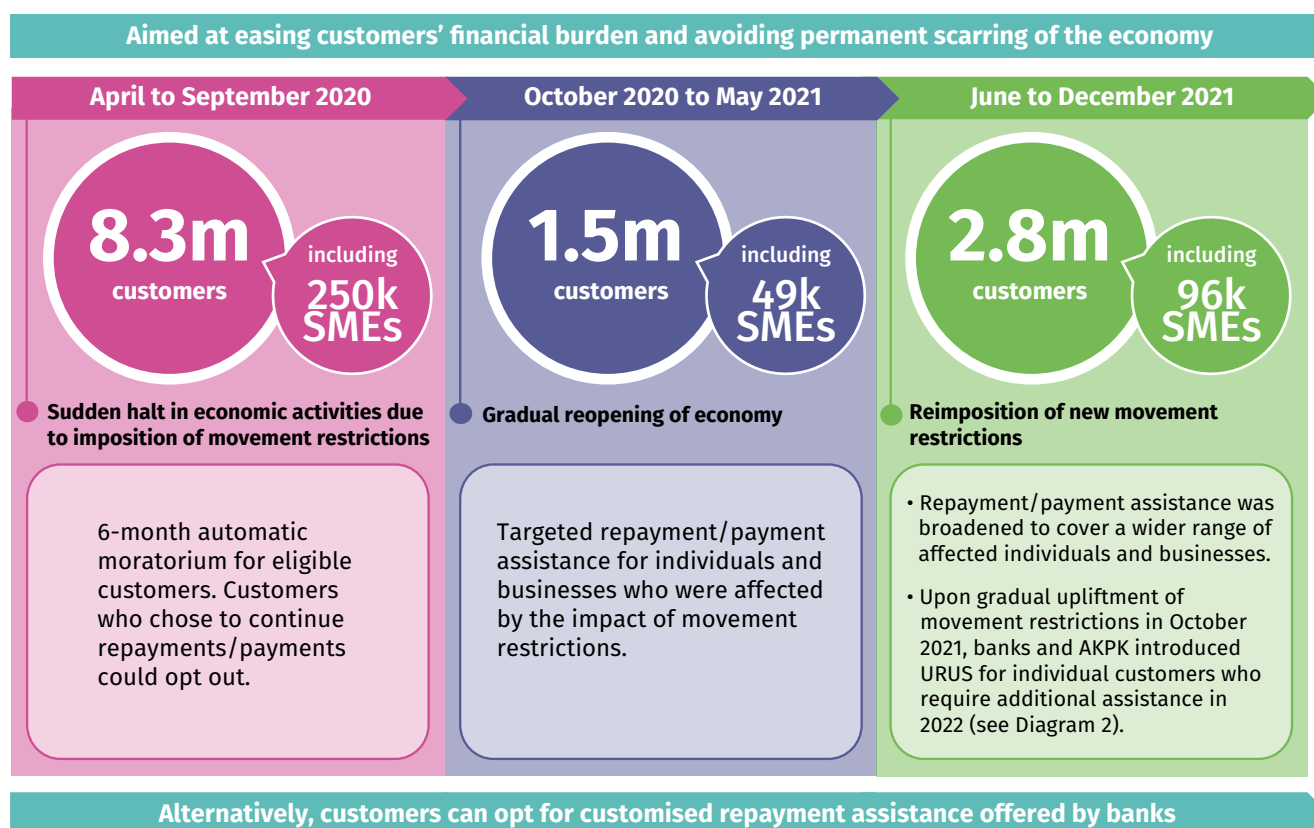
Given the uneven recovery across firms and industries, and the disproportionate impact of income shocks on more vulnerable households, banks, together with AKPK (*Agensi Kaunseling dan Pengurusan Kredit*) launched the Financial Management and Resilience Programme (URUS) in October 2021. URUS aims to 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.

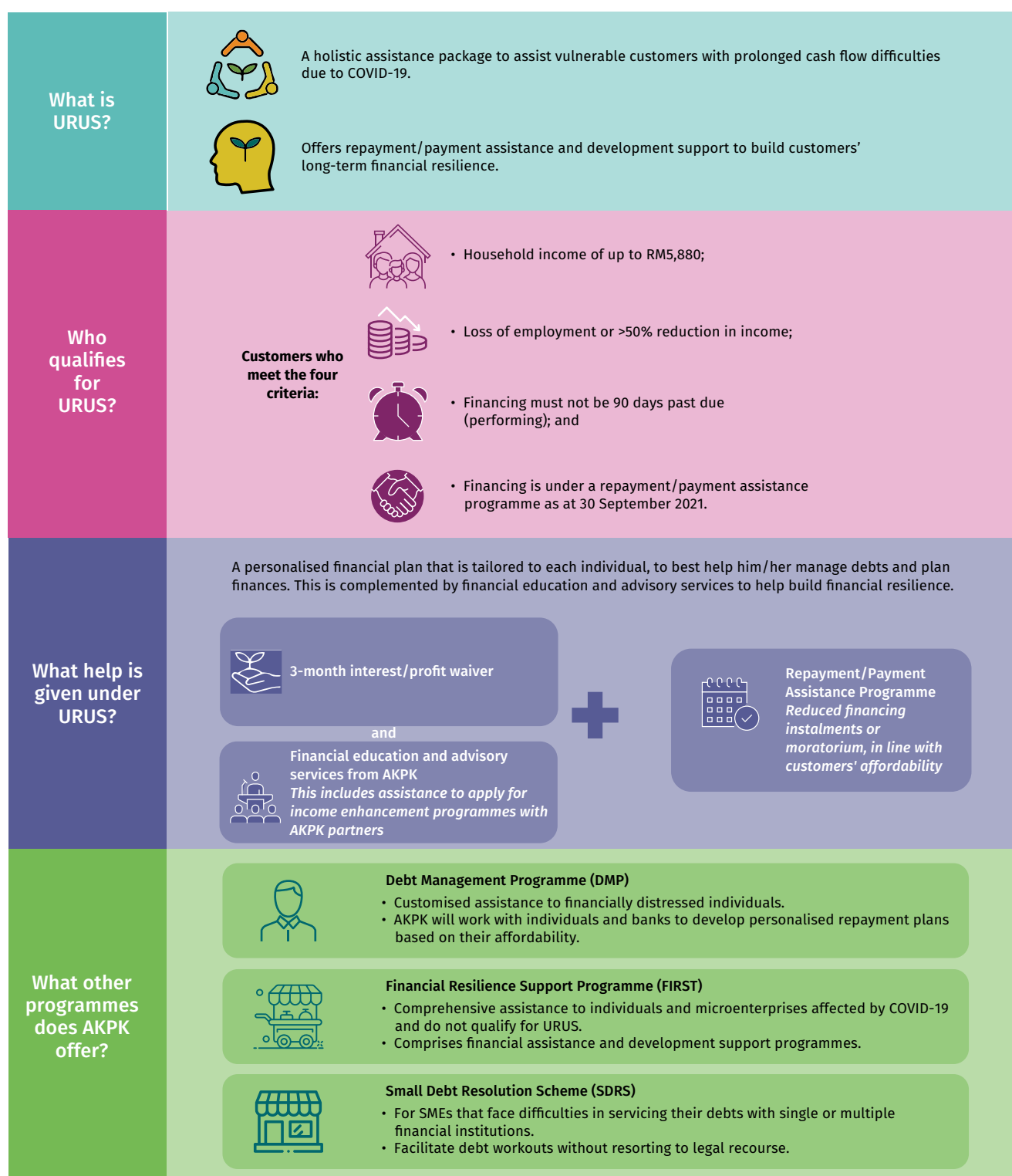
In addition, customers can choose other advisory and assistance packages by banks and AKPK to manage their financial obligations. These include the Debt Management Programme for distressed individuals as well as the Small Debt Resolution Scheme for SMEs. SMEs may also obtain financing

Diagram 1: Highlights of Repayment/Payment Assistance



Source: Bank Negara Malaysia

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



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.

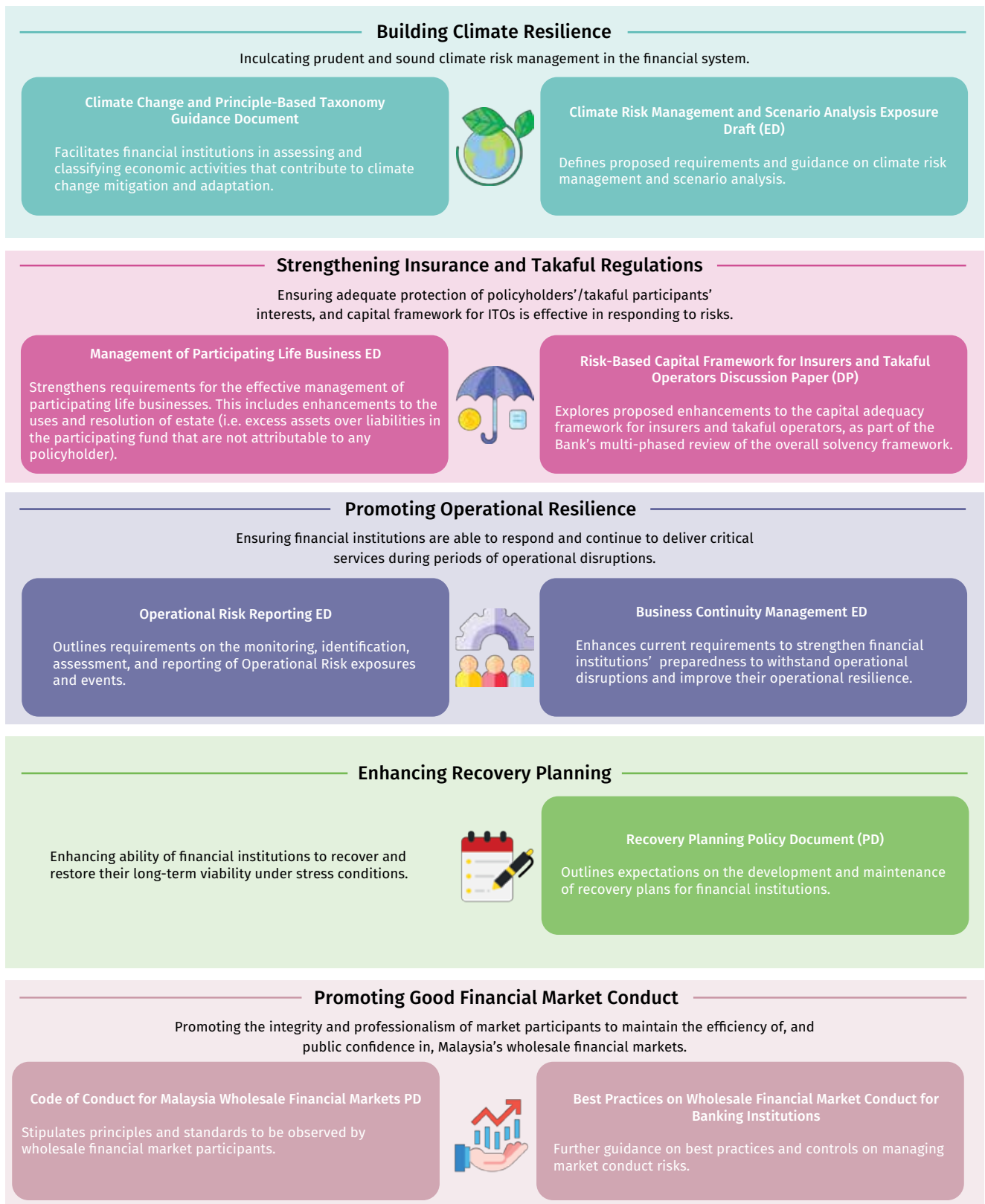
Source: Bank Negara Malaysia

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



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.

