Central Bank of Oman

Continuous Enhancement & Prosperity

FINANCIAL STABILITY REPORT 2023

His Majesty Sultan Haitham bin Tariq


البنك المركزي العماني

FOREWORD

Since the release of the previous Financial Stability Report, Oman has witnessed a series of favorable developments, which culminated in positive rating actions by all major credit rating agencies during the first half of 2023. These developments include notable improvements in fiscal performance, external account, real and nominal output, and debt sustainability.

On the global front, price stability has been in the limelight for some time now, prompting central banks to implement successive interest rate hikes. The ensuing tighter financial conditions may have a bearing on the pace of global economic recovery. In Oman, however, the inflation remained benign because of the prudent fiscal measure taken by the government, which complemented the monetary stance of the Central Bank of Oman (CBO).

The recent episodes of stress in the US and European banking sectors have highlighted the presence of some fault lines in the financial sector and underscore how institution-specific risks can potentially cascade into systemic concerns. These events also elucidated the intricate interplay of monetary policy and financial stability, whereby authorities need to strike a balance between price stability and financial stability. These events also tested the resilience of the financial sector and the efficacy of authorities in promptly intervening to avert a systemic crisis.

Being a small open economy, Oman is susceptible to external developments. However, the Omani financial sector, characterized by its conservative nature, primarily concentrates on catering to the financing requirements of the domestic economy. Consequently, it has remained unaffected by the recent banking turmoil. The strength of the Omani banking sector can be attributed to its robust capital and liquidity buffers, coupled with rigorous regulatory and supervisory oversight. These factors have bolstered the sector's resilience, shielding it from the adverse impacts experienced elsewhere.

The exacerbation of geopolitical tensions, the realization of downside risks to economic growth, persistent inflation, tightening of financial conditions, or a disorderly correction of asset prices could amplify pre-existing vulnerabilities in the global financial system. These, in turn, could have some spillover effects on Omani financial system as well. Nevertheless, the latest stress test results show that the Omani banking sector is remarkably resilient to a battery of adverse scenarios.

The transition risks and shocks emanating from climate change and the shift towards net-zero emissions are among the key emerging risks for financial stability. CBO has formulated a preliminary roadmap aimed at fostering sustainable and green financing within the domestic financial system. CBO is also actively encouraging financial institutions to develop policies that facilitate and promote green financing. Moreover, CBO is working on improving its analytical capabilities to better measure and model climate-related risks.

The assessment shows that on balance the risks to financial stability have declined since the publication of the last Financial Stability Report and the Omani financial system remains well-poised to support the economy. This assessment is further reinforced by findings of the recent Systemic Risk Survey, which indicates an improvement in the confidence of market participants in the Omani financial system. Additionally, the Survey reflects a decline in the perceived likelihood of a highly detrimental event occurring in the Omani financial system over the short to medium term. Going forward preserving financial sector resilience remains the key through different phases of the financial cycle.

Tahir Salim Abdullah Al Amri
Executive President

CONTENTS

LIST OF SELECT ABBREVIATIONS

ACH	Automated Clearing House
CAR	Capital Adequacy Ratio
CBO	Central Bank of Oman
CBDC	Central Bank Digital Currencies
CCyB	Countercyclical Capital Buffers
CET1	Common Equity Tier 1
CFSI	Composite Financial Stability Indicator
CRAR	Capital to Risk-weighted Assets Ratio
DFRATE	Default rate
D-SIBs	Domestic Systemically Important Banks
FB	Fiscal Balance
FIs	Financial Institutions
FLCs	Finance & Lease Companies
FMIs	Financial market infrastructures
FX	Foreign Exchange
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
HHI	Herfindahl-Hirschman Index
IBEs	Islamic Banking Entities (IBEs)
LCR	Liquidity Coverage Ratio
MCIP	Ministry of Commerce, Industry and Investment Promotion
MTFP	Medium-term Fiscal Plan
NPF	Non-Performing Financing
NPL	Non-Performing Loans
NSFR	Net Stable Funding Ratio
OLS	Ordinary Least Squares
PD	Probability of Default
PFMI	Principles for Financial Market Infrastructures
POS	Point of Sale
PSS	Payment Settlement System
PSP	Payment Service provider
RHS	Right Hand Side
RO; OMR	Rial Omani
ROA	Return on Assets
ROE	Return on Equity
RoW	Rest of the World
RTGS	Real-Time Gross Settlement
RWA	Risk Weighted Assets
SRS	Systemic Risk Survey
US; USA	United States of America
USD	United States Dollar
YoY	Year on Year
YTMs	Yield to Maturity

SECTION 1

OVERVIEW OF FINANCIAL STABILITY AND SYSTEMIC RISKS

FINANCIAL STABILITY REPORT **2023**

The Short-term Risks to Financial Stability in the Sultanate Remain low

The interplay of elevated interest rates and bank failures in the US and Europe has put the global financial stability stance to test. As vulnerabilities have the potential to spread across borders, major stock markets reacted negatively to the US regional banking crises, resulting in a bearish trend during that period.

Amidst the global financial market turbulence, the financial market in Oman stood firm, reflecting stability and resilience, with the MSX index closing on a positive note, during the week when the global financial markets were passing through turbulence.

Going forward, threats from outside the financial system, including the US Federal Reserve's monetary policy stance, geopolitical developments particularly in Europe, and the OPEC+ agreement will continue to weigh on the macroeconomic outcomes and financial stability in Oman. However, in the near term, the risks to financial stability remain muted and banks and financial sector appears to be well poised to serve the needs of the real economy.

High commodity Prices and Emerging Uncertainties can Prolong Inflationary Conditions in Some Countries

Global economies face challenges from high inflation remaining well above the long-term target of 2 percent. The high inflation rate is largely driven by elevated energy and commodity prices and disruptions in global supply chains.

In response to the inflationary pressure, major central banks' globally have raised their policy rates. Consequently, financial conditions have tightened across various regions.

The US Federal Reserve has chosen to pause its policy rate hike. Nevertheless, the persistence of high core inflation may prompt further monetary policy tightening aimed, which may in turn dampen global growth and exacerbate global financial conditions.

Oman Managed to Contain Inflationary Trends

Oman has managed to mitigate the severe spillover effects of global inflationary pressure. This can be attributed to the distinct financial cycle, flexible labor market, and proactive fiscal measures implemented by the government.

As an oil exporter, fiscal position benefited from higher energy prices and the higher proceeds from hydrocarbons have provided ample fiscal space to the government to counterbalance any inflationary pressures with targeted interventions to complement the impact of monetary policy actions.

Systemic Risk Survey Affirms Improvement in Confidence in the Sultanate's Financial System in 2023

A survey of a cross-section of market participants and other stakeholders conducted in January 2023 showed an improvement in the confidence of market participants in the Omani financial system. The survey results indicate a decline in the perceived probability of a highly adverse event taking place in Omani financial system in both the short term (up to one year ahead) and medium term (1-3 years ahead). This positive trend aligns with the improvement in macro-financial conditions in Oman. (Please see Box 1.1 Systemic Risk Survey Results).

Omani Banking Sector Maintains Strong Soundness Indicators and Continues to Support the Real Economy

The Omani banking sector continues to expand, playing a vital role support to the real economy. The banks demonstrate sound asset quality, as evidenced by low non-performing loans (NPLs), and maintain strong capital buffers. The stress tests show that banks can withstand a battery of potential shocks.

The prudential liquidity indicators showed that the banking system continued to maintain sufficient short-term and longer-term liquidity buffers and can withstand any potential liquidity shocks.

The Composite Finanical Stability Indicator Showcased Improved Financial Stability in the Sultanate

The CFSI illustrated an overall improvement in the financial stability landscape during the year 2022. This positive shift is attributed to improvement in macro-financial conditions, duly supported by elevated oil prices.

On an overall basis, the CFSI revealed positive trends largely due to favorable macro-financial factors, supported by higher oil prices; with an overall rating of 3.9 as of Q4-2022 as compared to 3.4 a year ago.

Credit conditions of the Sultanate are Expected to Improve in 2023

The December 2022 Credit Conditions Survey revealed a moderate increase in demand for household lending in 2022. Moreover, banks witnessed strong demand for loans from both the corporate and SMEs sectors. Looking forward, respondents expect higher credit approval rates and stronger lending growth in 2023. (Please see Box 2.3 Credit conditions Survey Results).

The Banking Sector Showed Resilience to Stringent Solvency and Liquidity Shocks

The stress tests conducted using the end of December 2022 data showed that under the adverse macro scenario, all domestic banks would withstand adverse macro shocks without breaching the CBO's minimum required Capital to Risk-weighted Assets Ratio (CRAR) of 12.25 percent. All domestic banks would experience a sharp increase in their credit provisioning expenses due to the double increase in their NPL ratio under the adverse scenario, however, they would cover these losses and remain profitable during the stress horizon.

Similarly, the Reverse Stress Tests displayed the ability of banks to absorb a sizeable increase in non-performing loans (NPLs) without impairing their solvency.

The Liquidity Stress Tests conducted as of December 2022 illustrate that all banks would be able to maintain a 100% LCR ratio under the stressed-LCR stress testing. Further, system-wide liquidity analysis shows that the banking system possesses sufficient counterbalancing capacity to withstand the persistent simulated cash outflows during the reference period of six months.

