Suruhanjaya Sekuriti
Securities Commission
Malaysia

CAPITAL MARKET STABILITY REVIEW 2023

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CONTENTS

PREAMBLE

The Securities Commission Malaysia (SC) is mandated to take all reasonable measures to monitor, mitigate and manage systemic risks arising from the capital market.

This *Capital Market Systemic Stability Review 2023* outlines overall risk assessments on various components of the Malaysian capital market from 1 January to 31 December 2023 and discusses the relevant systemic risk drivers. The report also covers three thematic risk analyses on specific components of the capital market: stress test on funds; investor trends in Malaysia; and sustainability risk assessment of Malaysian public-listed companies (PLCs).

KEY HIGHLIGHTS

In 2023, the Malaysian capital market was mainly influenced by external developments including the global banking turmoil, uncertainty around interest rate hikes in the United States (US), geopolitical tensions and contagion risk surrounding China's economic condition, among other events.

During the period under review, there were no systemic risk concerns in the domestic capital market, and it remained resilient and orderly. The SC will continue to monitor capital market related developments, in order to mitigate any potential risk that may arise.

EQUITY MARKET AND INFRASTRUCTURE

FBMKLCI improved despite concluding the year with a decline of -2.73% (2022: -4.60%), primarily driven by more stable market sentiment.

MARKET RISK management mechanisms were in place and there was no circuit breaker triggered in 2023.

DIGITAL ASSETS

TRADING ACTIVITY in the local digital asset exchanges (DAXs) has declined with average daily trading value recorded at RM14.88 million in 2023 (2022: RM25.73 million), although traded assets recorded positive performance.

DIGITAL ASSETS VALUE TRADED remained small at 0.97% compared to the domestic equity market in 2023, limiting its systemic impact to the domestic market.

BOND MARKET

MALAYSIAN GOVERNMENT SECURITIES (MGS) YIELDS' movements were volatile in 2023, driven by uncertainty surrounding the US Federal Reserve's (Fed) monetary policy.

DEFAULT RATE of corporate bonds and sukuk was low at 0.02% (2022: 0.18%). This was against a backdrop of a monetary policy stance that is accommodative and supportive of the economy.

INVESTMENT FLOWS

FOREIGN HOLDINGS in equities declined to 19.54% (2022: 20.59%) while foreign holdings in bonds increased marginally to 13.45% (2022: 13.19%).

FOREIGN SOURCE OF FUNDS remained relatively small in the fund management segment at 3.73% (2022: 3.29%).

FOREIGN INVESTORS' PARTICIPATION have consistently made up one-fifth of the market over the past five years. In 2023, the net selling of equities by foreign investors was supported by local institutional investors who were net buyers.

INVESTMENT MANAGEMENT

ASSETS UNDER MANAGEMENT (AUM) OF FUND MANAGEMENT AND NET ASSET VALUE (NAV) OF UNIT TRUST FUNDS (UTFs) recorded increases of 7.61% and 2.45% respectively from December 2022.

AUM ALLOCATION in foreign assets increased to RM329.29 billion (2022: RM281.59 billion) driven by higher allocation in equities and money market placements. Similarly, AUM allocation in local assets increased to RM646.19 billion (2022: RM624.87 billion) driven by higher allocation in fixed income securities and UTFs.

STRESS TEST RESULTS affirmed the resilience of investment funds to overcome potential redemption shocks, amid deteriorating asset prices. This was despite liquidating an aggregate 44.58% of NAV under the extreme redemption scenario.

STOCKBROKING INTERMEDIARIES

STOCKBROKERS AND INVESTMENT BANKS remained resilient with stockbrokers' average capital adequacy ratio (CAR) at 11.53 times (2022: 13.47 times), while the investment banks' average risk-weighted capital ratio (RWCR) was at 34.10% (2022: 38.76%), maintaining above the minimum requirements as of December 2023.

PUBLIC-LISTED COMPANIES

MALAYSIAN PLCs showed earnings improvement in 2023, mainly contributed by the transport (+456.67%), financial services (+12.11%) and consumer services and retail (+121.48%) sectors.

RISK OUTLOOK

In 2023, advanced and emerging economies alike faced a higher-for-longer interest rate environment. Tighter monetary policy which was necessary to bring inflation down in major economies has resulted in an economic slowdown globally. The International Monetary Fund (IMF) expects global economic growth for 2024 to stay at 3.1%, which remains well below the historical average.[1]

In 2024, numerous countries worldwide are anticipated to hold national elections, affecting nearly half of the global populace. These outcomes could influence policy trajectories and subsequently affect market sentiment, which could have an impact on Malaysia.

Global financial markets, particularly the capital market, are expected to face several risks and vulnerabilities in the coming year amid further complexities caused by the ongoing geopolitical tensions and challenging fundamentals in China. Likewise, the Malaysian capital market would experience similar risks and vulnerabilities. The notable areas that would be more relevant to the Malaysian capital market in 2024 are as follows:

TIGHTENING MONETARY POLICY

The rigidity between recession risks and monetary policy uncertainty may lead to adverse growth, while premature reassessments of policy expectations could cause spillover effects on Malaysia.

Despite a single rate hike by Bank Negara Malaysia (BNM) in 2023, higher funding costs could further exacerbate liquidity strains and intensify debt serviceability concerns, particularly for PLCs, thus slowing down growth.

Compounding pressures may impact asset quality in the domestic market and emerging markets (EMs) alike thus pushing global investors who are seeking stability in risk profile and growth to favour developed markets.

RESILIENCE AND ATTRACTIVENESS OF DOMESTIC CAPITAL MARKET

In 2023, the Malaysian capital market continued to remain resilient despite the global challenges and uncertainties. However, it exhibited lagged recovery since 2019[2] while the bulk of the trading activities were mostly concentrated on small cap counters particularly driven by retail investors.

Foreign investors continue paring down their holdings and participation in the component stocks as their preferences are in other EMs which offer opportunities in terms of exposure to new economy and market depth.[3] The exchange rate will continue to influence the attractiveness of the domestic capital market.

Liquidity strain as evidenced by the decreasing trading value and volume could potentially result in further widening of bid-ask spreads for stocks.

[1] World Economic Outlook by IMF January 2024.
[2] The percentage change for FBMKLCI in 2023 was -2.73%.
[3] Foreign holdings of Malaysian equities stood at 19.54% in 2023, lower than its 5Y average.

TIGHTENING MONETARY POLICY *(Continued)*

Any possible easing of monetary policies in 2024 could see an increase in investment flows to EMs, including Malaysia.

RESILIENCE AND ATTRACTIVENESS OF DOMESTIC CAPITAL MARKET *(Continued)*

A new tapestry of actions and innovations is essential to enhance the attractiveness of the capital market, particularly the equity market. Medium and long-term co-ordinated measures should be implemented to stimulate trading activities and drive new listings.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE TRANSITION RISK IS IMMINENT

With a phased implementation approach, Bursa Malaysia's enhanced sustainability reporting requirements for the Main Market and ACE Market will result in all Main Market issuers reporting Task Force on Climate-Related Financial Disclosures (TCFD)-aligned disclosures come 2025.

Delays in transition journey by PLCs may create unnecessary loss of opportunities as environmental, social and governance (ESG)-related measures and policies are gradually being implemented globally. Companies that are not moving in line with this would be deemed as unattractive by the investors.[4]

Inconsistencies in ESG rating providers' methodologies in measuring risk or impact could lead to confusion in investment decision-making. It is imperative for investors and market participants to pay closer attention to the methodologies underpinning these ratings or data products.[5]

INNOVATION AND TECHNOLOGY

The increasing trend in utilising innovations and technologies, including outsourcing to third-party providers and employing data-driven tools like generative artificial intelligence (GAI), machine learning (ML), internet of things (IoT) devices, and autonomous technologies, have not only facilitated innovation and data analytics, however, it has also increased interconnectedness within the financial system, particularly within the banking system and the capital market.

Improving understanding of third-party relationships, including dominant service providers, is crucial for ensuring stability and security of the overall capital market. Vigilant monitoring is required as continuous evolution of artificial intelligence could give rise to novel approaches to scams and fraudulent activities.

The International Organization of Securities Commissions (IOSCO)[6] has highlighted that, while technology adoption can bring significant efficiencies and benefits to capital market intermediaries and investors, it may also amplify certain risks that could potentially impact market effectiveness. It is essential for capital market intermediaries to establish effective risk management and governance measures.

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4 For example, businesses that deal with European counterparts will be impacted by the implementation of the EU's Carbon Border Adjustment Mechanism starting 2026, given that many European multinational companies have expressed intentions to remove suppliers who do not meet their carbon transition goal by 2025.

5 Final Report: Environmental, Social and Governance (ESG) Ratings and Data Products Providers, IOSCO, 2021.

6 Final Report: The use of artificial intelligence and machine learning by market intermediaries and asset managers, IOSCO, 2019.

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RISK ASSESSMENTS ON COMPONENTS OF THE CAPITAL MARKET

EQUITY MARKET AND INFRASTRUCTURE

In 2023, global equity market volatility was predominantly influenced by multiple interest rate hikes by the Fed in response to the persistent inflation in the US. The heightened uncertainties were further compounded by a banking crisis in developed markets in March 2023, including the failure of Silicon Valley Bank (SVB) and Signature Bank. This event sparked contagion worries, forcing investors to flee banking sector stocks. The worries eventually receded after the potential economic effects of the banking crisis were deemed limited.

Global volatility continued to ease as volatility gauges fell to their pre-pandemic levels mainly because investors were comforted by the sound economic data in the US including the country's cooling inflation. This has prompted the Fed to signal multiple interest rate cuts in 2024 during its December Federal Open Market Committee meeting.

The domestic market experienced foreign outflows in the first half of the year due to the Fed's monetary policy tightening. However, stock indices gradually improved, concluding 2023 in recovery mode, primarily driven by a more stable market sentiment partly fuelled by the potential peak in interest rate cycles set by global central banks.

Domestic factors, including the resilience of the Malaysian economy, ongoing strategic initiatives, and promising foreign direct investment inflows, also played a role in shoring up investors' confidence. While the FBMKLCI recorded a yearly decline of -2.73% (2022: -4.60%) (Chart 1) to close at 1,454.66 points on 29 December 2023, FBM Small Cap soared and recorded a gain of 9.57% as investors shifted their buying interest to small-cap stocks.

The average daily trading volume and value increased to 3.55 billion units (2022: 3.00 billion units) and RM2.29 billion (2022: RM2.18 billion) respectively (Chart 2).

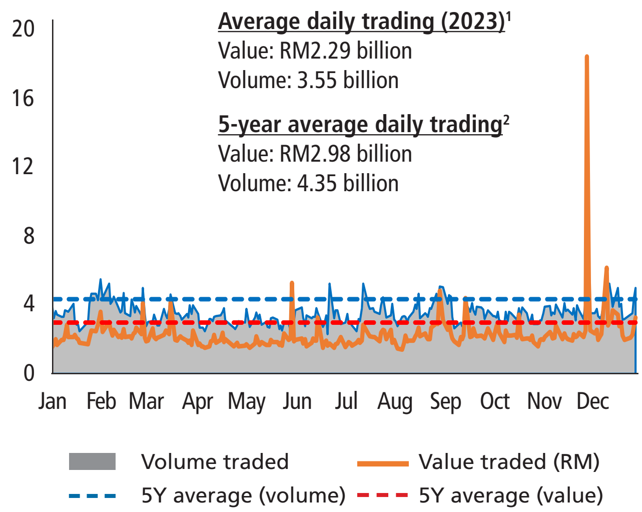
Despite the various external factors, according to the Bloomberg's Composite Valuation Score, Malaysia ranked higher in comparison to most tracked emerging markets (Chart 3) driven by the expectation of improved general macroeconomic growth, including robust gross domestic product (GDP) growth, a firmer ringgit, and higher foreign direct investments.

Essential market risk management mechanisms were in place to manage excessive market volatility. There was no circuit breaker triggered in 2023.

