Our Role

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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

In our role of promoting monetary stability, the Bank seeks to implement a monetary policy that maintains a low and predictable pace of increase in the general level of prices of goods and services, taking into consideration economic developments and the outlook. Ultimately, the aim is to promote monetary stability that is conducive to the sustainable growth of the Malaysian economy.

Decisions on monetary policy are made autonomously by the Monetary Policy Committee (MPC), which meets six times a year.[1] The Bank undertakes monetary operations[2] to implement the decisions of the MPC.

Monetary policy in 2020

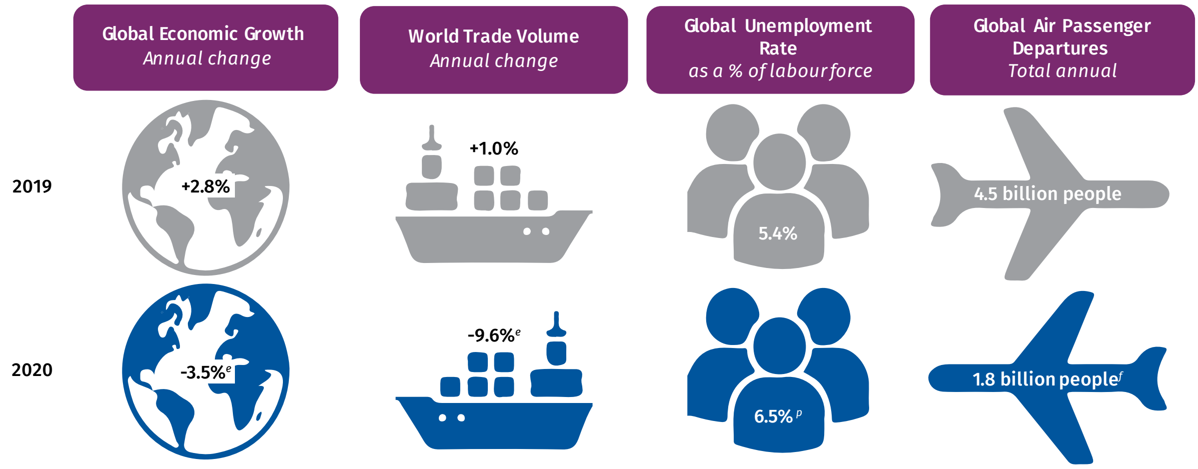
The outbreak of the COVID-19 pandemic in early 2020 initially began as a health crisis that later brought about an unprecedented economic crisis. Most economies globally were confronted by both supply and demand shocks following the measures imposed to contain the pandemic. Global production, demand and travel activities were severely disrupted, while heightened risk aversion among global investors led to financial market volatility. Substantial policy stimuli introduced by many economies, however, partially mitigated the economic impact of the pandemic.

Malaysia was similarly affected by the pandemic. Widespread containment measures, international border closures and the consequent weak external demand environment exerted a large drag on domestic economic activity. Containment measures in the form of movement control orders and standard operating procedures (SOPs), while necessary to contain the spread of the virus, constrained domestic production and spending. Consequently, labour market conditions weakened considerably. Fiscal stimulus measures, alongside monetary and financial measures, however, provided support to the economy. Overall, Malaysia's GDP growth contracted by 5.6% in 2020 (2019: +4.3%). Meanwhile, inflationary pressures were muted with average headline inflation turning negative for the year at -1.2% (2019: +0.7%) due mainly to the substantially lower global oil prices during the year. However, Malaysia was not experiencing deflation as the decline in prices was neither persistent nor broad-based.

At each MPC meeting, the Committee decides on whether the current level of the Overnight Policy Rate (OPR) – the sole indicator of the monetary policy stance – is at the appropriate level to safeguard price stability while supporting economic activity. As the effect of monetary policy action normally takes three to four quarters to most significantly affect the economy, the MPC, in making its decisions, assesses and deliberates on the outlook for both domestic economic growth and inflation. The Bank's staff facilitate this process by presenting their surveillance analysis, simulation results, scenario analysis, research findings and forecasts to the MPC. The MPC also takes into consideration the risks that financial imbalances may pose to the broader economy.

[1] More information on Malaysia's monetary policy and the MPC can be found in the 'Governance' section of this report.
[2] Monetary operations are discretionary market operations and the main mechanism through which the Bank adjusts liquidity in the banking system. This is done by absorbing or adding liquidity via various types of instruments to achieve its operating target, the average overnight interbank rate (AOIR). More information on the various instruments used can be found in the 'Monetary Operations' section of the Bank's website.

Chart 1: Snapshot of Disruptions to Global Economic Growth, Trade, Labour Markets and Travel Arising from the COVID-19 Pandemic



e Estimate

p Preliminary

f Forecast

Source: International Monetary Fund (IMF), International Labour Organisation (ILO) and International Air Transport Association (IATA)

In 2020, the MPC reduced the OPR by a cumulative 125 basis points from 3.00% to 1.75% at four MPC meetings held in January, March, May and July 2020. At 1.75%, the OPR is at its historical low. The reductions in the OPR were intended to provide appropriate support to economic activities. This was particularly the case at the onset of the pandemic, which brought about the need to cushion its impact on businesses and households. Amid a decline in economic activity, the OPR reductions helped to ease debt servicing burdens and thus cash constraints for households, small and medium enterprises (SMEs), and corporates. The lower interest rates also reduced the cost of financing and lent support to new credit expansion and fund-raising activity. The policy stimulus from the significant OPR reductions in 2020 are expected to continue to have a positive impact on the economy in 2021.

These OPR adjustments complemented other monetary and financial measures undertaken by the Bank, as well as fiscal measures implemented by the Government, in mitigating the economic impact of the pandemic and supporting the economic recovery. At the last two meetings of the year in September and November 2020, the MPC kept the OPR unchanged. The MPC assessed that the domestic economy was on a recovery path and that the accommodative monetary policy remained appropriate. Additionally, the MPC stressed the need for demand management measures to be complemented with supply-side and structural policies. This is important to ensure the economic recovery will be sustained post-pandemic.[3]

For monetary policy decisions to have the intended impact on economic activity, the Bank undertakes monetary operations focused on ensuring that there is a sufficient level of liquidity in the banking system so that the average overnight interbank rate (AOIR) remains around the OPR. This, in turn, influences the level of other interest rates in the economy, such as deposit rates, lending rates and bond yields, which affect savings and spending decisions of households and businesses. The Bank uses various instruments in its monetary operations such as unsecured borrowings and repos of various short-term tenures to ensure that there is sufficient liquidity in the domestic financial markets to support financial intermediation[4] in the economy.

During the year, particularly at the onset of the crisis, global and domestic financial markets experienced heightened risk aversion and uncertainty, which

[3] Greater detail on the analysis underpinning 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 2020.

[4] Financial intermediation refers to transactions between lenders, savers and borrowers, or investors and firms in financial markets.

Chart 2: Key Domestic Figures at a Glance

2019		2020
4.3%	Real GDP Growth (Annual change)	-5.6%
0.7%	Headline Inflation (Annual change)	-1.2%
3.00%	Overnight Policy Rate (OPR)	1.75%
3.00%	Statutory Reserve Requirement (SRR)	2.00% With flexibility for banking institutions to use MGS and MGII to comply with the SRR until 31 May 2021 (which has been extended until 31 December 2022*)

* Effective 20 January 2021

Source: Department of Statistics, Malaysia and Bank Negara Malaysia

resulted in periodic episodes of volatile financial conditions and capital flows. To preserve orderly financial market conditions and support financial intermediation activity, the Bank injected a total of RM63.6 billion worth of liquidity into the domestic financial markets through the outright purchases of Government securities[5], reverse repos and adjustments to the Statutory Reserve Requirement (SRR). The SRR was adjusted in March and May 2020, which saw the SRR ratio reduced from 3.00% to 2.00%, along with the temporary flexibility provided to all banking institutions to use Malaysian Government Securities (MGS) and Malaysian Government Investment Issues (MGII) to comply with the SRR.

[5] This includes Malaysian Government Securities (MGS) and Malaysian Government Investment Issues (MGII).

The ringgit exchange rate

Another key role of the Bank is to maintain the efficient and effective functioning of the foreign exchange market. The ringgit exchange rate plays an important role in the economy, as it affects, among others, the prices of our exports, imports and level of foreign currency debt. Malaysia continues to maintain a flexible exchange rate policy for the ringgit. This means that the ringgit exchange rate is predominantly determined by market demand and supply. This flexibility in the ringgit exchange rate plays an important role in ensuring that the economy is able to withstand external shocks by facilitating the appropriate adjustments in the country's international economic and financial transactions.

Nevertheless, as a highly open economy that faces large cross-border capital flows, this flexibility can at times lead to considerable volatility in the ringgit exchange rate, particularly when investors react to major global and domestic developments. Therefore, the Bank continues to ensure that movements in the exchange rate are not excessive so as to not disrupt domestic economic activity such as trade and investments. The Bank also supports the orderly functioning of the domestic foreign exchange market by ensuring there is sufficient liquidity at all times through our two-way foreign exchange interventions.

Analysis and research

Rigorous analytical surveillance and research on short-term and longer-term issues, including from the Bank's regional offices, support the MPC in formulating its monetary policy decisions.

A key focus for the Bank in 2020 was analysing how the pandemic and the consequent health and policy measures imposed both globally and domestically affected the economy, prices, employment and access to financing. The analysis was also crucial in assessing the strength of the expected recovery. The Bank faced unique and considerable challenges due to the rapidly changing nature of the public health crisis. Growth forecasts were consequently highly dependent on developments and key assumptions surrounding the course of the pandemic and the policy reactions of authorities worldwide. New high-frequency data and indicators such as mobility indicators, online credit card transactions and the usage of online delivery platforms for groceries and essentials were used to gauge the impact of containment measures and the pace of economic recovery.

Some of the key research undertaken by staff included assessing the channels and propagation of the pandemic through economies, and analysing the fiscal, monetary and financial policy responses globally.[6] To better understand the impact of the pandemic on inflation dynamics, staff also evaluated some of the ways that inflation was affected in the immediate term, and provided a preliminary assessment on how structural changes in the economy arising from the pandemic could have a longer-term impact on inflation.[7] Given the negative headline inflation experienced during the year, staff assessed the criteria that would constitute a deflationary environment.[8 9] Extending this analysis further, staff constructed a framework to identify items in the Consumer Price Index (CPI) basket that would be most vulnerable to price changes in the event of a resurgence in the pandemic, in order to better assess potential deflationary risks.

The Bank also evaluated the transmission of the OPR reductions to the domestic financial markets, the banking system, the economy and inflation. Additionally, given the low interest rate environment globally, research surrounding the effective lower bound (ELB) was conducted in order to assess the Bank's monetary policy space.[10]

Joint Policy Committee (JPC) meetings are held in order to holistically assess issues that pose implications to both monetary and financial stability. The JPC met during the year to consider an in-depth assessment on the impact of the pandemic on banks' asset quality and lending activity, as well as their potential implication for the recovery and growth prospects of the economy. Particular attention was given to assessing potential risks of rising gaps in the demand and supply of credit resulting from changes in both the borrowing and lending appetites and behaviour.

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6 Refer to the First Quarter 2020 BNM Quarterly Bulletin box article titled 'Crises and Policy: COVID-19 Truly is Different' on the Bank's website for the analysis.
7 Refer to the Second Quarter 2020 BNM Quarterly Bulletin box article titled 'COVID-19: Impact on Inflation' on the Bank's website for the analysis.
8 Deflation is defined as the persistent and pervasive decline in prices.
9 Refer to the Third Quarter 2020 BNM Quarterly Bulletin box article titled 'Understanding Deflation' on the Bank's website for the analysis.
10 Refer to the Box Article titled 'Asset Purchases by Central Banks' in the Economic and Monetary Review 2020 for the analysis.

During the year, the Bank continued to provide advisory support to the Government in navigating the economy through the crisis. The Governor is a member of the Economic Action Council (EAC), and the Bank participated in selected policy groups that focused on a range of economic priorities, including the formulation of the Twelfth Malaysia Plan (*Rancangan Malaysia Kedua Belas*, RMKe-12). In mitigating the impact of the pandemic on growth, the Bank was actively involved in proposing short to medium-term policy responses in order to protect the lives and livelihoods of Malaysians. Furthermore, as the financial advisor to the Government, the Governor is also a member of the Fiscal Policy Committee (FPC), which is responsible for strengthening public finances and preserving long-term fiscal sustainability. In addition, the Bank provided support on strategies to preserve the country's sovereign ratings.

The Bank also intensified its research on longer-term and structural issues facing the economy, focusing in particular on priorities to mitigate permanent scarring effects from the crisis and build the resilience and agility of the economy going forward. Major areas of work included strategies to promote more sustainable and inclusive growth, the continued need to reform investment policy and incentives, renewed urgency for holistic reforms in the labour market, and the need to increase digitalisation efforts.[11]

Communication and outreach

Despite movement restrictions and physical distancing requirements, the Bank's engagements with the public, media, economists and financial market participants on economic and financial market issues continued uninterrupted during the year, primarily through online platforms. Press conferences for the release of the Bank's Annual Report 2019, Economic and Monetary Review 2019, the Bank's Quarterly Bulletins and other engagements were conducted virtually. Previous efforts to increase the Bank's online presence allowed for the continued seamless sharing of information, assessments and analyses. In light of heightened uncertainties due to the pandemic, the Bank also intensified engagements with financial institutions, firms, members of industry, foreign direct investors and other central banks, including via the Bank's regional offices, to exchange views on economic, price and financial conditions, so that the Bank's assessments would be robust and well-informed.

The Bank's publications continued to provide timely and comprehensive information on monetary policy and economic analysis. The Monetary Policy Statement (MPS) provides the MPC's assessment on the economic outlook and the rationale behind the Committee's decisions. The Monthly Highlights provide monthly updates on economic, monetary and financial developments. Further in-depth economic analysis is published in the Bank's Quarterly Bulletins. The Bank's Annual Report 2019 was refreshed to be more accessible to the general public while the Economic and Monetary Review was launched in 2020 as a dedicated technical publication to share the Bank's assessments and outlook on the economy.[12] In line with the trend of embracing more digital forms of communication, content is also disseminated through social media platforms.

Going forward

In 2021, amid continued uncertainty surrounding the pandemic globally and domestically, the Bank will continue to deploy policies that will facilitate the pace and sustainability of the economic recovery. In this regard, monetary policy assessments by the MPC will be data-driven, as incoming information on economic and monetary developments will be crucial in ensuring that monetary policy remains accommodative to provide the necessary support to the economy. Monetary operations will continue to be directed at ensuring sufficient liquidity in the foreign exchange, bond and money markets, as well as complementing other policies by the Bank to ensure the orderly functioning of domestic financial markets and uninterrupted financial intermediation. The Bank will also continue to provide advice to the Government on appropriate policy measures to see Malaysia through a post-pandemic recovery and further strengthen the country's resilience for the future.

[11] Refer to the Box Article titled 'Getting the Great Reset Right: Structural Labour Market Issues in the Post-COVID World' in the Economic and Monetary Review 2020 for the analysis.

[12] The Monetary Policy Statements, Monthly Highlights, BNM Quarterly Bulletins, BNM Annual Report 2019 and Economic and Monetary Review 2019 can be found on the Bank's website.

Building Buffers: Roles and Functions of Bank Negara Malaysia's International Reserves

Introduction

International reserves constitute part of a country's external financial assets held against the rest of the world. The International Monetary Fund (IMF) defines international reserve assets as "External assets that are readily available to and controlled by central banks or monetary authorities[1] for meeting balance of payments[2] (BOP) financing needs, for intervention in exchange markets to affect the currency exchange rate, and for other related purposes".[3] This distinguishes international reserves from other domestic savings or funds, as it is narrowly defined and meant for specific purposes.

Bank Negara Malaysia's (BNM) international reserves play a critical role in Malaysia's macroeconomic management. In particular, it helps the economy withstand large and volatile capital outflows, thereby preserving macroeconomic and financial stability, and maintaining orderly financial market conditions and public confidence. This article outlines the reasons for reserve accumulations and deployments, and briefly describes the management of BNM's international reserves. It also addresses common misconceptions surrounding BNM's international reserves.

How do countries accumulate international reserves and why do they hold them?

Countries, particularly emerging market economies[4], accumulate international reserves primarily from cross-border trade and investment inflows. These activities generate foreign currency inflows and increase demand for the domestic currency in the foreign exchange market. The central bank conducts foreign exchange market operations as and when necessary, to ensure sufficient liquidity and orderly functioning of the foreign exchange market. This operation results in reserve accumulations or drawdowns as a by-product. The magnitude of foreign exchange market interventions and size of international reserve holdings vary across countries depending on the country's foreign exchange obligations, susceptibility to capital outflows and type of exchange rate regime.

Learning from previous crises, the self-insurance or precautionary motive has been more prevalent among emerging market economies. This was demonstrated during the 2013 Taper Tantrum[5], when ample international reserve buffers enabled affected emerging market economies to withstand capital outflows from domestic financial markets without adverse implications to the economy. In the aftermath of the Asian Financial Crisis, many emerging market economies have also made significant progress to further develop and deepen their domestic financial markets in order to reduce reliance on external financing.

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1 In most countries, the major part of international reserves are foreign currency holdings and foreign currency deposits and securities held by central banks or monetary authorities.
2 The balance of payments encompasses international trade and financial/investment transactions between residents of a country with the rest of the world.
3 Other related purposes include maintaining confidence in the domestic currency and economy, and serving as a basis for foreign borrowing (Source: International Monetary Fund (2013). "International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template").
4 Composed of 156 developing countries as identified by the IMF.
5 Estrada, G., Park D., Ramayandi A. (2015). "Taper Tantrum and Emerging Equity Market Slumps". Asian Development Bank (ADB).

Table 1: Motivations in Accumulating and Holding International Reserves

• **Precautionary motive to ensure ability to meet external obligations, particularly during large capital outflows**	Economies generally hold international reserves to meet external obligations. In the event of an economic or financial shock, large capital outflows may significantly reduce foreign currency liquidity in the domestic financial market, which is critical to ensure the demand for foreign currencies can be fulfilled efficiently. This could disrupt the ability of the country to meet its external obligations smoothly, as it faces difficulty in sourcing foreign currencies. An adequate level of international reserves provides assurance to external creditors and non-resident investors of the country's ability to meet its obligations, even during adverse market conditions, with the deployment of international reserves to ensure sufficient foreign currency liquidity in the domestic financial market. The Bank for International Settlements estimated that more than half of international reserve accumulations between 2000 and 2016 were driven by the precautionary motive.[6]
• **Facilitate smooth and orderly domestic foreign currency market functioning**	International reserves act as a buffer in allowing the central bank to conduct foreign exchange market interventions when necessary to maintain orderly domestic foreign exchange market conditions and avoid excessive exchange rate volatility. This is particularly important during periods of foreign exchange market stress. Excessive volatility in the foreign exchange market increases businesses' foreign exchange transactions and hedging costs. This can adversely affect trade and investment decisions. Holding adequate international reserves therefore provides confidence to market participants that the central bank is able to minimise excessive volatility in the exchange rate, thus avoiding panic in the foreign exchange market due to herd behaviour among foreign currency traders.
• **Mercantilist/export competitiveness**	Intervening in the foreign exchange market may also dampen a sustained appreciation pressure on a country's exchange rate. By doing so, it maintains an undervalued exchange rate that preserves export competitiveness. Through foreign exchange purchases, the central bank absorbs inflows of foreign currencies, builds up international reserves and suppresses the value of its domestic currency. This country may sustain large current account and trade surpluses at the expense of its trade partners' current account and trade deficits. This may invite actions especially by countries experiencing prolonged current account and trade deficits. It may even incentivise the affected countries to weaken their domestic currencies and implement protectionist policies in the form of tariff or non-tariff measures to shield their domestic industries against unfair foreign competition. Malaysia does not subscribe to the practice of preserving or gaining export competitiveness via international reserve build-ups as it is unsustainable and can lead to repercussions, including retaliatory measures from trade partners.
• **Tool to peg the currency under fixed exchange rate regime**	Exchange rate fluctuations may induce uncertainties and risk aversion that lead to weak consumption and investment decisions and activities. For example, a volatile and uncertain exchange rate may discourage long-term investments due to the difficulty in assessing an appropriate time to convert into foreign currencies for investment purposes. Countries may thus decide to use their international reserves to ensure exchange rate stability, including by pegging their domestic currency to a particular foreign currency or a basket of foreign currencies. International reserves may be accumulated or deployed as a result of foreign exchange market interventions aimed at stabilising exchange rate movements. With limited or no room for appreciation or depreciation in the exchange rate, countries with fixed or crawling exchange rate regimes would require a bigger international reserves buffer to defend a specific exchange rate target level during periods of large capital outflows.

[6] Arslan Y., Cantu C. (2019). "The Size of Foreign Exchange Reserves". Bank for International Settlements (BIS).

BNM's international reserves holdings: Motivations and management

Under the Central Bank of Malaysia Act 2009 (CBA 2009), BNM is entrusted to hold and manage international reserves for the purpose of ensuring financial and monetary stability, as well as maintaining public confidence.[7] Given Malaysia's deep trade and financial integration[8] with the global economy, international reserve holdings are vital as a tool that can be deployed to insulate the domestic economy against sudden capital flow reversals. In this regard, international reserves held by BNM are primarily for precautionary purposes to facilitate international trade and financial transactions, and to ensure orderly foreign exchange market conditions, especially during periods of economic or financial distress.

The management of international reserves by BNM is subject to a strict governance and risk management framework established pursuant to the CBA 2009. The framework sets out specific guidelines for managing the international reserves, including the permissible assets, investment limits and investment benchmarks that are approved by BNM's Board of Directors. The allocation of international reserve investments ensures sufficient foreign exchange liquidity while meeting the long-term objective for capital preservation, risks and returns.[9] This entails holding a well-diversified portfolio that can withstand adverse global market conditions. The Reserve Management Committee oversees the investment strategies and reviews risks emanating from the global economic and financial markets outlook. The risk management framework helps ensure the sustainability and adequacy of BNM's international reserves to meet Malaysia's external obligations.

Debunking misconceptions surrounding international reserves

This section of the article aims to respond to common misconceptions surrounding BNM's international reserves.

Misconception 1:
Malaysia's international reserves are too low.

Based on a wide range of internationally accepted benchmarks (Chart 1), BNM's international reserves as at end-2020 remained sufficient, and was neither too low nor too high. Given Malaysia's high degree of trade and financial openness, having sufficient international reserves is important to mitigate the impact of sharp reversal of capital flows.

Reserve accumulations have moved in tandem with potential foreign exchange liquidity needs of the economy. BNM's international reserves meet the reserves adequacy thresholds but do not significantly exceed these benchmarks. The international reserves are therefore adequate and not excessive[10].

