# FINANCIAL STABILITY REPORT

## (1444 - 2023)

البنك المركزي السعودي
SAMA
Saudi Central Bank

**Financial Stability Report 2023**

Saudi Central Bank

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The year 2022 marked continued growth for the Saudi economy, despite global economic challenges, which include geopolitical developments, inflationary pressures, and higher interest rates. Nonetheless, the Saudi economy demonstrated strong performance in both output and employment.

The financial system played a major role in supporting that economic performance. Operating under SAMA's supervision, banks, insurers, finance companies, and payment providers expanded financial services to all segments of the private sector and retail borrowers. Banks expanded their lending to meet the continued demand for mortgages. Reflecting the strong domestic economy, risk outcomes remained moderate during the year.

Given the role of the banking system in the economy, SAMA has long placed great importance on its resilience. Indeed, the banking system's prudential ratios are all well-above Basel requirements, reflecting a liquid and well-capitalized banking system. SAMA has completed its implementation of the final Basel III reforms, ahead of the deadline.

SAMA has continued its support of innovation in the financial sector. A testament to this investment has been the guided growth of FinTechs operating in Saudi Arabia. SAMA has put in place safeguards through its sandbox to protect the interests of consumers and ensure the resilience of the financial sector, while allowing innovation that will serve the needs of households and non-financial corporations alike.

The Saudi economy will continue to grow in 2023, supported by Vision 2030 initiatives and a resilient financial system. However, as the global economy continues to face challenges, SAMA remains vigilant to possible risks and will continue to monitor both global and domestic developments to maintain the stability and resilience of the financial system.

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## Abbreviations

| | |
|---|---|
| **AEs** | Advanced Economies |
| **AIS** | Account Information Service |
| **APIs** | Application Programming Interfaces |
| **BCBS** | Basel Committee for Banking Supervision |
| **BIS** | Bank for International Settlement |
| **CAR** | Capital Adequacy Ratio |
| **CCF** | Credit Conversion Factor |
| **CCR** | Counterparty Credit Risk |
| **CMA** | Capital Market Authority |
| **CPI** | Consumer Price Index |
| **CVA** | Credit Valuation Adjustment |
| **DLT** | Distributed Ledger Technology |
| **ECB** | European Central Bank |
| **EFM** | Enterprise Financial Management |
| **EMEs** | Emerging Market Economies |
| **EMI** | Electronic Money Intuitions |
| **ERM** | Environmental Risk Management |
| **ESG** | Environmental, Social and Governance Advisory Committee |
| **FATF** | Financial Action Task Force |
| **Fed** | Federal Reserve |
| **FDIC** | Federal Deposit Insurance Corporation |
| **FinTech** | Financial Technology |
| **FINMA** | Swiss Financial Market Supervisory Authority |
| **FSB** | Financial Stability Board |
| **FSDP** | Financial Sector Development Program |
| **FSR** | Financial Stability Report |
| **FWG** | G20 Framework Working Group |
| **GASTAT** | General Authority for Statistics |

| | |
|---|---|
| **GCC** | Gulf Cooperation Council |
| **GDP** | Gross Domestic Product |
| **GFC** | Global Financial Crisis |
| **GHG** | Greenhouse Gas |
| **GSIBs** | Globally Systemically Important Banks |
| **GWP** | Gross Written Premium |
| **HQLA** | High Quality Liquid Assets |
| **IBNR** | Incurred But Not Reported |
| **IIF** | Institute of International Finance |
| **IMF** | International Monetary Fund |
| **IOs** | International Organizations |
| **IPO** | Initial Public Offering |
| **IRB** | The Internal Ratings-Based |
| **LCR** | Liquidity Coverage Ratio |
| **LDR** | Loan-to-Deposit Ratio |
| **LIBOR** | London Interbank Offered Rate |
| **LTV** | Loan to Value |
| **M3** | Broad Monetary Aggregate |
| **MMBtu** | Metric Million British Thermal Unit |
| **MOF** | Ministry of Finance |
| **MOMRA** | Ministry of Municipal and Rural Affairs and Housing |
| **MSCI** | Morgan Stanley Capital International |
| **MSMEs** | Micro, Small, and Medium-sized Enterprises |
| **NCBs** | National Central Banks |
| **NCI** | Net Claims Incurred |
| **NDCs** | Nationally Determined Contributions |
| **NGFS** | The Central Banks and Supervisors Network for Greening the Financial System |
| **NPLs** | Non-Performing Loans |
| **NSFR** | Net Stable Funding Ratio |
| **OPEC** | Organization of the Petroleum Exporting Countries |

| | |
|---|---|
| **P/B** | Price-to-Book Value |
| **P/E** | Price-to-Earnings |
| **PFM** | Personal Finance Management |
| **PIS** | Payment Initiation Service |
| **PIF** | Public Investment Fund |
| **PMI** | Purchasing Managers Index |
| **POS** | Point of Sales |
| **ROA** | Return on Assets |
| **ROE** | Return on Equity |
| **RSF** | Required Stable Funding |
| **RTGS** | Real-Time Gross Settlement |
| **RWA** | Risk-Weighted Assets |
| **SAIBOR** | Saudi Arabian Interbank Offered Rate |
| **SAMA** | Saudi Central Bank |
| **SFT** | Securities Financing Transactions |
| **SFWG** | G20 Sustainable Finance Working Group |
| **SRC** | Saudi Real Estate Refinance Company |
| **SSBs** | Standard Setting Bodies |
| **SVB** | Silicon Valley Bank |
| **Tadawul** | Saudi Stock Exchange |
| **TASI** | Tadawul All Share Index |
| **TFCR** | Task Force on Climate-Related Financial Risks |
| **TPPs** | Third Party Providers |
| **VIX** | Volatility Index |
| **WEO** | World Economic Outlook |

## Executive Summary

In 2022, there were inflationary pressures pushing central banks to tighten their monetary policies faster than initially expected, which was accompanied by some central banks easing or ceasing their pandemic-related support programs. This also coincided with a rise in commodity prices and increased pressure on supply chains. As a result, real GDP growth registered a steady decline in advanced and emerging market economies.

In the context of tightening global monetary policy, and with the public sector's debt burden becoming higher and financing more costly, concerns around fiscal capacity to mitigate potential future shocks have increased, particularly for emerging economies with high debt levels. Higher financing costs have also made households and non-financial corporations more vulnerable to shocks. Corporations, however, benefited from the increase in economic activity, which positively affected the sector's earnings. Nevertheless, maintaining their debt-servicing ability could still be a challenge for them given the recent market developments.

The real GDP of Saudi Arabia grew substantially in 2022, with growth driven mainly by oil activities. The non-oil activities also contributed positively to the overall GDP growth. Prices in the Kingdom have not been greatly affected by global inflationary pressures. The Saudi Central Bank raised the policy rate seven times in 2022 in line with its mandate of preserving monetary stability. Despite the speed of the rate hike cycle, the Saudi economy performed very well due to the robust economic fundamentals and Vision 2030 programs.

Saudi Arabia recorded its first annual budget surplus in nearly a decade. Government revenue increased in 2022, outweighing the increase in government expenditure. While Saudi Arabia's public debt has increased in recent years, the debt-to-GDP ratio decreased. Higher oil exports took the current account to a 9-year-high surplus in 2022. Strong export growth also outpaced the growth in imports. In addition, Saudi Central Bank's foreign exchange reserves increased compared to 2021.

In 2022, the Saudi banking sector saw strong credit and asset growth despite several global challenges. While credit growth decelerated slightly, retail credit growth remained significant, and corporate credit accelerated, driven by real estate activities.

In addition, the Saudi banking sector demonstrated resilience and strong growth potential. The non-performing loans rate remained low, reflecting the resilience of domestic banks due to factors such as robust lending standards. Soundness indicators showed a steady increase in profitability ratios, with the banking sector remaining well-capitalized. Despite some temporary liquidity fluctuation during 2022, prudential liquidity ratios remained well-above Basel requirements. The resilience of the banking sector was due to the Saudi Central Bank's efforts, actions, and its swift coordination with relevant stakeholders.

The insurance sector fared well during 2022 in terms of growth; the gross written premium rebounded in line with non-oil growth. This could be attributed to effective performance across business lines and the rise in the average premium for motor vehicle policies. Due to the rise in interest rates, the sector's profitability increased, driven by the net investment income. Additionally, the insurance market, especially small insurance companies, continued to have a strong solvency position.

The Saudi Central Bank approved a number of amendments to regulations within the finance companies sector, which could encourage a more diversified portfolio structure for the sector. Additionally, the total assets of finance companies continued to grow in 2022, although at a slower pace on a year-on-year basis. The retail portfolio accounted for the majority of total credit provided by finance companies. It is worth noting that finance companies increased their resilience, as the non-performing loan ratio improved in 2022 as it continued the downward trend initiated in 2019. The sector experienced a slight decline in profitability post-Covid-19 pandemic recovery.

The Saudi and global equity markets declined following the first quarter of 2022; however, the Saudi Tadawul All Share Index outperformed other indices. The debt market expanded further, demonstrating the capital market's capacity to support domestic demand and economic growth. The capital market is dominated by domestic institutional investors, reducing the spillovers from international developments and ensuring market stability. However, there is a risk that market liquidity will impact the valuation and price of listed companies.

In line with the constant growth in financial innovation, FinTech companies in Saudi Arabia are increasing in number. While the size of their value remains small in financial system, the new potential risks they face may affect the financial system's integrity. Meanwhile, international payment systems face a growing risk of fragmentation. Moreover, third-party providers pose concentration risks that may become systemic. Cyber fraud threats continue to grow in complexity and sophistication. Nonetheless, Saudi Central Bank recognizes the risks of ongoing digital shift and constantly provides key policies to ensure financial stability, consumer protection, and market and financial integrity.

Discussions on climate-related financial risks have increased. International organizations, standard-setting bodies, and financial institutions are advancing the work on managing the financial stability challenges arising from climate-related financial risks.

# 1

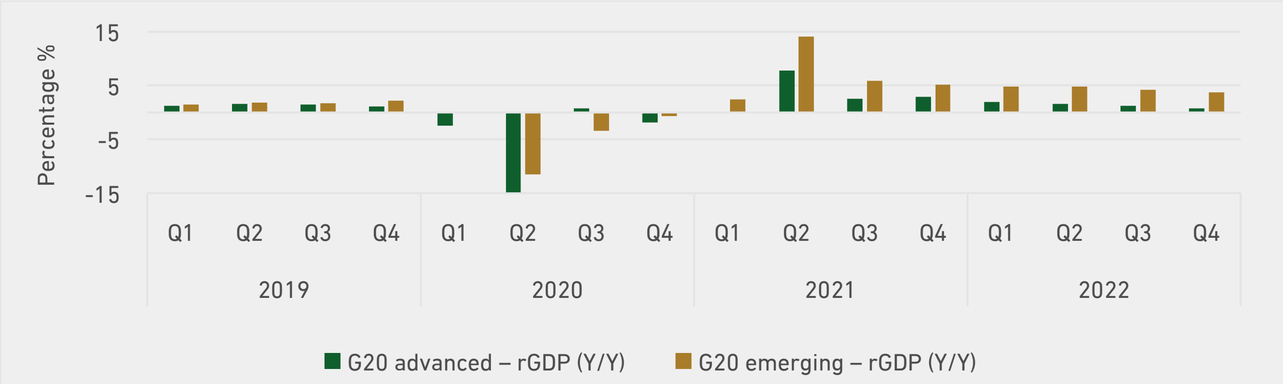
# Economic Developments

## 1.1 Global Economy

**Amid the global economy's ongoing recovery from the Covid-19 pandemic, financial stability risks have increased due to geopolitical tensions, stubbornly high inflationary pressures, and monetary policy tightening.**

Real GDP growth in advanced economies (AEs) recorded a steady decline during 2022, falling to 0.71% in the fourth quarter. The same trend was observed in emerging market economies (EMEs) as the growth decreased to a low of 3.7% at the end of 2022 (Chart 1.1.1). According to the *World Economic Outlook* released by the International Monetary Fund (IMF) in April 2023, the global growth for 2023 is projected to decline from 3.4% to 2.8%. This is mainly due to the uncertainty around the monetary policy cycle and the slow growth associated with the tightening cycle.

**Chart 1.1.1: Real GDP Growth**




Source: Bloomberg, Q4 2022

The purchasing managers' index (PMI) data was also impacted by the economic cycle fluctuations in 2022 (Chart 1.1.2). Both the global manufacturing market and the global services sector saw a steady decline, reaching an average of 50 points.

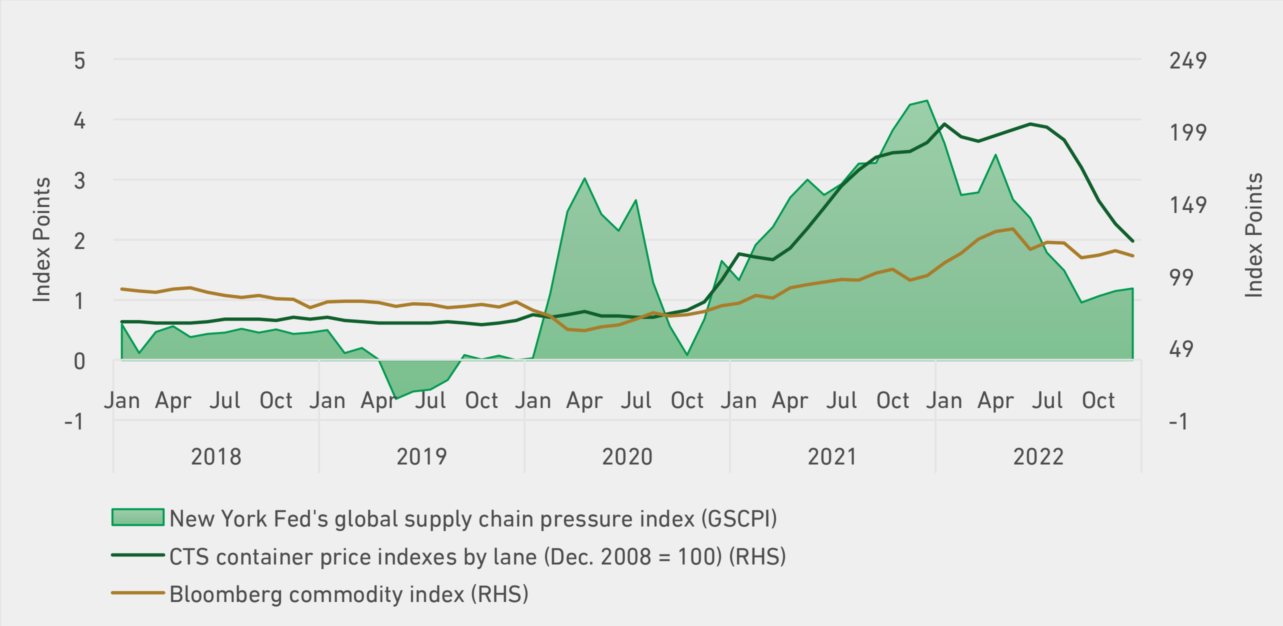
**Chart 1.1.2: Purchasing Managers' Index (PMI)**


Source: Bloomberg, December 2022

**Unexpected global shocks to the economy put more pressure on supply chains.**

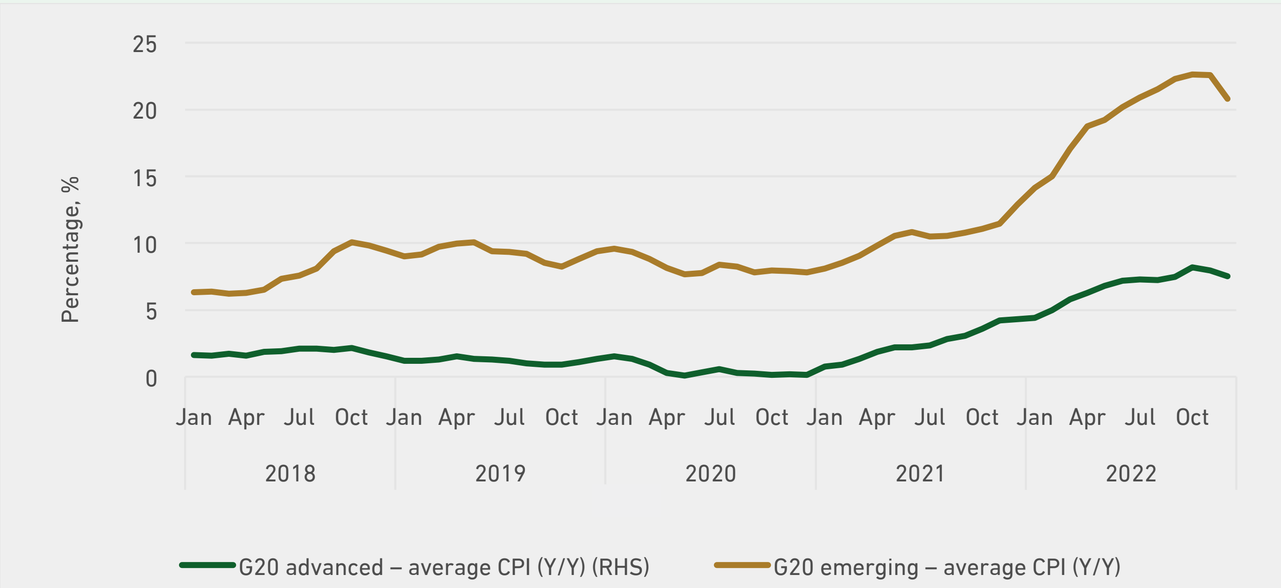
The prolonged pandemic related supply-chain disruptions and other events affected global freight dramatically, leading to a significant increase in freight costs and pushing the container price index to a record-high level of 204 points in June 2022. Shipping costs then dropped significantly from the historical peak in August as supply-chain disruptions eased and global demand softened (Chart 1.1.3). These supply factors combined with the sharp increase in global demand as well as rising wages and real estate prices influenced the dynamics of global inflation, causing sectoral shocks and persistent price pressures. In October 2022, inflation reached an all-time high, peaking in both AEs and EMEs at about 8% and 22%, respectively. With the tightening of monetary policy, which contributed to easing global demand, and improvement in supply chains, price pressures gradually subsided after October's peak, although they have remained at high levels in some countries. Additionally, persistence in core inflation will continue to weigh on households and corporate sectors and further complicate central banks' actions, putting more pressure on financial markets (Chart 1.1.4).

**Chart 1.1.3: Global Supply Chain Pressure**




Source: Bloomberg, December 2022

**Chart 1.1.4: Inflation Pressures**




Source: Bloomberg, December 2022

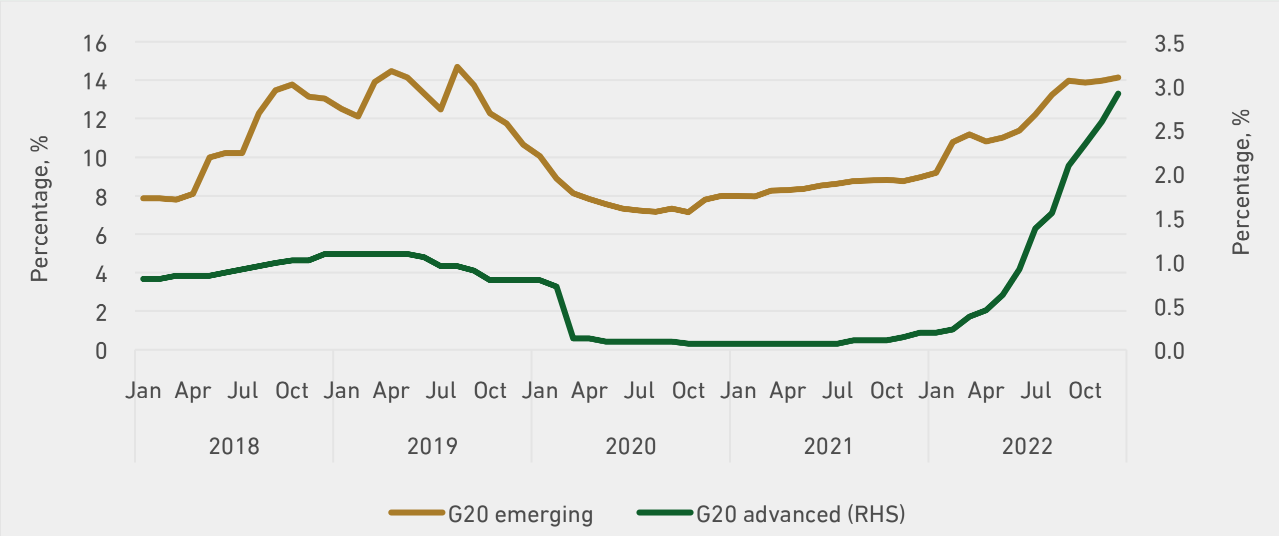
**To deal with the high-inflation environment, central banks tightened monetary policy by raising policy rates faster than initially expected and through quantitative tightening.**

Throughout 2022, the Federal Reserve (the Fed) raised the benchmark rate several times, taking it from a range of 0.00%-0.25% in January to a range of 4.25%-4.50% in December. The Bank of England and the European

Central Bank also increased their main interest rates from 0.25% and 0.00%, respectively at the beginning of the year to 3.50% and 2.50%, respectively by year-end (Chart 1.1.5). The trend continued into the early months of 2023 as inflation remained stubbornly elevated.

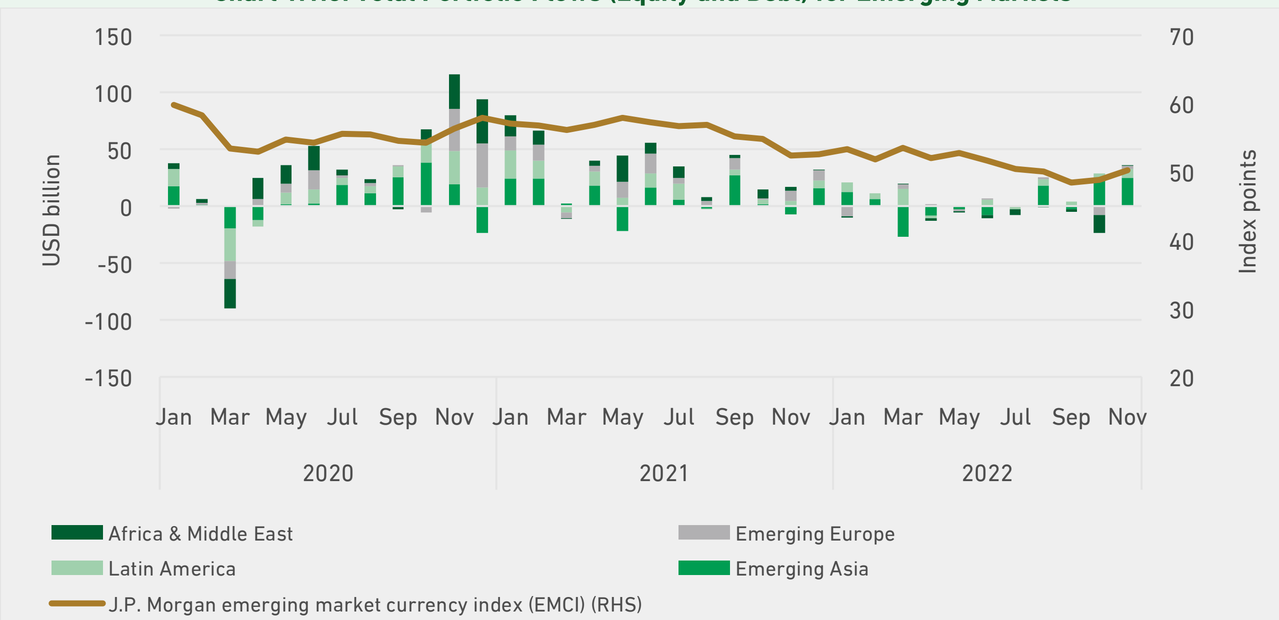
The tightening monetary cycle in advanced economies has interacted with vulnerabilities in some EMEs, forcing them to set tighter monetary policies to support their own currencies and mitigate inflationary pressures. Nevertheless, some EMEs experienced significant outflows and saw currency devaluation over 2022 (Chart 1.1.6).