CHART 1
Equity market performance

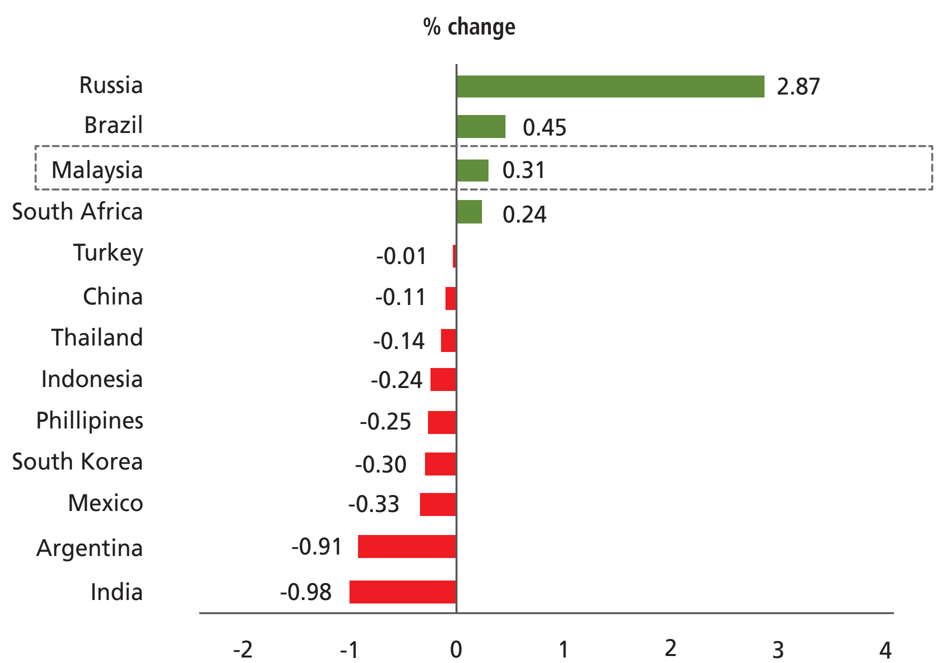
Source: Bloomberg.

CHART 2
Average daily trading



Source: The SC.

CHART 3
Emerging Markets – Composite Valuation Score[3]



Source: Bloomberg.

[1] There was a significant increase in total trading value and volume on 29 November primarily due to direct business transactions in telecommunications and media sector.
[2] A five-year average covering average daily trading between 2018 and 2022.
[3] Composite valuation score comprises equally weighted price-to-book ratio, price-to-earnings ratio and dividend yield.

BOND MARKET

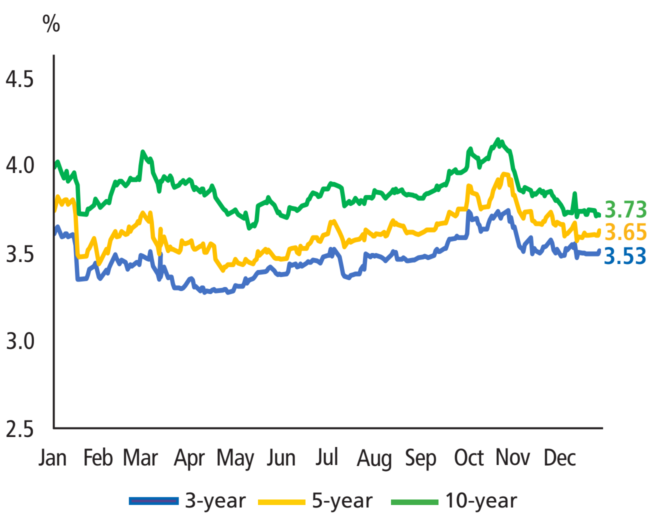
Global bond market volatility heightened in March 2023 following the global banking turmoil caused by the collapse of SVB and Signature Bank in the US, and the emergency takeover of Credit Suisse. The volatility eased towards the end of 1H 2023 as the Fed paused its aggressive campaign to bring down inflation and left the interest rate unchanged at its June meeting, after 15 months of consecutive increases. However, in the second half of 2023, volatility increased when the yield on the US Treasury briefly surpassed 5% in October before easing again towards the year's end. In total, the Fed raised its interest rate four times in 2023, before maintaining it at 5.25% to 5.50% towards the end of December.

Domestically, BNM at its Monetary Policy Committee (MPC) meeting on 2 November 2023 stated that current monetary policy stance remains supportive of the economy and is consistent with the current assessment of the inflation and growth prospects. The central bank's focus has now shifted to ensuring stable economic growth in the face of external risks such as the resumption of the Fed's interest rate hike and China's credit contagion effects. The current OPR is 3.00% and BNM has only raised the OPR once in 2023 (May: 2.75% to 3.00%).

The MGS yields trended upwards beginning May 2023, tracking the US Treasury yields after Fed officials indicated that further tightening is likely, albeit at a slower pace (Chart 1). After a brief pause in monetary policy tightening by the Fed, the MGS yields increased in September, pressured by a weaker ringgit and the Fed's higher-for-longer interest rate path. Nonetheless, the yields started to decline towards the end of the year after US consumer price index (CPI) growth eased more than expected, showing additional signs of cooling price pressure. Meanwhile, the performance of the J.P. Morgan global aggregate bond and emerging market bond indices (Chart 2) continued to improve, in line with the decline in US Treasury yields. Malaysian bonds are expected to benefit from the increasing likelihood that major central banks around the globe have concluded their tightening cycles.

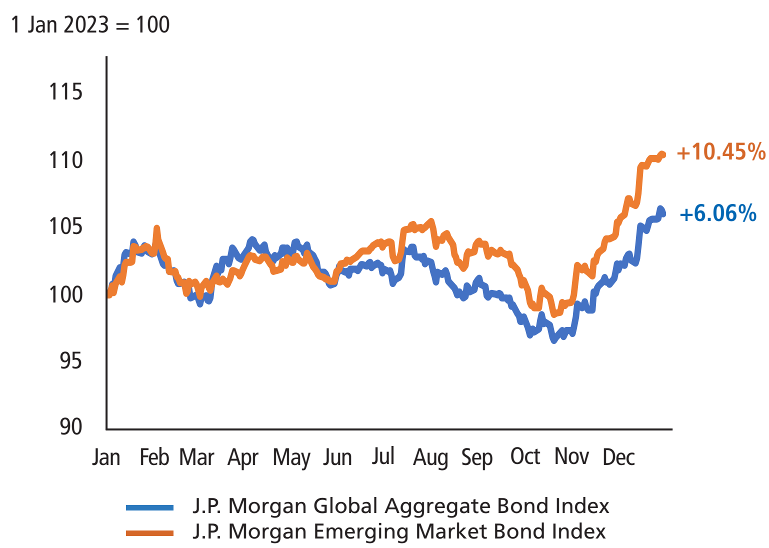
Corporate bonds and sukuk continued to be resilient. The default rate was low at 0.02% (2022: 0.18%) given that there was only one default (RM200 million) compared to three defaults in 2022 (RM1.44 billion). This was against a backdrop of a monetary policy stance that is accommodative and supportive of the economy.

CHART 1
MGS yields



Source: Bond Pricing Agency Malaysia.

CHART 2
Global and emerging markets bond indices



Source: Bloomberg.

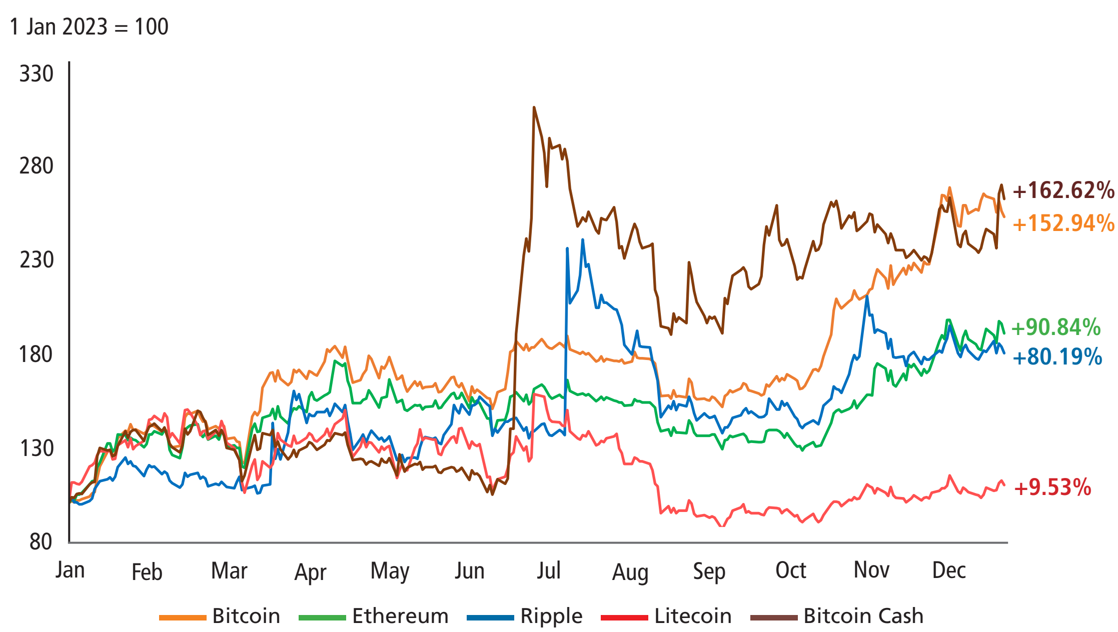
DIGITAL ASSETS

In 2023, despite persistent vulnerabilities in cryptocurrencies emerging from increased regulatory scrutiny and uncertain economic conditions, tracked cryptocurrencies performed positively (Chart 1). The resilience of cryptocurrencies was attributed to interest from mainstream market participants such as BlackRock filing for the Securities and Exchange Commission (SEC) approval of a cryptocurrency exchange-traded fund (ETF), and the introduction of EDX Markets[1], a Wall Street-backed crypto exchange in June 2023.

Additionally, in September 2023, the Financial Stability Board (FSB) and IMF jointly published a comprehensive policy for cryptocurrency, which includes a policy implementation roadmap to increase institutional capacity of non-G20 countries, increase co-ordination and bridge the data gaps in cryptocurrency, a regulatory milestone for this asset class.

Trading activity in the local DAXs remained robust given the positive performance of traded assets, with Luno maintaining its position as the market leader (Chart 2). Nevertheless, the average daily trading value of the local DAXs was lower at RM14.88 million in 2023 (2022: RM25.73 million). The DAX trading value spiked in July 2023 as the US court ruled that XRP, a token of Ripple is not a security unless it is sold to institutional investors, which came as welcoming news to cryptocurrency investors. Overall, traded value of DAX against Bursa Malaysia market capitalisation remained small at 0.97% as at December 2023, limiting its systemic impact to the domestic market.

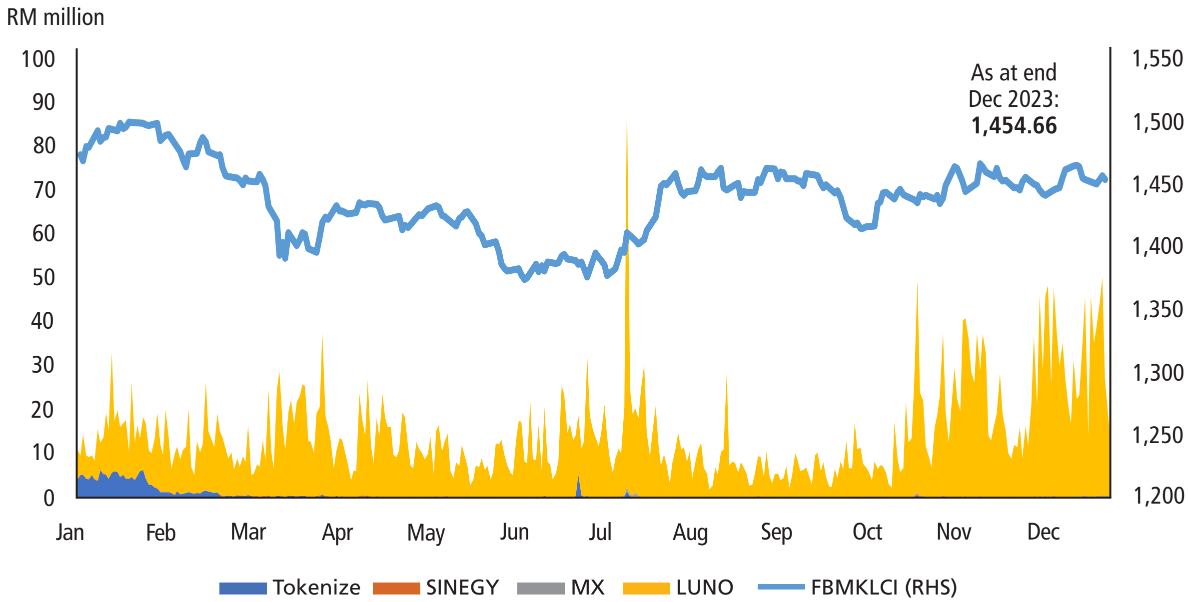
CHART 1
Digital assets performance



Source: Bloomberg.