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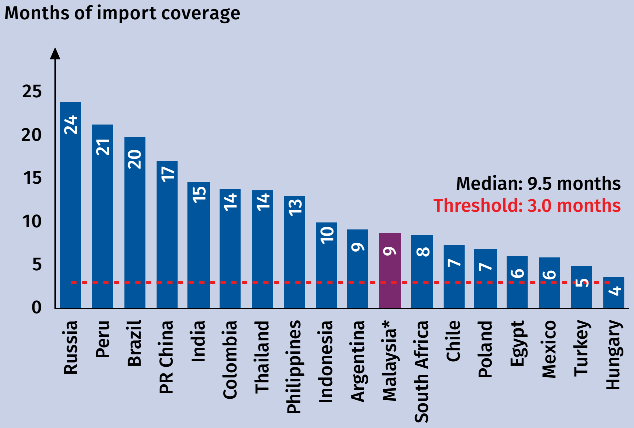
[7] Section 5(2) Central Bank of Malaysia Act 2009.
[8] As measured by trade and financial openness. As at end-2020, Malaysia's trade openness (sum of export and import of goods and services divided by GDP) stood at 117% of GDP while financial openness (sum of external financial assets and liabilities divided by GDP) stood at 266% of GDP.
[9] "Risk Management and Internal Control". BNM Annual Report 2019.
[10] Accumulating large international reserves involves opportunity costs whereby excessive foreign currency funds are invested in highly liquid and more conservative reserve assets. In addition, aggressive reserve accumulations could undermine the role of the floating exchange rate and may be interpreted by trade partners as pursuing the export competitiveness motive. This could lead to several repercussions including under-investment in the domestic sector, over-reliance on the export sector and retaliatory measures from trade partners as discussed in the previous section.

Chart 1: International Reserves Adequacy Indicators[1]

International reserves coverage of imports (months)

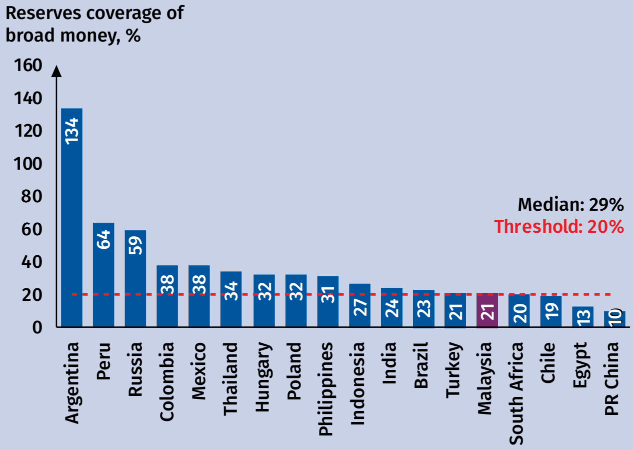
Measures a country's ability to finance its import payments if other net flows are halted.



* Malaysia uses retained imports as its benchmark.

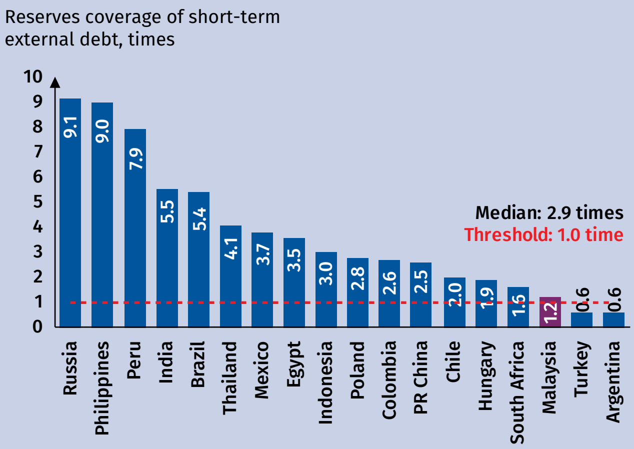
International reserves coverage of broad money (percent)

Measures a country's ability to withstand capital flight if other net flows are halted.



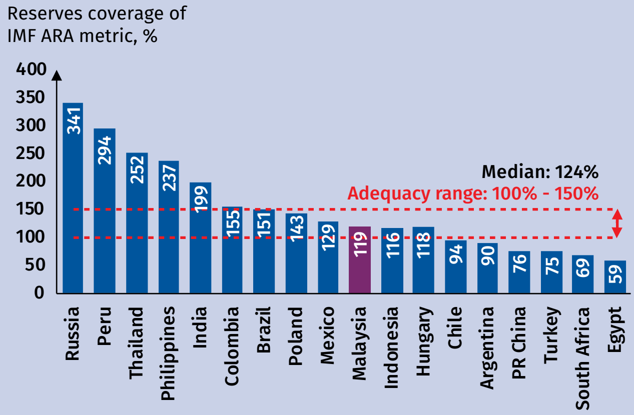
International reserves coverage against short-term external debt (times)

Measures a country's ability to meet its external debt obligations maturing in the next 12 months if other net flows are halted.



International reserves coverage of IMF's Assessing Reserve Adequacy (ARA) metric (percent)

Assesses a country's potential foreign currency liquidity needs taking into account its level of exports, broad money, short-term external debt and other liabilities.



[1] As at end-2020, except for country-level data in international reserves coverage against short-term external debt for Argentina, Colombia, Egypt, Philippines, Poland, PR China, Russia, Thailand and Turkey, which are as at end-September 2020.

Source: International Monetary Fund, CEIC Data, national authorities and Bank Negara Malaysia

Misconception 2:

International reserves could be used to finance the Government's fiscal deficit and pay off part of Government debt.

As a highly open economy, Malaysia is exposed to sudden and sizeable two-way capital flows. BNM is entrusted to ensure that the impact of these capital flows is well-managed, in order to preserve orderly foreign exchange markets and stable macroeconomic conditions. BNM's international reserves are at a level commensurate with Malaysia's external liabilities. Depleting BNM's international reserves for other purposes would affect Malaysia's ability to withstand and respond to external shocks, thereby exposing the country to significant risks during periods of stress.

The country's experience with past episodes of large and volatile capital flows, as recently as 2015, underscore the criticality of holding sufficient amount of international reserves. Malaysia has experienced several such episodes of large capital flow reversals. For example, during the 2008-2009 Global Financial Crisis and 2014-2015 oil price shock episodes, portfolio outflows amounted to USD26.0 billion (3Q 2008 – 1Q 2009) and USD13.7 billion (3Q 2014 – 3Q 2015), respectively. During these episodes, BNM deployed its international reserves to mitigate the significant withdrawal of foreign currency liquidity and ensure orderly functioning of the domestic foreign exchange market. This successfully prevented excessive ringgit exchange rate fluctuations that would have harmed the Malaysian economy. This demonstrates the importance of holding adequate level of international reserves to minimise any adverse impact from sizeable capital withdrawals to the economy. It also underscores that BNM's international reserves are needed for its intended objectives and should not be utilised for other purposes, including financing the Government's fiscal deficit or paying off Government debt. Financing fiscal spending using international reserves is viewed negatively by financial market investors and analysts as it signals potential for further depletion of international reserves.

Misconception 3:

BNM uses the reserves to target a specific level of ringgit exchange rate.

BNM does not target any specific ringgit exchange rate level. Malaysia maintains a flexible exchange rate policy where the level of the ringgit exchange rate is market-determined.[11] This allows the exchange rate to play an important role in the economy, particularly to respond to and absorb the impact of external shocks effectively (see Chart 2). As outlined in the preceding sections of this feature article, BNM's aim is to maintain orderly functioning of the domestic foreign exchange market. Hence, BNM's foreign exchange intervention operations are meant to prevent disorderly foreign exchange market conditions and avoid excessive exchange rate volatility by ensuring sufficient liquidity in the domestic foreign exchange market. It is important to note that these foreign exchange intervention operations are conducted during periods of ringgit appreciation and depreciation. The two-way foreign exchange interventions underscore that BNM does not target any specific exchange rate.

Ongoing efforts to further strengthen Malaysia's external resilience

The progressive liberalisation of the Foreign Exchange Policy[12] has resulted in the accumulation of external assets by corporates and banks amounting to USD365.5 billion as at end-2020, up from USD62.6 billion as at end-2001. These external assets can be used by domestic entities to meet their external obligations, without creating a claim on international reserves.

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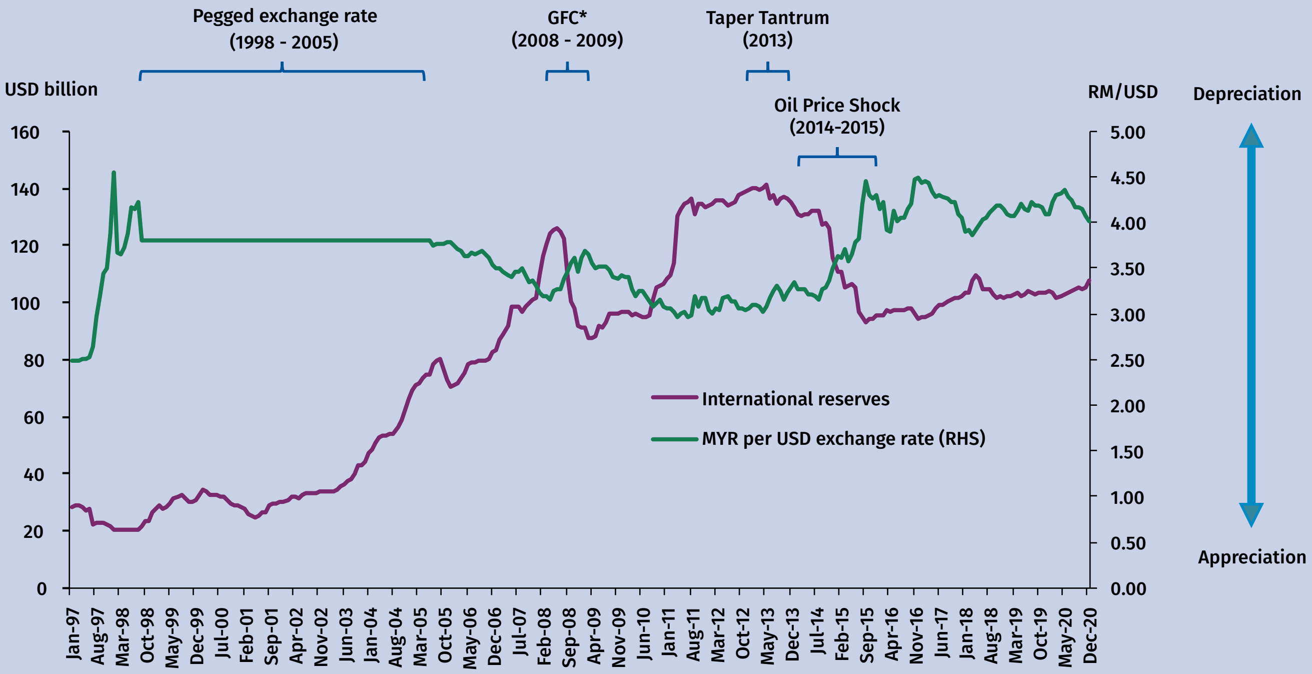
[11] The IMF classifies the ringgit exchange rate under the floating arrangement, which is defined as "largely market determined, without an ascertainable or predictable path for the rate". In addition, this classification acknowledges that countries with a floating exchange rate arrangement do engage in foreign exchange interventions, specifically to maintain orderly foreign exchange market functioning. Under this definition, foreign exchange interventions are not aimed to target a specific level of the exchange rate.

[12] A set of prudential measures related to the foreign exchange market to promote monetary and financial stability conducive to the sustainable growth of the economy and safeguarding the balance of payments position.

Chart 2: International Reserve Levels and RM/USD Exchange Rate



* Refers to the 2008-2009 Global Financial Crisis

Source : Bank Negara Malaysia

To further strengthen Malaysia's external resilience, BNM has continued to pursue initiatives to deepen the domestic financial market and to promote more active management of foreign exchange risks by corporates, banks and households. This includes enhancing the domestic foreign exchange market access and facilitating the development and offering of efficient foreign exchange hedging products and instruments to protect against exchange rate fluctuations. These measures enhance Malaysia's flexible exchange rate to serve its purpose as the first line of defence in facilitating adjustments in the economy in response to shocks. In addition, these initiatives have helped increase the average monthly turnover of foreign exchange swaps, forwards and options from USD67.3 billion in 2012 to USD171.9 billion in 2020.

Continued efforts to advance international cooperation and ease of access to global and regional financial safety nets complement the country's action to boost economic and financial resilience. A notable example is the Chiang Mai Initiative Multilateralization, a regional multilateral currency swap agreement between ASEAN, PR China, Japan and South Korea, which aims to address balance of payment and short-term foreign exchange liquidity needs. These initiatives can serve a supplementary role to support existing international reserves.

Conclusion

BNM's international reserves remain adequate, but not excessive, to meet the potential foreign currency needs of the economy during periods of shocks. This is to ensure that international trade and financial transactions are not disrupted during periods of market stress. BNM's foreign market interventions are consistent with Malaysia's flexible exchange rate regime to allow the necessary macroeconomic adjustments to take place in response to external shocks. In addition, the wide-ranging availability of exchange rate hedging instruments allow businesses and individuals to protect themselves against exchange rate fluctuations. Malaysia's participation in the regional and global international financial safety nets provides another layer of buffer against foreign currency liquidity shocks. Therefore, given the important role of international reserves, it is critical that they are utilised prudently and appropriately.

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Promoting Financial Stability

The Bank is mandated to promote financial stability conducive for sustainable economic growth. We discharge this mandate by ensuring that the financial system is resilient throughout the economic cycle and is able to withstand shocks. This involves us promoting resilient and well-managed financial institutions, fostering safe and reliable clearing and settlement systems, and ensuring orderly financial markets. Ultimately, a sound and stable financial system contributes to the delivery of safe and effective services to financial consumers.

Financial stability priorities in 2020

The significant disruptions and impact on the economy brought about by the pandemic were a major test for financial institutions. In light of these challenges, the Bank adjusted its regulatory and supervisory priorities to achieve three key objectives. Firstly, to ensure that financial institutions have sufficient buffers to support intermediation activities during the crisis and recovery phase. Secondly, to ease cash flow pressures of affected borrowers by providing timely and coordinated assistance. Thirdly, to reduce procyclical behaviours that could amplify financial and macroeconomic risks.

Given the economy-wide disruptions due to movement restrictions, financial institutions made immediate adaptations in working arrangements to ensure that financial services remained uninterrupted, while protecting the safety and health of employees. Coordinated responses – both within financial institutions and across the industry – were critical in efficiently managing the operational risk under these unprecedented circumstances (Diagram 1).

There were no significant operational risk losses or events in 2020 as financial institutions stepped up their controls and governance processes that enabled them to swiftly identify and respond to operational disruptions from the movement control orders. Even so, the pandemic fundamentally tested the business continuity and disaster recovery plans of financial institutions, as they were not designed to address the specific nature and extended duration of business interruptions encountered in this crisis. Most financial institutions have now updated their business continuity plans to provide for more pervasive and persistent operational disruptions, thus strengthening their operational capacity to respond to future shocks.

Banking – COVID-19 relief measures

Following the strict nation-wide Movement Control Order (MCO) announced in March 2020, we worked with the industry to introduce a six-month automatic moratorium on repayments for eligible individual and small and medium enterprise (SME) loans/financing starting 1 April 2020. This was to enable immediate cash flow relief for households and businesses at the scale and speed necessary amid a sudden halt to economic activities. Roughly eight million individual borrowers and 250,000 SMEs benefited from the automatic moratorium. In addition, banks also provided support to larger corporates via restructuring and rescheduling of loans/financing.

Diagram 1: Key responses to manage operational risk in the COVID-19 landscape

Key Responses to Manage Operational Risk in the COVID-19 Landscape

Coordinated action and standardised procedures	Centralisation of communications	Managing information technology (IT) risk
		
The Bank worked closely with the Government and industry to develop and implement various standard operating procedures (SOPs) for the financial sector during the series of Movement Control Orders (MCOs). This covered both workplace safety and customer-facing operations.	A centralised, two-way communication channel was established between the Bank and industry to ensure clear communication of instructions and swift reporting of operational risk incidents, issues and challenges to the Bank to facilitate coordinated responses where relevant. Within financial institutions, dedicated taskforces were set up to coordinate various facets of the COVID-19 response.	Restricted movements necessitated greater use of online platforms for customer engagements, and also for employees in work-from-home arrangements and split operations. Cyber and IT risk management was thus a key priority for financial institutions. Throughout the year, financial institutions reinforced their cyber defences and strengthened coordination with third-party service providers to ensure the resiliency of their IT security and infrastructure.

With the easing of MCO restrictions from May onwards and improving economic conditions, about 840,000 borrowers resumed repayments by the end of September 2020. We worked concurrently with the industry to transition towards more targeted repayment assistance, focusing on those who continued to require financial assistance, such as microenterprises and those who have become unemployed or have experienced significant reduction in incomes. As the gradual resumption in economic activities meant that borrowers would have different financial needs, the targeted assistance enabled borrowers to receive continued help based on their specific financial circumstances. Borrowers that could afford to repay their loans/financing were encouraged to do so in order to reduce overall borrowing costs. At the same time, borrowers were assured that if their financial circumstances change as a result of further shocks due to the pandemic, they could still seek help in future, without affecting their credit records in the Central Credit Reference Information System (CCRIS). Key figures on targeted assistance are provided in Diagram 2.

Beyond assistance packages, banks also worked closely with the Credit Counselling and Debt Management Agency (or *Agensi Kaunseling dan Pengurusan Kredit* (AKPK)) to ensure that borrowers who go through AKPK's debt management programmes were able to secure assistance quickly. This was done by standardising the debt restructuring assessment metrics, thus materially shortening the time taken for AKPK to process individual applications for assistance.

Banks adopted new approaches to render COVID-19 repayment assistance as efficiently as possible, without compromising on robust governance and risk management standards. Given the scale and speed of the endeavour, there were dedicated functions with clearly defined authority and assigned accountabilities to coordinate actions within banks. These dedicated functions were primarily responsible for developing the overall strategy and outcomes of repayment assistance, establishing internal policies and procedures, ensuring the adequacy of infrastructure and resources, overseeing effective communication and engagement strategies, as well as monitoring the risks and effectiveness of the assistance programmes.

Diagram 2: Take-up for assistance provided by the banking sector and insurance and takaful sector

BANKING SECTOR

By 31 December 2020,

95% of retail borrowers

85% of SME borrowers

were able to **resume payments**

95% of applications for repayment assistance were approved

Loans/financing under approved repayment assistance plans **RM 204 billion**

1.3 million applications received

INSURANCE AND TAKAFUL SECTOR

COVID-19 TEST FUND

for eligible individuals with medical insurance policies and takaful certificates

By 31 December 2020,

RM 8 million was committed, of which **RM 1 million** was used by **>3,600 beneficiaries**

PREMIUM AND CONTRIBUTION DEFERRALS

By 31 December 2020,

>58K life insurance premiums/takaful contributions were deferred, amounting to **>RM 74 million**

6.7K restructured general insurance premiums/takaful contributions, amounting to **RM 105 million**

Insurance and takaful – COVID-19 relief measures
Similar relief measures were provided by the insurance and takaful industry to ease cash flow constraints, preserve coverage and reduce the cost of protection for affected policyholders and takaful participants. These include options to defer payment of life insurance premiums and family takaful contributions for three months, restructuring of insurance policies and takaful certificates, waivers of fees and charges, and expedited claims processes. Despite significantly higher claim costs incurred by insurers and takaful operators in recent years, the industry also deferred planned repricing exercises that were due for medical and health insurance policies and takaful certificates to 2021. Further information on the take-up rate of assistance is provided in Diagram 2.

In light of the reintroduction of the MCO in many parts of the country in January 2021, the insurance and takaful industry has agreed to extend these relief measures and introduced new measures to further reduce the financial burden of policyholders and takaful participants. These include an extension of the application period for premium/contribution deferments until 30 June 2021 and a six-month waiver of interest for repayments of deferred premiums/contributions to help consumers gradually resume their premium /contribution payments.

Additionally, the insurance and takaful industry also supported the Ministry of Health's efforts to ramp up COVID-19 testing by pledging a sum of RM8 million to the COVID-19 Test Fund (CTF) established by the industry. More details on the take-up of the CTF are provided in Diagram 2.

Ensuring clear and transparent communications
The Bank stepped up its communications during the pandemic to keep customers informed of the financial assistance rendered by the financial industry. We worked closely with the financial industry on various initiatives throughout the year to communicate information on available assistance programmes, and to provide redress and advisory channels where customers can get help to manage their financial challenges during this period. Outreach initiatives to the public and SMEs are elaborated in more detail in the chapter "Engaging Malaysians".

Beyond creating awareness on repayment assistance, the Bank also collaborated with member institutions[1] of the Financial Education Network (FEN) to expand the reach of financial literacy initiatives, leveraging digital platforms and social media. Outreach programmes that focused on prudent and effective financial management matters were well received nation-wide. Further details are provided in Diagram 3, as well as the Feature Article on "A Primer on Taking Control of Your Finances".

Regulatory and supervisory priorities
Financial institutions entered the pandemic from a position of strength. Banks, insurers and takaful operators were able to provide meaningful assistance largely due to their financial buffers built up over the years. This strong financial position enabled them to support substantial relief measures and financial intermediation. The Bank's regulatory and supervisory priorities focused on practices of financial institutions in managing risks and promoting fair consumer outcomes, particularly in connection with financial assistance rendered to consumers. We also intensified our engagements with financial institutions on measures taken to ensure their operational resilience in light of significant adjustments to work processes and customer interfaces in response to the pandemic. In addition, we provided greater financial and operational flexibility to financial institutions through appropriate adjustments to regulatory requirements to reflect the heightened uncertainty generated by the pandemic crisis and mitigate procyclical behaviour. We also re-planned our regulatory and supervisory programme to reduce burdens on financial institutions so that they could focus on supporting their customers during the crisis. An overview of these measures is provided in Diagram 4.

For the money services business industry, with border closures and restricted movements, the currency exchange segment was particularly affected. Operational flexibilities were provided to ease the financial and operational burdens of

[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, Credit Counselling and Debt Management Agency, and *Permodalan Nasional Berhad*. FEN formulated the National Strategy for Financial Literacy 2019-2023, a 5-year roadmap to elevate the financial literacy of Malaysians and to empower Malaysians to (a) save, manage and protect their finances, (b) plan and ensure a sustainable future, and (c) protect themselves from fraud and financial scams.

Diagram 3: Financial education initiatives conducted by FEN

FEN initiatives aim to educate target segments of the population
e.g. youth, workers, MSMEs & low-income group

over **290** initiatives by FEN members and partners

with **36.1** million interactions* (participants, viewers, listeners, readers)

and over **300** million reached on social media platforms

Key topics covered

- Seeking help early for loan repayment assistance
- Money management in challenging times
- Financial hygiene
- Healthy financial behaviours & rational attitudes on financial management
- Financial fraud alerts
- E-payments

* Refers to interactions via webinars, competitions, financial education talks, games, quizzes, radio and TV programmes, newspaper articles, virtual exhibitions.

money services business operators. These measures included waiving their annual licence fees, exempting them from staff training expenditures, and extending submission deadlines of audit and statistical reports to the Bank.