Climate Change and Cybersecurity Pose New Challenges for Financial Stability

Climate change poses micro prudential and macroprudential risks for financial system in the form of direct physical shocks and risk from transition to low-carbon economy. Moreover, with the expansion of financial technology, the cyber-risks are rising.

As part of national climate risk mitigation efforts, the CBO has taken an active role in fulfilling its responsibilities. It has advised banks and financial leasing companies to enhance their risk managemnet policies and practices in accordance with the international best practices on climate-related finanical risks. Moreover, the finanical institutions have been encouraged to develop policies that facilitate and promote green finanicng.

Furthermore, the CBO has prepared a preliminary roadmap aimed at fostering sustainable and green financing within the Omani financial system. This roadmap will be implemented to promote environmentally friendly financial practices. CBO is also working on enhancing its toolkit and capabilities to better measure and address climate related risks.

Box 1.1: The Systemic Risk Survey Results – 2023

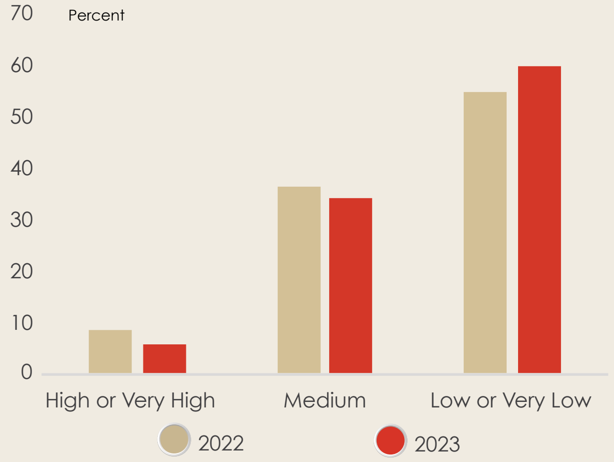
The annual Systemic Risk Survey (SRS) conducted by CBO seeks to obtain feedback from a range of stakeholderson their level of confidence in the stability of the Omani macro-financial system, as well as their perception of associated risks. The survey is typically completed by officials from banks, non-bank financial institutions, finical sector regulators, government institutions, professionals from the public and private sectors, and academics in the fields of finance and economics. The results discussed in this note are based on the responses gathered during January 2023 edition of the survey.

Expectations of an Adverse High-Impact Event Decreased with the Elevated Oil Prices, Despite Global Uncertainty

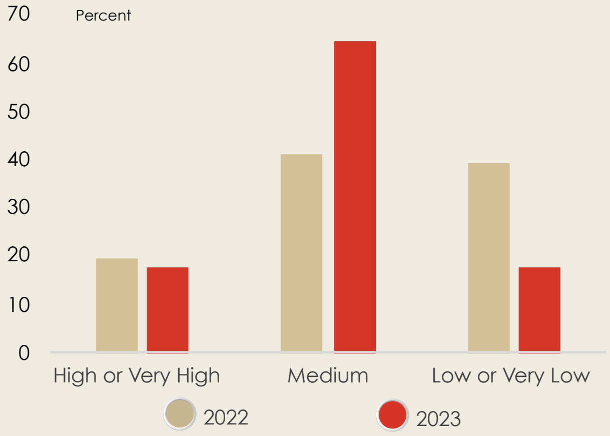
According to the SRS 2023 responses , the perceived probability of an event with a high negative impact occurring in Oman's financial system over the short-term (up to one year ahead) dropped slightly. Only 6 percent of the respondents judged this probability to be 'high' or 'very high' in 2023, compared to 8 percent in SRS 2022. Moreover, the percentage of respondents who viewed this probability as 'Low' or 'Very Low' increased from 55 percent in 2022 to 60 percent in 2023 (Graph 1.1.1). The participants' expectations of such an event occurring over the medium term (1-3 years ahead) witnessed a larger change between 2022 and 2023. The percentage of respondents who viewed this probability as 'High or Very High' somewhat declined to 18 percent in 2023 from 20 percent in 2022. Whereas, the percentage of those who judged this probability as 'Low or Very Low' decreased significantly to 18 percent in 2023 from 39 percent in 2022 (Graph 1.1.2). The lower probabilities assigned to a high-impact event reflect the substantial improvements in Oman's fiscal and economic metrics, particularly in the short-term, mainly due to the higher oil prices and the continued commitment to the medium-term fiscal plan (MTFP).

Respondents to the SRS 2023 also expressed relatively higher optimism regarding how their perception of the likelihood of an adverse event occurring in the near future has changed over the past year, notwithstanding risks from global spillovers, elevated uncertainty about the economic outlook, and financial markets volatility.

GRAPH 1.1.1
PROBABILITY OF A HIGH IMPACT EVENT - SHORT TERM



GRAPH 1.1.2
PROBABILITY OF A HIGH IMPACT EVENT - MEDIUM TERM



In SRS 2023, 20 percent of the respondents expressed that the probability of a high-impact event has increased, compared to 14 percent in SRS 2022. In addition, this probability remained unchanged for 57 percent of the respondents in 2023 compared to 52 percent in 2022. Nevertheless, the percentage of respondents whose perception of this probability has decreased over the last year remarkably decreased from 34 percent in 2022 to 23 percent in 2023.

Confidence in the Omani Macro-Financial System Remains Stable

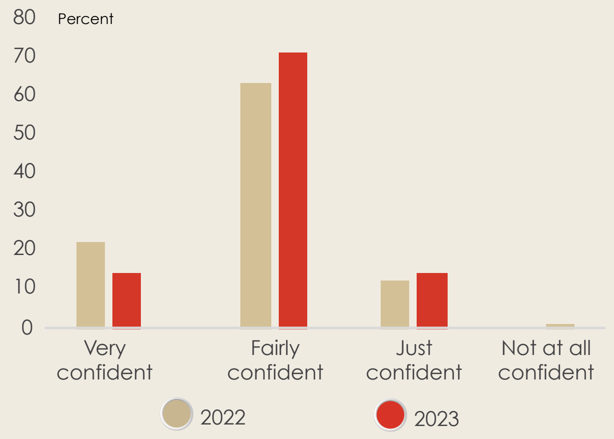
SRS 2023 illustrates that the degree of confidence in the stability of Oman's macro-financial system shows improvement in 2023, despite the diminished forecast for global growth, and ongoing geopolitical uncertainty. Most (71%) of the respondents are fairly confident in the Omani macro-financial system. The percentage of respondents who described themselves as 'very confident' or 'fairly confident' or 'Just Confident' in Oman's macro-financial system increased to 100 percent in 2023 compared to 99 percent in 2022. Meanwhile, the responses in favor of 'Not at All Confident' dropped to 0 percent in 2023 from 1 percent in the preceding year (Graph 1.1.3).

The respondents' confidence in the Omani macro-financial system increased in 2023. In SRS 2023, 97 percent of the respondents reported an increase or at least unchanged in their confidence over the last year preceding taking the survey, compared to 92 percent in 2022. Only 3 percent of participants in SRS 2023 responded that their confidence 'decreased', compared to 8 percent in SRS 2022 (Graph 1.1.4).

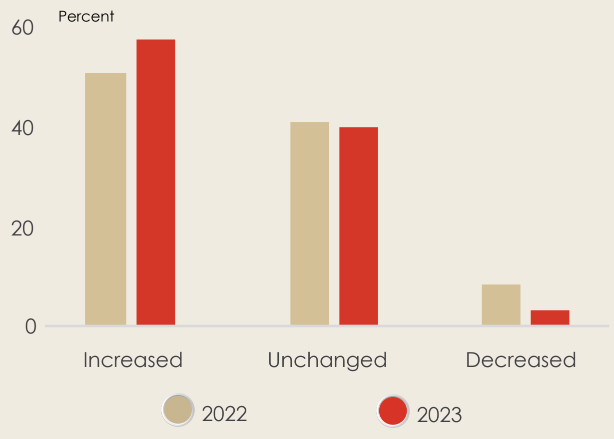
Specialized Banks and Local Conventional Banks are Viewed as the Most Solid Financial Intermediaries (FIs) in 2023, While FLCs, Mutual Funds, and Currency Exchange Companies are Perceived as the Most Vulnerable to Adverse Shocks

Respondents were asked if different categories of financial institutions (FIs) will be negatively affected if a country-wide adverse event occurs in the period ahead in terms of their vulnerability to systemic risk, by assigning each category of FIs into four classes: high vulnerability, moderate vulnerability, low vulnerability, very low vulnerability.

GRAPH 1.1.3
CONFIDENCE IN OMANI MACRO-FINANCIAL STABILITY



GRAPH 1.1.4
CHANGE IN CONFIDENCE IN OMANI MACRO-FINANCIAL STABILITY



As of the 2023 survey, the majority of respondents (average 48.84 percent) perceived Omani FIs on average at the top of the "moderate vulnerability" category. While, finance and leasing companies were voted the most as "highly vulnerable", mutual funds and currency exchange companies followed behind by 34.29 and 17.14 percent of respondents, respectively. Both specialized banks and foreign commercial banks were less vulnerable as the most-voted as enjoying "low or very low vulnerability", by 51.42 and 45.72 percent of respondents respectively (Graph 1.1.5).