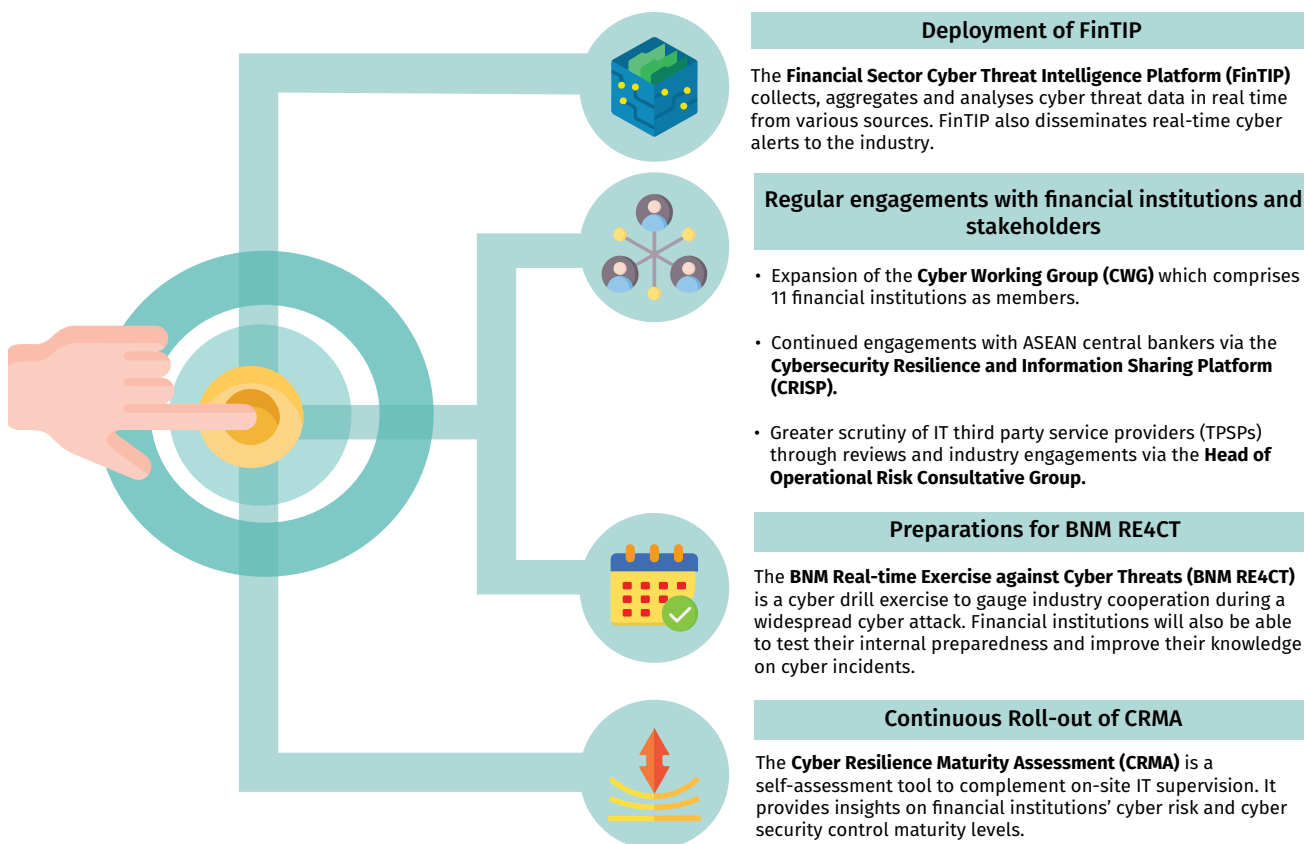
Operational risk and cyber resilience

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



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 committees³. 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.

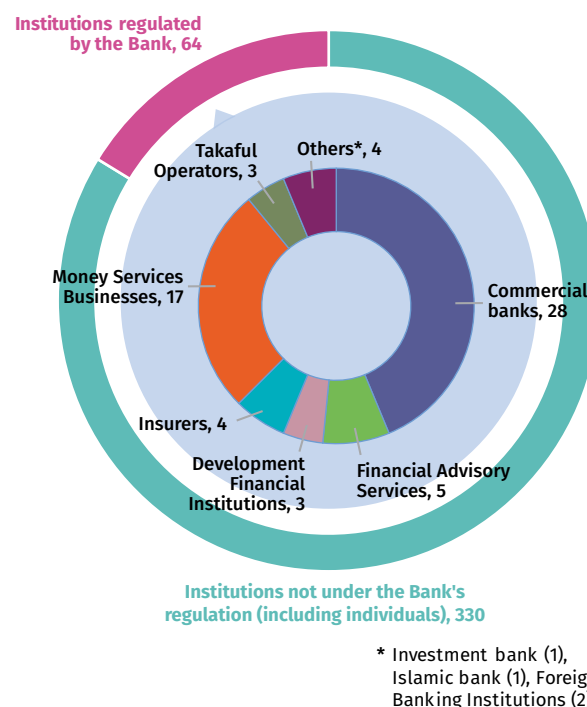
In 2021, we took 394 supervisory and enforcement actions. Examples of past actions include private reprimands, revocation of licence, monetary penalties and directions to implement remediation programmes to address gaps in risk management and controls within financial institutions.

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.



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.

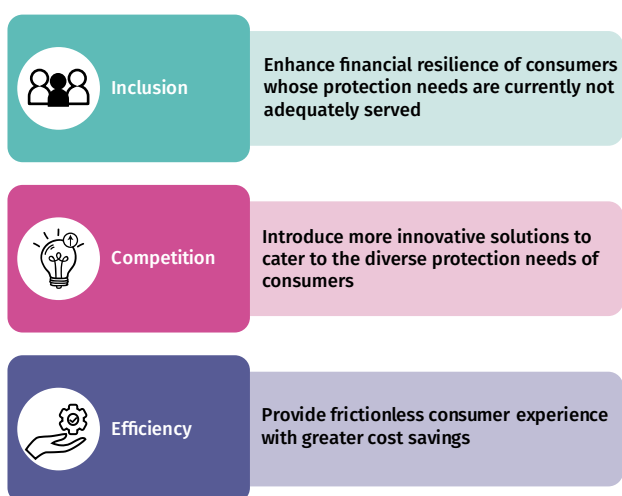
In 2021, the Sandbox received strong interest with 13 applications, nearly double from the previous year. Of these, the Bank approved four applications for further assessment for live testing. The rest of the applications were withdrawn by the participants upon consultation with the Bank. These withdrawn 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 robust¹ 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.

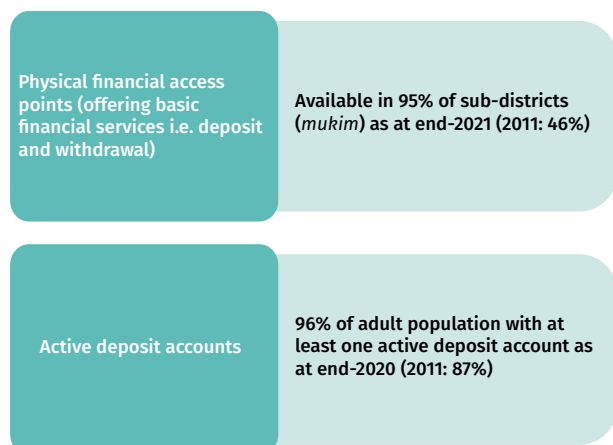
In 2022, the Bank in collaboration with market participants through the Financial Markets Committee (FMC) remains committed to further enhance resilience of the domestic financial markets. The areas of focus include the collateralised funding market and sustainable financing, among others. To this end,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



Source: Bank Negara Malaysia

Agent banks³ 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

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.

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

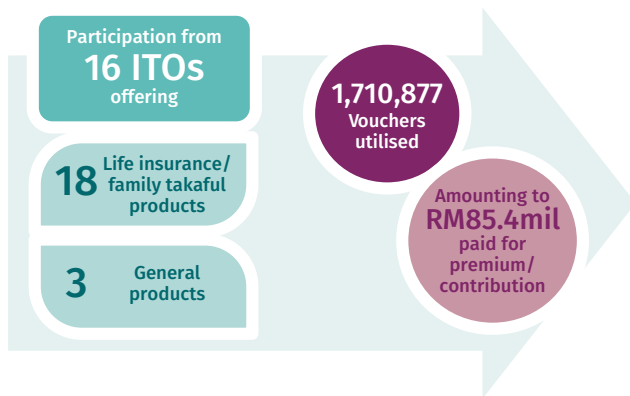
⁴ In June 2021, the Government provided an allocation of RM18 million under PEMULIH, for domestic financial institutions to deploy mobile banks in rural and remote areas.

Promoting a Progressive and Inclusive Financial System

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.

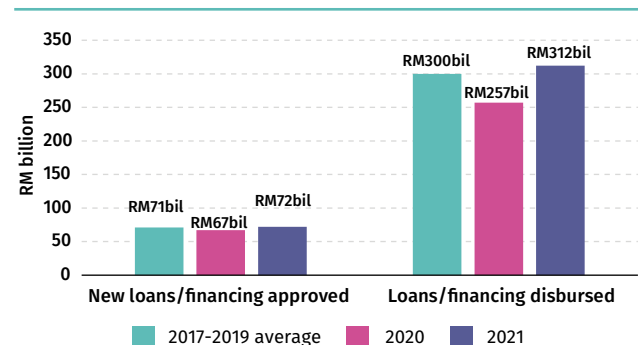
The pandemic highlighted the importance of strengthening the social protection system. Recognising this, the Government extended the PTV programme for another year in 2022 and increased the voucher value to RM75. The PTV programme was also enhanced to enable the voucher to be redeemed for comprehensive 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).

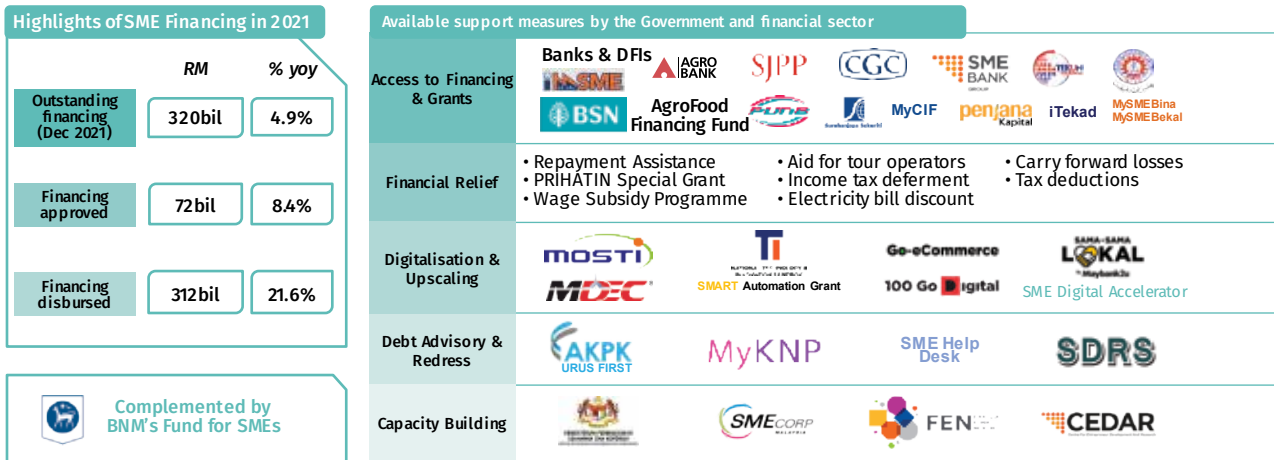
Chart 1: Performance of SME Financing



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



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:

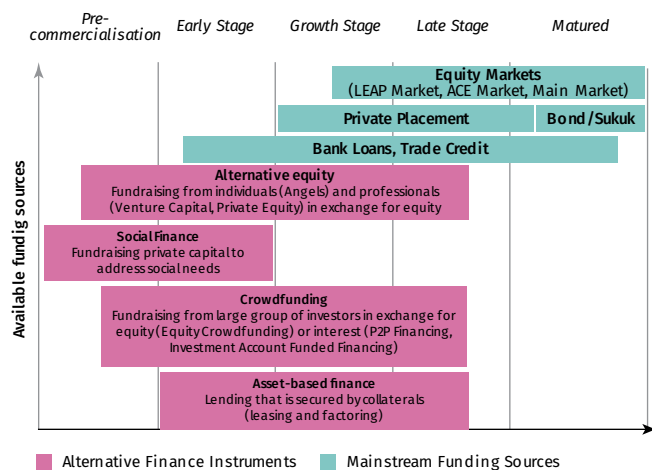
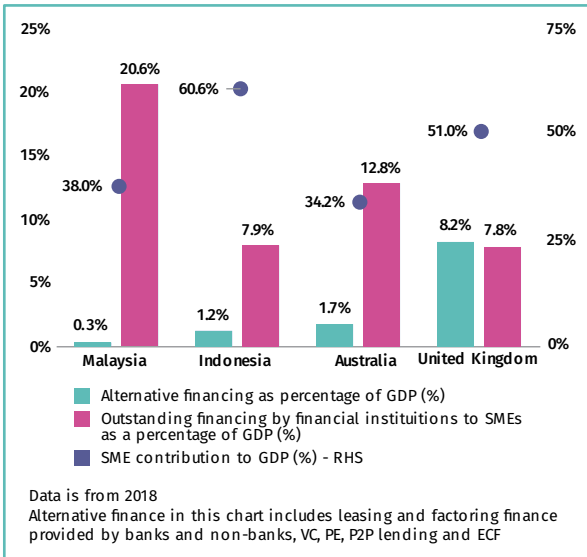
- 1** Heavy reliance on debt-based financing leads to unsustainable over-leveraging
- 2** New, innovative and 'asset light' companies, with a higher risk-return profile require equity-based financing and not traditional bank lending
- 3** Markets with rapid expansion of debt outpacing economic growth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

