

Economic, Monetary and Financial Developments in 2022

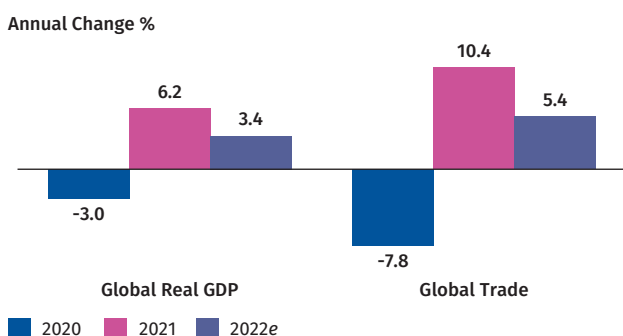
2022: FIRMER DOMESTIC RECOVERY AMID A CHALLENGING GLOBAL ENVIRONMENT

Global economic growth moderated amid a challenging environment

The impact from the COVID-19 pandemic, domestic issues in China, military conflict in Ukraine, elevated inflation and tighter monetary policy were among the key developments that shaped the global economic landscape in 2022. Amid these challenges, growth in the global economy and global trade moderated to 3.4% and 5.4%, respectively (2021: 6.2% and 10.4% respectively) (Chart 1.1).

As the year began, the recovery path of the global economy continued to be heavily influenced by the policy response to the COVID-19 pandemic. With the emergence of the highly transmissible Omicron variant in the last quarter of 2021, many economies faced a resurgence of cases (Chart 1.2). As cases peaked and vaccination levels improved, many

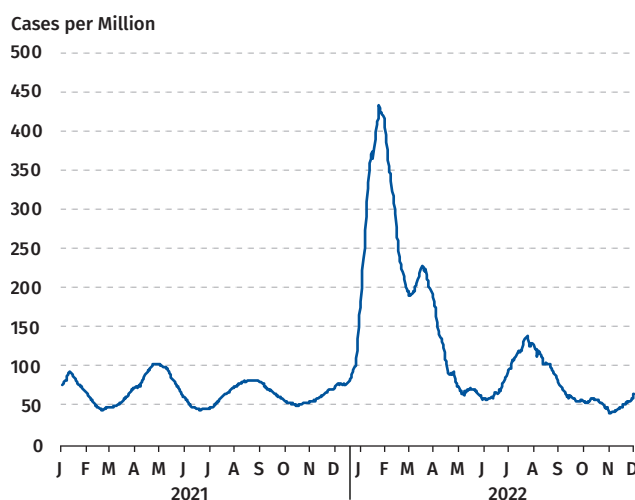
Chart 1.1: Global Real GDP and Trade Growth



e Estimate

Source: International Monetary Fund (IMF) January 2023 World Economic Outlook (WEO) and Bank Negara Malaysia estimates

Chart 1.2: Daily New Global COVID-19 Cases per Million Population



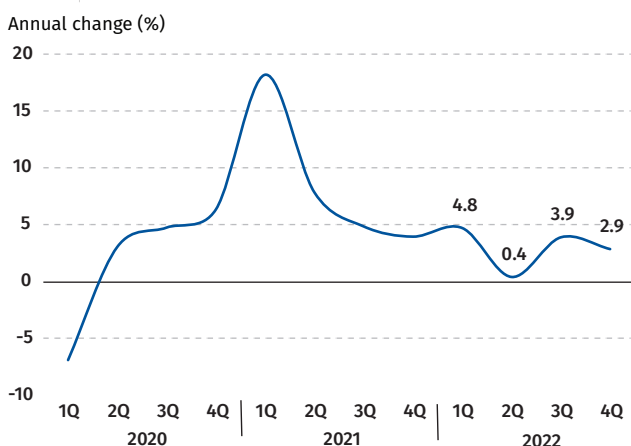
Source: Our World in Data

countries subsequently lifted their containment measures and reopened international borders. By the first half of 2022, containment measures were fully lifted for most economies. The shift towards endemicity supported global trade activity steadily through the year amid the realisation of pent-up demand. Labour markets and services activity recorded significant recovery, supported by this return to normalcy. The reopening of factories, reduced labour absenteeism from COVID, and improved adaptability of firms also helped ease supply chain conditions that were strained by the pandemic. Tourism activity also recorded a significant recovery in 2022, following the reopening of international borders. Nevertheless, the lift from pent-up demand faded as the year progressed, more so following the withdrawal of policy support and as inflation began rising.

Meanwhile, China faced its own domestic headwinds throughout the year. China maintained its zero-COVID policy for most of the year before lifting restrictions in December. The multiple resurgences of cases during the year caused sporadic lockdowns,

dampening economic growth (Chart 1.3). In April, Shanghai experienced a 2-month citywide lockdown which caused severe disruption to economic activity and depressed consumer confidence in China. In December, the sudden lifting of containment measures caused economic disruptions through risk aversion and labour absenteeism as COVID cases soared from heightened domestic mobility. This steadily faded in the early part of 2023, as normalcy returned. Meanwhile, the property sector continued to weaken, as many major developers faced debt defaults, affecting real estate investments. Home sales also declined given concerns on developers' ability to complete existing and future projects.

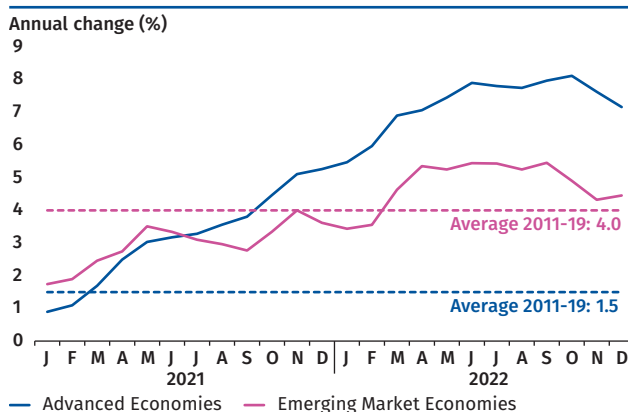
Chart 1.3: China's Quarterly Real GDP growth



Source: National Bureau of Statistics of China

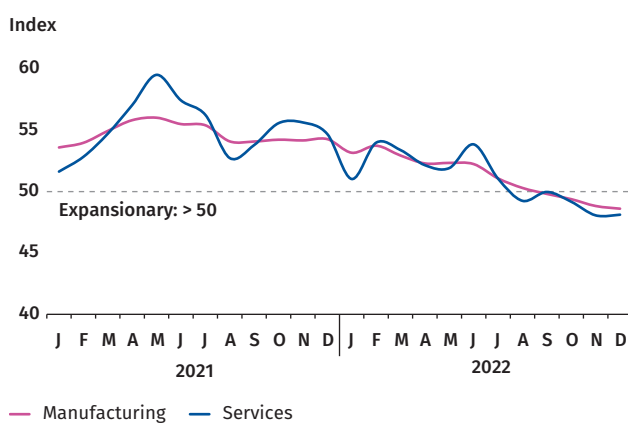
The military conflict in Ukraine led to severe global disruptions. Sanctions were imposed on Russia. Initially, sanctions imposed were financial and technological in nature. However, as the conflict protracted, the sanctions became wider and more severe. The European Union imposed a ban on imports of seaborne oil and coal, as well as a maritime insurance ban. Global supply chain disruptions deteriorated further in March and April as the conflict worsened, affecting products such as commodities and automotive-related E&E goods. This then led to a rapid increase in commodity prices and a rapid rise in global inflation (Chart 1.4). The abrupt shortage in gas supply and spikes in gas prices led to an energy crunch for oil importers particularly Europe, given their higher exposure to Russian energy. This stifled household spending and affected manufacturing activity, especially for energy-intensive products (Chart 1.5). Meanwhile, commodity-exporting countries benefitted from the high commodity prices through higher exports growth.

Chart 1.4: Global Headline Inflation



Source: National Authorities and Bank Negara Malaysia estimates

Chart 1.5: Global Purchasing Managers Index (PMI)



Source: S&P Global

The environment of stronger demand, tight labour markets and elevated commodity prices caused inflation to soar to historical highs. In some economies, notably the US, strong demand conditions were exacerbated by labour shortages, contributing to strong wage growth that led to increased price pressures. In Europe, the military conflict compounded the effects through high gas and energy prices. Conversely, while inflation in regional economies in Asia increased, it remained relatively lower. This was due to prevalence of price controls and subsidies on energy in some economies,¹ as well as lower inflation on staple food, especially rice. In addition, Asia experienced lower pent-up demand effects due to the relatively slower reopening and more moderate fiscal support compared to advanced economies. Global inflation peaked in the third quarter (Chart 1.4). It dropped off

¹ For example, Malaysia, Thailand, Indonesia, and Vietnam maintain price controls and subsidies for some essential goods and energy.

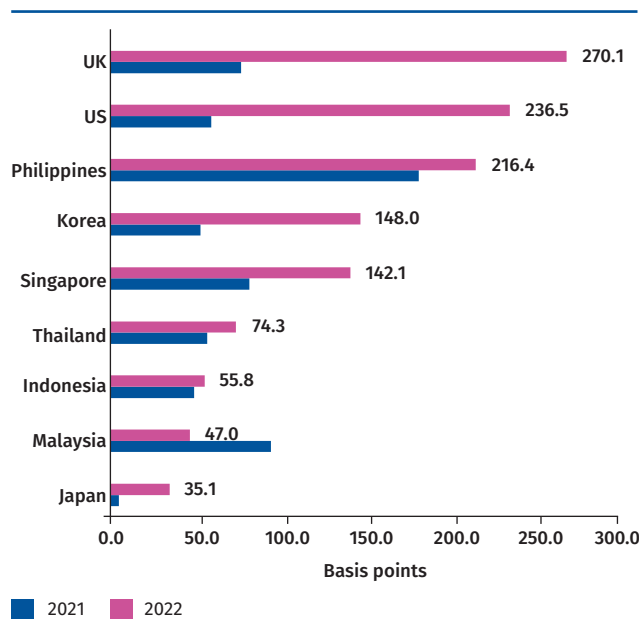
slightly thereafter but remained at an elevated level. Despite easing of supply-side inflationary pressures in the second half of the year, underlying inflation stayed persistent.

Global financial conditions tightened amid central banks' monetary policy actions and global investor risk aversion

In 2022, global financial markets faced unprecedented monetary tightening as central banks raised interest rates significantly and at a rapid pace to manage the risks from higher and more persistent-than-expected inflation. In particular, central banks and investors continually revised their monetary policy outlook as global inflationary pressures turned out less transient than earlier anticipated. This, along with heightened economic and geopolitical uncertainties throughout most of the year, contributed towards a broad tightening in financial conditions and higher risk aversion. These developments affected all asset classes, globally.

Market participants began the year primarily concerned with the shifting narratives surrounding the pace of global monetary policy tightening. Amid higher inflationary pressures, central banks started to withdraw monetary support in the second half of 2021, with the US Federal Reserve (the Fed) indicating a quicker pace of interest rate hikes for 2022.² Expectations for faster and larger interest rate hikes became increasingly prominent in the first quarter of 2022, as the military conflict in Ukraine and its impact on global commodity prices generated expectations for a more aggressive monetary policy response. By the end of 2022, the Fed had sharply raised the federal funds rate cumulatively by 425 basis points to its highest level in 15 years. Furthermore, the Fed continued to withdraw support to market liquidity through the tapering of its bond-buying programme. US Treasury yields surged during the year. This was accompanied by large and highly synchronised policy rate increases across other AEs and EMEs, which spurred corresponding adjustments to global bond yields (Chart 1.6).

Chart 1.6: Change in 10-Year Government Bond Yields of Selected Economies

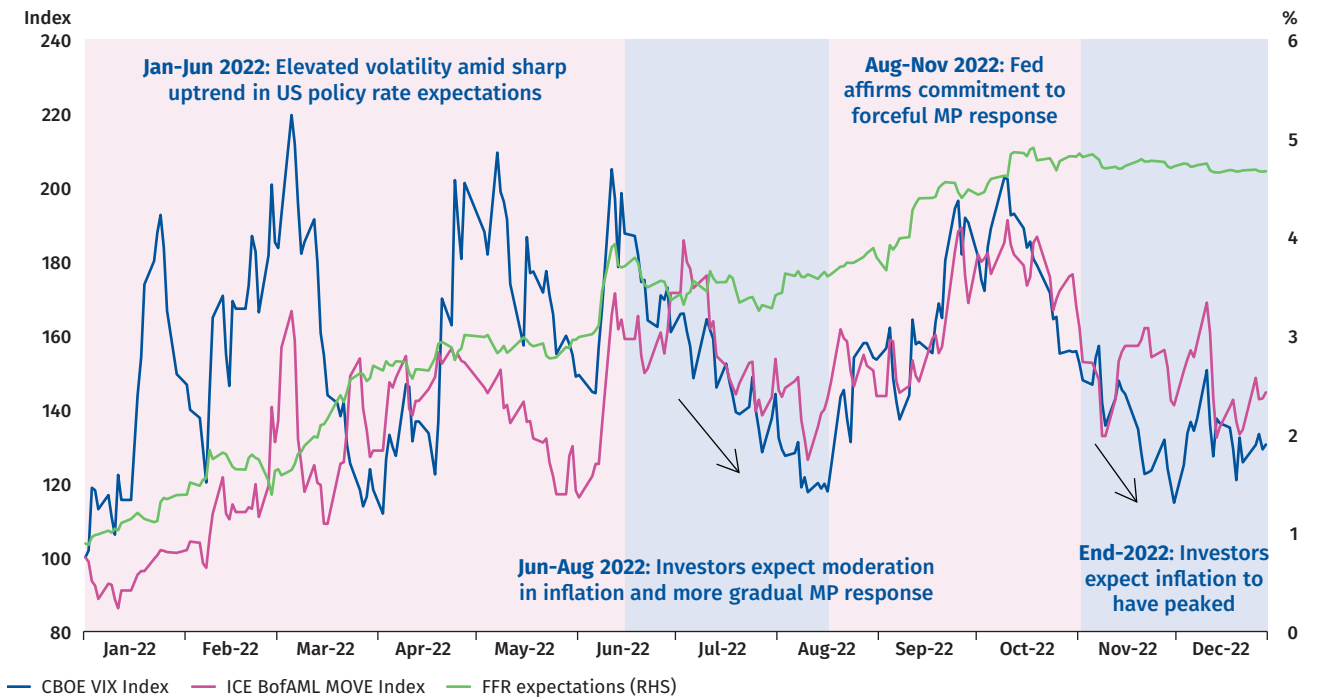


Source: Bank Negara Malaysia and Bloomberg

Throughout the year, sentiments remained highly sensitive to developments surrounding global central banks' actions and their ability to curb the high and persistent inflation. As the authorities affirmed their commitment to bring down inflation, market participants grew increasingly concerned on the potential risks to economic growth and corporate earnings. This led to intermittent surges of financial market volatility as investors' expectations of the Fed's monetary policy action reacted to the latest developments in US inflation and labour market data (Chart 1.7). Global equity markets declined (Chart 1.8). The relatively higher US interest rates and weaker global economic outlook also induced portfolio rebalancing towards US financial assets, such as US Treasury securities. This provided strong demand for the US dollar, which rose to its strongest level in two decades as indicated by the US Dollar Index (DXY) (Chart 1.9), which in turn depressed the currencies of most other AEs and EMEs against the US dollar. Towards the end of the year, however, these sentiments eased following expectations for a slower pace of monetary policy tightening in the US as labour market and inflation conditions showed signs of cooling.

² The Federal Open Market Committee (FOMC) announced in its December 2021 meeting that it would double the pace in tapering its net asset purchases amid high inflation and a strong labour market recovery. In addition, the median interest rate projection from the 'dot plot' published in December 2021 also indicated an upward revision to at least three rate hikes in 2022, compared to only one rate hike in the September 2021 'dot plot'.

Chart 1.7: Financial Market Volatility Indicators Against Fed Funds Futures Implied Policy Rate Expectations



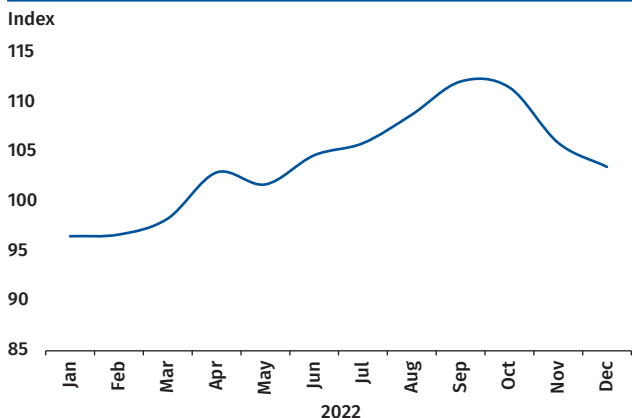
Source: Bloomberg

Chart 1.8: Equity Indices: MSCI Emerging Market Index and S&P 500 Index



Source: Bloomberg

Chart 1.9: US Dollar Index (DXY)



Source: Bloomberg

Aside from the tighter global monetary conditions, the pessimistic growth outlook was compounded by the prospects of a prolonged conflict in Ukraine, the energy crisis in Europe and the economic slowdown in China, with the latter particularly affecting EMEs with close trade linkages with China. Against this backdrop, the outlook on global growth weakened, with the IMF lowering its 2023 global growth forecast to 2.7% from 2.9%³ and the US Treasury yield curve inverting sharply.⁴ In turn, the slower growth prospects further weighed on investor sentiments and generated stronger demand for safe-haven assets in countries such as the US. In January 2023, however, the IMF raised its 2023 global growth forecast back to 2.9% following positive growth surprises and greater-than-expected resilience in many economies.⁵

Going into 2023, global financial conditions began the year on an easing trend but remained susceptible to shifts in investor sentiments, especially on the pace and upper bound of global policy rate hikes. Markets were news driven. For instance, US data releases in

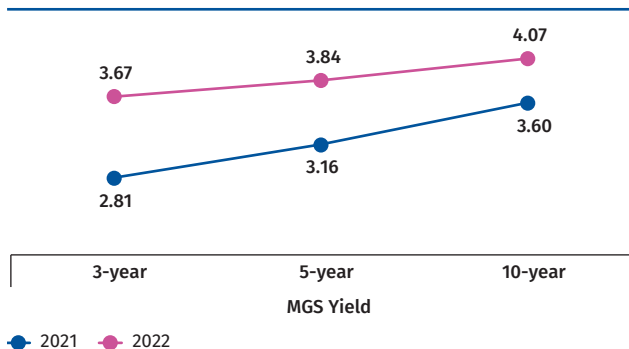
³ The IMF lowered its global growth forecast for 2023 by 0.2ppt in the October 2022 World Economic Outlook report.
⁴ The US Treasury yield curve sharply inverted in the second half of 2022, as reflected in the negative spread between 10-year and 2-year US Treasury yields, which is typically regarded as a leading indicator of US economic recession. In particular, short-term yields increased sharply in line with the higher policy rate while longer-term yields were weighed down by slower growth prospects.
⁵ Source: IMF World Economic Outlook Update, January 2023.

February and continued hawkish signals by the Fed generated some pressure on UST yields and renewed strength in the broad US dollar index. This has in turn spurred bouts of market volatility and asset price adjustments globally.

Domestic financial markets were affected by external conditions, but were supported by positive domestic factors

For Malaysia, the domestic financial markets were affected by these external developments. In the bond market, yields trended higher across tenures for most of the year, in line with the upward trend in global bond yields as well as reflecting the impact from four consecutive 25 bps increases in the OPR. However, the increase in yields was relatively smaller compared to those in other regional bond markets. In line with global bond yield movements, domestic bond yields partly retraced from the fourth quarter of 2022 onwards⁶ amid expectations for a slower pace of global monetary policy tightening. Overall, the domestic bond market experienced non-resident outflows amounting to RM37.1 billion amid the narrowing interest rate differentials between Malaysia and AEs. The 3-year, 5-year and 10-year MGS yield increased by 86, 68 and 47 bps, respectively, in 2022 (Chart 1.10).