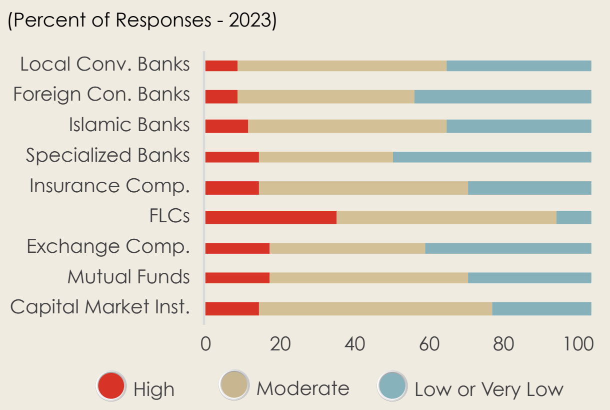
These results do not differ considerably from those of the 2022 survey, in which FLCs and mutual funds were the most voted as "highly vulnerable", by 38.03 percent and 35.21 percent of respondents However, in SRS 2022, the most voted FIs with "low or very low vulnerability" were foreign commercial banks and Islamic banks

Drop in Banks' Profitability in Oman, Plunge in Real Estate Prices in Oman, and Disruption in the Payment & Settlement Systems' Infrastructure in Oman are Apparent to be the Major Potential Distress Points in 2023

Respondents were given a separate set of questions to evaluate the likelihood and potential impact of fourteen adverse events to the Omani financial system. They rated the probability and impact of each event on a scale from "very high" to "very low" using a 1-5 scoring system, with 5 indicating the highest probability/impact. Each event's expected impact was calculated by multiplying the scores assigned to its probability and impact by each respondent and then averaging across all responses. The resulting average expected impact values ranged from 1 to 20.

Compared to the 2022 results, respondents in 2023 showed increased perceptions of the probability but decreased perceptions of the impact of systemic risks, indicating more optimism after the pandemic and greater confidence in Omani macro-financial resilience. The average probability and impact scores for the 14 events changed from 2.9 and 3.4 in 2022 to 3.3 and 2.6 in 2023, respectively. Consequently, the average expected impact declined from 10.0 in 2022 to 8.7 in 2023.

GRAPH 1.1.5
PERCEIVED VULNERABILITY OF FINANCIAL INSTITUTIONS TO ADVERSE SHOCKS

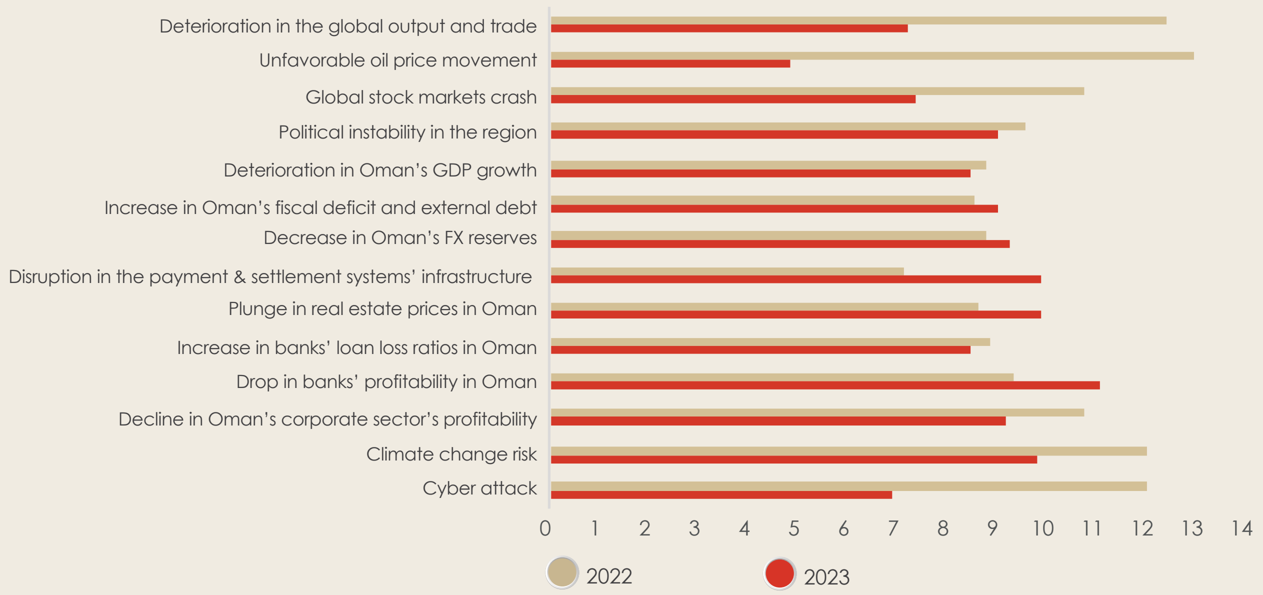


Due to the economic recovery led by improvement in oil prices and normalization of other economic activities, a set of new challenges stand out most prominently in the survey results. The "drop in banks' profitability in Oman", "plunge in real estate prices in Oman", and "disruption in the payment & settlement systems' infrastructure in Oman" were among the top three most-likely systemic risks, respectively, in terms of their perceived expected impact on the Omani financial system.

These results differ from those of the 2022 survey, in which, "unfavorable oil price movements", and "deterioration in the global output and trade" were the two most significant systemic risks in terms of their perceived expected impact. Whereas, "unfavorable oil price movement" and "deterioration in the global output and trades" were perceived as the least significant systemic risks to Oman's macro-financial stability in 2023 after the recent hike in oil prices (Graph 1.1.6).

On the contrary, 'disruption in the payment & settlement systems' infrastructure', 'Drop in banks' profitability in Oman', 'plunge in Omani real-estate prices', and 'disruption in the payment & settlement systems' infrastructure' were viewed as the least significant as of March 2022.

GRAPH 1.1.6
EXPECTED IMPACTS OF 14 HYPOTHETICAL EVENTS ON THE OMANI MACRO-FINANCIAL SYSTEM



Systemic Risk Perception Matrix Classifies the Hypothetical Events into Five Levels of Expected Severity, Providing a Useful Guide to Omani Policymakers' Agenda

The average scores of probability and impact were used to construct a Systemic Risk Perception Matrix for the Omani macro-financial system (Table 1.1.1). In this systemic risk perception matrix, rows represent three classifications of the probability of an event's occurrence in terms of likelihood, while columns represent three classifications for an event's impact if it materialized in terms of its severity. The matrix's nine cells, therefore, were used to identify five different levels of expected severity of our 14 hypothetical events. As shown in (Table 1.1.1), these levels range from "Very Low" for unlikely events with low impact to "Very High" for probable events with strong impact. Any event is classified as unlikely (acceptable impact) if its average score falls below the 25th percentile for probability (impact) for all gathered responses. Similarly, we classify any event as probable (unacceptable impact) if its average score is above the 75th percentile for probability (impact). Events with average probability (impact) scores between the 25th and 75th percentiles are classified as possible (tolerable impact). Based on this year's survey responses, this methodology provided two cut-off points for the average scores of each of probability and impact (2.86 and 3.27 for probability; 3.49 and 3.67 for impact, respectively).

Each of our fourteen hypothetical factors was then assigned to the appropriate cell in the systemic risk perception matrix in (Table 1.1.1), using the letter-numbering of those events as indicated in (Graph 1.1.6). The matrix shows that only one event was perceived by respondents as having "Very High" expected severity and therefore should attract the most attention from policymakers, namely "Plunge in real estate prices in Oman". Moreover, risks associated with four other hypothetical events have "High" expected severity" Increase in Oman's fiscal deficit and external debt", "Drop in banks' profitability in Oman", "Decline in Oman's corporate sector's profitability, and "Climate change risk", and are therefore worth policymakers' close attention as well.

Table 1.1.1: Systemic Risk Perception Matrix for the Omani Macro-Financial System 2023

		Impact if Event Materializes		
		Acceptable (Relatively Weak Impact)	**Tolerable** (Moderate Impact)	**Unacceptable** (Relatively Strong Impact)
Probability of Event's Occurance	**Unlikely** (Relatively Low Probability)	VERY LOW B; N	LOW A; C	MEDIUM
	Possible (Moderate Probability)	LOW	MEDIUM D; G; J	HIGH K; L; M
	Probable (Relatively High Probability)	MEDIUM E; H	HIGH F	VERY HIGH I

The matrix also reveals the "Very Low" perceived expected severity of two possible systemic risks: "Unfavorable oil price movement" and "Cyberattack".
Surprisingly, "Plunge in real estate prices in Oman" has viewed as the most significant risk for first time in 2023, possibly due to the rising interest rates and fear of drop in real estate prices in other countries.

Respondents Suggest Additional Factors that Could Impact the Omani Macro-Financial System

The survey respondents were also requested to identify significant risks that could potentially affect the Omani macro-financial system, which were not explicitly mentioned in the previous section. They were also asked to assess the likelihood and impact of each risk. Summarized in (Table 1.1.2) are the findings of the most frequent responses received.