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

Promoting a Progressive and Inclusive Financial System

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

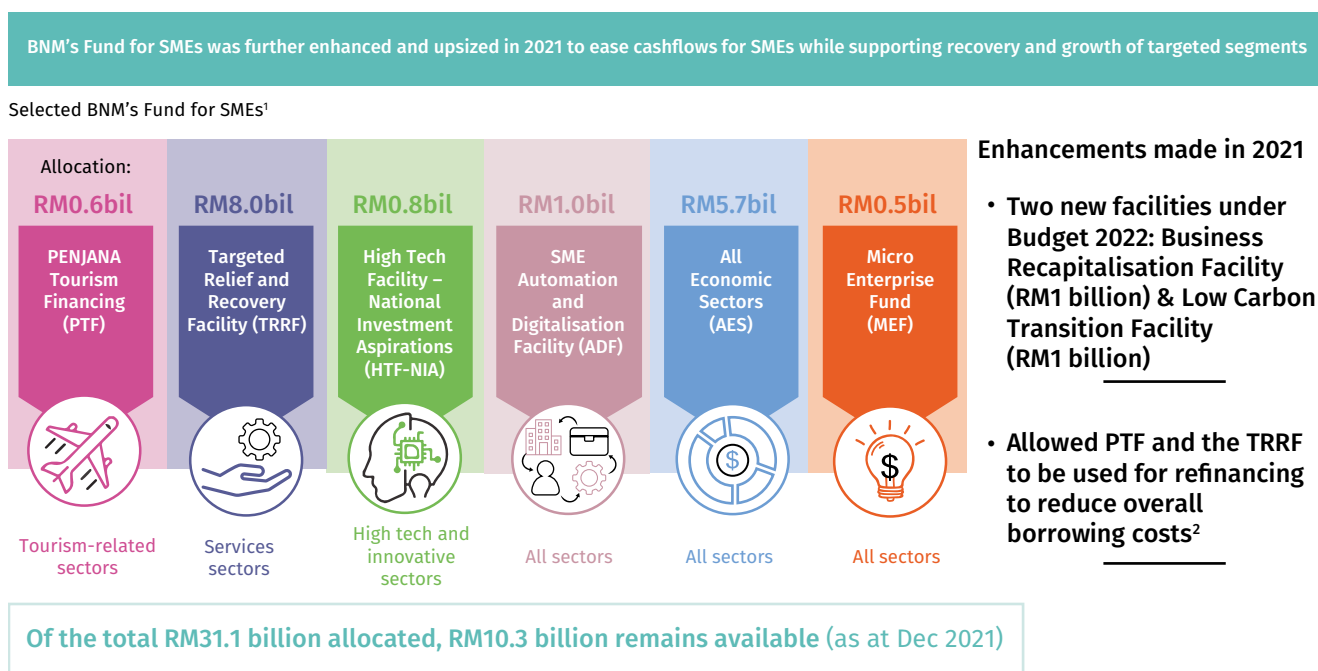
The BNM's Fund for SMEs (BNM's Fund) continued to remain available to complement the larger provision of SME financing by FIs. The allocation under BNM's Fund increased significantly from RM9.1 billion as at end-2019, to RM31.1 billion as at end-2021. Total allocation and targeted sectors of key facilities 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



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 platforms⁸ and participants of the iTEKAD⁹ 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 DFIs¹¹ 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.

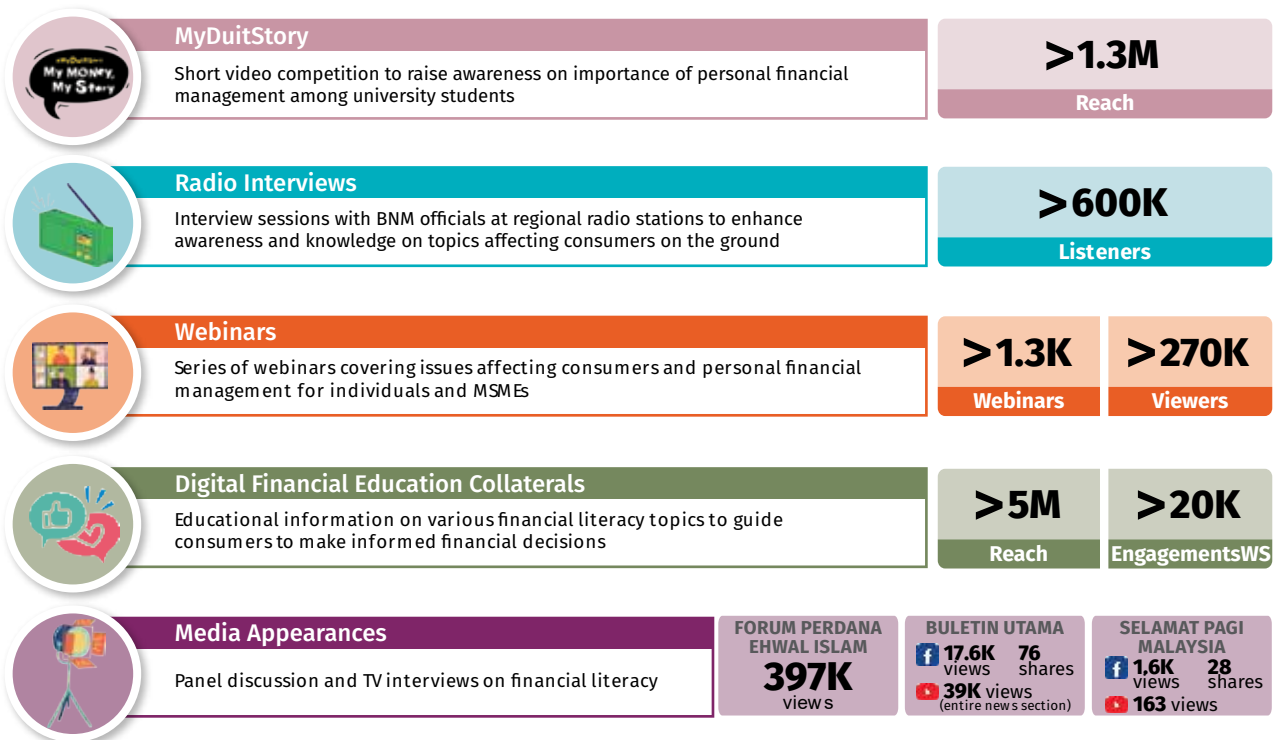
During this challenging period, the Bank worked closely with Financial Education Network (FEN) members and partners to rapidly roll out digital content to help consumers make informed and better financial decisions (Diagram 7).

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



Source: Financial Education Network

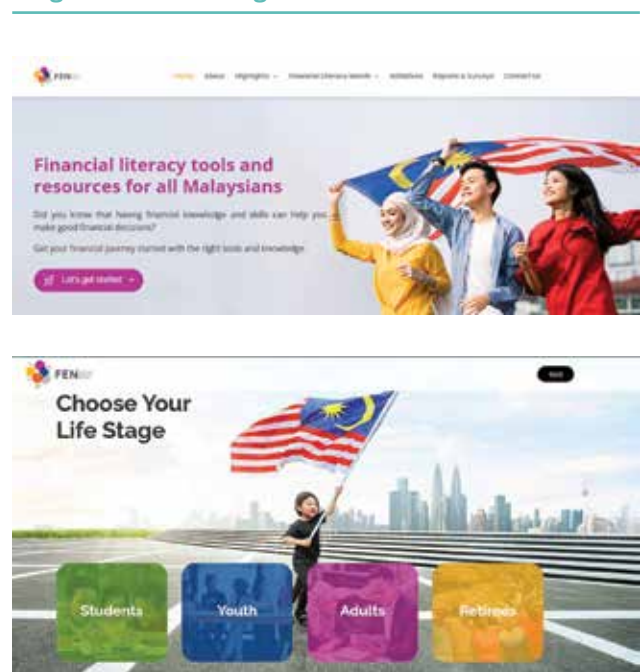
Diagram 8: Financial Literacy Month 2021



Diagram 9: MyDuitStory 2.0 Short Video Competition



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 <u>only</u>
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.

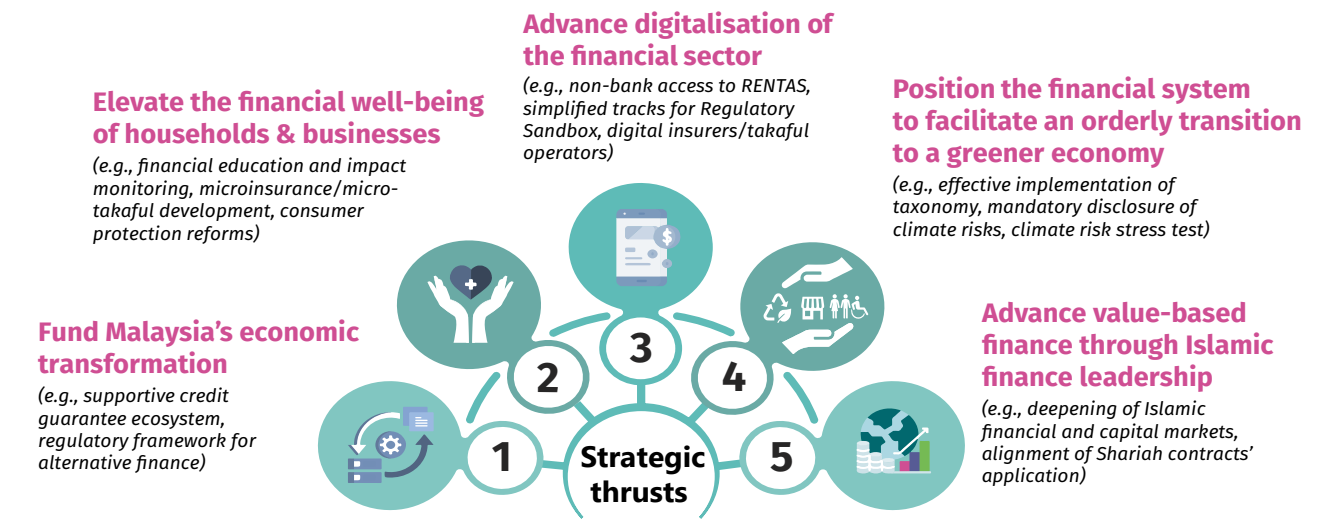
Our regulatory efforts will focus on fostering the right conditions for market dynamism and sustainable development outcomes. We will seek to remove undue barriers to competition and innovation, as well as to address market gaps and failures. Priority will be given to ensure the effectiveness of three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



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

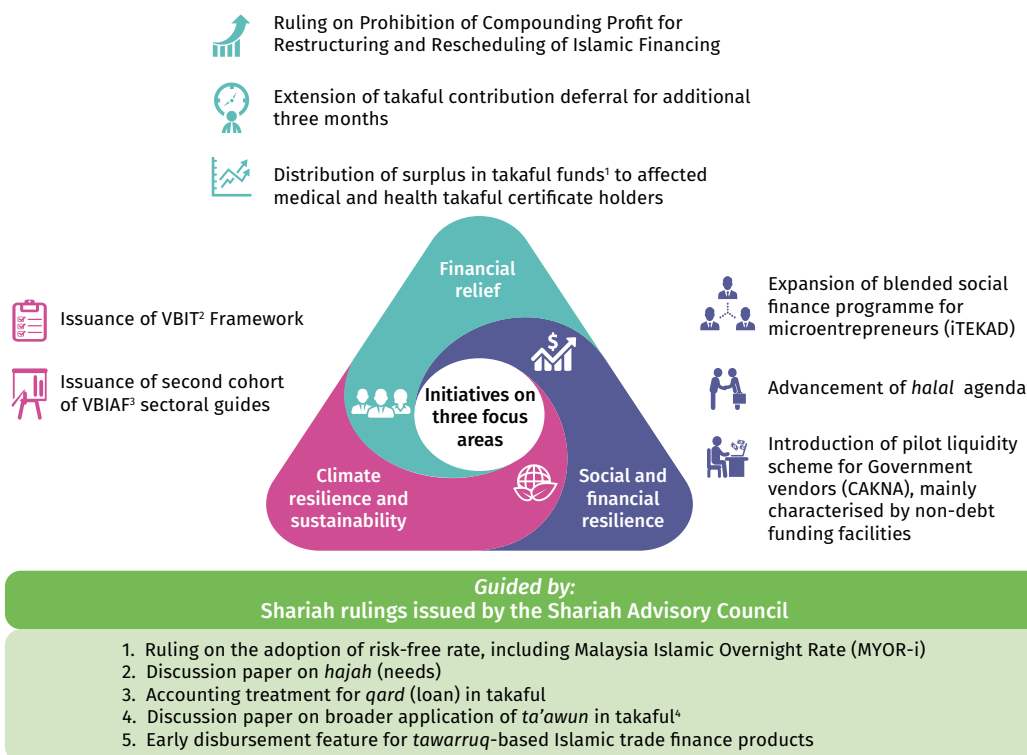
Promoting a Progressive and Inclusive Islamic Financial System