Chart 1.10: MGS Yield Curve (%)

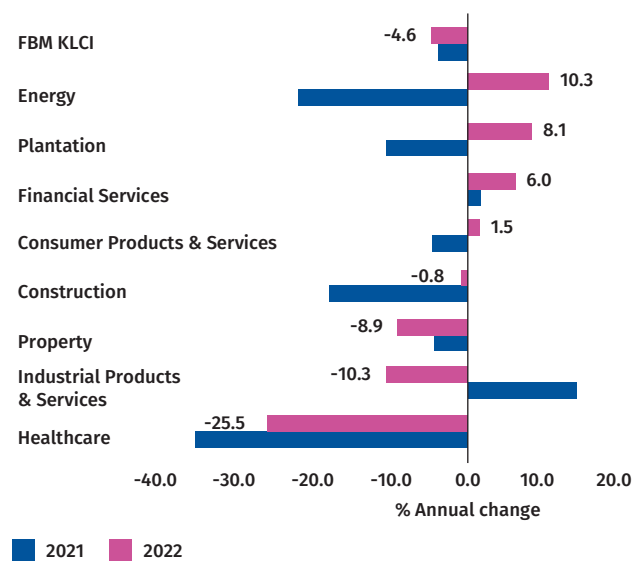


Source: Bank Negara Malaysia

In contrast to the domestic bond market, the domestic equity market experienced non-resident portfolio inflows during the year. While domestic equities were also weighed down by external factors, they were partly supported by positive domestic

factors, particularly the strong domestic growth momentum during the year. Of note, the FBM KLCI began the year supported by positive corporate earnings prospects following higher commodity prices, continued recovery in domestic economic activity and the reopening of international borders. Subsequently, domestic equities were largely affected by the shifts in global investor sentiments, with the FBM KLCI trending lower in the second and third quarters amid the global risk-off sentiment and higher interest rates. Towards year end, the improvement in global risk appetite provided some support to equity markets, offsetting part of the earlier declines. Overall, the FBM KLCI declined by 4.6% (2021: -3.7%) to close at 1,495.5 points. Notably, there was also some sectoral differentiation across the equity market. In particular, stocks in the plantation and energy sectors recorded strong positive performance driven by high global commodity prices (Chart 1.11).

Chart 1.11: Performance of FBM KLCI and Sectoral Stock Indices



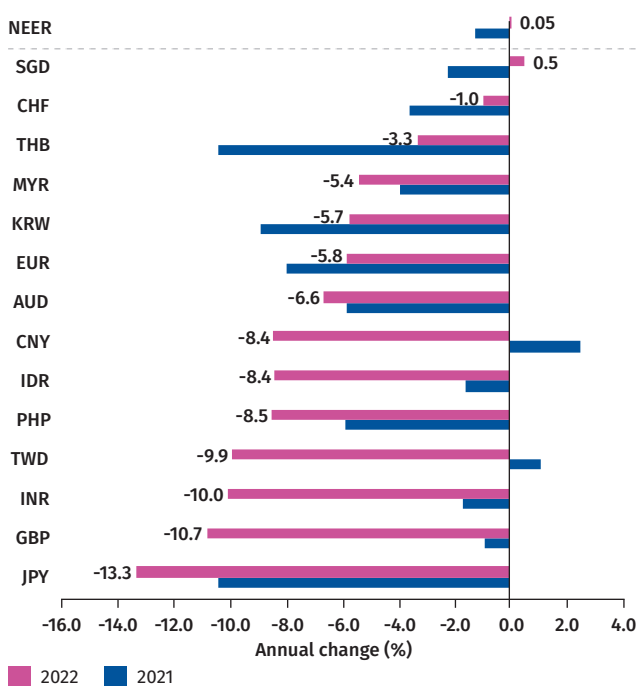
Source: Bloomberg

In the foreign exchange (FX) market, movements in the ringgit exchange rate reflected mostly the strength of the US dollar. The ringgit depreciated to its weakest level for the year of RM4.7465 against the US dollar in November 2022, before partly retracing towards the end of the year. For the year as a whole, the ringgit depreciated by 5.4% to end the year at RM4.4130 against the US dollar (Chart 1.12). This was in line with the performance of most regional emerging market currencies, which depreciated between 3.3% and 8.5% against the US dollar. The weakening of the Chinese

⁶ The downward trend in domestic bond yields continued into 2023, with MGS yields broadly declining by between 14 - 33 bps year to date (as at 20 March 2023).

renminbi also exerted some pressure on the ringgit given the close trade linkages between Malaysia and China. Notwithstanding these factors, pressures on the ringgit from broad US dollar strength and weaker Chinese renminbi were partly mitigated by positive impetus from higher commodity prices and stronger domestic economic recovery. While the ringgit traded weaker against the US dollar, its performance against other major and regional currencies was more stable. Among others, the ringgit appreciated against the Euro (+0.5%), Japanese yen (+9.1%) and British pound (+6.0%). As a result, the Nominal Effective Exchange Rate (NEER) posted a marginal appreciation of 0.05% for 2022. More recently, the ringgit depreciated by 1.5% (YTD as at 20 March) against the US dollar, driven by the shifting expectations surrounding Fed policy rate increases.

Chart 1.12: Performance of Major and Regional Currencies against the US Dollar and Ringgit Nominal Effective Exchange Rate (NEER)



Note: (+) indicates an appreciation of currencies against the US dollar. NEER shows the value of the ringgit against a trade-weighted basket of Malaysia's major trading partners' currencies.

Source: Bank Negara Malaysia

While overall domestic financial conditions tightened and markets experienced periods of higher volatility, spillovers to financial intermediation were contained. Financing remained supportive of the domestic economy, with sustained fund-raising activity in the capital market and continued flow of bank credit. This was partly attributed to the dominant role of domestic and ringgit-based financing in Malaysia,

limiting the FX risks from a stronger US dollar. The strength and resilience of the domestic banking system, which intermediates the bulk of financing in the domestic economy,⁷ continued to underpin an effective intermediation of funds. Banks' cost of funds were largely unaffected by the higher bond yields given that they remain well anchored to the central bank policy rate,⁸ albeit with money market rates partly affected by expectations of future movements in the OPR. Active risk management⁹ by banks further mitigated revaluation losses from their bond holdings. Trading activity in the domestic FX market remained healthy,¹⁰ while the Bank's liquidity and foreign exchange operations provided further support in mitigating excessive market volatility and preserving orderly market conditions. Importantly, the flexibility of the ringgit to facilitate adjustments in the external sector has continued to play an important role in cushioning the impact of adverse global shocks to the domestic economy.¹¹

In 2022, the domestic economy grew strongly and exceeded its pre-pandemic level as economic activity continued to normalise

Despite the challenges faced throughout the year ranging from a volatile external environment, surges in Omicron cases at the start of the year, labour shortages, supply chain disruptions, and rising inflation, the Malaysian economy expanded strongly by 8.7% in 2022 (2021: 3.1%) (Chart 1.13). Domestically, the full upliftment of containment measures and the revival of tourism activity amid continued policy support had led to a broad-based improvement in growth. Externally, the impact of lower global growth and trade activity arising from the geopolitical conflicts, and tightening monetary policy was contained. This was evidenced by the resilient growth in exports, led by the electrical and electronic (E&E) sector, amid the continued

⁷ The share of credit to the private non-financial sector intermediated through bank loans and corporate bonds stood at 79% and 21%, respectively (as at end-2022).

⁸ Primarily, this reflects banks' funding being predominantly dependent on ringgit deposits, which account for 70.9% of total liabilities (as at end-2022).

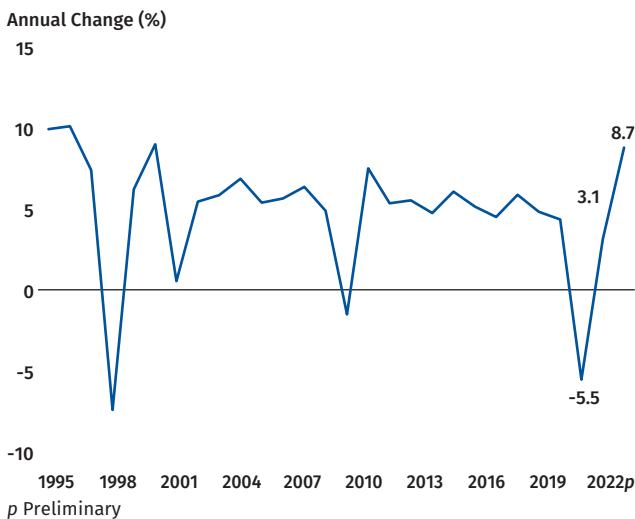
⁹ For example, banks' hedging strategies and their own internal limits on the extent of exposure to bond holdings on their balance sheet.

¹⁰ Average daily FX volatility (USD/MYR 1-month implied volatility) in the domestic FX market remained low at 4.5% (5-year average (2017-2021): 4.6%), while the average daily trading volume remained healthy at USD13.7 billion (2021 average: USD11.2 billion).

¹¹ For more information, please refer to the BNM Annual Report 2022 Box Article on "The Exchange Rate and the Malaysian Economy".

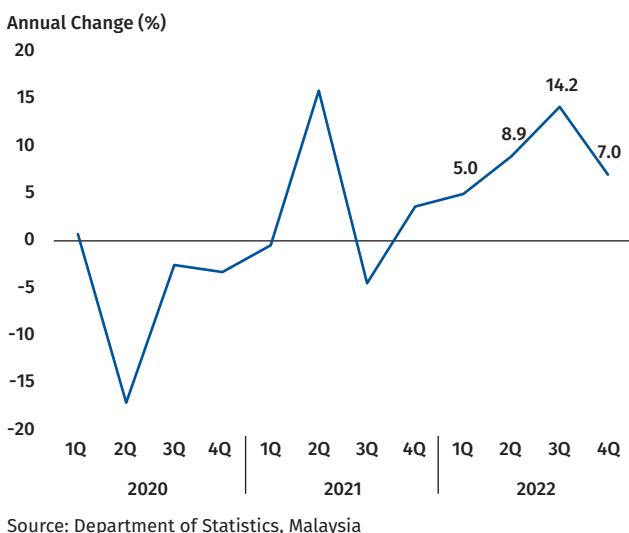
upcycle in global technology. Furthermore, as a net commodity exporter, Malaysia benefited from increased demand and higher prices for commodity exports. This, in turn, brought some positive income effects on households and firms in certain segments such as the oil & gas and palm oil industries.

Chart 1.13: Malaysia's GDP growth (1995-2022)



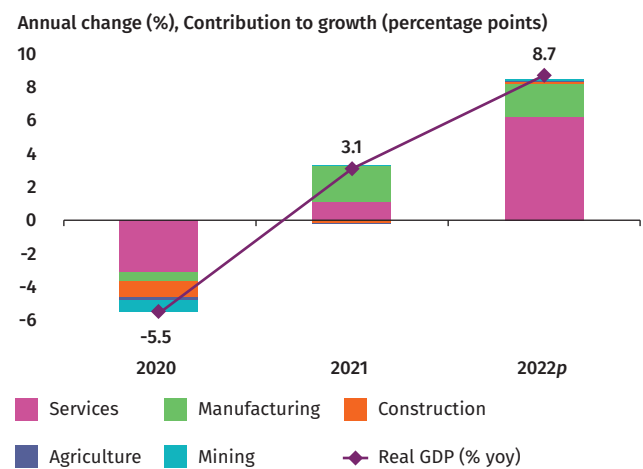
In terms of trajectory, growth peaked in the third quarter of 2022 (Chart 1.14) reflecting the firm expansion in domestic demand, amid the full reopening of international borders on 1 April 2022, and policy support from the government. However, the growth momentum slowed towards the end of the year due mainly to the softening global demand and dissipating base effects.

Chart 1.14: Malaysia's Quarterly Real GDP Growth



The pace of recovery however, remained uneven across sectors (Chart 1.15). Export-oriented industries continued to be resilient, while pandemic-induced trends like remote working spurred growth in selected domestic-oriented subsectors. In contrast, activities in sectors such as leisure-related services, mining and quarrying, agriculture and construction sectors which account for about 20% of the economy, remained below pre-pandemic levels. Activities in these sectors were constrained by the more gradual recovery in tourist arrivals, facility closures for maintenance purposes, as well as labour shortages and higher input prices, respectively.

Chart 1.15: Real GDP by Economic Sectors



Overall, the recovery in 2022 was largely driven by domestic demand, mainly from firm private sector expenditure (Chart 1.16). Labour market conditions improved further, with strong labour demand throughout the year leading to increased employment, higher labour force participation, and declining unemployment rate. Wage growth also improved across key sectors, supported by the pickup in economic activity and the RM300 increase in minimum wage to RM1,500. Household spending was also supported by the realisation of pent-up demand, as well as continued policy support. In particular, Government policies such as cash transfers, subsidies on select consumer items, and seasonal price controls provided some shelter against sharp increase in prices to households and supported their spending amid the rising cost of living. Gross fixed capital formation rebounded to grow at 6.8% (2021: -0.9%) supported by resumption of construction activity, continued automation and digitalisation efforts, and public infrastructure projects.

Table 1.1

Malaysia - Key Economic Indicators

	2020	2021	2022 ^p	2023 ^f
Population (million persons)	32.4	32.6	32.7	33.1
Employment (million persons)	15.1	15.3	15.8	16.1
Unemployment (as % of labour force)	4.5	4.6	3.9	3.5
Per Capita Income (RM)	42,823	46,163	52,819	55,186
(USD)	10,187	11,142	12,001	12,678 ^a
NATIONAL PRODUCT (% change)				
Real GDP at 2015 prices	-5.5	3.1	8.7	4.0-5.0
(RM billion)	1,345.1	1,386.7	1,507.3	1,573.0
Agriculture, forestry and fishery	-2.4	-0.2	0.1	0.7
Mining and quarrying	-9.7	0.3	3.4	2.0
Manufacturing	-2.7	9.5	8.1	4.0
Construction	-19.3	-5.2	5.0	6.3
Services	-5.4	1.9	10.9	5.0
Nominal GNI	-5.7	8.2	14.7	5.8
(RM billion)	1,389.5	1,503.8	1,724.6	1,824.9
Real GNI	-5.0	2.7	7.7	4.5
(RM billion)	1,331.4	1,367.7	1,472.9	1,539.3
Real aggregate domestic demand ¹	-5.5	1.7	9.2	5.4
Private expenditure	-5.9	2.0	10.4	6.1
Consumption	-4.2	1.9	11.3	6.1
Investment	-11.9	2.6	7.2	5.8
Public expenditure	-4.0	0.6	4.3	2.7
Consumption	5.0	5.3	3.9	1.3
Investment	-21.2	-11.3	5.3	7.0
Gross national savings (as % of GNI)	24.4	26.8	27.5	25.6
BALANCE OF PAYMENTS (RM billion)				
Goods balance	137.5	170.6	169.3	173.1
Exports	780.5	977.1	1,181.4	1,210.6
Imports	643.0	806.5	1,012.1	1,037.5
Services balance	-47.2	-60.7	-45.4	-33.6
Primary income, net	-28.5	-41.6	-63.6	-64.0
Secondary income, net	-2.7	-9.6	-13.1	-18.3
Current account balance	59.1	58.7	47.2	57.2
(as % of GDP)	4.2	3.8	2.6	2.5 - 3.5
Bank Negara Malaysia international reserves, net ²	432.3	486.8	503.3	-
(in months of imports of goods and services) ³	6.6	6.1	5.0	-
(in months of retained imports)	8.4	7.7	6.3	-
PRICES (% change)				
Consumer Price Index (2010=100)	-1.2	2.5	3.3	2.8 - 3.8
Producer Price Index (2010=100)	-2.7	9.5	7.8	-

¹ Exclude stocks.² All assets and liabilities in foreign currencies have been revalued into ringgit at rates of exchange ruling on the balance sheet date and the gain/loss has been reflected accordingly in the Bank Negara Malaysia's audited accounts.³ For further details, please refer to "Expansion of the Measure on Reserves Coverage of Imports – from Retained Imports to Imports of Goods and Services" article in BNM's Quarterly Bulletin for the Fourth Quarter of 2021.⁴ Based on average USD exchange rate for the period of January-February 2023.^p Preliminary^f Forecast

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

Source: Department of Statistics, Malaysia and Bank Negara Malaysia

Table 1.2

Malaysia - Financial and Monetary Indicators

FEDERAL GOVERNMENT FINANCE (RM billion)						
	2020		2021		2022	
Revenue	225.1		233.8		294.4	
Operating expenditure	224.6		231.5		292.7	
Net development expenditure	50.1		63.3		70.2	
COVID-19 Fund	38.0		37.7		31.0	
Overall balance	-87.6		-98.7		-99.5	
Overall balance (% of GDP)	-6.2		-6.4		-5.6	
Public sector net development expenditure	119.7		125.2		164.1	
Public sector overall balance (% of GDP)	-7.3		-4.3		-4.4	
EXTERNAL DEBT						
Total debt (RM billion)	958.5		1,082.1		1,144.0	
Medium- and long-term debt	591.2		676.3		662.3	
Short-term debt	367.3		405.7		481.7	
Debt service ratio ¹ (% of exports of goods and services)						
Total debt	13.8		11.0		11.9	
Medium- and long-term debt	13.5		10.8		11.5	
	Change in 2020		Change in 2021		Change in 2022	
MONEY AND BANKING						
	RM billion	%	RM billion	%	RM billion	%
Money supply M1	71.1	15.7	54.6	10.4	24.7	4.3
M3	79.4	4.0	130.8	6.4	93.9	4.3
Banking system deposits	88.9	4.4	132.4	6.3	132.0	5.9
Banking system loans ²	59.6	3.4	80.6	4.4	108.5	5.7
Loan to fund ratio (% end of year) ^{3,4}	82.5		81.2		82.4	
Loan to fund and equity ratio (% end of year) ^{3,4,5}	71.9		70.9		72.0	
INTEREST RATES (% AS AT END-YEAR)						
	2020		2021		2022	
Overnight Policy Rate (OPR)	1.75		1.75		2.75	
Interbank rates (1-month)	1.82		1.83		2.95	
Commercial banks						
Fixed deposit 3-month	1.58		1.57		2.55	
12-month	1.75		1.71		2.65	
Savings deposit	0.48		0.56		0.85	
Weighted average base rate (BR)	2.43		2.43		3.42	
Base lending rate (BLR)	5.49		5.49		6.42	
Malaysian Treasury Bill (3-month) ⁶	1.72		1.79		2.93	
Malaysian Government Securities (1-year) ⁶	1.73		1.85		3.25	
Malaysian Government Securities (5-year) ⁶	2.12		3.15		3.86	
EXCHANGE RATES (AS AT END-YEAR)						
	2020		2021		2022	
Movement of Ringgit (%)						
Change against SDR	-1.8		-1.4		-0.4	
Change against USD	2.0		-3.9		-5.4	

¹ Excludes prepayment.

² Includes loans sold to Cagamas with recourse. Data from 2021 onwards are based on the new set of loan data reflecting the latest requirements and cannot be directly compared to previous years' data.

³ Loans exclude loans sold to Cagamas and loans extended to banking institutions. Beginning July 2015, loans exclude financing funded by Islamic Investment accounts.

⁴ Funds comprise deposits (excluding deposits accepted from banking institutions and Bank Negara Malaysia) and all debt instruments (including subordinated debt, debt certificates/sukuk issued, commercial paper and structured notes).

⁵ Equities comprise ordinary and preferred shares, share premium and retained earnings.

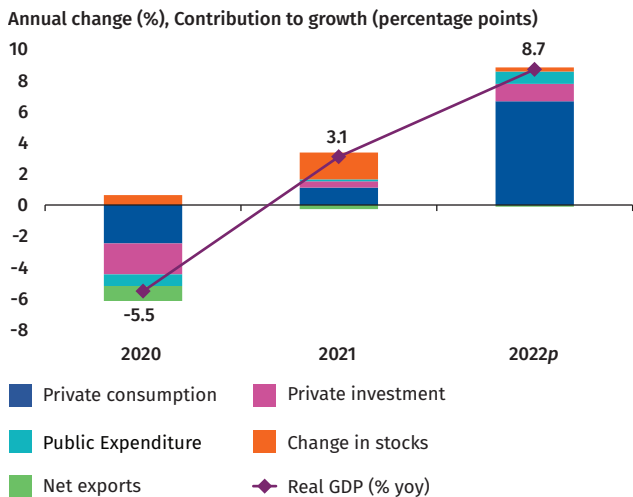
⁶ Refers to data from Fully Automated System for Issuing/Tendering (FAST), Bank Negara Malaysia.

Source: Ministry of Finance, Malaysia and Bank Negara Malaysia

On the external front, Malaysia's gross export growth remained strong across products and markets (Chart 1.17) (2022: 25.0%, 2021: 26.1%). Growth was driven by continued demand for E&E products and fulfilment of backlog orders by firms, and elevated commodity prices. The weaker ringgit also helped in terms of higher valuation of export turnovers. The current account of the balance of payments continued to

record a surplus, supported by strong goods exports, and improving travel receipts. The surplus, however, narrowed from 2021 due to the strong domestic demand fuelling imports, amid the full reopening of the economy. In addition, firms built up their inventory buffers to mitigate against supply chain disruptions arising from the lockdowns in China and the military conflict in Ukraine.