**Chart 1.1.5: Policy Rates**




Source: Bloomberg, December 2022

**Chart 1.1.6: Total Portfolio Flows (Equity and Debt) for Emerging Markets**

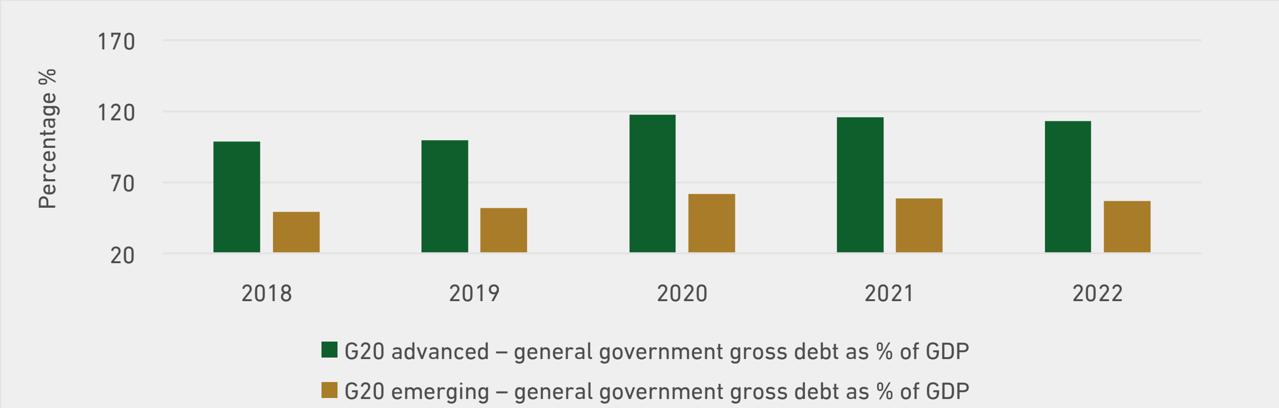



Source: Bloomberg, IIF

**Across countries, debt levels have been impacted by the accommodative fiscal policy adopted during the pandemic and the current central banks' policy actions.**

Although debt levels as a percentage of GDP in both AEs and EMEs fell from the 2020 peak, supported by the rebound in economic activity and the withdrawal of Covid-19 fiscal-support measures, they remained above pre-pandemic levels. In the context of high interest rates, the public sector's debt burden has risen significantly, eroding necessary fiscal buffers. This, coupled with higher financing cost, has raised concerns around fiscal capacity to mitigate potential future shocks (Chart 1.1.7).

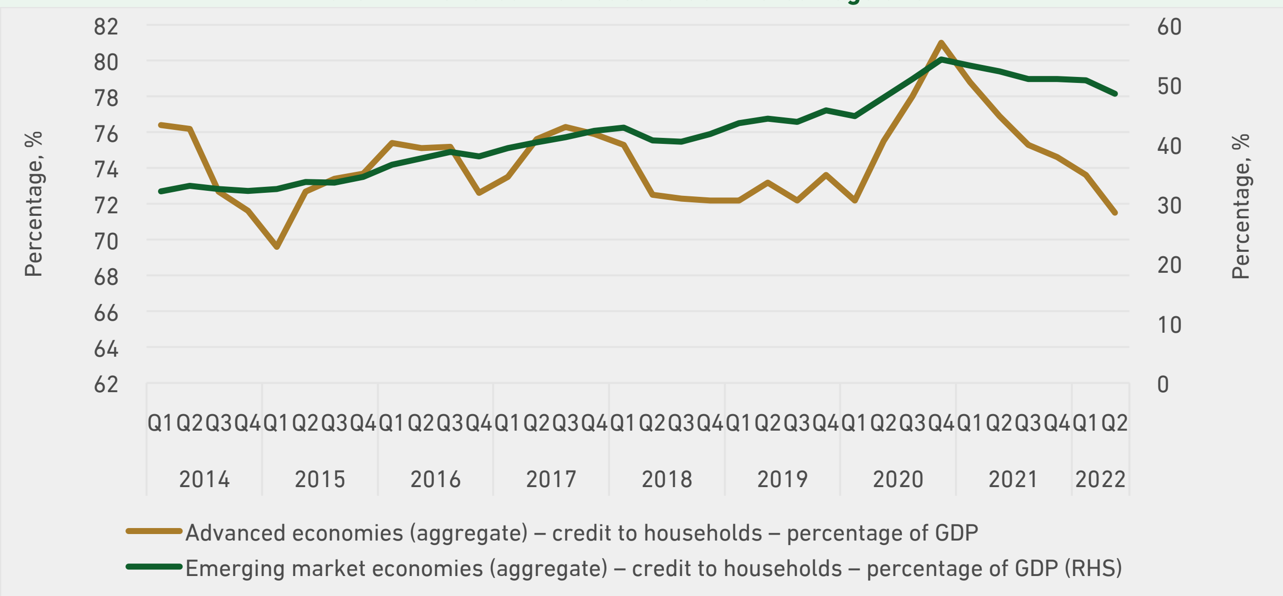
**Chart 1.1.7: General Government Gross Debt – Percentage of GDP**




Source: IMF World Economic Outlook, October 2022

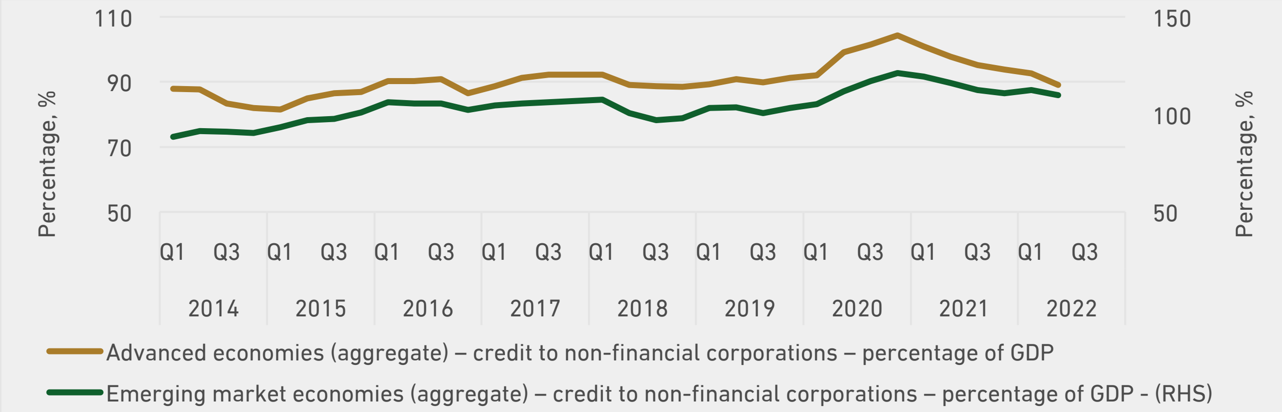
Higher financing costs have also increased debt-servicing vulnerability of both households and non-financial corporations. Although aggregate debt levels have started coming down from the 2020 peak, the rise in living costs and interest rates could lead to increasing debt defaults (Chart 1.1.8). Corporations also may face difficulty in maintaining debt-servicing ability, which would be a challenge given the global rise in interest rates (Chart 1.1.9).

**Chart 1.1.8: Credit to Households – Percentage of GDP**




Source: BIS, last observation Q2 2022

**Chart 1.1.9: Credit to Non-Financial Corporations – Percentage of GDP**

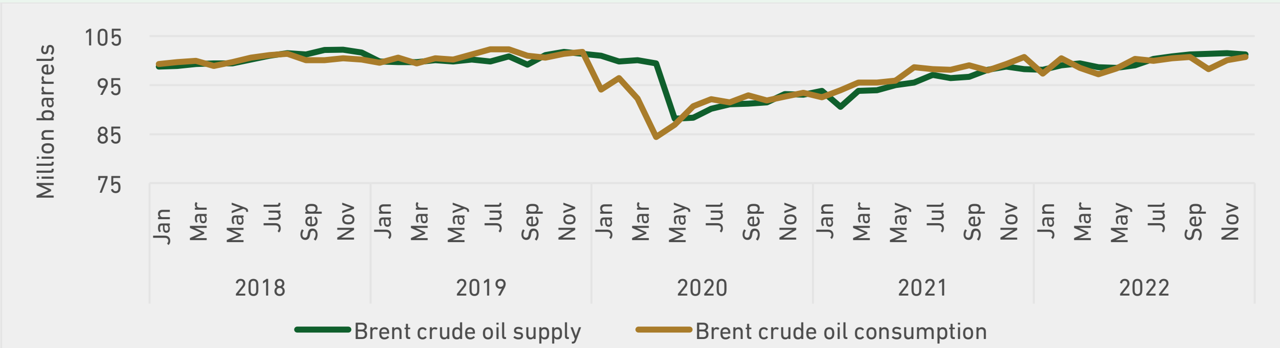



Source: BIS, last observation Q2 2022

**Energy markets were volatile, causing prices of oil and gas and key commodities to fluctuate considerably.**

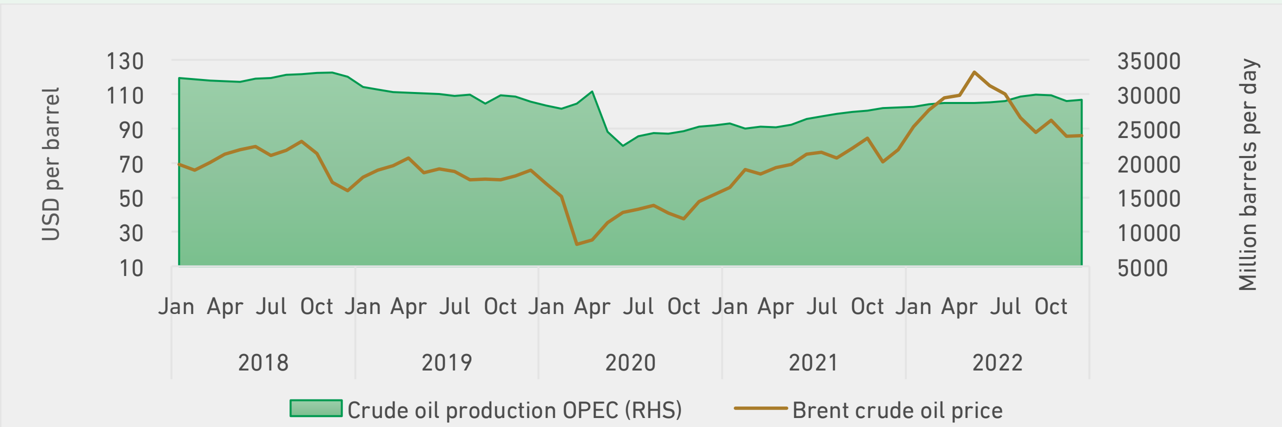
In the first half of 2022, oil prices were buoyed by improving oil market fundamentals, even though there was price volatility in the following months (Chart 1.1.10). In January, prices registered a year-on-year increase of about 63%, setting oil prices at above $100 per barrel in the following few months. This upward trend reached its peak in May, as prices slightly exceeded $123 per barrel, which represents an increase of about 77% year-on-year. However, oil prices were affected by the uncertainty surrounding the global outlook, the prices declined sharply over the following months, recording the lowest price of around $85 in the month of November (Chart 1.1.11).

**Chart 1.1.10: Market Fundamentals**




Source: Bloomberg, December 2022

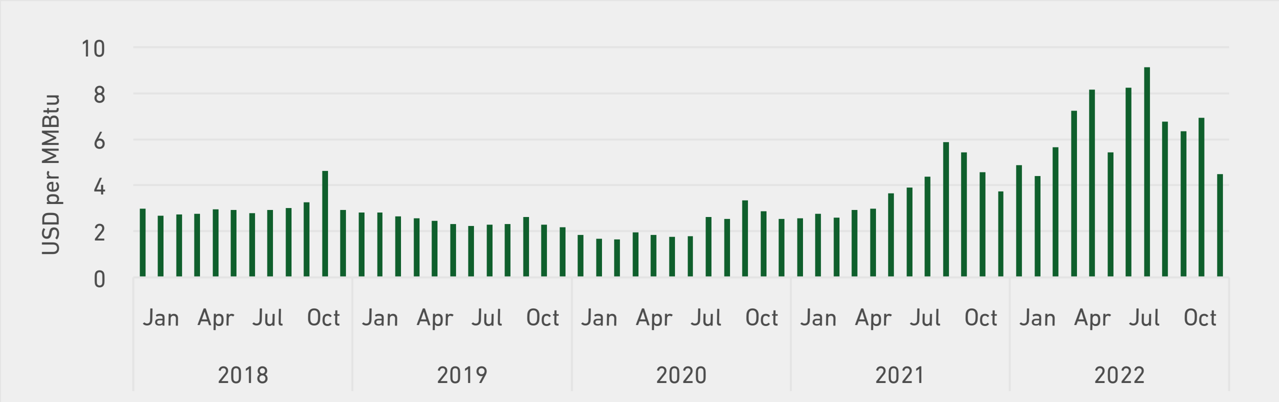
**Chart 1.1.11: Oil Market**




Source: Bloomberg, December 2022

Moreover, the conflict in Ukraine and subsequent supply-chain bottlenecks heightened natural gas market fluctuations in 2022. Strong demand amid increased supply-chain disruptions supported the trend to higher natural gas prices between January and May. Natural gas hit $8 per MMBtu in May from $4 per MMBtu in January. In the short term, it is expected that natural gas prices will be affected by uncertainty in the global environment (Chart 1.1.12).

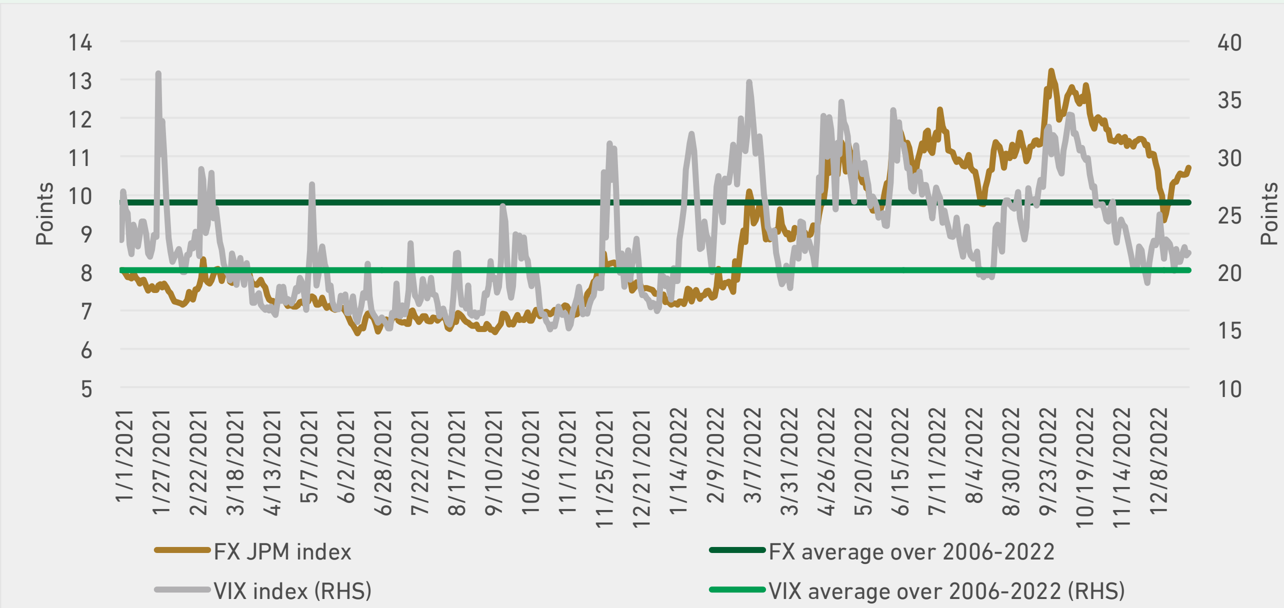
**Chart 1.1.12: Natural Gas Prices**




Source: Bloomberg, December 2022

The uncertainty over the macroeconomic outlook amid actions taken by central banks to curb inflation has led to a broad repricing of assets across markets. Volatility across equity and foreign currency markets rose and remained elevated relative to historical trends (Chart 1.1.13).[1] The price-to-earnings ratios of both AEs and EMEs declined sharply, reflecting the fall in equity prices, although valuation in EMEs remained somewhat below their long-term average (Chart 1.1.14).

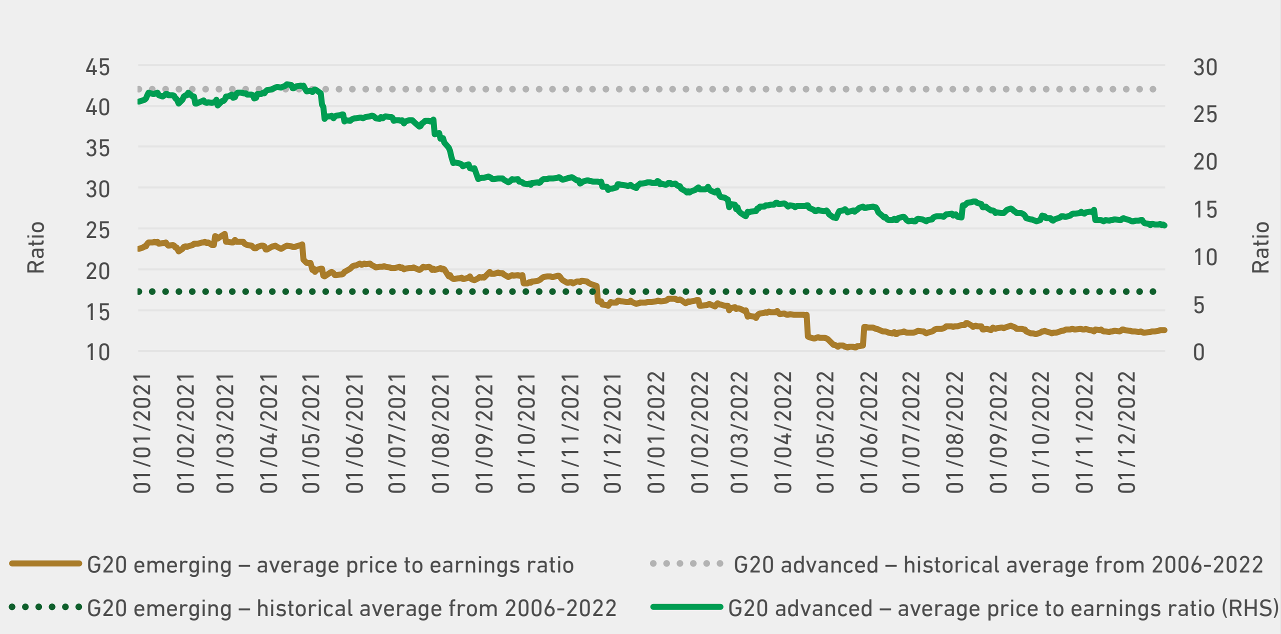
**Chart 1.1.13: Market Volatility**




Source: Bloomberg, 31 December 2022

[1] The CBOE Volatility Index (VIX) reflects near-term equity market volatility derived from the S&P index. The Forex (FX) index reflects volatility in the exchange rate.

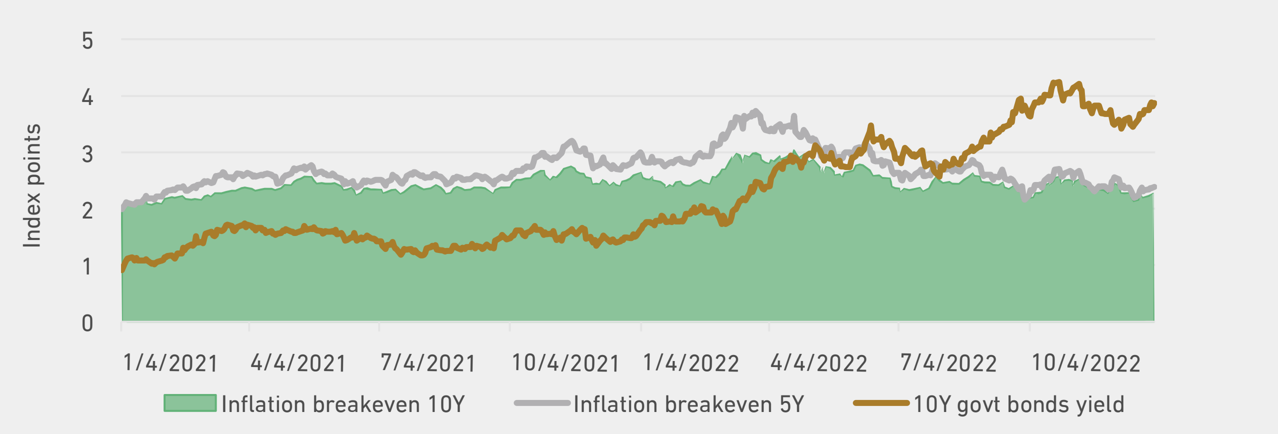
**Chart 1.1.14: Market Valuation**




Source: Bloomberg, 31 December 2022

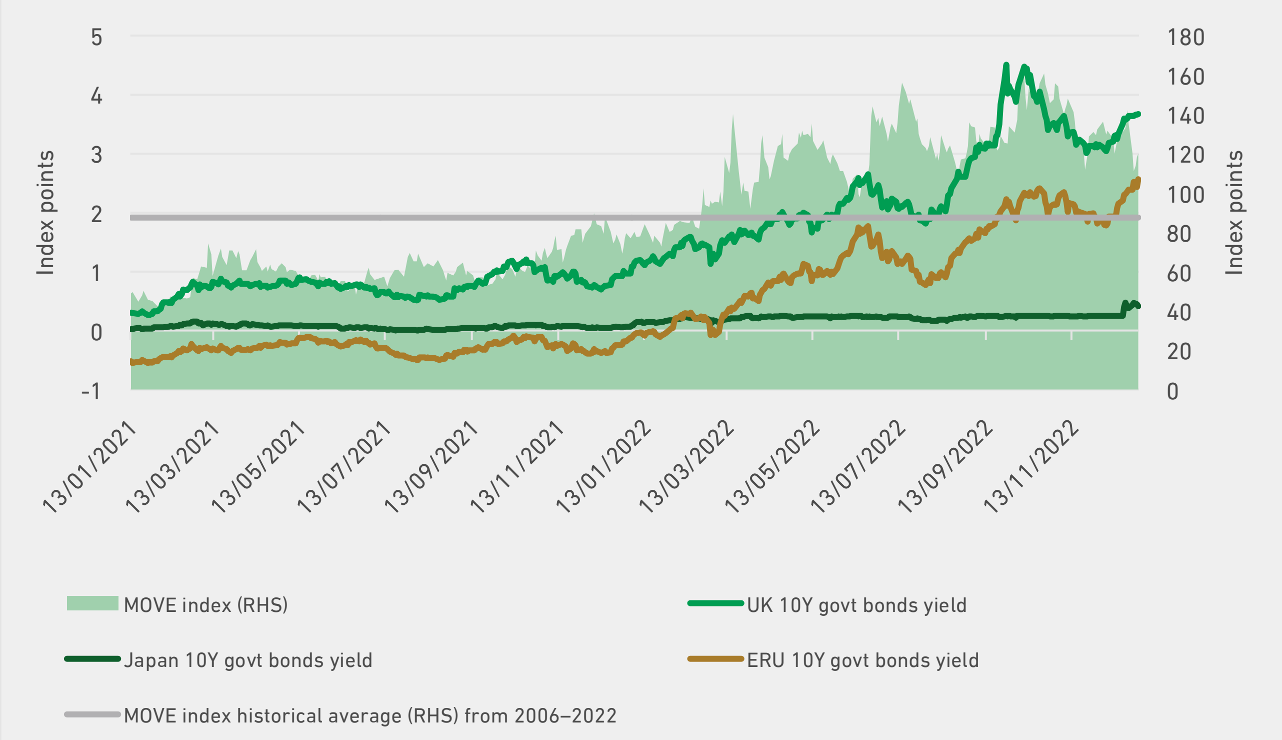
The continuous rise in reference rates coupled with growing expectations of higher interest rates and greater inflation pressures (Chart 1.1.15) has led to a sharp increase in bond market volatility. This effect was particularly significant in government bond yields. Volatility in the bond market has also heightened since July 2022. The MOVE index, which reflects near-term bond market sentiment, has been at somewhat higher than average levels (Chart 1.1.16). As a result, liquidity in the US Treasury market and other bond markets shrank significantly over 2022 (Chart 1.1.17).