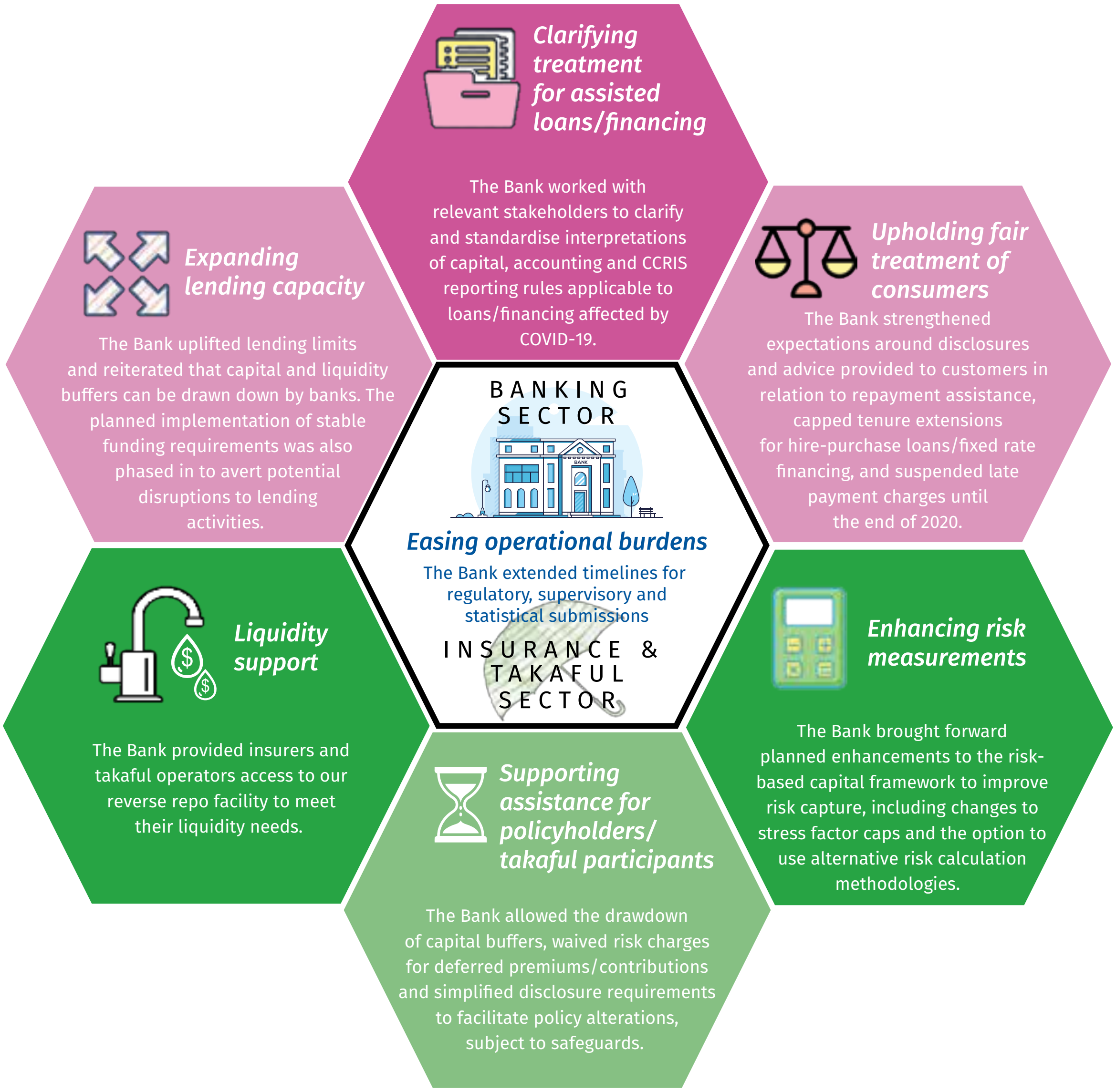
Supervisory focus and priorities

The pandemic presented challenges for prudential supervision that called for the Bank to adapt its supervisory approach and practices. Cross-section teams were set up to undertake more timely and integrated assessments that brought together the Bank's macroeconomic and sectoral reviews with financial sector perspectives as the crisis unfolded. There were more frequent engagements with boards and senior officers of financial institutions, as well as external auditors, to complement off-site surveillance by the Bank. Discussions with banks focused on their approaches and development of alternative metrics and indicators to assess borrowers' financial health in a time of significantly reduced visibility or accessibility to more conventional indicators of repayment behaviour. Supervisory efforts were also directed at strengthening the rigour of stress test exercises and forward-looking risk assessments conducted by both the Bank and financial institutions to take into account evolving risks. Collectively, these enabled the Bank to maintain close vigilance over the risk-taking behaviours of financial institutions and the adequacy of their capital and liquidity buffers.

Engagements with other regulators and supervisors

Given the pandemic's global impact, cross-border and inter-agency cooperation and exchanges were critical during the year. We engaged closely with regulators globally and in the region to share experiences and lessons on policy and supervisory responses to COVID-19. Supervisory colleges also continued to be organised virtually to support the Bank's group-wide supervision of financial institutions with significant overseas operations as well as the supervision of the local subsidiaries of large international financial institutions. During the year, we hosted or participated in supervisory colleges for nine insurance groups and four banks, with regulators from 13 countries. These engagements were particularly important to enable us to anticipate and size up emerging risks arising from the economic impact of the pandemic, evaluate alternative options for responding to identified risks and where relevant, coordinate actions, including communications, to mitigate risks.

Diagram 4: Regulatory relief measures for the banking and insurance and takaful sectors



We also continued to actively contribute to the work of the Basel Committee on Banking Supervision (BCBS), the International Association of Insurance Supervisors (IAIS), the Executives' Meeting of East Asia-Pacific Central Banks (EMEAP), the Islamic Financial Services Board (IFSB), and the Network for Greening the Financial System (NGFS) towards reinforcing the resilience of the financial sector during the crisis and facilitating a sustainable recovery post-crisis. Our areas of focus are broadly in line with the priorities of the BCBS and the IAIS. These include strengthening supervisory monitoring and coordination, and ensuring that prudential standards are implemented sustainably to provide financial institutions with the operational capacity to respond to the COVID-19 pandemic, especially in providing the necessary support to meet the needs of the economy. We also continue to maintain a line of sight over emerging risks from climate change and digitalisation.

Domestically, we worked closely with other regulators and agencies, including the Malaysia Deposit Insurance Corporation (or *Perbadanan Insurans Deposit Malaysia* (PIDM)) and the Securities Commission Malaysia to address risks and issues affecting the financial sector. We also continued to work with the National Cyber Security Agency (NACSA) and CyberSecurity Malaysia (CSM) on coordinating responses to cyber threats targeted at financial institutions. In addition, the Bank continuously worked with the industry to enhance the cyber hygiene of the financial sector and foster information sharing on latest developments relating to cyber threats. Another key area of collaboration was the establishment of a joint taskforce with banks and the Malaysian Accounting Standards Board (MASB) to identify and streamline key interpretation issues relating to the treatment of assisted loans.

Enforcement actions

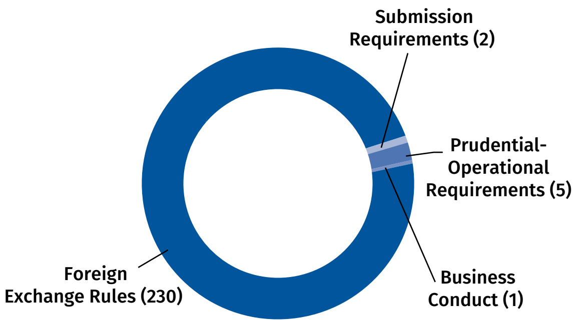
In delivering the Bank's financial stability mandate, we use a range of supervisory and enforcement actions to promote strong governance, compliance and risk management practices by financial institutions, ensure appropriate protection of financial consumers and protect the integrity of the financial system. Supervisory actions, such as reprimands and directives, are typically used to address shortcomings in compliance, governance and risk management practices that are less severe in nature. Formal enforcement actions such as administrative monetary penalties and compounds, on the other hand, are pursued in cases of serious breaches of our regulatory requirements and unlawful activities that can create undue risks to the public or undermine confidence in the financial system. In 2020, a significant majority (99%) of our interventions were supervisory actions. The remaining 1% were enforcement actions, where the Bank imposed administrative monetary penalties against two licensed institutions. The higher number of supervisory actions taken as compared with enforcement actions is commensurate with improving compliance amongst reporting institutions.

During the year, we pursued 277 supervisory and enforcement actions against institutions. Notably, almost three quarters were taken against institutions that are not under the Bank's regulation (Chart 2). These were mainly low severity cases involving export-related non-compliances, which arose from a lack of awareness or understanding of the prevailing rules. As part of ongoing efforts to raise awareness on relevant regulatory requirements, the Bank has continued to conduct periodic briefings for exporters and trade associations, develop training programmes for bank personnel in collaboration with the Asian Banking School, and widely disseminate key information and supplementary materials to SME associations and business chambers.

The Bank also curbed various illegal financial activities by imposing cease and desist orders against eight illegal money services business operators and pursuing criminal investigations against ten others. Our efforts also secured six convictions related to illegal money services business, illegal deposit taking and money laundering, resulting in fines totalling RM 1.3 billion and jail terms for the offenders.

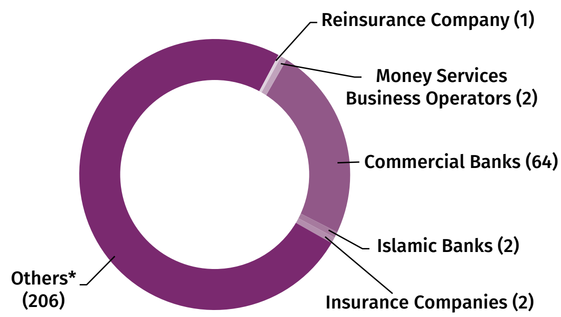
During the year, enhancements were made to the Bank's Enforcement and Penalty Framework and the assessment process to clarify the application of principles of proportionality and consistency, as well as to improve its transparency. In line with the latter objective, all enforcement actions taken by the Bank have been published on our website since 2019. Changes were also made to facilitate more expedient enforcement actions and settlements when an offence or breach has been proven.

Chart 1: Number of cases in 2020 by type and nature of offences



Source: Bank Negara Malaysia

Chart 2: Number of actions taken in 2020 by type of institutions



*Individuals and entities not regulated by the Bank
Source: Bank Negara Malaysia

Going forward

While we are on a recovery path, uncertainties surrounding COVID-19 and the structural impact on certain economic sectors will continue to present challenges in the immediate future. As such, regulatory and supervisory priorities in 2021 will remain focused on identifying and responding to emerging risks, while laying the foundations for a swift and sustainable economic recovery. Ongoing initiatives will also continue to be pursued to ensure that the financial system remains well placed to support the real economy amid transformational shifts brought about by new technology, new players and structural changes in the economy.

The regulatory and supervisory work in 2021 will centre on enhancing the risk capture and responsiveness of regulatory policies set by the Bank. It will also seek to strengthen the longer-term resilience and sustainability of financial institutions both financially and operationally. We will continue to focus on stress testing and crisis simulations, as well as technology risk management given the accelerating pace at which financial services will move from physical spaces to virtual platforms. Refinements to existing regulatory and supervisory frameworks in the coming year will also account for new technologies and business models adopted by financial institutions, including those by new entrants to the system such as digital banks.

Promoting a Progressive and Inclusive Financial System

The Bank is committed to promoting a progressive and inclusive financial system that best serves the needs of the Malaysian economy.

In 2020, we continued to advance the development of the financial sector despite challenges in managing and responding to the pandemic. Efforts were geared towards accelerating the digitalisation of financial services, deepening financial markets, enhancing access to finance and financial inclusion, and building financial resilience.

Accelerating the digitalisation of financial services

For individuals and businesses alike, digitalisation would contribute to easier, faster and cheaper ways to access services and manage their finances. Recognising this, the Bank strives to ensure that our regulations are responsive to digital innovations that aim to better serve communities, while ensuring that financial institutions are effectively managing the associated risks.

Arising from the pandemic, there was an accelerated shift towards online financial services. In 2020, online banking transactions grew by 49% while e-wallet[1] transactions increased by 131% compared to the same period last year (see more trends in the chapter on "Promoting Safe and Efficient Payment and Remittance System"). To further support the uptake of online financial services, the electronic Know-Your-Customer (e-KYC) Policy Document was issued in June 2020, enabling the opening of accounts digitally for customers to occur anytime and anywhere. As a gateway towards digitalisation, e-KYC is expected to pave the way for greater innovation and provision of end-to-end digital financial services. Several financial institutions, including banks, e-money issuers and remittance service providers have adopted e-KYC solutions, with more expected to follow in 2021.

The Bank issued the Policy Document on Licensing Framework for Digital Banks on 31 December 2020. The licensing of new players with innovative business models is expected to serve the economy and contribute to the well-being of Malaysians. Through the use of agile technology platforms and data analytics, digital banks are expected to widen the offering of banking products and services that are more targeted towards solving Malaysian consumer pain points, particularly for the unserved and underserved consumer segments. The Bank will adopt a proportionate regulatory framework as well as require digital banks to observe limits on aggregate asset exposures during the initial years of operations. These measures are intended to reduce barriers to entry, whilst allowing the Bank to observe attendant risks. With the publication of the Policy Document, the Bank has begun accepting licence applications until 30 June 2021. Up to five licences may be issued to qualified applicants by the first quarter of 2022. Successful applicants will have to be able to demonstrate a strong value proposition focused on the unserved and underserved segments and the ability to meet regulatory requirements to safeguard the stability of the financial system.

In recent years, we have observed notable progress in the use of technology in the financial markets. Our aim is to improve efficiency and transparency in the intermediation and price discovery process. In 2020, digitalisation in the onshore financial market advanced further in the area of foreign exchange trading. Following the publication of

[1] Network-based e-money which are accessible via the internet, mobile phones or other devices.

the Framework for Electronic Trading Platforms (ETP) in 2019, the Bank in 2020, approved three (3) global ETP operators to provide their services as intermediaries in the Malaysian financial market. This contributed to the digitalisation of the financial market, which also served to support increased remote working arrangements during the pandemic. Trades through ETPs accounted for nearly 19% of the total onshore foreign exchange turnover following the commencement of operations by the approved ETP operators.

The Fintech Regulatory Sandbox (Sandbox) continued to play an important role in encouraging innovation in the financial sector. Most notable has been the growing interest from applicants providing Insurtech solutions such as end-to-end digital insurance, digital insurance broker and financial aggregation business. This development resonates closely with the Bank's agenda to increase insurance penetration, thus further deepening financial inclusion in Malaysia. For 2020, one takaful operator has received approval to live test its peer-to-peer (P2P) family takaful product in the Sandbox. Meanwhile, four (4) fintech companies have advanced to the preparation stage[2] for subsequent live testing of their solutions. However, quite a large number of the applications during the year were either withdrawn by the participants or did not meet criteria for admission to the Sandbox, typically because the proposed innovative solutions did not face any regulatory hindrance to warrant testing in the Sandbox or there was a lack of operational readiness for live testing.

We also took active steps to facilitate a wider range of innovation beyond fintech solutions. To this end, the Financial Technology Enabler Group (FTEG), a cross-functional internal working group established in June 2016 to support the Bank in regulatory policies and development strategies for the adoption of technological innovations in the Malaysian financial services industry was renamed the Financial Technology and Innovation Group (FinTIG). Recognising the continuously evolving scope of financial innovation, the change reflects the expanded mandate of FinTIG to include non-technology driven innovations, such as changes in business models, channels of distribution and product design that may not involve the use of new technology. In line with this, the Sandbox is also being reviewed to accommodate non-technologically driven innovation. The Bank's Financial Development and Innovation Department (FDI) acts as the primary contact point (fintech@bnm.gov.my) for the Bank on fintech matters. FDI, as the secretariat of FinTIG works closely with members of FinTIG toward facilitating innovation.

To support the overall development of a dynamic fintech ecosystem in Malaysia, we collaborated with the Malaysia Digital Economy Corporation (MDEC) to launch the Fintech Booster programme in August 2020 (Diagram 1). Positioned as a platform to connect fintech companies with other actors and stakeholders in the ecosystem, the programme aims to provide fintech companies with capacity building tools and support on legal and compliance matters, business development and access to technology resources in order to enhance prospects for viable and successful financial innovations. The Bank is supporting the programme through the Legal and Compliance vertical, whilst the Business Model and Technology verticals are overseen by MDEC with the support from its partners.

Deepening financial markets

The Bank continued in 2020 with ongoing developmental initiatives aimed at further improving market access and liquidity in the domestic financial markets. First, we pursued measures to enhance Malaysia's position as an attractive investment destination for global investors. Global market players were continuously engaged, albeit virtually, during the pandemic. Second, in collaboration with domestic market stakeholders, we pursued initiatives to deepen liquidity in the government bond and interest rate swap markets, which contributed to more efficient market pricing and greater flexibility in risk management. In addition, there were refinements to the Foreign Exchange Policy (FEP) to improve hedging conditions for both corporates and investors. Taken together, these measures have further strengthened the resilience and attractiveness of the domestic financial market.

[2] Upon obtaining the Bank's approval to participate in the Sandbox, an applicant is considered to have advanced to Stage 2 (preparation stage) where the applicant will work with the Bank on details (e.g. testing parameters, exit strategy and transition plan) in preparation for subsequent live testing stage.

Diagram 1: Fintech Booster Programme

FINTECH BOOSTER PROGRAMME

Provide capacity building programmes for fintech companies to develop meaningful products and solutions

A centralised hub to provide the necessary tools and support for fintech companies

Legal & Compliance*

ACTIVATED

Support for companies to enhance legal and regulatory understanding on gatekeeping regimes, compliance and risk management

- ✓ Financial Policies & Risk Management
- ✓ IT Compliance & Cybersecurity
- ✓ Legal Advisory in Business Set Up

*Supported by BNM & MDEC

Business Model**

UPCOMING

Support on companies' business plan and market assistance

- ✓ Business Plan
- ✓ Market Assistance
- ✓ Training & Infrastructure
- ✓ Collaboration

**Supported by MDEC

Technology**

UPCOMING

Access to technology ecosystem, infrastructure resources and services

- ✓ Service and Mentorship
- ✓ Technology Infrastructure

**Supported by MDEC

318 Registered members

Public programme: **10** Public programmes organised on regulations, taxation, data protection, Shariah, risk, etc

Private programme: **24** Completed one-on-one legal consultations

Source: Malaysia Digital Economy Corporation (MDEC)

Diagram 2 : Deepening Financial Market

Enhanced access to the Malaysian financial markets

Formalisation of the Primary Market Maker (PMM) Framework in April 2020

- ✓ PMM banks are accorded with market-making flexibilities and now publish continuous reference USD/MYR quotes on international platforms
- ✓ Total of USD3.3 billion worth of foreign exchange (FX) transactions has been facilitated by PMM banks after KL trading hours in 2020 with competitive bid-ask spreads

Listing of Malaysian government bonds under Bursa Malaysia's Exempt Regime

- ✓ Increased visibility and transparency of domestic bond market to attract long-term investors, while enhancing market profiling of MGS/MGII issuances

Continuous engagement with participants from global financial markets

- ✓ Effective investor engagement by FMAM -BNM via video conference with global portfolio managers, traders and custodians
- ✓ Continuous engagement with foreign investors and bond index providers to provide clarity on documentation, third party FX and pre-funding requirements

Pilot flexibility on interest rate swaps (IRS) in November 2020

- ✓ Non-resident banks can enter into IRS without firm commitment directly with selected licensed onshore banks or via their Appointed Overseas Office (AOO) on pilot basis
- ✓ Based on the positive feedback during the pilot, the Bank announced the liberalisation of the onshore IRS market where all onshore banks and their AOOs may trade IRS with non-resident banks without firm commitment effective 15 March 2021

Measures to deepen liquidity have led to increased market vibrancy

Revised settlement methodology for the 5-year Malaysian Government Securities (MGS) Futures Contract

- ✓ Elevated MGS futures as an alternative hedging instrument through collaboration with Bursa Malaysia, Securities Commission Malaysia and key market makers to revise settlement methodology from cash delivery to physical delivery

Government bond auctions designed to feature increased re-openings

- ✓ Enlarged individual bond issuances in the market for better bond market liquidity
- ✓ Increased ease of index tracking by global passive bond investors

Improved hedging environment for corporates and investors

- ✓ Exporters have better natural hedge as export proceeds below RM200,000 are exempted from conversion
- ✓ Residents may hedge foreign currency obligations up to underlying tenure and are given flexibility to cancel their hedging positions in response to changing market conditions

Enhancing access to finance and financial inclusion

Financial inclusion is essential for a more equitable society. The pandemic further underscored the need to support and protect the underserved segments of society, especially those who are disproportionately affected. In line with this, the Bank continued to take active steps to advance financial inclusion.

An important focus during the year was ensuring continued access to finance for SMEs under highly challenging business conditions. SMEs have a sizable contribution to the Malaysian economy of close to 39%[3] of GDP and make up almost 50% of total employment. However, their relatively low cash buffers and narrower profit margins, worsened by the pandemic, have made them more susceptible to cashflow and financing constraints. To help SMEs to weather the pandemic, we significantly increased the allocation of financing assistance under BNM's Fund for SMEs (BNM's Fund) from RM9.1 billion to RM23.1 billion. Facilities[4] under BNM's Fund, channelled through the financial institutions, aimed to provide immediate cash relief to adversely affected SMEs, support recovery of hard-hit economic sectors and enhance innovative capacity of high-tech SMEs. BNM's Fund complements the much larger provision of SME financing by the financial institutions, which disbursed a total of RM256.8 billion in loans/financing to SMEs in 2020, with more accounts approved compared to the previous year (2020: 145,993 accounts; 2019: 115,498 accounts). BNM's Fund has helped to sustain businesses and safeguard jobs, with about RM6.0 billion worth of funds still available for new applications by SMEs as at mid-March 2021. Key facts of BNM's Fund are provided in Diagram 3. Beyond the provision of funds, the Bank also supported the availability of credit guarantee schemes to encourage continued bank lending in the heightened risk environment.

Funds by the Bank benefitted more than 32,000 SMEs and supported around 596,600 jobs.

As the environment will continue to be challenging, we strive to ensure that the Bank's funds for SMEs are responsive to the immediate challenges facing SMEs, while supporting their ability to transform and adapt to new norms that will further enhance Malaysia's future growth potential. We continue to take active measures to raise awareness and address SMEs' concerns on facilities with relatively low demand, such as the PENJANA Tourism Financing (PTF) which has been mired by the weak business outlook in the sector. The slower take-up, nonetheless, allows us the flexibility to reallocate resources towards other pressing needs of the SMEs. This is reflected in the recent upsizing of the SME Automation and Digitalisation Facility (ADF) announced in March 2021 from RM300 million to RM1 billion, to encourage SMEs across all sectors to automate processes and digitalise operations that can better support their recovery and productivity in the post-pandemic environment.

To provide SMEs with one-stop access to specialised and comprehensive debt restructuring assistance, financial education and advisory services, the Small Debt Resolution Scheme (SDRS) function was transferred to the Credit Counselling and Debt Management Agency (*Agensi Kaunseling dan Pengurusan Kredit*, AKPK) on 1 September 2020. With AKPK's wide online presence and 12 branches nationwide, the transfer will offer SMEs more convenient access to debt restructuring services and strengthens the SDRS' capacity to manage SMEs in need of debt resolution assistance. Further, the dedicated micro business helpdesk[5] set up at AKPK in November 2020 provides an additional avenue for micro enterprises to obtain targeted repayment assistance and free financial advice. Notably, following the transfer as well as the end of the automatic moratorium in September 2020, the number of SMEs assisted by AKPK's Repayment Assistance to SMEs[6] (RAS) increased by 48% in September – December 2020, compared with the first 8 months of the year.