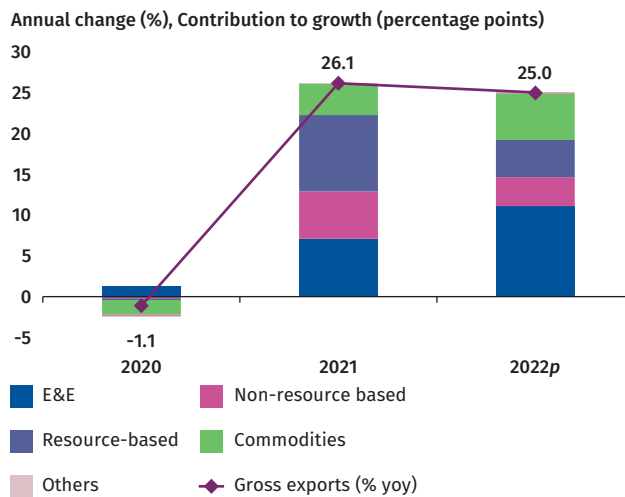
Chart 1.16: Real GDP by Expenditure



p Preliminary

Source: Department of Statistics, Malaysia

Chart 1.17: Gross Exports



p Preliminary

Source: Department of Statistics, Malaysia

Domestic demand anchored growth in 2022

In 2022, the Malaysian economy expanded by 8.7% (2021: 3.1%). This was mainly driven by higher domestic demand following the full reopening of the economy.¹² Household spending was particularly strong, reflecting pent-up demand, improved labour market conditions, and continued policy support. Meanwhile, investment activity increased with the acquisition of new machinery and equipment (M&E) and resumption in structures investment. Public sector spending remained supported by government expenditures and higher capital spending of public corporations. On the external front, net exports registered a contraction. Although exports registered a strong expansion, import growth was higher on account of strong household spending and higher investment activity as well as firms building up inventory buffers to mitigate supply chain disruptions.

Table 1

Real GDP by Expenditure (2015=100)

	2022p	2021	2022p	2021	2022p
	% of GDP	Annual change (%)		Contribution to growth (percentage point)	
Domestic Demand¹	93.1	1.7	9.2	1.6	8.5
Private sector expenditure	75.6	2.0	10.4	1.5	7.8
Consumption	60.2	1.9	11.3	1.1	6.6
Investment	15.4	2.6	7.2	0.4	1.1
Public sector expenditure	17.5	0.6	4.3	0.1	0.8
Consumption	13.2	5.3	3.9	0.7	0.5
Investment	4.4	-11.3	5.3	-0.6	0.2
Gross Fixed Capital Formation	19.7	-0.9	6.8	-0.2	1.4
Change in stocks	1.5			1.7	0.3
Net Exports of Goods and Services	5.4	-4.1	-1.8	-0.3	-0.1
Exports	71.7	15.4	12.8	9.5	8.9
Imports	66.3	17.7	14.2	9.8	9.0
Real Gross Domestic Product (GDP)	100.0	3.1	8.7	3.1	8.7

¹ Excluding stocks
p Preliminary

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

Source: Department of Statistics, Malaysia

Private consumption registered a strong growth of 11.3% in 2022 (2021: 1.9%). Growth was underpinned by better employment and income conditions. The transition to the endemic phase in the second quarter of 2022 facilitated the materialisation of pent-up demand. Households' necessities spending grew strongly while discretionary spending, particularly in high-touch segments,¹³ also improved. Policy measures to assist lower-income households remained available during the year. These include cash transfers, Employees Provident Fund (EPF)-related measures and the implementation of a higher minimum wage.

Gross fixed capital formation (GFCF) growth rebounded to 6.8% in 2022 (2021: -0.9%). Growth was driven by capital spending by both the private and public sectors. By type of asset, growth in M&E investments remained strong (2022: 10.2%, 2021: 13.2%), supported by capacity expansions across key economic sectors. Meanwhile, structures investments recovered from three consecutive years of contraction (2022: 4.7%, 2021: -10.1%) as projects picked up pace following the full reopening of the economy.

¹² Malaysia transitioned to the endemic phase on 1 April 2022. Almost all economic and social sectors were allowed to operate, controls over social activities during the Movement Control Order (MCO) were uplifted, and international borders were reopened.

¹³ Include restaurants and hotels, as well as recreational services.

Private investment recorded a stronger growth of 7.2% (2021: 2.6%), with higher capital spending particularly in the *manufacturing* and *services* sectors. Firms increased the adoption of automation and digitalisation, which contributed to the high investment in M&E. Notably, investment intentions remained strong with approved investments totalling RM265 billion in key industries such as information and communications technology (ICT) and electrical and electronics (E&E). Furthermore, the recovery in structures investment was evident from the resumption in construction activity, especially in the non-residential segment.

Public investment growth registered a recovery of 5.3% (2021: -11.3%). This was driven mainly by higher capital expenditure of public corporations, mainly in the oil and gas (O&G) and telecommunications sectors. Continued progress of existing large infrastructure projects such as the East Coast Rail Link (ECRL), Light Rail Transit Line 3 (LRT3) and Pan Borneo Highway also supported growth.

Public consumption expanded by 3.9% (2021: 5.3%). Growth remained supported by both supplies and services and emolument expenditures. In particular, spending on supplies and services were mainly for small maintenance and repair works.

Growth supported by expansion in services and manufacturing sectors

All economic sectors recorded positive growth during the year. Some selected activities, however, remained below pre-pandemic levels. Notably, the extent of recovery in the food and beverage and accommodation services was constrained by the more gradual rebound in tourism activity. The operating capacity in the *mining* sector was dampened by facility closures for maintenance purposes, while elevated input prices and prolonged labour shortages continued to weigh on construction and subsequently real estate services activities.

Table 2

Real GDP by Kind of Economic Activity (2015 = 100)

	2022 ^p	2021	2022 ^p	2021	2022 ^p
	% of GDP	Annual change (%)		Contribution to growth (ppt) ¹	
Services	58.2	1.9	10.9	1.1	6.2
Manufacturing	24.2	9.5	8.1	2.2	2.0
Agriculture	6.6	-0.2	0.1	0.0	0.0
Mining and quarrying	6.4	0.3	3.4	0.0	0.2
Construction	3.5	-5.2	5.0	-0.2	0.2
Real Gross Domestic Product (GDP)	100.0¹	3.1	8.7	3.1	8.7

¹ Figures may not necessarily add up due to rounding and exclusion of import duties component

^p Preliminary

Source: Department of Statistics, Malaysia

The *services* sector registered a strong growth of 10.9% (2021: 1.9%). Activities within high-touch services (e.g. retail, dining out and recreational activities), as well as the transport and storage subsector continued to recover during the year. This was supported by the full upliftment of containment measures and gradual recovery of tourism activities amid the reopening of international borders on 1 April 2022. Furthermore, the use of delivery services and e-commerce remained strong, reflected by higher online retail trade activity, which grew by 19.8% in 2022 (2021: 18.4%). Real estate and business services also improved throughout the year, in line with the pickup in manufacturing and construction activities.

The *manufacturing* sector grew by 8.1% (2021: 9.5%), lifted by the strength of global and domestic demand. The full upliftment of containment measures lent support to production activity. Despite the slowdown in global semiconductor sales, growth in Malaysia's E&E cluster remained supported by backlog in orders and demand related to technological megatrends such as electric vehicles, artificial intelligence and Internet of Things.

Production in the primary sector was mainly supported by the ramp-up in output at a major oil refinery in Johor. Meanwhile, the consumer-related cluster benefitted from improvement in household spending and higher demand in the transport segment amid the SST exemption on passenger cars.

The *agriculture* sector expanded by 0.1% (2021: -0.2%) due to strong performance in oil palm production. During the year, oil palm output recovered as harvesting activity improved following the re-entry of migrant workers to the plantation sector in the fourth quarter of 2022. However, the growth was partially offset by the weaker performance in other agriculture subsectors amid rising input costs particularly for animal feed and fertiliser.

The *mining* sector expanded further by 3.4% (2021: 0.3%), amid higher oil and gas output. Growth was lifted by the operationalisation of the new Pegaga gas field in Block SK320 located in offshore East Malaysia since March 2022 and ramp-up in PETRONAS Floating Liquefied Natural Gas-2 (PFLNG2) production. The improvement in other mining subsector also contributed to growth. These factors had more than offset the impact of facility closures for maintenance purposes such as the Gumusut-Kakap field.

The *construction* sector recovered to expand by 5.0% (2021: -5.2%), following a broad-based pickup in activities across all subsectors. The non-residential subsector rebounded strongly from the previous year, on account of faster progress of large commercial real estate and industrial projects. Similarly, the special trade subsector recorded higher growth supported by early- and end-stage works such as site preparation and installation, as well as continued implementation of small-scale projects. The pace of recovery in the civil engineering and residential subsectors were marginally slower, partly hampered by prolonged labour shortages and elevated building material costs.

Broader Recovery in the Labour Market in 2022

Overall, labour market conditions improved steadily in 2022, supported by firmer economic growth following the easing of COVID-19 containment measures, normalisation of economic activity and full reopening of international borders. Employment improved, while unemployment and underemployment rates^{14,15} declined to 3.9% and 1.3% of the labour force, respectively (2021: 4.6% and 2.1%). Robust employment growth was matched by the labour force expansion in 2022, with the labour force participation rate recovering beyond its pre-pandemic rate (2022: 69.3%; 2019: 68.9%). Nonetheless, the risk of scarring among vulnerable segments e.g., women and youth, continue to remain a concern.

Table 3

Selected Labour Market Indicators

	2017	2018	2019	2020	2021	2022 ^p
Employment ('000 persons)	14,459	14,810	15,126	15,096	15,290	15,762
Annual change (%)	2.0	2.4	2.1	-0.2	1.3	3.1
Unemployment rate (% of labour force)	3.4	3.4	3.3	4.5	4.6	3.9
Labour force participation rate (% of working age population)	67.8	68.4	68.9	68.4	68.5	69.3
Retrenchments (persons)	35,097	23,168	29,605	104,432	63,321	32,683
Non-Malaysian citizens employment ('000 persons)	2,274	2,239	2,254	2,214	2,149	2,136

^p Preliminary

Note: The employment, unemployment and labour force participation rates are estimated based on quarterly averages from the Labour Force Survey.

Source: Department of Statistics Malaysia, Ministry of Human Resources and Bank Negara Malaysia estimates

¹⁴ Refers to time-related underemployment; individuals employed who are working less than 30 hours during the reference week because of the nature of their work or due to insufficient work and are able and willing to accept additional hours of work.

¹⁵ The 30-hour threshold is conventionally used to define time-related underemployment by the International Labour Organisation and most OECD countries.

The robust expansion in employment (2022: 3.1%; 2021: 1.3%) was driven mainly by the *services* sector, in particular, the wholesale and retail trade, and transport and storage sub-sectors, following the resumption of consumer and tourism-related activity and continued support from strong exports, respectively. In the *manufacturing* sector, export-oriented industries continued to drive employment growth, particularly the E&E sub-sector, which benefitted from the strength in demand for semiconductors globally. From a skills perspective, employment growth was mainly driven by low- and semi-skilled workers (7.7% and 4.1%, respectively) such as retailers, tour operators, and construction workers. High employment growth in these segments also reflects the gradual re-entry of foreign workers as international borders were reopened and restrictions on recruiting migrant workers were eased. Demand for workers remained strong as jobless claims reported from the Social Security Organisation's (SOCSO) Employment Insurance System (EIS)¹⁶ fell (2022: 34,388; 2021: 61,360), while vacancies continued to rise towards pre-pandemic levels (2022: 192,400 positions; 2019: 198,000).

Wages in the private sector also recorded a marked improvement, with aggregate nominal wages recording an increase of 6.5% in 2022 (2021: 0.4%). Growth of wages in the *services* sector rebounded (7.2%; 2021: -1.0%), attributed mainly to recovery in subsectors such as wholesale and retail trade, transportation and storage, information and communication, and professional services, which benefitted significantly from the strong rebound in consumer spending and revival in domestic tourism activity. In the *manufacturing* sector, wage growth improved to 5.2% (2021: 3.0%), mainly led by export-oriented sectors, such as the E&E and petrochemical products sub-sectors. Meanwhile, the public sector recorded slightly more moderate wage growth at 4.7% (2021: 5.4%). The high aggregate wage growth of 6.5% in 2022 compared to the historical average (2015-2019: 5.3%) was largely driven by the pickup in economic activity since the second quarter of 2022 and further supported by the upward revision in the minimum wage.¹⁷ Nevertheless, the increase in wages was outpaced by inflation, therefore depressing real wages. Wage growth was also low in comparison to the increase in productivity, as firms adopted various efficiency-enhancing measures to cope with labour shortages throughout the year. Coupled with prevailing slack in the labour market amid the expansion in labour supply, wage pressures were assessed to be relatively contained, despite reports of labour shortages in some selected sectors throughout the year.¹⁸

Labour productivity growth, in terms of value-added per hour worked, turned positive at 1.8% in 2022 (2021: -2.6%), following higher growth of GDP relative to the number of hours worked in the economy. This may have been contributed in part by efficiency gains through greater automation and digitalisation efforts as businesses adjust to mitigate constraints on labour shortages.¹⁹ The improvement in productivity was underpinned by the *services* sector, which grew by 3.3% (2021: -4.2%), attributed to activities such as food and beverages and accommodation, transportation and storage and real estate and business services. In terms of value-added per worker, productivity improvements were even larger (5.4%; 2021: 1.8%), indicating workers were more efficient during the year.

The resumption of economic activity in 2022 led to a broader recovery in the labour market during the year compared to 2021. In particular, women's employment surpassed pre-pandemic levels during the year (Chart 1). However, the pace of recovery amongst the vulnerable segments continued to be relatively slow. Employment gains among women and youth had remained slower than men and prime-age workers, respectively. Additionally, the return of women to the labour force had been sluggish post-pandemic, with the female labour force participation rate remaining below pre-pandemic levels (55.9% in 4Q 2022; 4Q 2019: 56.1%). While low-skilled employment grew at a faster pace during the year, the level of low-skilled workers remained below pre-pandemic, particularly in the *services* sector, where employment in tourism-related activities have yet to fully recover. Furthermore, while time-related underemployment rates have normalised to pre-crisis levels,

¹⁶ For more information, please refer to the Weekly EIS Reports on eiscentre.perkeso.gov.my.

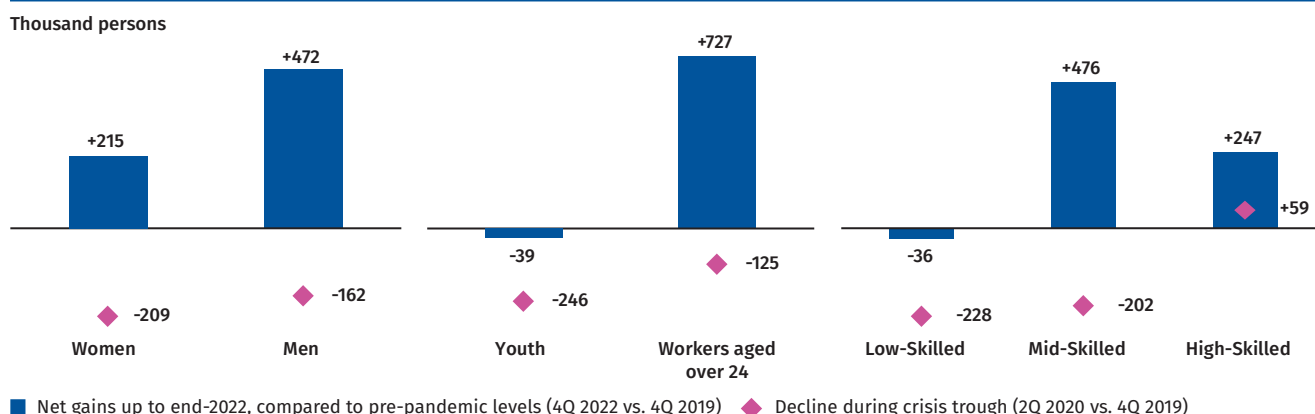
¹⁷ The national minimum wage level was increased from RM1,100 (RM1,200 for city council workers and municipal council areas) to RM1,500 effective 1st May 2022. A temporary exemption was accorded to employers with less than five employees until 30 June 2023.

¹⁸ For further discussion on labour market slack and implications on wages, please refer to the box article on Analytical Approaches to Assessing Labour Market Conditions and Implications to Monetary Policy in Chapter 2.

¹⁹ For further discussion on labour shortages please refer to the box article on Analytical Approaches to Assessing Labour Market Conditions and Implications to Monetary Policy in Chapter 2.

skill-related underemployment remained elevated (11.2% of labour force; 2019: 9.5%). These lingering effects of the pandemic continue to point to incidences of scarring, arising from discouragement, habituation, and skill atrophy, which may lead to lower income prospects over the long term.²⁰

Chart 1: Change in Employment by Demographic Categories



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

²⁰ For further discussion on the uneven impact of the pandemic and factors underlying labour market scarring, please refer to Getting the Great Reset Right: Structural Labour Market Issues in the Post-COVID-19 World in Bank Negara Malaysia's Economic and Monetary Review 2020.

Healthy external sector performance in 2022

For balance of payments, Malaysia continued to register a current account surplus despite the challenging global economic landscape in 2022. The surplus amounted to RM47.2 billion or 2.6% of GDP (2021: RM58.7 billion or 3.8% of GDP), supported by the goods surplus.

Table 4

Balance of Payments¹

Item (Net)	2020	2021	2022 ^p
	RM billion		
Current account	59.1	58.7	47.2
Goods ²	137.5	170.6	169.3
Services	-47.2	-60.7	-45.4
Primary income	-28.5	-41.6	-63.6
Secondary income	-2.7	-9.6	-13.1
Capital account	-0.4	-0.6	-0.5
Financial account	-77.4	13.0	14.8
Direct investment	3.1	28.5	16.0
Portfolio investment	-49.6	18.8	-51.3
Financial derivatives	0.4	-2.3	-2.2
Other investment	-31.3	-32.0	52.3
Net errors and omissions (E&O)³	-0.6	-25.5	-8.3
Overall balance	-19.3	45.7	53.3

¹ In accordance with the Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6) by the International Monetary Fund (IMF)

² Adjusted for valuation and coverage of goods for processing, storage and distribution

³ As at 1Q 2018, the net E&O excludes reserves revaluation changes. This practice is backdated to 1Q 2010

^p Preliminary

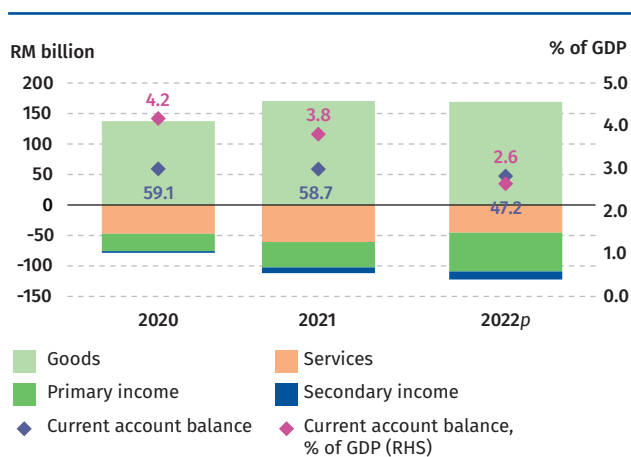
Source: Department of Statistics, Malaysia and Bank Negara Malaysia

In the goods account, imports increased at a faster rate relative to exports resulting in a slightly lower goods surplus of RM169.3 billion (2021: RM170.6 billion). This was mainly on account of stronger domestic demand following the full upliftment of containment measures, as well as firms building up inventory buffers to mitigate supply chain disruptions. The services account recorded a smaller deficit of RM45.4 billion in 2022 (2021: -RM60.7 billion). This mainly reflected a narrower travel account deficit of RM1.8 billion (2021: -RM14.6 billion) as the reopening of international borders on 1 April 2022 led to higher inbound tourists.

In the income account, the primary income deficit widened to RM63.6 billion (2021: -RM41.6 billion), due mainly to higher investment income accrued to foreign investors in Malaysia, supported mainly by higher earnings from robust export performance. The secondary income account recorded a larger deficit of RM13.1 billion (2021: -RM9.6 billion), due mainly to higher foreign workers' outward remittances.