**Chart 1.1.15: Ten-Year US Government Bond Yields and Inflation Expectation**



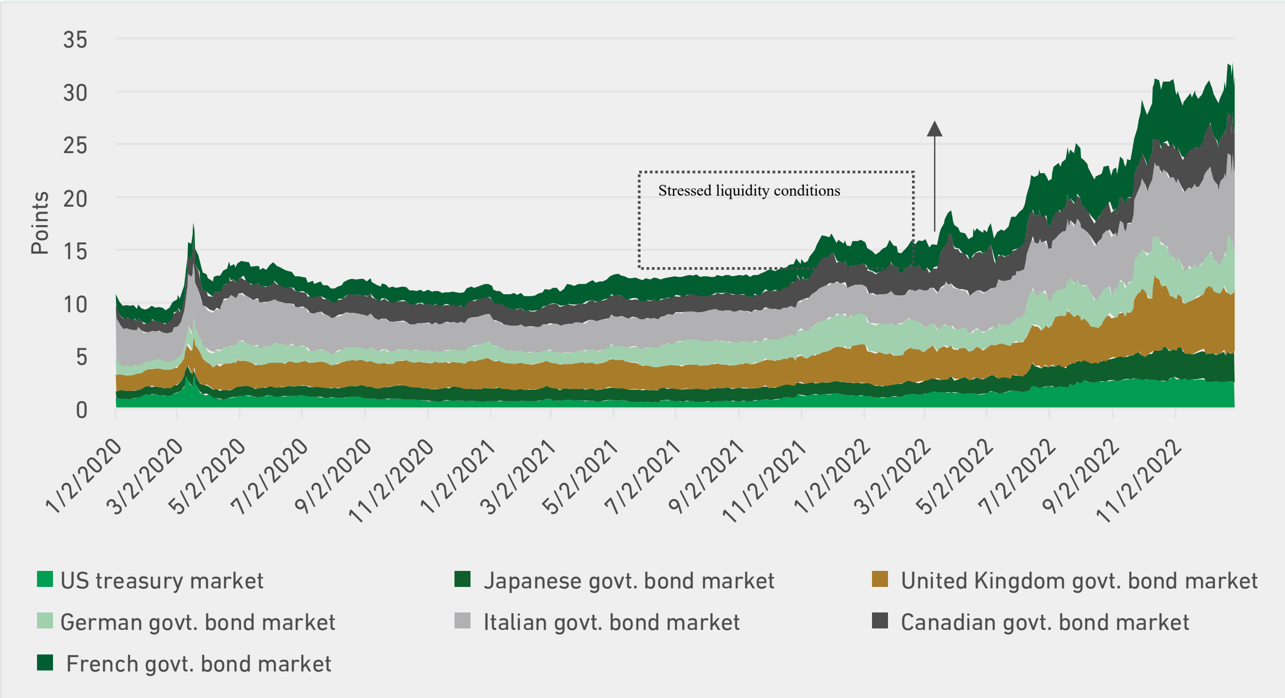

Source: Bloomberg, 31 December 2022

## Chart 1.1.16: Selected Government Bonds Yield




Source: Bloomberg, 31 December 2022

## Chart 1.1.17: Selected Indicators for Liquidity Condition in Government Bond Markets




Source: Bloomberg, 31 December 2022

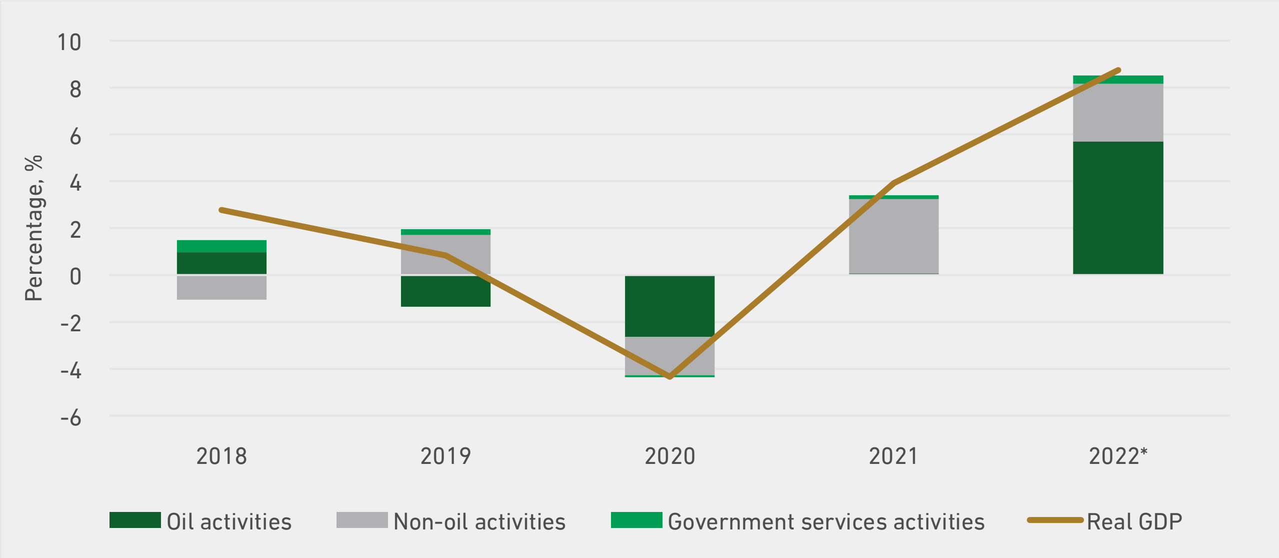
## 1.2 Domestic Economy

**The Saudi Arabia's economy witnessed strong growth in 2022 due to its successful emergence from the Covid-19 crisis. Saudi's policies accelerated the recovery of the Kingdom's economy and maximized economic gains in the aftermath.**

The real GDP of Saudi Arabia grew by 8.7% in 2022 compared to a 3.9% increase in 2021. The overall GDP growth was driven mainly by oil activities (15.4%), with non-oil activities contributing positively to the overall GDP growth (5.4%) (Chart 1.2.1).

The growth in oil activities is higher in 2022 compared to 2021 due to the OPEC+ agreement, aimed at stabilizing the global oil market, and the improvement in global demand for oil. Going forward, oil activities are expected to continue to support domestic economic growth but at a slower rate, given the base year effect in 2021.

**Chart 1.2.1: Real GDP Growth by Main Economic Activities**




* Preliminary data
Source: GASTAT

**Following the rebound in 2021, non-oil activities growth continued to expand.**

This was influenced mainly by an increase in private investment of about 25%, reflecting Public Investment Fund (PIF) spending as part of its strategic plan to achieve Vision 2030 objectives. This was coupled with an increase of about 4.8% in private consumption, which is attributed to the return of domestic tourism and entertainment activities, including Riyadh Season, and the lifting of most travel restrictions on inbound visitors, including Hajj and Umrah performers at the beginning of March 2022.

**Looking at the near future, and according to the most recent IMF estimates, the Saudi economy is expected to grow at a slower pace of 3.1% in 2023.**

This is primarily a result of lower oil-sector growth in line with the OPEC+ agreement. On the other hand, robust and sustainable levels of non-oil GDP growth are envisaged to be supported by continued recovery in tourism and the progress in Vision 2030-related initiatives such as privatization programs, supporting local content, increasing non-oil exports as a share of non-oil GDP, and the continuation of PIF spending in the local economy.

**On the back of the economic recovery, the unemployment rate declined during 2022 compared to 2021.**

The Saudi unemployment rate decreased to 8% in 2022 from 11% in 2021. Saudi male unemployment further dropped from 5.2% in 2021 to 4.2% in 2022, while the female unemployment rate declined from 22.5% to 15.4%. The Saudi labor force increased due to a higher participation ratio, which rose from 51.5% in 2021 to 52.5% in 2022. With the continuation of labor market reforms, such as the Saudization efforts of a large number of sectors, the Saudi employment rate is expected to improve even further.

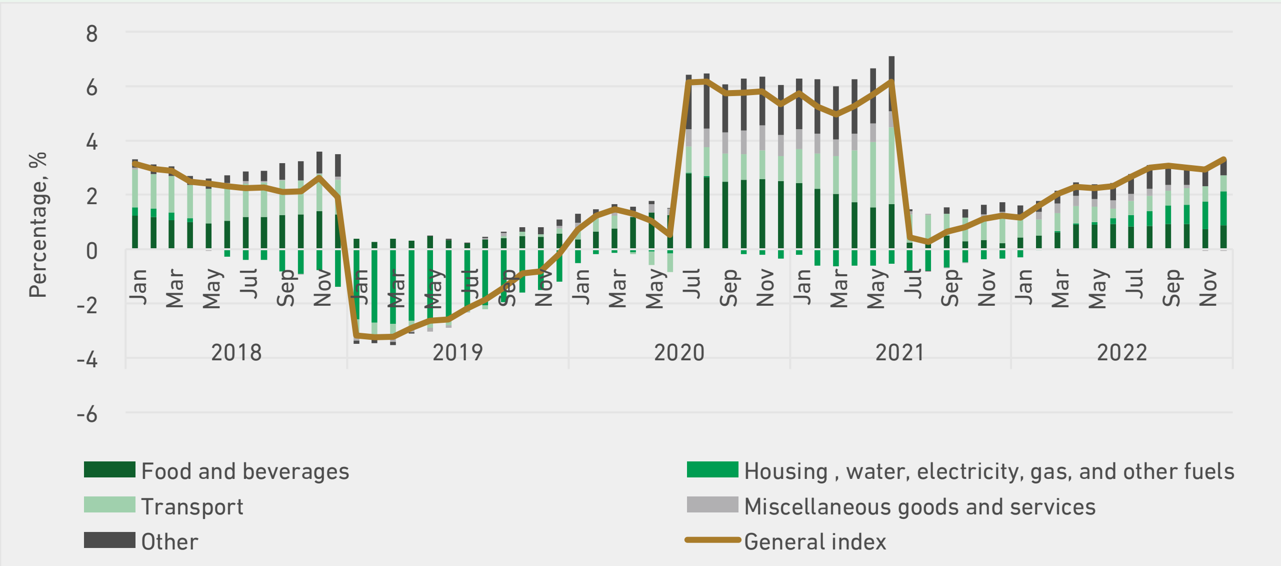
**Prices in the Kingdom have not been greatly affected by the higher rate of inflation globally.**

Saudi Arabia's consumer prices increased by 2.5% in 2022 (Chart 1.2.2). Signs of inflationary pressures were most noticeable in food and beverages. Prices for this sub-index have risen on average by 3.7% in 2022, as a large portion of consumer goods are imported. In contrast, caps on domestic gasoline prices and a fixed exchange rate policy helped stabilize inflation by minimizing the impact of higher gasoline prices globally.

**Going forward, the inflation rate in Saudi is expected to moderate in 2023.**

Stabilizing commodity and food prices, in addition to the strength of the USD, is expected to limit upward pressure on imported goods in KSA. On the other hand, the boost in domestic tourism activities, with higher ex-pat entries, and the improvement in the labor market are among the factors expected to lead to higher local demand and stimulate consumption levels.

**Chart 1.2.2: Contribution to Annual Inflation Rate of the Consumer Price Index**

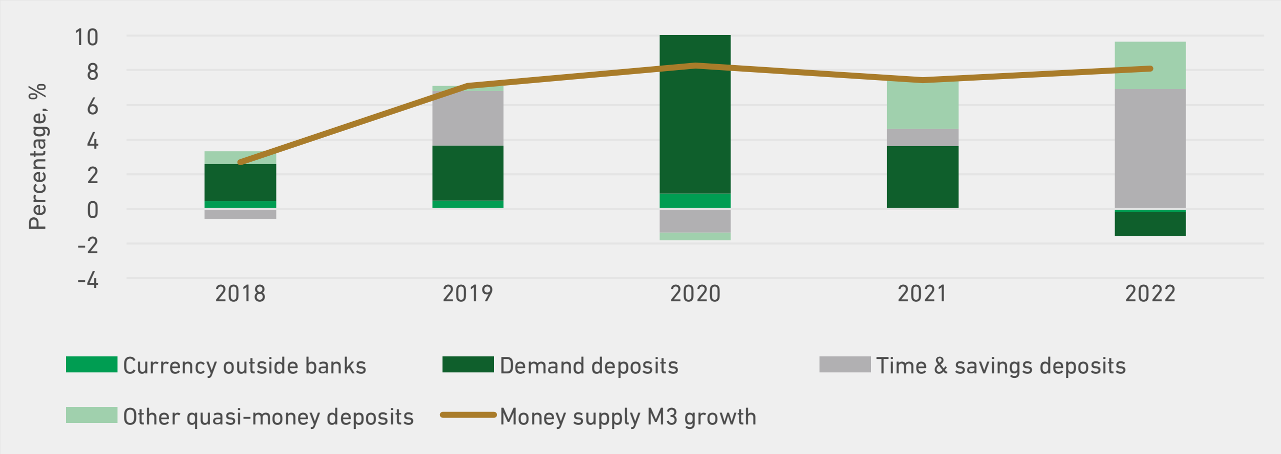



Source: GASTAT

**The increase in interest rates policy contributed to a slight decrease in demand deposits and an increase in time and savings deposits.**

Monetary aggregates grew in 2022 compared to the previous year. The monetary base recorded a growth rate of 2.2% in 2022 compared to an increase of 1.0% in 2021. As a result of government spending and credit creation, the broad monetary aggregate (M3) grew by 8.1% year-on-year by the end of 2022. Demand deposits, which represent 53.2% of M3, recorded a decline of 2.3% in 2022. Currency outside banks dropped by 2.2% in 2022 compared to a decline of 0.9% in 2021. Other components of M3, such as time and saving deposits and other quasi-money deposits, displayed positive year-on-year growth rates in 2022 of 32.2% and 25.5%, respectively, due to higher interest rates (Chart 1.2.3).

**Chart 1.2.3: Growth Rates of M3 and Its Components**



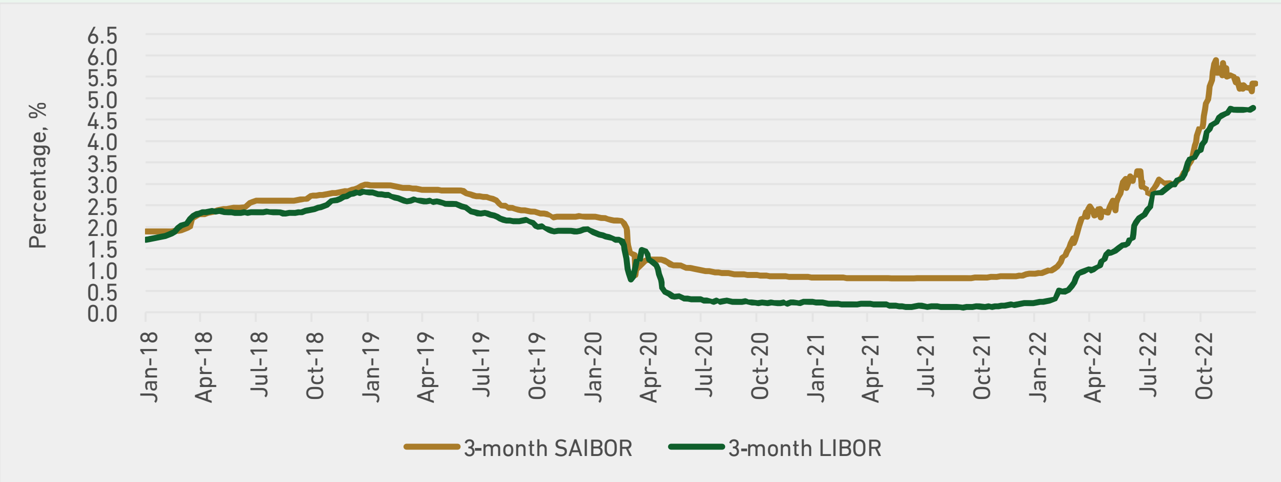

Source: SAMA

**The Saudi Central Bank remains actively engaged in liquidity management through its monetary policy tools.**

Responding to global developments and inflationary pressures in the US economy, the US Federal Reserve raised the federal fund target rate rapidly since March 2022 until it reached 4.25%-4.50% by year-end. The Saudi Central Bank (SAMA) raised the policy rates seven times in 2022 to reach 4.50%-5.00% by year-end to preserve the mandate of monetary stability. The three-month Saudi Arabia Interbank Offered Rate (SAIBOR) averaged around 3.1% in 2022, making the average spread between the SAIBOR and LIBOR around 47 basis points in favor of the Saudi Riyal (Chart 1.2.4).

Despite the speed of the rate hike cycle in 2022, the robust fundamentals of the Saudi economy and the continued recovery limited the downside risk of rising policy rates. Additionally, as mentioned earlier, the various programs and initiatives of the Kingdom's Vision 2030, including the ongoing giga-projects, would stimulate the economy and support its growth in the upcoming periods.

**Chart 1.2.4: Saudi Arabia Interbank Offered Rate**



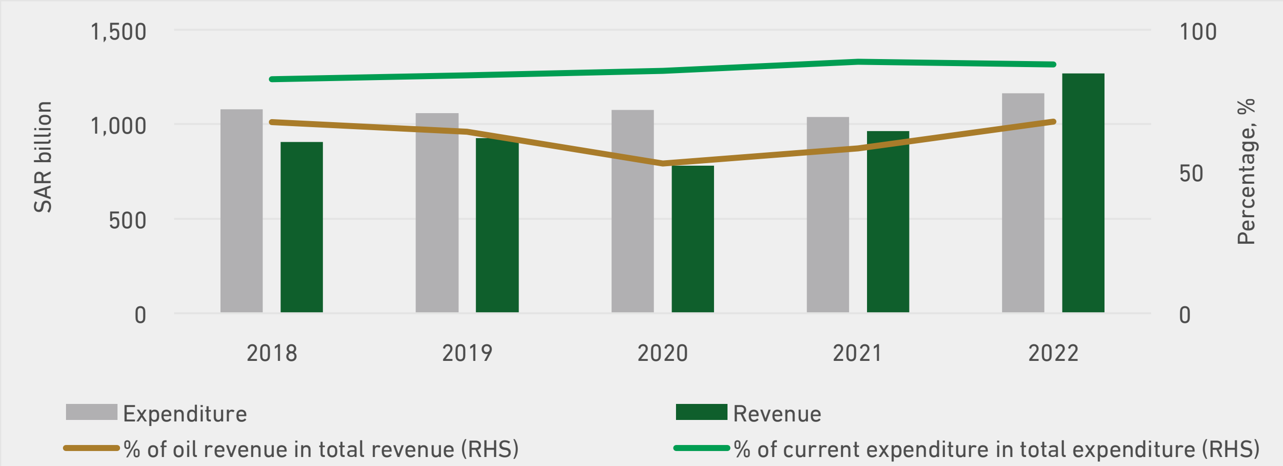

Source: SAMA, Bloomberg

**Despite the global economic uncertainty, Saudi Arabia recorded its first annual budget surplus in nearly a decade.**

Government revenue increased in 2022, where total revenue reached SAR 1,268.2 billion, an increase of 31% compared to the previous year. The boost was driven by the economic recovery and higher global demand for oil. The latter can be witnessed in the 52% jump in oil revenue in 2022. Non-oil revenue reached SAR 410.9 billion, an increase of 2% compared to 2021 results.

Government expenditure increased by 12% compared to 2021, reaching SAR 1,164.3 billion in 2022. Compensation for employees, which represents the largest share of current expenditures, increased by 4% year-on-year by 2022, totaling SAR 513.2 billion. Current expenditure increased by 10.8% during the same period, whereas capital expenditure increased by 22% in 2022, due to government spending on giga-projects during the same period (Chart 1.2.5).

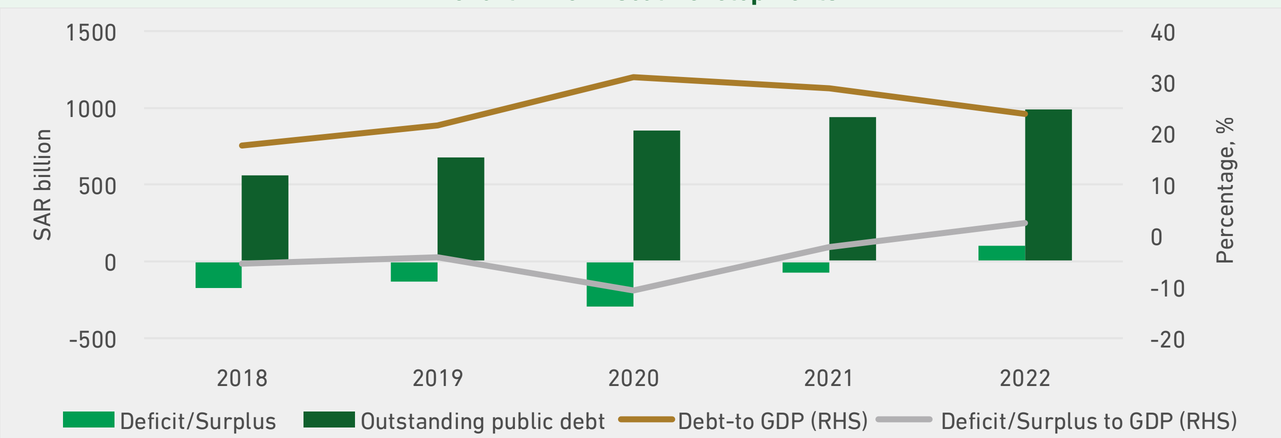
**Chart 1.2.5: Revenues and Expenditures**




Source: MOF

The fiscal surplus was around SAR 103.9 billion in 2022. Saudi Arabia's public debt has increased in recent years; however, the debt-to-GDP ratio decreased from 28.8% in 2021 to 23.8% in 2022. Despite the expectation of surpluses in the budget for 2023, debt operations are expected to continue to refinance the principal-due debts and to finance capital and infrastructure projects that will boost economic growth (Chart 1.2.6).

**Chart 1.2.6: Fiscal Developments**

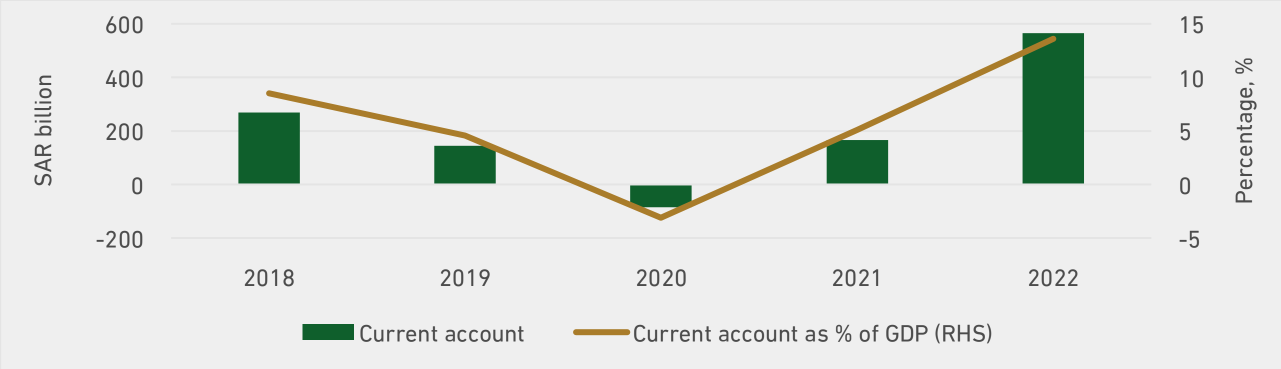



Source: MOF, GASTAT

**Higher oil exports took the current account to a 9-year-high surplus in 2022.**

Strong export growth also outpaced the growth in imports. Estimated data suggest a current account surplus of SAR 565.3 billion (equivalent to 13.6% of GDP) compared to a surplus of SAR 166.2 billion (equivalent to 5.1% of GDP) in 2021 (Chart 1.2.7).

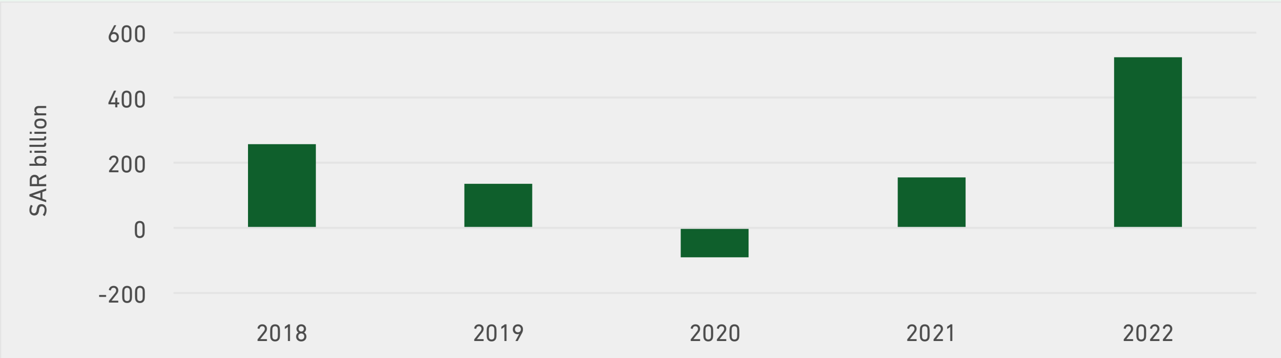
**Chart 1.2.7: Current Account**




Source: SAMA, GASTAT

The net financial account recorded an outflow of SAR 523.4 billion (12.6% of GDP) in 2022 compared to an outflow of SAR 155.9 billion (4.8% of GDP) in 2021 (Chart 1.2.8). This was due to the outflow of SAR 327.1 billion in the net of other investments where net acquisition of financial assets increased by SAR 290.7 billion compared to SAR 83.5 billion in 2021. Net portfolio investments increased in 2022 by SAR 138.5 billion compared to SAR 144.5 billion in 2021.

**Chart 1.2.8: Financial Account**




Source: SAMA

Exports recorded growth primarily due to higher oil exports, which accounted for 79.5% of total exports. In value terms, exports of goods and services jumped in 2022 by 54.5% compared to 2021. Imports registered an upsurge during 2022, as they rose by 25.9% compared to the previous year, reflecting a pickup in domestic demand.

SAMA's foreign exchange reserves increased slightly from 2021, by about 1.0%, to stand at SAR 1,724.4 billion by the end of 2022. SAMA's foreign exchange reserves remain sufficient to meet the demand of balance of payments, as they cover about 29.2 months of imports of goods.

## Box 1.1: 2023 Banking Turmoil in the US and Europe

As the focus of financial markets gradually shifted from the pandemic in 2020-2021 to inflation and tightening monetary policy mid-2022–2023, traditional risks revolving around interest rate and risk management remain significant in the banking sector. Rising interest rates significantly raised yields across the bond market, resulting in huge losses for some of the smaller and midsized banks in the US, with weak internal risk management controls. A subsequent series of accumulated financial losses accompanied by material weaknesses led the equity prices of Credit Suisse to drop sharply. Nonetheless, due to the nature of assets and investments in the Saudi banking system, the impact of these events was limited in the domestic context.