Development financial institutions (DFIs) remained important in broadening access to finance. DFIs played a counter-cyclical role during the pandemic to bridge financing gaps in strategic economic sectors and to the underserved. In 2020, total loans/financing outstanding by DFIs registered a growth of 7.7% to RM153.7 billion (end-2019: -0.3% to RM142.7 billion), underpinned by demand from the household, agriculture and general commerce sectors.

[3] Source: Department of Statistics, Malaysia (DOSM).
[4] Facilities under BNM's Fund include the Special Relief Facility (SRF), Agrofood Facility (AF), SME Automation and Digitalisation Facility (ADF), All Economic Sectors (AES) Facility, Micro Enterprises Facility (MEF), PENJANA Tourism Financing (PTF), Targeted Relief and Recovery Facility (TRRF) and High Tech Facility – National Investment Aspirations (HTF-NIA). For further details, refer to www.bnm.gov.my/covid19/

[5] The micro business helpdesk can be accessed via www.akpk.org.my/microhelpdesk
[6] Consists of the SDRS and Debt Management Program (DMP) for sole proprietors.

Diagram 3: BNM's Fund for SMEs in numbers - Key facts of selected facilities in 2020

Targeted funds met SME financing needs amid the COVID-19 pandemic

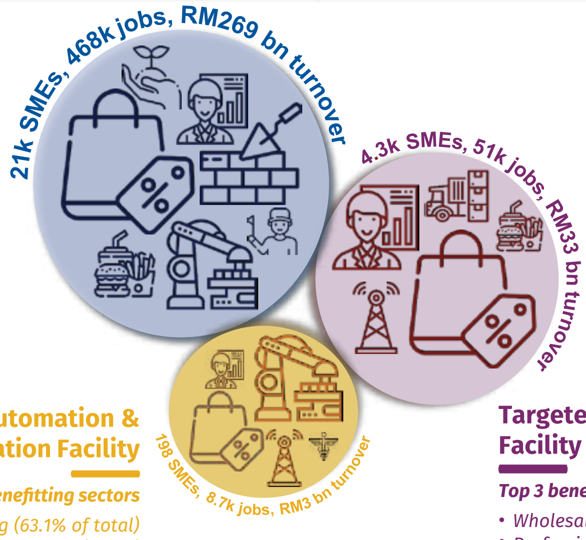
Key facts of selected facilities[1]

	Special Relief Facility (SRF)	Agrofood Facility (AF)	SME Automation & Digitalisation Facility[2] (ADF)	PENJANA Tourism Financing (PTF)	Targeted Relief & Recovery Facility (TRRF)	High Tech Facility - National Investment Aspirations (HTF-NIA)
PURPOSE	EASE CASH-FLOW CONSTRAINTS	INCREASE FOOD PRODUCTION AND EXPORTS	INCENTIVISE AUTOMATION AND DIGITALISATION	AID THE TOURISM SECTOR	SUPPORT RELIEF AND RECOVERY OF SERVICE SECTOR	SUPPORT HIGH-TECH AND INNOVATIVE SECTORS
DATE ANNOUNCED	27 FEB 2020	27 FEB 2020[3]	27 FEB 2020	30 JUL 2020	06 NOV 2020	15 DEC 2020
TOTAL ALLOCATION	RM 10.0 BILLION[4]	RM 1.5 BILLION	RM 1.0 BILLION[5]	RM 0.6 BILLION[6]	RM 4.0 BILLION[7]	RM 0.8 BILLION[8]
AVAILABLE BALANCE	FULLY UTILISED	RM 0.2 BILLION	RM 0.8 BILLION	RM 0.5 BILLION	RM 2.7 BILLION	RM 0.8 BILLION
APPROVAL RATE	78%	91%	83%	64%	88%	100%

1 As at 17 March 2021
2 Under the All Economic Sector (AES) Facility
3 Refers to the date when the allocation was increased for the AF, which is an existing facility
4 The SRF was upsized in March 2020 (from RM2 billion to RM5 billion) and May 2020 (from RM5 billion to RM10 billion)
5 The ADF was upsized in March 2021 (from RM0.3 billion to RM1 billion)
6 From the initial RM1 billion, RM200 million was reallocated to the Disaster Relief Facility (DRF) in February 2021 and RM200 million to the ADF in March 2021
7 The TRRF was upsized in February 2021 (from RM2 billion to RM4 billion)
8 From the initial RM1 billion, RM200 million was reallocated to the ADF in March 2021

. . . preserving businesses and jobs that helped stabilise the economy

Profile of accounts approved[1, 2]



Special Relief Facility (SRF)

Top 3 benefitting sectors

- *Wholesale and Retail Trade (47.2% of total)*
- *Manufacturing (15.2%)*
- *Construction (9.0%)*

SME Automation & Digitalisation Facility

Top 3 benefitting sectors

- *Manufacturing (63.1% of total)*
- *Wholesale and Retail Trade (13.8%)*
- *Information and Communications (5.6%)*

Targeted Relief and Rectovery Facility (TRRF)

Top 3 benefitting sectors

- *Wholesale and Retail Trade (66.5% of total)*
- *Professional, Scientific and Technical Activities (6.9%)*
- *Transportation and Storage (5.3%)*

1 As at 24 February 2021
2 SMEs' sales turnover is as reported in application for the facilities

Source: Bank Negara Malaysia

DFIs also provided support and assistance to higher risk segments not typically served by commercial banks, and who were badly affected by the pandemic. This includes financial assistance for agrofood businesses, tourism providers, money services businesses and homestays. Moreover, DFIs were involved as key administrators of various financing schemes introduced by the Government and the Bank under the PRIHATIN, PENJANA, PERMAI and recently announced PEMERKASA stimulus packages, aimed at sustaining the business operations of small businesses and microenterprises. As at end-2020, DFIs provided financing amounting to RM833.7 million to 30,905 microenterprises under the PRIHATIN and PENJANA schemes. In addition to financing, more than 68,900 businesses and 1,625,000 individuals were granted a 6-month moratorium on financing repayments by DFIs. This provided timely support to vulnerable households and SMEs in key economic sectors during the challenging year.

In 2020, we introduced and enhanced several policy requirements to better align and enhance DFIs' developmental outcomes with the principles set out by the Performance Measurement Framework (PMF). These requirements, centred around DFIs' corporate strategic planning and financial reporting, were aimed at institutionalising developmental objectives and mandates within the DFIs' business strategies and activities, and further aligning the DFIs' achievements with national development priorities.

To ensure continued access to financing during movement restrictions, the Bank worked closely with State Governments and DFIs to ensure operational continuity of agent banks. In addition, we worked with the relevant financial institutions to set-up ATM machines and mobile counters in rural and remote communities to facilitate the distribution of Government aid. Beyond the existing Mobile Banks (*Bank Bergerak*) offered by financial institutions, we also worked to establish new alternative channels such as mobile ATMs to further improve the delivery of basic financial services nationwide.

Agent banking continued to serve as an important channel for providing convenient access to financial

Diagram 4: Key areas in enhancing the financing ecosystem for SMEs and individuals amid the COVID-19 pandemic

1 Complemented Government and FIs' efforts to assist SMEs in weathering the pandemic and regain vitality

Enhanced and ramped up financing assistance under BNM's Fund for SMEs

SRF	ADF (under AES)	MEF	AF	PTF	TRRF	HTF-NIA

Ease immediate cash flow constraints → **Support business recovery in targeted economic segments**

With easing COVID-19 containment measures

Upsized total allocation
RM9.1b → RM23.1b

Supported availability of credit guarantee schemes to encourage bank lending

CGC SJPP

2 Strengthened capacity to provide specialised and comprehensive debt restructuring assistance

Integrated the Small Debt Resolution Scheme (SDRS) and Agensi Kaunseling dan Pengurusan Kredit (AKPK)[1]

SDRS

Assisted **>1,300 SMEs** in rescheduling and restructuring their financing totalling **RM2.1 billion**

AKPK
Agensi Kaunseling Dan Pengurusan Kredit
Credit Counselling And Debt Management Agency

Built financial capabilities of **>1 million** individuals

Assisted **>300,000** financially-distressed individuals

3 Advanced DFI's countercyclical and developmental role

Catalysed DFIs' role in supporting higher-risk, strategic segments during pandemic

- *DFIs led the provision of certain facilities under the BNM's Funds for SMEs*

Strengthened governance and operational efficiencies of DFIs

- *BNM introduced the Corporate Strategic Plan (CSP) and enhanced Financial Reporting (FR) requirements*

[1] Data cited refers to cumulative data since the establishment of SDRS in 2003 and AKPK in 2006

services in remote areas with limited connectivity, generating positive spillover effects to the wider community. In the first nine months of 2020, 17.1 million transactions of basic financial services valued at RM1.6 billion were transacted at agent banks (January – September 2019: 20.8 million transactions, amounting to RM1.9 billion). Since the introduction of the agent banking initiative in 2012, agent banks have facilitated 212 million transactions, amounting to RM17.9 billion as at end-September 2020. In terms of accessibility, 95% of sub-districts or State Legislative Assemblies (*Dewan Undangan Negeri*, DUN) now have access to basic financial services (2011: 46%).

Building resilience through inclusive financial product offerings

In 2020, we also worked to further develop Malaysia's microinsurance and microtakaful landscape. A key initiative on this front was the review of the *Perlindungan Tenang* framework, launched in 2017, to encourage the provision and take-up of meaningful insurance and takaful solutions for the underserved. Key principles and the progress of the *Perlindungan Tenang* initiatives are highlighted in Diagram 5.

Revisions to the *Perlindungan Tenang* framework included fit-for-purpose flexibilities to promote innovation and address supply-side challenges. For example, more entities will be allowed to distribute *Perlindungan Tenang* products. Further, distributors will be granted additional operational flexibilities and *Perlindungan Tenang* products can be combined with other financial products where it can be demonstrated that doing so will encourage higher take-up for the benefit of the targeted segments without materially increasing risks. At the same time, insurers and takaful operators (ITOs) are also required to observe parameters in the design of products which serve to ensure the *Perlindungan Tenang* products provide good value-for-money coverage and benefits to safeguard consumers' interests.

Recognising its importance, the Malaysian Government also announced incentives in the Budget 2021 to promote *Perlindungan Tenang* products. This includes a RM50 voucher for eligible recipients and extension of stamp duty exemption for *Perlindungan Tenang* products for another five years. These measures are expected to further increase the take-up of *Perlindungan Tenang* products and widen the financial safety net for the *rakyat*.

Diagram 5: Key principles and progress of *Perlindungan Tenang*

Launched in 2017, this initiative aims to encourage insurers and takaful operators to offer products that are suitable for the unserved and underserved segments that meet the following principles:

Principle	Features
Affordable • Premium/contribution must consider circumstances of the target market i.e. disposable income, occupation, etc.	• Premium/contribution for *Perlindungan Tenang* products ranges from RM1 to RM20 per month
Accessible • Products and services should be made available at convenient access points	• Products can be purchased online, from physical counters nationwide (e.g. postal offices) or through mobile network operator
Good Value • Protection provided corresponds to key needs • Proportion of premium/contribution allocated to the benefits is maximised	• Products offer additional benefits including *Badal Hajj*, donation to charity, cover for funeral expenses and hospitalisation cash reimbursement
Easy to understand • Product benefits, terms and conditions should be self-explanatory to consumers	• Product design and descriptions are simple and available in multiple languages
Easy to buy and claim • Customer journey from purchase to claims should be frictionless	• Products have minimal underwriting questions and claims are paid within 5 working days upon complete submission of documentation

Progress (as at end-2020)

Participation from

14 insurers and takaful operators

offering

14 Life insurance/family takaful products

2 General products

which cover

✓ Death
✓ Total permanent disability
✓ Personal accident
✓ Fire and flood

172,648 Persons covered[1] with

RM8.2 million Premium/contribution collected

1,706 claims paid out amounting to

RM5.6 million

[1] Include individual and group policies/certificates

The Bank embarked on communication and education efforts to increase awareness and understanding of insurance and takaful protection among Malaysians. Through the Financial Education Network (FEN), we collaborated with the insurance and takaful industry to host an education and awareness programme in conjunction with Financial Literacy Month in October 2020. The webinar attracted more than 27,000 viewership.

Beyond the insurance/takaful space, the Bank also facilitated industry efforts to develop innovative ecosystems for more inclusive financial services. These include new business models involving partnerships between payment service providers and fund management firms to enable micro-investments, thereby broadening access to wealth management products. In these areas, we worked closely with relevant regulatory authorities to enhance and refine existing regulations to facilitate such partnerships, subject to safeguards for financial stability and consumer protection.

In strengthening financial and social resilience, the Bank also continued to support the advancement and integration of social finance in Islamic financial services, particularly for the underserved segments. Further details on the Bank's initiatives to advance social finance are in the chapter on "Promoting a Progressive and Inclusive Islamic Financial System".

Going forward

For 2021, the Bank's priority would be to set out the critical developmental and regulatory priorities for the next five years (2022 – 2026) under a new blueprint for the financial sector (Blueprint 3.0). These priorities will focus on enabling technology and data-driven innovation, enhancing the competitiveness of the financial sector, expanding access and responsible usage of financial solutions, and ensuring financial intermediation remains effective to support the future needs of the economy. Blueprint 3.0 will also emphasise the catalytic role of the financial sector in advancing the sustainability agenda, in particular climate-related risks to support an orderly transition towards a greener economy.

Promoting a Progressive and Inclusive Islamic Financial System

The Bank remains committed to advancing Islamic finance with focused efforts on supporting a sustained economic recovery, building social and climate resilience as well as empowering halal trade.

In 2020, the Bank dedicated efforts towards advancing Islamic finance in addressing the economic challenges posed by the pandemic. The focus was on enhancing the contribution of Islamic finance towards facilitating economic recovery, building social resilience, promoting climate resilience, as well as empowering trade, business and the digital economy.

The Islamic banking and takaful industry remained resilient and agile against the background of a highly uncertain economic and operating environment. The industry continued to post a healthy growth, gaining further market share of the overall financial system. The industry also recorded strong financial soundness indicators (Diagram 1).

Cushioning the impact of COVID-19 to businesses and households

The Islamic banking and takaful industry has been proactive in assisting customers affected by the pandemic. This was supported by an active role of the Shariah Advisory Council of Bank Negara Malaysia (the SAC) which issued key rulings during the year to guide the implementation of assistance measures in line with Shariah principles. Almost half of the 15 SAC meetings in 2020 were dedicated to discussing Shariah matters related to COVID-19 relief measures. The rulings (Diagram 2) focused on reducing financial hardships experienced by customers affected by the pandemic.

These rulings were also a focal point of discussion at the Centralised Shariah Advisory Authorities in Islamic Finance meeting hosted by the Central Bank of the UAE in May 2020. It brought together 40 Shariah scholars and Islamic finance experts from seven jurisdictions, which have national-level Shariah governance similar to the SAC, and international standard-setting organisations. The discussion helped to enrich mutual understanding within the global Shariah fraternity on different practices, challenges and considerations underpinning the rulings in handling financial assistance programmes, particularly in relation to repricing adjustments following the implementation of deferred payments.

In Malaysia, the Shariah committee of Islamic financial institutions complement the functions of the SAC. In particular, the Shariah committees advise on the application of SAC rulings or standards on Shariah matters that are applicable to the operations, business, affairs and activities of the Islamic financial institutions. Given this important role, the Bank introduced a multi-faceted competency framework in 2020 (Diagram 3) for Shariah committees. The framework further elevates the quality of deliberation of Shariah committees and promote sound decision making at the respective institutions. In 2020, the Bank approved a total of 117 Shariah committee appointments proposed by Islamic financial institutions, comprising 45 new appointments and 72 re-appointments.

Diagram 1: Growth of Islamic banking and takaful in 2020

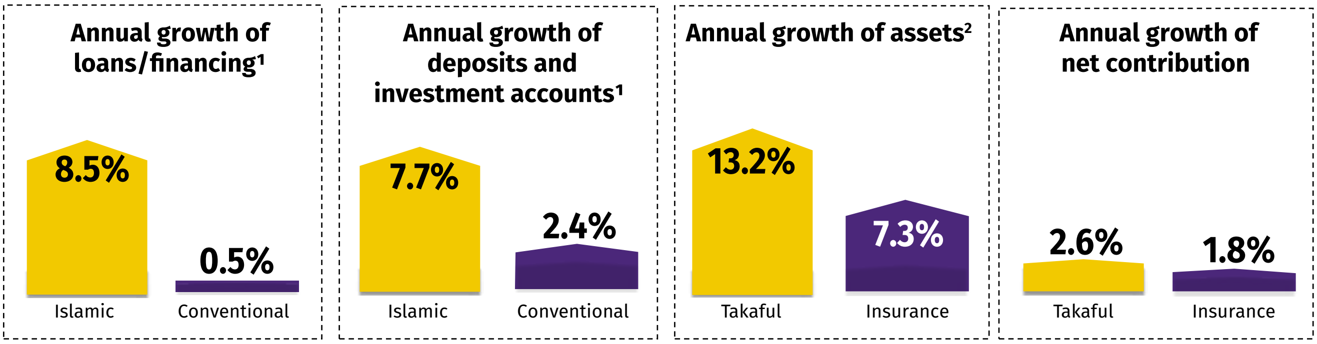
34.2%
Islamic banking assets to total assets[1]

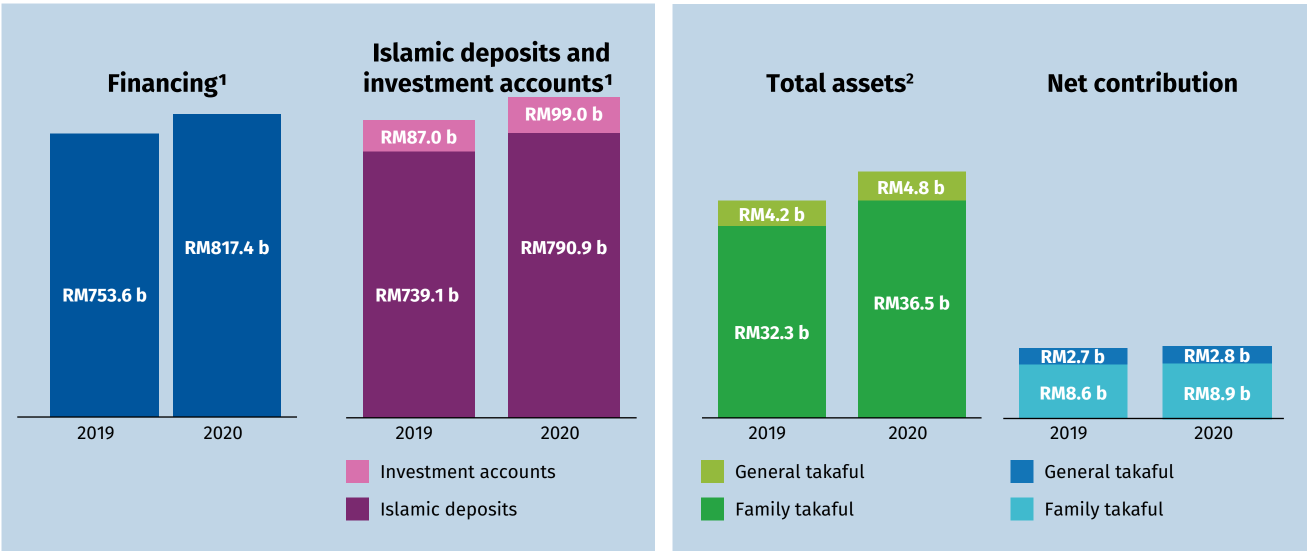
41.0%
Islamic financing to total loans/financing[1]

38.9%
Islamic deposits and investment accounts to total deposits[1]

11.8%
Takaful funds assets to total insurance/takaful funds assets

18.4%
Takaful net contribution to total net premium/contribution





Selected key financial soundness indicators as at end-2020

Islamic banking		Conventional banking
18.4%	**Total capital ratio**	18.5%
137.2%	**Liquidity coverage ratio**	151.7%
0.9%	**Impairment[3]**	1.0%
0.7%	**Return on assets**	1.2%

Takaful operators		Insurance companies
234.6%	**Capital adequacy ratio[4]**	217.6%
RM1.4 b	**Balance of transaction[5] (life/family fund)**	RM4.7 b

Notes:
[1] Includes development financial institutions
[2] Refers to the total assets of the takaful funds or insurance funds
[3] Refers to non-performing loans/financing ratio
[4] Inclusive of retakaful operators and reinsurance companies
[5] Refers to the excess of net premium/contribution after deducting benefits payouts, agency remuneration and management expenses

Diagram 2: SAC rulings in respect of practices and conduct of Islamic financial institutions in addressing the impact of COVID-19

SAC rulings premised on the principle of *ihsan* (beneficence)...

Non-compounding of profit

Accrued profit on the original financing must not be included as the new principal amount for restructured or rescheduled financing

Simplified arrangement for restructured financing

Customers can enter into a supplementary agreement to restructure the financing with cross reference to the original agreement

Mutual consent of contracting parties

Clear communication to customers on revised terms and conditions of restructured or rescheduled financing to avoid misunderstanding and potential dispute

Continued support towards targeted segments

Islamic financial institutions to have due regard to customers' financial capability, such as through the continuation of deferments or targeted payment assistance

...complement the implementation of relief measures for customers affected by COVID-19

1. **Broad-based payment assistance**
   Automatic six months deferment for all eligible financing for individuals and SMEs from April to September 2020
2. **Flexibilities in takaful contribution**
   Optional deferment of family takaful contribution for three months while takaful coverage continues
3. **Targeted payment assistance**
   Additional assistance to eligible individuals and SMEs

Table 1: Landmark Shariah rulings by the SAC in 2020

No	Ruling	Purpose	Intended Outcome
1.	*Hajah* (need) and *Darurah* (necessity) Parameters	Guidance for Shariah scholars to determine applicability of Shariah exceptional rules for exigent circumstances faced by modern finance. The guidance ensures Shariah decisions are backed by a well-founded methodology.	• Consistent application of Shariah parameters in assessing *Hajah* and *Darurah* circumstances. • Sustained public confidence in Islamic finance.
2.	Collateralised Commodity *Murabahah* (CCM)	Broaden range of funding/ liquidity instruments to raise funds and address liquidity needs of Islamic financial institutions.	• Enhanced liquidity management by Islamic financial institutions. • Increased liquidity of Islamic securities held by financial institutions.
3.	E-wallet as a Shariah compliant payment instrument	Clarification on the Shariah compliance status of e-money with guidance on the essential elements required in structuring Shariah compliant e-wallet.	• Growth of innovative payment solutions in the market. • Enabling ecosystem for Islamic fintech.

Diagram 3: Competency framework for Shariah committee members of financial institutions

Encouraging inclusive and diverse financial solutions

During the year, the Bank focused its developmental initiatives for Islamic finance on three major themes:

- Building social resilience
- Promoting climate resilience
- Empowering trade, business and the digital economy

Building social resilience

The Islamic banking and takaful industry continued to advance the social finance agenda through product innovation and service improvements (Diagram 4). Social finance refers to financial services that mobilise philantrophic capital using instruments such as donation, endowment (including cash *waqf*) or alms (*zakat)* to deliver tangible social outcomes.

Diagram 4: Financial intermediation using social finance instruments

TOWARDS ACHIEVING SOCIO-ECONOMIC ASPIRATIONS

Business empowerment	Financial resilience	Social development

LEVERAGING ON ISLAMIC FINANCIAL INSTITUTIONS TO UNDERTAKE DIVERSE ROLES...