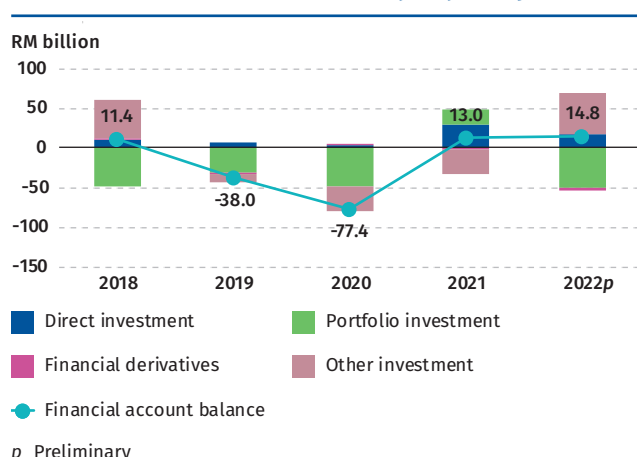
In 2022, the financial account recorded a higher net inflow of RM14.8 billion (2021: +RM13.0 billion). This was due mainly to inflows in the direct and other investment accounts, which more than offset the outflows from the portfolio investment account.

Chart 2: Current Account Balance



Source: Department of Statistics, Malaysia and Bank Negara Malaysia

Chart 3: Financial Account Flows by Key Components



Source: Department of Statistics, Malaysia and Bank Negara Malaysia

The direct investment account registered a net inflow of RM16.0 billion (2021: +RM28.5 billion). Notably, net FDI inflows increased significantly to RM73.3 billion in 2022 (4.1% of GDP; 2021: +RM48.1 billion, 3.1% of GDP), exceeding the levels recorded prior to the pandemic. This reflects the strong post-COVID 19 recovery in the global economy and trade, spurring MNCs to raise their investments in Malaysia to expand their production capacity. Of significance, these firms reinvested their profits at a larger scale compared to pre-pandemic levels (2022: RM37.1 billion; 2015-2019 average: RM9.9 billion). Similarly, investments via equity injection have also surpassed the pre-pandemic levels (2022: RM23.4 billion; 2015-2019 average; RM22.2 billion). From a sectoral perspective, the *manufacturing* sector remained the key beneficiary of FDI inflows during the year, amounting to RM47.7 billion (65.1% of total FDI). In particular, Malaysia's position as a major E&E exporter (38.3% of total exports in 2022) benefitted from the continued demand for E&E components amid the ongoing technological megatrends such as electric vehicles, artificial intelligence and Internet of Things.²¹ Apart from the *manufacturing* sector, foreign investments were also channelled into the services subsectors. This was in line with the pickup of domestic services activity especially in the financial as well as the wholesale and retail trade subsectors.

DIA outflows were also notably higher at RM57.3 billion (-3.2% of GDP; 2021: -RM19.7 billion, -1.3% of GDP). These investments abroad were mainly channelled into the financial services subsector as well as the *manufacturing* and *mining* sectors. The Netherlands (25.0% of net DIA for the year), Indonesia (20.4%) and Singapore (19.8%) were the major recipients of DIA in 2022.

²¹ For further information, please refer to the earlier White Box on 'Growth supported by expansion in the services and manufacturing sector'.

The portfolio investment account recorded a net outflow of RM51.3 billion (2021: +RM18.8 billion), contributed mainly by the liquidation of domestic debt securities by non-residents (NR). This reflected tighter monetary policies especially in advanced economies and the uncertainties over global growth outlook. The outflows were also due to continued residents' portfolio investments abroad mainly in the form of equity investment by domestic institutional investors. These outflows were partly offset by inflows from NR investments into the domestic equities market.

The other investment account turned around to register a large net inflow of RM52.3 billion (2021: -RM32.0 billion). This was mainly due to net inflows from interbank borrowings by onshore banks and maturing interbank deposits abroad by the domestic banking system, a reflection of their centralised liquidity management operations for regional operations. Net E&O amounted to -RM8.3 billion or -0.3% of total trade during the year (2021: -RM25.5 billion, or -1.1% of total trade).

Malaysia's international investment position remained favourable

Malaysia's international investment position (IIP) recorded the third consecutive year of net external asset position, amounting to RM63.0 billion, or equivalent to 3.5% of GDP as at end-2022 (end-2021: RM84.9 billion or 5.5% of GDP). External assets increased by RM111.2 billion in 2022, reflecting in part additional portfolio and direct investments abroad by corporates. Higher external assets also reflected exchange rate valuation effects from the weaker ringgit against the USD. However, these were partly offset by lower price valuation following unfavourable performance in global equity markets during the year. External liabilities increased by RM133.0 billion, mainly reflecting net inflows of FDI as well as interbank borrowings and NR deposits.

The net foreign currency (FCY) external asset position, as measured by external assets denominated in FCY less FCY external liabilities, stood at RM1.2 trillion, or 64.9% of GDP (2021: RM1.1 trillion, or 74.1% of GDP). Given this position, the ringgit exchange rate depreciation led to a larger increase in FCY external assets compared to FCY external liabilities during the year.

Chart 4: Net International Investment Position (IIP)

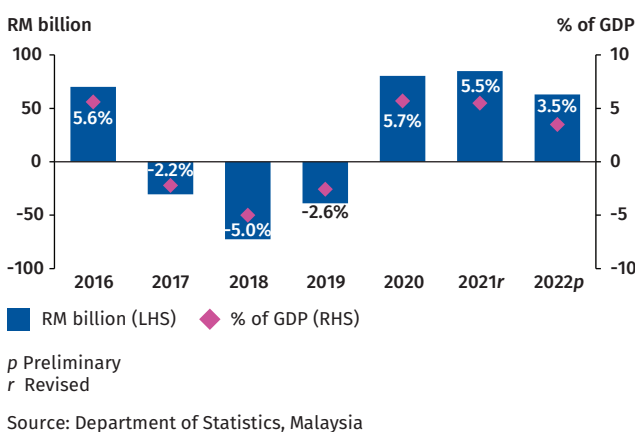
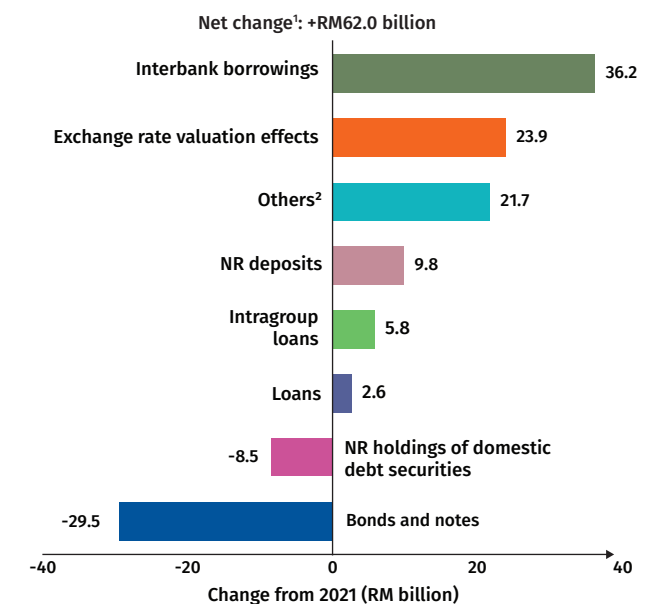


Chart 5: Changes in External Debt



¹ Changes in individual debt instruments exclude exchange rate valuation effects. Positive indicates net borrowing or issuance of debt securities.
² Comprises trade credits, IMF allocation of SDRs and other debt liabilities.

Note: Figures may not add up due to rounding.

Source: Bank Negara Malaysia, Department of Statistics, Malaysia and Ministry of Finance, Malaysia

Malaysia's external debt amounted to RM1,144.0 billion as at end-2022, or 64.0% of GDP (2021: RM1,082.1 billion or 70.0% of GDP). The increase in external debt was mainly driven by higher interbank borrowings (of which 70.3% were intragroup borrowings by foreign banks)²² and exchange rate valuation effects as ringgit depreciated, particularly against the US dollar. The higher interbank borrowings in 2022 primarily reflected the continued efforts by onshore banks to manage their foreign exchange liquidity. These were partially offset by net repayment of international bonds and notes largely by corporates. Meanwhile, the external debt of Federal Government continues to be denominated mainly in ringgit (90.3%; 2021: 90.4%), with changes in its FCY-denominated external debt largely reflecting exchange rate revaluation changes (-RM0.6 billion; 2021: -RM0.7 billion).

Risks surrounding Malaysia's external debt were well contained given the favourable maturity and currency profiles. Coupled with BNM's prudential and hedging requirements²³ on corporates and banks, external debt remained manageable. As at end-2022, the external debt-at-risk for corporates²⁴ and banks²⁵ amounted to RM16.6 billion and RM85.9 billion, respectively (2021: RM29.2 billion and RM55.9 billion). Cumulatively, these amounted to 9.0% of Malaysia's total external debt and 20.4% of international reserves (2021: 9.2% and 20.5% respectively).

Almost a third of external debt was denominated in ringgit (33.1%; 2021: 34.5%), and therefore not affected by fluctuations in the ringgit exchange rate. These were mainly in the form of NR holdings of domestic debt securities (65.1% of total ringgit-denominated external debt) as well as NR deposits (17.1%). Meanwhile, the remainder of external debt denominated in FCY was largely subject to prudential requirements on liquidity and funding risk management.²⁶ Moreover, intragroup borrowings²⁷ accounted for 34.3% of FCY external debt, which were generally more stable and on concessionary terms.

BNM's international reserves amounted to USD114.6 billion as at end-2022 (2021: USD116.9 billion), sufficient to finance 5.0 months of imports of goods and services and was 1.0 time the short-term external debt.²⁸ It is important to emphasise that international reserves are not the only means to meet external obligations. In particular, BNM's progressive liberalisation of the foreign exchange policy²⁹ has facilitated the accumulation of FCY external assets by banks and corporates. These assets, particularly the liquid portion amounting to RM799.5 billion, can be drawn upon to meet their short-term external debt obligations of RM474.7 billion without creating a claim on international reserves.

²² Foreign banks refer to locally-incorporated foreign banks and Labuan branches.

²³ For more details on Malaysia's external debt management, please refer to "Malaysia's Resilience in Managing External Debt Obligations and the Adequacy of International Reserves" box article in BNM's Annual Report 2018.

²⁴ Based on offshore loans raised and bonds issued by high-risk corporate borrowers.

²⁵ Refers to the portion of banks' external debt that were more susceptible to sudden withdrawal shocks. These include interbank borrowings (RM66.4 billion), financial institutions' deposits (RM14.4 billion) and other short-term debt (RM5.2 billion) from unrelated counterparties.

²⁶ Including requirements imposed on banks under local banking regulations.

²⁷ Comprises intragroup loans and intragroup interbank borrowings.

²⁸ For more details on BNM's international reserves, please refer to "Building Buffers: Roles and Functions of BNM's International Reserves" box article in BNM's Annual Report 2020.

²⁹ 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 6: Profile of Malaysia's External Debt (% share)

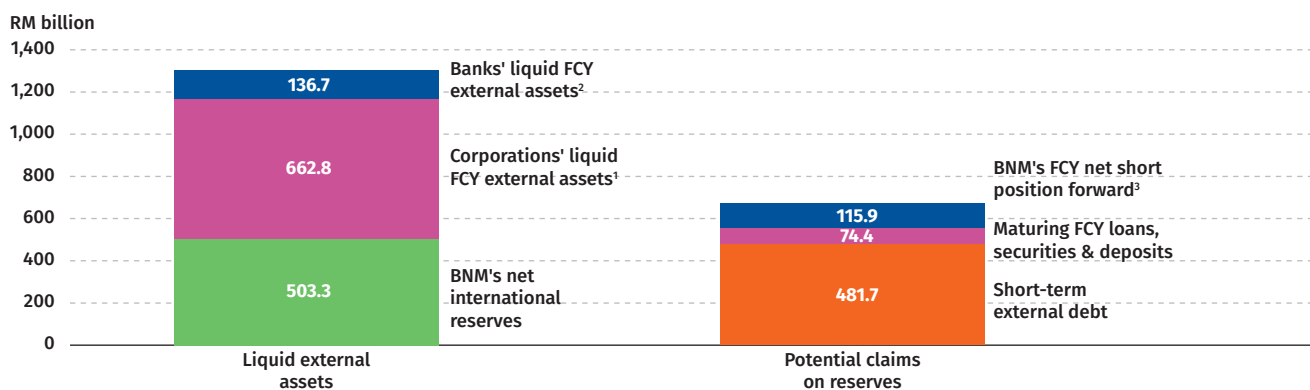


¹ Comprises trade credits and other debt liabilities, such as insurance claims yet to be disbursed and interest payables on bonds and notes.

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

Source: Bank Negara Malaysia

Chart 7: Liquid External Assets and Potential Claims on International Reserves



¹ Consist of portfolio investments and currency and deposits.

² Consist of deposits and interbank placements, bonds and notes and money market instruments.

³ Including the forward leg of currency swaps.

Note: BNM refers to Bank Negara Malaysia

Source: Bank Negara Malaysia

Headline and underlying inflation trended higher in 2022

Headline inflation increased in 2022, averaging at 3.3% for the year (2021: 2.5%) due to a combination of both supply and demand factors. Higher inflation for food and non-alcoholic beverages (2022: 5.8%; 2021: 1.7%) was the main driver that contributed to around half of the increase in headline inflation. In terms of trajectory, headline inflation peaked during the third quarter of 2022, due mainly to the base effect from the discount on electricity bills implemented in the third quarter of 2021 (Chart 1.18). Thereafter, headline inflation moderated in the fourth quarter, albeit remaining elevated, upon dissipation of the base effect, as well as moderating cost pressures amid the easing of global supply chain conditions and ringgit appreciation.

High global commodity prices and prolonged supply-related disruptions continued to drive cost-push inflationary pressures throughout the year, as reflected in the sustained increase in the Producer Price Index (PPI) which rose by 7.8% in 2022 (2021: 9.5%). In particular, global energy and food commodity prices surged higher following the escalation in the military conflict in Ukraine, which was further exacerbated by export restrictions in key commodity-exporting countries. This particularly impacted the cost of key inputs for food production, such as fertilisers and animal feed. Sustained US dollar strength against the ringgit also led to higher import prices, which

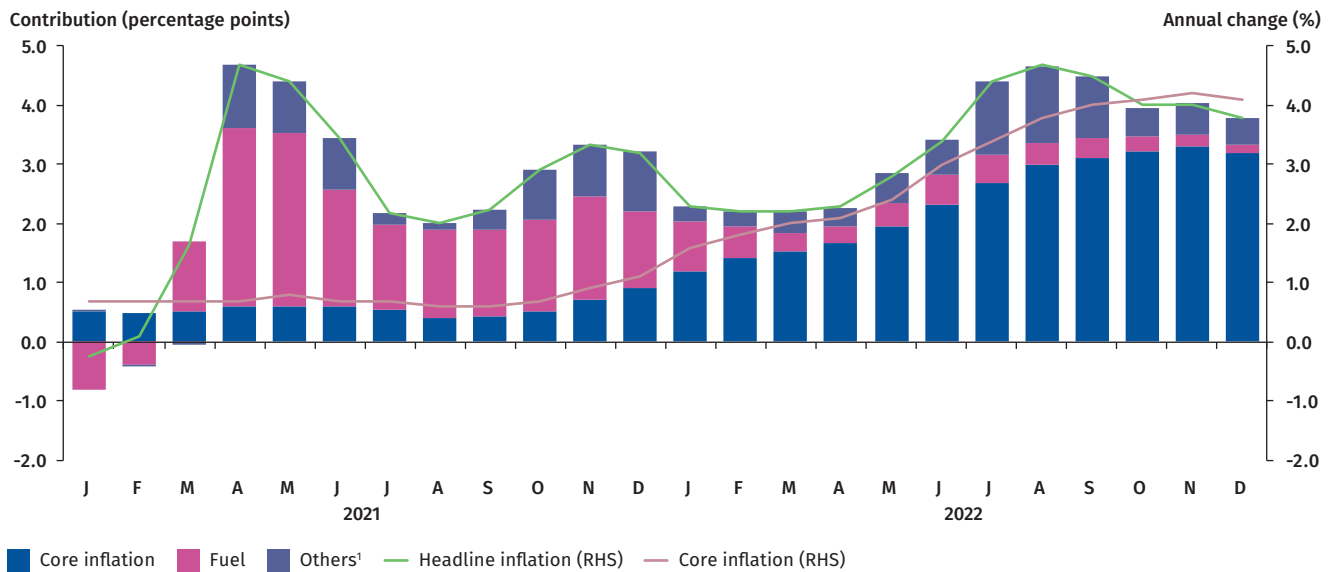
generated additional cost pressures during the year. Domestically, food supply shortages and seasonal factors such as adverse weather conditions also partly contributed to the higher prices of selected food items. Combined with the improvements in demand conditions following the reopening of the Malaysian economy, these factors led to higher cost pass-through to consumer prices. Nevertheless, the extent of cost pass-through to consumer price inflation remained partly contained by existing price controls, subsidies, and the remaining spare capacity in the economy.

Underlying inflation, as measured by core inflation,³⁰ trended higher throughout the year, averaging at 3.0% (2021: 0.7%). Strengthening demand conditions following the reopening of the economy accelerated the increase in core inflation, after a period of subdued demand and lower profit margins during the pandemic. Notably, the transition to endemicity in Malaysia spurred a shift in demand from consumer goods to services. As such, price pressures were most prominent in core CPI services, particularly for food away from home and rental. Prices for other discretionary services, such as cultural services and restaurants and hotels, also rose.

Overall, price pressures became more broad-based during the year. The share of CPI items recording monthly price increases remained above the long-term average for most of the year (2022 average:

³⁰ Core inflation is computed by excluding price-volatile and price-administered items.

Chart 1.18: Contribution to Headline Inflation by Components

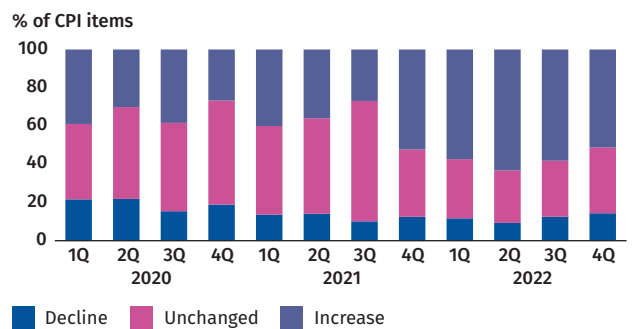


¹ Others include price-volatile items and other price-administered items (excluding fuel).

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

57.5%; 2011-2019 average: 45.6%), albeit with some moderation in the pervasiveness from September 2022 onwards (Chart 1.19). Risks of second-round effects from wage-price dynamics remain contained at this juncture, as inflation expectations remain firmly anchored while real wage growth has not been excessive.³¹ The higher inflationary pressure has, however, continued to place stress on households' cost of living, particularly given the elevated prices for essential and frequently purchased items, such as food products and services. Nevertheless, various policy measures remained in place to partly alleviate households' rising cost of living, including the price controls and subsidies on key consumer necessities and targeted income transfers to vulnerable households.

Chart 1.19: Month-on-Month Price Changes of CPI Items*



* Based on the month-on-month inflation for 125 CPI items at the 4-digit level (average for the quarter).

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

³¹ As of January 2023, median analyst inflation expectations remained anchored at 2.9% for 2023 and 2.2% for 2024. Real wage increases remained within range of historical norms and there remained slack in the domestic labour market.