The Fed began raising rates in the second half of 2022 to curb inflation. Two midsized banks in the US, Silicon Valley Bank (SVB) and Signature Bank, faced challenges adapting to the new high-interest-rate environment, resulting in a sudden collapse of both banks in March 2023 and a large outflow of deposits from the US banking system. This was mainly due to deposit concentration, which resulted in unexpected liquidation of some banks' HTM investments, leading to losses. Federal regulators, namely the Fed, Federal Deposit Insurance Corporation (FDIC) and the US Treasury, announced emergency measures on March 12, 2023, to protect the deposits at both banks and launched a separate lending facility to prevent the banks' failure from causing further spillover. Standard-setting bodies (SSBs) such as the Bank for International Settlements (BIS) are investigating the need for more comprehensive rules related to capital and liquidity requirements along with supervisory tools to ensure banks can withstand rising interest rates.

The recent hikes in interest rates have caused unrealized losses on securities held by the banking sector, significantly reducing the reported equity capital of banks that had been reflected in financial soundness indicators. Such vulnerabilities underline the need for proper risk management to avoid triggering more banking turmoil, especially if banking exposure to government bonds appears to be large.

Furthermore, credit tightening can unfold in a non-linear manner, as credit constraints can drive down asset prices, leading to an increase in non-performing loans (NPLs) and further credit constraints. If credit conditions tighten further, that may affect the demand for loans and the flow of deposits, increasing the uncertainty of the economic outlook; hence, the interest-rate-hiking cycle may be influenced.[2] The result will be a broader financial impact on households and companies, which in turn could reduce lending activity and demand for loans, leading to a further slowdown in economic activity.

Another event in the midst of the recent banking turmoil occurred. Credit Suisse faced liquidity pressure after large deposit withdrawals related to increasing concerns about the financial and capital position of the bank. Credit Suisse faced several challenges over the past few years: changes in top management, multi-billion dollar losses, and struggles to implement its new strategy. The sell-off of shares began in 2021, triggered by losses associated with the collapse of investment funds and the CEO's resignation. Credit Suisse shares lost over 75% of their value since early 2022. That prompted the UBS Group to take over Credit Suisse on March 19, 2023, in a $3-billion-plus deal engineered by Swiss regulators — namely, the Swiss federal government, the Swiss Financial Market Supervisory Authority (FINMA), and the Swiss National Bank. Authorities provided additional emergency liquidity lines and guarantees to address financial stability concerns.

This banking turmoil has raised global concerns around current supervisory practices and the adequacy of risk-management tools — in particular, methodologies of hedging interest-rate risk during times of rapid

[2] Minutes of the Federal Open Market Committee (FOMC), March 21–22, 2023

monetary policy tightening. This chain of events differs from the global financial crisis (GFC), however. The global banking system is more resilient now than in 2008 and 2009 due to the development of a macroprudential policy framework and the improvement of capital and liquidity positions. This was confirmed by the IMF's latest global stress test and the BIS's December 2022 report that assessed the effectiveness of implementing Basel III.

The Saudi banking system's exposure to the troubled banks is considered insignificant, and that follows from the fact that the overwhelming majority of the banking system's assets are domestic. As of the end of March 2023, foreign investments by local banks did not exceed 2.83% of their total assets. This minimal exposure to the banks is not anticipated to affect the Saudi financial system. Beyond this, SAMA's commitment to the timely adoption of international regulatory reforms and best supervisory practices has served the domestic financial system well. The latest development in this regard was the full implementation of the final reforms of Basel III by January 1, 2023.

# 2

# Saudi Financial System

## 2.1 Banking Sector

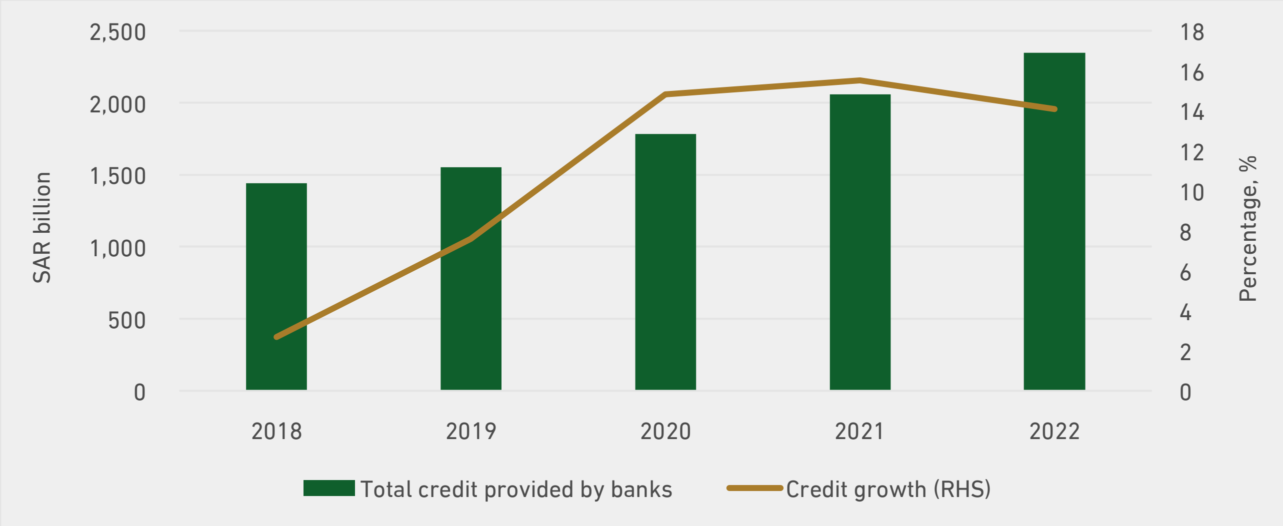
**In 2022, bank credit and asset growth remained strong.**

Despite recent global macroeconomic developments in regard to inflationary pressures and monetary tightening, there was no impact on the Saudi Banking sector, as data indicates that bank credit growth and asset growth persisted throughout 2022.

**Credit expanded, but at a slower pace, driven by the deceleration in mortgage lending.**

In recent years, the banking sector has seen significant credit growth, driven primarily by mortgage lending. However, it slowed down slightly in 2022, reaching 14.1% compared to 15.5% the previous year.

**Chart 2.1.1: Bank Credit**

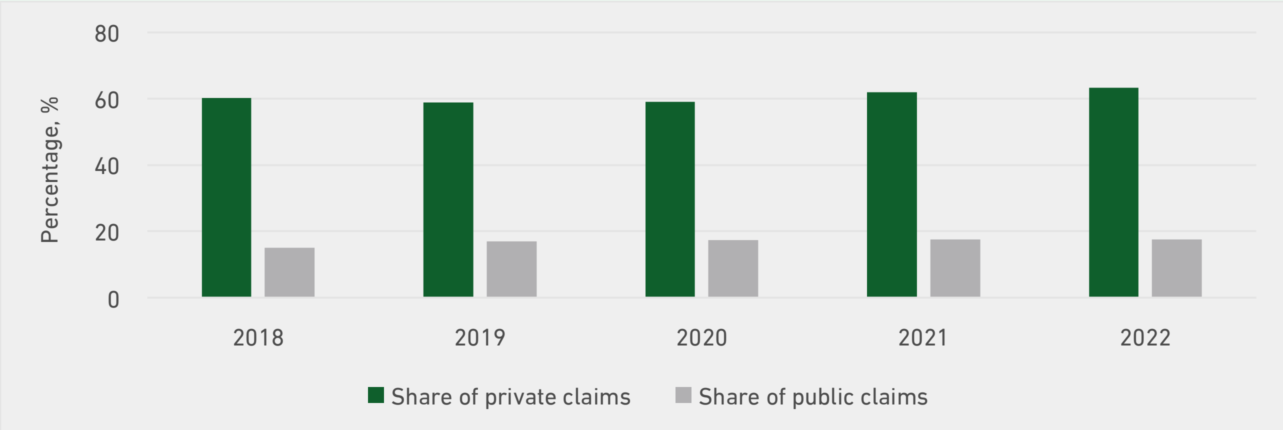



Source: SAMA

**Private-sector lending by banks grew at a slower rate than public-sector lending.**

The majority of bank claims were on the private sector, accounting for 63.2% of total assets in 2022, while government and quasi-government claims comprised only 17.6% of banks' total assets (Chart 2.1.2).

**Chart 2.1.2: Share of Private and Public Claims to Total Assets**




Source: SAMA

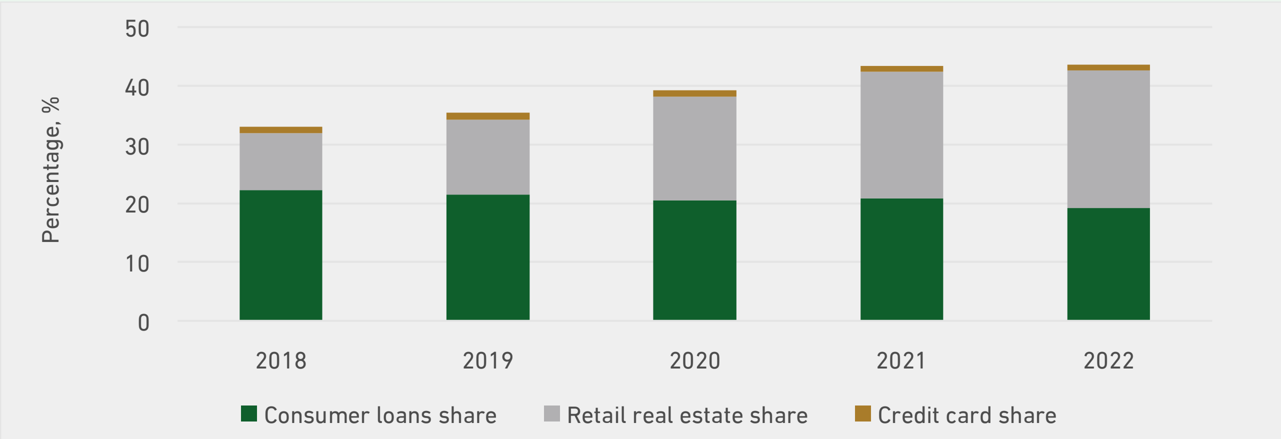
**Trends in the deceleration of credit were also evident in retail credit growth.**

Retail loans recorded slower growth in general. Retail real estate loans grew by 23.3% in 2022 compared to 41.4% the previous year. Consumer loans also recorded a lower growth, at 5.4% compared to 17.3% in 2021.

Retail bank credit showed credit growth of 13.9% at the end of 2022. Retail real estate loans accounted for 23.4% of total credit provided by banks, followed by retail consumer loans at 19.2% and credit cards at 1% (Chart 2.1.3).

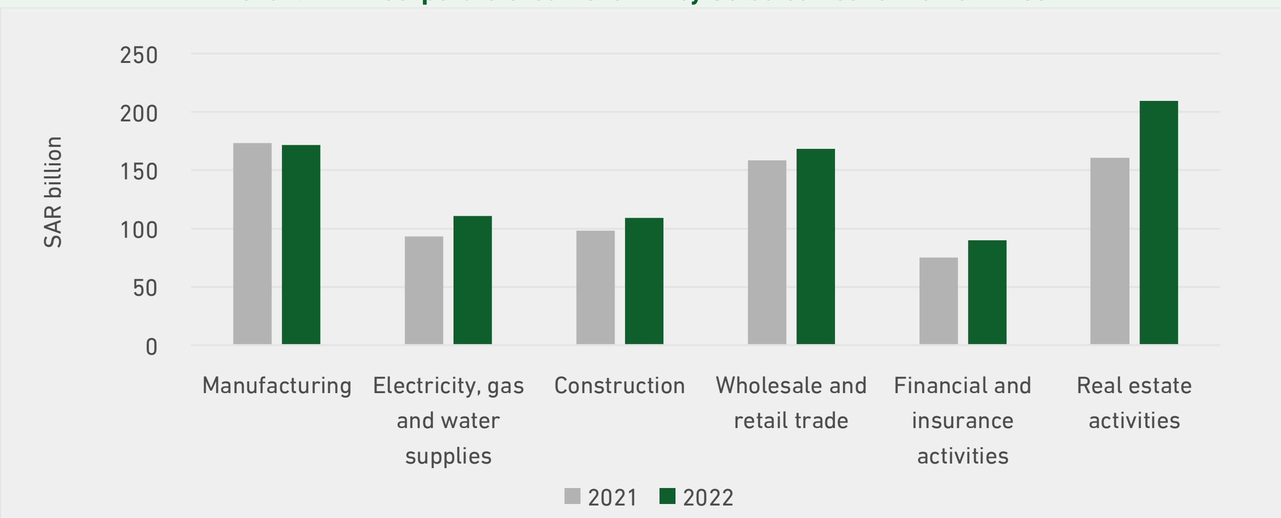
Corporate credit accelerated during 2022, driven by real estate activities,[3] which registered a 30.7% growth from the previous year (Chart 2.1.4).[4] In addition, credit to micro, small and medium enterprises (MSMEs) increased by 13.1% compared to 10.7% in 2021, despite interest rate hikes.

**Chart 2.1.3: Retail Credit Contribution to Total Banking Credit**




Source: SAMA

**Chart 2.1.4: Corporate Credit Growth by Selected Economic Activities**




Source: SAMA

**Asset growth is projected to continue, supported by credit extension to the corporate sector.**

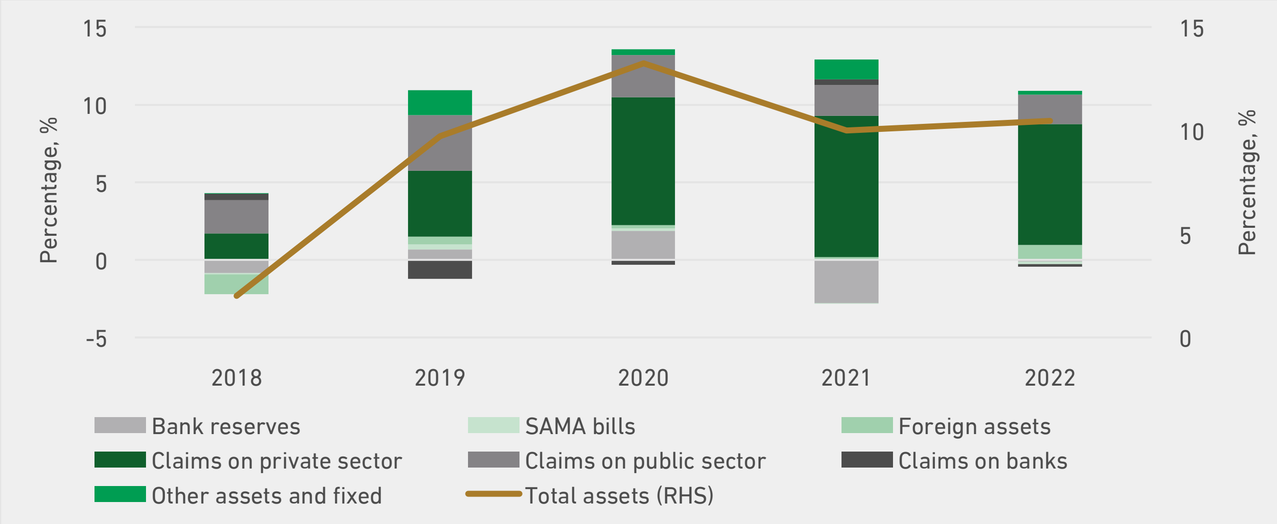
The banking sector's total assets rose by 10.5%, reflecting private-sector economic recovery. Asset growth is expected to continue to rise due to expected demand for lending from corporate sector. Claims on the private

[3] Real estate activities include all real estate–related loans taken out by the corporate sector.

[4] Selected economic activities by importance and weight to total corporate loans.

sector continued to be the main driver of asset growth in 2022, accounting for 7.8% of total asset growth in the sector, down from 9.1% the previous year (Chart 2.1.5).

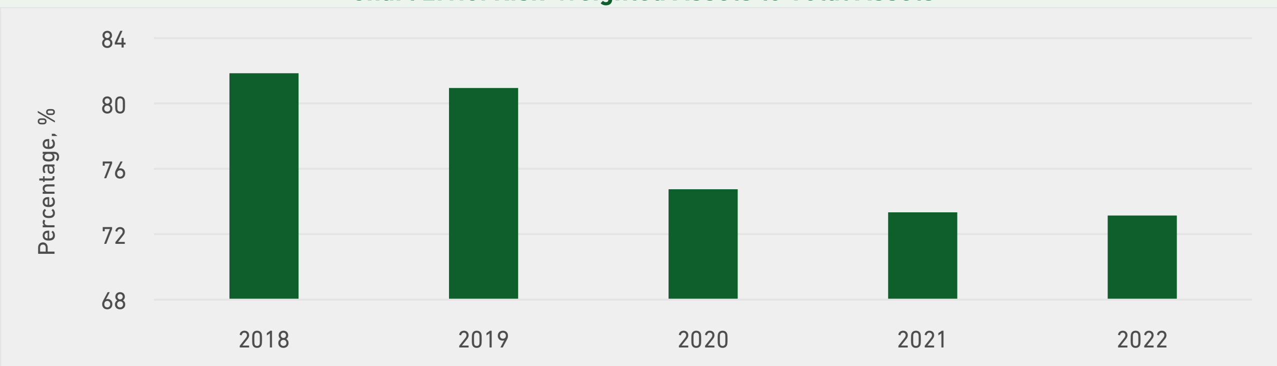
**Chart 2.1.5: Drivers in Yearly Banking Assets Growth**




Source: SAMA

The Pillar I risk-weighted assets (RWAs) increased by 10.2% in 2022 over the previous year. Additionally, the RWA to total assets ratio decreased slightly, reaching 73.1% compared to 73.3% in 2021. This was due to higher exposure to real estate lending, which has been on the rise for the last five years (Chart 2.1.6).

**Chart 2.1.6: Risk-Weighted Assets to Total Assets**

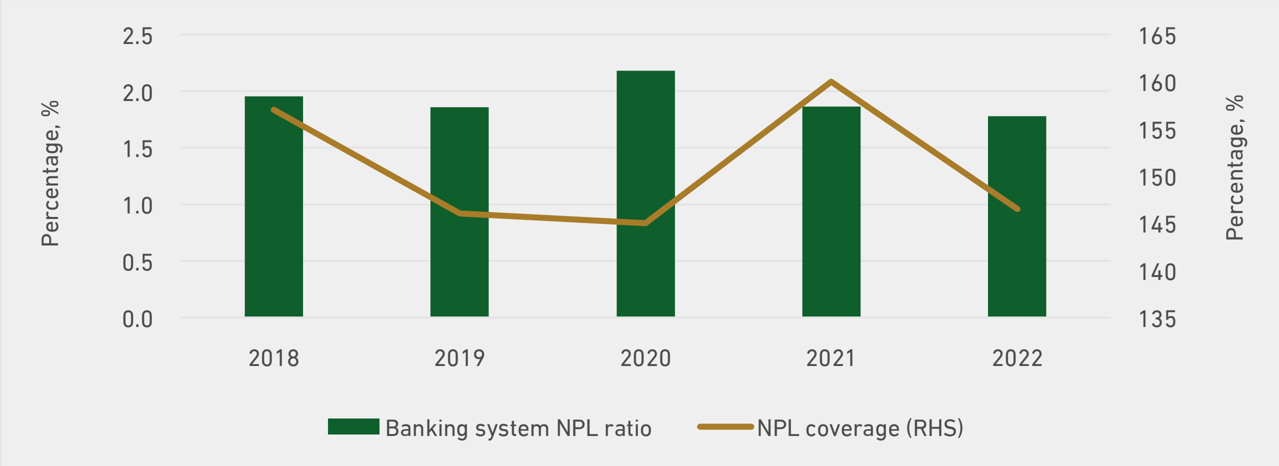



Source: SAMA

**The NPL rate remained low due to factors such as robust lending standards.**

While interest rate hikes raise concerns about the NPL rate, it remained low, slightly declining to 1.8% in 2022 compared to 1.9% in 2021, with an ample level of coverage of 146.5% in 2022 compared to 160% in the previous year (Chart 2.1.7). This decline in NPL ratio is attributed to domestic banks' resiliency, which is due to factors such as robust lending standards. It is worth noting that the majority of banks' lending is fixed-rate, which minimizes certain risks, such as interest rate hikes.

**Chart 2.1.7: NPL**




Source: SAMA

**The banking sector remained in a stable position.**

Liquidity indicators such as the net stable funding ratio (NSFR), liquidity coverage ratio (LCR), and loan-to-deposit ratio (LDR) fluctuated during the year but remained well above SAMA's requirements and guidelines.

The average LCR for the banking sector decreased at the beginning of 2022, reaching 166.6% in the first quarter, followed by a considerable increase by the end of the year, registering 180.3%. In addition, the NSFR decreased slightly in 2022 with a banking sector average of 115.8% compared to 118.95% in 2021. This was mainly due to an increase in total required stable funding (RSF) of 10.9% compared to the same period the previous year (Chart 2.1.8).

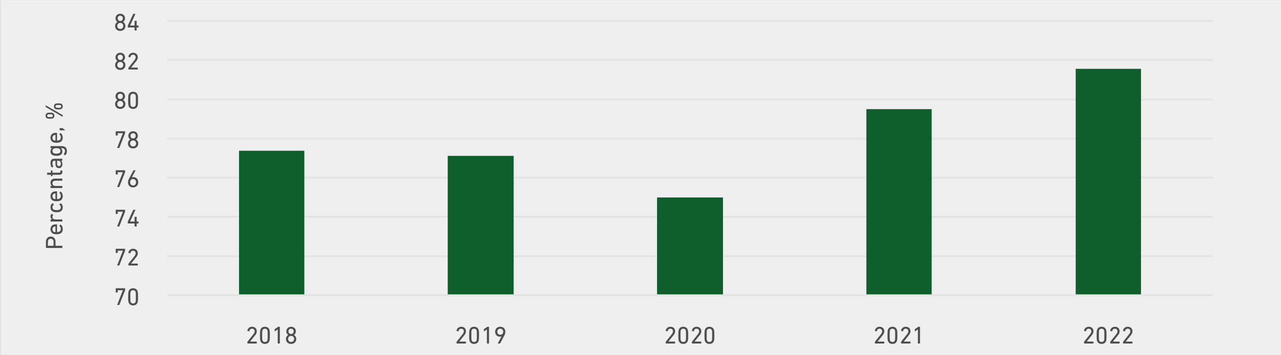
**Chart 2.1.8: LCR and NSFR**


Source: SAMA

**With rising interest rates, there was a notable pick-up in time and saving deposits by the end of 2022.**

LDR registered an increase in 2022, reaching 81.5%. This was mainly due to accelerated credit growth compared to deposit growth. Time and saving deposits picked up since mid-last year, growing by 32.2% by the end of 2022 due to the increase in interest rates. While the LDR increased during the year, the current level is well below SAMA's guidelines of 90% (Chart 2.1.9).

**Chart 2.1.9: LDR**

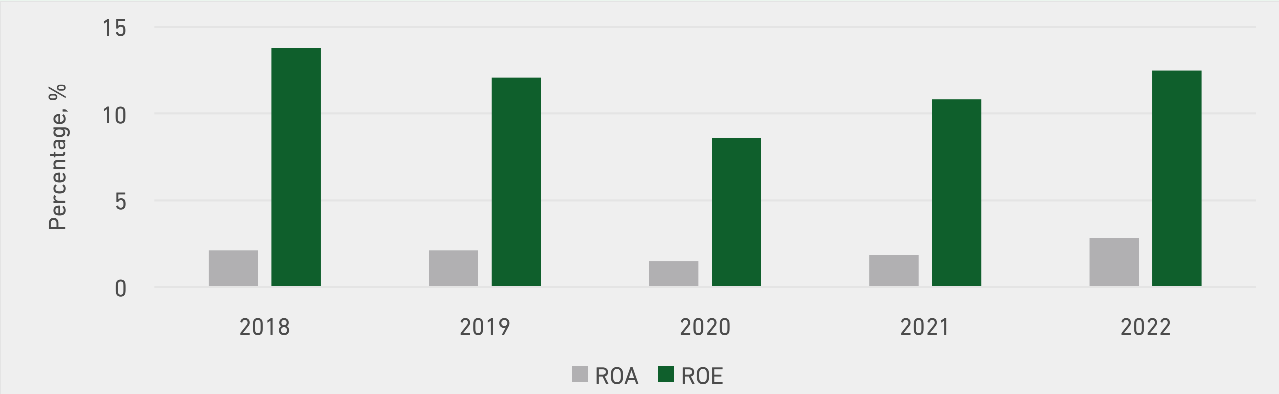



Source: SAMA

**Profitability indicators in the Saudi banking sector showed a steady increase.**

In 2022, return on assets (ROA) and return on equity (ROE) recorded 2.8% and 12.5%, respectively, compared to 1.8% and 10.8% the previous year. The increase can be attributed mainly to the increase in interest rates, which in turn resulted in increased profitability for the banking sector (Chart 2.1.10).