[1] EDX Markets is backed by major firms such as Fidelity Digital Assets, Charles Schwab and Citadel Securities, and offers four tokens, namely Bitcoin, Ethereum, Litecoin and Bitcoin Cash.

CHART 2
DAX daily trading value



Source: The SC.

INVESTMENT FLOWS

Equities investment flow in 2023 was influenced by foreign investors who were net sellers for seven months in 2023, with a net outflow of -RM2.34 billion (2022: net buy RM4.40 billion) (Chart 1). The net selling of equities by foreign investors was due to rising interest rates in the US, geopolitical tensions and the resulting global economic slowdown. This was supported by local institutional investors who were net buyers, with a net buy of RM3.30 billion (2022: net sell -RM6.53 billion). Local retail investors' activity was relatively muted with investors net selling at -RM0.96 billion in 2023 (2022: net buy RM2.13 billion). Thus, foreign equity holdings declined to 19.54% as at December 2023 (Chart 2) compared to 20.59% in December 2022.

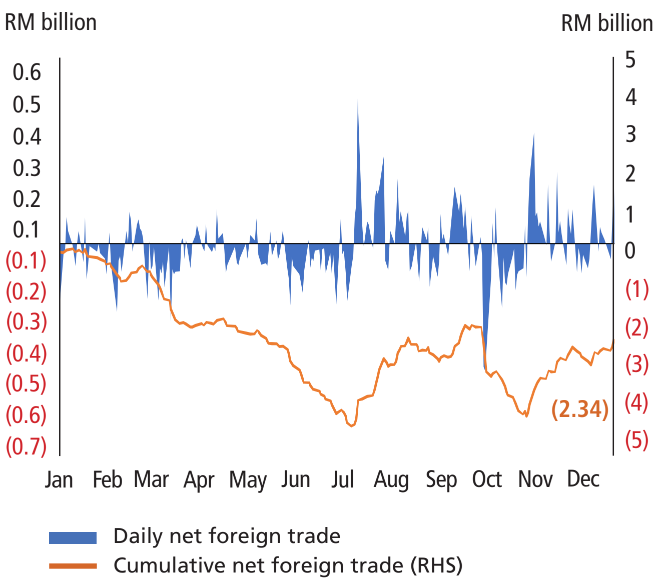
Foreign investors bond trading activity was booming, with a net inflow of RM12.68 billion (2022: net sell -RM1.62 billion) (Chart 3) due to redirection of foreign flows from China and expectations that the US is nearing the end of its tightening cycle towards the second half of 2023. Foreign demand for MGS and Government Investment Issue (GII) strengthened in 2023 despite continued foreign exchange weakness and hawkish repricing in US rates early in the year.

Foreign holdings in the Malaysian bond market as at December 2023 increased to 13.45% (2022: 13.19%), below its 5-year average of 13.72% (Chart 4). The foreign investors held mostly MGS (75.01%, 2022: 75.36%), followed by GII (18.76%, 2022: 16.29%), corporate bonds and sukuk (4.82%, 2022: 5.50%), and Malaysian Treasury Bills and Malaysian Islamic Treasury Bills (1.40%, 2022: 2.85%).

Note: Values may not add up due to rounding.

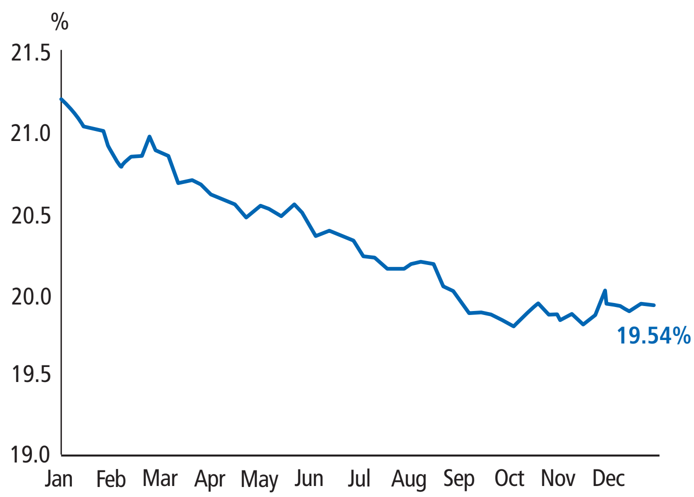
In the fund management segment, foreign investors made up 3.73% (2022: 3.29%) of total AUM as of December 2023 (Chart 5). Foreign source of funds remained relatively small in this segment.

CHART 1
Equity foreign trading



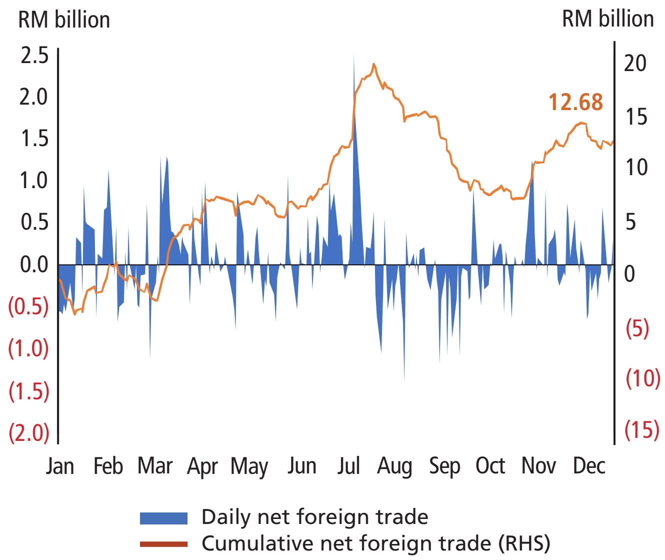
Source: Bursa Malaysia.

CHART 2
Foreign holdings in Malaysian equities



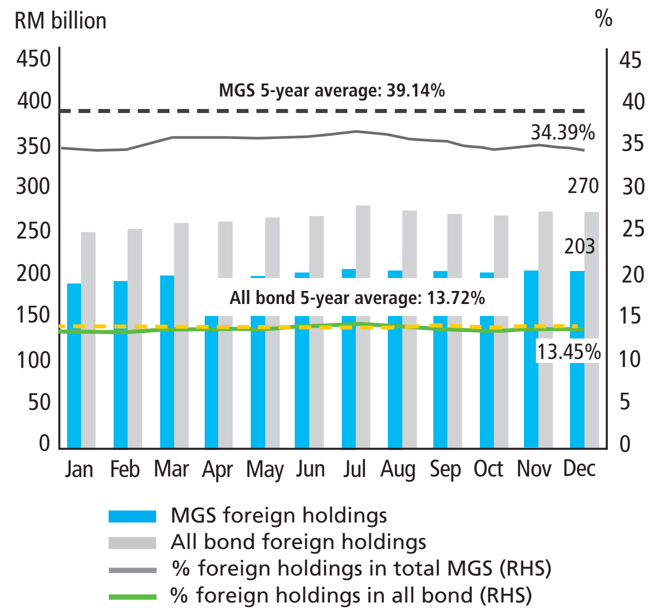
Source: Bursa Malaysia.

CHART 3
Bond foreign trading



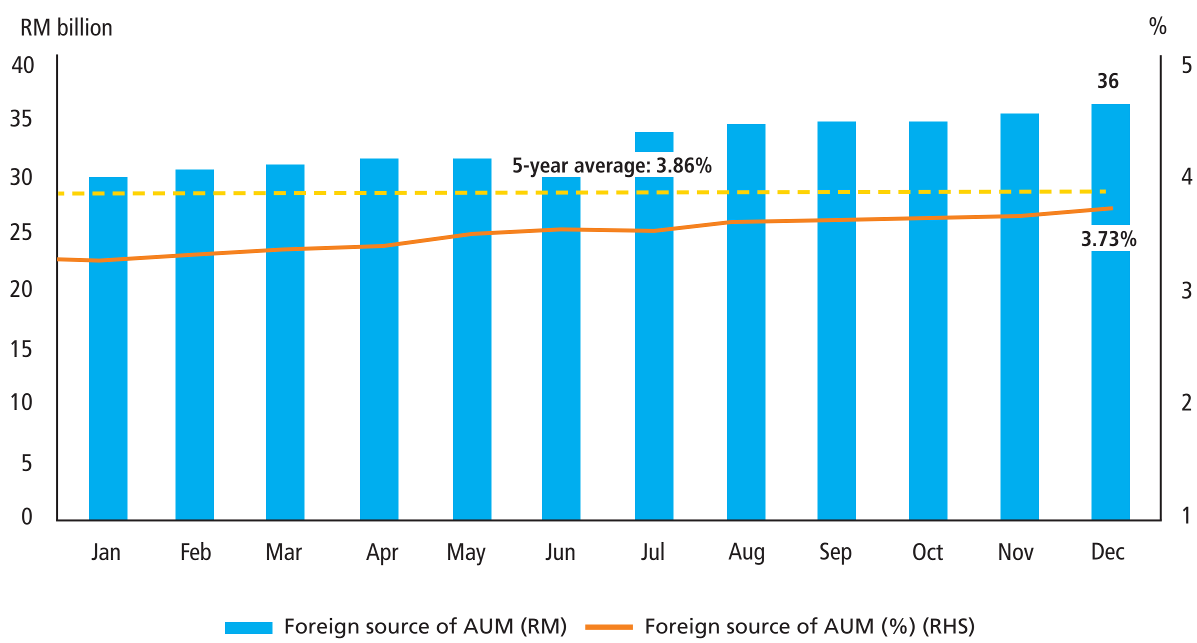
Source: Bursa Malaysia.

CHART 4
Foreign holdings in ringgit bonds



Source: BNM.

CHART 5
Foreign source of AUM



Source: The SC.

INVESTMENT MANAGEMENT

AUM for the fund management industry as at end December 2023 recorded an increase of 7.61% from December 2022's AUM of RM906.46 billion (Chart 1). This increase was primarily attributed to changes in market value in 2023. Assets were mainly allocated in equities (48.65%, 2022: 47.59%), followed by fixed income securities (22.95%, 2022: 23.25%) and money market (13.33%, 2022: 14.81%).

Allocation in foreign assets increased by 16.94% to RM329.29 billion (Chart 2), driven by higher allocation in equities and money market placements. This was in line with the improved global equities performance. Similarly, the allocation in local assets increased by RM21.32 billion to RM646.19 billion (Chart 3), driven by higher allocation in fixed income securities and UTFs.

Throughout 2023, AUM allocation by region remained stable. Foreign AUM was mainly allocated in the US (10.70%), Asia Pacific Ex China, Japan and ASEAN (6.29%) and the European Union (EU) (5.17%) as at end December 2023 (Chart 4).