Revisiting Exchange Rate Pass-Through to Inflation in Malaysia

Introduction

In 2022, the ringgit depreciated by 5.4% against the US dollar.³² Peak to trough, the ringgit depreciated by 12.2% over January to 4 November (when the ringgit depreciated from RM4.1665 at the end of 2021 to a low of RM4.7477 against the US dollar). With costs such as global commodity prices still elevated, there is particular interest on the impact of the recent depreciation episode on inflation in Malaysia. During this period, the impact of the exchange rate was not offset by other mitigating cost factors such as global commodity prices. Thus, there is belief that the exchange rate depreciation could be more than fully passed on to consumers, leading to higher headline inflation, as measured by the annual growth in the Consumer Price Index (CPI), unlike previous depreciation episodes experienced by the country.^{33, 34}

The movement of the ringgit against the US dollar during the year largely reflected the strength of the US dollar following aggressive monetary policy tightening by the Federal Reserve to contain persistently high inflation in the US. The impact of the strong US dollar was evident globally with most other currencies also on depreciating trends albeit to varying degrees. In contrast to the performance against the US dollar, the ringgit strengthened against several other major and regional currencies. Consequently, the import-weighted nominal effective exchange rate (NEERM), which measures the ringgit's performance against a basket of currencies of key import partners, appreciated by 1.0%.³⁵

In assessing the degree of exchange rate pass-through (ERPT) to inflation, a highly pertinent question is the choice between using a single bilateral exchange rate, like the RM versus the US dollar, or an average of a range of bilateral exchange rates between the RM and key trading partner currencies, like the NEERM. With trade largely invoiced in US dollar regardless of the origin or destination of trade flows (a phenomenon known as dominant currency pricing, as proposed by Gopinath et al. (2020)),³⁶ the bilateral RM/USD exchange rate may seem more relevant for understanding ERPT especially in the near term when import prices are relatively sticky (International Monetary Fund (IMF), 2019).³⁷ This is particularly true for internationally traded commodities such as crude oil and cereals, which are priced in US dollar.³⁸ However, the bilateral exchange rate may be less relevant over the medium term,³⁹ as prices in the invoice currency adjust. As an example, with currency depreciation under dominant currency pricing, exporters⁴⁰ may choose to reduce prices in the invoice currency beyond the short term. Exporters also tend to set prices according to global demand, rather than country-specific demand (Crookes et al., 2022). Here, the NEERM may be more relevant as the movement of all trading partners' currencies against the US dollar becomes important (IMF, 2019). It thus, more closely reflects the consequent adjustments in relative prices that can be expected to affect inflation (Caselli and Roitman, 2019), amid the attendant changes in import prices, domestic demand, and import intensity patterns.

Against such a backdrop, this article first presents an overview of the channels of ERPT to CPI inflation. It then provides estimates of ERPT associated with the RM/USD exchange rate since it may have more economic

³² Calculated as the change between end-year exchange rates. Note that all bilateral exchange rate data in this draft are sourced from Bloomberg.

³³ The annual growth in the CPI is referred to as CPI inflation, henceforth, in this article.

³⁴ For example, in 2015, the ringgit depreciated by 21.5% over January to 29 September (when the ringgit reached a low of 4.4570 against the US dollar) and 18.6% against the US dollar for the year as a whole (change between end-year exchange rates). Notwithstanding the weakening of the ringgit, headline inflation, as measured by CPI inflation, remained relatively low at 2.1% with mitigating effects from a significant decline in global commodity prices.

³⁵ Calculated as the change between end-year exchange rates. This measure of the nominal effective exchange rate (NEER) differs from the NEER measure elsewhere in "Economic, Monetary and Financial Developments in 2022", which refers to the value of the ringgit against a total trade-weighted basket of Malaysia's major trading partners' currencies. Differences may arise between the two measures due to variations between import weights and total trade weights.

³⁶ For Malaysia, 83% of exports and 79% of imports were invoiced in US dollar in 2019 (Boz et al., 2020).

³⁷ Because US dollar import prices are largely unchanged, ceteris paribus, a depreciation against the US dollar increases import prices in the local currency, making it a more important driver than bilateral exchange rates in ERPT to import prices in local currency within a year of a depreciation shock (that is, the US dollar broadly appreciates) (IMF, 2019).

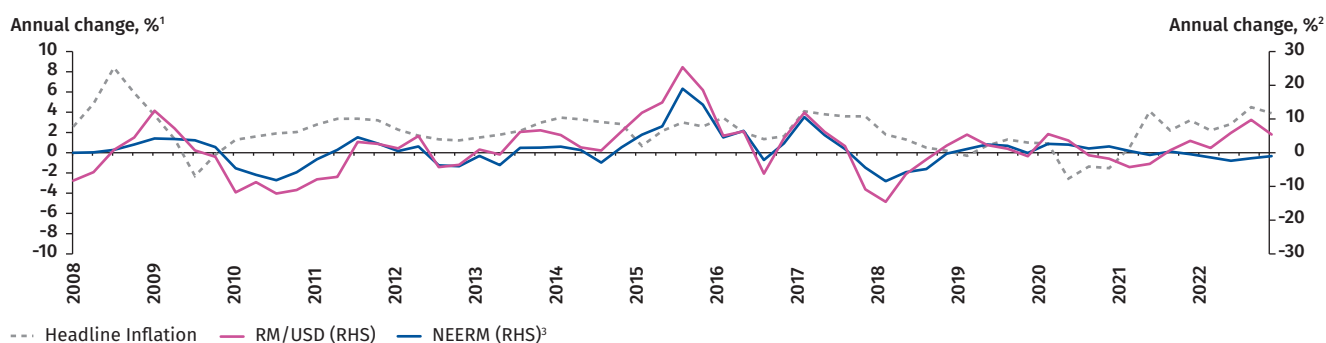
³⁸ See Bank Negara Malaysia (2022) for a discussion on the transmission of global commodity prices to inflation in Malaysia.

³⁹ Up to three years after the depreciation shock (that is, the US dollar broadly appreciates).

⁴⁰ Exporters refer to foreign producers from the perspective of the local economy.

relevance in the near term. This is done for aggregate import price inflation and CPI inflation, as well as for sectoral CPI inflation, highlighting segments that are particularly sensitive to exchange rate movements. Finally, it offers insights on the potential nature of ERPT in the context of the current environment. That is, whether it is likely to be higher than average, taking into account overall inflation dynamics, including the influence of administered prices, and firms' price-setting behaviour.

Chart 1: Exchange Rate and Inflation



¹ The headline inflation annual change refers to the annual growth in the quarterly average.

² The exchange rate annual change refers to the annual growth in the quarterly end-rates.

³ The nominal effective exchange rate against import partners (NEERM) is calculated based on the weighted average of the bilateral exchange rate against Malaysia's top 15 import partners. A positive figure indicates a depreciation in the ringgit against Malaysia's main import partners relative to the year before.

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

Transmission channels of exchange rate movements to inflation

Chart 2 provides an overview of the ERPT channels. The most direct channel of ERPT to CPI inflation is through import prices. The extent of pass-through of exchange rate depreciation to import prices in the short term (when trade contracts are relatively fixed) depends on the currency in which import prices are set – high pass-through with dominant currency pricing and producer currency pricing (prices set in the exporter country currency) and low with local currency pricing (prices set in the destination country currency). The differences in ERPT to import prices across the various types of currency pricing, whether dominant currency pricing, producer currency pricing or local currency pricing narrow over the longer term (Crookes et al., 2022) as ERPT would also partly depend on the subsequent response of other factors to the exchange rate shock. These other factors include exporters' pricing behaviour and contract revisions. They are typically influenced by exporters' market power, production costs and global demand conditions. Under perfectly competitive markets, ERPT to import prices tends to be complete. However, empirical evidence supports the occurrence of relatively high but incomplete pass-through to import prices. For example, Campa and Goldberg (2005) find that the change in the commodity composition of imports can influence the pass-through to import prices – ERPT is higher for energy and raw material imports than manufactured products and food products.

Changes in import prices would feed through to CPI inflation depending on the share of import content in private consumption. This includes directly through imported final consumption goods, which may still incur local distribution and transportation costs, and indirectly through imported intermediate inputs which affect firm production costs. Based on input-output tables, Malaysia's share of import content in private consumption as the sum of these two components amounted to 26% in 2020 (27% in 2019; 31% in 2015) (Chart 3).^{41, 42} This appears

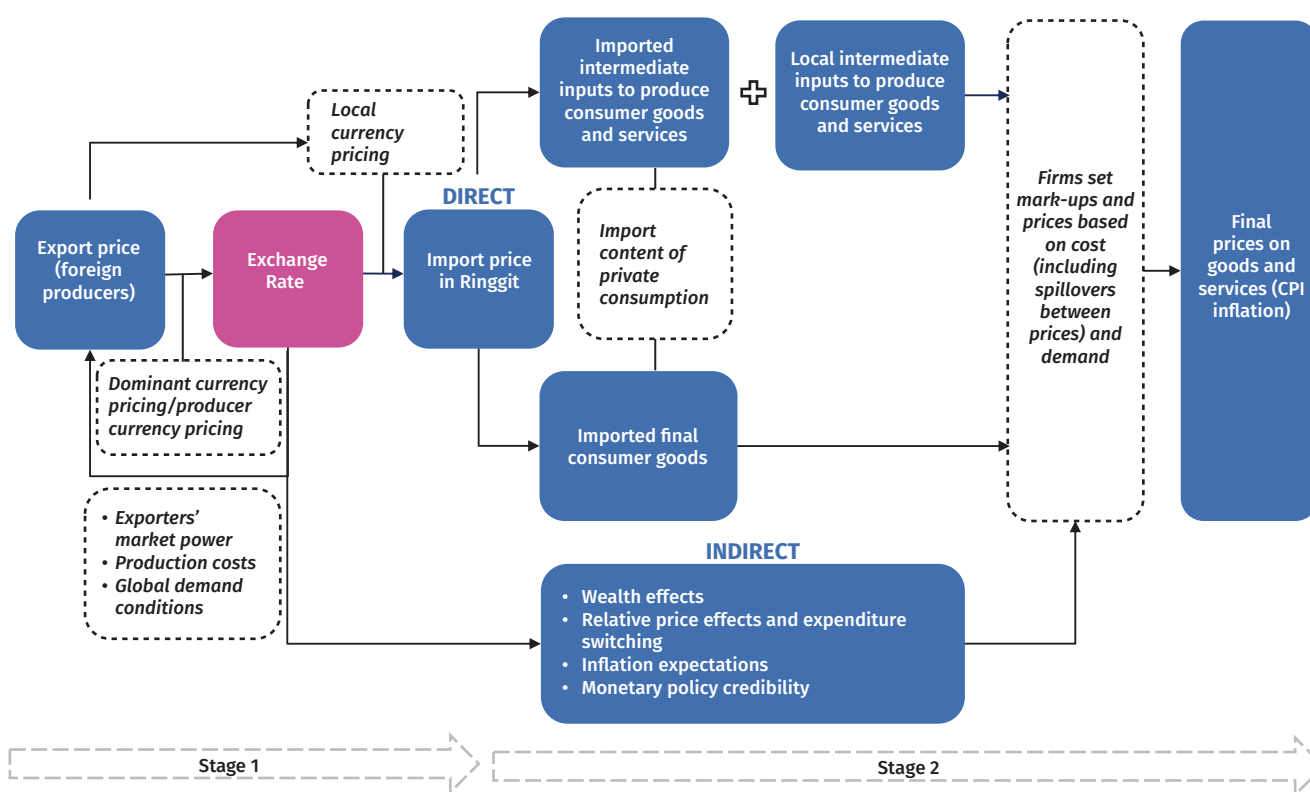
⁴¹ Source: Department of Statistics Malaysia (2018, 2022) and Bank Negara Malaysia estimates based on the methodology to isolate the import content in final demand components in Kranendonk and Verbruggen (2005, 2008).

⁴² Strictly speaking, the full import share of consumption would also include the share of capital (that is, machinery and equipment used in domestic production) which is imported. However, due to data limitations in input-output tables generally, this is excluded. Further, the concept of imported content of consumption depicted in this article is consistent with other studies on ERPT (see for example, Carrière-Swallow et al. (2021) and Gopinath (2015)).

to be slightly above average when compared to emerging market economies (based on Carrière-Swallow et al. (2021) which showed regional averages of 15 – 25%; and close to 30% on average for advanced economies). However, this is not unexpected given Malaysia is a relatively open, upper-middle income economy.⁴³

The degree and timing of pass-through of higher production costs would also depend on the impact of the higher exchange rate on profit margins, balanced against the costs of price changes, firms' market power, and prevailing demand conditions. The ERPT to CPI inflation will also work through indirect effects over the longer term (see for example, Rincón-Castro and Rodríguez-Niño (2018), and Savoie-Chabot and Khan (2015)). The indirect effects include changes in the composition and level of domestic demand due to expenditure switching (towards domestically produced goods)⁴⁴ and wealth effects (depending on how balance sheets are affected by the exchange rate depreciation). In addition, if the exchange rate depreciation is prolonged, wage and price-setting behaviour may change due to higher long-term inflation expectations. Consequently, a key factor in ERPT is inflation expectations. Whether inflation expectations continue to be well-anchored, in turn, depends on the credibility of monetary policy. More stable inflation expectations and lower forecast disagreement among professional forecasters are associated with lower ERPT to CPI inflation (Carrière-Swallow et al., 2021). Owing to such dynamics, it is not necessarily the case that as the size of sectors and number of items rise in their imported content, or as they become more tradable, they would linearly experience higher ERPT to inflation; or that ERPT is constant across time.^{45, 46}

Chart 2: Overview of Transmission Channels of Exchange Rate Shocks to Inflation



Source: Bank Negara Malaysia staff construction nominally based on Forbes (2015) and Rincón-Castro and Rodríguez-Niño (2018)

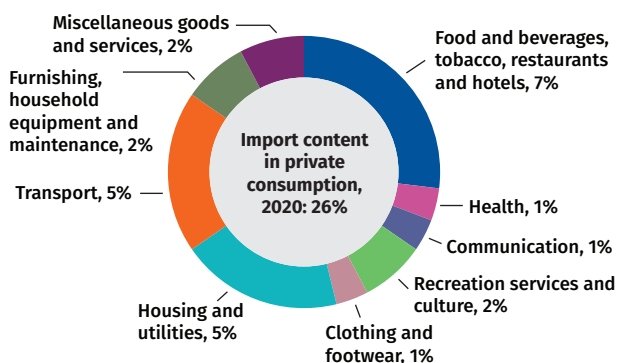
⁴³ For example, Singapore, a highly open and high-income country, had an import content in private consumption of 42% in 2019. Source: Bank Negara Malaysia estimates based on Singapore Supply, Use and Input-Output Tables 2019, available at <https://www.singstat.gov.sg/economy/io2019>. Accessed 25 January 2023.

⁴⁴ The availability of alternative local products would facilitate this expenditure switching. The net effect to CPI inflation would depend on the impact to imported content in private consumption, as well as pressures on domestic resources to meet production and demand.

⁴⁵ This is notwithstanding clear links for certain items, for example, retail fuel prices under the automatic pricing mechanism (APM) are closely linked to movements in global oil prices and the RM/USD exchange rate when not subject to price ceilings. The APM was implemented in December 2014. Fuel prices were floated over December 2014 – 2Q 2018, and from January 2020 – February 2021.

⁴⁶ See Forbes (2015) for a discussion on these three aspects of misunderstanding of ERPT in the context of the United Kingdom.

Chart 3: Import Content of Consumption



Note: Breakdown figures are only an approximation based on approximate mapping of the commodity classification in the input-output tables to consumption by purpose. The import content refers to imported intermediate inputs and final consumption goods. It excludes capital imports.

Source: Bank Negara Malaysia estimates based on Department of Statistics Malaysia (2022)

Estimates of ERPT

The ERPT estimation comprises two stages. The first stage is the pass-through to import price inflation, and the second stage, which is ultimately the focus of ERPT analysis, is the pass-through to CPI inflation. The ERPTs from changes in the RM/USD exchange rate to import price inflation and CPI inflation were empirically estimated using quarterly data from 2006 to 2022.⁴⁷ In terms of the first stage of transmission (see “Direct” in Chart 2), for a 5% change in the RM/USD exchange rate, the immediate ERPT to import price inflation is about 0.8 percentage points in the current quarter (short run) and 2.1 percentage points over a year (long run).^{48, 49} This means that about 40% of the exchange rate impact is translated to overall import prices after a year. This degree of pass-through to import price inflation is well within findings on average for both advanced and emerging market economies.⁵⁰ While dominant currency pricing would suggest a relatively high pass-through, the incomplete impact is influenced by other factors such as exporters’ pricing behaviour and contract revisions, driven by market structure of products, cost and demand, as mentioned earlier in this article.

The second stage of transmission, the ERPT to CPI inflation is, as expected, lower compared to import price inflation, partly reflecting the relatively moderate share of import content in consumption. A 5% change in the RM/USD exchange rate is associated with approximately 0.1 percentage points change in core inflation in the next quarter (short-run) and 0.2 percentage points over a year (long run).^{51, 52} This is less than a full pass-through

⁴⁷ The analysis is based on a New Keynesian Phillips Curve (NKPC) type estimating equation, with controls for lagged inflation, domestic economic slack, global commodity price inflation, and import partners’ inflation (see for example Gordon (2013)).

⁴⁸ The short-run impact is similar to findings in Bank Negara Malaysia (2015) using the Producer Price Index (PPI) for imported raw and intermediate inputs.

⁴⁹ Empirical analysis based on depreciation episodes in the RM/USD exchange rate did not yield indications of asymmetric ERPT to import price inflation. Meanwhile, sub-sample analysis suggests pass-through has increased over time, whereby for the subsample of 2015Q1-2022Q2, ERPT to import price inflation is closer to 2.0 percentage points and 4.0 percentage points respectively.

⁵⁰ For example, Campa and Goldberg (2005), focusing on OECD countries, estimate that on average import prices in local currencies reflect 46% of exchange rate fluctuations in the short run, and 65% over the long run. Carrière-Swallow et al. (2021) find somewhat higher pass-through of 50% (75%) in the short run and about 80% (100%) in the long run for advanced economies (emerging market economies) but view their results as in line with Campa and Goldberg (2005), given the confidence intervals surrounding their estimations.

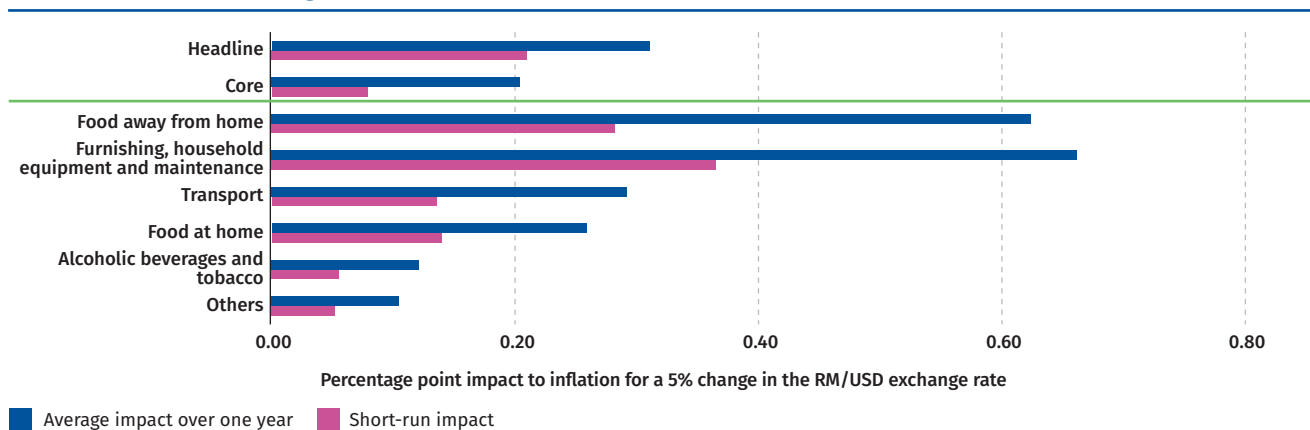
⁵¹ Results are fairly similar for ERPT to overall CPI inflation at about 0.2 percentage points and 0.3 percentage points in the short run and long run respectively.

⁵² The ERPT to CPI inflation embeds all the stages along the supply chain through which intermediate imported inputs may affect final consumer prices. For example, the ERPT to food away from home inflation would subsume the impact of higher imported poultry feed cost via higher fresh chicken prices. See Bank Negara Malaysia (2022) for related discussion on these interlinkages in the context of the transmission channels from global commodity prices.

of import price inflation,⁵³ and broadly consistent with findings on emerging market economies' ERPT to CPI inflation (Carrière-Swallow et al., 2021; Ha, Stocker, and Yilmazkuday, 2019).⁵⁴

These results, nevertheless, mainly capture average effects and may not reflect key undercurrents such as changes in ERPT over time, heterogeneous effects across CPI items (see Chart 4), and potential averaging out of effects as the exchange rate appreciates and depreciates over time. It is observed that food inflation is more sensitive to exchange rate movements, and this sensitivity has increased over time. This potentially reflects, to some extent, the lower self-sufficiency and higher import dependency ratios for selected items that cut across meat and dairy, fish and seafood, fruits, and vegetables.⁵⁵ There is also indication that ERPT tends to be higher during depreciation episodes⁵⁶ – for example, for a 5% depreciation in the RM/USD exchange rate, the one-year ERPT to core inflation rose to 0.4 percentage points (versus 0.2 percentage points on average), though the short-run impact is relatively unchanged.^{57,58} In sum, ERPT to overall CPI inflation has increased marginally over time,⁵⁹ reflecting differentiated impacts across relative prices, and tends to be higher during depreciation episodes. Nevertheless, it remains less than complete.