Collection and distribution agent	Fund manager	Platform provider	Payment facilitator	Underwriter
Wide range of banking channels such as online banking, ATMs and branches	Competent in managing and investing funds, with well-defined governance and risk management	Readily available platform and expertise	Facilitates payment through multi-channel payment gateways	Underwrites risk fund to offer financial protection for targeted segments

...AND INNOVATING PRODUCTS USING AVAILABLE SOCIAL FINANCE INSTRUMENTS

Sadaqah

- Voluntary contributions
- Funds are used for charitable purposes

Waqf

- Voluntary contributions
- Funds/assets are perpetual from which its benefits are used for any charitable purposes

Zakat

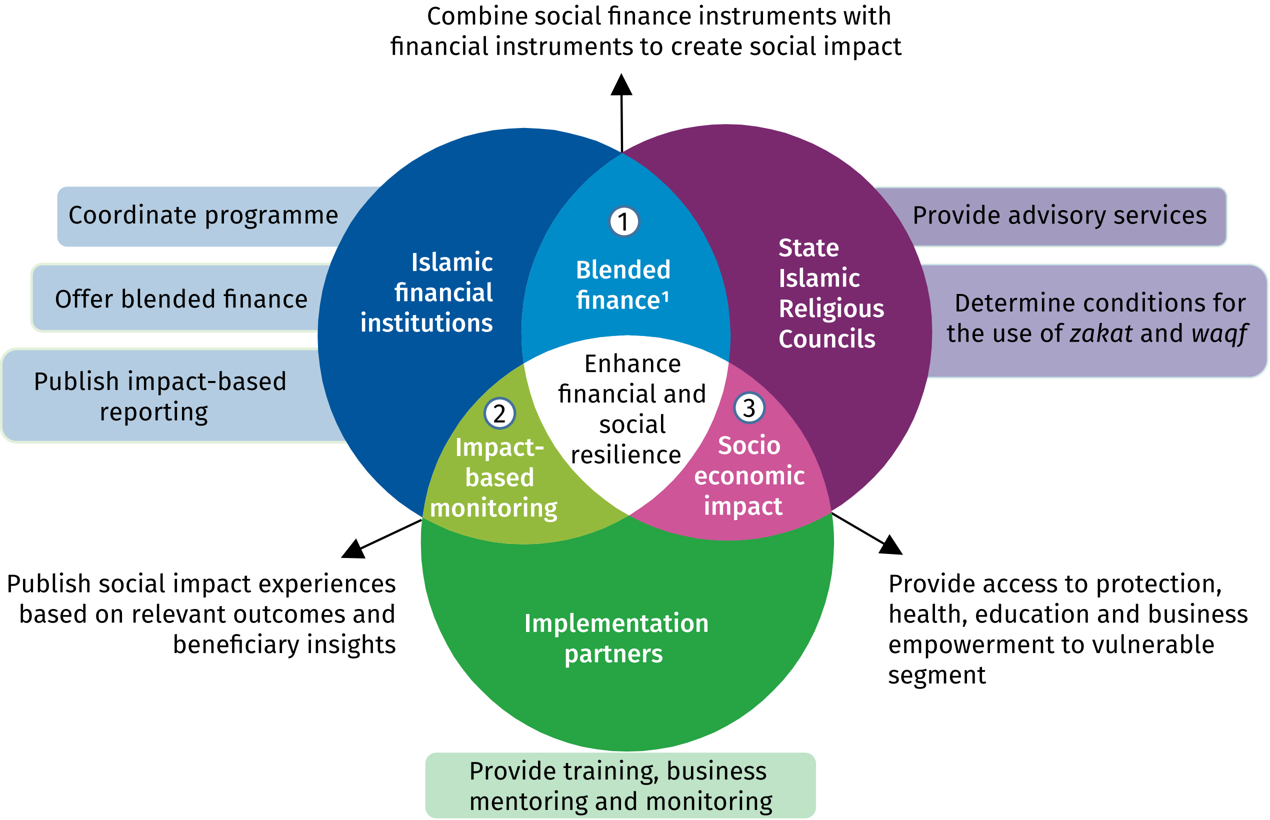
- Religious obligation
- Funds can only be used to benefit eight categories of beneficiaries (i.e. *asnaf*)

In 2020, the industry introduced new products designed to meet the specific needs of the underserved segment. These include benevolent microfinancing for B40 entrepreneurs funded by donations from corporates and affordable financing programmes to build houses for *zakat* recipients. There was also financial protection for hardcore poor families in the form of takaful riders using donation.

Further integration of social finance requires Islamic financial institutions to work closely in partnership with State Islamic Religious Councils (SIRCs) and non-traditional partners such as social enterprises and NGOs. The partnership enables each stakeholder to contribute unique expertise, knowledge and resources towards achieving the common goal of enhancing the financial and social resilience of the target groups (Diagram 5). An example of a successful synergistic partnership of this nature is myWakaf, a digital cash *waqf* platform piloted by six Islamic banks involving eight SIRCs, which managed to raise funds totalling RM7.6 million by the end of 2020. The funds were channelled to finance impactful projects nationwide in healthcare, education and community empowerment (Diagram 6).

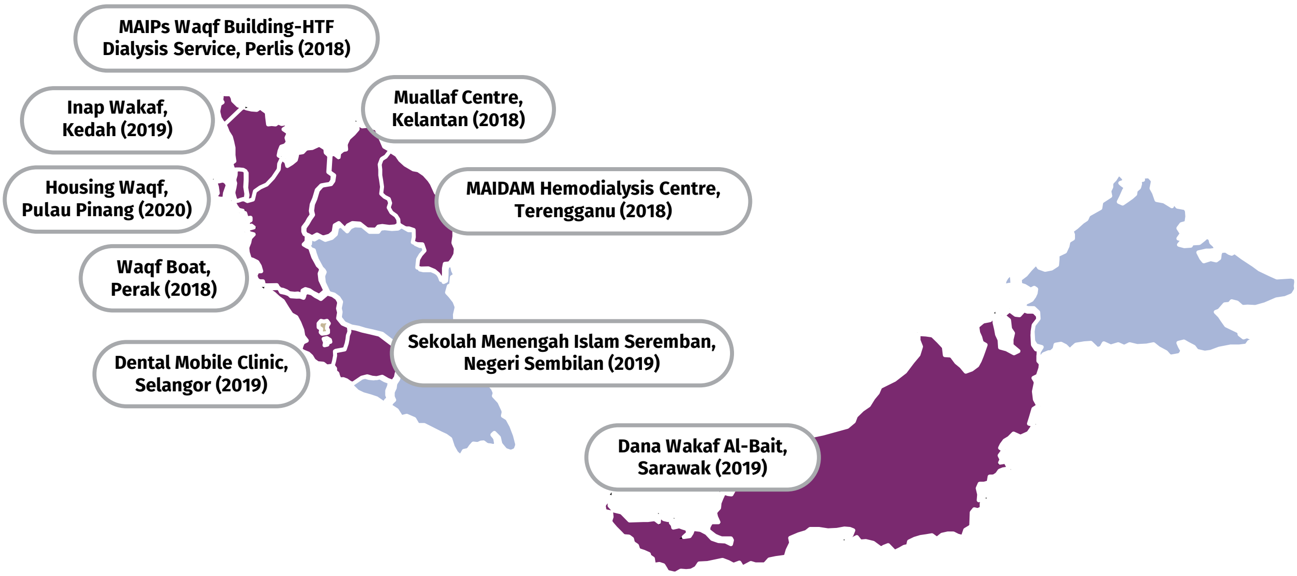
The spotlight article on Empowering B40 Entrepreneurs via iTEKAD showcases an example of a pilot programme that utilises social finance instruments to complement existing financial solutions. The Bank will continue to monitor the progress and impact derived from the social finance initiatives by the industry. We will also assess any regulatory or developmental responses that should be considered to strengthen the ecosystem to support a more resilient and vibrant social finance in Malaysia.

Diagram 5: Integration of social finance and roles of key stakeholders



Notes:
[1] Blended finance refers to the strategic use of development finance for the mobilisation of additional finance including philanthropic funds towards sustainable development. Sourced from OECD (2018), Making Blended Finance Work for the Sustainable Development Goals

Diagram 6: Existing myWakaf projects nationwide



Empowering B40 Entrepreneurs via iTEKAD

Over the years, the Bank has been encouraging the innovative use of social finance instruments in Islamic finance. These instruments such as *waqf* (endowment), *zakat* (alms) and *sadaqah* (donation) offer unique benefits in addressing the financial needs of underserved communities, especially the lower income group. The pandemic creates opportunities for the Bank to expand social finance initiatives further to minimise the economic impact of the pandemic on employment and micro businesses. The combination of financial solutions with these instruments is complementary to existing financing programmes for micro-entrepreneurs and aims to help them rebuild their livelihoods after experiencing distressing economic changes.

In March 2020, the Bank initiated a pilot programme called “iTEKAD” (which stands for “my determination”). The iTEKAD programme blends social finance with microfinancing and structured training. This programme aims to empower low income micro-entrepreneurs to generate more sustainable income, become financially resilient and subsequently contribute back to the community.

The first pilot programme commenced in Wilayah Persekutuan with three implementation partners namely Bank Islam Malaysia Berhad (BIMB), Majlis Agama Islam Wilayah Persekutuan (MAIWP) and SME Corporation Malaysia (SME Corp).

Minister in the Prime Minister’s Department (Religious Affairs) Datuk Seri Dr Zulkifli Mohamad Al-Bakri launching iTEKAD on 14 May 2020 witnessed by Deputy Governor Abdul Rasheed Ghaffour (second from right) and Chief Executive Officer of Bank Islam Malaysia Berhad, Encik Mohd Muazzam Mohamed (second from left)

B40 entrepreneurs face difficulties in accessing formal financial services for a number of reasons. Many are weighed down by lack of business and financial track records, inadequate business and financial management skills, and business activities that tend to be of higher risk. Through incorporating social finance features in financing solutions, B40 entrepreneurs can avail themselves of more funding options beyond debt-based financing to sustain or expand their business. Importantly, the upskilling, mentoring and impact-based monitoring of achievements further increase the likelihood of success in their business ventures and greater financial resilience over the longer term.

The effective implementation of the iTEKAD programme will continue to require strong commitment from all stakeholders as its delivery mechanism is more resource intensive compared to traditional ways of delivering finance.

Given the highly positive experience thus far, the iTEKAD programme will be further expanded in 2021 through the anticipated participation of two additional Islamic financial institutions. These Islamic financial institutions will be providing a wider range of blended financial solutions using a variety of social finance instruments such as cash *waqf* and *sadaqah*. The expansion of the iTEKAD programme will also include more states and new implementation partners who can support the effective delivery of the programme. This in turn will further extend Islamic financial institutions' outreach in social development and resilience initiatives.

Diagram 7: Challenges facing B40 entrepreneurs and key components of the iTEKAD programme

Key challenges faced by B40 entrepreneurs

Lack of business and financial track records

Inadequate business and financial management skills

Components of iTEKAD

- Collateral-free microfinancing up to RM50,000
- Funding for initial capital or asset purchase, sourced from *zakat* funds
- Training and business mentoring by implementation partners

Diagram 8: Features and progress of the iTEKAD programme

iTEKAD Pilot Programme

FEATURES OF iTEKAD

iTEKAD is a comprehensive social finance programme for B40 micro-entrepreneurs that provides:

- Microfinancing
- Social finance funding (from *zakat*, cash *waqf* and donation)
- Structured training and mentorship

COMPREHENSIVE CUSTOMER JOURNEY

1. On-boarding
- Direct applications, or identified by participating banks or implementation partners, e.g. State Islamic Religious Council
- Eligibility is based on financial capability and risk profile

2. Upskilling

Participants undergo structured training in areas of business and financial management, such as:
- Business ideas development
- Accounting and financial management
- Digital marketing
- Communication and branding
- Entrepreneurial ethics

3. Funding
- Microfinancing facility (up to RM50,000) at 4% profit rate
- *Zakat* contribution in the form of equipment, machinery and ICT tools

4. Mentoring
- Participants carry out their business with ongoing support from implementing partners and business mentors
- The business mentors will provide ongoing guidance for 12 months
- Business mentors provide advisory services, mentorship and performance reporting

5. Impact reporting

Encompasses a broad range of performance indicators such as:
- Amount of savings
- Total business income
- Number of jobs created
- Growth of business assets
- *Zakat* contribution

6. Pay-it-forward

Contributes back to the society by creating employment, paying *zakat* and empowering other B40 micro-entrepreneurs

ACHIEVEMENTS IN 2020

Implementation of iTEKAD through collaboration of Islamic banks with implementation partners resulted in

57 (24 male, 33 female) micro-entrepreneurs trained	**10** business sectors*	**RM536,000** microfinancing disbursed	**RM42,000** *zakat* funds channelled

*Agriculture, beauty and cosmetics, food and beverages, fashion and clothing, health supplements, IT/telecommunication, manufacturing, retailer, services, sports

IMPACT

- A B40 micro-entrepreneur from the fashion industry has grown her business

▲ **80%** increase in business income within 8 months since March 2020	**RM3,000** *zakat* received to purchase sewing machines and materials	**RM10,000** microfinancing received to boost cashflow	**4** staff retained despite adverse impact of COVID-19	☑ Embarked into online marketing

- A school canteen operator revived her business

66% of pre-pandemic income regained within 2 months	**RM7,000** microfinancing used to upgrade kitchen equipment and refurbish canteen	**RM3,000** microfinancing dedicated to set up new online cakes and carpet business

- A food entrepreneur retained her business despite a major downturn during the pandemic

68% of pre-pandemic income regained within 2 months	**RM20,000** microfinancing received to purchase new materials, appliances and utility	**2** new freezers purchased to upgrade business capacity	**3** staff retained despite adverse impact of COVID-19

"iTEKAD is a breath of fresh air for my business. The financing provided useful working capital, while guidance from SME Corp is helpful for small businesses like us to survive through the challenges of the pandemic."

Operator of a school canteen business

"Beyond financing, iTEKAD provides useful guidance for small businesses to manage their business more systematically through the classes and training."

Owner of a restaurant specialising in traditional delicacies

Promoting climate resilience

The Bank also lent support to the role of Islamic finance in driving the sustainability and climate resilience agenda for the financial system. This is consistent with the fundamental values of Shariah to prevent harm and promote the attainment of benefits including safeguarding the environment. The intrinsic value of Islamic finance principles is universally applicable in realising a vision of economic growth that is balanced, sustainable and inclusive.

In 2020, we participated in developing detailed guidance (sectoral guides) with the industry via the VBI Community of Practitioners. These sectoral guides, which focus on palm oil, renewable energy and energy efficiency, as a start, will be finalised in the first quarter of 2021. This is part of the industry's ongoing commitment towards the development of a financial system that supports sustainability and the transition towards a low carbon economy. These sectoral guides will facilitate the practical implementation of measures pursued by the Joint Committee on Climate Change (JC3), including the principles-based taxonomy (refer to Chapter 2.2 on "Towards a Greener Financial System") and VBI Financing and Investment Impact Assessment Framework (VBIAF), that were issued in 2019. The sectoral guides outline the environmental, social and governance (ESG) risk considerations in specific economic subsectors/industries and activities. They serve as important tools to assist financing and investment decisions by financial institutions. In 2021, additional sectoral guides will be developed for the manufacturing, construction and infrastructure, as well as oil and gas sectors.

Takaful operators have also started to embrace VBI by aligning their corporate strategies and exploring improvements to business practices and operations. These actions aim to deliver a much bigger positive impact to the economy, community and environment. The development of the VBI framework for takaful is already at an advanced stage. The Malaysian Takaful Association (MTA) expects to issue the framework in early 2021 to guide the takaful industry on VBI adoption.

Diagram 9: VBIAF Sectoral Guides as key tools to motivate behavioural change in the economy and society

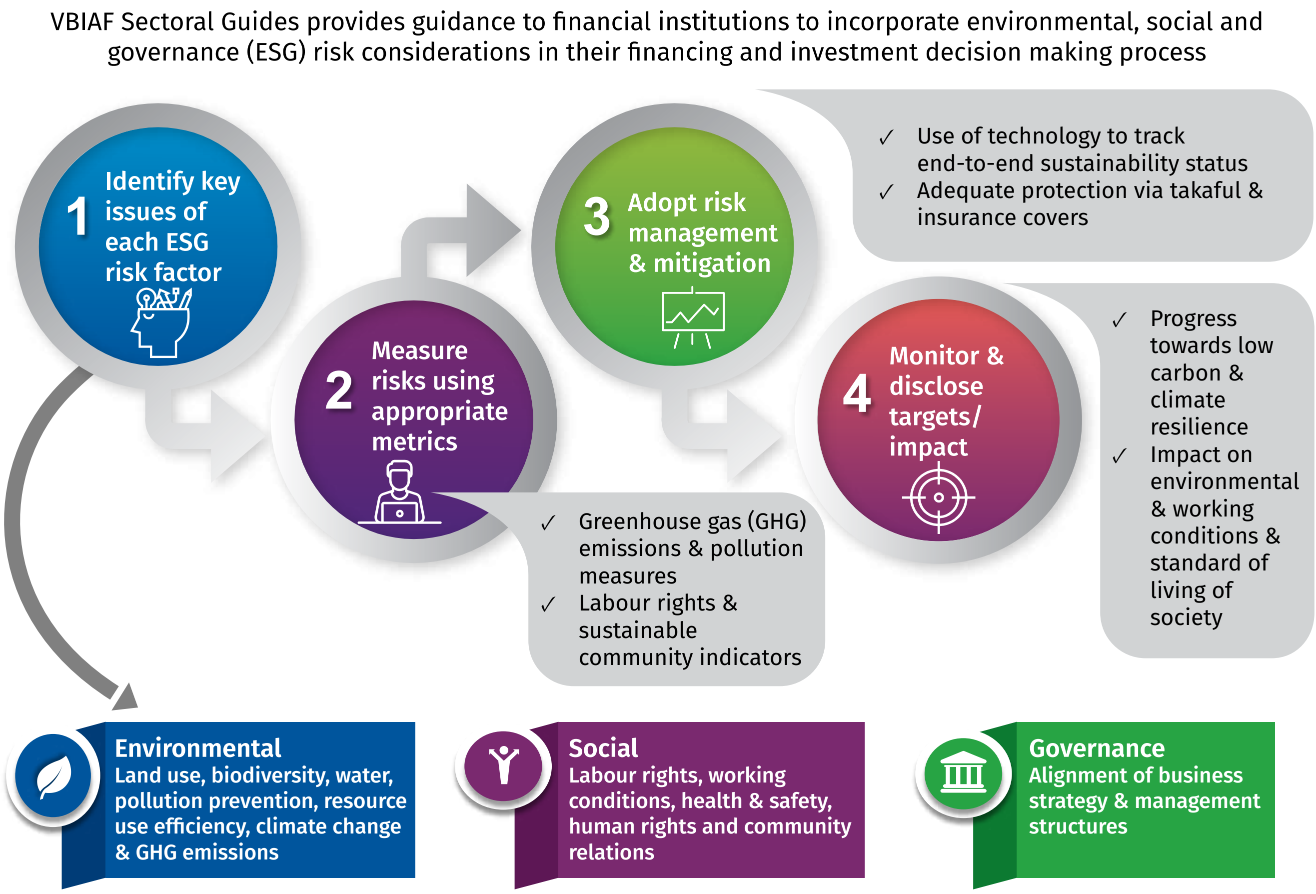


Diagram 10: Concerted efforts on capacity building in catalysing VBI adoption across banking and takaful sectors

	2017-2018	2019-2020	2021-2022
Desired outcomes	Build enabling environment to support adoption of VBI at organisational level	Build understanding and technical capabilities for effective VBI implementation	Fulfil gaps to meet industry's long-term VBI and sustainability expertise needs
Series of VBI guidance documents	• Strategy Paper on VBI • VBI Implementation Guide • VBI Scorecard Framework	• VBI Financing & Investment Impact Assessment Framework (VBIAF) • VBIAF Sectoral Guides on Palm Oil, Renewable Energy and Energy Efficiency (public consultation)	• VBI for Takaful Framework • VBIAF Sectoral Guides on Manufacturing, Construction and Infrastructure, Oil and Gas
Related initiatives	**Establishment of VBI Community of Practitioners (CoP)** to facilitate peer learning **Study visits by CoP** to renowned global value-based banks **Global Islamic Finance Forum (GIFF) 2018** themed "VBI Beyond Profit"	**Series of Technical Workshops and Townhall Sessions** in collaboration with CoP, BNM, The World Bank, IBFIM, AIBIM and identified experts	**Industry-led targeted capacity building programmes** • Raise awareness on VBI business practices, sustainable finance and climate change • Create collaborative synergies in the financial sector

Empowering trade, business and the digital economy

The Bank collaborated with several Islamic banking institutions to explore the deployment of differentiated financial structures to facilitate the liquidity needs of SMEs at different stages of their business operations (Diagram 11). Given that these structures are relatively new to the industry, the Bank facilitated the development of the solutions by providing clarity on regulatory and reporting requirements.

In 2020, the Bank also focused on enhancing the digital marketplace to enable halal certified SMEs to participate in new markets. A key initiative is a strategic partnership between Islamic financial institutions and the Halal Development Corporation Berhad. This initiative aims to enhance access to financing and takaful protection for halal certified companies registered on the Halal Integrated Platform (HIP). HIP is an online digital advisory and networking platform targeting 5,000 halal certified SMEs and is set to be launched in 2021. In addition, the year saw three Islamic banks launch dedicated facilitation programmes for halal micro businesses and SMEs. These programmes include business advisory and business matching services that connect entrepreneurs to prospective buyers via an e-marketplace. With this initiative, Malaysia's halal certified companies would have better market access and opportunity to expand their businesses in the global halal market space.

Takaful players have also pivoted innovatively in their offering of products and services amid COVID-19 challenges. Many have upgraded their self-service customer touchpoints and digitised system infrastructures to support takaful business operations and improve customer experience. In tandem with increasing consumer awareness on health protection, we have observed further expansion of digitally-enabled health care and preventive services such as telemedicine, wellness apps and wearables. Several digital offerings were introduced to cater for traditionally excluded segments as well. These include coverage for children with learning disabilities, usage-based protection and micro SMEs on e-commerce platforms.

In 2020, the Bank facilitated the admission of a peer-to-peer takaful model into the Financial Technology Regulatory Sandbox. This new takaful model based on *ta`awun* (mutual assistance) and *wakalah bi al-ujrah* (appointed manager with a fee) contracts is currently being live-tested for one year with a maximum of 10,000 participants. The offering is distributed through a mobile app. It provides death benefit coverage on a mutual assistance basis, involving equal sharing of the actual claims amount upon death among the participants. The mobile app also includes features such as simple on-boarding, nomination and claims processes for the convenience of participants.

Diagram 11: New financial structures to meet the liquidity needs of SMEs across different stages of the business cycle

Differentiated solutions to address cash flow constraints faced by SMEs

1 Pre-Production Purchase

- Aims to cater for the needs of SMEs that **lack capital to produce goods** while having firm orders.
- Shariah contract:
  - *Salam* (sale contract with advanced payment and deferred delivery)
- How it works:
  - SMEs with purchase orders (POs) from its Buyer for delivery of goods, offer to sell the goods specified in the POs to Islamic banks at a discount.
  - SMEs as the Seller will manufacture/ produce goods according to specifications, and act as an agent for the Islamic bank to sell the goods to Buyer.