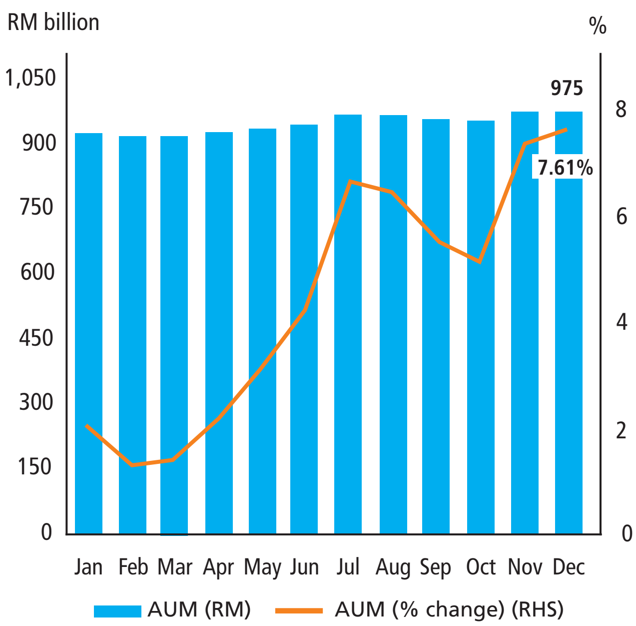
UTF continued to contribute as the largest source of AUM at 51.24% as at December 2023 (2022: 53.83%), followed by Employees Provident Fund (EPF) at 19.16% (2022: 17.41%) and corporate bodies at 11.05% (2022: 10.78%) (Chart 5).

UTF's NAV stood at RM499.88 billion as at December 2023 (Chart 6), an increase from the NAV in December 2022 at RM487.94 billion. This growth is in line with the expansion of overall AUM.

Fund management companies in Malaysia have in place sound liquidity risk management procedures to respond to scenarios of significant surge in redemptions. UTFs recorded a net redemption of -RM9.12 billion[1] as at December 2023 (2022: net redemption of -RM9.60 billion)[1], comprising gross sales of RM244.75 billion[1] and gross redemptions of -RM253.87 billion, mainly driven by net redemptions in mixed asset funds.

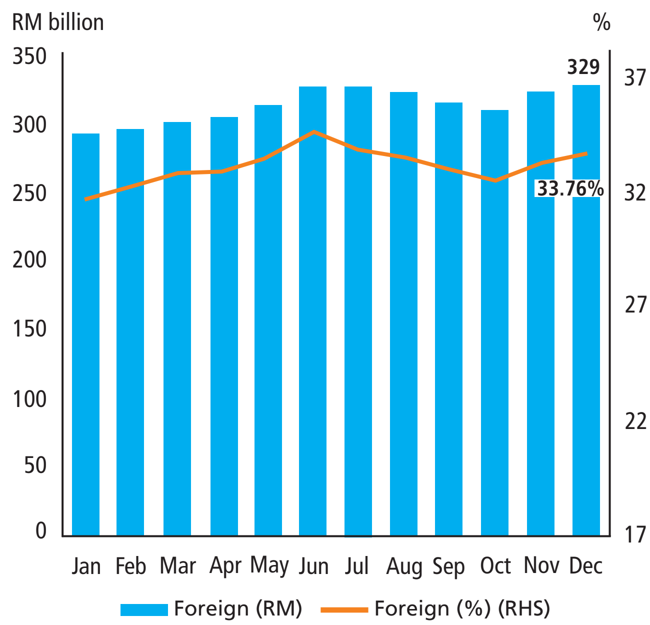
Note: The 2022 figures reported reflect the latest resubmissions for the year.

CHART 1
AUM



Source: The SC.

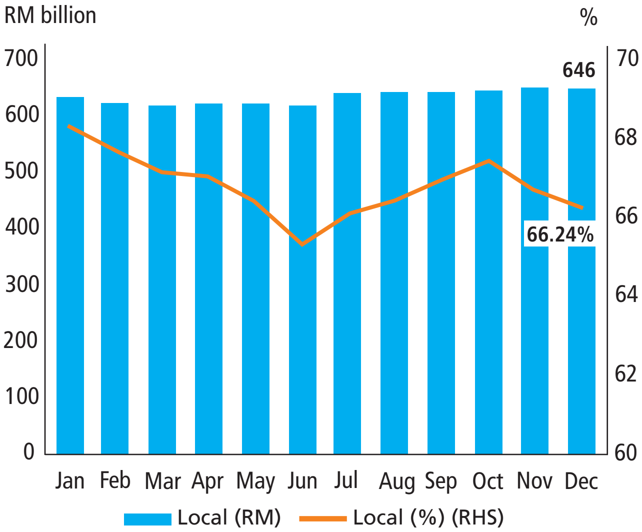
CHART 2
Foreign AUM allocation



Source: The SC.

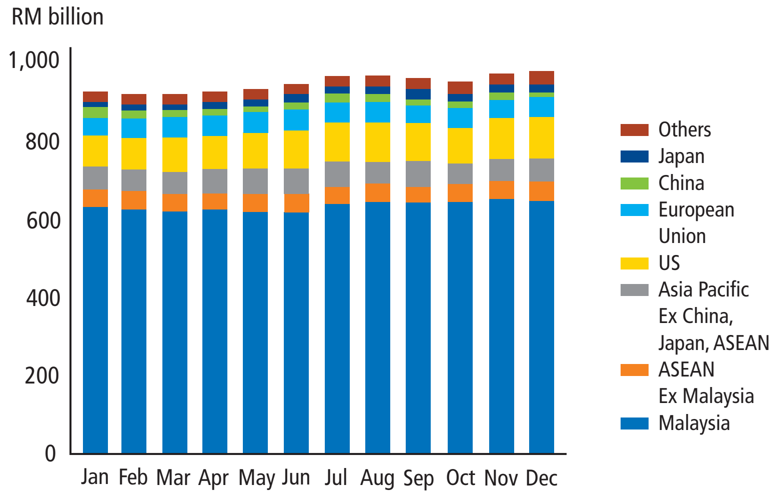
[1] Include reinvestment of distribution.

CHART 3
Local AUM allocation



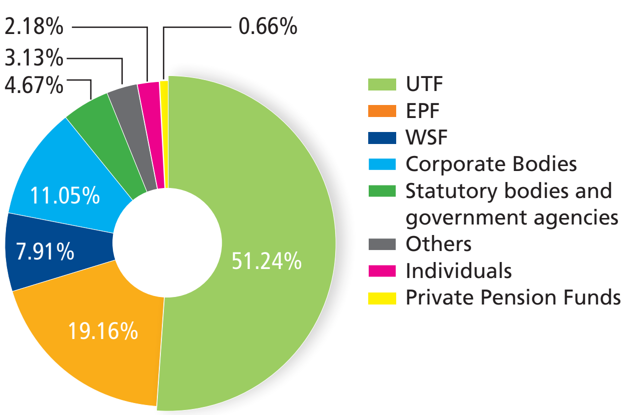
Source: The SC.

CHART 4
AUM allocation by region



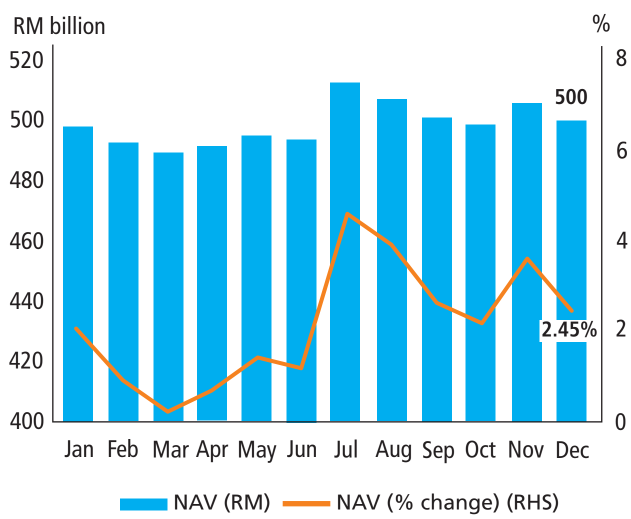
Source: The SC.

CHART 5
Sources of AUM



Source: The SC.

CHART 6
UTF NAV



Source: The SC.

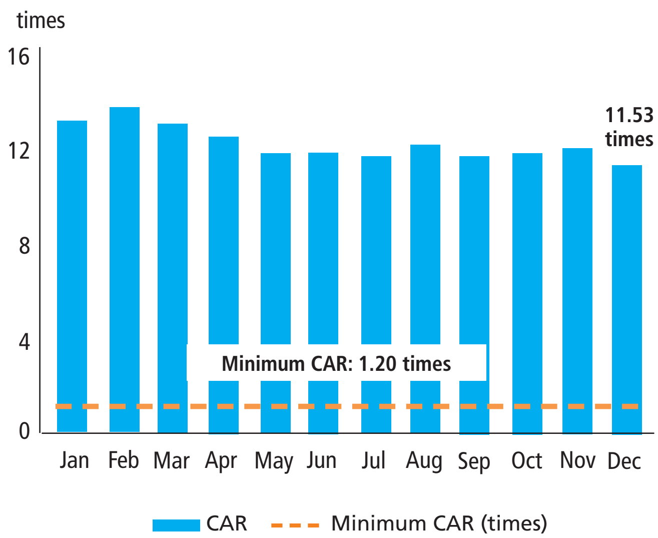
STOCKBROKING INTERMEDIARIES

Stockbrokers and investment banks (IBs) continued to meet their respective minimum capital adequacy requirements (CAR of 1.20 times; RWCR of 8.00%). As at December 2023, stockbrokers' average CAR was at 11.53 times (Chart 1), decreasing from 13.47 times in 2022 while the IBs' average RWCR decreased to 34.10% (Chart 2) from 38.76% in 2022.

Stockbroking intermediaries have in place robust risk management controls to manage credit risk exposures arising from margin financing. The collateral coverage ratio as at December 2023 stood at 3.17 times (2022: 3.28 times), relative to the minimum required level of 1.30 times.

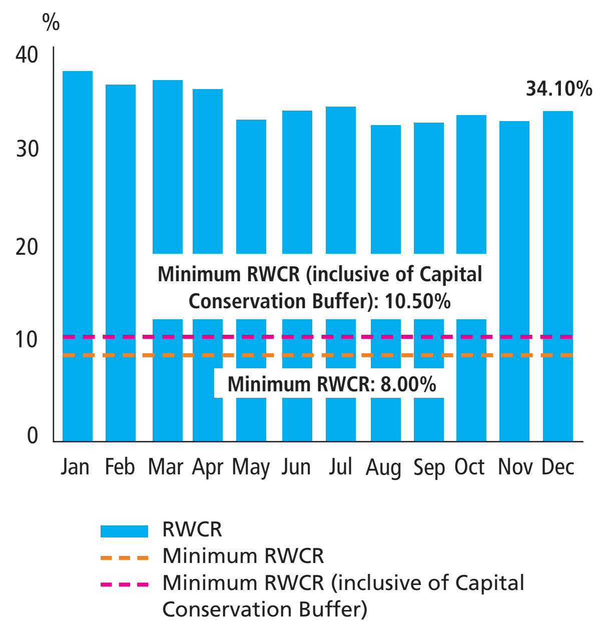
Overall, stockbroking intermediaries have been managing their respective liquidity positions prudently and adequately.

CHART 1
Stockbrokers' average CAR



Source: The SC.

CHART 2
Investment banks' average RWCR



Source: The SC.

PLCs[1]

Malaysian PLCs showed improvement in their reported earnings of RM73.15 billion (Table 1) as at Q3 2023 (Q3 2022: RM70.48 billion). Among the sectors with significantly improved earnings were transport (+RM5.48 billion, +456.67%), financial services (+RM3.16 billion, +12.11%) and consumer services and retail (+RM1.64 billion, +121.48%). These sectors reported business-related improvements, where the transport sector benefited from the upsurge and strong recovery of the aviation PLCs while the financial services sector was driven by the banking industry, mainly from lower provisions being reported and the absence of prosperity tax. Consumer services and retail sector gained advantage from the continued recovery in the tourism industry.

At the same time, earnings as at Q3 2023 were dragged down by manufacturing (-RM7.29 billion, -36.09%) and plantation (-RM5.43 billion, -54.03%) sectors. Most impacted under the manufacturing sector were the petrochemical and semiconductor-related PLCs, primarily due to softer global market demand arising from uncertainties surrounding prolonged geopolitical tensions and elevated inflationary pressures. The sector was also beset by continued increase in production costs owing to the weakening ringgit and higher utility bills following the implementation of targeted electricity subsidy. Meanwhile, the earnings of most plantation PLCs have been impacted by lower crude palm oil prices and higher production costs due to the increase in employees' minimum wage and fertiliser prices.