**Chart 2.1.10: ROA and ROE**

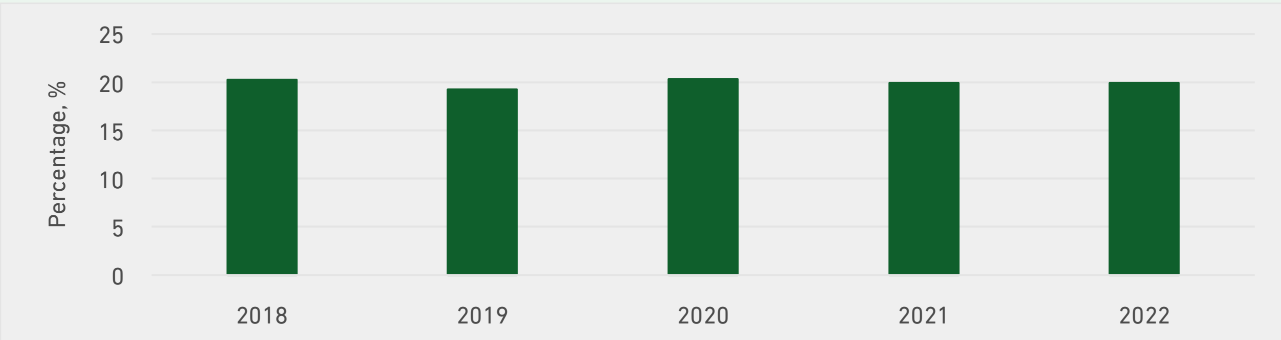



Source: SAMA

**The Saudi banking sector remains well-capitalized.**

The Saudi banking sector is well capitalized, with the capital adequacy ratio (CAR) remaining at 19.9% in 2022 (Chart 2.1.11). If the banking sector's profitability circumstances remain positive, capital replenishment may surpass the RWA increase. The leverage ratio was 12.8% at the end of 2022, a slight decrease from 12.97% for the same period the previous year.

**Chart 2.1.11: CAR**



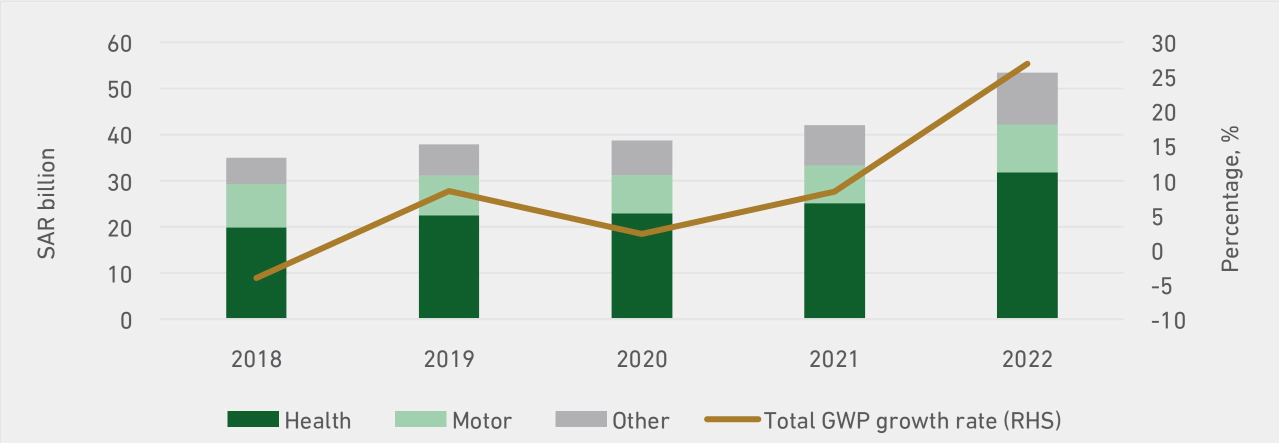

Source: SAMA

## 2.2 Insurance Sector

**The insurance sector's gross written premium rebounded in line with non-oil growth.**

The insurance sector's gross written premium (GWP) increased at the end of 2022 by 26.9% compared to the previous year. This could be attributed to effective performance across business lines, driven by a 27.7% increase in other insurance[5] and a 26.8% increase in motor insurance, in addition to the continued rise in the non-oil sector, which reached 9.2%[6], and the rise in the average premium for motor vehicle policies (Chart 2.2.1).

**Chart 2.2.1: Segments Contribution to GWP**

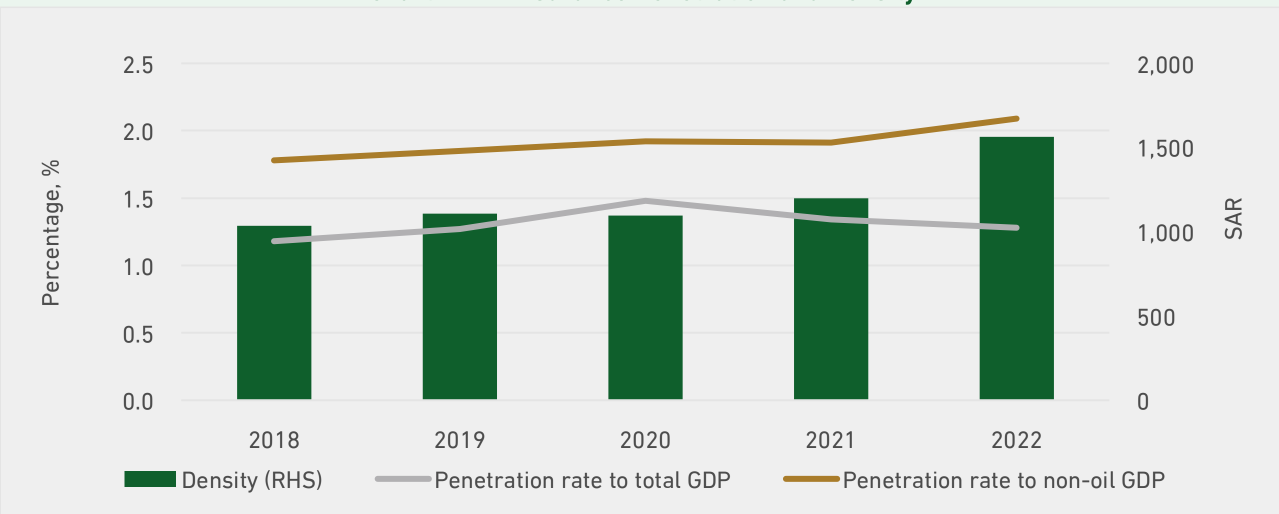



Source: SAMA

**Supported by Vision 2030, the insurance sector continued to increase its contribution to GDP.**

The insurance sector's contribution to overall GDP recorded a decrease, reaching 1.28% in 2022 compared to 1.34% in 2021. To achieve the Vision 2030 goal of increasing the non-oil sectors' contribution to total GDP, the insurance sector increased its share in the non-oil GDP from 1.9% in 2021 to 2.1% by the end of 2022, driven by the rise in health insurance (Chart 2.2.2).

**Chart 2.2.2: Insurance Penetration and Density**




Source: SAMA

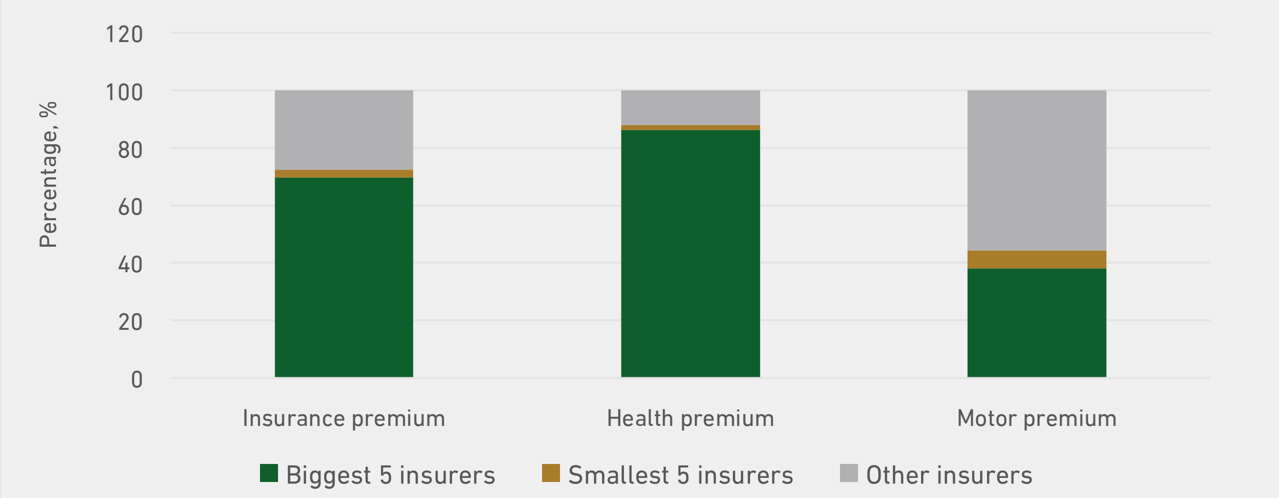
[5] Other insurance: all other business lines of insurance except health and motor insurance.

[6] At current prices.

**The insurance market remained highly concentrated among the five largest insurance companies.**

There was little change in concentration of business within the insurance sector by the end of 2022, with the five largest companies accounting for a minimum of 38.2% in motor vehicles and up to 86.3% in health, compared to 40.7% and 85.3%, respectively, in the previous year. In addition, the insurance sector remained dominated by the health segment that commanded 59.7% share of total premium volume in year 2022 (Chart 2.2.3).

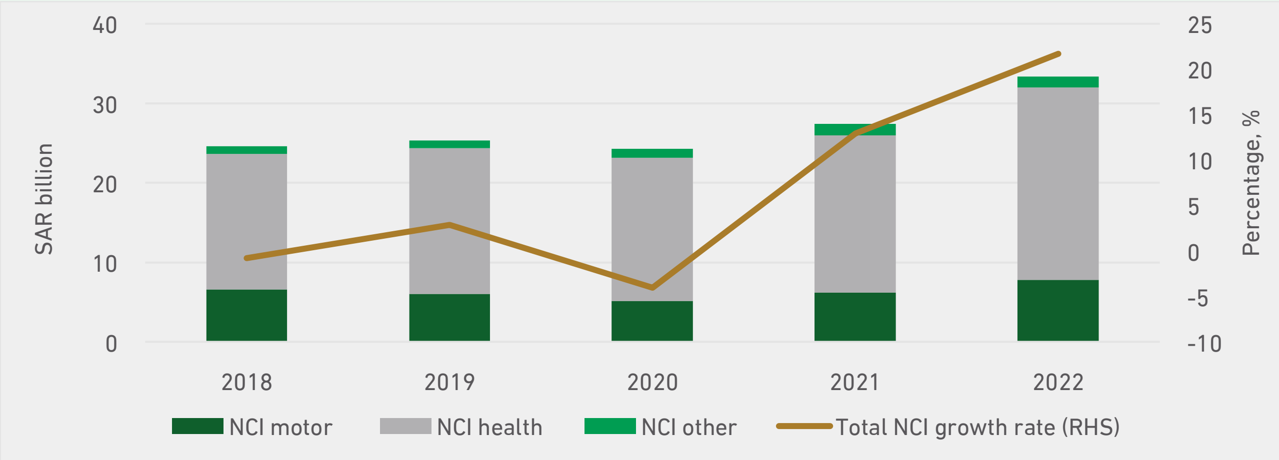
**Chart 2.2.3: GWP Concentration**




Source: SAMA

Insurance companies' net claims incurred (NCI) increased by 21.7% in 2022 compared to the previous year, reaching SAR 33.3 billion. This increase was driven by a 25.5% increase in motor insurance claims. This is largely attributable to the resumption of economic activities at full swing post-Covid-19, a small increase in the number of insured vehicles, and a 22.7% increase in health insurance claims. The latter could be attributed to various regulatory initiatives to improve health insurance coverage and to delayed/deferred treatments due to Covid-19 (Chart 2.2.4).

**Chart 2.2.4: Segments Contribution to NCI**




Source: SAMA

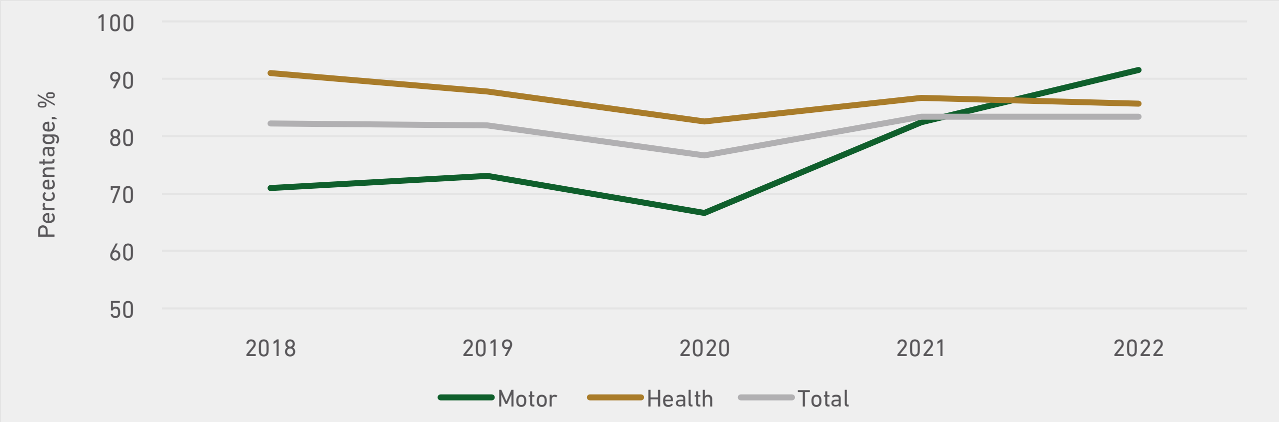
**The sector-wide loss ratios reported little change during the year.**

By the end of 2022, the overall loss ratio,[7] combined for all lines of business, had been set at 83.4%, remaining unchanged from 2021. This stability of loss ratio, despite the above increase in NCI, is attributed to a 26.9%

[7] The loss ratio is defined as the percentage of net claims incurred over the net earned premium.

increase in GWP and a 21.7% rise in net earned premiums, which points toward sound pricing practices of the insurance sector in aggregate. An exception to this was the experience under motor insurance, where the loss ratio increased from 82.4% in 2021 to 91.5% in 2022, driven by intense competition, particularly via price-sensitive aggregator channels, and an increase in prices for spare parts. The segment witnessed pricing corrections from the second half of 2022, the favorable effect of which is expected to be seen during 2023 (Chart 2.2.5).

**Chart 2.2.5: Loss Ratio**

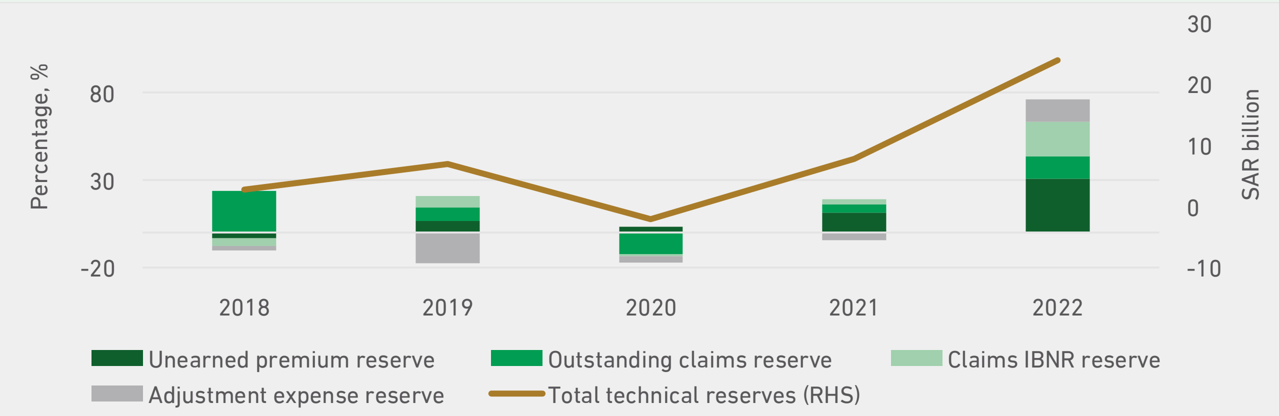



Source: SAMA

**Insurance reserves increased in 2022, reflecting greater demand for insurance products.**

Technical reserves showed a 23.8% increase in 2022 from the previous year. This increase could be attributed to the 30.7% rise in the unearned premium reserve. The claims incurred but not reported (IBNR) and outstanding claims reserves recorded an increase of 19.5% and 12.9%, respectively. The unallocated loss adjustment expense reserve increased by 12.8% in the same period (Chart 2.2.6).

**Chart 2.2.6: Technical Reserves Growth Rate**



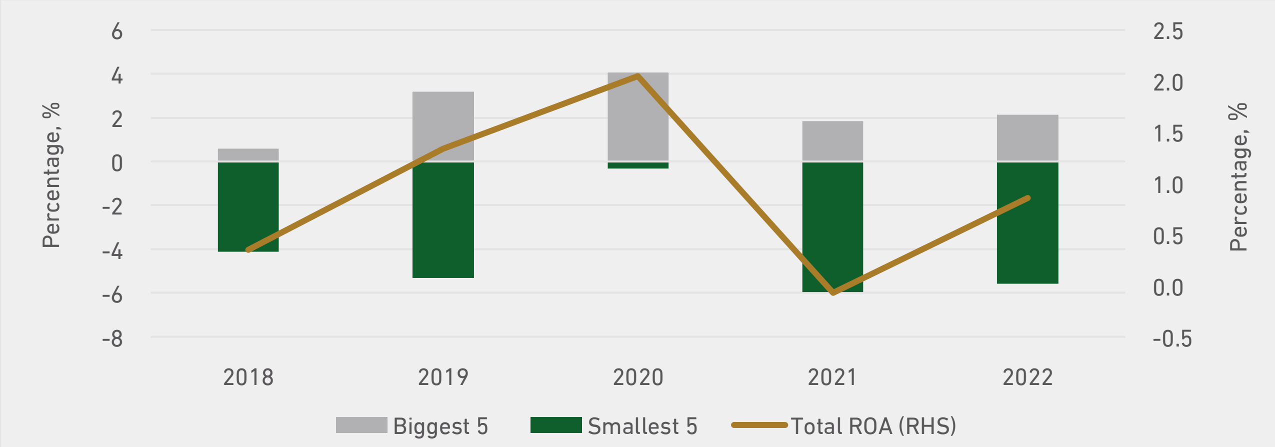

Source: SAMA

**The sector's profitability increased, driven by the rise in net investment income.**

The overall profitability of the insurance sector saw an increase, where it registered a net income of SAR 689 million in 2022 compared to a loss of SAR 47 million in the previous year. ROA and ROE increased to 0.9% and 3.5%, respectively (Chart 2.2.7, Chart 2.2.8). This could be due to the positive profitability results of large insurance companies during 2022, driven by the availability of new insurance products as well as net written premiums in health and motor insurance increasing by 29.2% and 28.2%, respectively.

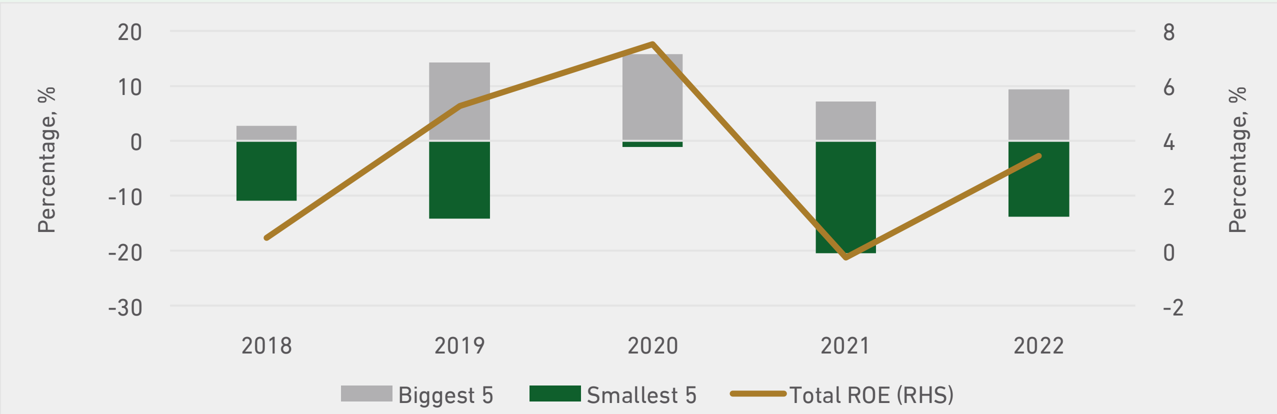
Rising interest rates contributed positively to the income of the insurance sector, where net investment income reached SAR 1.1 billion in 2022, a slight decrease compared to 2021's SAR 1.2 billion. To mitigate investment concentration risks, SAMA implements prudential measures, which include the requirement that any single investment should not exceed 50% of the total investment in that particular investment instrument. Investment outside the Kingdom should not exceed 20% of the total investment.

**Chart 2.2.7: ROA**




Source: SAMA

**Chart 2.2.8: ROE**




Source: SAMA

**In line with recent economic conditions, domestic inflation has been contained, which bodes well for the insurance sector.**

Inflation and risk premia will have a negative impact on the insurance sector's portfolio in the short term — particularly motor vehicle insurance due to the increased cost of car parts and maintenance, and health insurance due to the increase in the cost of treatment. However, as highlighted in the domestic economy section (1.2 Domestic Economy), inflation in the Kingdom has been relatively low and is expected to remain stable, which is expected to benefit the overall profitability of the insurance sector. Higher interest rates could alleviate the pressure on the profitability of the insurance sector created by the prolonged low-interest-rate environment, and reduce the risk of investment in the sector's portfolio.

The insurance market continued to have a strong solvency position, reaching 152.8% of the required margin in 2022. It is worth mentioning that small insurance companies had a stronger position than large companies did in terms of solvency, reaching 189.0% by the end of 2022.

## 2.3 Finance Companies Sector

**During 2022, SAMA approved a number of amendments to regulations within the finance companies sector.**

One of the major amendments was permitting finance companies to engage in more than one form of financing activity, including real estate financing. SAMA also introduced the first three licensed debt-based crowdfunding companies to the sector in 2022, and two additional financial technology (FinTech) companies were licensed to engage in microfinance activity. Debt-based crowdfunding activity is a FinTech solution that is expected to enable new means of funding and create a new dynamic in the sector by enabling individuals and non-financial institutions to participate in financing. These changes could be the catalyst for a more diversified portfolio structure for the finance companies sector.

**Total assets of finance companies continued to increase but at a slower pace compared to last year.**

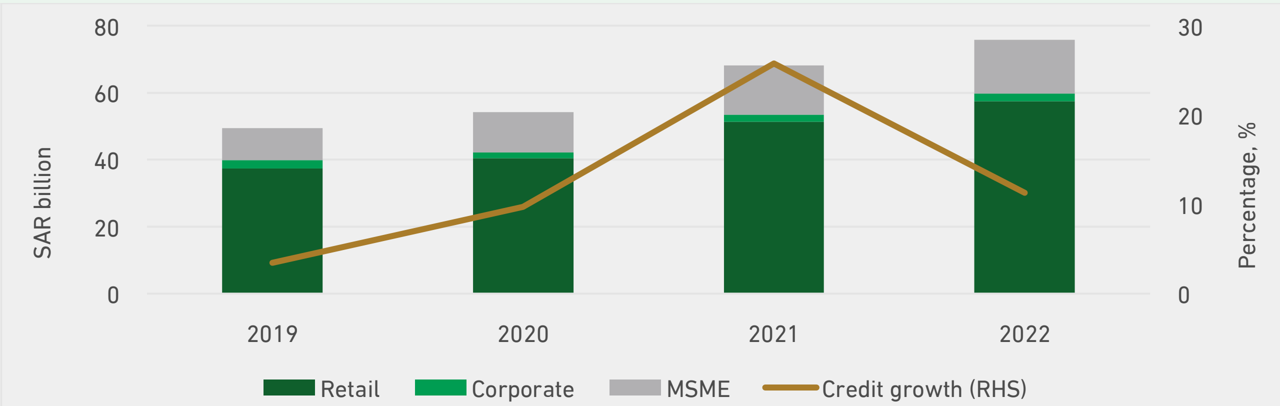
Finance companies' assets increased by 6.5% to reach SAR 57 billion of outstanding balance, which represents 1.38% of GDP. The observed growth is largely attributable to the growth in non-real estate lending by non-real estate finance companies (Chart 2.3.1).

**Chart 2.3.1: Total Assets**


Source: SAMA

The sector's credit growth in 2022 slowed down compared to the previous year, achieving an 11% year-over-year growth rate — 5% below the three-year average — to reach SAR 75 billion in total credit (Chart 2.3.2). This deceleration follows trends seen in the banking sector, where there is a slowdown in real estate lending.