2 Inventory Purchase

- Aims to cater for the needs of SMEs that **face cashflow constraint while having substantial inventories.**
- Shariah contract:
  - *Musawamah* (sale contract without disclosure of cost price and profit)
- How it works:
  - SMEs will liquidate inventories by selling it to Islamic bank at a discount.
  - Inventories will be recorded in the balance sheet of the Islamic bank.
  - The Islamic bank which is the legal owner of the inventory will appoint the SMEs as its agent to safekeep the inventory during the tenure and to onward sell it upon maturity or trigger events.

3 Receivable Purchase
(without recourse)

- Aims to cater for the needs of SMEs that **face cashflow constraint due to payment delay by its Buyers.**
- Shariah contracts:
  - *Tawarruq* (tripartite sale and purchase of commodities)
  - *Tawarruq* and *Hiwalah* (debt transfer) contracts
- How it works:
  - SMEs will sell receivables to Islamic banks at a discount, on a non-recourse basis.
  - The Islamic bank will receive the payment of the receivables at original price directly from the Buyer upon maturity.

Liquidity Facility for Government Vendors

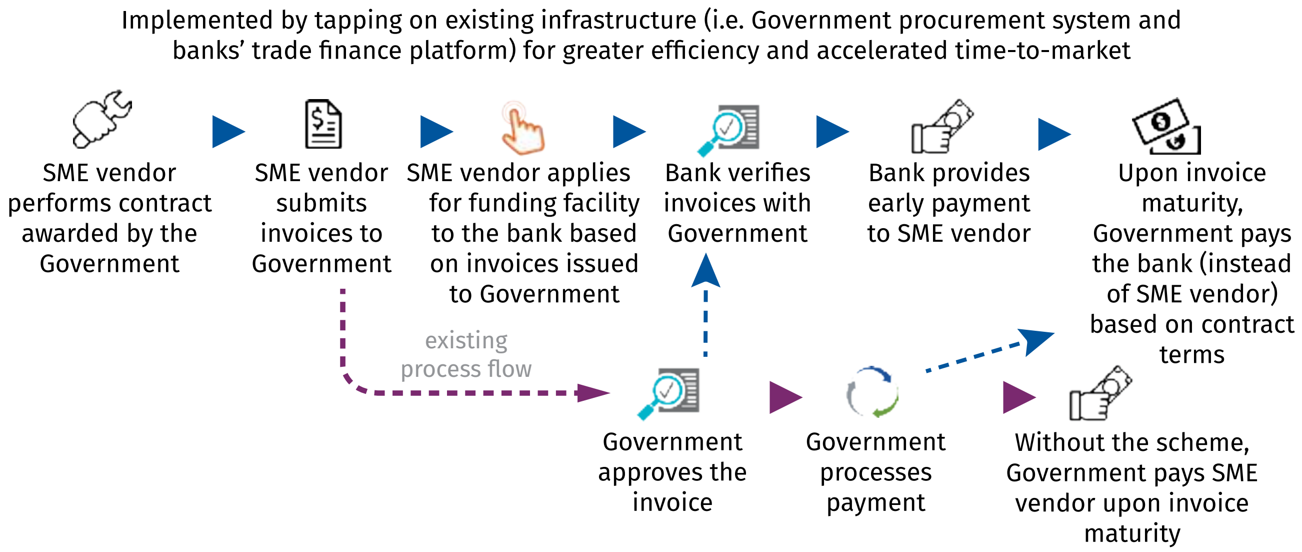
The liquidity scheme is structured, on a pilot basis now, to ease cash flow constraints faced by businesses. It allows eligible SME vendors of public procurement contracts to obtain accelerated payment pending actual payment by the Federal Government. The scheme involves the sale or transfer of outstanding invoices owned by SME vendors to participating banks. The structure benefits SME vendors in the following ways:

- **Does not increase leverage of the vendors** given that the facility involves a true sale of payment rights on invoices to the bank, effectively transferring the payment claims from the vendors to the Principal. As such, under the facility, banks will have limited recourse on the vendors, unlike a financing or a loan structure; and

- **Competitive pricing** in view of the fact that the facility is provided based on the credit standing of the Government as the Principal instead of the credit assessment of the vendors.

The pilot will commence in the first quarter of 2021 involving four Islamic banking institutions and four participating Ministries. The Ministries involved are Ministry of Health, Ministry of Education, Ministry of Higher Education, and Ministry of Communications and Multimedia. These Ministries will act as the Principal parties, and the arrangement covers the supply and services contracts awarded by the Federal Government. Upon completion of the pilot programme, the scheme will be expanded to include participation of more banking institutions and Principals including those from the private sector. The scheme will also consider a wider range of contracts such as work-related procurement contracts as well as diverse types of facilities including pre-financing structures.

Diagram 12: Accelerated payment to Government SME vendors via the Pilot Liquidity Scheme[1]



Key Benefits to SME vendors

- ✓ **Provides quick liquidity**, enabling SME vendors to better manage their financial requirements and advances to meeting new demands/orders
- ✓ **Competitive pricing** based on standing of Government as Principal
- ✓ **Does not affect gearing** of SME vendors
- ✓ **Enhances accessibility** to banking facilities including for small enterprises
- ✓ **No collateral** required

Notes:
[1] The pilot liquidity scheme known as CAKNA is a financing facility by Islamic banks for vendors that have obtained Government contracts for supplies and services

We also strengthened engagements with government agencies and the business community, particularly in the halal industry, together with Islamic finance providers. For example, key information on Islamic finance solutions is now available in the Malaysia External Trade Development Corporation (MATRADE)'s Beginner's Guide to Exporting, as well as Jabatan Kemajuan Islam Malaysia (JAKIM)'s *Manual Prosedur Pensijilan Halal Malaysia (Domestik) 2020*. This will help promote greater awareness and acceptance of Islamic financial solutions among halal certified companies.

Going forward

In 2021, we will continue our efforts to develop a progressive and inclusive Islamic financial system. We will sharpen our focus across three major areas, namely, social resilience, climate resilience and business empowerment. This will entail further diversification in Shariah-compliant financial solutions to address market gaps, and innovative approaches in meeting the evolving needs of the society and economy. These developments, together with the value-based focus of the industry, will contribute towards further strengthening the Islamic financial sector and enhancing its contribution to Malaysia's socio-economic growth and development.

Promoting Safe and Efficient Payment and Remittance Systems

Payment and remittance systems are vital to the modern economy. They help people and businesses make transactions conveniently, such as to buy groceries, shop online, pay suppliers and send money overseas. Given their importance, we regulate these systems and supervise industry players to promote the safety, efficiency, reliability and integrity of payment and remittance systems.

The key priority for the Bank in 2020 was to ensure that payment and remittance systems continued to operate at high levels of safety, efficiency, reliability and integrity, amid the challenging operating environment brought about by the pandemic. Significant efforts were also devoted towards accelerating the adoption of electronic payment (e-payment) and electronic remittance (e-remittance) services, particularly among the underserved communities and small businesses. This effort is part of the broader digitalisation agenda to ensure that households and businesses are better positioned to manage the risks and capitalise on the opportunities in the new normal. We also continued to foster development of key payment infrastructures to ensure they remain effective and relevant to cater to the needs of the Malaysian economy.

Key payment and remittance trends

In 2020, RENTAS[1], Malaysia's large value payment system, and the retail payment systems continued to operate smoothly without any major disruptions, recording a high system availability of above 99.9%. Usage of e-payment services grew significantly during the year (Diagram 1). Notwithstanding the decline in economic activities as a result of the pandemic and movement restrictions, the total number of e-payment transactions continued to record a double digit growth of 14% to 5.5 billion transactions in 2020. On average, a person in Malaysia made 170 e-payment transactions in 2020, up from 150 transactions in 2019. Meanwhile, the usage of cheques and cash recorded a sharper decline in 2020. The number of cheques cleared declined to 59.9 million cheques, down 29% from the previous year. Likewise, cash withdrawn from Automated Teller Machine (ATM), a proxy of cash usage, declined to 768.7 million transactions valued at RM377.3 billion in 2020, down 9% and 12% respectively compared to 2019[2].

The increased adoption of e-payment services was driven primarily by the increasing shift by consumers towards contactless and online payment methods. These payment methods are safer and more convenient as they help minimise contact and reduce the need for visits to physical premises. For payment at physical premises, contactless card transactions accounted for 1 out of every 2 card transactions in 2020, up from 1 out of every 3 transactions in 2019. Meanwhile, online banking transactions registered a 49% increase to 2.5 billion transactions (2019: 1.7 billion). E-wallet[3] transactions on the other hand, increased by 131% to 0.6 billion transactions (2019: 0.3 billion). More merchants also signed up to accept e-payments with the number of Quick Response (QR) code payment registrations increasing by 164% to 773,484 as at end-2020, up from 292,969 registrations as at end-2019[4].

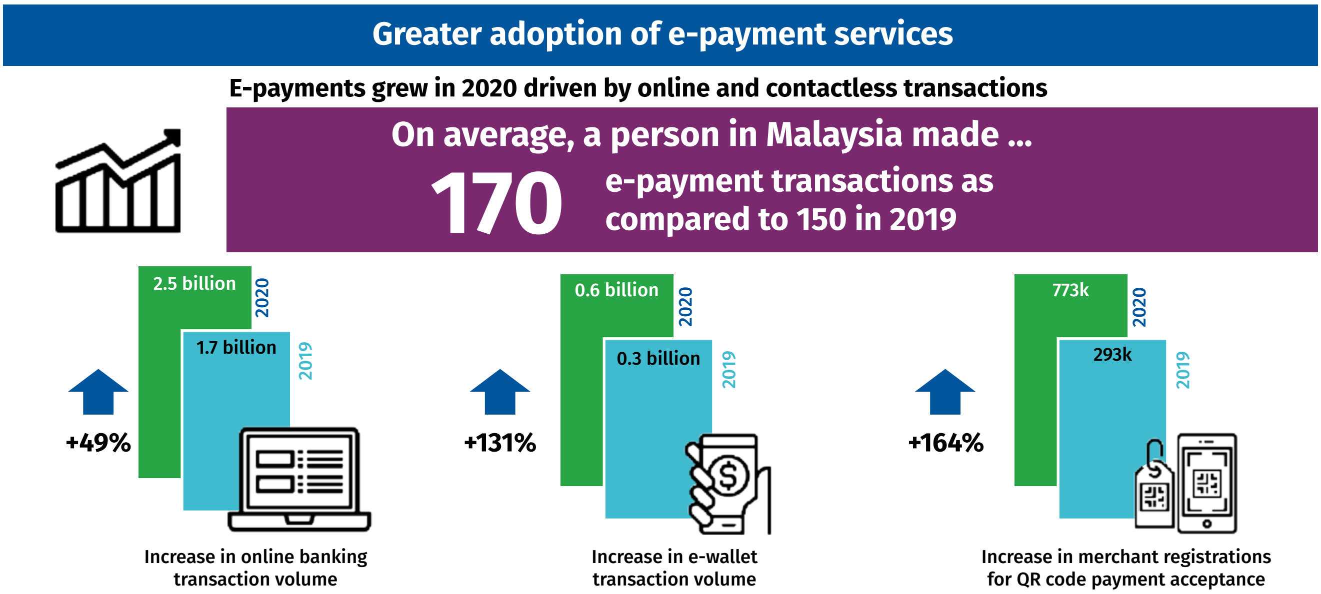
[1] Real-time Electronic Transfer of Funds and Securities System.

[2] As explained in the chapter on Issuing Currency, the higher growth of currency-in-circulation (CIC) recorded in 2020 is likely driven by precautionary holdings of cash. Members of the public were holding 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.

[3] Network-based e-money.

[4] Based on data reported by five major issuers of network-based e-money.

Diagram 1: Greater e-payment adoption



Source: Bank Negara Malaysia

Similarly, adoption of e-remittance services offered by remittance providers[5] grew significantly (Diagram 2). In 2020, the total value of e-remittance transactions more than doubled to RM6.6 billion, accounting for 25% of total outward remittances (2019: RM3.2 billion, 14%). This was supported, among others, by the lower cost of e-remittance services and convenience of electronic on-boarding processes (i.e. e-KYC) that provided a more seamless and convenient user experience. The ability of remittance providers to offer e-remittance services also supported the industry's swift recovery from the impact of the pandemic, registering RM26.5 billion in total outward remittances, up by 12% from 2019. While remittances by foreign workers were lower due to subdued economic conditions, outward remittances conducted via remittance providers continued to grow, driven by individual and business remittances which grew by 9% and 89% respectively compared to the previous year.

Diagram 2: Greater e-remittance adoption

E-remittance remains an attractive option

E-remittance share	**25%**	of total outward remittance transactions **(2019: 14%)**
Growth in the value of e-remittance transactions	**106%**	**(2019: 27%)**
E-remittance cost	**1.3%**	compared to overall remittance cost of 2.3% **(2019: 1.9%)**

Source: Bank Negara Malaysia

[5] Refer to licensed non-bank remittance service providers.

Ensuring safety and fostering confidence in payment and remittance systems

Oversight activities on payment and remittance systems

Due to the challenging operating environment brought about by the pandemic, our oversight activities in 2020 were focused on ensuring the operators of RENTAS and key retail payment systems were able to maintain business continuity that took into account the unique challenges posed by the containment measures and movement restrictions. These included ensuring readiness of their recovery centres and instituting split operations and secure remote access capabilities to mitigate infection risks. We also required the operators to increase their vigilance over IT & cybersecurity risks, and ensure critical resources were available from third party service providers, as needed, to sustain operations and facilitate the timely resolution of issues.

During the year, our supervisory reviews on RENTAS, major retail payment systems[6] operated by PayNet[7], and other industry players, including electronic money (e-money) issuers, merchant acquirers and remittance providers, were similarly focused on

[6] These refer to the Real-time Retail Payments Platform (RPP), the Interbank GIRO (IBG) and the Financial Process Exchange (FPX).
[7] Payments Network Malaysia Sdn. Bhd. (PayNet) is the operator of the country's shared payment systems and financial market infrastructures, which is jointly owned by the Bank and 11 domestic banks.

operational, IT and cyber risks. The reviews aimed to ensure the robustness of the risk management practices adopted by the operators and industry players in mitigating operational disruptions, security vulnerabilities and breaches. For the major retail payment systems, the focus areas also included governance and level of compliance with the relevant 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). We also issued periodic communications on cybersecurity to increase the industry's awareness on the latest cyber threats. In addition, compliance with anti-money laundering and counter terrorism financing (AML/CFT) requirements remains a key focus area, supported by risk-based supervision of industry players.

As the pandemic curtailed on-site supervision and surveillance activities, we leveraged extensively on new technology and data analytics to support our supervisory activities on remittance providers as well as surveillance on illegal operators to mitigate money laundering and terrorism financing risks. We also continued to explore the potential of cloud-based and automated machine learning services to complement and enhance our surveillance capabilities. In addition, the Bank continued to increase its investments in the recruitment and training of talent with data analytics skills and knowledge.

Policy responses to emerging risks and market developments

We continually issue, review and enhance our policies to ensure that they remain effective and relevant to address emerging risks and market developments. In 2020, we issued a policy document on risk-based authentication for online payment card transactions. This will lead to better customer experience facilitated by a more seamless authentication flow and strengthen fraud management through the use of data driven technology and analysis. In addition, we are reviewing the Bank's policies on e-money, merchant acquiring and e-remittance business to enhance the management of key risks, in particular fund management risk, settlement risk, technology and cyber risk, and fraud risk. The review also aims to foster innovation and promote the development of market players that can help enhance Malaysia's payment ecosystem.

Promoting greater adoption of e-payment and e-remittance services

The Bank and the industry intensified communication and outreach efforts to promote e-payment and e-remittance services as a safer and more convenient way of making payments. We launched the #GoDigital Campaign to educate the public on the benefits and steps to adopt e-payment and e-remittance services (Diagram 3). Communication materials including short videos and infographics were shared via mainstream and social media channels. For e-remittance services, a targeted approach to reduce barriers and increase confidence in using formal remittance channels among foreign workers continued to be pursued. This includes broadcasting videos in their native languages via social media channels. To preserve trust and confidence in the adoption of e-payments, we also stepped up financial education and awareness on basic hygiene measures that the public should take to protect themselves against financial scams and fraud.

We also worked with the industry and other stakeholders to address pain points and facilitate migration to e-payments. The progress has been encouraging, especially in the public sector, where e-payments made up 60% of total Government collection in 2020 (2019: 52%)[8]. A notable example is the Immigration Department of Malaysia which successfully enabled e-payment acceptance at all Immigration counters nationwide. This has facilitated a higher uptake of e-payments which accounted for 84% of the total collection received by the Immigration Department of Malaysia in

Diagram 3: #GoDigital Campaign infographics

Source: Bank Negara Malaysia

[8] Source: Malaysian Administrative Modernisation and Management Planning Unit (MAMPU).

MyDebit Campaign by PayNet in collaboration with Ministry of Health Malaysia

2020, compared to 48% in 2019[9]. Efforts were also made to engage state governments and merchant associations to encourage greater adoption by small businesses. For instance, the Bank collaborated with the Penang State Government to implement the *Cashless Pasar Awam* initiative to expand e-payment adoption across 56 wet markets in Penang. Another example was in Pasar Payang, a popular market area in Terengganu, where in collaboration with local traders associations and the industry, we helped 329 traders to start accepting e-payments.

Fostering development of key payment infrastructures

To drive greater efficiency and promote innovation in payment and financial services, the Bank worked with the industry and relevant stakeholders to issue the ISO 20022 migration strategy for Malaysia.

A trader in Pasar Payang, Terengganu who was on-boarded to accept QR code payments

[9] Source: Immigration Department of Malaysia.

The Real-time Retail Payments Platform (RPP) is a shared payment infrastructure that facilitates instant and seamless payments between bank accounts and e-money accounts. Two services are currently offered on the RPP. The first service, DuitNow, enables a sender to transfer funds by referencing the mobile phone number, National Registration Identity Card (NRIC) number or the business registration number of the recipient. The second service, DuitNow QR, is a national QR payment solution which enables a merchant to accept payments from customers of all participating e-wallet operators using a unified QR code.

In 2021, more services will be offered progressively under the RPP. These will include DuitNow Request, DuitNow AutoDebit, DuitNow Online Banking/

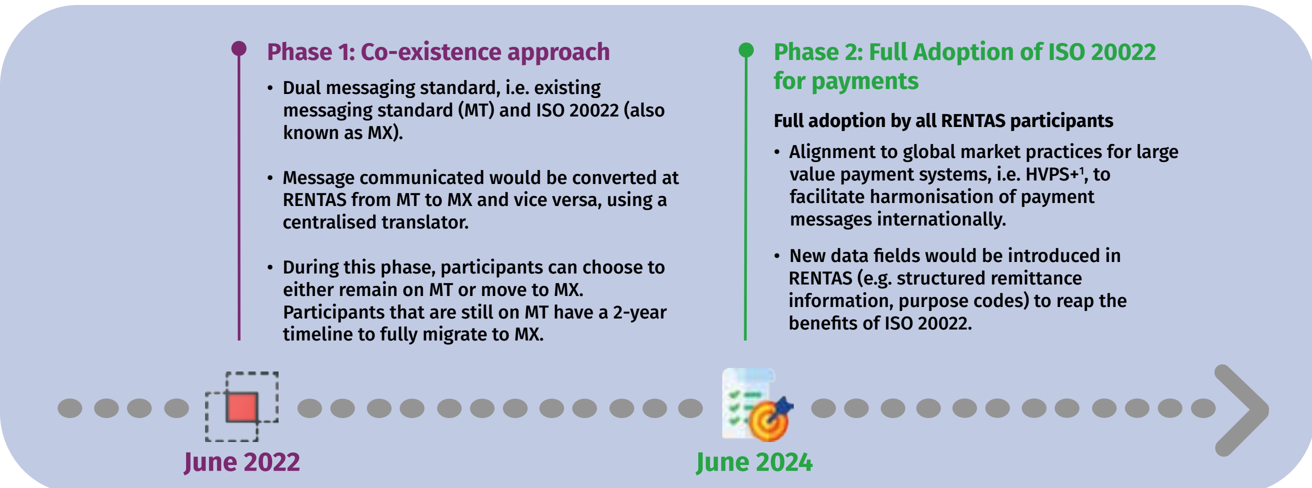
ISO 20022 migration strategy: Migration approach and next steps

ISO 20022 is an internationally recognised messaging standard for the financial industry with enhanced data content, structured messaging format and flexibility to adapt to new technologies. The adoption of ISO 20022 presents an opportunity for the financial industry in Malaysia to enhance payment efficiency, facilitate better risk management as well as offer value-added services and products to customers.

The migration to ISO 20022 also helps to mitigate potential disruptions to payment transactions. This is especially so for cross-border payments, where the loss of information through data truncation may lead to non-compliance with anti-money laundering and counter terrorism financing requirements. Globally, major jurisdictions such as the European Union, the United Kingdom, the United States and several ASEAN countries are set to migrate to ISO 20022 within the next few years.

In June 2020, the Bank finalised and issued the ISO 20022 migration strategy for payment systems in Malaysia after consultation with industry players and relevant stakeholders. The strategy reflects several guiding principles which include consideration on industry readiness, ensuring effective safeguards against operational and compliance risks, cost effectiveness and the ability to reap the benefits of ISO 20022 as early as possible. The migration exercise will be done in two phases starting in June 2022 (Diagram 4).

Diagram 4: Two-Phased Approach for ISO 20022 Migration for RENTAS



[1] A global market practice for ISO 20022 messaging standards to harmonise usage of ISO 20022 for large value payment systems

Source: Bank Negara Malaysia

The message specifications for the Real-time Retail Payments Platform (RPP), which is currently using a proprietary ISO 20022 standard, would also be aligned with the new messaging specifications to be adopted for RENTAS (HVPS+). This is expected to enhance efficiency for financial institutions that participate in both RENTAS and RPP, as they only need to handle one single messaging standard for both large value and retail payment transactions.

Wallets, and cross-border payment services (Diagram 5). Further progress has also been made to facilitate cross-border real-time QR payments with neighbouring countries within the ASEAN region starting with Thailand, Indonesia, and Singapore. These are expected to go live in 2021. Linking the region's real-time payment systems will promote greater convenience, efficiency and healthy competition in cross-border payments. This includes providing consumers and merchants with potentially faster and more cost-effective alternatives to traditional modes of payments such as correspondent banking arrangements and payment cards.

Going forward

In 2021, we will continue to direct our efforts to ensure that key payment and remittance systems operate smoothly with high levels of safety, efficiency, reliability and integrity. With greater traction in the adoption of e-payments and e-remittance services in a post-pandemic world, we will continue to work with the industry to reduce barriers to adoption, especially among the underserved segments while ensuring that our regulatory framework continues to remain effective in facilitating innovation.

Diagram 5: New services to be introduced under the RPP

DuitNow

A service that allows a payee to send an electronic request to collect payment from a payer	**DuitNow Request**
A service that allows a payee to collect payments based on the established consent of a payer	**DuitNow Auto-Debit**
A service that facilitates faster and more seamless checkout for e-commerce and m-commerce transactions via redirection to payer's online banking or e-wallets	**DuitNow Online Banking/Wallets**
The interoperability of RPP services allows movement of funds between payers and payees of different participating countries, starting with QR payments for purchases	**Cross-border services**

Source: PayNet

Evaluating Malaysia's Need for Central Bank Digital Currency

Technological advancements and the increasing pace of digitalisation have led to the rising adoption of digital payments and the emergence of privately-issued digital assets[1] (Diagram 1).