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

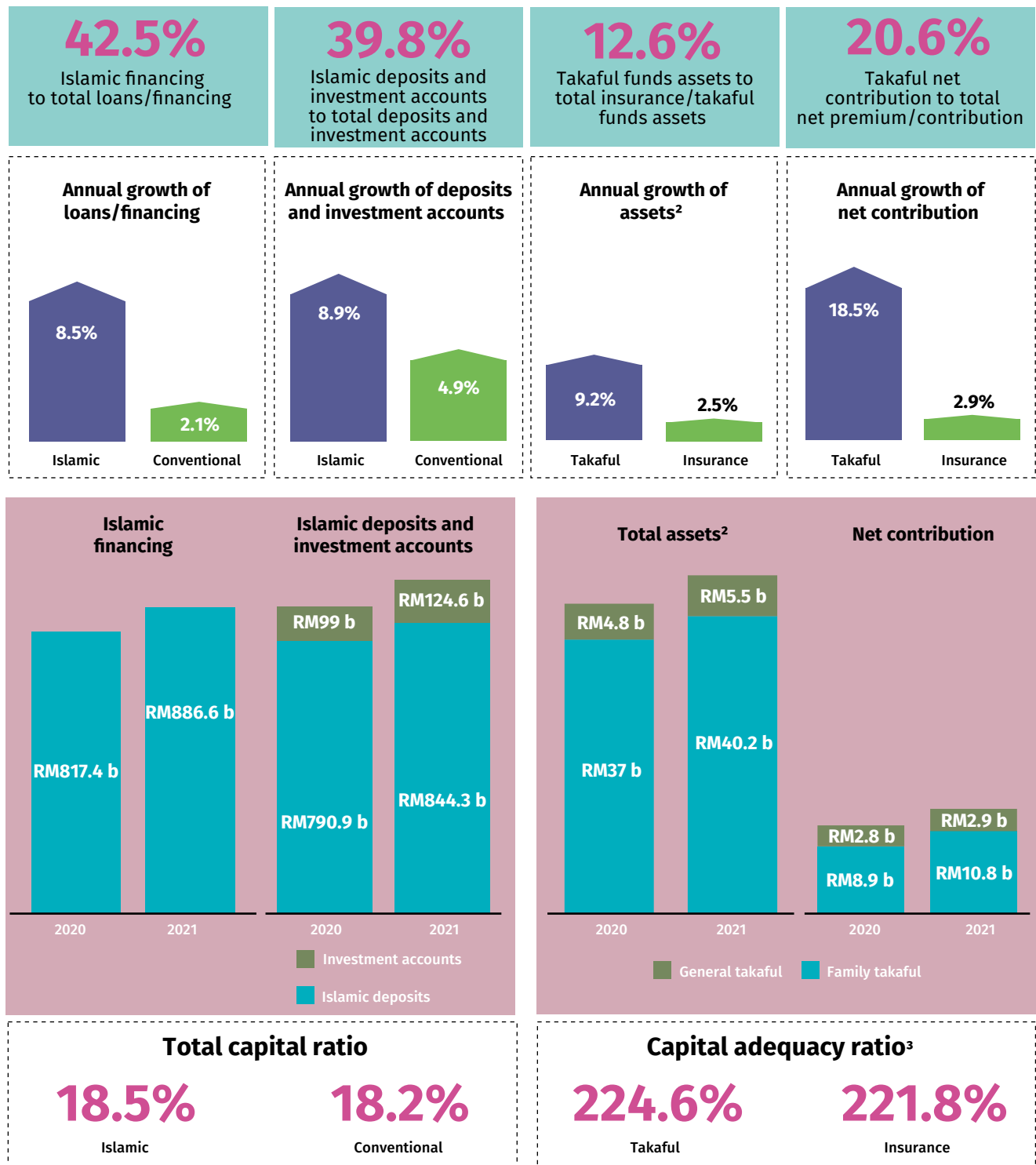


Notes:

- 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 Banking¹ and Takaful Industry in 2021



Notes:

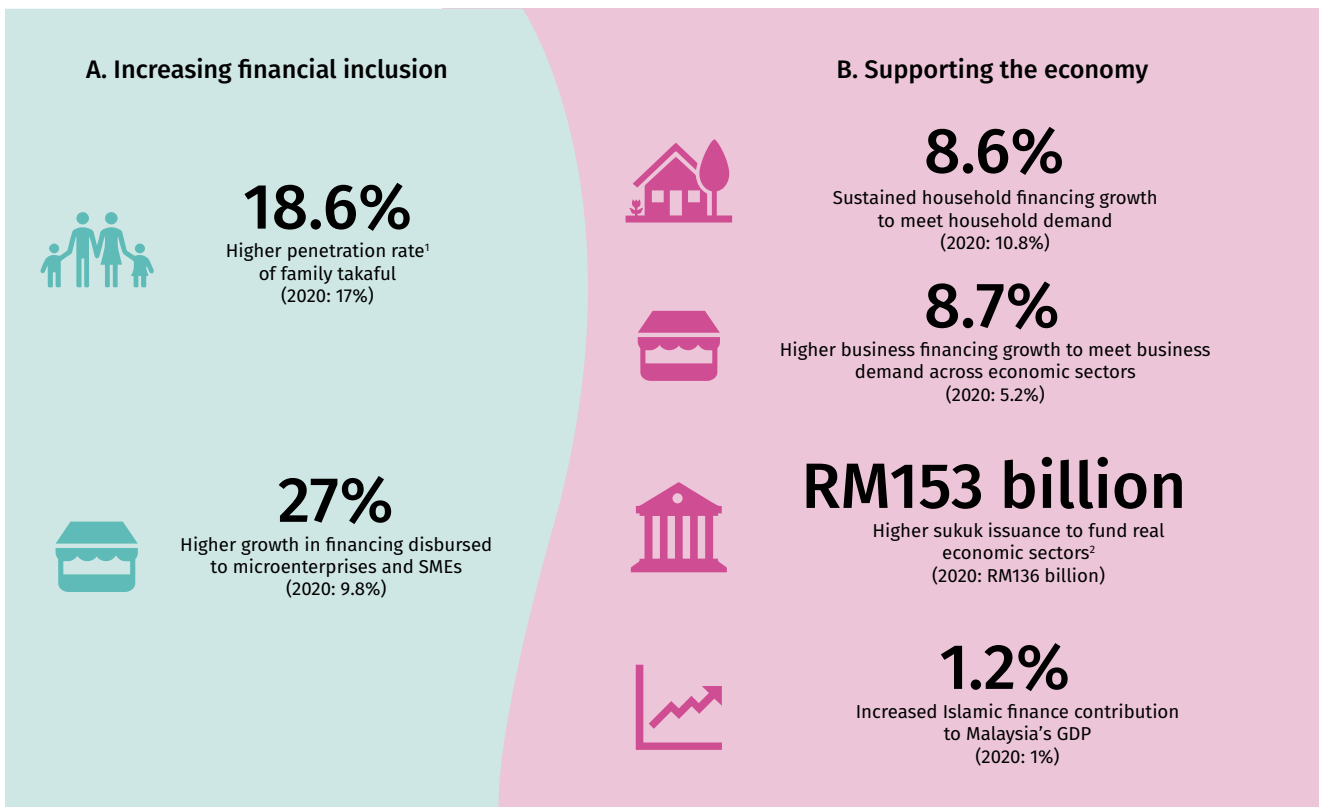
¹ Includes development financial institutions, except for total capital ratio.

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



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 (*siyasaah syar'iyah*) 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.

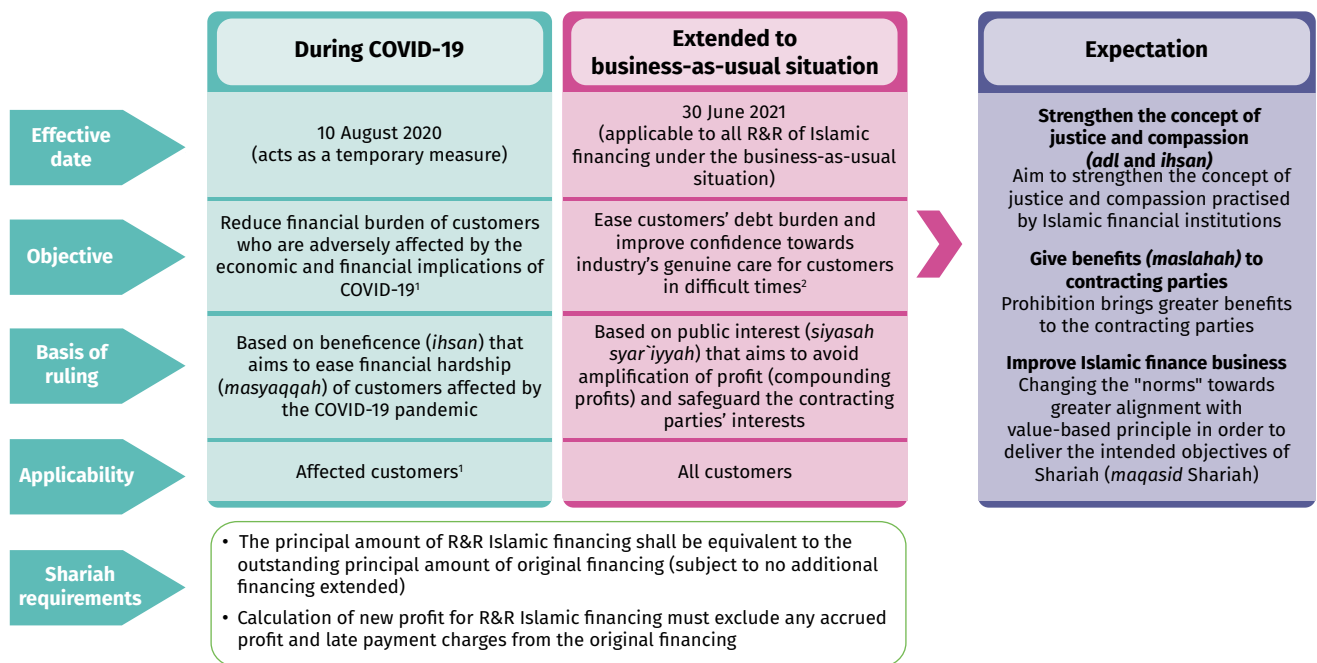
Developing Progressive Shariah Rulings

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



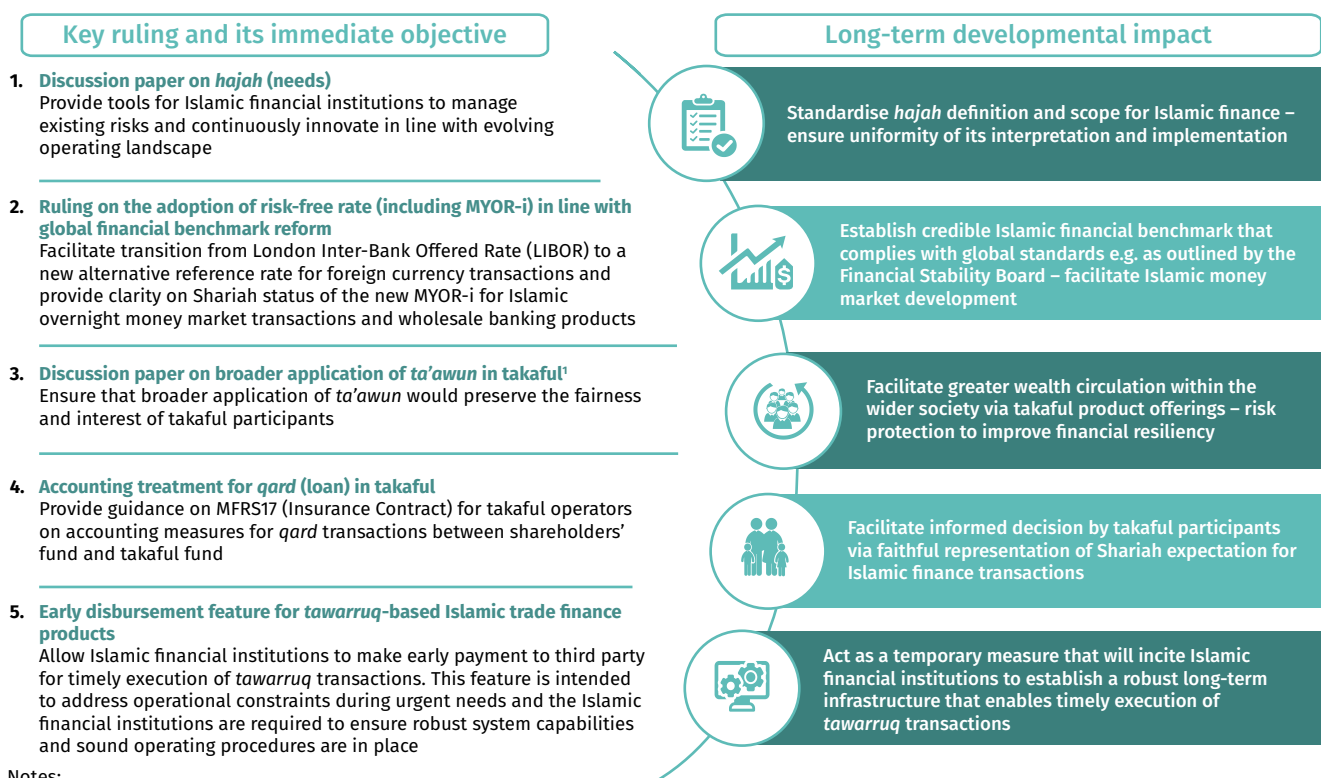
Notes:

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



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

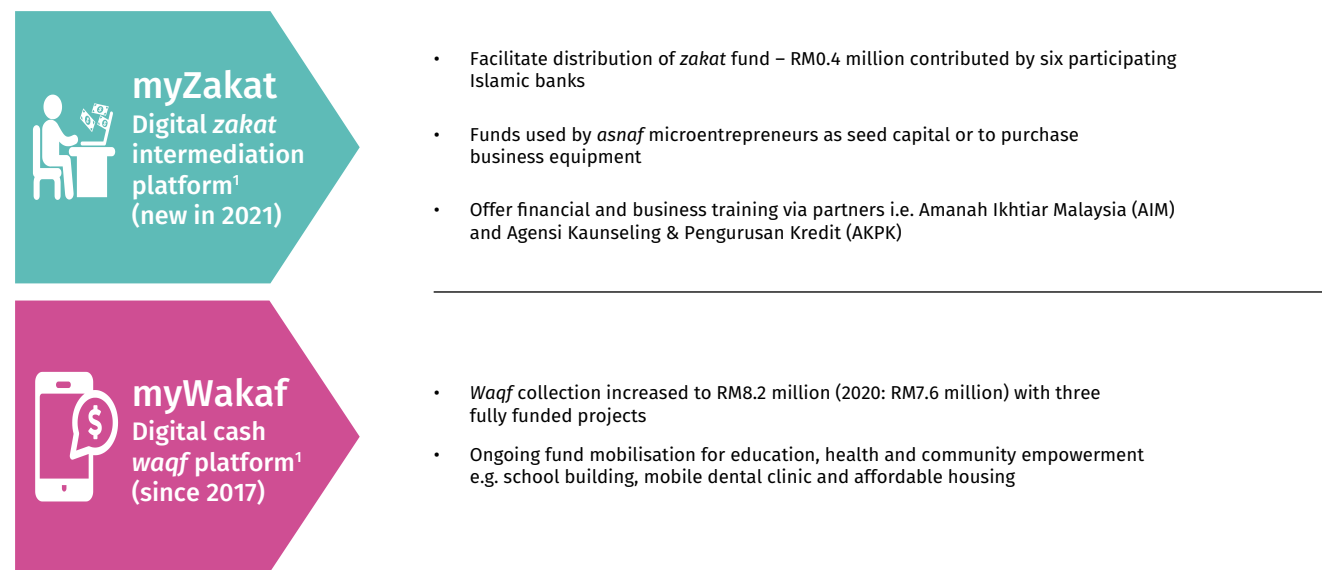
In 2021, the industry explored ways to further integrate social finance in Islamic financial services. New financial solutions were offered to empower microentrepreneurs, advance healthcare and education, and facilitate giving back to the community. The Islamic banking industry also took steps to improve distribution of philanthropic capital³ 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