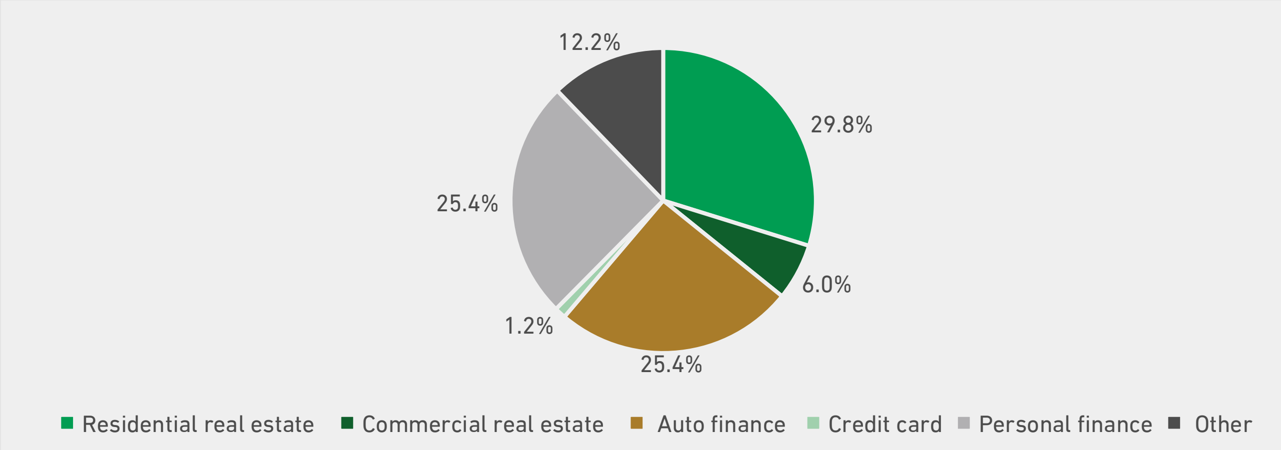
**Chart 2.3.2: Total Credit**




Source: SAMA

The retail portfolio accounted for 76% of total credit advanced by finance companies, with more than half of this portfolio being represented by residential real estate finance and personal finance (Chart 2.3.3).

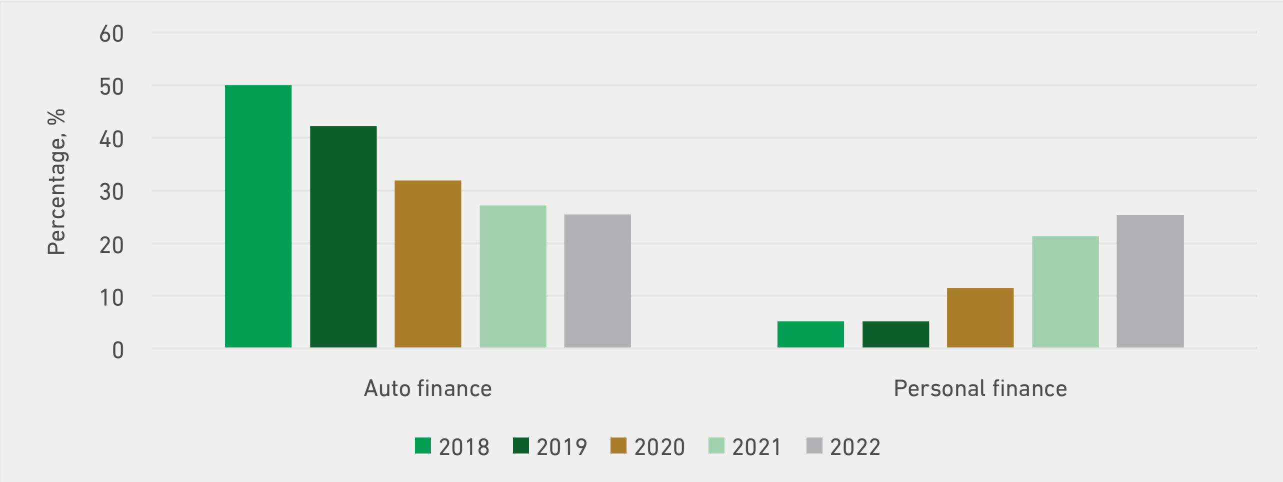
**Chart 2.3.3: Finance Portfolio by Credit Line**




Source: SAMA

Although the retail portfolio dominates the majority of finance companies' exposure, it is worth noting there were particular shifts in the composition of their exposures in 2022. Personal finance loans spiked, while auto financing remained relatively stable. Personal finance loans increased by 32%, leading to a total weight of 25% of total credit (Chart 2.3.4). This trend may be reflected in increased credit risk for finance companies in the short and medium term due to the unsecured and uncollateralized nature of personal loans, as well as auto finance being secured against underlying vehicles, which typically depreciate in value.

**Chart 2.3.4: Weights by Credit Lines**

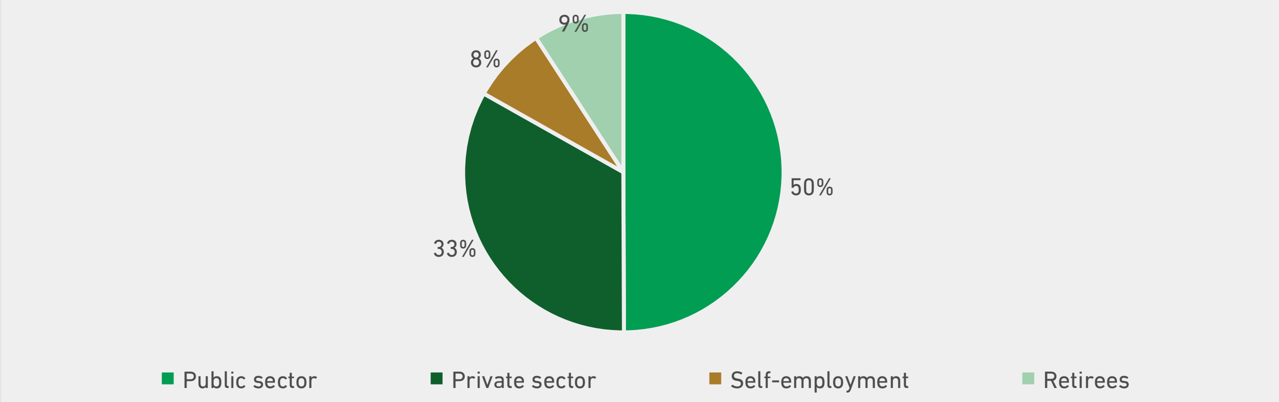



Source: SAMA

Residential real estate finance accounted for 30% of total loans, showing a slight slowdown in growth during 2022 at 2.2%. This slowdown is partially linked to normalizing levels of real estate lending, and higher prices associated with property markets.

One vulnerability in the sector is the concentration risk. Three-quarters of the total exposure lies in retail loans. Nevertheless, this risk is partially mitigated by the fact that half of these retail loans were granted to public-sector employees, who tend to be less likely to lose their jobs or be unable to meet their debt service obligation (Chart 2.3.5).

**Chart 2.3.5: Retail Portfolio Based on Employee Type**




Source: SAMA

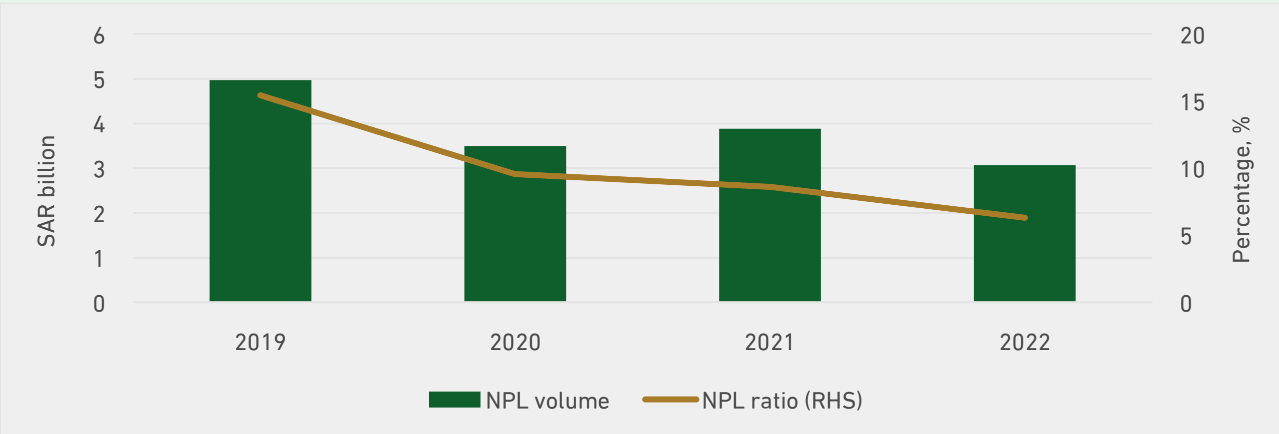
Additionally, major developments in the finance companies sector should result in greater diversification of activities in the sector. Recent developments include innovative solutions such as debt-based crowdfunding, aimed at facilitating access to funds for MSMEs in line with Vision 2030 and the Financial Sector Development Program (FSDP) objectives.

Debt and paid-in capital are the main sources of funding in the sector, accounting for approximately 85%. The remaining 15% of funds are derived from total reserves and provisions.

**Finance companies have improved their resilience and witnessed a slight decline in profitability post-Covid-19 pandemic recovery.**

Finance companies' NPLs continued the downward trend initiated in 2019, with this ratio improving by 230 bps to 6.3% in 2022 (Chart 2.3.6), reflecting improvement in the credit performance of finance companies' exposures and credit quality of newly originated assets. Furthermore, the improvement can be attributed to the recent credit growth alongside the significant decrease in NPL volume. Additionally, SAMA circulated several circulars advising finance companies to update credit policy to reflect the latest development in the sector and to provide risk-based regulatory reports.

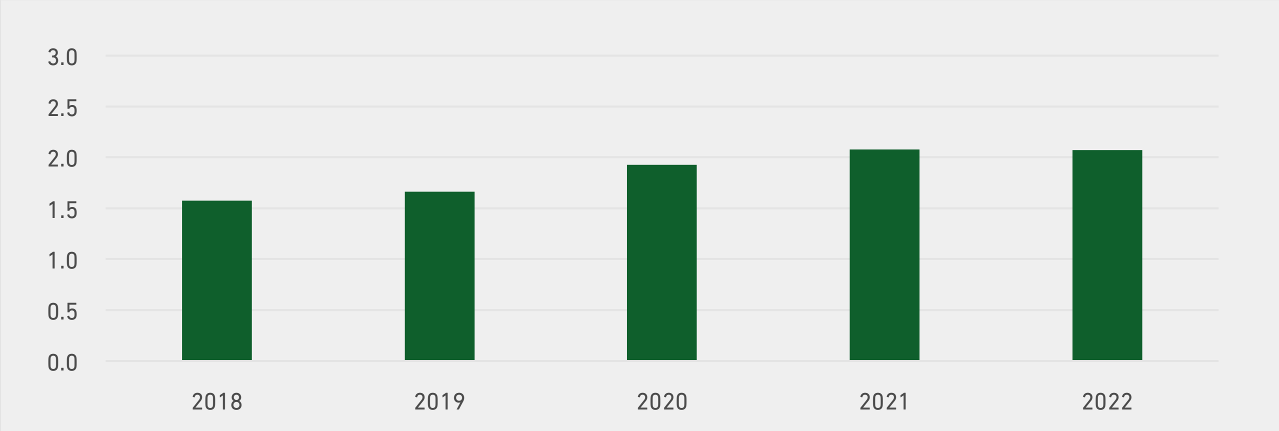
**Chart 2.3.6: NPL Ratio**




Source: SAMA

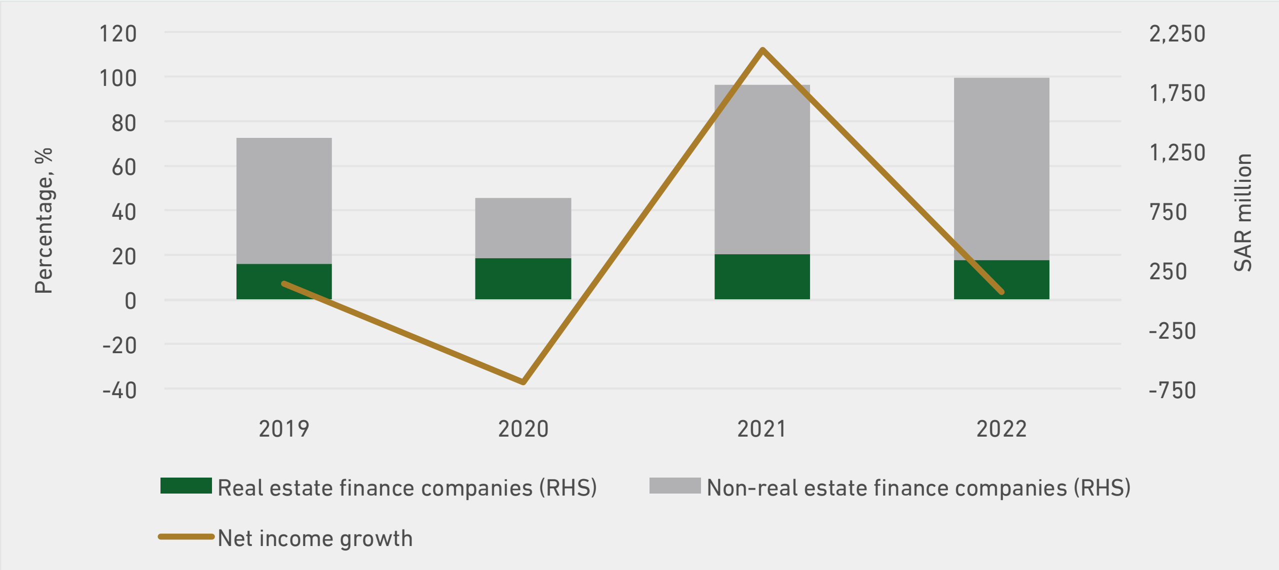
The leverage ratio for non-real estate finance companies remained stable at 2.00 times, which is below the regulatory threshold of three-times capital and reserves (Chart 2.3.7). Moreover, the sector experienced 3.3% year-over-year growth in 2022 in net profit, recording SAR 1.9 billion (Chart 2.3.8).

**Chart 2.3.7: Leverage Ratio – Finance Companies**




Source: SAMA

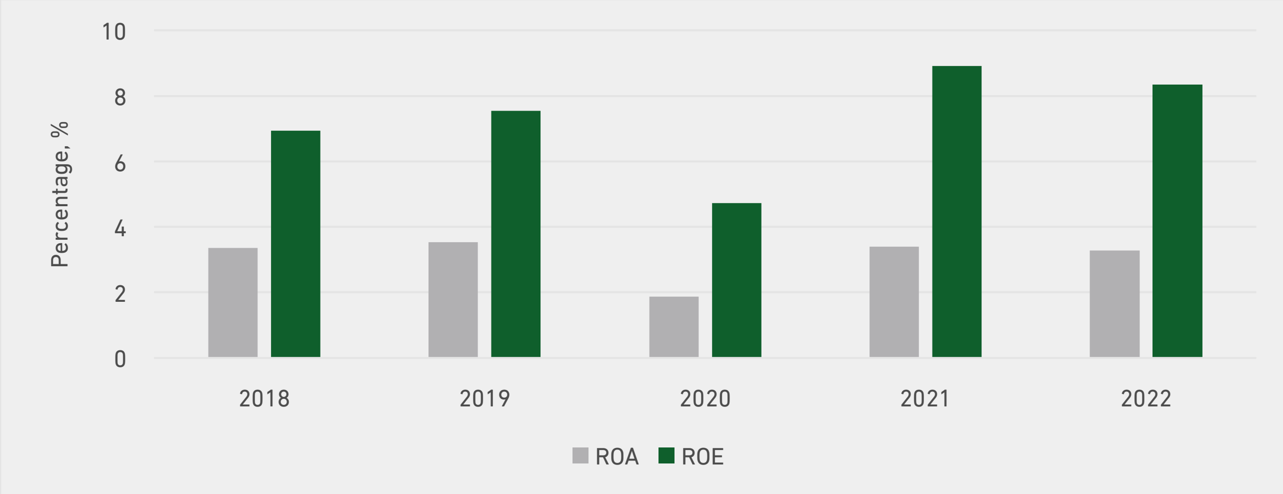
**Chart 2.3.8: Net Income Growth**




Source: SAMA

Non-real estate finance companies account for about 82% of net profit in the sector. However, the sector is expected to see higher contributions from real estate finance companies in the future given the recent regulatory development. Similarly, profitability indicators witnessed a slight decrease in 2022. ROA and ROE fell to 3.27% and 8.34%, respectively, because of the slowdown in credit growth, resulting in lower net profit (Chart 2.3.9).

**Chart 2.3.9: ROA and ROE**



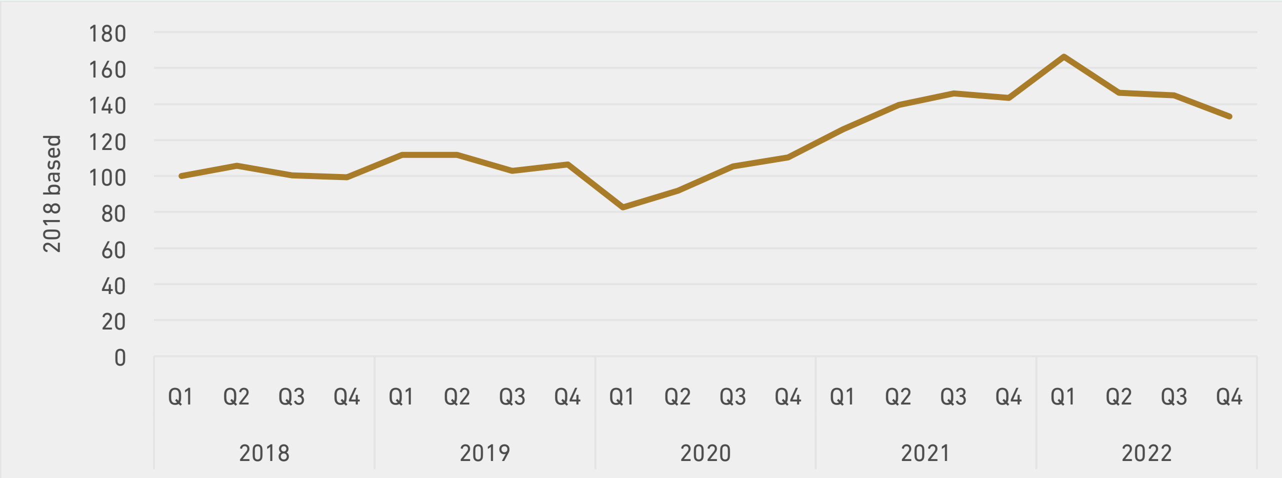

Source: SAMA

## 2.4 Capital Market Sector

**There was a slight decline in the Saudi equity market performance in 2022.**

In 2022, TASI decreased by 7.12% compared to 2021, which was mainly attributed to developments in global oil markets (Chart 2.4.1). The capital market is owned by mostly domestic institutional investors, which reduces contagion risk from international developments and ensures market stability. However, there is a risk that market liquidity could affect the valuation and price of listed companies.

**Chart 2.4.1: Equity Market Performance**

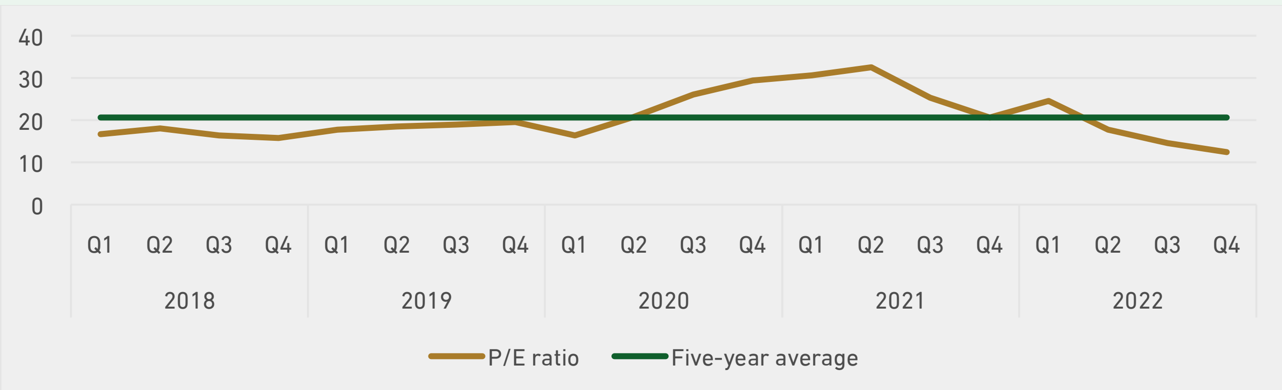



Source: Tadawul

**Given favorable domestic macroeconomic outlook, it is expected that this will be reflected in the equity market.**

The price-to-earnings (P/E) ratio declined to 12.44 multiple by the end of 2022 compared to 20.56 multiple in 2021 and 29.44 multiple in 2020 — lower than the five-year average of 20.63 (Chart 2.4.2). This significant decline might be the result of the impact of estimated increase in accumulated earnings of the Saudi market in 2022 compared to 2021 and the increase in IPOs, shares, and right issuance. Despite an increase in rights issuance, IPOs, and shares in the capital market, trading volume decreased by 33.2% compared to 2021 due to shifts in investor sentiment, possibly due to lower oil prices and concerns about a global recession. However, given favorable domestic macroeconomic outlook, it is expected that this will be reflected in the equity market, with P/E ratio normalizing at historic levels.

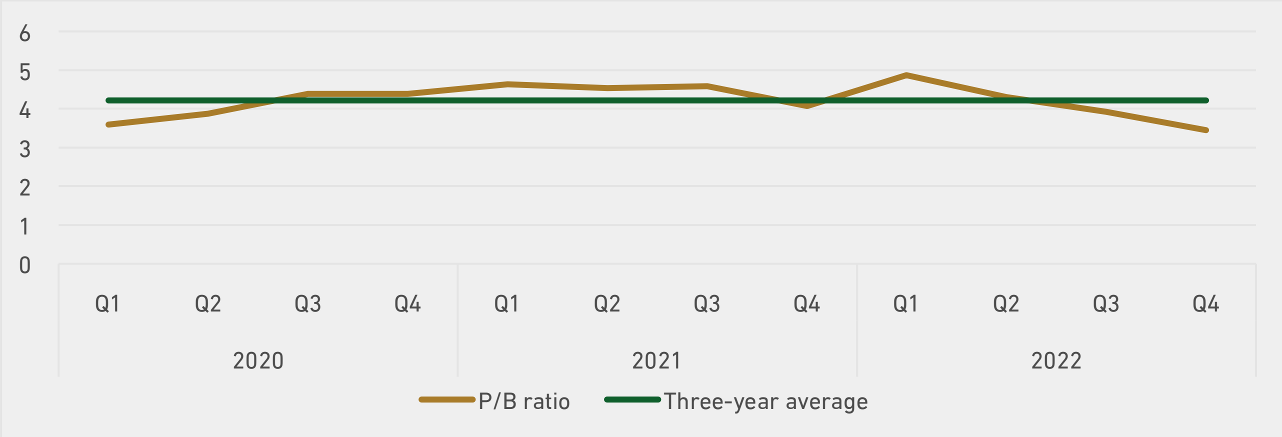
**Chart 2.4.2: Equity Market – P/E Ratio**




Source: Tadawul

The price-to-book-value (P/B) ratio decreased during 2022, reaching 3.45 compared to 4.07 in 2021. The ratio was below the three-year average (Chart 2.4.3). The P/B ratio indicates the same risks and concerns highlighted in the P/E ratio, as the decrease in market prices affects the listed companies' valuations. Investors have always attached great value to market growth, and this was apparent in the increased number of investors and IPO subscriptions over the previous couple of years.

**Chart 2.4.3: Equity Market – P/B Ratio**




Source: Tadawul

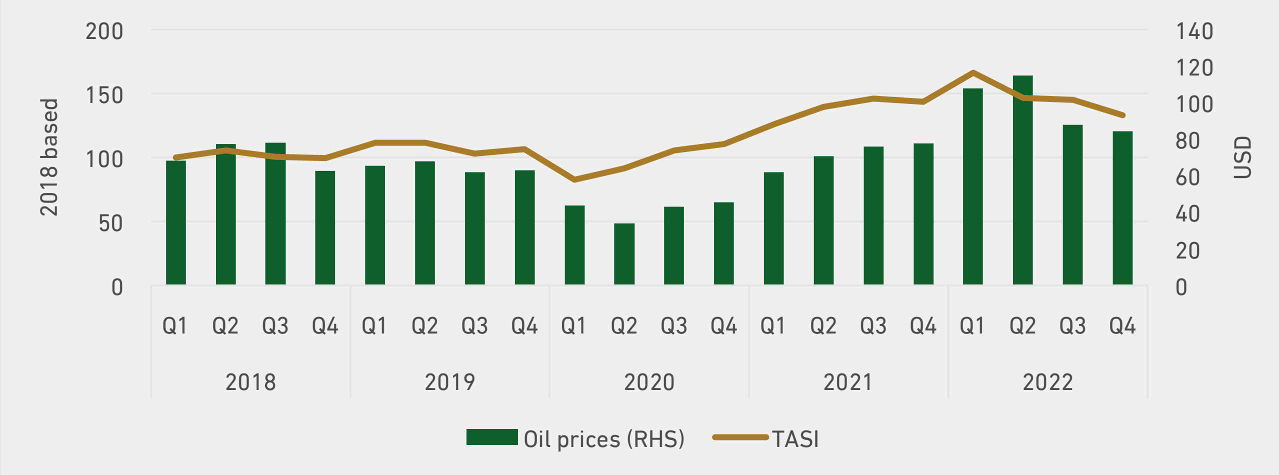
**The Saudi stock market performed better than other markets.**

When looking at TASI developments compared to other indices, we find that TASI performed better than most markets, as it was affected less than other markets by the increase in interest rates, yet oil prices remained a key factor in determining its movement. However, the stock market continued to decrease while other markets recovered in the last quarter of 2022 (Chart 2.4.4), which could be due to the continuous decline in oil prices (Chart 2.4.5).