Table 1.1.2: Additional Risk Factors Suggested by the Respondents to SRS 2023

	Risk	Probability Range	Impact Range
1.	Unexpected rise in COVID-19	Medium	Medium
2.	Geopolitical risk	Low	High
3.	Rise in interest rates globally	High	Low to High
4.	Credit rating of the banks	High	High
5.	Sudden drop in oil price	Medium	Medium to Very High
6.	Erosion of social cohesion	Low to Medium	Medium to High
7.	Unemployment / Fragile labor market	Medium to Very High	Medium to Very High
8.	Natural Disasters	High	High
9.	Higher inflation in Oman	Medium to Very High	Medium to Very High
10.	Decrease in public consumption	Low	Medium
11.	Unfavorable policy/regulatory changes in Oman	Low to High	High to Very High
12.	Inability to maintain and attract more FDI	Medium to High	High to Very High
13.	Recession in the economy	Medium	High
14.	Social unrest	Very Low to Medium	High
15.	Collapse of a local Bank	High	Medium
16.	Collapse of a large family company	High	Low
17.	Labour strikes, political disruption	High	Medium

Box 1.2: A Rating-Based Composite Financial Stability Indicator

The stability of the financial system is essential in ensuring efficient allocation of financial resources, which fosters economic growth. Financial stability is a complex phenomenon; therefore, it is usually measured using an array of qualitative and quantitative indicators. To summarize the assessment of financial stability, a rating-based Composite Financial Stability Indicator (CFSI)[1] has been developed. The CFSI aims to enhance transparency and communication with both the public and stakeholders. In addition, it assists policymakers to disentangle the causes and sources of stress to financial stability.

The CFSI is based on five sub-indicators that best reflect the financial stability in Oman. These sub-indicators include Banking Stability Sub-indicator, Systemic Risk Sub-indicator, Debt Sustainability Sub-indicator, Currency Stability Sub-indicator, and Capital Market Certainty Sub-indicator. Each sub-indicator is based on a set of relevant variables. Each variable is assigned a rating of 1 (Least Stable) to 5 (Very Stable) based on a mix of regulatory requirements, international benchmarks, or expert judgment. The variables are aggregated to form sub-indicators and these sub-indicators are combined into the CFSI based on the weight assigned to each sub-indicator as follows:

$$CFSI=0.40BSI+0.10SRI+0.20DSI+0.20CSI+0.10CMI$$

Where: BSI is Banking Stability Sub-indicator; SRI is Systemic Risk Sub-indicator; DSI is Debt Sustainability Sub-indicator; CSI is Currency Stability Sub-indicator; and CMI is Capital Market Sub-indicator. The weighting scheme of sub-indicators reflects the relative significance of each sub-indicator for financial stability

Results and Conclusion

CFSI is computed on a quarterly basis from 2008Q1 to 2022Q4 and the results are shown in (Graph 1.2.1). The CFSI illustrates an overall improvement in the financial stability landscape during the year 2022. This positive shift is attributed to improvement in macro-financial conditions, duly supported by elevated oil prices.

The banking stability sub-indicator continued to exhibit robust performance, showcasing the strength and resilience of the banking sector with a rating of 3.98 (Q4-2021 : 3.95) . During Q4-2022, the banking sector continued to maintain its strong solvency and liquidity positions with a rating of 4.96 (Q4-2021: 4.91) and 4.46 (Q4-2021: 4.71), respectively. The improved economic environment has led to higher profitability for banks' relative to the previous period, bolstering their financial position and enhancing their ability to withstand potential shocks. Moreover, the asset quality of the banks 'witnessed an improvement with a rating of 3.25 as of Q4-2022 as compared to 3.19 a year ago, this drop was largely due to a fall in Stage 2 loans.

[1] More details on the paper is available at www.cbo.gov.om

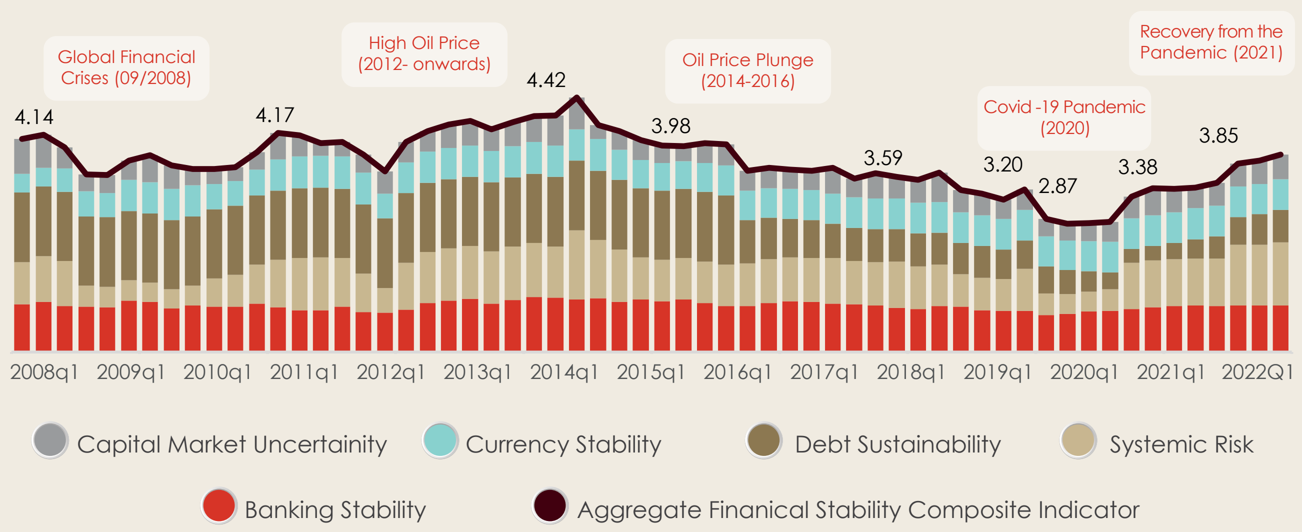
The rating of systemic risk sub-indicator in Q4-2022 stood at 4.52 as compared to Q4-2021: 3.39, which signifies that there are no signs of excessive risk-taking by the financial sector. The improvement in the systemic risk sub indicator is largely attributed to the decline in lending premium[2] (Q4-2022: 5.00; Q4-2021: 2.07). This indicator showed significant deterioration during the periods of financial crises (2008-2009), low oil prices (2015-2018), and the COVID-19 pandemic (2020) largely due to widening of spreads on Omani sovereign bonds and increase in credit-to-GDP gap due to a decline in nominal GDP.

The debt sustainability indicator shows that the Omani debt sustainability has improved as compared to last year which stood at 2.37 in Q4-2022 as compared to 1.40, largely due to a drop-in debt to GDP ratio from around 60 percent in Q4-2021 to 40 percent in Q4-2022. The improvement in debt sustainability indicates a more sustainable debt profile and reduced vulnerability to potential fiscal challenges. However, external debt relative to foreign reserves remains high with a rating of 1.

The currency stability sub- indicator continued to show a strong stability with a rating of 4.39 during Q4-2022 as compared to 4.47 a year ago. The capital market stability sub indicator tends to be more volatile than any other sub-indicator included in the model as market-based indicators are fast to react to changing operating conditions. The rating of the Omani capital market stability indicator as of Q4-2022 improved as compared to the previous period (Q4-2022: 3.54; Q4-2021: 3.00).

On an overall basis, the CFSI revealed positive trends largely due to favorable macro-financial factors, supported by higher oil prices; with an overall rating of 3.8 as of Q4-2022 as compared to 3.4 a year ago.

GRAPH 1.2.1
COMPOSITE INDICATOR OF FINANCIAL STABILITY



[2] Lending Premium is the difference between lending rates and policy rates, higher lending premiums indicate bigger perception of risk and flight to quality.

SECTION 2

VULNERABILITIES AND RISKS FOR THE FINANCIAL STABILITY

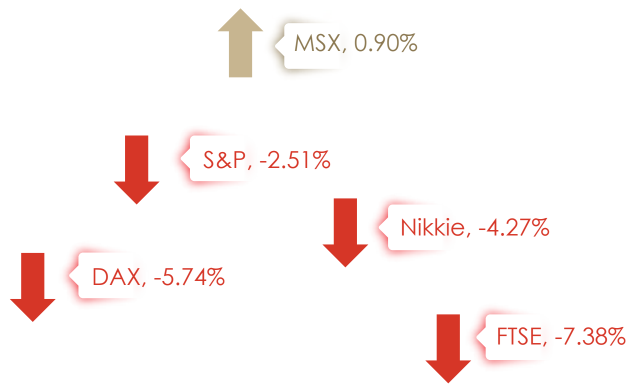
OUTLOOK FOR FINANCIAL STABILITY

Financial Stability Was Put to a Test Amidst the Interplay of Elevated Interest Rates and Failure of Banks in the US and Europe

Failure of some US regional banks in March 2023 sparked uncertainty in financial markets towards vulnerable banks. The collapse of these banks was followed by the first major threat to a Global-Systemic Important Bank[1] (G-SIB) since 2008, which further intensified uncertainty in the global banking industry.