Diagram 1: Comparison of fiat currency, e-money and digital assets

	Issued and backed by a sovereign body	Privately-issued and backed by assets		Privately-issued and not backed by assets
			Digital assets	
Instrument	**Fiat currency** **1. Bank notes and coins** **2. Central Bank Digital Currency (CBDC)**	**Electronic money** *(E-money)* *e.g., Boost, GrabPay, Setel, ShopeePay, and Touch 'n Go*	**Stablecoin** *(e.g., Tether, USD Coin)*	**1. Exchange tokens[1]** *(e.g., Bitcoin, Ethereum)* **2. Security tokens[2]** **3. Utility tokens[3]**
Store of value	Value is backed by a sovereign body (e.g., Government, central bank)	Value is backed by fiat currency	Value is backed by assets (e.g., fiat currency, commodity)	No formal backing for its value and subject to market forces
Medium of exchange	▪ Widely used as a means of payments ▪ Some countries are exploring the feasibility of issuing CBDC (digital form of fiat currency)	Widely used as a means of payment	May potentially be used as a means of payment subject to effectiveness of value stabilisation mechanism	Not widely used as a means of payment due to various limitations (e.g., high price volatility, vulnerability to cyber threats, scalability issue)
Unit of account	Widely used for pricing of goods and services	Denominated in fiat currency	May be denominated in fiat currency (for stablecoins backed by fiat currency)	Not widely used for pricing of goods and services

1 Used as a means of exchange or for investment
2 May provide rights, e.g., ownership, repayment of a sum of money, or entitlement to future profits
3 Can be redeemed for access to a specific product or service

Note: Examples are meant to be illustrative and do not amount to any form of endorsement.

Source: Bank Negara Malaysia, Financial Action Task Force, Bank for International Settlements, Cryptoassets Taskforce

Most digital assets, in their current form, are not used as payment instruments primarily because they do not exhibit the universal characteristics of money. In essence, their characteristics prevent them from being a good store of value and medium of exchange as they are prone to price volatility, vulnerable to cyber threats and lack scalability[2]. For example, the price of Bitcoin recorded a steep decline of 39% within a single day in March 2020[3]. Hence, it is crucial for the public to have a clear understanding of digital assets such as their features, underlying technology, and corresponding risks (Diagram 2). It is noteworthy that new forms of digital assets such as stablecoins have started to emerge. Some stablecoins seek to minimise volatility in their value by linking or backing it with assets such as fiat currency[4].

1 Digital asset or virtual asset refers to a digital representation of value that can be digitally traded and functions as a medium of exchange and/or unit of account and/or store of value but does not have legal tender status. It is not issued nor guaranteed by any jurisdiction, and fulfils the above functions only by agreement within the community of users of the digital asset (Source: FATF's Virtual Currencies Report 2014).
2 For digital assets with decentralised trust model, such as Bitcoin, each user needs to download and verify the history of all transactions ever made. This has the effect of slowing down transaction processing time, making it not scalable to facilitate day-to-day retail payments. For instance, Bitcoin is only able to process 3.3 transactions per second compared to about 2,000 to 3,500 transactions per second for the major international cards networks (Source: BIS Annual Economic Report 2018, "V. Cryptocurrencies: Looking beyond the hype").
3 Source: https://www.coindesk.com/bitcoin-prices-in-2020-heres-what-happened
4 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.

Diagram 2: Debunking common misconceptions on digital assets

COMMON MISCONCEPTION 1:
Digital assets and distributed ledger technology (DLT) are synonymous.

CLARIFICATION:
Digital assets are only one of the many applications of DLT. DLT allows users to transfer digital assets to another person directly without the need of a central authority or intermediaries. DLT also has various applications beyond digital assets (e.g., trade finance, digital identity, land registry).

COMMON MISCONCEPTION 2:
Digital assets such as Bitcoin is a good alternative payment method.

CLARIFICATION:
Digital assets, such as Bitcoin, suffer from various limitations (e.g., high price volatility, vulnerability to cyber threats, scalability issue) which reduce their suitability as a means of payment.

COMMON MISCONCEPTION 3:
With CBDC, central banks are looking to issue digital assets such as Bitcoin.

CLARIFICATION:
While CBDC may adopt the same underlying technology (e.g., blockchain or DLT), CBDC differs from digital assets as CBDC is legal tender and backed by a claim on the central bank unlike digital assets that are not legal tender and have no intrinsic value.

Source: Bank Negara Malaysia, Bank for International Settlements

The rapidly evolving digital asset and payments space has prompted central banks to evaluate the merits of issuing CBDC. CBDC can be a means to achieve public policy objectives by capitalising on the benefits afforded by emerging technologies such as DLT[5].

Balancing the benefits and risks of CBDC issuance

CBDC[6] is a digital payment instrument issued by a central bank that represents a direct liability of the central bank[7]. While CBDC issuance may yield potential benefits such as faster settlement, easier accessibility, and better system resilience[8], it is not without its risks.

Depending on the way a CBDC is designed[9], there may be different implications to monetary policy transmission and stability of the financial system. For instance, while an interest-bearing CBDC may facilitate faster transmission of monetary policy rate changes to end-users, it may trigger financial stability risk if it leads to large shifts of bank deposits to CBDC. This may destabilise commercial bank deposit funding and potentially affect the supply of credit in the economy[10], thus giving rise to financial stability risks. Robust controls must also be put in place in a CBDC system to mitigate operational and cybersecurity risks. In addition, CBDC issued by a foreign central bank that is denominated in foreign currency may undermine the effectiveness of monetary policy transmission, if it is widely used as a means of payment in Malaysia. Accordingly, it is crucial for central banks to approach any decision to issue CBDC thoughtfully to ensure it is carefully designed to avoid compromising monetary and financial stability.

[5] While CBDC is often associated with distributed technology such as DLT, where records of transactions are held across a network of computers (nodes), it can also be designed using a centralised technology, with differing levels of efficiency and protection from single points of failure.
[6] There are generally two categories of CBDC, namely retail or general purpose CBDC that are issued to facilitate day-to-day retail transactions and wholesale CBDC that are issued to facilitate settlement between financial institutions.
[7] BIS and G7 central banks, "Central Bank Digital Currencies: Foundational Principles and Core Features", October 2020, pg. 3.
[8] For instance, CBDC system could act as an additional payment method to mitigate over-reliance on existing payment systems. The choice of DLT in the design of a CBDC could also mitigate single point of failure risk.
[9] Some examples of CBDC design features include whether it is interest-bearing and whether users are subject to caps on how much CBDC they may hold.
[10] As the CBDC is a convenient, efficient and risk-free instrument, bank depositors may be keen to hold CBDC instead of placing deposits at banks. This may be exacerbated if the CBDC also offers some form of returns. Deposit withdrawals particularly by retail depositors may reduce the availability of low cost and stable funding for banks, which will subsequently lead to deposit competition and drive cost of funding higher for the banking system. In a worst case scenario, if banks are unable to replace these funding sources, they may have to reduce their balance sheet, thus impacting the supply of credit. In times of financial stress, this may result in runs on bank deposits into CBDC which might potentially undermine financial stability.

Motivations for CBDC work are driven by specific country circumstances

CBDC should not be an end in itself. Instead, it can be a tool to achieve broader public policy outcomes. Understanding the problem statements and the desired public policy goals is therefore critical in guiding any decision and research on CBDC. It is worth noting that the underlying motivations for CBDC work may differ across countries depending on their level of development and specific circumstances. Some of the underlying motivations include promoting financial inclusion[11], modernising less developed domestic payment systems[12], enhancing cross-border payments, providing continued access to a state guaranteed means of payment[13] in response to declining usage of physical cash and enhancing monetary policy tools[14] (Diagram 3).

Diagram 3: Spectrum of motivations for CBDC work

1 Research	2 Proof-of-concept	3 Pilot	4 Launched
Federal Reserve Help inform conversation on whether a widely available digital form of central bank money offers benefits in the US and should be introduced	**Bank of Canada and Monetary Authority of Singapore** Test how two different DLT platforms were able to interoperate, allowing for cross-border payments to be settled in CBDC	**Eastern Caribbean Central Bank** Assess potential efficiency and welfare gains from the introduction of a digital sovereign currency	**Central Bank of Bahamas** Increase efficiency of payments system, achieve greater financial inclusion, provide non-discriminatory access to payments system and strengthen national defences against money laundering, counterfeiting, and other illicit activities
Bank of England Understand impact of CBDC on payments and on monetary and financial stability, and functionality, provision and technology of CBDC	**Saudi Central Bank and Central Bank of the U.A.E** Explore the viability of a single dual-issued digital currency as an instrument of domestic and cross-border settlement between two countries	**Sveriges Riksbank** Review the possibility of issuing a digital complement to cash, and whether it could support the task of promoting a safe and efficient payment system including to mitigate financial exclusion risk	
European Central Bank Understand the challenges and benefits that could emerge as a result of the introduction of a digital euro	**Bank of Thailand and Hong Kong Monetary Authority** Explore the application of DLT to increase efficiency in cross-border funds transfers	**The People's Bank of China** Provide a convenient digital complement to physical cash	

Source: Central Bank websites and publications, News flow

[11] This is especially the case for countries with low levels of financial inclusion.
[12] For countries with less developed payment systems, CBDC may offer a way to leapfrog to better and more advanced payment systems.
[13] As part of its mandate, a central bank provides the public with access to a means of payment that has legal tender status and safeguards its value by maintaining price stability.
[14] For example, an interest-bearing CBDC could be used as a monetary policy tool to improve monetary policy transmission.

Malaysia's context and approach to CBDC

At the moment, the Bank does not have any immediate plans to issue CBDC. In Malaysia, the financial system continues to support the functioning of the economy while meeting the needs of individuals and businesses. To this end, the existing monetary and financial policy tools have remained effective in safeguarding monetary and financial stability[15]. Moreover, domestic payment systems, including the RPP continue to operate safely and efficiently to support the needs of the economy and allow real-time digital payments[16].

Nevertheless, given that this is a rapidly evolving situation, we will actively assess the potential value proposition of CBDC in light of developments in the digital assets and payments space. Key policy decisions on CBDC will be guided by clear benefits to Malaysia as a whole, while ensuring that the associated risks arising from CBDC issuance, particularly financial stability risks, are effectively managed. CBDC issuance should complement existing payment instruments including physical cash to ensure that all Malaysians, in particular the underserved communities, have continued access to safe and efficient payment solutions. We will also actively monitor the trend of key indicators with direct impact to our mandates, which may provide useful data points for us to evaluate the merits of CBDC issuance. These include, among others, the level of physical cash usage in Malaysia[17], the extent to which privately-issued digital assets are used for payments in Malaysia[18], and the extent to which CBDC is being used to facilitate cross-border trade[19]. As part of our efforts to enhance understanding of the associated risks and policy implications of CBDC, we are actively building internal capacity to support informed decisions on CBDC issuance including by conducting proof-of-concepts (POC).

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15 Further details on the Bank's monetary and financial policy tools can be found in the Bank's Economic & Monetary Review 2020.
16 Greater details on the progress of e-payments migration can be found in this chapter of the Bank's Annual Report 2020, entitled "Promoting Safe and Efficient Payments and Remittance Systems".
17 Any rapid decline may strengthen the case for CBDC issuance to ensure the public continues to have access to risk-free central bank money.
18 While privately-issued digital assets are not recognised as legal tender and not regulated as a payment instrument in Malaysia, this may not deter some members of the public from dealing with digital assets. In view of this, the Bank monitors the extent to which they are used for fund transfer and payment for goods and services.
19 CBDC issuance may be necessary to facilitate cross-border trade and strengthen Malaysia's competitive positioning vis-à-vis its regional competitors.

Issuing Currency

The Bank is the sole issuer of ringgit banknotes and coins, which are the only legal tender in Malaysia.

The Bank's mandate is to ensure that there is sufficient supply of ringgit banknotes and coins at all times to meet public demand (see the accompanying feature article on the challenges in managing currency operations during the COVID-19 pandemic), and to maintain the quality and integrity of the currency in circulation (CIC). In doing so, we seek to conduct our currency operations in a cost-effective manner.

Currency in circulation

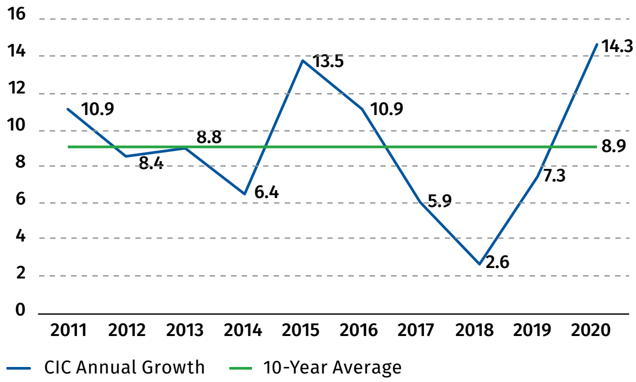
Physical currency is used as a medium of exchange to facilitate payment transactions and as a store of value. Despite movement restrictions and rapid acceleration in e-commerce and online spending in 2020, cash remains the most prevalent medium of payment. At end-2020, there was approximately RM130.4 billion worth of banknotes and coins in circulation, with an annual growth of 14.3%. This was the highest increase in CIC in the last ten years (Chart 1, 2019: 7.3%, last ten-year average of 8.9%). This significant increase in demand for cash, which can also be observed in other countries[1], was due to members of the public and small businesses engaging in precautionary behaviour, as they sought to hold more cash during the COVID-19 pandemic. With higher CIC and decline in GDP, our CIC over GDP[2] rose to 8.3 from 6.6 in the previous year[3] (Chart 2).

[1] According to the Currency News September 2020 edition, 53 currencies registered a median annual growth of 14.5% in 2020 (2019: 6.7%), with more than 60% of the countries recording their highest annual growth rate of CIC. The US and the Euro area reported more than 10% year-on-year increase in CIC.

[2] CIC over GDP is a measure of cash intensity for a particular country.

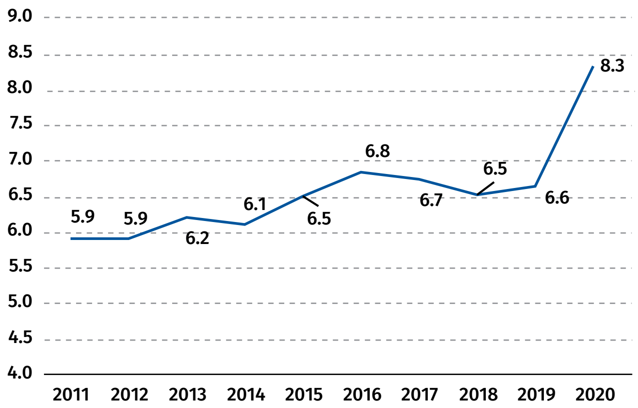
[3] Based on data for 2019 from the Bank for International Settlements, Malaysia's CIC over GDP (6.6) was higher than Australia (4.0) and the UK (3.4) but lower than Singapore (9.6) and Japan (19.3).

Chart 1: CIC Growth (%)



Source: Bank Negara Malaysia

Chart 2: Malaysia's CIC over GDP (%)



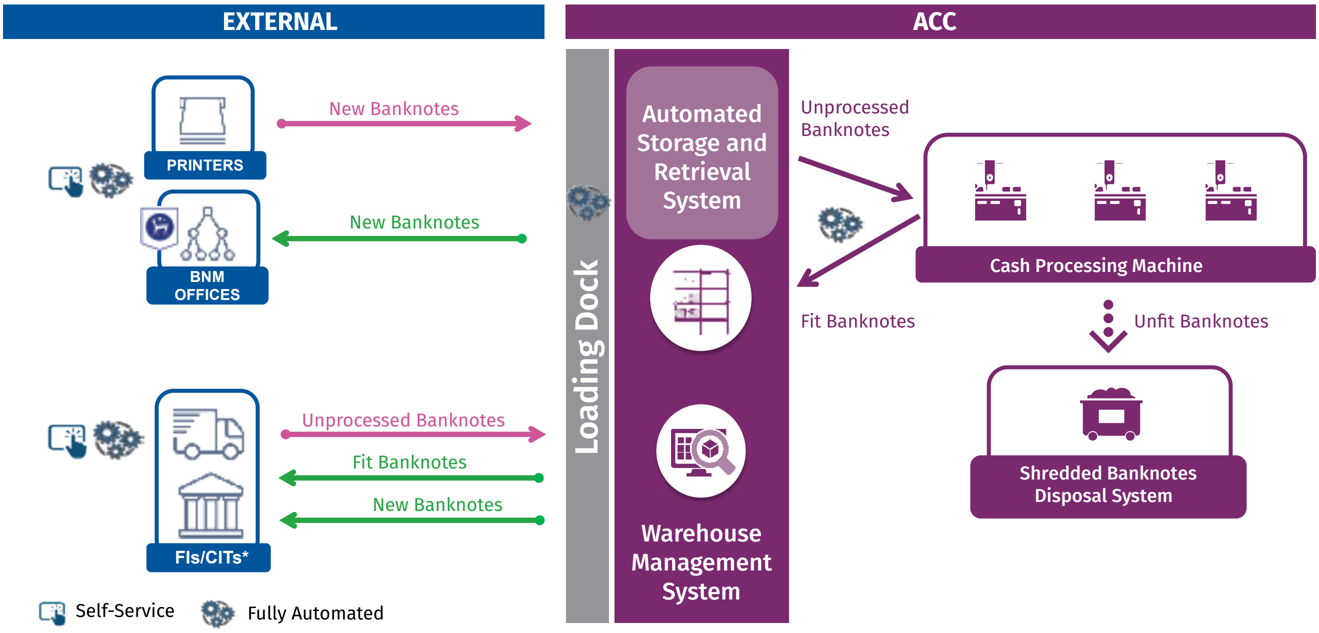
Source: Bank Negara Malaysia

Currency operations

In managing currency operations, we procure our banknotes from qualified international printers through open tender and mint coins at our minting facility, Kilang Wang (KWG).

Unlike banknotes, we are not able to recirculate used coins on the same scale. This is because the public are less likely to deposit their excess coins

Diagram 1: Currency processing at Automated Cash Centre (ACC)



*Note: Financial Institutions/Cash-in-Transit companies

with financial institutions. We estimate that as much as 30% of coins issued every year ends up being kept idle at home, in jars and drawers, as "dead coins". To encourage recirculation, we actively partner with coin agents[4] and financial institutions to collect coins from the public, which are then reissued into circulation. In 2020, we collected and recirculated 82.1 million coins or 9.1% of KWG's annual output. This represents a considerable cost saving. Nevertheless, the challenge remains to get the public to recirculate more coins kept at home, when making payment for retail transactions.

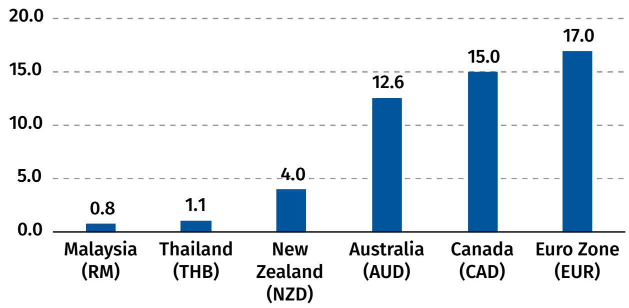
A key focus is to maintain the high quality of banknotes to ensure public confidence in our currency. This involves the Bank removing worn and defective banknotes that do not meet quality standards and replacing them with either new or fit banknotes. Fit banknotes are used banknotes which meet the acceptable quality standards for recirculation. Banknotes that are found to be unfit for recirculation will be shredded. These notes are processed at our Automated Cash Centre (ACC) and the Bank's regional offices in Johor Bahru, Penang, Kuala Terengganu, Kuching and Kota Kinabalu. In total, we processed 2.3 billion (2019: 2.9 billion) banknotes in 2020 and shredded 23.3% (2019: 20%) of these banknotes that no longer met the quality standards. The ACC processes about half of the banknotes collected. Leveraging on state-of-the-art automation and high speed processing machines, the ACC has a significant capacity to process banknotes, enabling the Bank to more efficiently meet demand with fit banknotes throughout the year, even in the midst of a pandemic.

The Bank also acts to safeguard the integrity of the ringgit against counterfeit banknotes and coins. Counterfeiting currency is a serious crime that undermines public confidence in the ringgit. To combat banknote counterfeiting in Malaysia, we work closely with local law enforcement agencies. We also conduct currency awareness and education programmes. During the year, efforts to raise awareness and educate the public on currency issues continued, albeit in virtual mode. These ongoing efforts contribute to Malaysia's consistently low counterfeiting rate. As at end-2020, Malaysia's counterfeiting rate was less than one per million pieces (ppm) of banknotes (2019: 1 ppm), well below that of other benchmarked countries (Chart 3).

In managing our currency operations, we strive to keep the cost of operations low by prioritising the use and distribution of fit banknotes. The issuance of fit banknotes in lieu of new banknotes also reduces the environmental impact of the Bank's currency operations. Printing 500 million pieces of new

[4] Coin agents provide a one-stop logistics service to the Bank and customers, where all coins collected from circulation will be processed according to the quality standards set by the Bank and segregated based on their fitness level. Only fit coins will be recirculated, while unfit coins will be returned to KWG for destruction.

Chart 3: Currency counterfeiting rate of Malaysia and other countries (ppm)



Note: Data for 2020, except for Thailand, New Zealand and Canada (2019)
Source: Bank Negara Malaysia, website and annual report of the respective central banks

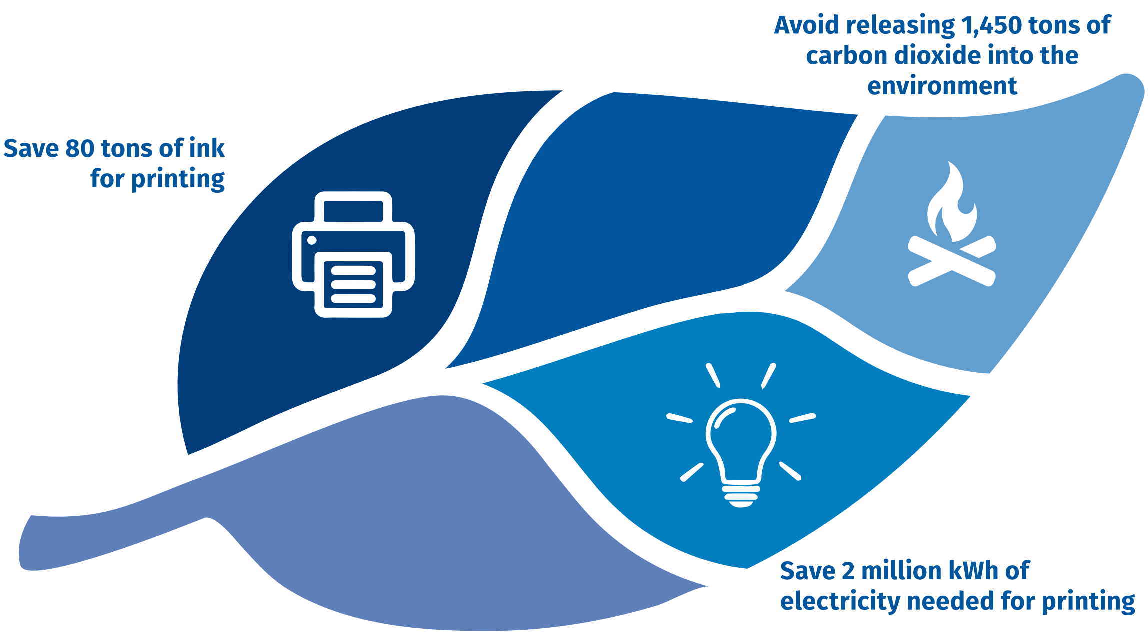
banknotes releases 1,450 tons of carbon dioxide into the environment and consumes more than 80 tons of ink and 2 million kWh of electricity - enough to power 7,500 Malaysian homes for a month.