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 investment⁵ 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 <i>zakat</i> ¹ and microfinancing facility	Returned <i>zakat</i> and two-tier <i>mudarabah</i> investment ¹	Internal CSR ² grant, cash <i>waqf</i> and microfinancing facility
Value added propositions	<i>Zakat</i> funded purchase of business equipment	Facilitation of <i>halal</i> certification process	CSR ² and <i>waqf</i> funded motorcycles and entrepreneurship training programme for beneficiaries, with prospective opportunity for business financing if required
Target beneficiaries	B40 and <i>asnaf</i> microentrepreneurs	<i>Halal</i> microentrepreneurs	Individuals from B40 and <i>asnaf</i> categories
Outreach	Kuala Lumpur, Perlis and Selangor	Nationwide	Klang Valley
Implementation partners	<ul style="list-style-type: none"> • Majlis Agama Islam Wilayah Persekutuan • SME Corporation Malaysia • Majlis Agama Islam dan Adat Istiadat Melayu Perlis³ • Teraju Ekonomi Asnaf Sdn. Bhd.³ 	<ul style="list-style-type: none"> • People Systems Consultancy Sdn. Bhd. • Serunai Commerce Sdn. Bhd. 	<ul style="list-style-type: none"> • 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.

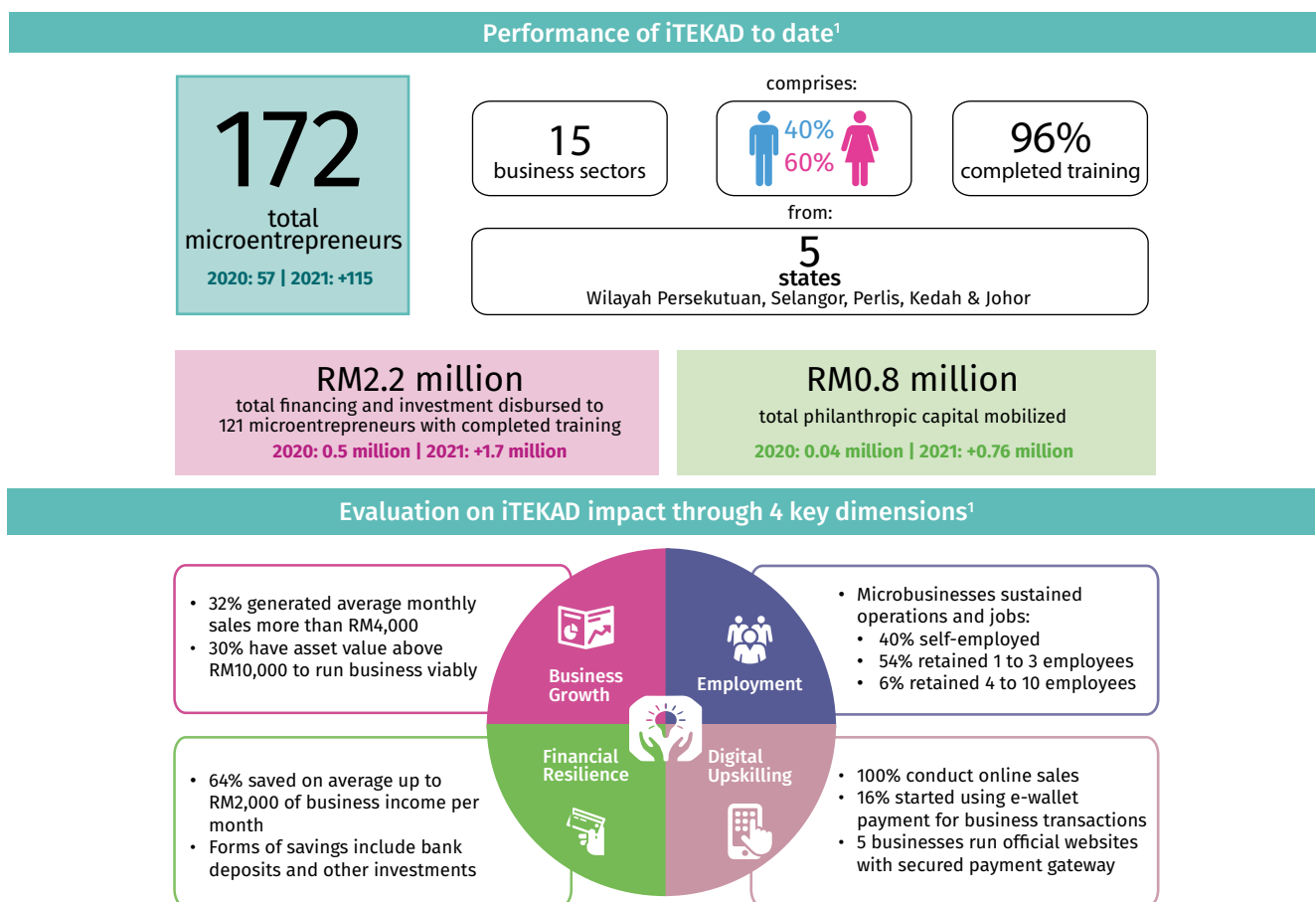
Diagram 8: Key Learnings From Pilot Programme for iTEKAD Implementation

Key learning points	Improvement measures
 <p>Effective partnership is critical to ensure smooth programme implementation</p>	Expand network of implementation partners with bespoke value-adding services and ability to widen outreach
 <p>Diverse financial structures that cater to specific needs of participants</p>	Design innovative instruments with flexible terms based on unique risk profiles, financing capabilities and business sectors
 <p>Impact evaluation and transparent reporting are vital for success of programme</p>	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



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

Promoting a Progressive and Inclusive Islamic Financial System

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.

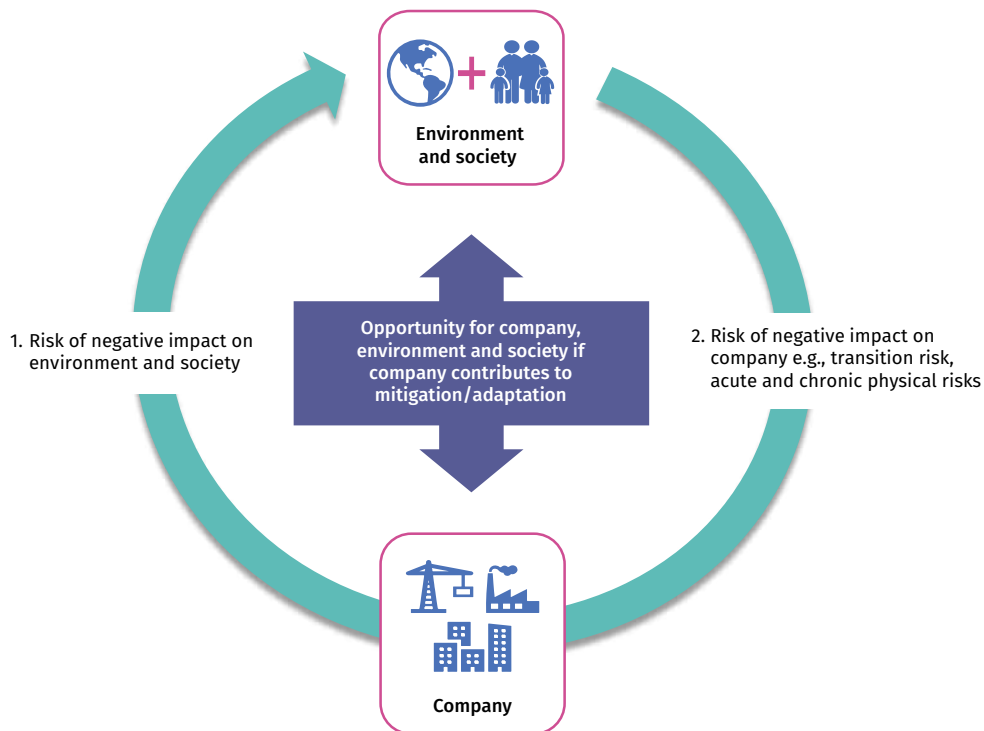
Promoting climate resilience and sustainability

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



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 role⁶ for Islamic finance strategies⁷ 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).



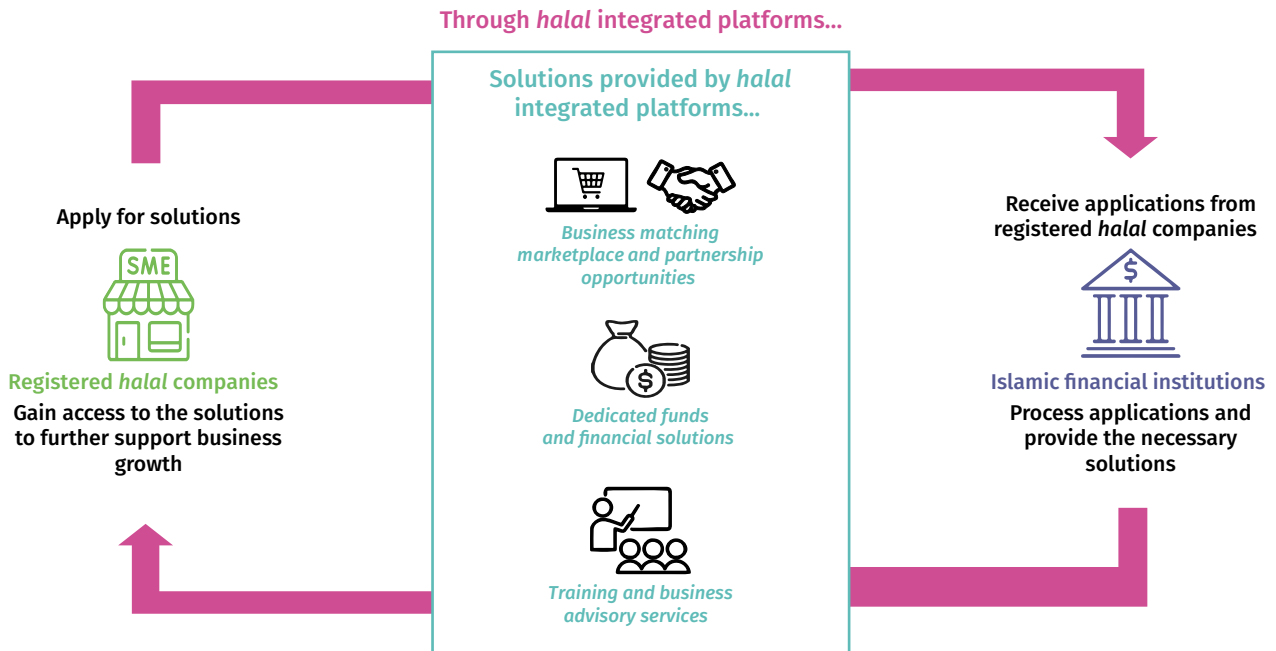
Assistant Governor Adnan Zaylani Mohamad Zahid (left) and Deputy Governor Abdul Rasheed Ghaffour (right) at IFN Asia Forum 2021 and World Halal Business Conference 2021 respectively.

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.