Malaysia's growth trajectory in 2024 may continue to face challenges amid subdued global demand caused by external headwinds. The protracted wars in Ukraine and in the Middle East, which have disrupted global supply chains, coupled with a weakened ringgit, may exacerbate price pressures and foreign currency exposures.

TABLE 1
Earnings by sector

Sector	As at Q3 2023 (RM billion)	As at Q3 2022 (RM billion)
Financial services	29.25	26.09
Manufacturing	12.91	20.20
Utilities	7.63	6.75
Telecommunication and media	4.69	3.12
Plantation	4.62	10.05
Transport	4.28	(1.20)
Property	3.50	2.91
Consumer services and retail	2.99	1.35
Healthcare	2.83	1.67
REITs	2.10	1.86
Construction	0.87	0.80
Technology	0.33	0.77
Healthcare (glove) manufacturing	(1.12)	0.21
Energy	(1.73)	(4.10)
TOTAL	**73.15**	**70.48**

[1] The write-up on the assessment of PLCs' earnings was based on the latest available financials up to Q3 2023.

THEMATIC REVIEW OF CAPITAL MARKET SEGMENTS – STRESS TEST ON FUNDS

BACKGROUND

The unit trust and wholesale funds (collectively referred to as investment funds) industry plays a vital role as it is one of the main channels for both retail and institutional investors to participate in the domestic and global capital markets, offering them exposure to a diverse range of investment opportunities. As at 29 September 2023, the aggregate NAV of investment funds reached RM576.40 billion, approximately one-third of Bursa Malaysia market capitalisation. Therefore, it is crucial to ensure that the industry is resilient and able to withstand any shocks, especially liquidity.

In this context, the SC conducts periodic macro stress tests on investment funds to identify potential risks and vulnerabilities, as well as to evaluate the adequacy of liquidity profiles in 2023. The stress test simulates a net redemption shock on a sample of 1,098 funds, with assumptions that high and sustained redemption pressures coincide with downward pressures on asset prices.

ASSESSING LIQUIDITY RISK IN INVESTMENT FUNDS

In the context of investment funds, effective liquidity risk management is important to mitigate potential mismatches between a fund's underlying assets and its redemption terms. Such liquidity mismatch is often characterised by a fund's inability to meet redemption requests, resulting in a sell down of liquid assets mostly. Thus, leaving the remaining unitholders with portfolios largely concentrated in illiquid assets and at the same time unduly changing the risk profile of the fund.

In line with its duty to monitor, mitigate and manage systemic risk and promote capital market stability, the SC conducts macro stress tests on investment funds to support its periodic assessments on liquidity risk, focusing on investment funds' ability to timely honour redemptions amid both stressed and stable market conditions.

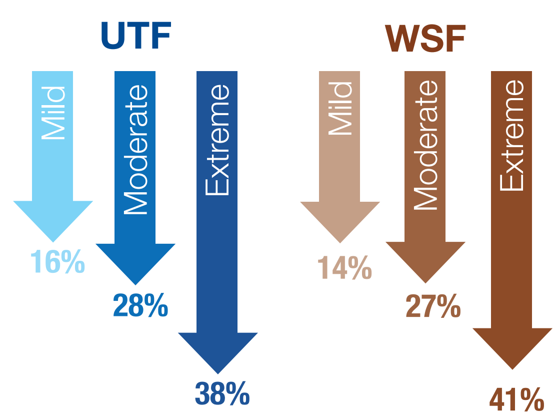
SCENARIOS AND METHODOLOGY

The macro stress test simulated severe but plausible redemption shocks to assess the resilience of investment funds. The simulation involves three scenarios to reflect the varying degree of redemption pressures, i.e., mild, moderate, and extreme scenarios (Figure 1).

In calibrating severe redemption shocks, the model incorporates two adverse components. The first component represents the worst single day net redemption pressure derived from historical redemption data. The second component reflects a run-like dynamics, in which redemption pressures will sustain at high levels for a specified duration before returning to normalcy[1].

For each scenario, several assumptions were applied to the model. This includes that during period of stress, unitholders will exhibit herding behaviour, resulting in sustained high redemption pressure. Individual

FIGURE 1
Stress test scenarios based on redemption of investment funds



Source: The SC.

[1] The specified duration is in line with the redemption payout period stipulated in the SC's *Guidelines on UTFs*, in order to capture additional redemption requests by unitholders which may occur prior to the initial redemption payout.

investment funds were also assumed to maintain liquidity buffers of at least 10% in all asset classes, inferring funds incapable of reserving sufficient buffers as illiquid. Since the objective is to assess the resilience of investment funds independently of corrective measures, the stress test also assumed that neither the regulator nor the trustee would intervene to preserve the resilience of investment funds during times of stress.

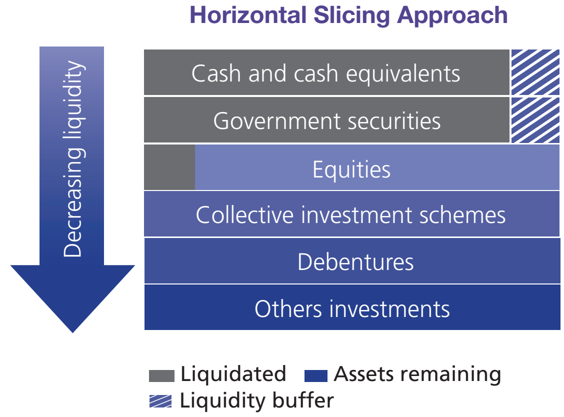
Access to fund-level data allows the macro stress test to adopt a bottom-up approach to sensitivity analysis;

- On the liability side, the model incorporates a factor of high and sustained redemption pressure, replicating a run-like event on individual funds.[2]

- On the asset side, the model calibrates liquidation of certain asset classes lower than its fair value to simulate impact of heightened market risk.

There are two approaches to modelling asset liquidation strategy. In the horizontal slicing approach, also known as the waterfall approach, liquidation occurs in a sequential manner, progressing from the most to the least liquid assets. In contrast, the vertical slicing approach gives rise to proportional (*pro rata*) liquidation across all portfolio assets, maintaining its intended portfolio structure.

FIGURE 2
Asset liquidation strategy based on horizontal slicing approach



Source: The SC.

The choice of liquidation strategy will have an influence on the stress test results. Under the horizontal slicing approach, there is a heightened risk of first mover advantage since unitholders who remained invested are more likely to inherit a significantly less-liquid fund[3], potentially resulting in run-like dynamics. Given this, the macro stress test adopted the horizontal slicing approach as the primary liquidation strategy. Figure 2 illustrates in detail the sequence of liquidation by asset class.

---

[2] *Asset Managers and Financial Instability: Evidence of Run Behavior and Run Incentives in Corporate Bond Funds*, Wang, J., M-RCBG Associate Working Paper Series | No. 46, Harvard Kennedy School, June 2015.

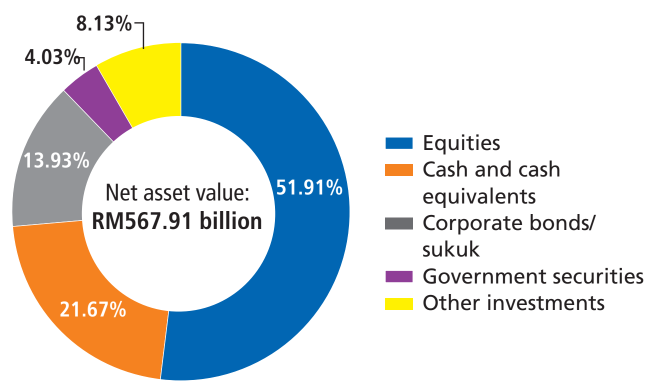
[3] *Simulating stress across the financial system: The resilience of corporate bond markets and the role of investment funds*, Baranova et al., Financial Stability Paper No. 42, Bank of England, July 2017.

INVESTMENT FUNDS SUBJECT TO THE STRESS TEST

As at 29 September 2023, a total of 1,098[1] investment funds with an aggregate NAV of RM567.91 billion were tested. Classification by fund types showed that investment funds were largely made up of mixed asset funds followed by equity and bond/sukuk funds. In terms of asset class, investment funds mainly allocated assets in equities (51.91%), cash and cash equivalents (21.67%), corporate bonds/sukuk (13.93%), and government securities (4.03%). Meanwhile, collective investment schemes (CIS), structured products, derivative instruments, and other assets made up the remaining 8.13% of the allocation (Chart 1). In particular, cash and cash equivalents, domestic equities, and government securities are considered key components of the overall asset allocation as they collectively command more than half of investment funds' total NAV and represent the highest utilisation under the stress test's liquidation strategy.

An in-depth observation into cash and cash equivalents saw that holdings were largely in the form of deposits and money market placements, whereby three major domestic banking groups accounted for approximately half of the total holdings. Despite this, the Herfindahl-Hirschman Index (HHI) suggested that there was a low degree of concentration in deposit and placement activities[2] with any one domestic banking group (Chart 2).

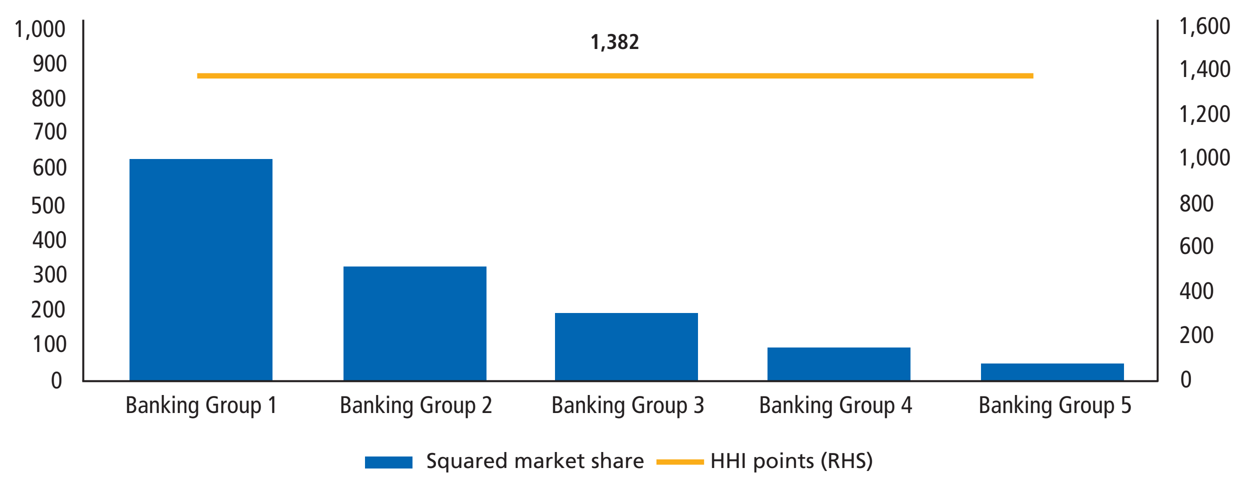
CHART 1
Asset allocation of investment funds



Note: Values may not add up due to rounding.

Source: The SC.