These episodes underscore the paramount significance of market confidence and illustrate the speed at which funds can dissipate in the absence of a robust risk management framework. Nevertheless, the authorities and other key stakeholders took decisive measures to reinstate confidence and stability. The financial markets, which initially exhibited pervasive uncertainty, swiftly rebounded in response to the confidence-building measures implemented by authorities[2].

GRAPH 2.1
Weekly Returns on Select Indices DURING US Regional Banking Crisis(8-Mar-23 : 15-Mar-23)



SOURCE: Respective Stock Markets and CBO Staff Calculations

The elevated inflation and the weakening of financial conditions had been testing the ability of policymakers to strike a balance between price stability and financial stability. As inflation gradually comes under control, the strain on the financial and non-financial sectors resulting from escalating interest rates is expected to alleviate.

Omani Financial System Exhibited Remarkable Resilience to the Heightened Volatility and Liquidity Stress that Permeated a Large Part of the Global Financial System

The biggest US bank failures (Silicon Valley Bank and Signature Bank) since the onset of the global financial crises sent shock waves through the global financial system sparking uncertainty in financial markets. Since vulnerabilities may spill across boundaries, all major stock markets across the world reacted negatively to the regional banking crises and turned bearish in the one-week window around the event (March 8, 2023 to March 15, 2023).

Nevertheless, on the back of post-pandemic recovery in Oman duly supported by favorable oil prices and fiscal reforms, and the strength of the financial system, the financial markets remained calm and the MSX index closed on a positive note during the week when the global financial markets were passing through turbulence (Graph 2.1).

Disorderly Corrections in Asset Prices Remain a Key Risk for Global Financial Stability, However, Risk of a Sharp Decline in Asset Prices Remain Limited in Oman

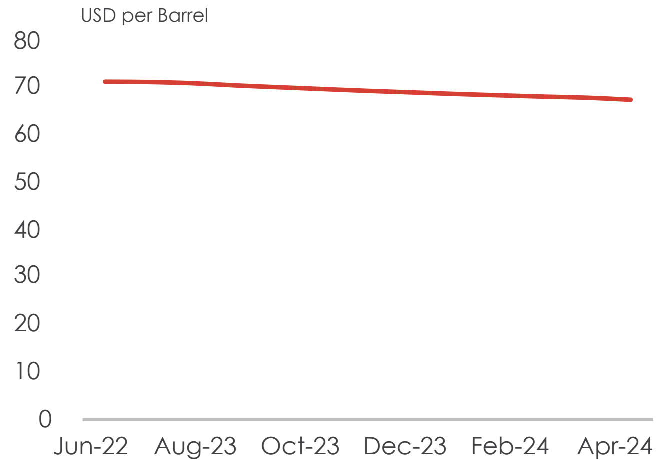
[1] Credit Suisse, the second-largest bank in Switzerland, collapsed in March 2023 and was bought by rival UBS for 3 billion CHF (about $3.3 billion USD).

[2] S&P 500 index that declined to 3,856 on 13-Mar-2023 has gained 11% till 02-Jun-2023 on the back of actions by authorities and expectations of pause in policy rate hikes.

During the COVID-19 pandemic, despite weak economic fundamentals, asset prices saw large gains on the back of exceptional liquidity injections by central banks. The wedge between macroeconomic developments and microeconomic outcomes appears to continue as the correction in real estate prices and stock indices remained muted despite the aggressive tightening of monetary policy. If this trend persists then risks may be mispriced which may result in heightened vulnerabilities in the future. The decline in the prices of fixed-income securities contributed to the challenges in the US regional banks. Any future disorderly correction in the asset prices may strain the balance sheets of financial institutions and borrowers.

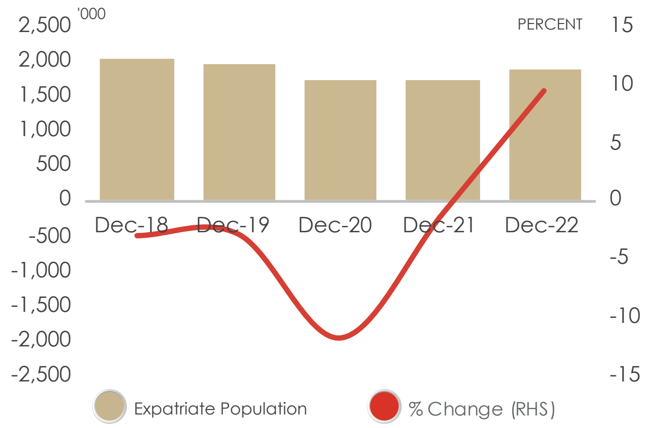
Nevertheless, in Oman, tangible improvement in the macroeconomic outlook has supported asset prices despite the rising policy rates. Any abrupt decline in asset prices appears to be unlikely in the near term.

GRAPH 2.2
WTI FUTURE CONTRACTS



Source: CME Group

GRAPH 2.3
POPULATION INDICATORS



Source: NATIONAL CENTER FOR STATISTICS AND INFORMATION (NCSI)

The Persistent High Commodity Prices and the Emergence of Uncertainties may Stretch the Inflationary Conditions, Which may Hinder Recovery Process and Challenge Financial Stability in Some Countries

Major economies worldwide are grappling with the impact of high inflation, driven by volatile energy prices and disruptions in global supply chains resulting from the pandemic. While some respite has been observed in inflation outcomes and expectations, core inflation in the United States and many other nations remains well above the long-term target of 2 percent. Major central banks globally have opted to maintain policy rates at higher levels to address inflation concerns.

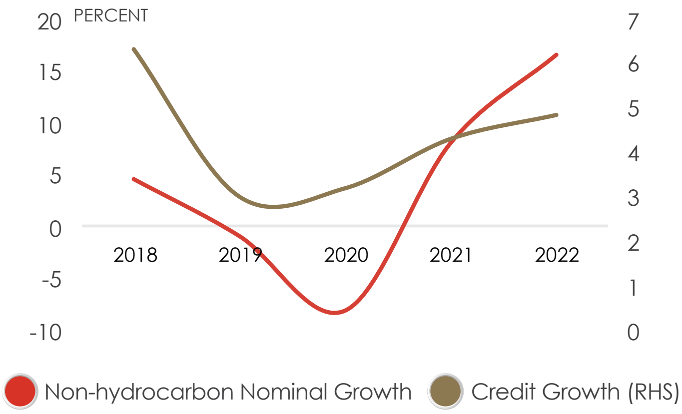
Consequently, financial conditions have tightened across various regions, and the ensuing monetary policy tightening aimed at curbing inflation may further dampen global growth and exacerbate global financial conditions.

Notwithstanding the recent pause in policy rates by the US Federal Reserve, considering that core inflation remains high, a soft landing to a more accommodative monetary policy stance is expected to take place only after 2023.

Higher Oil Prices Outweigh Inflationary Pressures in Oman

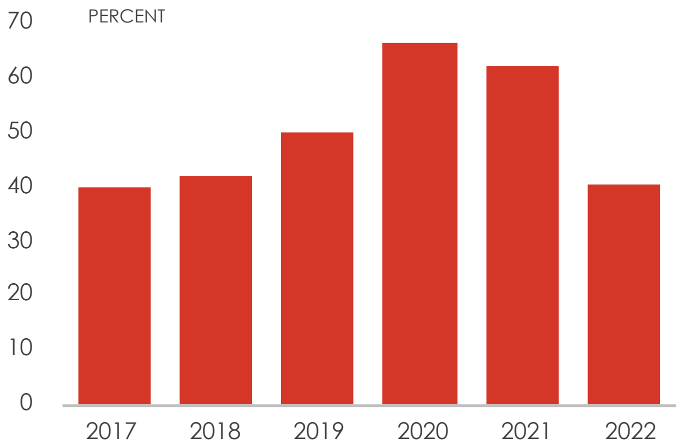
The global inflationary pressure did not severely spill over into the Omani economy due to a distinct financial cycle, a flexible labor market, and proactive fiscal actions taken by the government. The resurgence of economic activities following the pandemic, coupled with favorable oil prices (Graph 2.2), has led to a gradual uptick in property prices. This can be attributed, to some extent, to a recovery in the labor market, where the demand for workers has increased, resulting in a higher number of expatriates employed in Oman (Graph 2.3). However, despite these developments, housing rents still remain affordable due to abundant supply. As a result of these developments and fiscal intervention, particularly a fuel price cap till end of 2023 at the October 2021 level, inflation in Oman is expected to remain moderate.