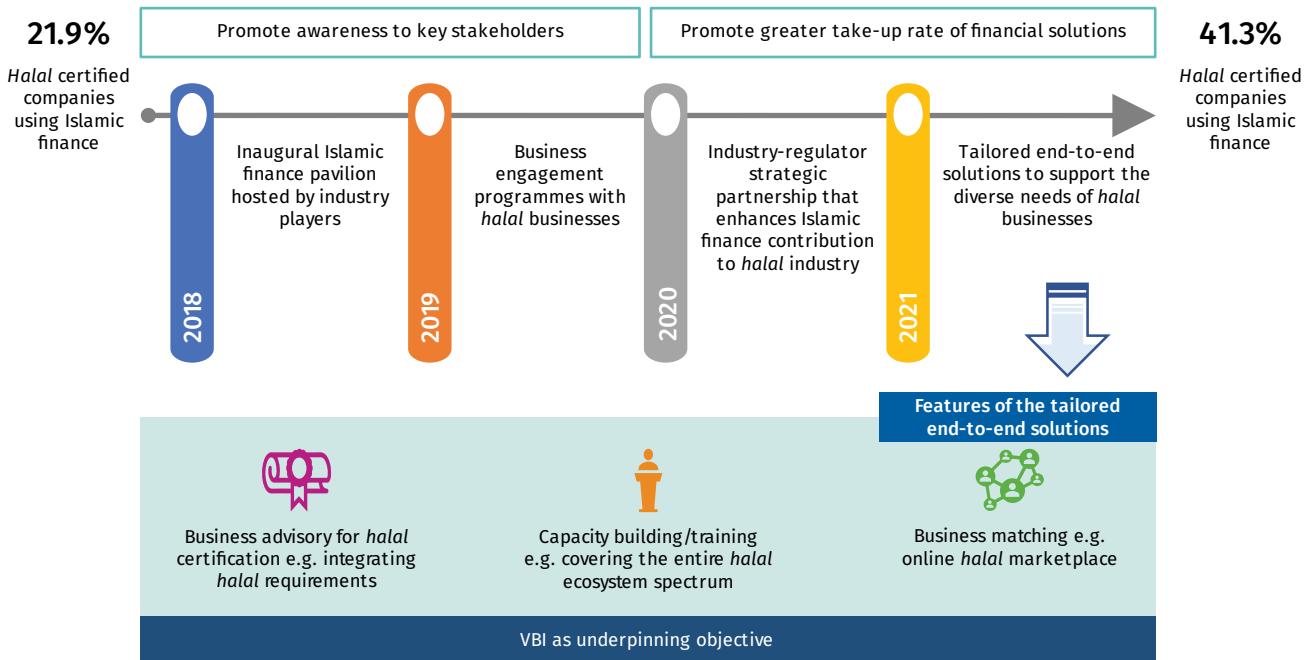
⁸ As at September 2021, 41.3% of 7,496 Malaysian *halal* certified companies has utilised Islamic finance, amounting to RM20 billion.

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

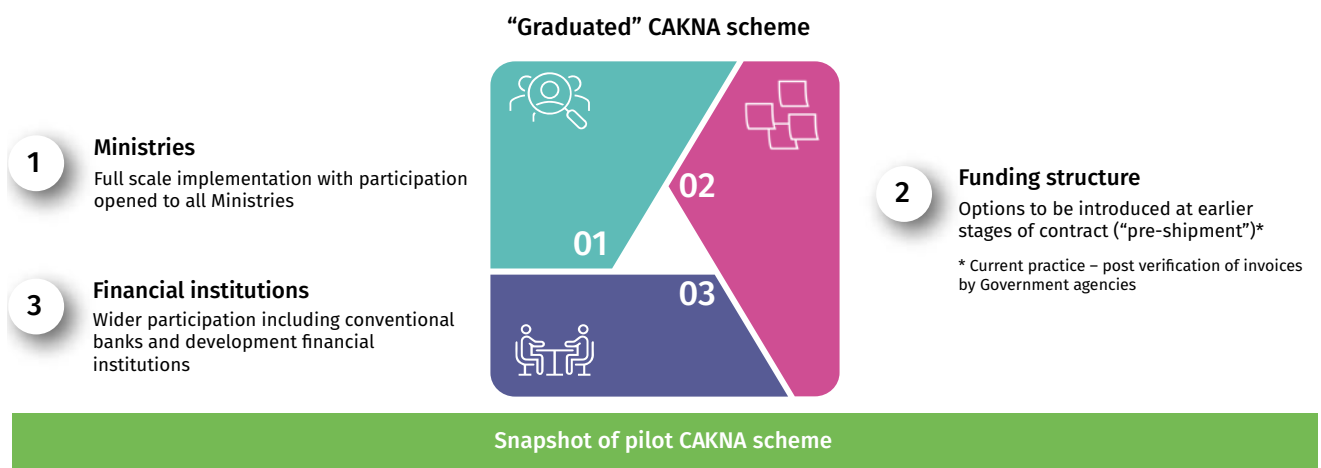
Piloting new solutions through CAKNA scheme

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



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:
 - Higher Education: 45%
 - Health: 44%
 - Communications & Multimedia: 4%
 - Education: 7%
- 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



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



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
 Emerging Leader Prize		The prize is awarded up to two winners with solutions that evidence inventiveness, impact, feasibility/commercial viability and scalability
		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 year¹ (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-wallet² 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

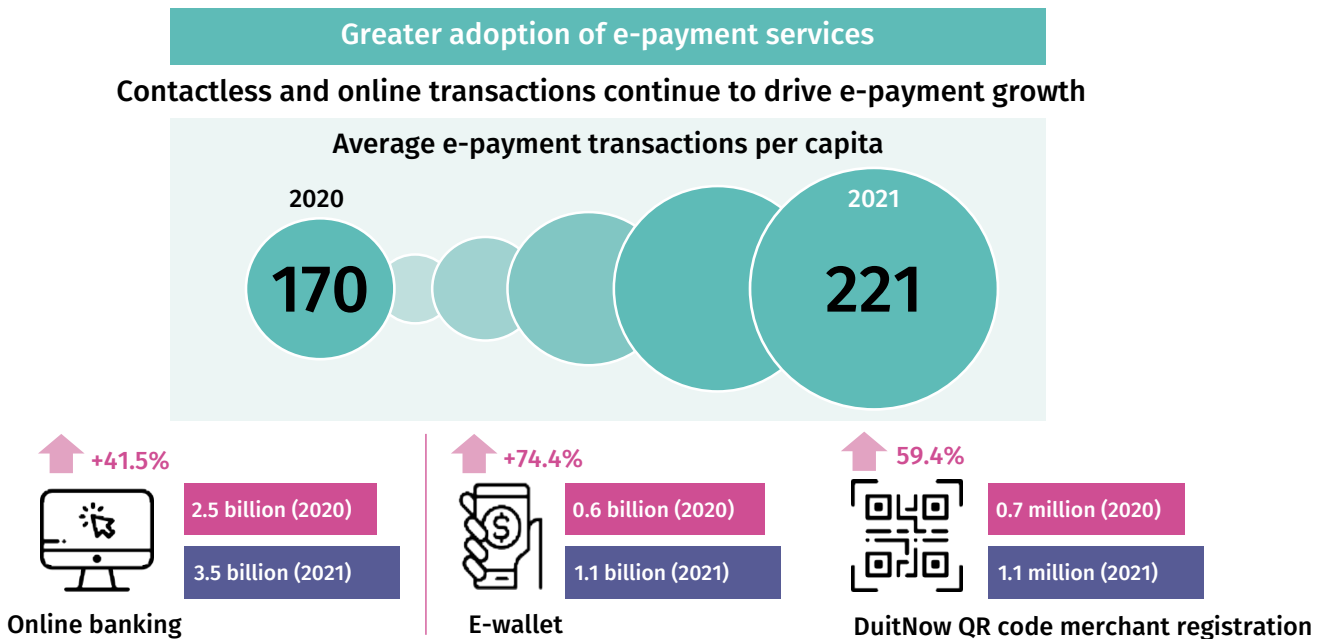
Similar trend was also observed in the e-remittance services offered by licensed non-bank remittance service providers (RSPs). In 2021, total outward e-remittance transactions increased

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

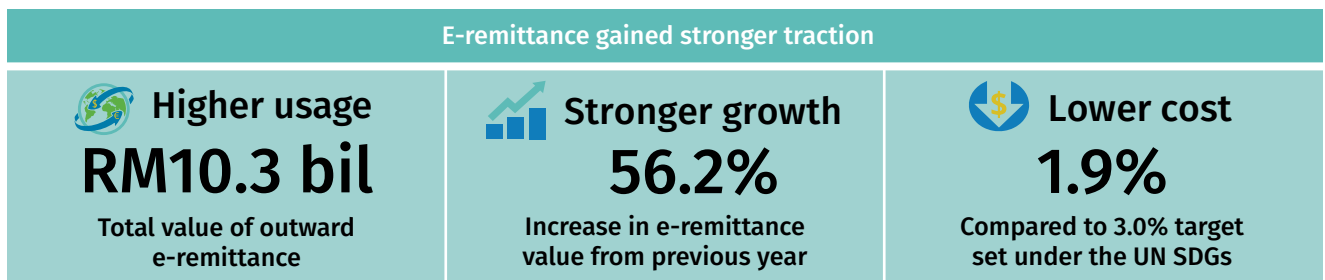
significantly (Diagram 2). Accordingly, e-remittances represented a larger share of total outward remittances made via RSPs at 40.0%, up from 24.8% in 2020. This was driven, among others, by the lower cost of e-remittance, which at 1.9% of the remittance amount, stood well below the 3.0% target set under 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



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%.

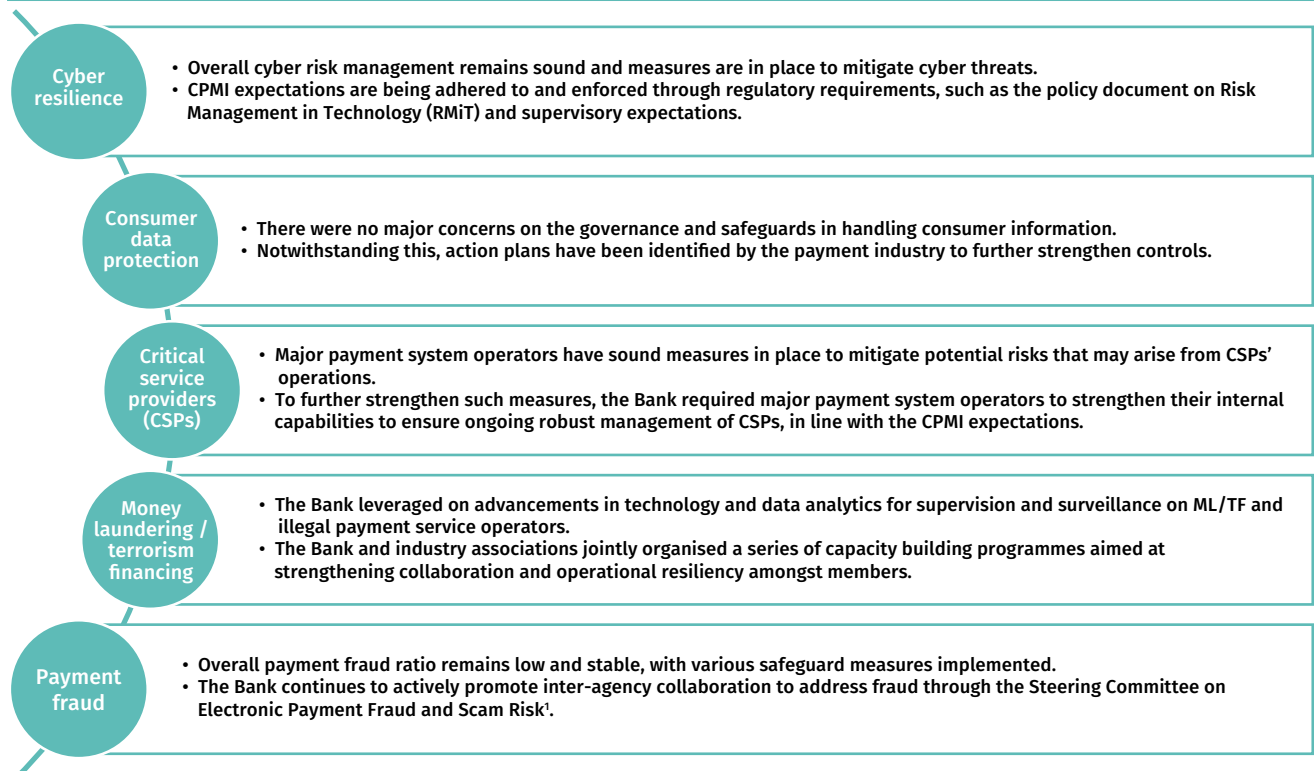
Enhancing oversight on payment services

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



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

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.

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

Promoting Safe and Efficient Payment Services

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

Buy Now, Pay Later (BNPL)

Three common features

- Shorter instalment plans
- Repayments are usually drawn from your linked debit/credit card
- Typically marketed as "no interest", but includes charges that can quickly add up (e.g. processing or late payment fees)

3 things to do when using BNPL schemes:

1. Understand the terms and conditions, especially on fees and charges
2. Pay instalments in full and on time to avoid penalties
3. Keep track of your BNPL commitments, as it is easy to overspend

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 Blueprint¹⁵ 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-cost¹ 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 costly³ 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.