CHART 2
Holdings in cash and cash equivalents by domestic banking group



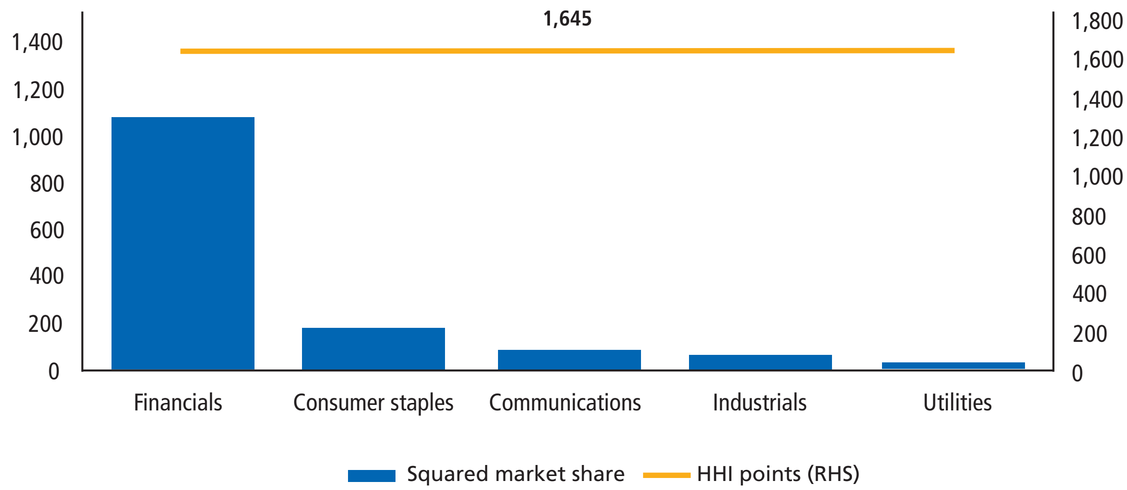
Source: The SC.

[1] Excluding funds with zero NAV, funds with no investable assets and funds which invest primarily in property assets.
[2] According to the Malaysia Competition Commission, an HHI of less than 1,500 denotes an unconcentrated (competitive) market; between 1,500 and 2,500 denotes a moderate level of concentration; and over 2,500 denotes a highly concentrated market.

In the equities asset class, holdings in domestic equities were mainly in the financials[3] sector, followed by consumer staples, communications, industrials, and utilities. It was observed that the sectoral concentration in this asset class was moderate (Chart 3).

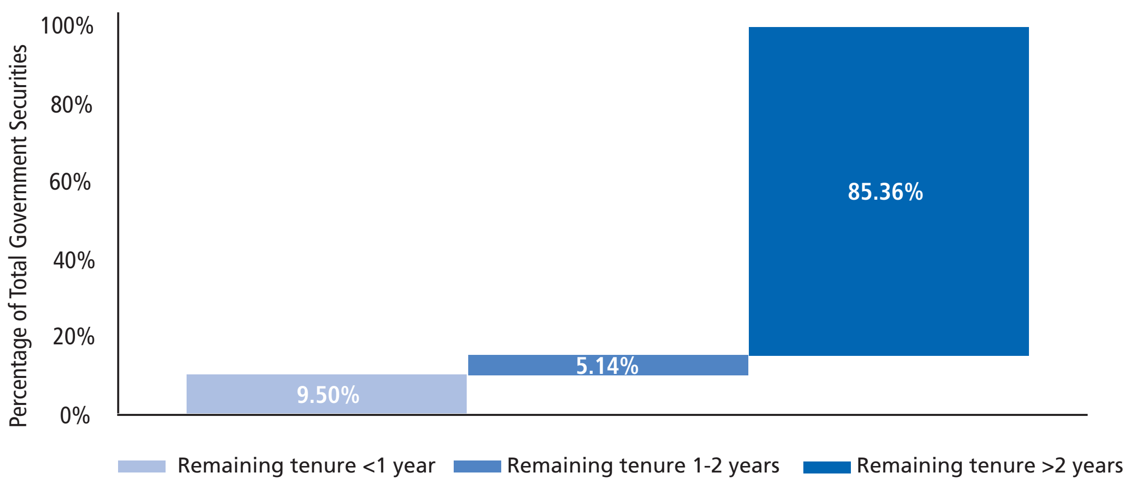
Meanwhile, in terms of government securities' maturity profile, 85.36% of the government securities held were papers with remaining tenure of more than two years, followed by those with remaining tenure of between one to two years at 5.14% and the remainder at 9.50% with less than one year (Chart 4).

CHART 3
Holdings in domestic equities by sector



Source: The SC.

CHART 4
Maturity profile of government securities



Source: The SC.

[3] As of 29 September 2023, financials counters represent 22.49% of Bursa Malaysia's market capitalisation.

STRESS TEST RESULTS

Aside from serving as a safety net mechanism, the modelling of liquidity buffers to the macro stress test also functions as a litmus test for detecting liquidity shortfalls. Failure to meet the 10% liquidity buffer assumption would indicate that a particular fund is deemed illiquid.

Results showed that under the extreme scenario, investment funds would liquidate an aggregate of 44.58% of portfolio assets to satisfy redemption pressures. Utilisation of liquidity buffers remained unlikely under all scenarios, demonstrating ample liquidity in the existing portfolio structure. This affirms the investment funds' resilience to overcome potential redemption shocks, amid deteriorating asset prices.

In line with the horizontal slicing approach, liquidation was mostly concentrated in highly liquid assets. Relative to their total holdings, cash and cash equivalents and government securities were liquidated at 60.75% and 66.80% respectively, while liquidation of equities was moderate at 45.97% of total holdings. Further down the liquidity order, CIS saw 27.42% liquidated, followed by corporate bonds/sukuk at 18.72%.

CONCLUSION

Results of the stress test showed that all funds would remain resilient to liquidity shock. Under the extreme scenario, investment funds liquidated an aggregate of 44.58% of NAV without utilising any liquidity buffers. This indicates that the existing liquidity profile is robust enough to weather periods of sustained large redemptions.

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THEMATIC REVIEW OF CAPITAL MARKET SEGMENTS – INVESTOR TRENDS IN MALAYSIA

INTRODUCTION

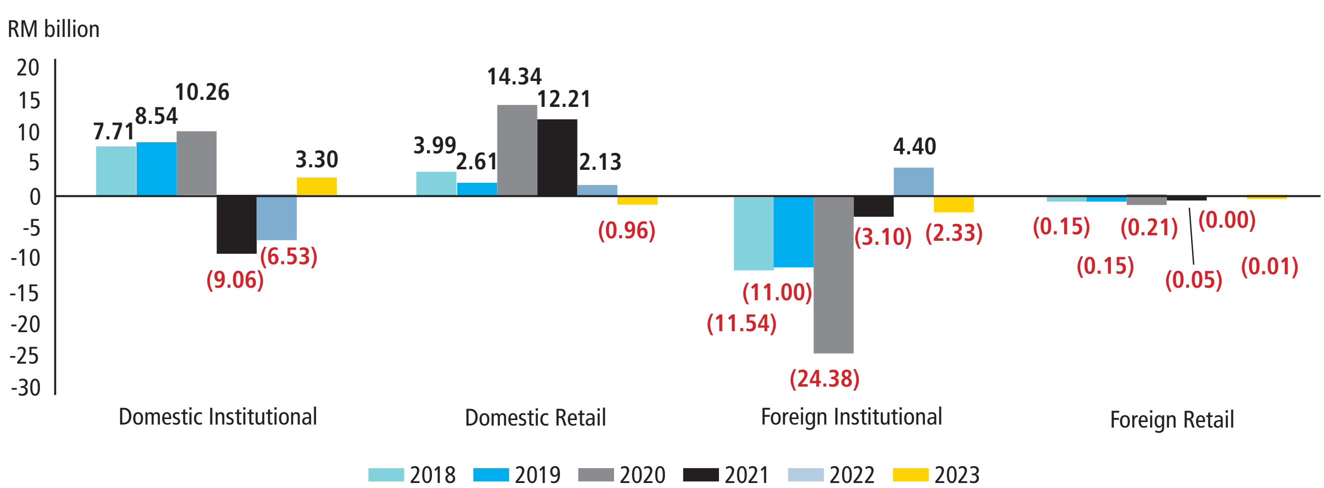
The objective of equity stock market investors ranges from wealth accumulation, portfolio diversification, to a hedge against inflation, among others. Different investment objectives of various investor types would lead to diverse behaviours and trends in the stock market. Investors may be institutional or retail, long-term or short-term that may have strategic[1] or non-strategic[2] investment objectives. The various composition of stock market investors in Malaysia offers vibrancy and liquidity support to the equity market during different periods. Understanding the trends and behaviours of foreign and local investors in the Malaysian stock market is imperative for proper management and mitigation of systemic risk.

BACKGROUND OF INVESTORS

In the Malaysian equity market, foreign investors have consistently made up approximately one-fifth of the market since 2018. For the same period of analysis since 2018, it has been observed that the percentage has dipped below 20% for the first time in April 2023. Nevertheless, the 5-year average of foreign investors composition ending 2023 was still at 21.41%, above the 20% threshold.

Chart 1 showed that from 2018 to 2020, there were selling activities by foreign institutional investors, however this was supported by domestic institutional and retail investors. Meanwhile, in terms of trading, from 2018 to 2023, foreign institutional investors made up the bulk of foreign trading while foreign retail investors trading were relatively muted.

CHART 1
Trading participation of investors in Malaysia



Source: The SC.

1 Strategic investors consist of promoters, parent, or holding companies of a PLC that had longer-term investment strategies.
2 Non-strategic investors are investment managers with shorter-term investment horizons.

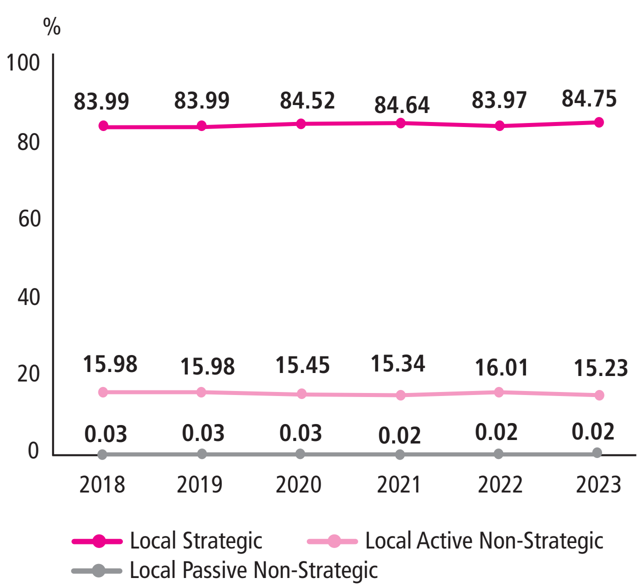
The Malaysian stock market includes strategic investors of both foreign and local origin, indirectly providing the equities market with an advantageous thick cushion in times of market distress due to the long-term strategic nature of this investors group. Further analysis of the investors in Malaysia showed that the composition of foreign and local strategic investors has been increasing, while investors with active investment strategies were decreasing from 2018 to 2023 (Chart 2 and 3)[3].

The composition of local strategic investors increased by 0.76 percentage points from 83.99% in 2018 to 84.75% in 2023. The increase was mainly caused by their improved holdings in the information technology sector, which grew by RM26.76 billion in value over a span of five years. Meanwhile, the local active non-strategic investors decreased by -0.75 percentage points and local passive non-strategic investors decreased by -0.01 percentage points from 2018 to 2023.

The composition of foreign strategic investors increased by 7.53 percentage points from 44.49% in 2018 to 52.02% in 2023. Similarly, foreign passive non-strategic investors also experienced an increase from 17.65% to 19.36%. This was due to the decline in holdings of foreign active non-strategic investors by -RM36.58 billion in value. The foreign active non-strategic investors had decreased by -9.24 percentage points from 2018 to 2023, due to a decline in holdings in the financials sector by -RM13.58 billion.

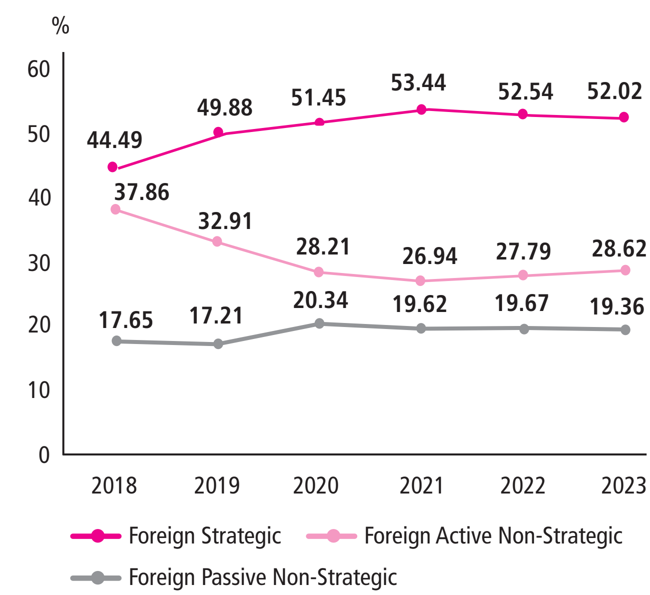
In summary, the composition of local investors is comparatively more stable than the composition of foreign investors. For instance, from 2018 to 2023, local investors declined by -2.42 percentage points by value, whereas foreign investors decreased by -16.50 percentage points.