Chart 4: Selected CPI Categories and ERPT



Source: Bank Negara Malaysia staff estimates based on quarterly data over 2006Q1-2022Q4.

⁵³ A proxy of full pass-through to CPI inflation would be (import price inflation ERPT) x (import content of consumption) which yields 0.2 percentage points and 0.5 percentage points over the short run and one year respectively. For the sub-sample of 2015Q1-2022Q4, the indicative full pass-through to CPI inflation is estimated to be about 0.5 percentage points and 1.0 percentage points in the short run and long run respectively.

⁵⁴ While not explicitly discussed in this article, ERPT analysis carried out using the NEERM yielded similar results for import price inflation and core inflation. This is not unexpected given the strong correlation between the NEERM and the RM/USD exchange rate over the sample period of 0.85.

⁵⁵ Specific items include beef, mutton, fresh milk, cuttlefish, crab, coconut, mango, and round cabbage.

⁵⁶ This likely reflects downward price rigidity. For example, a one-off firm survey that the Bank collaborated on in early 2021 to better understand price setting behaviour suggests that when costs increase, prices were more likely to increase but when costs decline, prices were less likely to decline.

⁵⁷ The asymmetry is less discernible statistically in the case of NEERM depreciation in the sample under consideration in this article, which could be due to less sharp depreciation episodes in the NEERM. However, Chart 5 in Bank Negara Malaysia (2015) provides a visual depiction of the asymmetric relationship between the NEERM and inflation.

⁵⁸ Asymmetric ERPT has been found in the literature for both advanced and emerging market economies, whereby depreciations may generate larger reactions than appreciations. See, for example, Caselli and Roitman (2019), and Ha, Stocker, and Yilmazkuday (2019).

⁵⁹ Sub-sample analysis for 2015Q1-2022Q4 suggests ERPT to overall CPI inflation of about 0.3 percentage points and 0.5 percentage points in the short run and long run respectively.

Current context: Extent of ERPT contained by administered prices and overall stabilising cost pressures

Given the above, the recent RM/USD exchange rate depreciation does have some impact on CPI inflation. This includes increases in salient prices⁶⁰ namely for food-related items which affect Malaysia's inflation through spillovers from exchange rate-sensitive food-related goods to food-related services, via the input cost channel. For example, higher prices of food goods, either directly or indirectly affected by the exchange rate, would raise the production cost for food service providers. This in turn would lead to higher selling prices. This propagation channel could be exacerbated when demand conditions are improving. In 2022, price pressures were particularly evident in food-related goods and services, which contributed to around half of overall headline inflation. Rising food inflation heightens cost-of-living concerns, as food items make up a larger share of the consumption basket for vulnerable groups. This in turn could shift inflation expectations and lead to higher wage demands which would then potentially set off spillovers to the prices of other goods and services.⁶¹

It is important to highlight that domestic price controls and subsidies have partly dampened the overall sensitivity of prices to exchange rate movements, especially in terms of retail fuel prices. As salient prices, these could have had a knock on to other components in the CPI basket including services inflation, if impacted by exchange rate movements. Further, industrial engagements⁶² suggest that while the depreciation of the exchange rate was a prominent factor for cost pressures in late 2022 (specifically in September and October 2022), pass-through was partial. More generally, firms have resorted to several initiatives to manage costs and price increases,⁶³ including adjusting product design, negotiations with clients and suppliers, and increasing cost efficiency. Going forward, firms' pricing behaviour will be shaped by unfolding developments surrounding both the demand and cost outlook. For the latter, the recent weakening of the US dollar, easing supply chain constraints and moderating global commodity prices would contribute towards normalisation of cost pressures. Industrial engagements in early 2023 have indicated that there was less concern on the exchange rate compared to late 2022. The exchange rate was not seen as a predominant cost factor in firms' pricing outlook. This observation was evident in both the consumer and industrial-oriented segments. Nevertheless, as conditions continue to evolve with regard to U.S. monetary policy tightening, affecting exchange rate developments, the Bank remains vigilant on how firms' pricing behaviour may change given cost and demand conditions.

Conclusion

The less than complete ERPT to CPI inflation finding for Malaysia based on empirical analysis (the lack of one to one for import price inflation, given imported content), suggests an overall moderate, rather than excessive, impact from the ringgit depreciation against the US dollar. This is generally in line with cross-country findings on ERPT. The implementation of administered prices and relatively stable firm pricing behaviour in Malaysia, also tend to limit the extent of ERPT. Nevertheless, the greater sensitivity of inflation to exchange rate depreciation for some CPI components, particularly food-related items, warrants attention. This is given the potential impact of these salient prices in propagating spillovers to other prices as well as inflation expectations, especially following improved demand conditions that facilitate the passing on of elevated costs. To the extent that cost shocks, including exchange rate shocks, have a transitory effect on CPI inflation, this allows the Bank to look through the shocks. However, when underlying inflation pressures become more persistent, this may warrant a monetary policy reaction. Consequently, it remains vital that the overall thrust of

⁶⁰ Salient price changes are defined as price changes of items that are more important for consumers, and could potentially have a larger bearing on the overall price trend (Bank for International Settlements (BIS), 2022). This could be due to their pervasive role in production chains (for example, energy prices) or their weight in consumption baskets (for example, food).

⁶¹ BIS (2022) finds, for the US, that food and beverages, and gasoline, are relatively strong exporters of price spillovers to other goods and services. For food and beverages, the spillovers, during a low inflation regime are particularly apparent for food services. However, spillovers are more strongly dispersed across sectors in a high inflation regime, amid shifting inflation expectations and wage-price feedback.

⁶² Using the Bank's Regional Economic Surveillance programme.

⁶³ This is notwithstanding sectoral price adjustments that have been undertaken throughout 2022 to address the general high-cost environment (for example, in the food and beverages sector) and to recoup lost sales during the pandemic (for example, in relation to recreation activities). Overall expected revenue and profit growth among small to mid-sized businesses have remained favourable across the four quarters of 2022 (VISTAGE-MIER, 2022).

monetary policy is pre-emptive in managing risks to both inflation and sustainable economic growth. Monetary policy remains one of the key tools in managing demand-driven inflation. Going forward, continued insights on firms' pricing behaviour regarding exchange rate movements, and more generally cost and demand conditions will be critical in understanding how imported inflation affects overall inflation dynamics.

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Monetary policy was recalibrated amid firmer domestic economic recovery

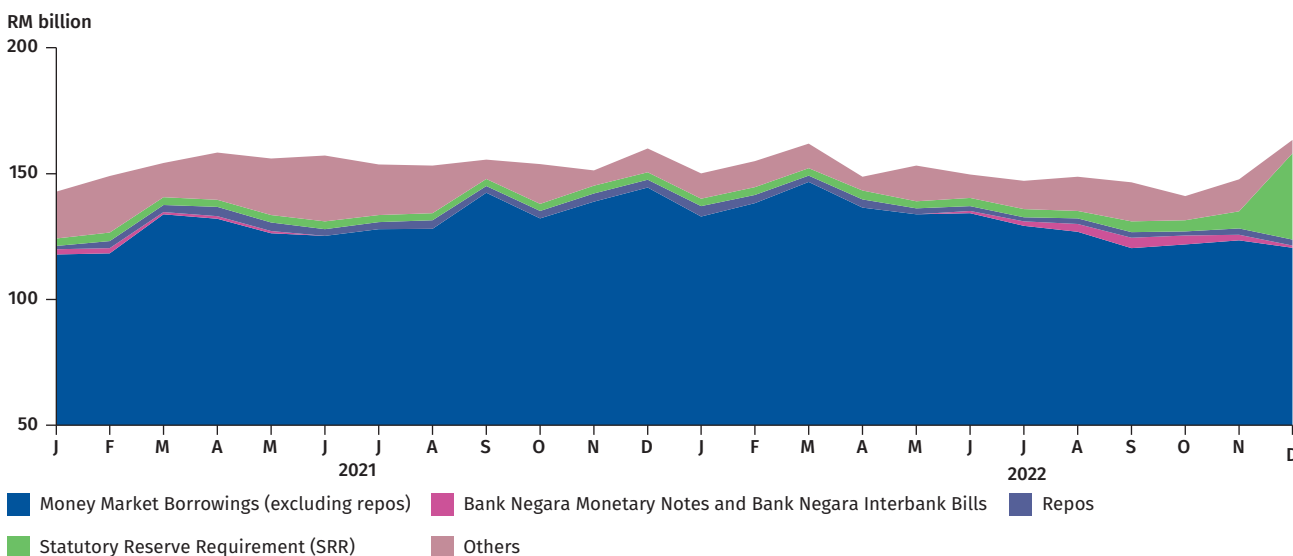
During the year, the OPR was raised from a historical low of 1.75% by 100 basis points to 2.75% through a series of four consecutive adjustments beginning in May 2022. This recalibration of the OPR, which continued to focus on balancing the risks to domestic inflation and sustainable growth, was warranted as the unprecedented conditions experienced during the height of the pandemic have since abated.

The MPC began adjusting the degree of monetary accommodation against the backdrop of a firmer domestic economic recovery. This was reflected in the better labour market conditions and stronger domestic demand, especially following the transition to endemicity in the second quarter. The improvements in domestic demand partly contributed towards inflationary pressures in a higher cost environment, amid elevated commodity prices and persistent supply chain disruptions. Global developments, such as the military conflict in Ukraine, strict containment measures in China and aggressive monetary policy adjustments by other central banks also induced further uncertainties in the global environment. Given these considerations, the MPC undertook a gradual and measured

approach towards adjusting the monetary policy settings through 25-basis point increments beginning in May 2022. This ensured that the recalibration of monetary policy did not weigh on the recovery while also enabling the Bank to pre-emptively manage the risk of excessive demand on price pressures.

Domestic monetary and financing conditions remained conducive, with limited adverse spillovers from external developments and tighter financial conditions globally, on account of resilience in the domestic banking system and orderly adjustments in the capital markets. The Bank's monetary operations continued to focus on ensuring sufficient liquidity to support financial intermediation. These operations were conducted through various instruments, including reverse repos, the outright purchase of Government securities and foreign exchange swaps to ensure orderly market conditions. Following the higher liquidity injection operations, the level of outstanding liquidity placed with BNM increased towards year end, after declining throughout most of the year. At the system level, aggregate outstanding liquidity placed with the Bank remained ample at RM163.4 billion (2021: RM160.1 billion) (Chart 1.20). At the institution level, most banking institutions continued to maintain surplus liquidity positions with the Bank. Adjustments to banks' liquidity positions remained orderly, even with the lapse in the Statutory Reserve Requirement (SRR) flexibility.⁶⁴

Chart 1.20: Outstanding Ringgit Liquidity Placed with Bank Negara Malaysia (at end-period)



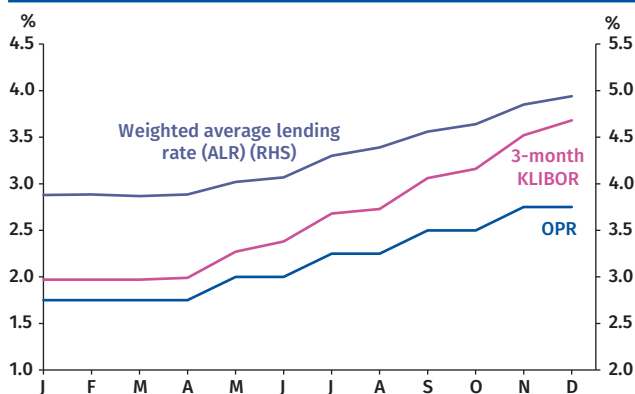
Source: Bank Negara Malaysia

⁶⁴ This refers to the flexibility accorded to banking institutions since April 2020 to recognise holdings of Malaysian Government Securities (MGS) and Malaysian Government Investment Issues (MGII) as part of the SRR compliance. The flexibility ended on 31 December 2022, with all banks able to meet their SRR compliance.

Increases in the OPR saw a smooth pass-through to money market rates, with higher Kuala Lumpur Interbank Offered Rate (KLIBOR) and interbank rates recorded across all tenures. Of note, increases in the KLIBOR exceeded the magnitude of the OPR hikes, especially at the longer tenures, mainly reflecting markets' expectations of further OPR hikes throughout the year as well as in 2023. The tighter interbank market conditions, particularly towards year end, were also caused by greater competition for funding among banks to strengthen regulatory ratios.

Similarly, higher deposit and lending rates were observed following the OPR adjustments. Nominal weighted average fixed deposit (FD) rates increased, by between 89 and 94 basis points across tenures of 1 to 12 months, as compared to end-2021. Correspondingly, real FD rates also trended upwards, although to a lesser extent, given expectations for higher inflation. Meanwhile, lending rates also increased with the repricing of new and existing floating-rate loans.⁶⁵ By the end of the year, the weighted average lending rate (ALR) on outstanding loans increased by 98 basis points as compared to end-2021 (Chart 1.21). For new borrowers, lending rates also increased for households and businesses across purposes and sectors, in line with increases in the OPR.⁶⁶

Chart 1.21: Policy, Interbank and Lending Rates (at end-period)



Source: Bank Negara Malaysia and Bloomberg

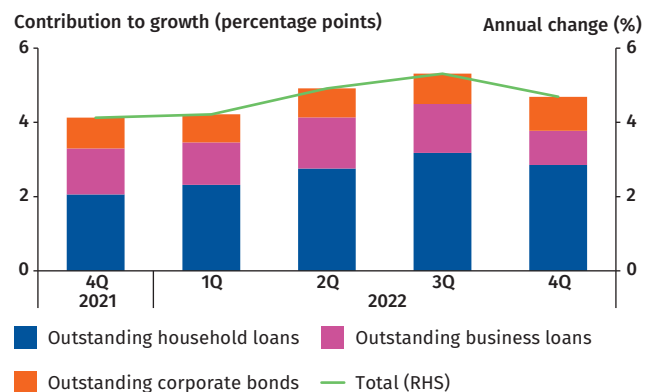
⁶⁵ As at end-December 2022, floating-rate loans account for almost 80% of total value of outstanding loans or about 50% of total number of loan accounts in the banking system.

⁶⁶ Following the 100 bps increase in the OPR, average lending rates on new loans increased by 82 bps for households and 96 bps for businesses, of which the increase was 100 bps for SMEs (data as at end-December 2022).

Continued expansion of credit to the private non-financial sector, underpinned by stronger economic recovery

Growth in credit to the private non-financial sector was strong in 2022, amid firmer recovery in economic activity. Despite some moderation towards the year end, financing activity was sustained for the most part of 2022, with credit expanding at a higher rate of 4.7% (2021: 4.1%) (Chart 1.22). This higher growth in credit to the private non-financial sector⁶⁷ was supported by higher growth in both outstanding loans⁶⁸ (2022: 4.7%; 2021: 4.1%) and corporate bonds (4.6%; 2021: 4.2%).

Chart 1.22: Credit to the Private Non-Financial Sector



Source: Bank Negara Malaysia

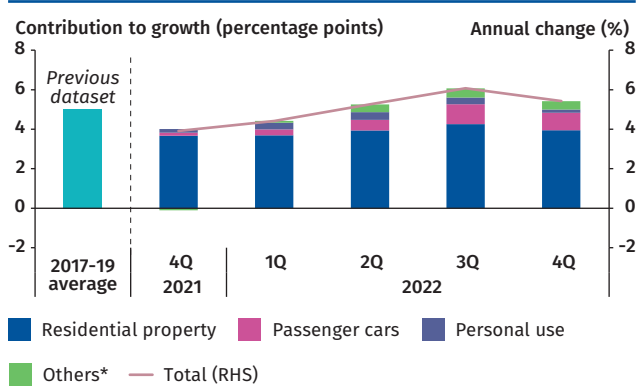
The household segment was a key driver of loan growth, with outstanding household loans growing at 5.4% (2021: 3.9%; 2017-19 average: 5.0%) (Chart 1.23). This reflected the strong growth in loan disbursements (22.0%; 2021: 3.9%), especially for the purchases of houses and cars, in line with the

⁶⁷ Starting with the publication of the December 2022 Monthly Highlights (in January 2023), credit to the private non-financial sector was introduced to enhance the quality of data on financing channelled towards the generation of domestic economic activity. This replaces the previous series on net financing to the private sector. For corporate bonds, the series now includes conventional and Islamic short-term papers in addition to longer-term bonds and sukuk, and excludes issuances by Cagamas, government, financial institutions, and non-bank financial institutions (NBFIs). Total loans now refer to the sum of outstanding business and household loans extended by banks and development financial institutions (DFIs). This series also excludes loans to financial institutions, government, non-bank financial institutions and other entities. The new data series, starting from July 2021, is available in the Monthly Highlights and Statistics Table 2.18.

⁶⁸ For the purpose of the Economic and Monetary Review 2022 publication, the figure on outstanding loans reported here under credit to the private non-financial sector also includes loans to households extended by major NBFIs. This is in addition to the sum of outstanding business and household loans extended by banks and DFIs.

improvements in labour market conditions during the year. Of note, the growth in credit demand, as measured by loan applications, was also strong throughout the year (16.8%; 2021: 11.7%) before moderating in the fourth quarter, amid the lapse of the sales tax relief on new vehicles and increases in the OPR. In addition, most households, including those exiting repayment assistance programmes, continue to be able to sustain loan repayments. The growth in loan repayments increased to 19% in 2022 (2021: 7.4%) amid the gradual lapse in repayment assistance programmes within the first half of the year.

Chart 1.23: Households - Outstanding Loans by Purpose



* Includes purchase of non-residential property, securities, credit card and others.

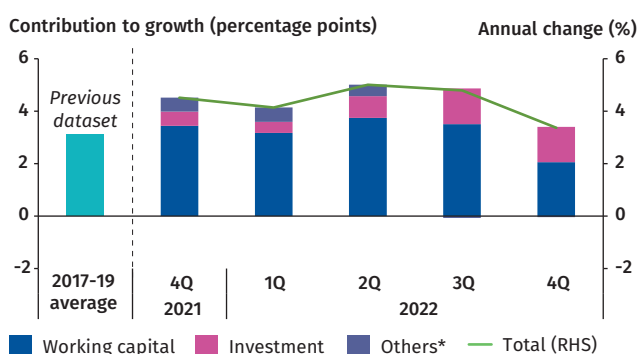
Source: Bank Negara Malaysia

For businesses, outstanding loans recorded a growth of 3.4% (2021: 4.5%; 2017-19 average: 3.1%) (Chart 1.24), supported mainly by working capital loans. While outstanding loan growth was sustained above pre-pandemic levels throughout the year, some moderation was observed towards the year end as the growth in loan repayments outpaced that of disbursements. Notwithstanding this, the level of disbursements for working capital loans remained high from the second quarter onwards, as firms continued to rely on their existing credit lines to manage cash flow in a high-cost environment. Of note, investment-related loans gradually gained momentum as the year progressed amid continuation of large infrastructure projects and resumption in

business expansion. Fundraising in the corporate bond market has also remained forthcoming, driven by issuances from large private firms and government-linked corporations (RM120 bn; 2021: RM89 bn). These have also supported large investment projects in the construction and utilities sectors.

Overall, credit conditions remained supportive of the financing needs of households and businesses as the economy fully reopened. While monetary policy has been adjusted in line with the firmer recovery prospects, targeted support remained available, particularly for viable borrowers and those in the most affected segments that may take longer to recover. Banks continued to provide repayment assistance to such borrowers, alongside various debt advisory and restructuring arrangements that remain in place. The Bank's various financing facilities were also repurposed to provide targeted support to SMEs in catalysing their recovery and growth prospects. These included credit facilities such as the Business Recapitalisation Facility (BRF), the Low Carbon Transition Facility (LCTF) as well as the High Tech & Green Facility (HTG). In addition, credit guarantees also continued to be available throughout the year to facilitate bank lending. Collectively, these measures provided continued support to banks, firms, and households in ensuring that financing conditions remained supportive of economic activity.

Chart 1.24: Businesses - Outstanding Loans by Purpose



* Includes purchase of securities, credit card and others.