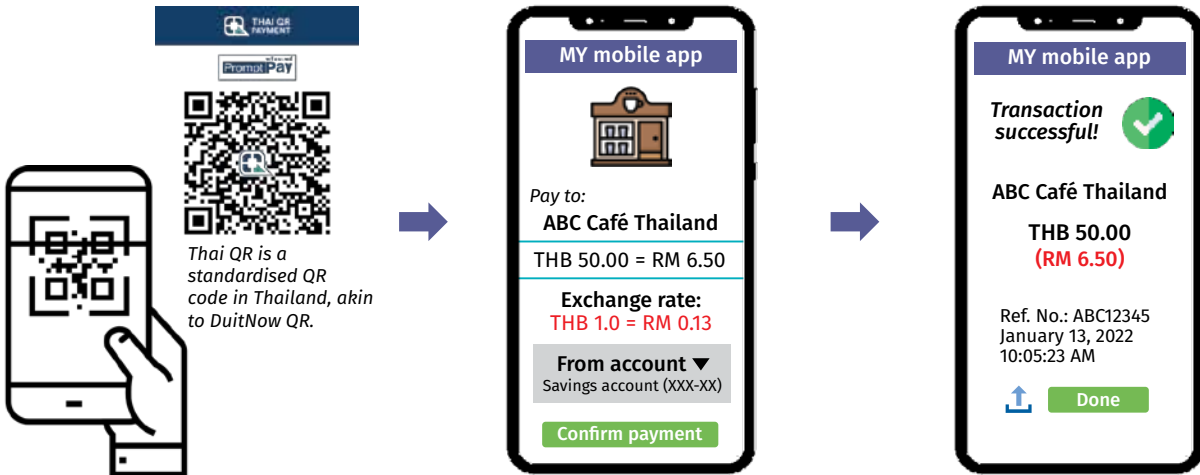
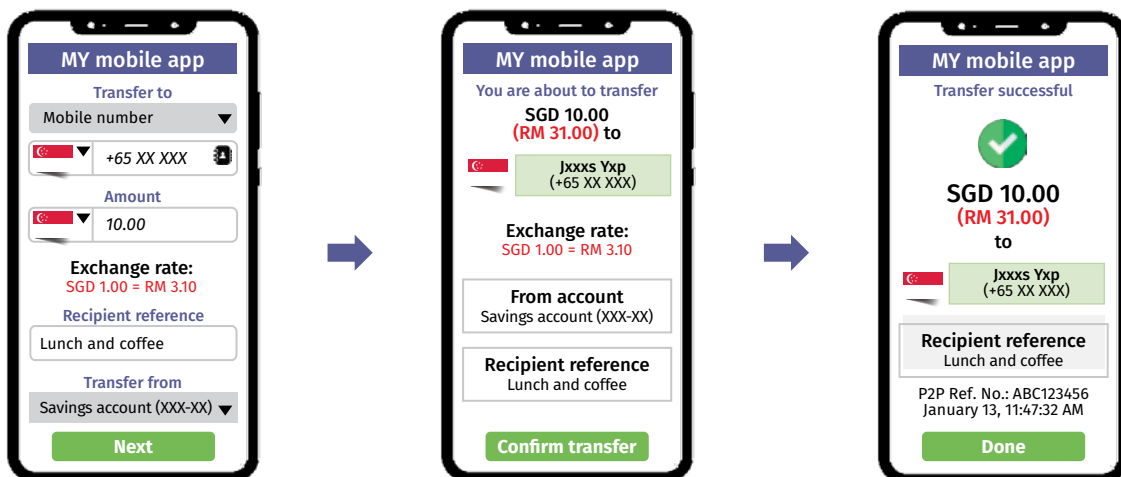


Diagram 3: Steps for Making Cross-Border P2P Fund Transfer

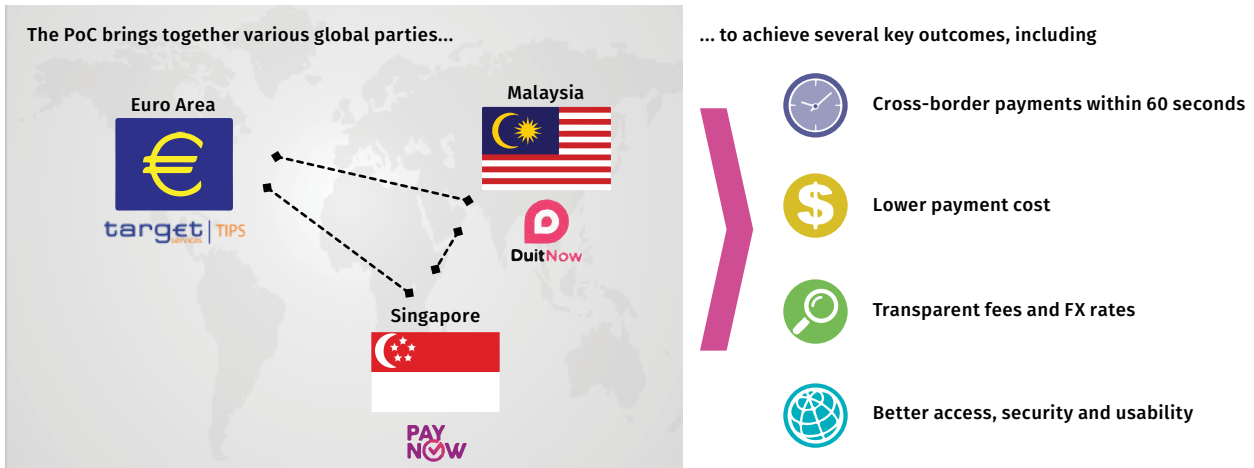
- 1 Insert the recipient's mobile number and payment amount.
- 2 Verify the payment details before confirming payment.
- 3 Once successful, you will receive a notification displaying the amount paid in both currencies.



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 systems⁶ to enable fast and seamless cross-border payments.

Diagram 4: Overview of Project Nexus

Project Nexus will test the feasibility of connecting real-time payment systems multilaterally.



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 value² that can be digitally traded or transferred and can be used for payment or investment purposes. Digital assets primarily leverage on cryptography³ 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)).


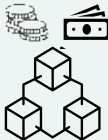

⁷ For example, the Bitcoin network consumed 132 TWh in 2020 equivalent to the power consumption of Argentina (Rahul Singh (2021)). In addition, the energy consumed for 1 Bitcoin transaction could power 1.2 million Visa transactions (Nuvei (2022, p.7)).

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 tokenised¹⁰ 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 system¹⁴ 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.

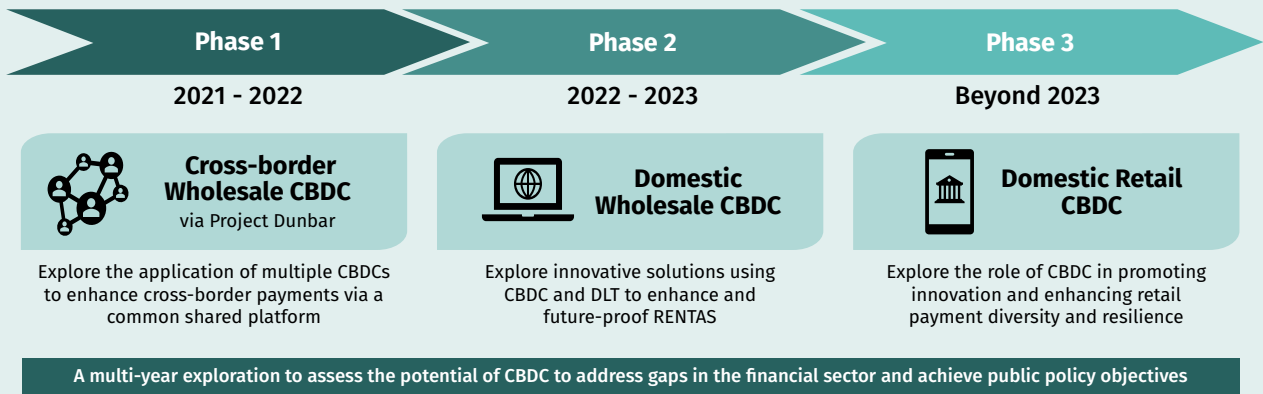
Building internal capacity on CBDC

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.

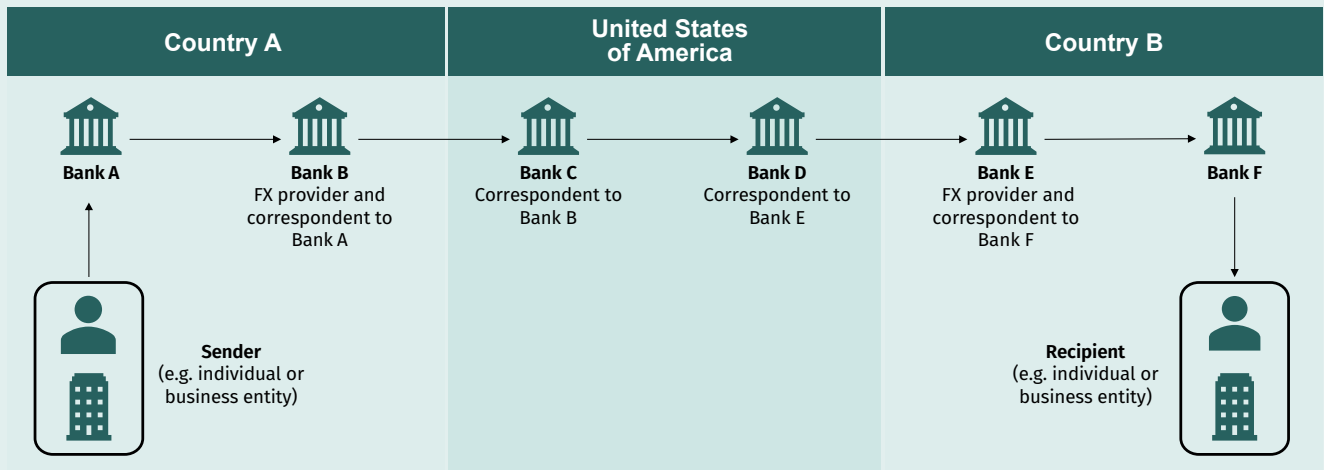
Diagram 2: Malaysia's CBDC POC Roadmap



Source: Bank Negara Malaysia

Diagram 3: Overview of Project Dunbar

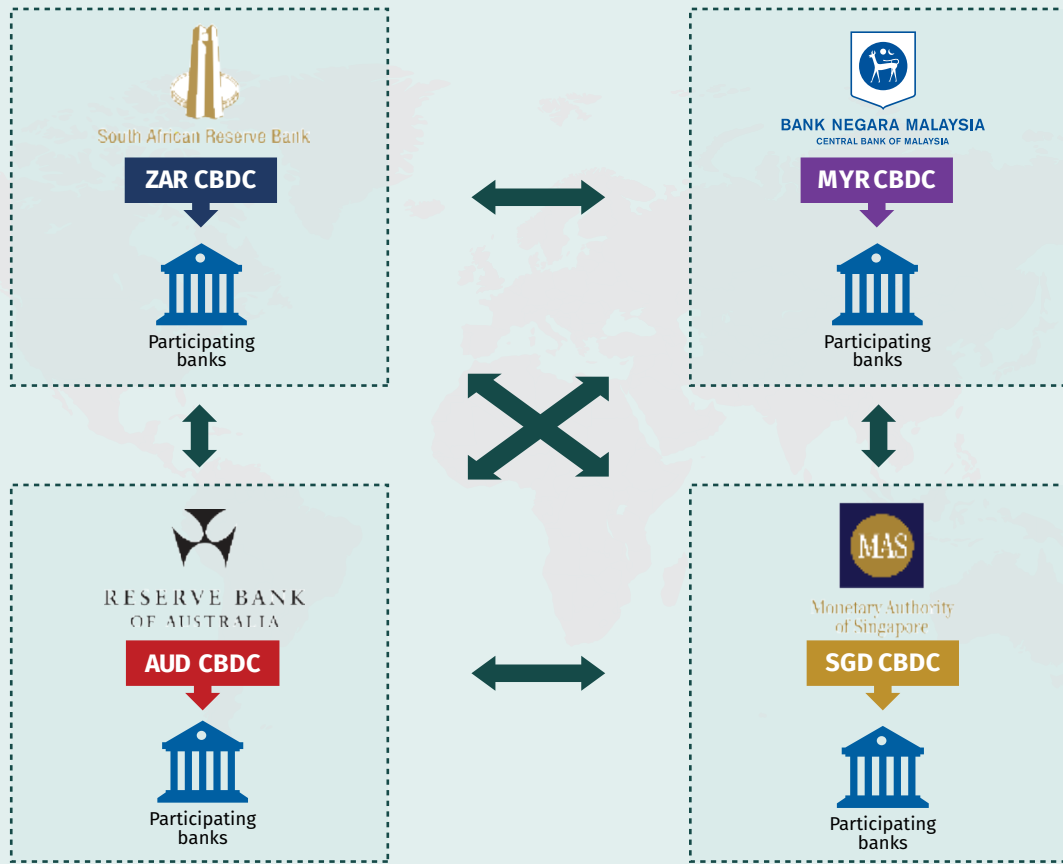
Diagram 3.1: Current Cross-Border Payment Model – Correspondent Banking Arrangement



- 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.

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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.

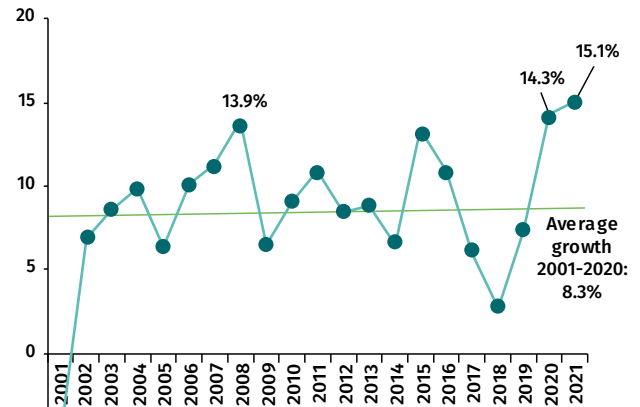


Malaysian coins of all denominations are struck with high precision by state-of-the-art minting presses.

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 countries¹ globally.