CHART 2
Composition of local investors in Malaysia



Source: The SC; London Stock Exchange Group.

CHART 3
Composition of foreign investors in Malaysia



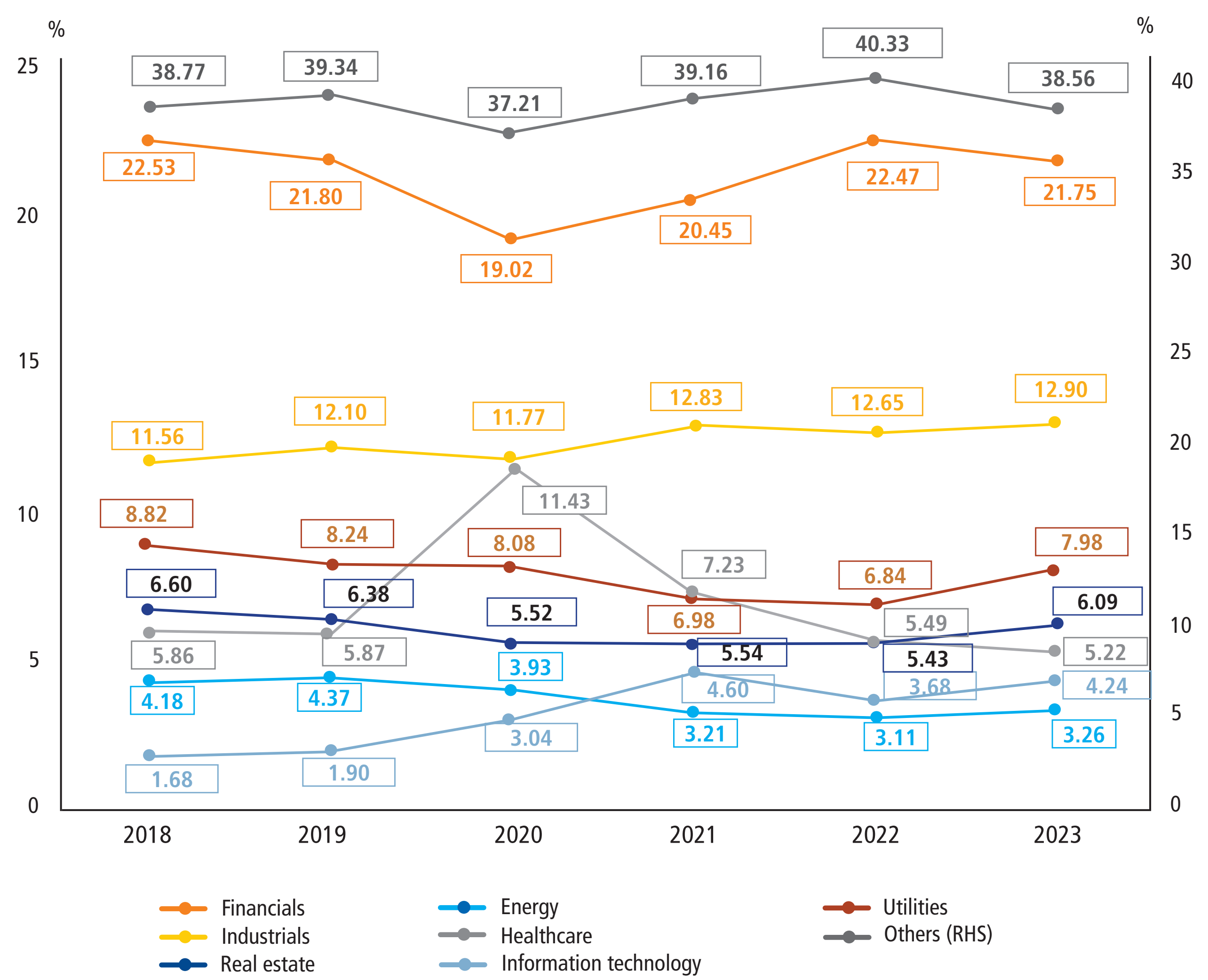
Source: The SC; London Stock Exchange Group.

[3] These figures have been derived solely from Thompson Reuters data, without the inclusion of Central Depository System (CDS).

ANALYSIS OF THE COMPOSITION OF INVESTORS

Over the years, interest in equity counters differs by types of investors. Most notable was in 2020 where healthcare counters received greater attention due to the global COVID-19 pandemic, whereby investors in these counters increased by 5.70 percentage points from +5.86% in 2018 to +11.43% in 2020. Meanwhile, investors in the financials sector experienced a sudden decline in 2020, (by -2.78 percentage points from +21.80% in 2019) due to the economic slowdown as the global activities came to a temporary pause during the COVID-19 pandemic. Investors in the information technology counters increased by 2.57 percentage points over a period of five years, from +1.68% to +4.24%, mostly attributed to strong growth in semiconductor and automation solution companies (Chart 4).

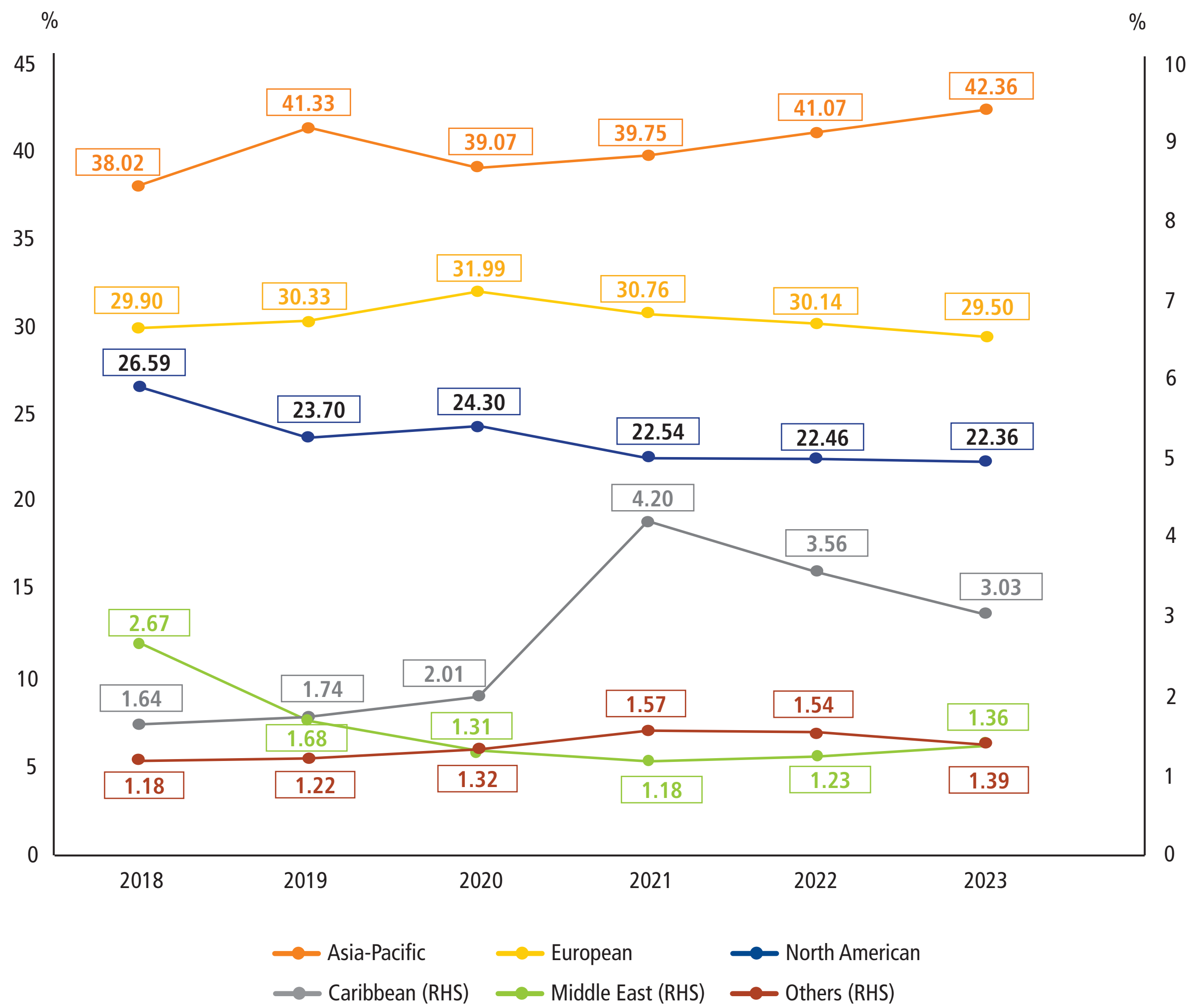
CHART 4
Composition of investors by sector in Malaysia



Source: The SC; London Stock Exchange Group.

Analysis on the origin of foreign investors as categorised by their regional blocs has shown changes year-on-year. In the last six years, there has been an increasing trend of foreign investors coming from the Asia-Pacific (4.34 percentage points) and the Caribbean regions (1.40 percentage points), while foreign investors originating from the North America (-4.23 percentage points) and the Middle East regions (-1.31 percentage points) have reduced their participation (Chart 5). Investors from the Caribbean region increased from +2.01% in 2020 to +4.20% in 2021, mainly due to holdings in the healthcare sector, industrials sector and energy sector which had an improvement in holdings value by RM161.28 million, RM4.59 billion and RM16.80 million respectively.

CHART 5
Composition of foreign investors by regional bloc in Malaysia

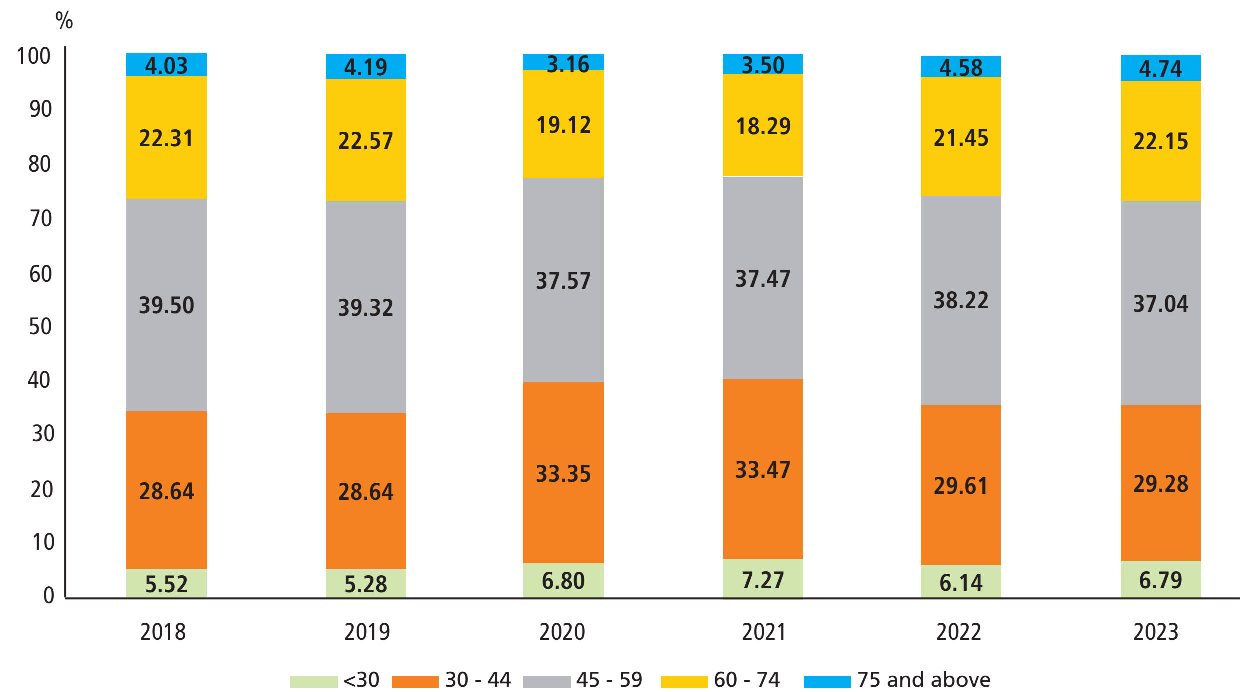


Source: The SC; London Stock Exchange Group.