GRAPH 2.4
ECONOMIC GROWTH AND CREDIT GROWTH

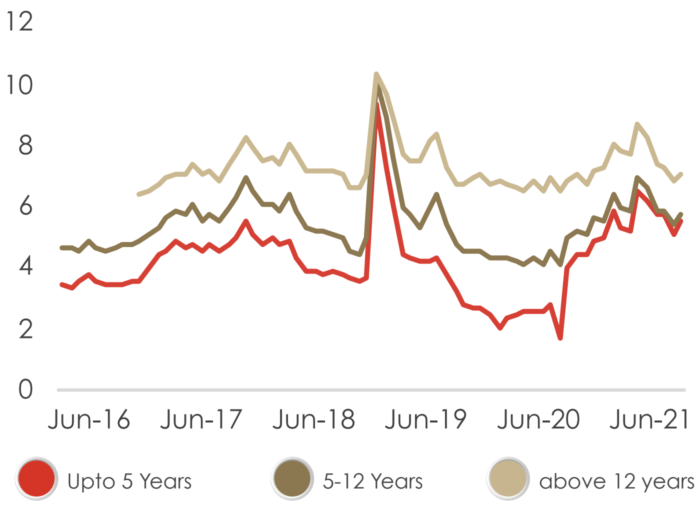


SOURCE: NCSI, CBO Staff Calculations

GRAPH 2.5
PUBLIC SECTOR DEBT TO GDP



GRAPH 2.6
OMANI SOVERIGN BOND YIELDS



As an oil exporter, fiscal position benefited from higher energy prices as and the higher proceeds from hydrocarbons have provided ample fiscal space to the government to counterbalance any inflationary pressures with targeted interventions to complement the impact of monetary policy actions.

The Short-term Risks to Financial Stability Remain Muted. The Omani Financial System Remains Strong and Well-Poised to Support the Economy

As a small open economy, Oman is susceptible to spillover from external developments. However, despite the recent turbulence in the global financial sector, the financial institutions in Oman remained resilient to any potential challenges. Moreover, the banking sector in Oman continued to supply credit to the economy, although the economic growth outpaced credit growth (Graph 2.4).

Overall, short-term risks to financial stability are assessed to remain low and the confidence of the market participants in the Omani macro-financial system continued to be high (Section 1: Box 1.1). Going forward, threats from outside the financial system including the US Federal Reserve (Fed)'s monetary policy stance after the recent pause in interest rate hikes, geopolitical developments particularly in Europe, and the OPEC+ agreement will continue to weigh on the macroeconomic outcomes and financial stability in Oman.

DEBT SUSTAINABILITY

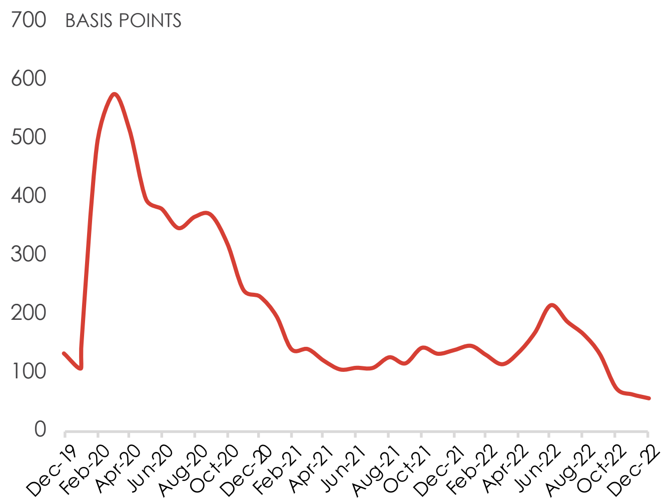
Windfall Oil Revenues and Fiscal Prudence Ease Debt Pressure and Provide Economic Buffers

Oman's fiscal position came under severe stress during the pandemic period largely due to a significant drop in Oil prices. This led to a decrease in GDP and an increased need for borrowing, putting pressure on the country's debt sustainability indicators (Graph 2.5).

Following the pandemic, economic activities have rebounded, benefiting from higher-than-budgeted oil prices. This, coupled with prudent fiscal management under Medium-term Fiscal Plan has supported the government to reduce its debt by around RO 4 billion by the end of the first quarter of 2023. The reduction in Oman's debt levels and the higher GDP have alleviated debt pressures. As a result, there has been a notable improvement in Oman's debt sustainability. The debt-to-GDP ratio, which had reached the tipping point of 66 percent in 2021, has now decreased to around 40 percent in 2022.

With the government's fiscal space showing improvement, it is expected that the issuance of new debt will decrease significantly in the near future compared to the previous years of fiscal distress (2015-2021). This positive trend reflects the government's ability to rely less on borrowing as its financial situation strengthens.

GRAPH 2.7
One-year Credit Default Swap Spreads



During the initial stages of the pandemic, Omani sovereign Eurobond yields experienced a significant increase (Graph 2.6). However, this period of stress was relatively short-lived. Subsequently, the yields gradually declined below the pre-pandemic levels followed by a slight upward movement in yields due to a tightening of monetary policy.

Declining Credit Default Swap Premia Bodes Well for the Country Risk

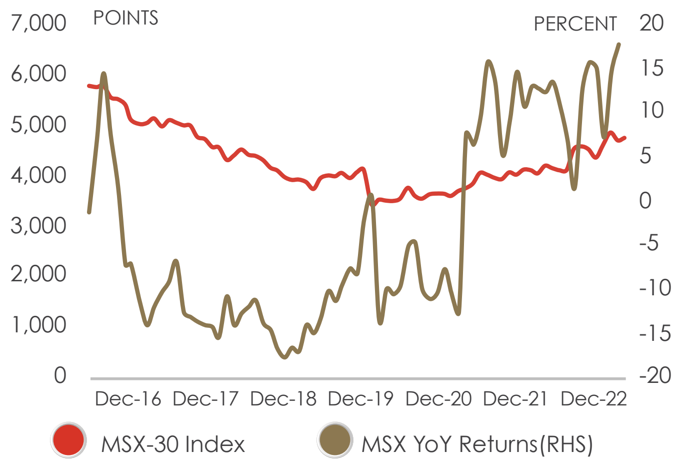
Sovereign Credit Default Swaps (CDS)[3] spreads serve as reliable indicators of sovereign credit risk, aligning with economic fundamentals and market conditions[4]. The credit default swap (CDS) data pertaining to Omani sovereign bonds reveals a significant surge in spreads during the pandemic, coinciding with a period of substantial fiscal deficit and an escalating debt-to-GDP ratio. Nevertheless, in recent times, these spreads have experienced a notable decline, indicating a reduction in country-specific risks and a restoration of confidence in the Omani economy (Graph 2.7).

The continuation of global inflationary pressures throughout 2023 and a tightened monetary policy are expected to keep the yields up. However, a reduction in risk premia due to improved fiscal conditions and positive rating actions will mitigate some of the increase in funding costs.

[3] CDS is similar to insurance or protection against credit default. CDS spreads are akin to the premium paid to buy "insurance" against the default of underlying debt.

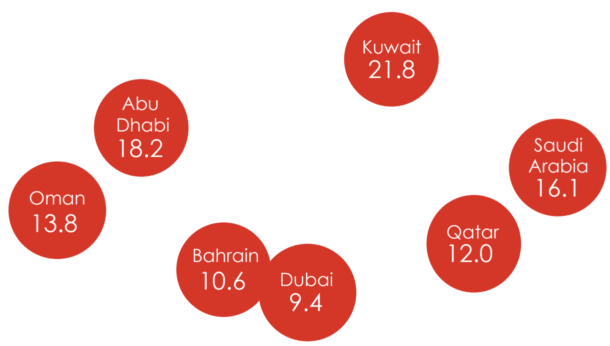
[4] IMF (2013), "Credit Default Swaps and Financial Stability." Global Financial Stability Report, April 2013

GRAPH 2.8
MSX INDEX AND RETURNS



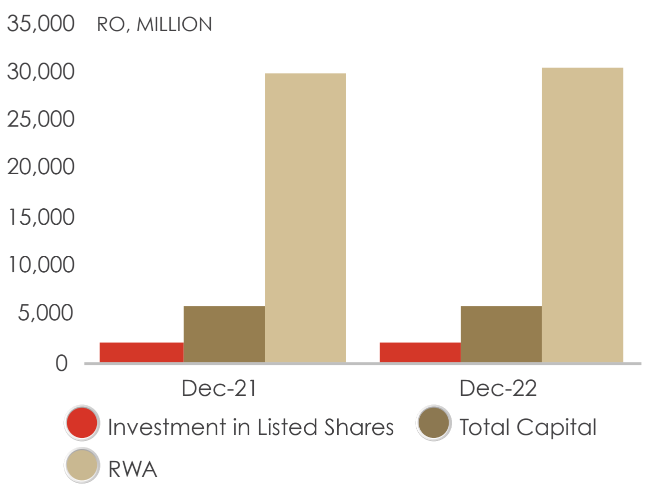
SOURCE: MSX.OM

GRAPH 2.9
PRICE / EARNING RATIOS



SOURCE:GLOBAL FINANCIAL SECURITIES AND CEICDATA

GRAPH 2.10
STOCK MARKET EXPOSURE OF BANKING SECTOR



ASSET VALUATIONS

Markets Confidence Restored as Economic Conditions Improve

The revival of the Omani economy from the COVID-19 pandemic supported by the higher oil price environment and fiscal prudence has boosted the market confidence in the Sultanate. Most sectors experienced a strong recovery from the pandemic by the second half of 2021. After closing on a negative note in 2020, the MSX-30 price index made a remarkable recovery and returned to its pre-pandemic level during the second quarter of 2021. By the end of 2021, the index had surged by 12.9 percent compared to the previous year. The improved economic conditions in the Sultanate, supported by favorable oil prices, propelled the MSX-30 index on a continued growth trajectory. It concluded 2022 on a positive note, reaching its highest level since February 2018 and recording a gain of 17.6 percent in 2022 (Graph 2.8).