Chart 1: CIC Annual Growth Rate (%)



Source: Bank Negara Malaysia

Currency Operations

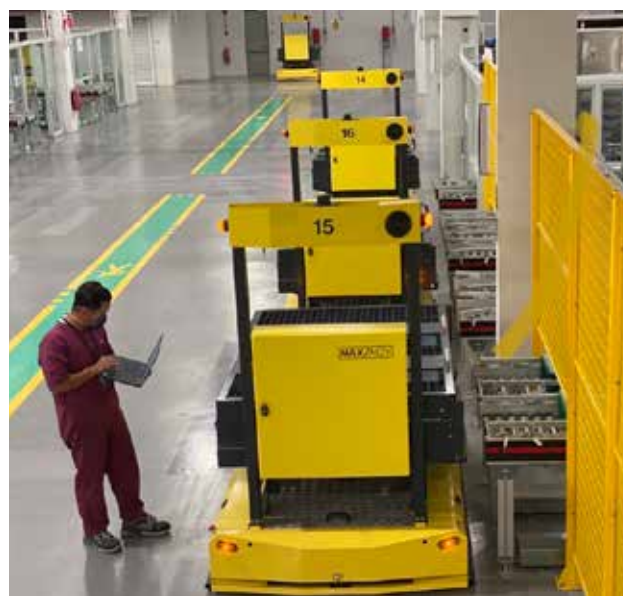
The Currency Act 2020 empowers the Bank to print banknotes and mint coins for circulation in the country. In exercising this power, we procure banknotes from international banknote printers through competitive open tenders and mint coins at our own minting facility, Kilang Wang.

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 banknotes² 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 banknotes⁴ 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 (LFS25). 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.

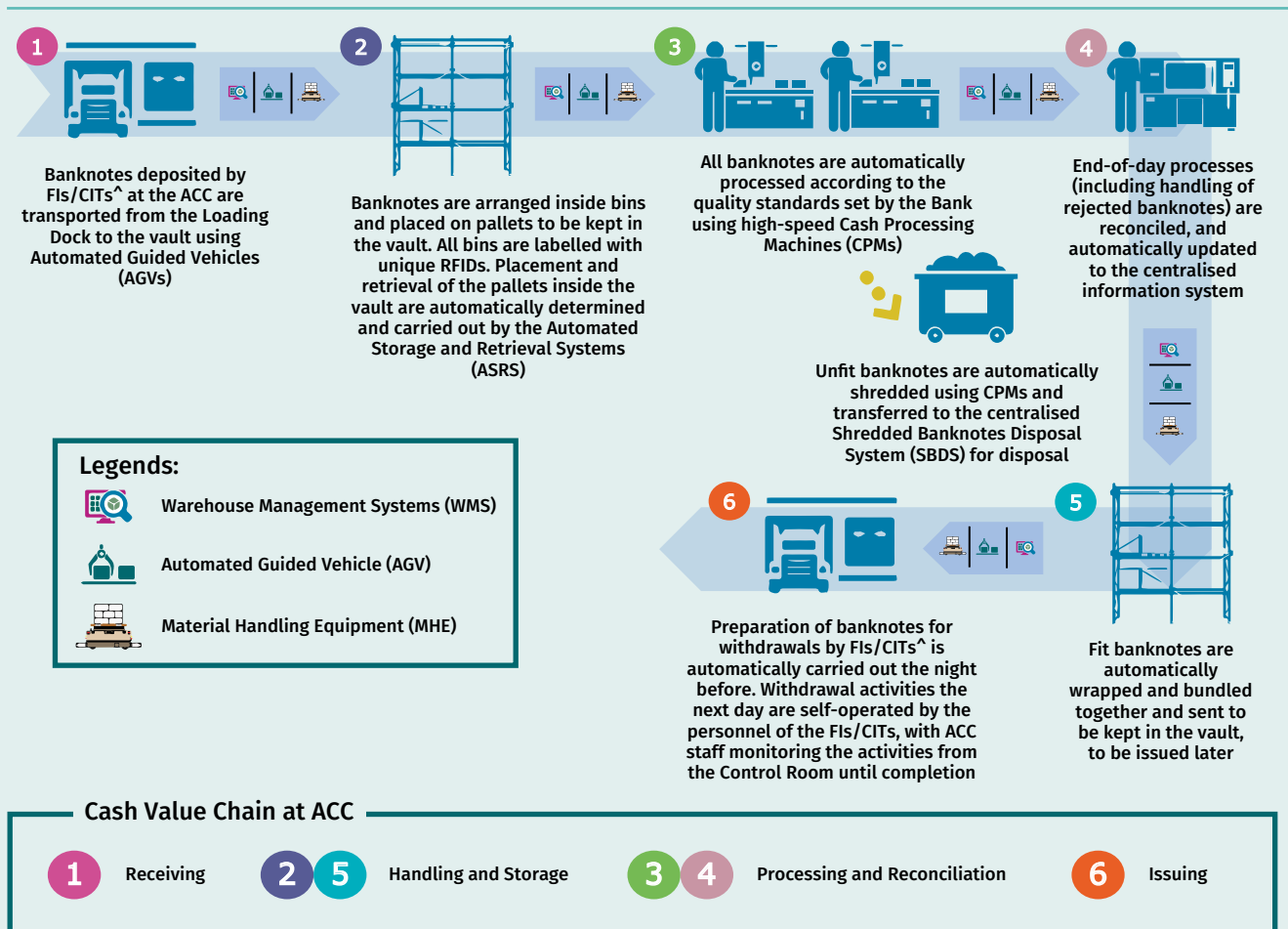
ACC – An Automated and Integrated Cash Management Facility

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 throughput¹ 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 robots⁴ 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 Convergence⁵

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



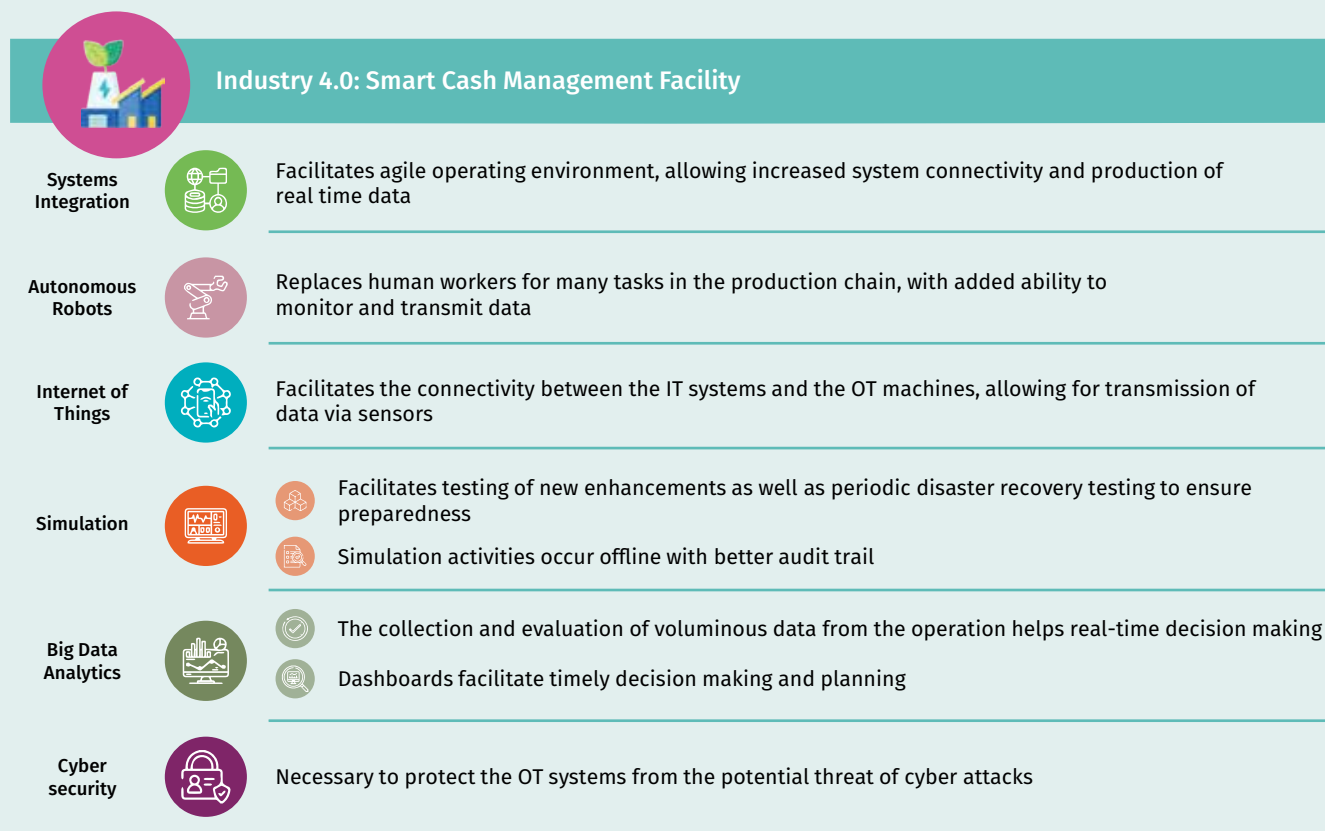
Source: Bank Negara Malaysia

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



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

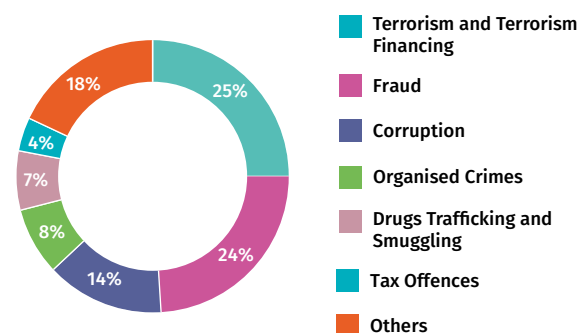
As the country's Financial Intelligence Unit (FIU), the Bank collects and analyses financial intelligence on suspected money laundering and terrorism financing (ML/TF) activities. The information is disclosed to domestic law enforcement agencies (LEAs) for further action on crimes under their purview. 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 MyFINet¹ 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.

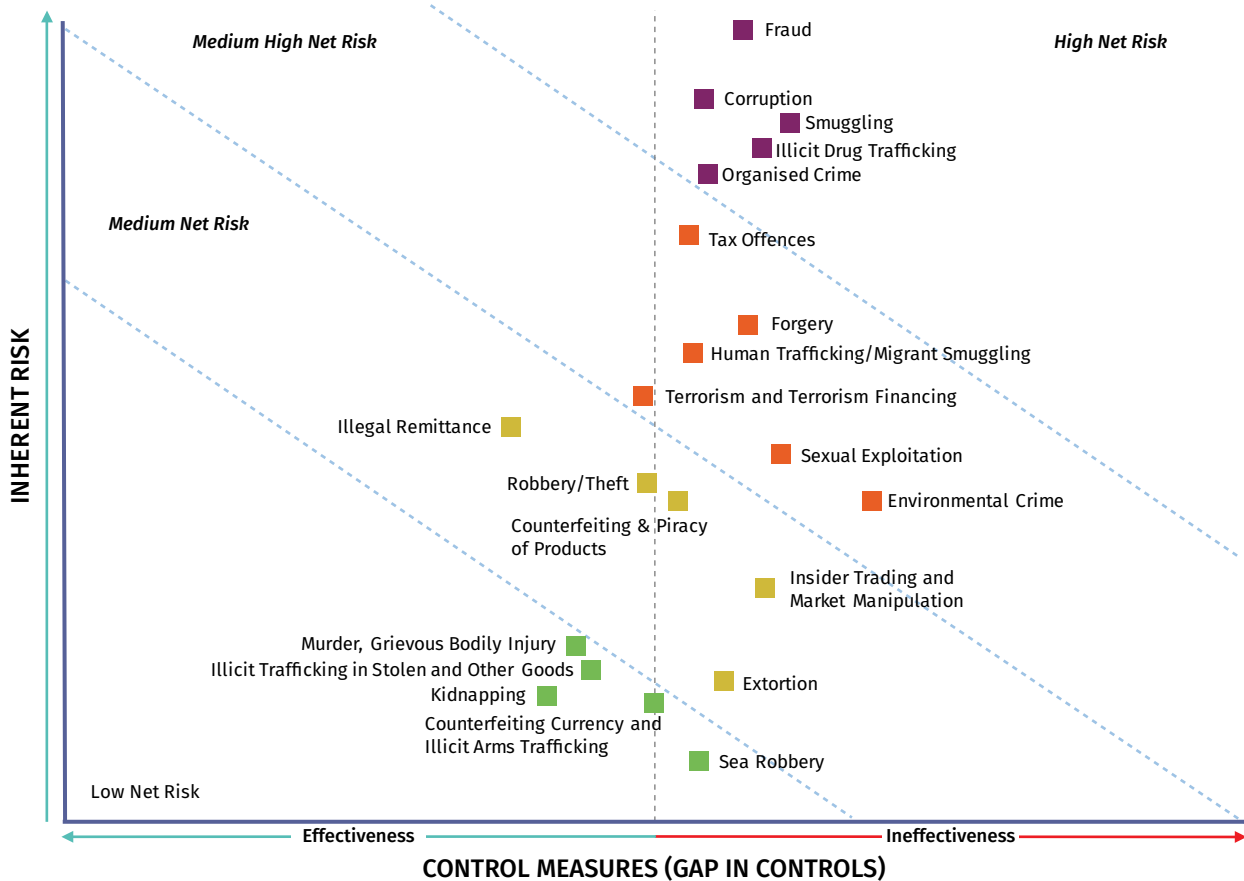
National Risk Assessment on Money Laundering and Terrorism Financing 2020 (NRA 2020)

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 DPs	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.