We produce commemorative banknotes or coins to mark special occasions that have national significance. During the year, we issued a series of commemorative coins in conjunction with three occasions - the 50th anniversary of Universiti Kebangsaan Malaysia, the 25th anniversary of Putrajaya and Malaysia's hosting of the Asia-Pacific Economic Cooperation Meetings in 2020 (APEC 2020).

We also took steps to provide the public with convenient and safe access to our services. During the year, we shifted to online orders, payments and direct deliveries of commemorative coins. In addition, we launched an entirely online process for the 11th auction of the Malaysian banknotes with special serial numbers. Beginning January 2021, we also enabled the exchange of defaced banknotes at the counters of any financial institution[5] nationwide. Before this, the public could only exchange these banknotes at the Bank's headquarters and BNM Offices.

Diagram 2: Minimising the environmental impact of currency operations

Issuing 500 million of fit, instead of new, banknotes can have significant positive impact on the environment



[5] The public will get the full value of the defaced banknotes immediately in 'straightforward' cases. Otherwise their cases will be referred by the financial institutions 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 when the defaced banknote fulfils all the following 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 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.

View inside the cash processing area which houses cash processing machines at the ACC

A glimpse inside a cash processing machine

Currency Act 2020

The Currency Act 2020 came into force on 1 October 2020. It sets out a comprehensive regulatory and operational framework for the management of currency operations. The new law will complement the existing Central Bank of Malaysia Act 2009. Among others, the law requires that any entity involved in the currency processing business[6] must fulfil the requirements stated in the Currency (Registration Requirements) Order 2021, which will be gazetted soon, and apply to the Bank for registration to conduct their business.

Consistent with the provisions of the new law, to ensure the high quality and integrity of currency in circulation, all registered currency processors will need to meet the quality and integrity standards that the Bank will announce this year.

[6] Section 2(1) of the Currency Act 2020 defines currency processing business as the business of collecting, sorting as well as packing currency by quality, quantity and denomination.

Obverse (left) and reverse (right) design of the 50th Anniversary of Universiti Kebangsaan Malaysia (UKM50) commemorative coin

Obverse (left) and reverse (right) design of the 25th Anniversary of the Establishment of Putrajaya commemorative coin

Obverse (left) and reverse (right) design of the Asia-Pacific Economic Cooperation Meetings 2020 in Malaysia (APEC 2020) commemorative coin

Currency Operations during the COVID-19 Pandemic

Currency in circulation (CIC) changes with the level of economic activity. Based on past data, our country's CIC, though seasonal, is largely predictable. It picks up considerably during the festive seasons such as Hari Raya Aidilfitri and Chinese New Year, as well as year-end holidays, and tapers off thereafter. This predictability allows the Bank to manage our currency stock at appropriate levels and build up additional stocks ahead of time when demand for currency is expected to pick up.

Since the sudden implementation of the Movement Control Order (MCO) to curb the COVID-19 pandemic, public demand for cash surged, as illustrated earlier in the chapter. As at end-2020, the CIC recorded the highest year-on-year growth rate of 14.3% to RM130.4 billion compared to the ten-year average of 8.9%.

Last year saw weaker consumer spending and rapid acceleration in e-commerce and online spending[1], but contrary to expectations, CIC recorded a strong growth. This may seem counterintuitive, but members of the public were holding extra cash for comfort and security during the pandemic. This experience was not unique to Malaysia, as many other countries reported a similar phenomenon.

The strong surge in demand for cash during the MCO posed operational challenges to the Bank in ensuring the public had convenient and easy access to cash throughout the year. At the same time, with the public keeping more cash in hand, we received 23% less deposits from financial institutions during the year. This meant fewer fit banknotes were available for reissuance into circulation.

Hence, to meet the surging demand for cash, the Bank executed three action plans. First, we used our buffer, which comprises additional currency stock that we keep over and above normal consumption. The buffer stock is to ensure that there is sufficient cash to meet surging demand by the public in any unforeseen circumstances. During the pandemic, having an adequate buffer proved indispensable to the Bank in ensuring no shortage of cash throughout 2020.

Second, we closely collaborated with the Bank's strategic partners in the cash industry, especially financial institutions and Cash-in-Transit companies (CITs)[2], in ensuring that cash was continuously available at more than 12,000 Automated Teller Machines (ATMs) throughout the country. In this regard, as financial institutions and CITs were classified as essential services, their operations remained uninterrupted during the MCO.

Diagram 1: Action Plans Adopted by the Bank in Managing Currency Operations during the COVID-19 Pandemic

Managing Cash Supply

Use of currency buffer

Withdraw from buffer to meet surging demand for cash

Collaborate with strategic partners

Ensure financial institutions and CITs are able to operate normally during the MCO

Managing Cash Operations

Split operations and back-up teams

Implement business continuity plan including split operations and back-up teams for essential currency operations at Automated Cash Centre (ACC) and BNM Offices (BNMOs)

Comply with health and safety Standard Operating Procedures (SOPs)

Ensure staff are in full compliance with health and safety SOPs at all times

[1] For example, debit card and online spending in Malaysia grew by 26.8% and 34.5% respectively for the period between 14 October to 10 November 2020. Online banking transactions also rose by 10% in Q4 2020 compared to Q3 2020.

[2] CITs perform the function of collection and distribution of cash nationwide.

Third, the Bank's ACC, which has the capacity and capability to process significant volumes of banknotes for issuance into circulation, played a pivotal role in meeting the surge in demand for cash during the pandemic. Specifically, to ensure business continuity and minimal disruptions to the operations of the ACC and BNMOs, the Bank implemented split operations and back-up teams. In the event of any virus exposure among staff, the affected area was properly sanitised with the back-up teams taking over operations. At all times, compliance to health and safety SOPs was a priority, especially in practising strict physical distancing and observing personal hygiene.

In summary, despite the unexpected surge in cash demand and the challenging operating environment due to movement restrictions, the Bank was able to continue providing convenient and ready access to cash for the public throughout the year. This was achieved primarily by ensuring our essential cash operations at the ACC and BNMOs remained uninterrupted as well as close collaboration with our strategic partners, namely financial institutions and CITs.

Maintaining Financial Integrity

The Bank is committed to safeguard the integrity of Malaysia's financial system amidst the pandemic, by supporting reporting institutions in upholding the standards for anti-money laundering and countering financing of terrorism (AML/CFT).

The Bank's role

Under the Anti-Money Laundering, Anti-Terrorism Financing and Proceeds of Unlawful Activities Act 2001 (AMLA 2001), the Bank serves as the country's Financial Intelligence Unit (FIU) and is responsible for driving a robust national AML/CFT regime in collaboration with relevant Ministries and agencies, to safeguard against risks and threats of money laundering and terrorism financing (ML/TF). This includes supporting, supervising and enforcing compliance with AML/CFT regulations by reporting institutions, consisting of financial institutions, non-bank financial institutions (NBFIs)[1], and designated non-financial businesses and professions (DNFBPs)[2].

This role entails close collaboration with domestic law enforcement agencies (LEAs) to ensure prompt and effective dissemination of financial intelligence. Additionally, relevant information on the latest trends, techniques and threats of ML/TF are also shared with the LEAs and reporting institutions to encourage vigilance and responsiveness in addressing the evolving nature of such crimes. The Bank also acts as the chair and secretariat to the National Coordination Committee to Counter Money Laundering (NCC), which comprises representatives from 16 ministries and government agencies. This inter-agency platform is responsible for coordinating, implementing and monitoring national AML/CFT initiatives.

Responding to the COVID-19 pandemic

The Bank shifted its priorities to support industry players in navigating the pandemic and to be vigilant against criminal abuses arising from pandemic-driven vulnerabilities. To this end, a Circular on Regulatory Expectation on AML/CFT Measures during the COVID-19 Pandemic was issued in April 2020 to provide additional guidance on the application of AML/CFT requirements to take into account the impact of COVID-19 on business operations. Among others, the document clarified regulatory flexibilities for reporting institutions to implement remote customer due diligence (CDD) measures given the movement restrictions order, to preserve continued access to financial services. The Bank also produced a series of advisories to financial institutions, insurance and takaful operators, as well as, the money services businesses on COVID-19 related crimes, ML/TF trends and red flags to assist in transaction monitoring, as well as, detection of suspicious transactions. These efforts, along with the reporting institutions' sound business continuity plans (BCP), were aimed at safeguarding the integrity of and confidence in the financial system, while ensuring uninterrupted financial services to the public during the pandemic. Reporting institutions continued during this period to submit suspicious transaction reports (STRs), supported by monitoring and analytical capabilities that largely remained intact, particularly amongst financial institutions.

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[1] Includes credit corporations, leasing and factoring businesses and postal financial services.
[2] Includes casinos, lawyers, accountants, dealers in precious metals or precious stones, gaming businesses, pawnbrokers, trust companies and registered estate agents.

Diagram 1: Malaysia's AML/CFT Regime

Bank Negara Malaysia – the FIU under AMLA 2001
Establish overall AML/CFT framework

Policy
Coordinate, implement and monitor national AML/CFT initiatives

Function	Stakeholders Involved		International Cooperation
Preventive Measures	**Reporting Institutions** • Implement AML/CFT obligations	**Supervisory Authorities** • Supervise and monitor AML/CFT compliance by reporting institutions	Cooperation with foreign supervisory counterparts
Intelligence	**Financial Intelligence Unit (FIU)** • Collect, analyse and disseminate financial intelligence received to law enforcement agencies		Cooperation via exchange of financial intelligence with foreign FIUs
Investigation	**Law Enforcement Agencies (LEAs)** • Investigate predicate and ML/TF offences		Cooperation in relation to investigation with foreign counterparts
Prosecution & Judiciary	**Prosecuting and Judicial Authorities** • Prosecute predicate and ML/TF offences, implement effective, proportionate and dissuasive sanctions, and confiscate proceeds of unlawful activities and instrumentalities of an offence		Cooperation through mutual legal assistance, extradition and other forms of international cooperation

Strengthening of AML/CFT framework

The Bank regulates and supervises over 30,000 reporting institutions in the financial and non-financial sectors under the AML/CFT framework. As the first line of defence against financial crimes, these institutions are subjected to requirements stipulated within the relevant policy documents[3] to identify and mitigate ML/TF risks.

During the year, the Bank issued two guidance documents[4] on beneficial ownership and verification of customers' identity. They are aimed at facilitating the operationalisation of requirements under the respective policy documents and provide recommendations for reporting institutions to strengthen controls around higher risk transactions and relationships.

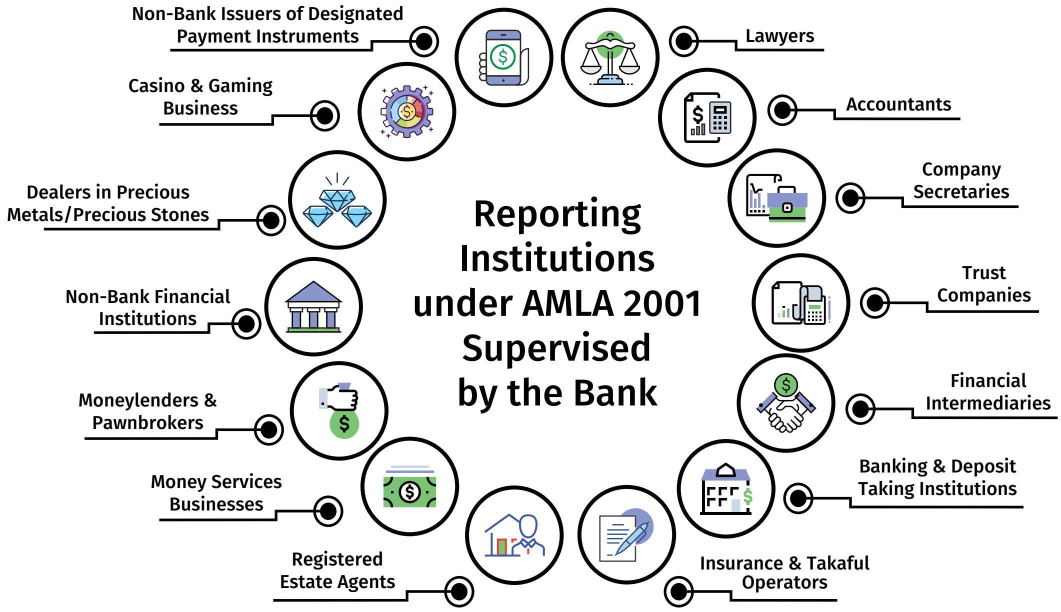
As the secretariat of the NCC, the Bank undertook a holistic review of the existing arrangements, which led to, among others, the recalibration of the national strategic focus to be in line with evolving technological and risk landscapes. The new national strategic plan places greater emphasis on enhanced collaboration through joint-agency initiatives and the utilisation of technology such as data analytics, in supporting intelligence, supervision and investigation functions. Lastly, it will also incorporate findings from the ongoing National Risk Assessment (NRA), a countrywide assessment on Malaysia's exposure to high-risk crimes, and sectoral vulnerabilities including to emerging risks within the ML/TF landscape, that is conducted every three years.

Supervision of DNFBPs and NBFIs

Given the pandemic, the Bank adapted its supervisory approach for DNFBPs and NBFIs by conducting its activities remotely. This included examinations involving video conferencing and the use of off-site surveillance tools such as the Data and Compliance Report 2020 (DCR). The DCR was accompanied by 12 online DCR clinics to aid reporting

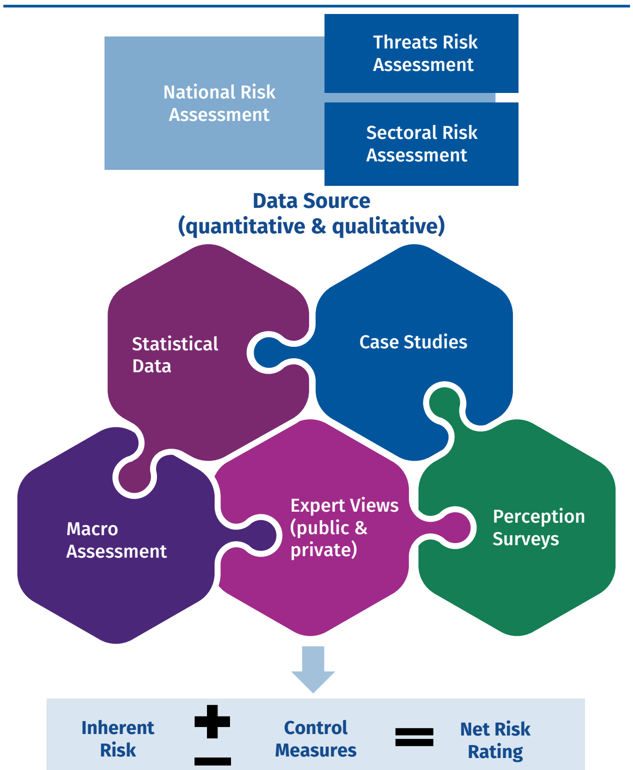
[3] Anti-Money Laundering, Countering Financing of Terrorism and Targeted Financial Sanctions Policy Documents for Financial Institutions, DNFBPs and NBFIs
[4] Guidance on Beneficial Ownership and Guidance on Verification of Individual Customers for Customer Due Diligence.

Diagram 2: Reporting Institutions Under the AMLA 2001



institutions in their responses, which led to a tenfold increase in DCR submissions in comparison to 2019. The Bank also conducted several virtual engagement sessions both independently and in collaboration with self-regulatory bodies (SRBs)[5] and industry associations to address industry-wide AML/CFT issues and to enhance AML/CFT regulatory understanding. This included six-series of webinars, provision of experts for SRB webinars or dialogues, publication of three awareness videos, and the issuance of newsletters on bite-sized AML/CFT topics as well as COVID-19 related issues. Overall, these engagements to raise awareness recorded a two-fold increase in participation from the previous year. In addition, progress was made to encourage more industry-driven efforts, SRB-led monitoring of AML/CFT compliance and train-the-trainer programmes, to better support and sustain continuous improvements in the implementation of AML/CFT measures by reporting institutions.

Diagram 3: National Risk Assessment



Sharing of financial intelligence and supporting law enforcement

As the custodian of financial intelligence under the AMLA 2001, the Bank collects, analyses and disseminates financial intelligence on suspected ML/TF activities based on reports submitted by reporting institutions to domestic LEAs and foreign FIUs, for their further investigations on offences under their purview. To enable this and consequentially safeguard the financial system,

[5] SRB refer to bodies that represent specific professions (e.g. lawyers, accountants, or company secretaries), and which are made up of members from the profession, have a role in regulating the persons that are qualified to enter and who practice in the profession, and/or also perform certain supervisory or monitoring type functions.

the Bank relies on proper implementation of reporting obligations, including the conduct of CDD as well as timely and quality STRs and cash threshold reports (CTRs) submissions by reporting institutions. As a member of the Financial Action Task Force (FATF)[6] and the Egmont Group of FIUs[7], the Bank is committed to comply with the FATF Recommendations[8], and has specific obligations to observe operational independence and strict confidentiality in dealing with intelligence information, shared between enforcement agencies and foreign FIUs.

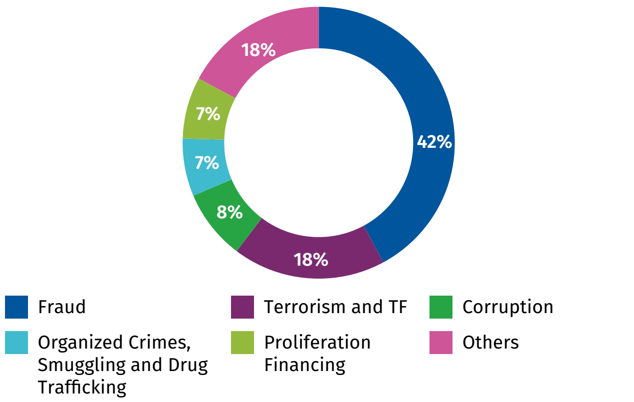
The number of STRs submitted by reporting institutions increased by 18% to 133,978 in 2020. Specifically, the Bank observed significant increases in STR submissions relating to fraud, illegal gaming, illegal betting and suspected tax offences. More than 80% of the 2020 financial intelligence disclosures to LEAs were on suspected high risk crimes[9], with the majority arising from fraud (42%). The disclosures resulted in successful arrests and subsequent prosecution of more than 50 persons involved in corruption and illegal gambling activities. In addition, these disclosures contributed to seizures of proceeds of crime worth more than RM366 million and the recovery of more than RM172 million. The disclosures also contributed to the freezing of illegal proceeds located overseas and recovery of fraudulently transferred funds.

Based on the fraud-related STRs received, it is also observed that the recruitment of mule accountholders[10] has been more prevalent in facilitating various types of scams. In addressing these growing concerns, a holistic and coordinated approach has been formulated by the authorities with strict enforcement actions pursuant to the AMLA 2001. To intensify efforts, the Bank has also taken preventive initiatives by increasing public education and engagement efforts through our *'Amaran Scam'* platform to warn the public against the misuse of their accounts. In addition, the Bank encourages more seamless information sharing amongst reporting institutions and relevant authorities, to further strengthen early warning mechanisms for better detection of mule accountholders and freezing of funds in such accounts.

The Bank leverages on its strong relationships with key stakeholders in its continuous fight against financial crimes. One such platform is the Malaysian Financial Intelligence Network or MyFINET, a public-private partnership platform in Malaysia, which facilitates information sharing between the public and private sectors and subsequently, enhances the private sector's capabilities in detecting suspicious behaviour and transactions relating to serious crimes, such as corruption, proliferation financing (PF)[11] and insider trading. This platform has also enabled the country to offer seamless support to foreign FIUs, evidenced by the prompt recovery of fraudulently transferred funds in bank accounts in Malaysia amounting to RM7 million.

The Bank continues to enhance its capability to monitor and detect crimes by utilising data science to analyse STRs. This data-driven solution flags urgent STRs which require immediate attention. This is part of a larger effort to leverage on data science to pre-empt emerging risks, enhance effectiveness of analysis, particularly of complex cases, and generate high quality and impactful disclosures to relevant LEAs.

Chart 1: Percentage of disclosures by serious crimes



Source: Bank Negara Malaysia

[6] 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.
[7] The Egmont Group of FIUs provides a platform for the secure exchange of expertise and financial intelligence to combat ML/TF, whilst fostering better communication amongst FIUs.
[8] The FATF Recommendations are the internationally endorsed global standards against ML/TF, proliferation financing and other related threats.
[9] High risk crimes include fraud (42%), corruption (8%), organised crimes (3%), smuggling (1%), drugs trafficking (3%) as identified under the NRA 2017, as well as terrorism and terrorism financing (18%) and proliferation financing (7%).
[10] Mule accountholders are individuals who allow their accounts to be used by another person to deposit fraudulent funds.

[11] PF refers to the financing of proliferation of weapons of mass destruction (WMD) in accordance with the relevant United Nation Security Council Resolutions, i.e. UNSCR 1718(2006) on Democratic People's Republic of Korea and its successor resolutions and UNSCR 2231(2015) relating to Iran.

Global participation to fight financial crimes

The Bank represents the country internationally by participating in various global fora. As the Co-Chair of the Asia/Pacific Group on Money Laundering (APG)[12] from 2020-2022, the Bank is pursuing several areas of priorities, encompassing enhanced supervision of DNFBP sectors, increasing expertise and use of data analytics by authorities, and promoting best practices in public-private partnerships. Additionally, the Bank also extended technical experts for mutual evaluations[13] conducted by the FATF and the APG.

An important aspect is the strong relationship the Bank has with various foreign FIUs, which is undertaken through our membership in the Egmont Group of FIUs, and through Memorandum of Understandings (MoUs) with other jurisdictions. To date, Malaysia has entered into 44 MoUs, with an additional four in negotiation.

At the regional level, the Bank is co-leading three projects within the Financial Intelligence Consultative Group (FICG), a regional forum which aims to enhance cross-collaboration in the exchange of financial intelligence and capacity building based on transnational crime priorities, while improving the understanding of key regional ML/TF risks. The projects include the development of red flags on transnational laundering of corruption proceeds and the development of a secured platform for communication and sharing of information between regional FIUs.

Going forward

The Bank will continually strive to protect the integrity of the financial system. Looking ahead, this would include leveraging on technology to improve monitoring, driving quality financial intelligence disclosures and maintaining effective collaboration with important stakeholders. By becoming more adept at anticipating and prioritising emerging threats, we will be more responsive and effective at combating ML/TF threats.

[12] The APG is a regional inter-governmental organisation, focusing on ensuring its members effectively implement the international standards set by the FATF. The APG is part of a global network of similar bodies (i.e. FATF-Style Regional Bodies, FSRBs) and is the largest in terms of membership and geographical size.

[13] Mutual evaluations are peer-country review system, which analyses the levels of compliance with international AML/CFT standards, as well as its effectiveness of measures undertaken by the country.