Source: Bank Negara Malaysia

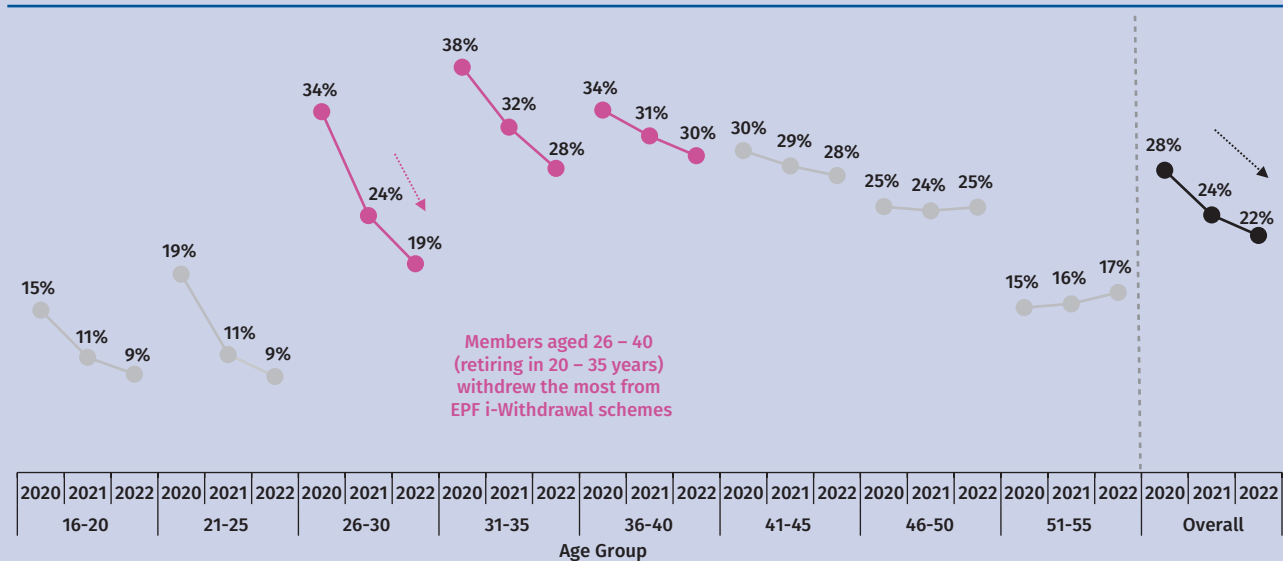
Rebuilding Retirement Savings and Financial Safety Nets in Malaysia

Introduction

Insufficient retirement savings is a critical issue around the world. It is expected to worsen in the future. The World Economic Forum (WEF) projects that global pension savings will face a shortfall of USD400 trillion by 2050.¹ This is mainly due to longer life expectancies and higher dependency ratios.² While longer life expectancies are a positive trend, a shrinking working age population adds a strain on prevailing social protection systems. Thus, individuals entering retirement may find it harder to meet their post-retirement needs.

Malaysia is also confronted with these global trends. In addition, income levels in Malaysia remain low (BNM, 2018) while household indebtedness³ is relatively high. These factors dampened the saving capacity of Malaysians. This is further aggravated by the significant informal sector in Malaysia (DOSM, 2020) as informal workers have limited access to the current social protection framework that mainly serves the formal employment sector.⁴ Furthermore, with numerous special withdrawals of retirement savings during the COVID-19 pandemic, many have prematurely eroded their old-age savings, with long-term implications on their standard of living especially amidst increasing life expectancies. Large withdrawals were made particularly by younger individuals within the age group of 26 to 40 years old. Between 2020 and 2022, the share of members in this age group who met the Employees Provident Fund's (EPF) definition of Basic Savings⁵ declined the most (Chart 1). The median withdrawal amount for this age group amounted to RM16,400. This implied foregone savings ranging from RM24,000 to RM94,000⁶ or equivalent to 10% to 39% of current Basic Savings when they retire at the age of 60.⁷

Chart 1: Share of Members with Savings Exceeding the Basic Savings⁸



Source: BNM estimates, EPF

¹ World Economic Forum (2017). We'll Live to 100 – How Can We Afford It?

² The dependency ratio refers to the ratio of the population who are not of working age (younger than 15 or older than 64) compared to those who are (15 to 64 years old). A higher dependency ratio means a country has more 'dependents' (those in retirement or below working age) relative to those in the workforce.

³ Malaysia's household debt-to-GDP ratio is among the highest in the region at 89.0% as at December 2021. This ratio stands at 89.3% in Thailand, 69.7% in Singapore, 17.2% in Indonesia (as at September 2021). Source: National authorities.

⁴ Formal employment generally refers to employment which is subject to national legislation and income taxation (usually under an incorporated enterprise) with access to social protection and employment benefits.

⁵ Basic Savings refers to the minimum amount of savings to cover basic retirement needs for 20 years, from the age of 55 to the age of 75 in line with the life expectancy of Malaysians. It currently stands at RM240,000.

⁶ Estimates are based on internal assumptions by Bank Negara Malaysia.

⁷ This is calculated based on Basic Savings as last updated in February 2019 (RM240,000). However, the threshold for Basic Savings will increase in the future, as it is revised periodically by EPF.

⁸ Data for the month of April for each year.

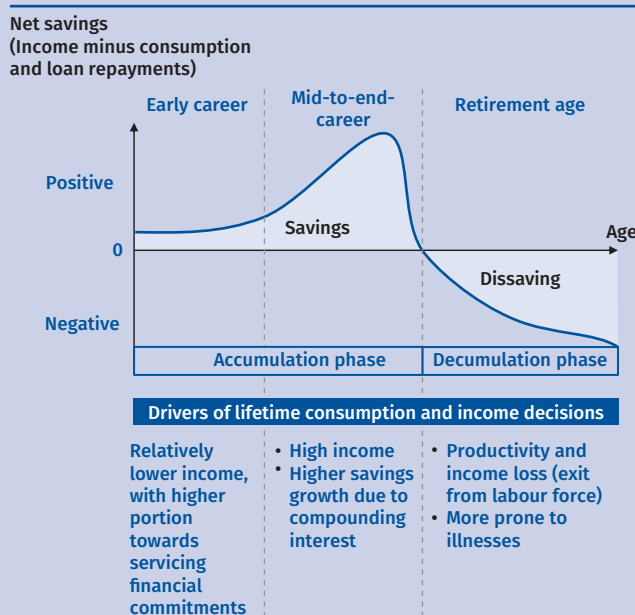
The unprecedented scale and impact of the COVID-19 pandemic have stretched the limits of the current social protection systems in many countries, including Malaysia, necessitating ad-hoc fiscal support to supplement them. This underscores the urgent need for critical policy interventions to ensure Malaysians will be protected adequately during retirement age without overburdening fiscal coffers or significantly increasing personal contribution rates at the expense of current disposable incomes. This article focuses on the need to rebuild retirement savings as part of the social insurance and overall social protection system.⁹ It also examines the current state of the Malaysian retirement saving framework and discusses several shorter-term priorities that can help advance the design of a more effective social insurance system for Malaysia.

This article mainly deals with retirement savings under a defined contribution scheme, which is what most Malaysian workers rely on (e.g., EPF contribution scheme). Defined contribution schemes specify what employers and employees must contribute to the employee’s individual retirement savings account. This contrasts with defined benefit schemes (e.g., Skim Pencen Penjawat Awam), which specify the amount of retirement pension an employee will receive, based on average or final attained salaries, with employers fully financing the pension payments. In Malaysia, the issues faced by those under the defined contribution scheme are unique and were exacerbated during the pandemic. Although defined benefit schemes face their own set of risks and issues such as insufficiency of monthly pensions and fiscal sustainability, these issues deserve their own separate analysis.

Global Landscape of Retirement Savings Systems

Conceptually, an individual’s retirement savings lifecycle can be divided into the accumulation and decumulation phases (Mitchel & Moore, 1997). During an individual’s working age (the accumulation stage), income typically exceeds consumption allowing for a net positive accrual of savings (Diagram 1). As the individual retires or exits the labour force, decumulation of savings would be necessary given the lack of income relative to consumption. However, during an individual’s working years, they may be subject to various predicaments such as unemployment, health, and disability risks that affect the accumulation of savings. Upon retirement, health and disability risks persist, while longer lifespans heighten the exposure of the elderly to the risk of

Diagram 1: Stylised Path of Savings Across An Individual Lifecycle



Source: Mitchel and Moore (1997)

⁹ Social protection, broadly, includes all public policies designed to provide protection for individuals against economic and social distress. There are three types of policies that fall under social protection, namely, social safety nets, social insurance, and active labour market policies (ALMPs). For further discussion, please refer to the box article “A Vision for Social Protection in Malaysia” in the 2020 BNM Economic and Monetary Review.

insufficient savings. Participation in a social insurance mechanism mitigates these risks in both the working and post-retirement years. For example, unemployment insurance programmes provide income replacement for participants who lost their jobs, reducing the need to tap into their savings in the event of a shock.

The setup of a country's pension system plays a significant role in ensuring sufficient savings accumulation during working age for use upon retirement. Globally, countries have adopted pension systems that vary in their design, though they can be clustered into four main types namely the proprietary, modified, post-colonial, and modern systems. These systems differ in their coverage, contributory arrangement, and funding (Table 1).

The **proprietary system** provides extensive government-financed assistance to the old-age population through a pay-as-you-go (PAYG) pension system with a wide coverage of the labour force, thus requiring significant fiscal outlay. PAYG, which relies on tax revenue from current workers to finance pensions for the old-age population at a point in time, is a key feature of the long-standing pension framework in Germany and France. **The modified system** was introduced to reduce the reliance on fiscal coffers to finance the pension system, forming the basis of the US and UK pension systems. Government-financed pensions in this system are typically intended to provide a minimum level of protection financed primarily via a general payroll or social security tax. Within this system, private pension schemes play a significant role in the accumulation of retirement savings, whereby the government sets up the legal landscape (e.g. mandatory enrolment requirement) and introduces incentives (e.g. matching contribution). These lower the barriers towards achieving sufficient retirement savings for individuals, particularly those of lower income.¹⁰

Contrary to the first two systems that are reliant on government financing, the **post-colonial system** is designed such that the government, individuals and employers have a shared responsibility in building retirement savings. This system institutes mandatory individual savings, typically managed by provident funds, such as in Singapore and Malaysia, with a role of growing the savings through strategic investments. Finally, the

Table 1: Cross-country Comparison of Main Pension System Modalities

	Proprietary	Modified	Post-colonial	Modern
Framework	Generous state-provided pensions	Basic state pension complemented by large private pension system	Mandatory individual savings	Adequate pensions premised on a social insurance framework
Labour force coverage	Wide	Wide for basic pensions. Coverage received from private pensions depend on country-specific rules on enrolment	Mixed. Pension coverage depends on the segment of the labour force (e.g., formal vs informal employment)	Typically wide ¹¹ but mixed in some countries
Contribution system	Defined benefit and defined contribution	Defined contribution for private sector		Defined contribution
Funding/Financing	Pay-as-you-go (PAYG) system with high reliance on fiscal coffers	PAYG system, whereby financing for basic pensions is earmarked from social security contributions from payroll taxes ¹²	Individually funded, whereby retirement incomes are funded by investing contributions in capital markets	Combination of PAYG and individually funded; Smaller reliance on fiscal coffers as pension benefits adjusts to economic growth and life expectancy
Country examples	France, Germany	US, UK	Asia, Latin Americas	Sweden, China

Source: Adapted from Grunewald (2022); Lu et al. (2019); Palmer (2022); Amaglobeli et al. (2019)

¹⁰ A recent example of incentives used in this context includes the matching contributions for low-income savers under the Secure 2.0 Act which was passed into law in the US in December 2022.

¹¹ For example, in China, pension coverage differs by geographic areas to account for the different labour force structures in urban and rural areas.

¹² Payroll taxes are taxes levied on incomes that are typically used to finance existing social security programmes such as unemployment and healthcare programmes.

modern systems combines features of PAYG and individual contributions, making it more actuarially complex. Higher contribution rates are typically required and pension benefits are linked to economic growth and life expectancy (International Federation of Pension Funds Administrators, 2021). It is a relatively new system which retains the universality of pensions under the proprietary system, but offers greater sustainability. However, the reliance on actuarial complexity means that it is currently practised in only a few countries namely Sweden and China.

For private sector workers, Malaysia's existing pension system is more closely aligned to the post-colonial system. Primarily, these workers fall under a defined contribution scheme (i.e., EPF retirement savings). Compared to a universal basic pension that uses government financing to ensure coverage for every citizen, the post-colonial system adopted by Malaysia reduces fiscal cost by distributing responsibility among employees, employers, and the government.¹³ However, its coverage of a minimum level of social protection would not be as extensive as a universal basic pension. Against this backdrop, private sector workers are therefore more vulnerable due to insufficient retirement savings accumulation.

Assessing Malaysia's Current Retirement Saving Framework Within the Wider Pension System

The effectiveness of a pension system can be assessed in terms of both its breadth and depth. Firstly, breadth assesses the extent to which a pension system provides different forms of support for the elderly. This is important as vulnerabilities at old-age and the corresponding policy intervention needed may vary from one person to another. For example, if the pension framework is solely based on drawing down savings through contributory schemes, low income and informal sector workers would be at greater risk of falling into poverty upon retirement. Additional layers of support are necessary to cater for the wide-ranging needs of the old-age population. Hence, the assessment of breadth is often guided by the World Bank's multi-pillar pension system framework, comprising five forms of intervention, each with distinct but complementary objectives. (Table 2).

The first pillar is **Pillar 0** which provides a basic level of old-age income security to elderly individuals, typically with the objective of alleviating poverty. This is often financed fully by fiscal coffers and disbursed through government transfers (e.g., cash handouts). Therefore, for Pillar 0 policies, fiscal sustainability is an important policy design consideration in terms of assistance amount and eligibility. In the earlier example, a sufficient Pillar 0 would ensure low-income and informal sector workers would have a safety net to land on should they have insufficient retirement savings. **Pillar 1** policies go further than Pillar 0 policies as they provide a basic income replacement for the elderly. These are often financed on a PAYG basis, meaning that current workers' contributions finance current retirees' pensions. An example of a Pillar 1 policy is the 'State Pension' provided in the United Kingdom. This pension is financed by National Insurance contributions from current workers and disbursements are based on an individual's past contributions. Pensions for civil servants in Malaysia, which is a form of defined benefit scheme, are typically classified under Pillar 1 (i.e., Skim Pencen Sektor Awam in Malaysia). While also acting as an income replacement mechanism, **Pillar 2** policies are, however, funded by an individual's own income-linked mandatory contributions. These contributions are invested either by the government or through a provident fund, where withdrawals can be made at a specified age (e.g., age 55 for EPF savings in Malaysia). Next, **Pillar 3** describes policies with voluntary participation which aim to provide supplementary income to the elderly beyond the level of protection accorded by Pillars 1 and 2. Additionally, Pillar 3 policies also provide an alternative savings avenue for individuals that are excluded from the mandatory setting of Pillar 2, such as informal workers. Due to their discretionary nature, there are a wide range of schemes and funds available for contributors based on their saving goals and risk tolerance. Finally, **Pillar 4** covers a wide range of non-financial support mechanisms. These include formal support, such as healthcare, and informal support, such as family support.

¹³ While the government typically has a smaller role in financing pensions under post-colonial defined contribution schemes, they can still facilitate more adequate pensions and ensuring effectiveness. In Malaysia, for example, under i-Saraan, the Government provides a 15% matching grant for voluntary contributions to EPF made by self-employed individuals. Elsewhere, in Singapore, the government provides a monthly top-up to retirees with a CPF annuity monthly pay-out of less than SGD1300.

Different countries balance the five pillars differently depending on the pre-existing pension systems. In Malaysia, there is generally a greater reliance on retirement saving (Pillar 2) given the prominence of the post-colonial pension system for private sector workers' pensions.

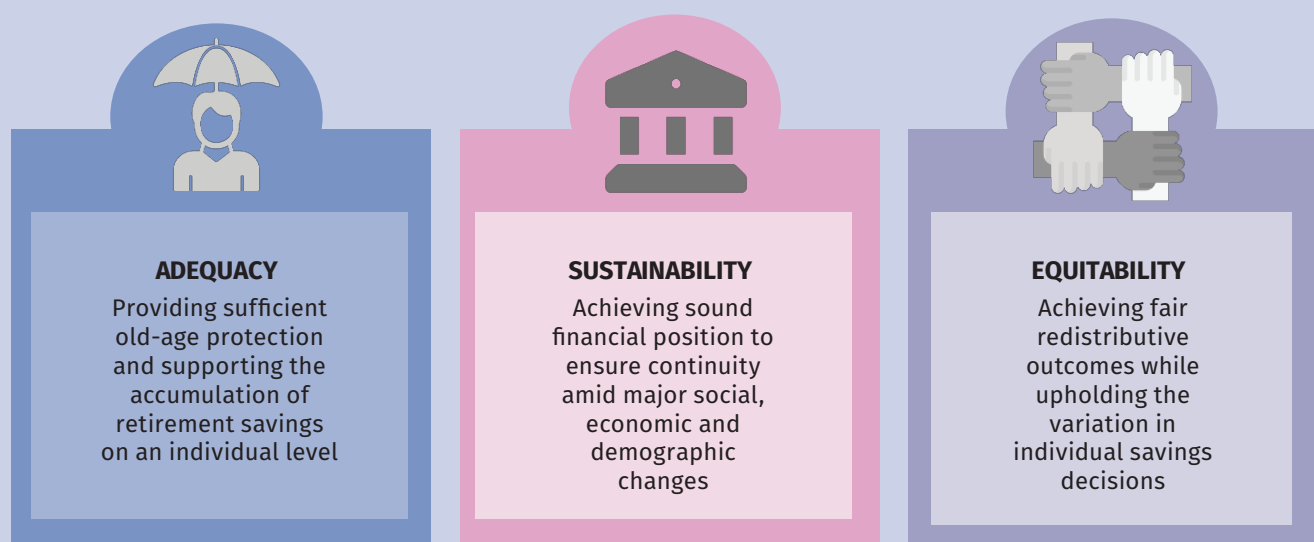
Table 2: Multi-pillar Framework for Malaysia's Pension System

	Pillar 0	Pillar 1	Pillar 2	Pillar 3	Pillar 4
Description	Fiscally-financed universal minimum level of protection	PAYG-financed universal basic income replacement (e.g., payroll tax-financed social security); Defined benefits public pensions	Defined contribution schemes for income replacement	Voluntary and discretionary schemes for additional income protection	Non-financial support in the form of informal (e.g. family support), and formal support (e.g. healthcare)
Objective	Poverty prevention	Income replacement		Supplementary income	Non-financial support
Funding/Financing	Non-contributory (tax-financed)	Mix of tax financed and contributions-based	Mandatory contributions	Voluntary contributions	Mixed
Example in Malaysia	Bantuan Warga Emas (BWE)	Skim Pencen Penjawat Awam; Payroll tax or equivalently financed social security (not applicable in Malaysia but exists in countries such as US and UK)	EPF defined contributions schemes	EPF's i-Saraan, i-Suri, private insurance e.g., deferred annuities and/or Private Retirement Schemes	Public healthcare system

Source: World Bank, Bank Negara Malaysia

Secondly, depth refers to whether a pension system's pillars and policies achieve the desired characteristics of effectiveness. This is measured against three key characteristics: (1) adequacy, (2) sustainability, as well as (3) equitability.

Diagram 2: Characteristics of An Effective Pension System



Source: World Bank, International Labour Organization

Malaysia's pension system exhibits different levels of **adequacy** across the pillars. Currently, Pillar 0, which acts as a minimum pension benchmark for private sector workers in Malaysia, is inadequate. For instance, Pillar 0 assistance provided by the Social Welfare Department through the Bantuan Warga Emas (BWE) falls below minimum acceptable standard of living levels.¹⁴ As a result of the low adequacy for Pillar 0 as well as the absence of Pillar 1 protection, private-sector retirees are at risk of a wide range of vulnerabilities if their mandated Pillar 2 retirement savings are insufficient to sustain their post-retirement living costs. This is amid the multiple special withdrawal facilities during the COVID-19 pandemic, which have reduced adequacy of Pillar 2 savings for many.¹⁵ Additionally, due to the limited affordability and accessibility of private retirement schemes¹⁶ under Pillar 3, most Malaysians are not able to access additional income protection. To some extent, Pillar 4 policies provide some support given the accessibility of universal public healthcare which mitigate health risks for the old-age population. According to the World Health Organization (WHO), Malaysia received a score of 73 in the 2017 universal health coverage service coverage index (SCI), comparable to countries such as Finland (78), France (78), and Turkey (74).¹⁷ While this is subject to risks such as high financing needs, this pillar is relatively adequate compared to other pillars.