**Chart 2.4.4: Capital Market Indices**


Source: Bloomberg

**Chart 2.4.5: TASI and Oil Prices**

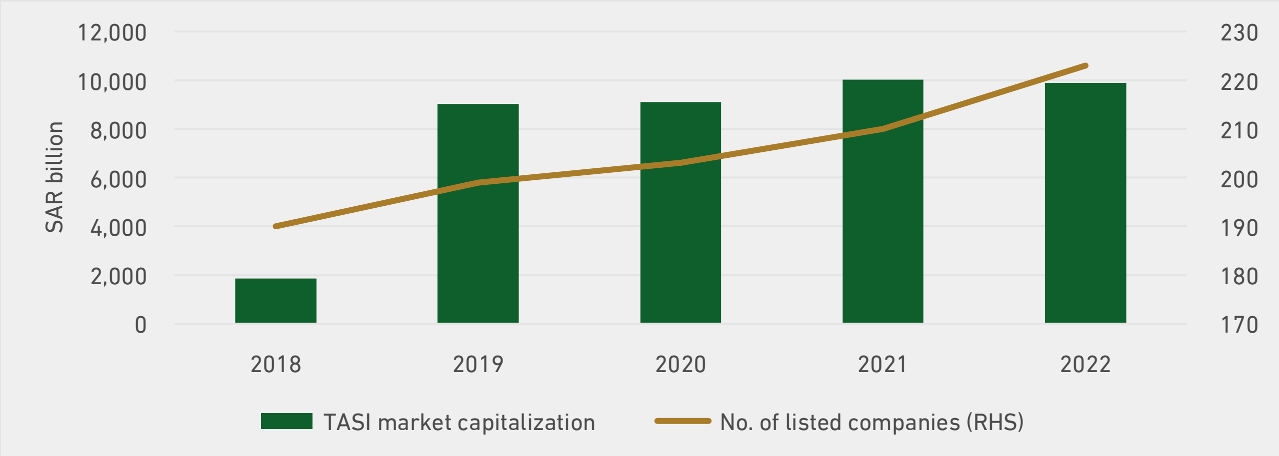



Source: Bloomberg

**TASI's market capitalization is expected to grow, and risks might arise if market volatility increases.**

TASI's market capitalization recorded a slight decrease of 1.31% in 2022, ending at SAR 9.9 trillion from SAR 10 trillion in 2021 despite the number of listed companies increasing to 223 compared to 210 companies the previous year (Chart 2.4.6). The decrease in market capitalization may be attributed to investor sentiment during 2022, but as noted earlier, given a favorable domestic outlook this trend is not expected to continue.

**Chart 2.4.6: Market Capitalization**

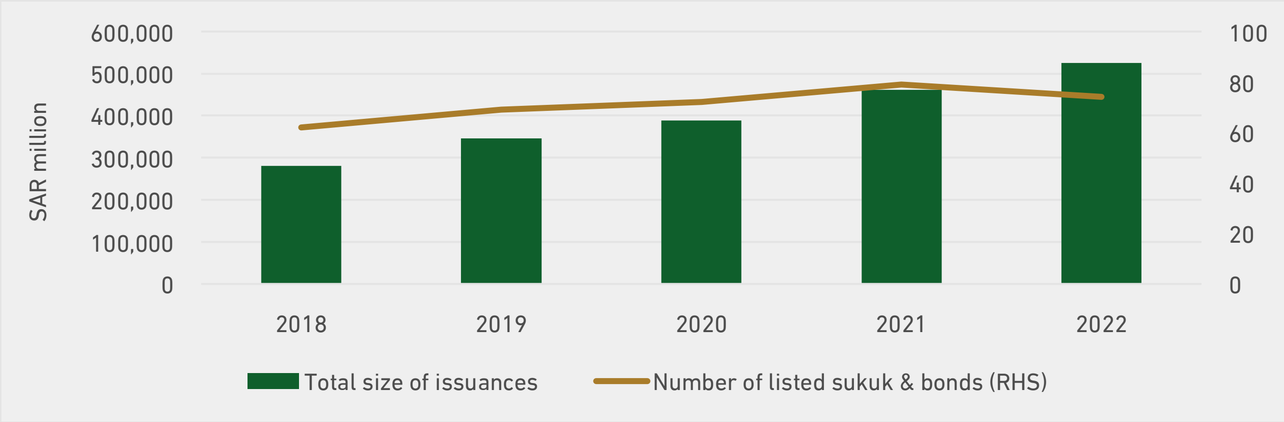



Source: Tadawul

**The debt market continues to grow and provide funding for the economy.**

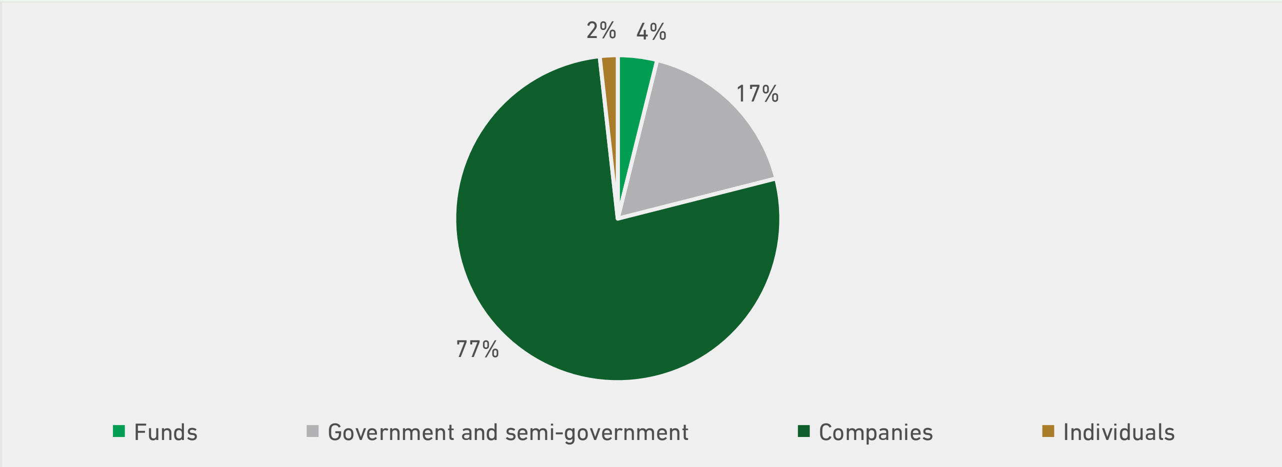
The Saudi debt market size grew year over year, registering 13.86% annual growth. In 2022, the total size of issuance continued to increase; it registered SAR 525.31 billion compared to SAR 461.37 billion in 2021 despite the number of listed sukuks and bonds decreasing to 74 compared to 79 the previous year. Finally, the number of trades increased to 5,797 compared to 2,350 in 2021, supported by the issuance allocated to retail subscribers on the Saudi Exchange (Chart 2.4.7). The debt market is still small and has low liquidity, as it needs to diversify more by increasing private-sector issuances and increase liquidity levels and the investor base.

**Chart 2.4.7: Total Size of Issuances Sukuk/Bonds**




Source: Tadawul

**Chart 2.4.8: Sukuk and Bonds Ownership in 2022**




Source: Tadawul

**The Capital Market Authority is focusing on developing and diversifying the debt market.**

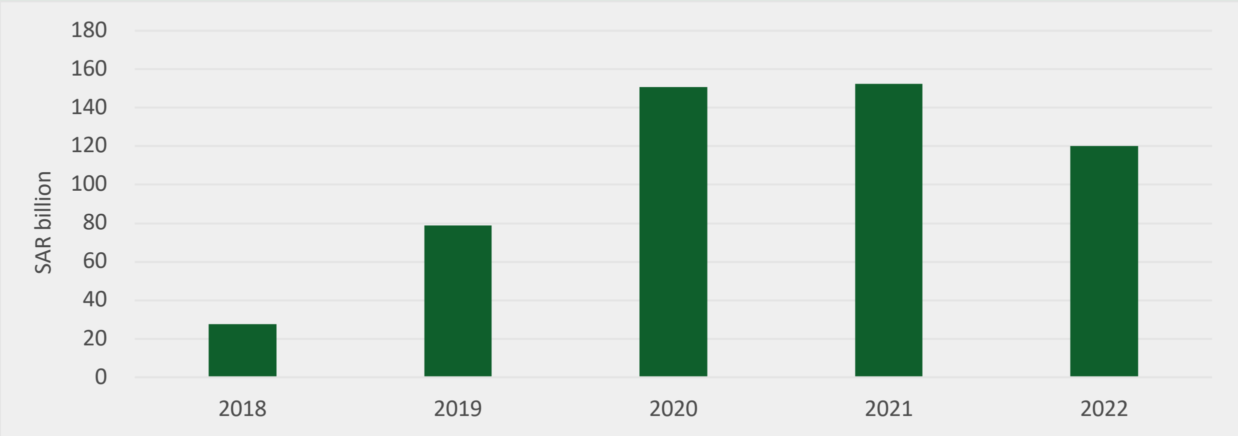
Significant efforts have been taken by the Capital Market Authority (CMA) to diversify the debt market. Al Rajhi Bank issued a Tier 1 sukuk, with the number of subscribers exceeding 125,000. The applications were fully allocated to retail subscribers on the Saudi Exchange. This is the first of its kind to be offered by a financial institution in Saudi Arabia and issued to retail, institutional, and corporate investors.

## Box 2.1: Real Estate Lending Developments

The real estate finance market in Saudi Arabia exhibited a slower growth rate in 2022 than in previous years. This can be seen by the 23.3% increase in banks' retail real estate loans, a lower growth rate than last year's growth of 41.4%. Correspondingly, banks' retail new real estate loans decreased in 2022 by 21.2% compared to 2021 (Chart A). Corporate real estate loans provided by banks, on the other hand, have increased significantly, reaching 12.2% growth in 2022 compared to 8.7% in 2021.

Banks represent the vast majority of lending activity in the real estate loan market. As of the end of 2022, banks' lending represented approximately 96.3% of total outstanding real estate loans with the remaining 3.7% being advanced by finance companies. Since 2019, finance companies' real estate loans have been continuously slowing, reaching a growth rate of 2.1% in 2022.

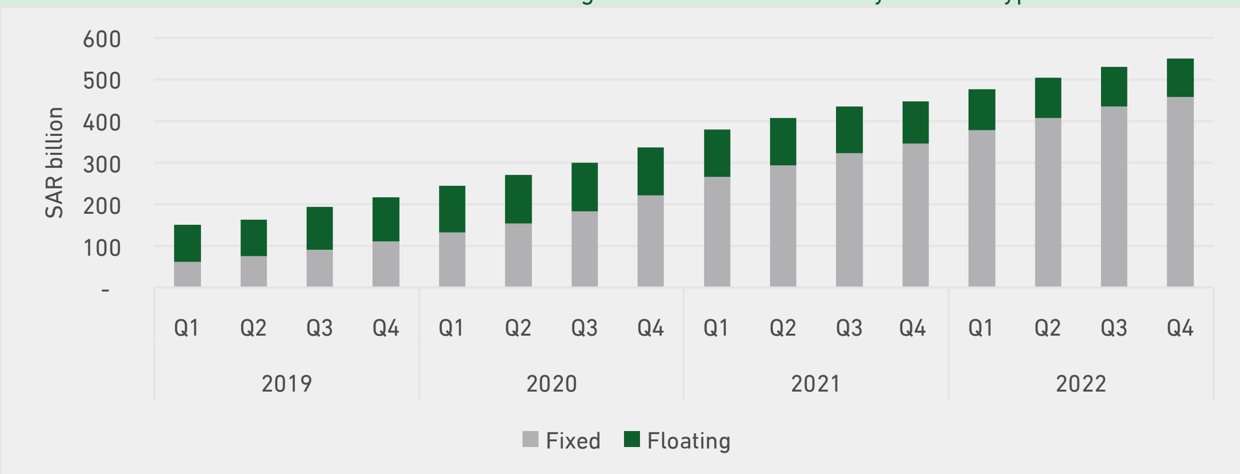
Chart A: Residential New Mortgages Finance For Individuals Provided by Banks




Source: SAMA

The majority of real estate lending provided by banks to individuals is with a life-time fixed rate (approximately 83.1% of lending in 2022), with loan-to-value (LTV) that must not exceed a regulatory threshold of 90% (Chart B). The NPL ratio remained low at 0.61% by the end of 2022, in comparison with 0.50% in the previous year. The risk of default is relatively low given that most loans are extended to individuals with high credit-worthiness, and concerns over higher interest rates are mitigated due to the large majority of the mortgage portfolio are being fixed-rate products.

Chart B: Net Real Estate Financing Granted to Individuals by Interest Type




Source: SAMA

The slow growth rate in individuals' real estate loans can be attributed to the increase in the residential real estate price index and higher costs for construction materials, along with other factors such as annual inflation in the housing sector, higher interest rates, and low supply in the real estate sector. The Ministry of Municipal and Rural Affairs and Housing (MOMRA) has announced plans to support the real estate sector by increasing the supply in highly populated cities across Saudi Arabia.

In addition, an important player in the real estate sector and the economy is Saudi Real Estate Refinance Company (SRC). With the aim of reinforcing the development of a robust mortgage market, SRC has extended the maturity offering of its long-term fixed rates to 30 years. The company's total assets increased significantly in 2022 by 58%. Most of this increase is due to the purchase of real estate financing portfolios, which provides more stability to real estate lending by enabling more capital relief. SRC acquired around SAR 6 billion in its real estate loans portfolio from banks and non-bank lenders to support the stability and growth of real estate lending. As one means of funding, SRC issued two fixed-rate debt securities with SAR 7 billion in total during 2022. The Ministry of Finance (MOF) guarantees both of these securities. This brings SRC debt securities to a total of SAR 13.7 billion mixed among secured, unsecured, and non-convertible unlisted Sukuk. SRC is rated (A) by Fitch Ratings and (A2) by Moody's Investors Service.

## Box 2.2: Basel III Reforms

As a result of the 2007–2009 financial crisis, Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems was issued in December 2010 as an internationally agreed-upon set of measures for a more resilient banking system developed by the Basel Committee on Banking Supervision (BCBS). The Basel III framework, which was implemented by SAMA in January 2013, is a central element in addressing a number of shortcomings in the pre-crisis regulatory framework and provides a foundation for a resilient banking system.

The Basel III post-crisis final reforms, issued by BCBS in December 2017, aim to restore credibility in the calculation of RWAs and improve the comparability of banks' capital ratios. It is important to note that the minimum ratio and quality of regulatory capital required remain unchanged in the 2017 review. Changes focused mainly on the calculation of RWA for credit risk, market risk, counterparty credit risk (CCR) and credit valuation adjustment (CVA), and operational risk for purposes of minimum regulatory capital requirements.

Key changes in the reforms are as follows:

1. Credit risk: The revision by BCBS seeks to improve the granularity and risk sensitivity of the standardized approach, with more granular definition of credit exposures and risk weight categories. For example, risk weights for real estate exposures are based on loan-to-value ratio of a real estate lending, while corporate credit exposures are further separated into categories based on the nature and risk of the underlying credit, such as specialized lending for object, commodity, and project finance and loans for acquisition and development of land and construction. For the advanced approaches to credit risk, control requirements, including floors for parameters, were introduced in both foundation and advanced internal ratings-based (IRB) approaches to limit the scope for estimation of parameters in internal credit risk models.

2. Market risk: The revision includes a modification in the standardized approach and the internal models approach to capture the risk of losses in on- and off-balance-sheet risk positions arising from movements in market prices.

3. Counterparty credit risk and credit valuation adjustment: Changes to CCR improved the comparability of banks' capital ratios by removing the use of some internal model approaches and introducing capital requirements to cover CVA, which is the risk of loss due to the deterioration in the creditworthiness of the counterparty to a derivatives transaction or securities financing transactions (SFT).

4. Operational risk: BCBS has introduced a standardized approach for calculating operational risk capital charge, which replaces all operational risk approaches under Basel II. The new approach calculates operation risk using business indicator components and internal loss multipliers for banks that have high-quality internal operational loss data.

5. Leverage ratio: The framework was developed to act as a credible supplementary measure to the risk-based capital requirements to restrict the build-up of leverage in the banking sector and to reinforce the risk-based requirements with a simple, transparent, non-risk-based 'backstop' measure. The updated leverage ratio framework aims to improve the derivatives-exposure measure calculation and the credit conversion factor (CCF) of off-balance-sheet exposures. It also introduced additional leverage buffers for globally systemically banks (GSIBs).

6. Output floor: The Basel III reforms replace the existing Basel II floor with one based on the revised Basel III standardized approaches. Consistent with the original floor, the revised floor limits the regulatory capital advantages that a bank using internal models can derive relative to the standardized approaches.

7. Pillar III disclosures: The revised disclosure requirements aim to enhance transparency by setting the minimum requirements for market disclosures of information on the risk-management practices and capital adequacy of banks. This will enable market participants to obtain key information on risk exposures, risk-management frameworks, and the adequacy of regulatory capital of banks. It also reduces information asymmetry and helps promote comparability of banks' risk profiles within and across jurisdictions. SAMA carried out a pilot application of Basel III reforms on the banking sector during 2022, with the objective of assessing the sector's readiness and impact capital adequacy levels. The results of the parallel run indicated that there were no major operational challenges, nor a significant impact on capital adequacy levels. The final rules arrived at a time of a relatively high capital cushion for Saudi banks relative to minimum requirements, and the sector remains well capitalized. SAMA's rules for the implementation of Basel III reforms came into force on January 1, 2023, as per the internationally agreed-upon timeline.

# 3

# Innovation and Emerging Financial Sector Issues

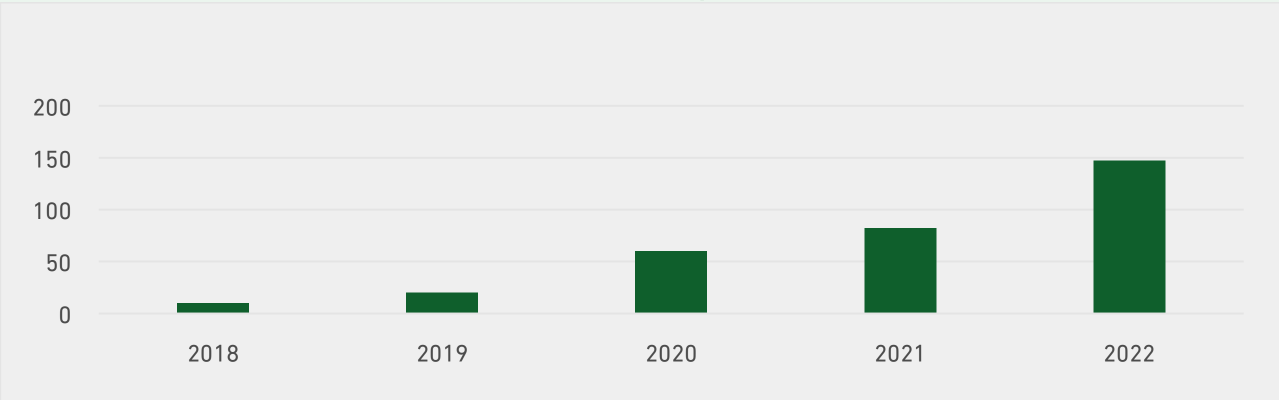
## 3.1 Financial Innovation

**Although FinTech companies are rapidly increasing in number, their risks remain minimal to the overall financial system.**

Saudi Arabia aspires to be recognized in the FinTech space by diversifying its offering of financial products that use technological innovations. To take this endeavor forward, the FSDP under Vision 2030, which was launched in 2017, has three strategic pillars, enable financial institutions to support private sector growth, ensure the formation of an advanced capital market, and promote and enable financial planning. It further introduced a fourth pillar, the FinTech Strategy, mid-2022. The strategy aims to increase GDP contribution from FinTechs to SAR 13.3 billion and to achieve a cumulative venture capital investment of SAR 12.2 billion by 2030. An increase in the number of FinTech firms — 230 by the year 2025, and 525 by the year 2030[8] — is also a target. A cohesive approach by the relevant stakeholders and the resultant effort put in paved the way for a significant increase in the overall number of FinTech companies at the end of 2022 (Chart 3.1.1).

Despite the significant growth in numbers, these FinTech institutions occupy limited space in the overall financial system for a few reasons: mainly the FinTech sector in the Kingdom is at an early stage of development — albeit with significant potential for scale. Similar to all jurisdictions, FinTech companies are subject to weaknesses in governance and risk-management practices, which could pose risks to the financial system's integrity. SAMA has deliberatively taken a prudent approach to introducing FinTechs with new business models and concepts into the market by placing them in the Regulatory Sandbox. This has allowed SAMA to benefit from close monitoring of new types of risks as well as known risks in a controlled manner. This approach has also allowed development of new regulatory frameworks and enhancements to existing rules in parallel with FinTech's launch into the market to further support its efforts in managing risks while allowing a greater number of FinTechs.

**Chart 3.1.1: Number of Active FinTech Companies in Saudi Arabia as of 2022**



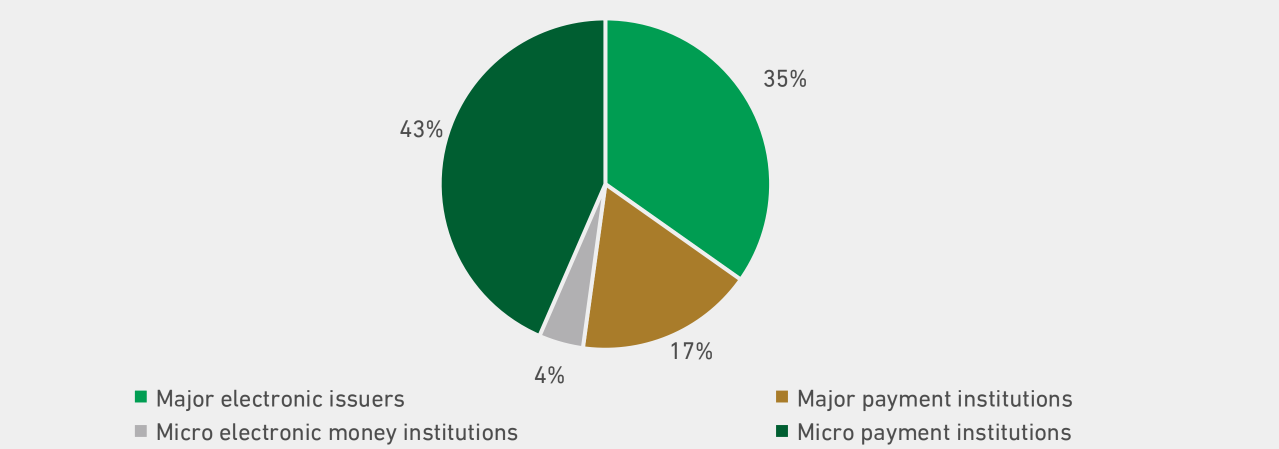

Source: Fintech Saudi, 2022

[8] 2022 Fintech Saudi. *Fintech Saudi Annual Report 21/22.* https://fintechsaudi.com/wpcontent/uploads/2022/11/FintechSaudi_AnnualReport_21_22E.pdf

**The payment sector represents the highest FinTech companies, where regulations are constantly updated to ensure the mitigation of financial and market risks.**

The number of payment-related FinTech companies licensed by SAMA increased to 23 in 2022 out of a total of 30. Most FinTechs in the payment sector are payment institutions, which provide payment solutions to merchants for in-store sales (point of sale, or POS, service) and online sales (e-commerce) (Chart 3.1.2). In order to further strengthen the regulatory framework for payment services, as well as to foster payment systems' safety and efficiency, in April 2022 SAMA opened public consultation on implementing a law to regulate payments and payment services.[9] Payment service providers are required to have policy and risk management frameworks; there are additional requirements on a case-by-case basis, depending on the risks posed by the applicant. SAMA is also reviewing and enhancing the supervisory framework for the payment sector, both for payment systems and payment service providers, to ease financial and market-conduct risks. These regulations reinforce SAMA's commitment to the relevant international payment principles and standards.