In contrast to advanced economies, the Omani market did not experience market dislocations during the COVID-19 pandemic. The current positive trend in the financial market aligns with the overall improvement in macroeconomic conditions. As a result, the likelihood of substantial corrections in the domestic financial market is minimal.

The price-to-earnings ratio for the MSX-30 index increased in 2022, nevertheless, it remained undervalued implying an upside potential (Graph 2.9).

Modest Equity Exposure Shielded Banks from Market Volatility

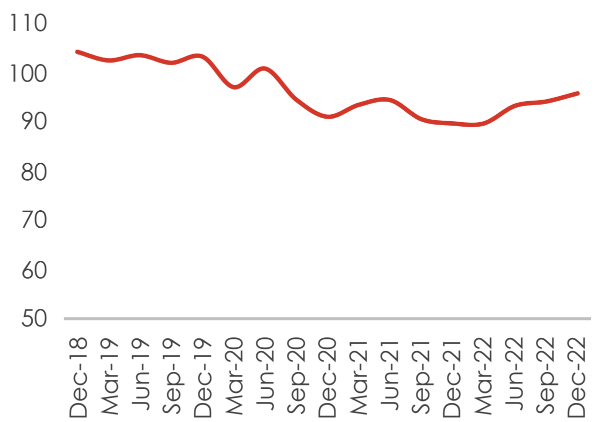
The banking sector in Oman continued to hold conservative equity investment portfolios. Banks' investment in listed shares was less than RO 350 million in 2022, which constituted around 1 percent of their total risk-weighted assets or 5.2 percent of their regulatory capital (Graph 2.10). Thus, banks' limited stock market exposure ensured that a shock in the equity market would not have any direct adverse impact on the financial sector in Oman. Nevertheless, banks should remain cautious of their indirect exposure to the equity market in the form of lending for the purchase of or against listed securities. In addition, weak stock market performance may indicate unfavorable market and tougher operating conditions for business which may impact the quality of the banks' lending portfolio.

REAL ESTATE EXPOSURE AND MORTGAGE LENDING

Real Estate Market Recovers from the Dip as Economic Conditions Improve

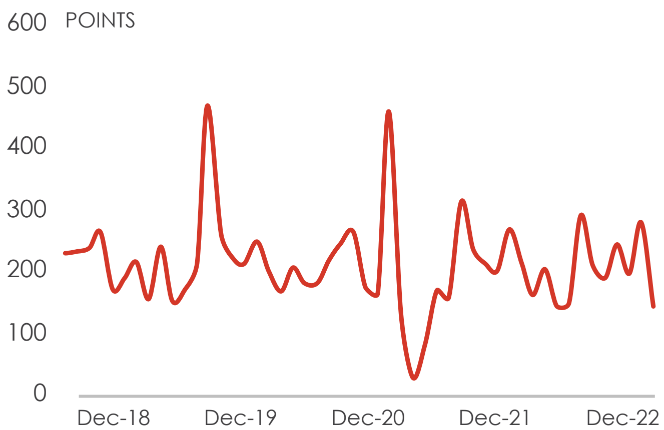
The surge in policy rates in the majority of the advanced economies led to a rise in mortgage rates which in turn led to a correction in housing prices . While the US Federal Reserve temporarily halted further tightening of monetary policy in June, future policy adjustments may still occur in 2023 based on inflation and employment data. Any additional interest rate hikes, coupled with households already experiencing financial strain due to high inflation, could potentially challenge their ability to meet mortgage payments. Unlike the developments in many advanced countries, the real estate market in Oman began to pick up in 2022 amid the improvement in economic conditions. The recent recovery in the population profile from the pandemic eased some segments of the Omani real estate market, reviving the demand for real estate properties. In addition, given the rise in policy rates, so far there are no signs of tightening in lending to the real estate sector as the lending rates remained unchanged. CBO has recently authorized FLCs to lend for commercial real estate projects besides lending to real estate developers, this additional source of financing will further bolster the real estate sector in Oman.

GRAPH 2.11
RESIDENTIAL REAL ESTATE PRICE INDEX



SOURCE: UNPUBLISHED DATA FROM NATIONAL CENTER FOR STATISTICS AND INFORMATION (NCSI)

GRAPH 2.12
VALUE OF PROPERTY TRADED

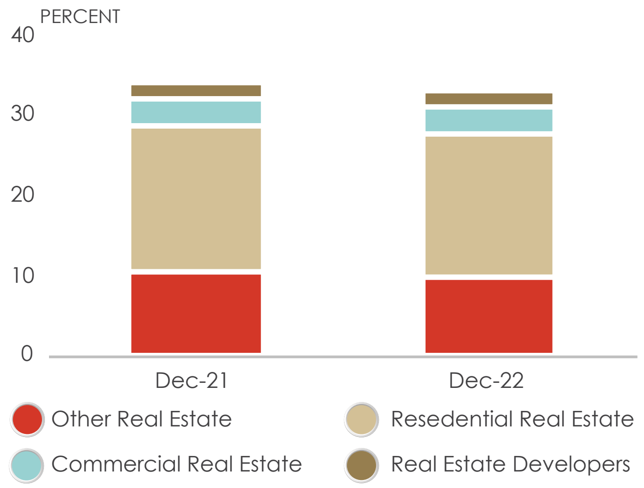


SOURCE: MSX.OM

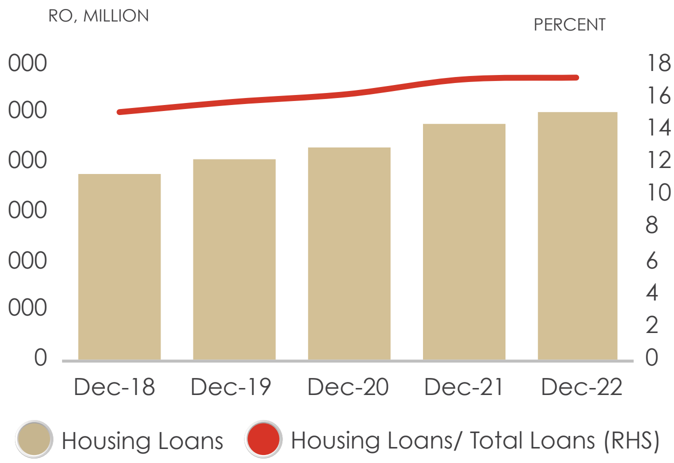
The expatriate population, a major user of rental residential properties, rose by 8 percent in 2022 as compared to the beginning of the pandemic year 2020 (Graph 2.4). The recent rise in the expat population to the pre-pandemic level along with the resumption of commercial activities and the increase in the number of Omanis joining the workforce as a result of the recovery in economic activities has rebooted the demand for property. Resultantly, during 2022, residential property prices inched up on average by 7 percent with the residential real estate index recovering from its lows in 2021 (Graph 2.11). Similarly, the property transactions (value of the traded property) that experienced a sharp decline at the onset of the pandemic gradually recovered in the latter part of 2021, and this positive trend persisted throughout 2022 (Graph 2.12).

Overall, the property market in Oman appears to be recovering amid the resurgence of economic activity. Hence, we do not foresee any imminent correction in the real estate prices.

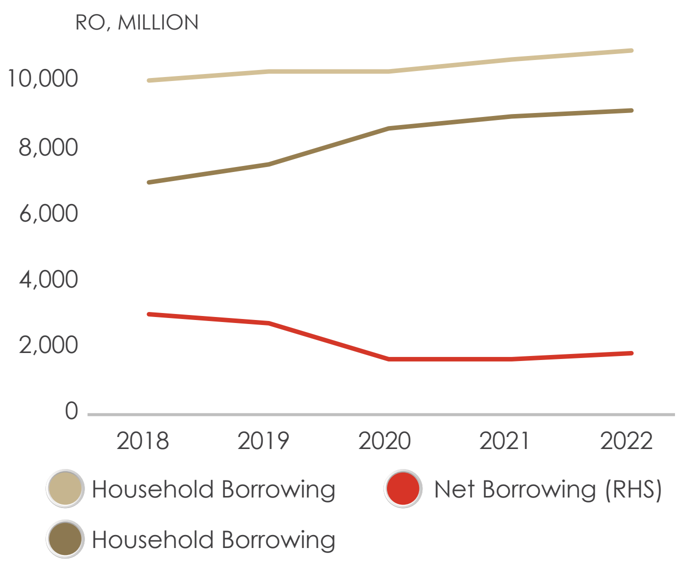
GRAPH 2.13
BANK'S REAL ESTATE FINANCING & EXPOSURE



GRAPH 2.14
RESIDENTIAL HOUSING LOANS



GRAPH 2.15
HOUSEHOLD DEPOSITS AND BORROWING



Indirect Real Estate Exposure Remains High

The banking sector in Oman is exposed to the real estate market with a total direct and indirect[6] real estate exposure of over one-third of their lending portfolio (Graph 2.13). Within this real estate exposure, residential mortgages formed around 17.1 percent of lending in 2022 (Graph 2.14). In addition, commercial real estate exposure formed around 3.6 percent of the total lending portfolio.