Sustainability of the Malaysian private pension system is generally sufficient. However, this is partly attributed to the lower adequacy for Pillar 0 as mentioned above. Currently, programmes like Bantuan Warga Emas takes up a relatively small share of the Government's revenue at 0.3%.¹⁸ Sustainability is also supported by the better implementation of Pillar 2 as EPF's strong institutional capacity has resulted in a historically robust performance, even during periods of economic downturn. Going forward, voluntary retirement saving (Pillar 3) policies could be an area of focus to reduce reliance on Pillar 2. The success of Pillar 3 would rely on complementary measures to boost incomes and strengthen financial literacy for Malaysians to inculcate the habit of discretionary savings.

Equitability is generally low in Malaysia's private pension system due to the gaps in coverage. While workers currently in the formal sector are provided with more equitable protections (e.g., employment insurance) and access to Pillar 2 schemes, the increasing share of informal workers in Malaysia¹⁹ warrants several critical and urgent policy interventions. Currently, the coverage of Pillar 2 schemes is mostly confined to employees with a formal employer-employee relationship, making informal sector workers (e.g., self-employed individuals) highly vulnerable to lifecycle risks. This is compounded by the high degree of fragmentation in cash assistance programmes, which results in exclusion errors. In general, greater provisioning of the social protection floor²⁰ would ensure a more equitable pension system. This could be achieved by sustainably enhancing Pillar 0 policies. Besides increasing the amounts disbursed under Pillar 0, greater effectiveness can also be achieved by embedding elements of upward mobility that enhances one's income-earning capacity into the policy design. For example, cash transfer programmes such as the Sumbangan Tunai Rahmah²¹ can be linked to other pillars of social protection,²² such as active labour market policies (ALMPs),²³ to encourage upward mobility, enhance the beneficiaries' ability to earn higher income, and in the long-term promote greater capacity for accumulation of retirement savings.

¹⁴ Bantuan Warga Emas covers only roughly 40% of the monthly expenses for a household with one elderly couple to achieve a minimum acceptable standard of living, assuming both individuals receive the assistance (estimate based on Belanjawanku, 2019). Furthermore, compared to countries with a similar means-tested old-age assistance programmes, old-age assistance adequacy is low at only 3.7 times above the international poverty line with Chile at 4.7, Brazil at 5.9, and Argentina at 7.7 (Pension Watch Database, 2022).

¹⁵ In a 2021 press release, EPF highlighted 6.1 million members have less than RM10,000 in their EPF accounts, of which 3.6 million have less than RM1,000, as a result of the special withdrawal facilities during the pandemic.

¹⁶ In Malaysia, factors driving the cost of annuity products under private retirement schemes include low demand, high operating cost of setting up annuity funds, and high investment risk due to the lifespan uncertainty of insurance holders (Actuarial Partners Consulting, 2012).

¹⁷ The World Health Organization's (WHO) universal healthcare service coverage index (SCI) represents the average of a country's indicators in four essential health service areas: (1) reproductive, maternal, newborn, and child health, (2) infectious diseases, (3) noncommunicable diseases, and (4) service capacity and access. It scaled from 0 to 100, where a higher score corresponds with better performance. Latest available data on SCI is based on WHO's 2021 report, which updated data for the year 2017.

¹⁸ The share of old-age assistance spending to revenue is comparable to other countries at 0.4% for Thailand and 0.9% for Chile respectively. Source: National authorities and Bank Negara Malaysia estimate.

¹⁹ Between 2019 and 2021, employment in Malaysia's informal sector increased from 8.3% to 8.6% of the labour force.

²⁰ A minimum social protection encompassing access to education, healthcare, sanitation, and basic income security for all. In Malaysia, the latter could be a focus area for enhancement.

²¹ Previously known as the Bantuan Keluarga Malaysia.

²² The three pillars of social protection are social safety nets, social insurance, and active labour market policies. These three pillars are covered in more depth in the box article "A Vision for Social Protection in Malaysia" in the 2020 BNM Economic and Monetary Review.

²³ Active labour market policies (ALMPs) are generally defined as policies aimed at enhancing the income-earning capacity of workers such as upskilling and reskilling programmes, and employment placement services.

Saving Our Tomorrow: Reforms for A Better Future

Addressing issues related to retirement savings in Malaysia will take a larger timeframe as most of the impediments, such as low wages, are structural in nature. Of importance, as advocated by several multilateral agencies,²⁴ policy reforms are most effective when they are comprehensive, complementary to each other and linked with multiple pillars of social protection. In terms of sequencing, equitability-focused reforms can be the focus in the medium term, where immediate priorities should be centred on rebuilding resilience and adequacy of retirement savings in a post-pandemic landscape. The latter includes ringfencing of retirement funds and enhancements to existing old-age safety net programmes. This should be done in tandem with system enhancements to improve broader policy effectiveness and efficiency, such as enhancing productivity and unlocking the potential of social protection data. These immediate priorities will be the primary focus of this section.

Ringfencing of retirement funds to lengthen the accumulation stage in ensuring adequate savings

The risk of inadequate pensions, which is already acute, has been further exacerbated by the recent massive pre-retirement withdrawals of savings. In Malaysia, the pre-pandemic median savings for the cohort between the age group of 51 and 55 would only have lasted an additional 5 years²⁵ upon withdrawal at 55. However, following the pre-retirement withdrawals of savings since the pandemic, it has further been reduced to around 3 years. To put this into perspective, the average global life expectancies are expected to rise to above 77 by 2050 (United Nations, 2022). Based on this, an average Malaysian would be at risk of having depleted his or her retirement savings 19 years before death. This sizeable gap between the median longevity of retirement savings and life expectancy after retirement highlights the urgent need to rebuild savings buffers.

The sizeable gap between the median longevity of retirement savings and life expectancy after retirement highlights the urgent need to rebuild saving buffers, depleted by special withdrawals during the pandemic

Against this backdrop, policies to enhance savings accumulation by way of lengthening the accumulation phase needs to be urgently instituted. Based on international benchmarking, ringfencing and reinvestment offers a potential solution. This involves reinvesting a portion of savings that would otherwise have been withdrawn upon the withdrawal age, thereby extending the accumulation period.²⁶ For example, in Singapore, a portion of an individual's savings²⁷ at age of 55 are transferred to their retirement savings account, allowing it to grow for a further 10 years. In Chile, retirees are given an option to fully or partially annuitise their accumulated savings, allowing some level of continued capital growth in contrast to a lump-sum withdrawal. Both countries found success in reducing longevity risk²⁸ (Diagram 3). In Malaysia, the benefit of ringfencing will be significant, specifically for members with continuous contributions after reaching the withdrawal age at 55 years old. EPF members aged 50 to 54 years old with incomes at the B40 threshold stand to benefit up to an additional

²⁴ Both the ILO and World Bank play a critical role in galvanising pension reform advocacy in multiple countries. As of December 2022, the World Bank has 42 active pension engagement projects conducted bilaterally with participating countries, while the ILO conducts periodic pension reviews alongside facilitating the Tripartite Round Table on Pension Trends and Reforms.

²⁵ Based on EPF minimum pension assumption of RM1,000 monthly (EPF, 2021). Note: EPF contributors can make either a full or partial withdrawal from Accounts 1 and 2 at age 55.

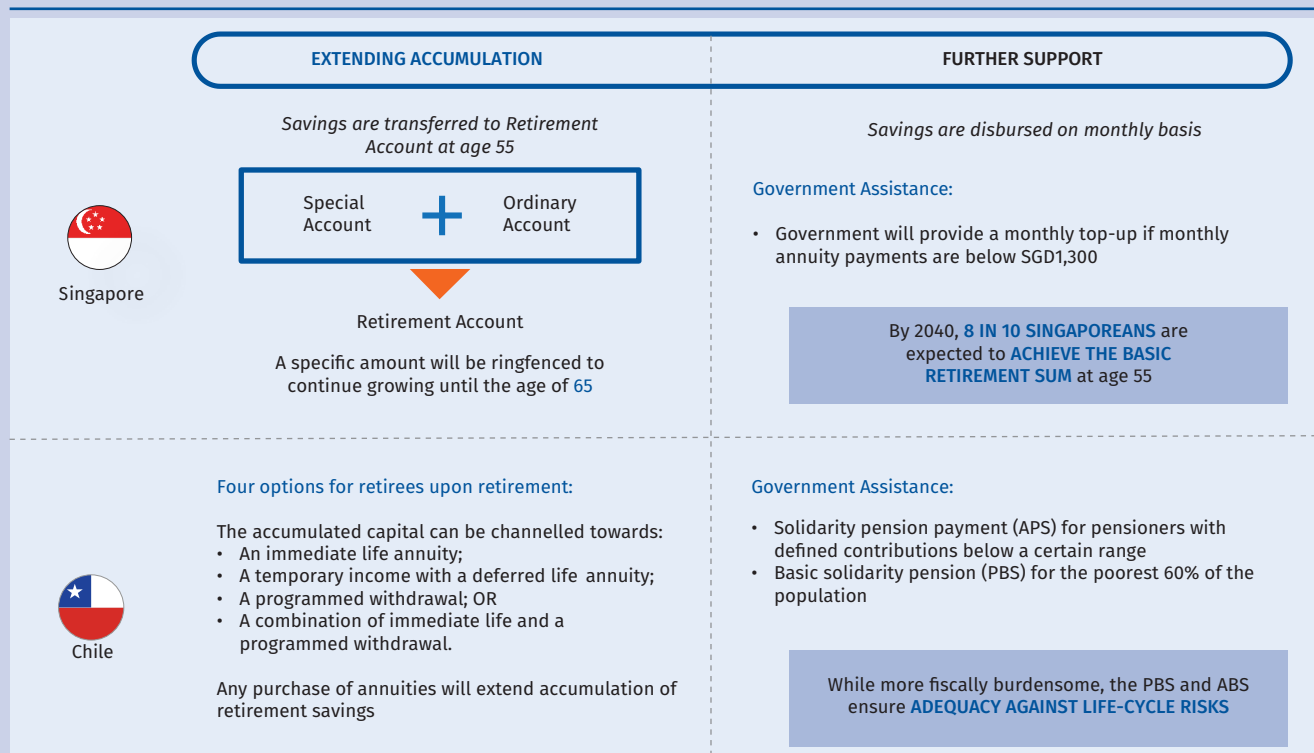
²⁶ Currently in Malaysia, Akaun Emas is available for EPF retirees who continue to make contributions after age of 55. While this is the closest product to ringfence savings, the benefit to retirement adequacy is lower as savings longevity is not materially extended.

²⁷ In Singapore, retirement savings accrue from mandatory contributions on earned wages. The statutory employee and employer contribution rates are tiered by age as follows: 20% and 17% for workers aged 55 years and below; 15% and 14.5% for workers aged between 55 and 60 years; 9.5% and 11% for workers aged between 60 and 65 years; 7% and 8.5% for workers aged between 65 and 70 years; 5% and 7.5% for workers aged 70 years and above.

²⁸ Longevity risk refers to the risk of life expectancies exceeding expectations or pricing assumptions, resulting in greater-than-anticipated cash flow needs of retirement funds.

RM36,800²⁹ more savings if they defer withdrawals of savings and continue contributing by another 5 years to age 60. This is equivalent to 16% of EPF's Basic Savings and could extend the sufficiency of accumulated savings post-retirement by an additional 3 years. This will unequivocally improve the resilience against economic and financial shocks for retirees. Enhancing savings sufficiency could also be achieved by increasing contribution rates. However, this may be more challenging as it could be impeded by structural factors such as low wages, or lead to unintended consequences such as disincentivising hiring of new workers. This policy could be explored in the future alongside income-enhancing policies and incentives for employers to match the higher contributions.

Diagram 3: Mechanism to Ringfence Retirement Savings in Singapore And Chile



Source: Central Provident Fund, Singapore; OECD (2021)

Enhancements to old-age social safety nets to ensure provision of basic needs

In ensuring basic needs of the elderly are adequately catered for, many countries have implemented policy support in the form of social safety nets. These are typically in the form of targeted cash assistance programmes which aim to provide a minimum level of protection for vulnerable old-age persons. In Malaysia, approximately 19.5% of individuals aged 60 and above receive old-age benefits (Khazanah Research Institute, 2021). As the share of old-age individuals rises (Department of Statistics Malaysia, 2016), so will the reliance on these assistance measures. Reforms should therefore prioritise to increase its adequacy and reach. Adequacy can be enhanced by ensuring that assistances are linked to standard of living measures. For example, the minimum pension for public sector employees at RM1,000 per month³⁰ could be used as a benchmark for cash assistance, similar to how it is used by EPF as the basis for Basic Savings. The reach of programmes can be widened by consolidating assistances towards a single flagship programme (e.g., Sumbangan Tunai Rahmah), thereby maximising ease of access. Importantly, enhancing sufficiency of elderly assistance could also lead to indirect benefits for current workers. This is because greater public assistance would reduce the reliance on subsistence support from their families or children, enabling them to build their own savings buffers.

²⁹ Assumes an initial savings of RM39,000. This is equivalent to the median savings balance observed post-pandemic for EPF members in the 51 to 55 years old age group earning below the B40 income threshold (Only applicable to those where income data is available).

³⁰ Currently the monthly allowance under Bantuan Warga Emas is RM500 per month for individuals aged 60 years and above in a household earning below the national poverty line (RM2,208 per month).

Tapping on old-age productivity and social mobility to enhance incomes

Labour market and social security reforms are key policy areas which contribute to sustainably enhancing post-retirement standards of living. Specifically, policies that aim to create suitable jobs for old-age persons seeking to re-enter the labour force should be considered. Malaysia's progress³¹ on this front has been relatively slow, with the labour force participation rate for individuals aged 60 to 64 stagnating at about 40% over the past two decades (Khazanah Research Institute, 2021). A cause for this low participation arises from low demand from employers for old-age workers. This results in a lack of suitable occupations and could discourage those interested from re-entering the labour force.

To this end, policies should therefore prioritise resolving market failures preventing old-age persons interested to join the labour force from obtaining suitable employment. Measures such as contract hiring incentives for greater working flexibility could be pursued. In the short-term, leveraging existing platforms such as myFutureJobs³² could be a low-hanging fruit for the purpose of old-age job matching. Additionally, enhancing interlinkages and complementarities across social protection programmes like ALMPs could serve to facilitate social mobility and enhance earnings potential throughout the accumulation phase.

Unlocking data to enhance policy effectiveness

Ensuring the availability of comprehensive social protection data should be another focus area for policy intervention, which could serve as an enabler for other reforms. Where retirement savings and financial safety nets are concerned, a key factor underlying information gaps is the high prevalence of the informal sector in the Malaysian workforce, as social security arrangements and data depend on formal employer-employee relationships. Capturing these groups within the social protection data landscape is essential to ensure policies reach their targeted recipients. As a start, automatic registration of all 18-year-olds into EPF and Social Security Organisation's (SOCSO) databases can be explored. This is in line with the Government's current pursuit of building a harmonised social protection database (Pangkalan Data Perlindungan Sosial – PDPS).³³

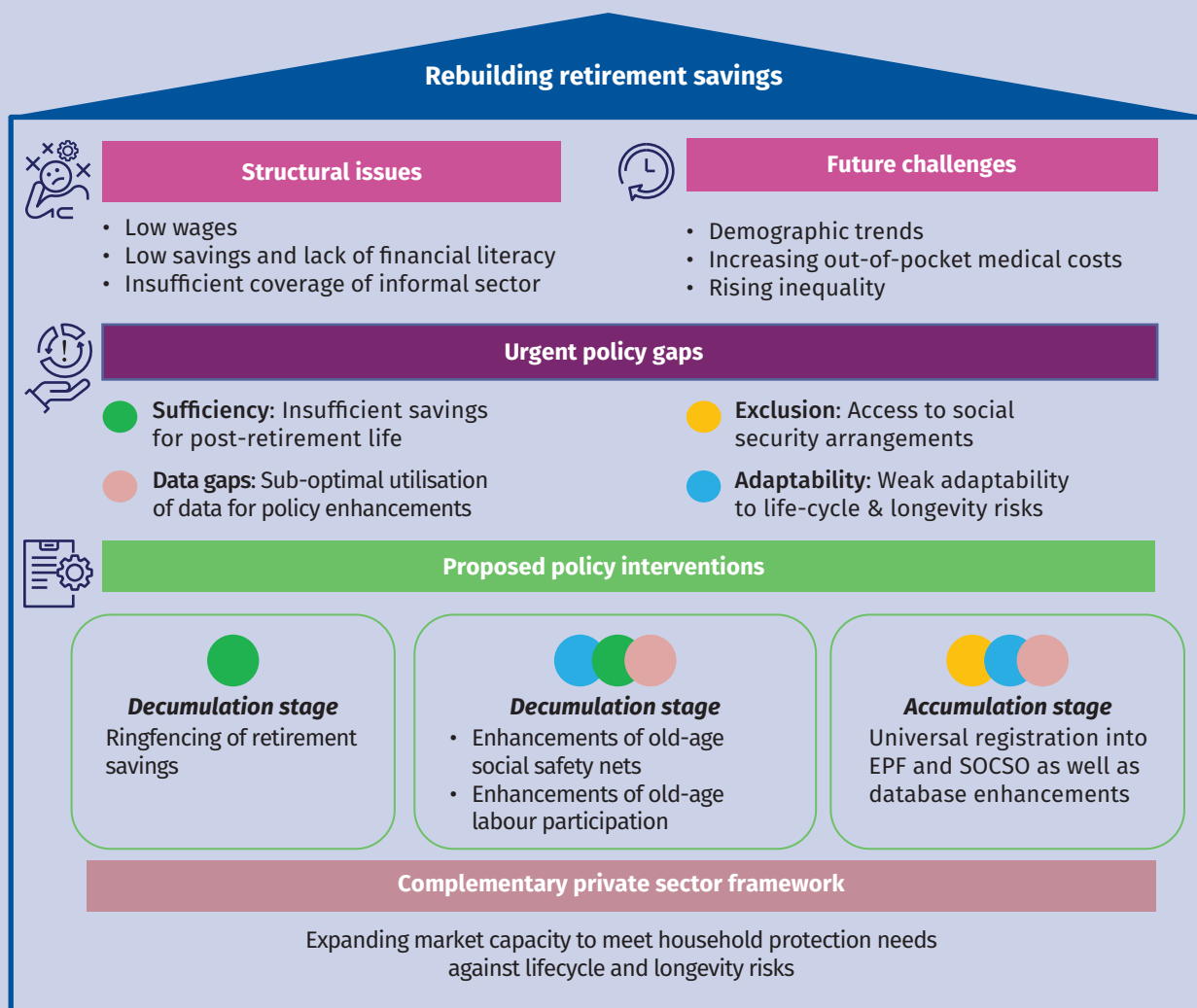
On top of reducing information gaps, more comprehensive information can also facilitate future policy interventions moving forward. For example, linkages between SOCSO and cash assistance data could allow for conditionalities on cash assistance based on participation in labour market programmes (e.g., upskilling programmes). Furthermore, the inclusion of data of all Malaysians within PDPS would enhance the targeting ability of social protection policy and minimise exclusion errors, especially among the vulnerable groups.

³¹ In comparison to Mexico and Colombia, which are countries with a similar population age structure to Malaysia, labour force participation rates among 55- to 64-year-olds in 2021 are much larger at 63.8% and 70.7%. OECD Statistics (2021).

³² MyFutureJobs is a national job-matching portal that maps individual data (e.g., work experiences, skills and education background) to existing vacancies within Malaysia. The use-case of this platform is wider as MyFutureJobs has linkages to other job-market related assistances such as wage subsidy (i.e., rolled out during COVID-19) and training and upskilling programmes.

³³ Pangkalan Data Perlindungan Sosial (PDPS) is a centralised social protection database managed by the Implementation Coordination Unit (ICU).

Diagram 4: Retirement Savings Issues And Proposed Policies



Source: Bank Negara Malaysia

Conclusion

Reforms of old-age protection system is a broad and highly complex policy challenge for Malaysia. Notwithstanding, shorter-term policies to boost policy effectiveness and facilitate retirement savings accumulation discussed in this article, are crucial, urgent, and implementable. This would also pave the way for other reforms in reducing labour market frictions, solidifying fiscal sustainability which includes reforms in public revenue and expenditure, and enhancing the overall social protection framework. It is worth emphasising that these enhancements are no substitute for necessary long-term economic reforms that can raise current income levels. A labour market underpinned by robust productivity and high financial literacy are vital complements for a better pension system. Therefore, enhancements over both short- and long-term horizons are needed concurrently to ensure continued strengthening of the economy, supported by an effective social protection system.

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