In terms of the age profile of local retail investors, the bulk of investors were generally made up of the 45 to 59 years old age group (Chart 6). Meanwhile, investors in the age group of less than 45 have increased between 2020 to 2021 from approximately 40.14% to 40.74% caused by higher unemployment rate. Additionally, younger individuals' interest may have turned to investing as a way to generate additional income. Broader structural shifts in digitalisation during the COVID-19 pandemic have made it easier for investors in the age group of less than 45 years old to access capital markets. In 2020, there was a discernible surge in the level of engagement from retail investors, predominantly stemming from their personal cash reserves. However, this trend has normalised since after the peak of COVID-19 pandemic, decreasing back to 36.07% in 2023, a trend that is also observed globally.

CHART 6

Age of local retail investors by trading value from CDS account



Source: DIBots.

THEMATIC REVIEW OF CAPITAL MARKET SEGMENTS – SUSTAINABILITY RISK ASSESSMENT OF MALAYSIAN PLCs

SUSTAINABILITY RISK ASSESSMENT OF MALAYSIAN PLCs

Global attention and focus on environment, climate, social, and other sustainability-related concerns has been accelerating – in scale, scope, as well as urgency amid the existential nature of climate-related risks. Given the increasing demand to decarbonise and conduct socially responsible activities, Malaysia is no exception to being subject to the impact of heightened scrutiny and policy action in the ESG space. This is particularly important given the greatly intertwined nature of Malaysian companies within global and regional supply chains as well as our trade exposure as a highly open economy.

Besides these global trends, there is an increasing proliferation of disclosure standards and ESG requirements being imposed at an international and domestic level, all of which require compliance and attention from corporates. To this end, the SC chairs the Advisory Committee on Sustainability Reporting (ACSR), which works to identify enablers that will facilitate the use of the International Sustainability Standards Board (ISSB) Standards in Malaysia, build frameworks for assurance, and facilitate capacity building towards addressing the need and demand for comparable and reliable sustainability-related information. This is part of the SC's efforts to customise ESG reporting standards to align with local requirements, while gearing firms towards achieving international practices and ensuring sustainability becomes an integral part of Malaysian PLCs.

Against this backdrop, the SC embarked on a thematic study assessing the risk exposure of Malaysian PLCs to sustainability factors, in order to emphasise the importance of looking at business strategy and sustainability to incorporate transition plans, given their potential impact on PLCs. Indeed, increasing numbers of climate and ESG-related policies, particularly from entities like the EU and advanced economies – such as the EU's Carbon Border Adjustment Mechanism (CBAM), have the potential to affect Malaysian firms through multiple channels. This is particularly important given that up to 75% of Malaysia's exports to the EU will be impacted by CBAM, albeit collectively accounting for only about 8% of Malaysia's total exports in 2021 to 2023.

The thematic study determined that PLCs' exposure to risks arising from sustainability factors can be delineated into two primary channels – environmental and social triggers (Figure 1).

- The **environmental** trigger arises from the fact that firms engaged in traditionally carbon-intensive sectors or those with the highest carbon emissions, may face the highest costs and risks of stranded assets during any adjustment by investors or clients alike to reduce the carbon intensity of their business activities. Carbon intensity in this context is proxied by the historical emissions of the sector, as measured by the direct emissions of the economic activity or scope 1 emissions[1].

  To this end, **nearly half of Malaysian PLCs are concentrated in industries that can be deemed the most carbon-intensive**. These include, but are not limited to power generation, waste management, oil and gas, agricultural products, transportation, mining, metals, materials, animal products, construction and civil engineering, and machinery and equipment manufacturing sectors.

- The **social** trigger analyses PLCs in sectors with a higher proportion of foreign labour, which may be more likely to face increased scrutiny of labour practices, and thus be subject to trade restrictions should there be reputational concerns and no appropriate remedial or preventive actions in place. In this regard, **about a fifth of PLCs are in industries most likely to be scrutinised for labour practices** – such as in some of the manufacturing and agricultural products sectors.

[1] Scope 1 emission is defined as emissions from operations that are owned or controlled by the reporting company.

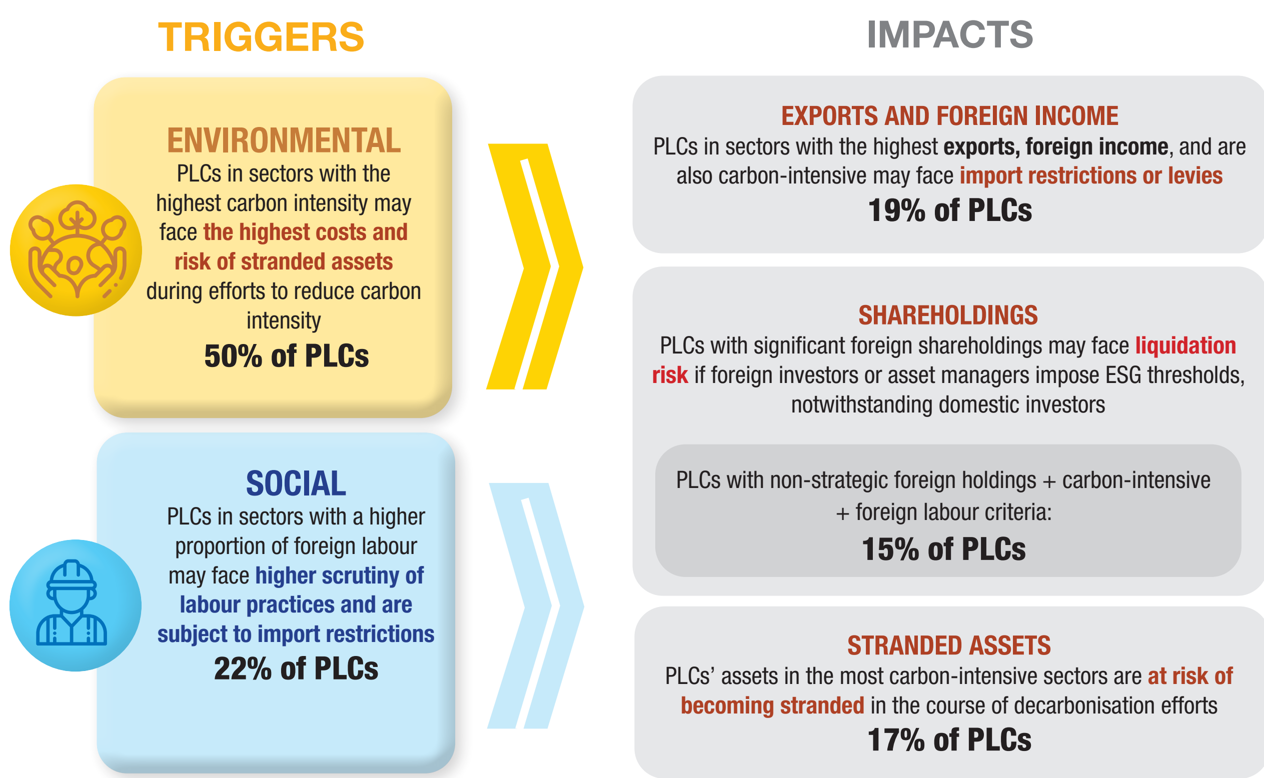
If an environmental or social concern is detected, a firm is likely to experience no fewer than three potential channels of impact: (i) through exports and foreign income, (ii) domestic and foreign shareholdings, and (iii) stranded assets (Figure 1).

- **Risks to export revenue and foreign income**. Firstly, PLCs in sectors with the highest export revenue or those potentially operating abroad, may face import restrictions or levies if found incompatible with ESG requirements. These issues could range from deforestation and carbon intensity to that of forced or child labour. The impacts would result in an immediate hit to the revenues and profitability of these companies, especially if a significant portion of their revenue comes from export sales to markets sensitive to ESG issues and requirements. Given that global ESG screening criteria are increasingly shifting towards quantifiable metrics and thresholds, this would be a concern for Malaysian firms, at the very least within the decade, if not already now or within the next few years.

- **Risk of divestment**. PLCs may also face divestment risk from investors and asset managers both domestic and abroad, should stringent ESG scrutiny and thresholds be imposed, as is now increasingly mandated and/or recommended by boards, investors, asset managers, as well as ratings and index providers.

- **Risk of stranded assets**. Another significant impact on firms would involve the values of their physical assets. Assets owned by PLCs may be at risk of becoming stranded during any meaningful effort to decarbonise, given the growing concern over environmental standards, as well as the rapid rate of technological change and obsolescence in this space.

FIGURE 1
A multi-area analysis of PLCs exposure to sustainability factors



Source: The SC.

High-level, approximate findings from the study indicate a few pertinent facts of concern:

- **19% of PLCs are concentrated in the most carbon- and export-intensive sectors**, although a much lower proportion are in sectors that export to the EU and face potential CBAM or deforestation concerns.

- **In terms of shareholdings, 15% of PLCs stand to lose the most from non-strategic foreign investors making ESG-related moves**, as these investors are the most likely to liquidate in the event of any reputational or policy-related ESG issues, when considering carbon- and labour-intensive criteria.

- **The physical assets of about 17% of PLCs are at higher risk of becoming stranded assets**. Although heavily approximated and inclusive of a firm's property, plant, equipment, and current assets, this is crucial as it concerns the underlying book value and valuation of a firm.

In summary, the thematic study highlighted the reality and necessity for our PLCs to have concerted transition plans in place. As it is, this study only proxies the risks to companies if they do not undertake a transition towards more sustainable business activities through market and portfolio figures, without fully capturing the tangible impacts to the real economy, employment, and livelihoods at stake. Nevertheless, the transition to a more environmentally and socially sustainable world also presents significant opportunity and the hopeful promise of a better future. To start with, there is ample opportunity to capture our share of rapidly growing funds in the ESG space, given expectations that global ESG assets are on track to exceed US$53 trillion by 2025 and will represent more than a third of the US$140.5 trillion in projected total AUM.[2] This is a future that Malaysian firms can greatly benefit from if they are prescient, proactive, and act with the urgency and foresight befitting the challenges of today.

[2] Bloomberg Intelligence (2021). ESG assets may hit US$53 trillion by 2025, a third of global AUM.

ACRONYMS AND ABBREVIATIONS

ACSR	Advisory Committee on Sustainability Reporting
AI	artificial intelligence
AUM	assets under management
BIS	Bank of International Settlements
BNM	Bank Negara Malaysia
CAR	capital adequacy ratio
CBAM	Carbon Border Adjustment Mechanism
CDS	Central Depository System
CIS	collective investment schemes
CPI	consumer price index
CPO	crude palm oil
DAX	digital assets exchange
EM	emerging markets
ESG	environmental, social and governance
ETF	exchange-traded fund
EU	European Union
FBMKLCI	FTSE Bursa Malaysia KLCI
FED	Federal Reserve System
FSB	Financial Stability Board
GAI	generative artificial intelligence
GDP	Gross domestic product
GII	Government Investment Issue
HHI	Herfindahl- Hirschman Index
IB	investment bank
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IoT	internet of things
ISSB	International Sustainability Standards Board
MGS	Malaysian Government Securities
ML	machine learning
MPC	Monetary Policy Committee
NAV	net asset value
OPR	overnight policy rate
PLC	public-listed company
RWCR	risk-weighted capital ratio
SC	Securities Commission Malaysia
SEC	Securities and Exchange Commission
SVB	Silicon Valley Bank
TCFD	Task Force on Climate-Related Financial Disclosures
US	Unites States
UTF	unit trust fund

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