**Chart 3.1.2: Activities of Payment FinTech Companies**




Source: SAMA

**Saudi FinTechs undertake various activities to serve the market. In order to establish a macro-surveillance mechanism, it is essential to introduce classifications that encompass the many FinTech market segments.**

The table below (3.1.1) classifies Saudi FinTech in accordance with the most relevant IOs. The Financial Stability Board (FSB) divides FinTech into five main categories: (1) payments, and clearing and settlement; (2) deposits, lending, and capital raising; (3) insurance; (4) investment management; and (5) market support. To ensure alignment, the BIS has similar classifications: (1) deposits and lending; (2) capital-raising and alternative sources of funding; (3) asset management, trading, and related services; (4) payments, and clearing and settlement services; and (5) insurance.

[9] Saudi Central Bank. (2022, April 7). "Saudi Central Bank Opens Public Consultation on Implementing Regulation of Payments and Payment Services Law." https://sama.gov.sa/en-US/News/Pages/news-751.aspx

**Table 3.1.1: FSB Classifications Relative to Saudi FinTech**

| FSB's FinTech Classification | Mapping to Saudi FinTech | | |
|---|---|---|---|
| | Supervisory authority | Activity | Key examples |
| Payment, clearing and settlement | SAMA's payment systems and companies control dept. | Electronic money intuitions (EMI): payments and e-wallets | STC Pay and Geidea |
| Deposits, lending, and capital raising | 1. Finance companies control general dept.<br>2. Banking supervision dept. | 1. Crowdfunding, micro-lending, BNPL, and financial services.<br>2. Digital banks. | Zain payments (TAMAM), Lendo, and STC digital bank |
| Insurance | SAMA's insurance supervision dept. | Insurance Aggregators (Brokerage Services) | Tameeni and Bcare |
| Investment management | CMA | Robo-advisories equity-based, crowdfunding, social trading and investing platforms, securities and investment in debt instruments, distributed ledger technology (DLT) for securities and customer services | Crowdfunding Limited Co. (Scopeer) & Manafa Capital Co. |
| Market support | SAMA's sandbox<br>CMA | Cloud computing applications | Lean Technologies or Malaa |

Source: FSB and author

**To mitigate the risk of fragmentation in the global financial system, SAMA introduced initiatives in accordance with the G20 Roadmap for Enhancing Cross-Border Payments.**

The FSB's G20 Roadmap for Enhancing Cross-Border Transactions continues to be an international priority in addressing friction in cross-border payments and remittance transfers, specifically in terms of lower cost, increased speed, greater access, and transparency. It was introduced in 2020 under the Saudi G20 Presidency in order to encourage global collaboration; failure to achieve these goals could have material costs — mainly the risk of fragmentation in the global financial system.[10] Ensuring the safety and efficiency of financial infrastructures helps support the effectiveness of financial markets and contains systemic risks.

Over the last years, SAMA has been involved in several regional initiatives that address the challenges associated with cross-border payments. For instance, AFAQ Service was launched in 2020 by the Gulf Payments Company, which is owned by Gulf Cooperation Council (GCC) National Central Banks (NCBs). This service essentially links the real-time gross settlement (RTGS) systems of the participating countries to facilitate real-time cross-border payments during the system's operational hours. It enables end users, such as financial institutions of every size and in every community across participating countries, to provide safe and efficient real-time payment services. AFAQ could be extended to other retail systems in due course, assuming there is compatibility between

[10] Bank for International Settlements. (2021, December 10). BIS Bulletin 49. https://www.bis.org/publ/bisbull49.pdf

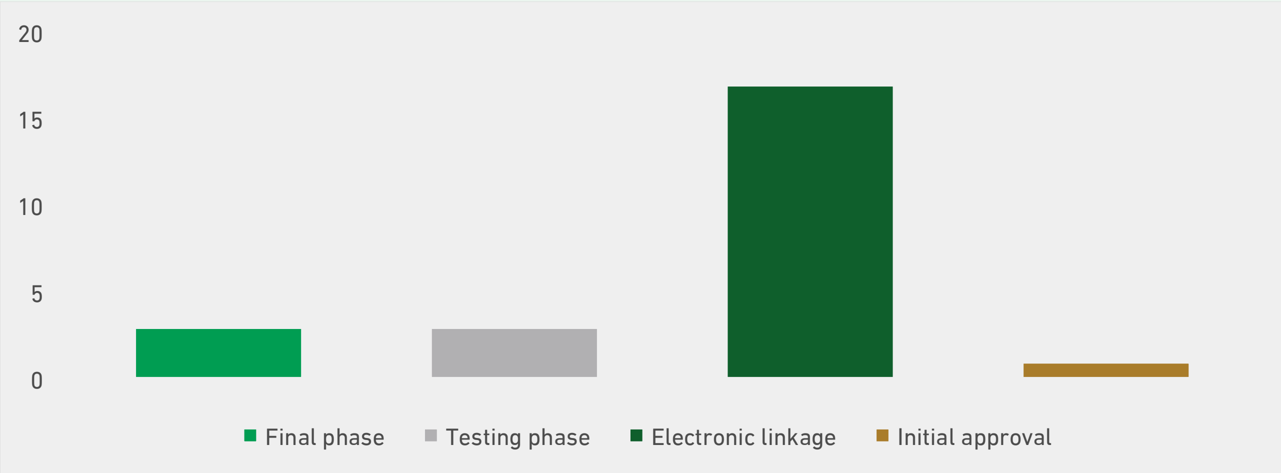
participating systems. The ability to continue to make payments and access settlement is critical to maintaining financial stability, especially in periods of operational or market disruption.[11]

Another important initiative is the GCC Net, which is a card-scheme service that supports multi–bilateral linkage among all the Gulf National Switches to provide efficient shared card transaction services between GCC member countries. SAMA is investigating the use of AFAQ service to support the GCC Net settlement. This initiative is consistent with preserving both economic growth and financial stability, and the approach is based on a foundation of risk management and mitigation, recognizing that new services could create new risks.

**Third-party providers pose concentration risks that may become systemic. Key policies ensure financial stability, consumer protection, and financial integrity.**

Financial market infrastructure has become increasingly dependent on third-party technology providers, in addition to account aggregators, cloud service providers, and insurance support firms. The disruption of those services could impact financial stability. Moreover, there could be concentration risks that may become systemic, because any disruption of services by a technical service provider might halt the provision of financial services for a number of financial institutions. For instance, the number of FinTech data-sharing aggregators at SAMA has been increasing both in the insurance and finance sectors. Insurtech has increased to 24 data-sharing aggregators, three of which are currently active in the insurance market (Chart 3.1.3). Meanwhile, seven finance data-sharing aggregators, targeting retail, MSMEs, and corporate, have obtained initial approval to offer financial services through an electronic platform. The most recent circular published by SAMA in this regard was in December 2022. "Linking and Dealing with Electronic Platforms" supported the aim of achieving key policy objectives such as financial stability, consumer protection, and market and financial integrity.

**Chart 3.1.3: Insurtech (Data Aggregators) Numbers by 2022**



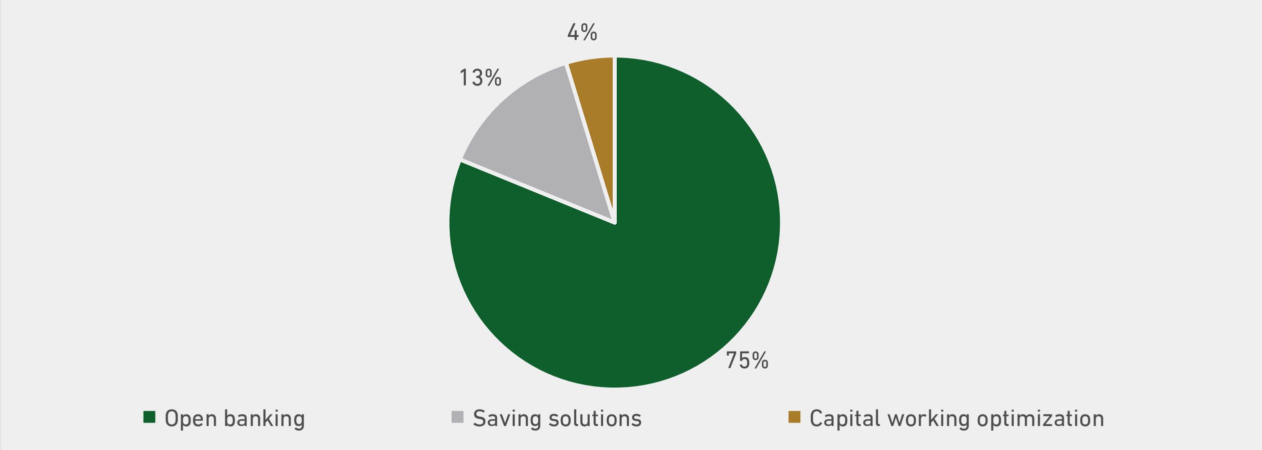

Source: SAMA

It is worth mentioning that SAMA has published pioneering circulars for another type of account aggregators — specifically, FinTech debt-based crowdfunding and payment providers — to avoid stifling financial innovation by setting high capital requirements while ensuring the safeguarding of deposits. The circulars "Aggregate Accounts to Manage the Finance Amount for Engaging in Debt-Based Crowdfunding" published in 2021 and "Aggregate Accounts for Depositing and Holding he Funds of Payment Services Providers' Clients" encouraged the safeguarding of participants' deposits, ensuring they are properly separated from the deposits of the crowdfunding or payment provider facility. The circulars apply to all FinTechs whether graduated or still within

[11] Bank of England. (2023, February 13). *Roadmap for the Real-Time Gross Settlement Service Beyond 2024*. https://www.bankofengland.co.uk/paper/2023/roadmap-for-the-real-time-gross-settlement-service-beyond-2024

the regulatory sandbox, which currently contains 16 new FinTechs (Chart 3.1.4), where the largest share is in open banking at 75%.

**Chart 3.1.4: Percentage of Sandbox FinTech Activities, 2022**




Source: SAMA

**Cyber fraud risks continue to grow in complexity and sophistication, but SAMA recognizes the ongoing shift from traditional fraud typologies to digitally enabled fraud schemes.**

Many countries are facing growing challenges related to fraud losses in the financial sector, with high-profile incidents leading to heightened interest in determining how fraud risks should be managed. The continuous advancement of technology has accelerated these challenges, allowing customers instant access to products and services, but it increases their vulnerability to scams. There is also an ongoing shift from traditional fraud typologies to digitally enabled fraud and scams. Several challenges make cyber fraud a difficult problem to solve: the anonymity of fraudsters, the global nature of attacks, rapidly evolving tactics of fraud, the sophistication of attacks, and the lack of awareness of users.

SAMA has implemented various measures to safeguard the Kingdom's financial sector. The establishment of a joint operations center for Saudi banks in mid-2022 is a significant initiative. This center has been continuously monitoring cases of financial fraud and coordinates with the relevant authorities to prevent and mitigate potential fraud threats. SAMA has also directed the banks to implement multi-factor authentication mechanisms for customer verification and financial transactions, adding and activating beneficiaries using different channels. SAMA also led a national public awareness program to highlight different types of fraud emerging and how individuals could recognize signs of fraudulent activity and take precautions to prevent becoming a victim.

From a regulatory perspective, SAMA has issued a counter-fraud framework in October 2022. The framework proactively addresses emerging fraud threats in order to support stability and safeguard the Kingdom's financial sector. SAMA also published *Financial Sector Cyber Threat Intelligence Principles* earlier that year. The principles highlight a focus on breach attempts as opposed to breaches only, where SAMA gets informed and circulates the attack's details to the financial sector. Overall, it is the collective responsibility of all players within the ecosystem to combat fraud and to enhance their ability to predict, prevent, detect, and respond to fraudulent events.

## 3.2 Climate-Related Financial Vulnerabilities

**Discussions about climate-related financial risks have grown substantially.**

Governments, central banks, international organizations (IOs), and SSBs have been working to understand and assess possible associated risks of climate-related financial vulnerabilities. Efforts to mitigate these risks include announcing nationally determined contributions (NDCs), sustainability initiatives, risk management, and public- and financial-sector policies and guidelines. With its sustainability agenda at the heart of Vision 2030, Saudi Arabia strives to ensure economic prosperity while addressing greenhouse gas (GHG) emissions from all sources.

**Efforts to mitigate climate-related financial risks have accelerated both domestically and internationally.**

In 1992, the Kingdom of Saudi Arabia signed the United Nations Framework Convention on Climate Change. As part of its longstanding commitment to addressing climate change at the multilateral level, Saudi Arabia also signed the Paris Agreement in 2015. The Kingdom has announced several initiatives since then to reduce, reuse, recycle, and remove GHG emissions. During the Saudi Arabia's G20 Presidency, leaders endorsed the Circular Carbon Economy (CCE) framework, with its 4Rs (reduce, reuse, recycle, and remove), to promote economic growth and manage emissions from every sector. The framework holistically addresses GHG emissions from all sources while capturing the value of carbon through technology development, dissemination and deployment, nature-based solutions, and international engagement.[12] In 2021, Saudi Arabia's climate agenda was further advanced as it launched the Saudi Green Initiative and the Middle East Green Initiative[13] and updated its NDC[14] under the Paris Agreement, more than doubling the emissions reduction target, and announced its goal to reach net zero emissions by 2060. In 2022, Saudi Arabia's Public Investment Fund announced the establishment of the Regional Voluntary Carbon Market Company in collaboration with Tadawul, the Saudi stock exchange.

**Supervisory authorities and central banks are currently assessing the potential impact to the financial system from climate-related financial risks.**

Many central banks and financial regulators have been working to understand and assess whether such risks could cause a systemic risk. In recent years, SAMA has supported the primary role of the government when it comes to addressing the issue, in line with its mandate.

Domestically, SAMA has examined transition risks by conducting a preliminary assessment of banks' exposures to the sectors that contribute most to GHG emissions. Data assessed included banks' credit exposures and investment activities, such as debt and equity instruments in both banking and trading books. SAMA also organized workshops and awareness sessions internally and with domestic entities. SAMA's efforts to increase engagement on climate change have led financial institutions to embrace initiatives on a domestic level — for example, local banks have established an environment, social, and governance (ESG) advisory committee, tackling areas related to climate accounting measures, environmental risk management (ERM) practices, utilizing technological innovation to support green finance, knowledge, and capacity building. In addition, SAMA has embraced efforts by insurance companies to contribute to green insurance initiatives by creating environmental and sustainability-related products. In addressing the issue of climate-related risks, SAMA is uniquely positioned

[12] "Circular Carbon Economy," Ministry of Energy, 2020.
https://www.moenergy.gov.sa/en/OurPrograms/Sustainability/CircularEconomy/Pages/default.aspx

[13] "Saudi Green Initiatives." 2021. https://www.saudigreeninitiative.org/

[14] "Updated Saudi Arabia NDC." 2021
https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Saudi%20Arabia%20First/KSA%20NDC%202021%20FINAL%20v24%20Submitted%20to%20UNFCCC.pdf

to draw on its experience in ensuring a stable and resilient financial environment and its understanding of the Kingdom's climate initiatives and the country's circumstances.

As a part of its wider contribution to the G20, SAMA participates in the work of the G20 Sustainable Finance Working Group (SFWG) as well as the Framework Working Group (FWG). SAMA is also involved with the FSB, the Task Force on Climate-Related Financial Risks (TFCR) under the Basel Committee for BCBS, and the Central Banks and Supervisors Network for Greening the Financial System (NGFS). The NGFS aims to strengthen the global response needed to meet the goals of the Paris Agreement and enhance the role of the financial system to manage such risks. The network has dedicated workstreams focused on tasks such as supervision, incorporating climate and environmental risks within the members' supervisory frameworks, and scenario design and analysis, which helps members conduct climate-scenario analysis. The network also works to understand how climate risks impact monetary policy.

**The assessment of climate-related financial risks is still evolving.**

A good amount of progress has been made in identifying and understanding climate-related financial risks. The assessment of climate-related financial risks is at a nascent stage; drafting policy measures at this point may prove challenging, as banks, regulators, and supervisors are building capacity and expertise.

### Box 3.1: Virtual Assets Analysis

The FSB describes virtual assets as a type of private-sector digital asset that depends primarily on cryptography and distributed ledger and similar technology. It is neither issued nor guaranteed by a central bank or public authority and can be used as a means of exchange and/or for investment purposes and/or to access a good or service, noting that currently there is no agreed-upon global taxonomy to classify them. Nonetheless, the IMF, in collaboration with other relevant international organizations, divides these assets into three main categories: unbacked tokens (such as Bitcoin), stablecoins (such as USDC), and other assets (such as utility and security tokens). They are closely interrelated in a complex and constantly evolving ecosystem and need to be considered holistically when assessing related financial-stability risks.

Although there are various risks related to virtual assets, their importance and applicability vary depending on national circumstances. They include fiscal risks, risks to the efficiency of monetary policy, and risks relating to the volatility of capital flows. Financial stability, financial integrity, legal risks, consumer protection, market integrity, and contestability are other major areas of concern. Moreover, the growing links between the virtual ecosystem and the traditional financial system pose systemic risks and the potential for global spillover effects. Indeed, the aspects related to leverage, liquidity/maturity mismatch, operational/technological fragilities, and interconnectedness are risks in virtual-asset markets that are comparable to those in traditional finance.

## Box 3.2: Open Banking Developments

The Open Banking Program, executed and managed by SAMA, is one of the initiatives of the FinTech Strategy, which is a pillar of the FSDP under Saudi Vision 2030. The strategy aims to make the Kingdom a global FinTech hub where technology-based innovation in financial services is the foundation to enhancing the economic empowerment of individuals and society.

SAMA released the Open Banking Framework, one of the key outputs of the Open Banking Program, in the fourth quarter of 2022. The framework includes a comprehensive set of regulatory guidelines, business rules, and technical standards based on international best practices to enable banks and FinTechs to provide open banking services in the Kingdom. The Open Banking Standards are technical documents that include the requirements that banks and FinTechs must adhere to for seamless and secured integrations. The standards aim to achieve an interoperable open banking ecosystem in the Kingdom. The standards are comprised of API specifications, security profiles, operational guidelines, and customer experience guidelines. SAMA subsequently launched the Open Banking Lab in the first quarter of 2023 to expedite the development of open banking services in the Kingdom. The lab aims to ensure the compatibility of the open banking market participants, banks, and FinTechs and their compliance with the Open Banking Framework by enabling them to develop, test, and certify their open banking services and products in a technical testing environment.

The first release of the Open Banking Framework focused on the account information service (AIS), and the second release will focus on the payment initiation service (PIS). AIS enables third-party providers (TPPs) to access consumers' account data, with consumers' consent, from multiple financial institutions. The data types include account balances, transaction history, and other financial information. By aggregating these data types, TPPs can offer consumers, retail and corporate, a variety of use cases, enabling them to manage their financials more effectively. Examples of AIS use cases are account aggregation, personal finance management (PFM), enterprise financial management (EFM), extended customer attributes, e-statements as a service, credit risk assessment, tax filing as a service, and letters of guarantee as a service. On the other hand, the PIS, targeted to be released by SAMA in the Open Banking Framework by the end of 2023, will allow TPPs to enable their consumers to initiate payments using their account information without any need to use cards, offering them a secure and streamlined payment experience. This service will introduce a variety of payment use cases, including one-off merchant payments, P2P payments, recurring payments, and others.

This new era of consent-based data sharing represents a significant shift in the way financial services are delivered and has the potential to revolutionize the industry by creating a more customer-centric and transparent financial model. SAMA is currently tracking the development of all banks and TPPs and certifying their products and services to ensure their compliance with the Open Banking Framework and its KSA Open Banking Standards, in addition to striving to have all of them certified and operating in the market by the second quarter of 2023.

## Box 3.3: International Developments of the Financial Action Task Force

In recent years, the Financial Action Task Force (FATF) has worked extensively on several FinTech initiatives, including the initiative related to updating Recommendation 15 and its Interpretive Note to include additional standards for virtual assets[15] and virtual-asset service providers.[16] Through this update, the FATF seeks to (1) ensure continuous growth and innovation in virtual-asset technologies and FinTech companies and (2) prevent criminals and terrorists from exploiting weaknesses in the financial sector to achieve their goals. The new standards require countries to take a number of measures at the national and private-sector levels, which can be summarized as follows:

| National Measures | Private Sector Preventive Measures |
|---|---|
| • Understanding the money-laundering, terrorist-financing, and proliferation-financing risks emerging from the virtual-asset sector.<br>• Licensing or registering virtual-asset service providers.<br>• Regulating and supervising the virtual-asset sector. | • Implementing preventive measures by financial institutions with regard to due diligence, recordkeeping, and suspicious transaction reporting.<br>• Obtaining, holding, and transmitting required originator and beneficiary information immediately and securely when conducting virtual-asset transfers (the Travel Rule). |

Noting that the key risks of virtual assets in this regard include sanctions evasion even though virtual assets have not reached a large scale due to liquidity limitations, there are still risks of virtual-asset service providers being used to evade international sanctions, especially considering that those liquidity limitations might change if virtual assets are widely adopted.

Countries are still facing challenges in implementing the additional standards of Recommendation 15 related to virtual assets and virtual-asset service providers. More precisely, the majority of countries that the FATF assessed from June 2021 to May 2022 still need to make major or moderate improvements in assessing money-laundering/terrorist-financing (ML/TF) risks and applying preventive measures to mitigate these risks for virtual assets and virtual-asset service providers. Nonetheless, in 2022, the private sector made progress in implementing the requirements for exchanging the originator and beneficiary information when conducting virtual-asset transfers (the Travel Rule). This includes maintaining and exchanging such information with counterparties. However, this progress faced some challenges in terms of interoperability between different technological solutions to ensure full compliance with international standards.

[15] According to the FATF, a virtual asset is "a digital representation of value that can be digitally traded, or transferred, and can be used for payment or investment purposes. Virtual assets do not include digital representations of fiat currencies, securities and other financial assets that are already covered elsewhere in the FATF Recommendations."

[16] According to the FATF, a virtual asset service provider is "any natural or legal person that is not covered elsewhere under the Recommendations, and as a business conducts one or more of the following activities or operations for or on behalf of another natural or legal person: (1) exchange between virtual assets and fiat currencies, (2) exchange between one or more forms of virtual assets, (3) transfer of virtual assets, (4) safekeeping and/or administration of virtual assets or instruments enabling control over virtual assets, and (5) participation in and provision of financial services related to an issuer's offer and/or sale of a virtual asset."

In addition, the FATF adopted amendments to Recommendation 24 and its Interpretive Note on the Transparency and Beneficial Ownership of Legal Persons[17] to address inherent risks in complex structures that enable criminals to hide their identity in order to launder their illicit proceeds through legal persons. The amendments also aim to ensure greater transparency regarding beneficial owners and controllers of legal persons, hence mitigating ML/TF risks. The amendment standards focus on several preventive measures, including:

- Requiring countries to use a multi-pronged approach to collect beneficial ownership information to ensure that competent authorities can obtain or access sufficient, accurate, and up-to-date information on the beneficial ownership of legal persons in a timely manner, either through a beneficial owner registry or an alternative mechanism.
- Taking effective measures to prevent the misuse of nominee shareholders or directors in ML/TF operations.

The FATF published, in March 2023, guidance on applying the updated requirements. Through this guidance, it aims to ensure the compliance of countries with the revised requirements of Recommendation 24, including (1) assessing the risks associated with domestic and foreign legal persons, (2) taking adequate measures to prevent the misuse of legal persons for ML/TF, and (3) facilitating the implementation of necessary measures to prevent the use of shell companies as safe havens for illegal proceeds.

SAMA is working with other competent authorities in the Kingdom to reflect the adopted amendments to Recommendation 24 and Recommendation 25. A dedicated team from various governmental authorities has been formed to conduct detailed assessments of beneficial ownership in order to ensure greater transparency regarding beneficial owners and legal arrangements in the Kingdom.

[17] In 2003, the FATF introduced the first international beneficial ownership transparency standard to prevent the concealment of the beneficial ownership information of legal persons.

### Box 3.4: Climate-Related Financial Risks

There are two main types of climate-related financial risk. First is physical risk, where economic costs rise and financial losses increase from changes in the climate — for example, an increase in natural disasters caused by higher temperatures. Second is transition risk, where risks may arise from policies associated with the process of adjusting toward a low-GHG economy — for example, adjustments to future policy decisions that may impact investment.

Both of these risks may affect the stability of the financial system in the long term. Therefore, financial-sector regulators could conduct impact assessments of these risks to enhance financial institutions' understanding of material risks and the measures to manage the risks. While central banks have a key role to play in understanding how risk operates in a given jurisdiction, central governments have the instruments and the authority to implement climate-related policies.

Against this backdrop, SAMA will continue to ensure a stable and resilient financial environment in Saudi Arabia by providing a supportive environment for the financial sector that is balanced with prudent regulatory and supervisory frameworks. SAMA will fulfill its mandate of maintaining monetary stability, supporting the stability of the financial sector and promoting trust therein, and supporting economic growth. SAMA believes that regulatory frameworks for climate-related financial risks should be carefully designed and aligned with the stability of the financial sector, economic development goals, and national circumstances.

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SAMA

Saudi Central Bank