The risk of the banks' real estate exposure remains low as 90 percent of the mortgage loans are for the primary residence of the borrowers and around half of the total real estate exposure is against a well-diversified lending portfolio (indirect exposure where real estate is held as primary or secondary collateral).

HOUSEHOLD INDEBTEDNESS

Net Debt of Households Owed to the Banking SectorRose

The banks' lending to the household sector grew at a slower pace than the previous year, with a growth rate of 2.8 percent in 2022 (2021: 3.3%; 2020: 0.2%) reaching RO 10.9 billion. Lending to individuals continues to constitute the largest segment catered by the banks forming around 37.5 percent of the total lending portfolio. Nevertheless, the share of the banks' lending to the household sector in the banks' total lending portfolio declined for the seventh consecutive year reaching 37.5 percent in 2022 from 41.3 percent in 2016. The presence of an interest rate ceiling may have some contribution to the decline in lending to households, as it discourages banks from providing loans to riskier households where the current interest rate ceiling does not adequately compensate for the associated risk premium. Nevertheless, the average interest rates remain below the interest rate ceiling.

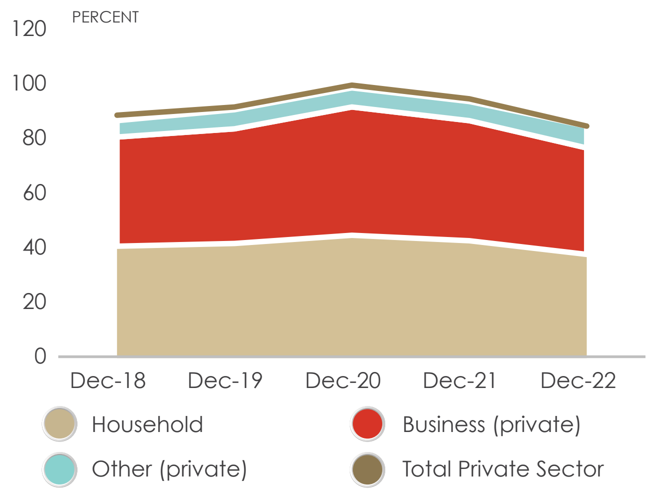
[6] Lending to (non-real estate) businesses where real state is used only as a collateral.

The fall in the share of lending to households may be a net positive for Oman as the banks are providing credit to more productive sectors of the economy (utility, service sectors, etc).

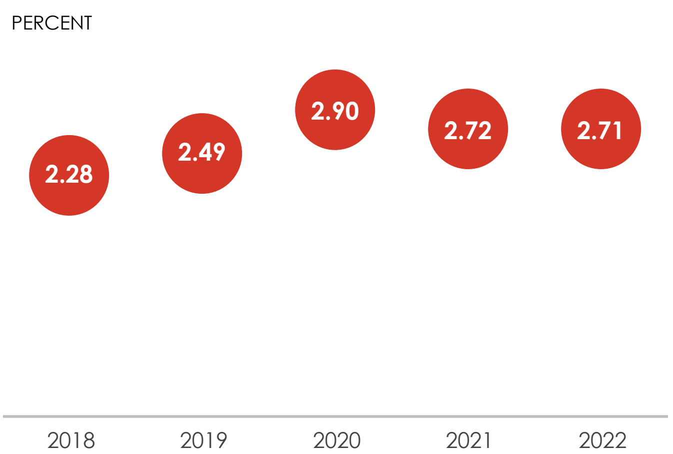
Going forward, there are currently no indications of an imminent increase in retail rates, which suggests that credit growth to households may continue to rise. However, if policy rates continue to increase, this could put a strain on banks' lending rates.

The halt in economic activities during the pandemic period with fewer spending options available to the household sector combined with the introduction of stimulus measures resulted in a spike in household deposits during the pandemic (2020-2021). Resultantly the net borrowings (loans minus deposits) of households declined sharply by about 40 percent during that period.

GRAPH 2.16
SEGMENT WISE CREDIT TO NON-OIL GDP RATIO



GRAPH 2.17
NPL RATIO OF PERSONAL LOANS



Following that, the recovery in economic activities from the pandemic and the stagnant average deposit rates despite the monetary policy normalization in the US resulted in a drop in involuntary savings. The household deposits in 2022 increased at a slower pace than the previous two years, with a growth rate of 1.8 percent as compared to 4.2 and 14.8 percent in the years 2021 and 2020, respectively.

As a result of the faster growth of household loans relative to deposits, the net borrowings of households rose for the first time since the start of the pandemic by 8.4 percent in 2022 (Graph 2.15). Moreover, household indebtedness relative to nominal non-oil GDP (2022: 38.1 percent; 2021: 42.9 percent; 2020: 45.2 percent) declined due to the substantial growth in non-oil GDP by 16.9 percent as compared to growth in household lending of 2.8 percent (Graph 2.16).

Vulnerabilities Arising from Household Debt Remain Modest

Higher global inflation and interest rates have globally raised concerns about the sustainability of household debt. Households with lower incomes are disproportionately more vulnerable to soaring inflation as they have narrower buffers to maintain their debt servicing capacity in the face of rising costs.

Nevertheless, risks from these developments remain contained in Oman due to moderate inflation expectations, targeted subsidies to protect the more vulnerable strata from inflation, and fixed-rate personal (housing and non-housing) loans. Moreover, prudential regulatory norms and prudent underwriting standards of banks ensured that lending to households remained concentrated among borrowers with better credit profiles while maintaining adequate provisions. As a result, the historically low non-performing loan (NPL[7]) ratio for the household lending portfolio in Oman indicates a high level of credit quality (Graph 2.17).

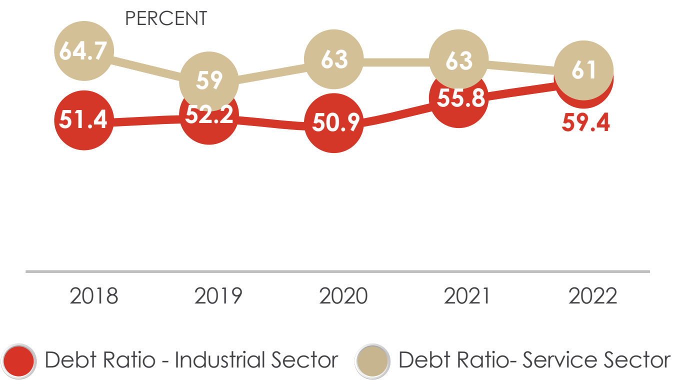
[7] NPLs refer to Stage 3 or impaired loans.

CORPORATE INDEBTEDNESS

Low Corporate Sector Leverage Supports Financial Stability

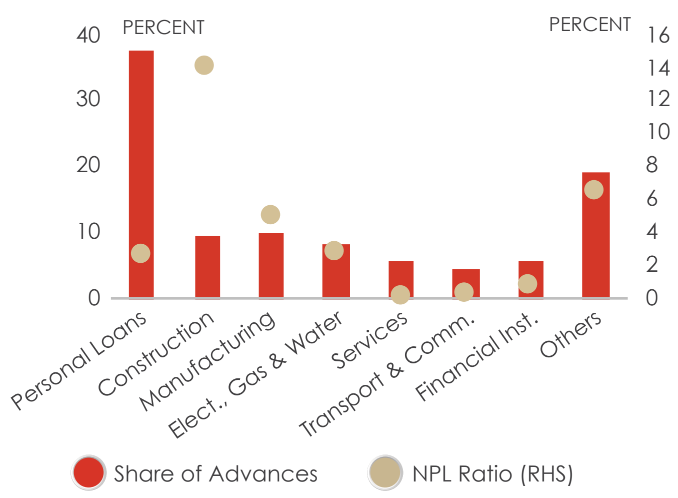
The banking sector's lending to private non-financial businesses grew by 5.2 percent in 2022 reaching RO 10.5 billion by the end of 2022, underscoring the continued support of the banking sector towards the growth and development of the business sector in the country. Therefore, the leverage (measured as total liabilities to total assets) of non-financial firms listed on MSX surged slightly albeit remains low (Graph 2.18).

GRAPH 2.18
DEBT RATIO (LIABILITIES TO TOTAL ASSETS)



Source: MUSCAT STOCK EXCHANGE (MSX)

GRAPH 2.19
CONCENTRATION OF LOANS AND NPLs



Loan Moratorium Helped Reduce Credit risk for Businesses during and Post-Pandemic period

The loan moratorium implemented during the pandemic period (2020-2021) provided much-needed relief to affected borrowers, enabling the corporate sector to navigate through a period of economic inactivity. Furthermore, the introduction of an exit strategy, including restructuring and rescheduling options for affected borrowers post-pandemic (starting from November 2021), not only helped businesses maintain low levels of defaults but also facilitated a rapid recovery for the business sector. Looking ahead, there is a possibility of an increase in NPLs as the restructuring window comes to a close. However, considering the optimistic macroeconomic outlook, it is anticipated that the NPLs will remain range-bound.

CREDIT CONCENTRATION

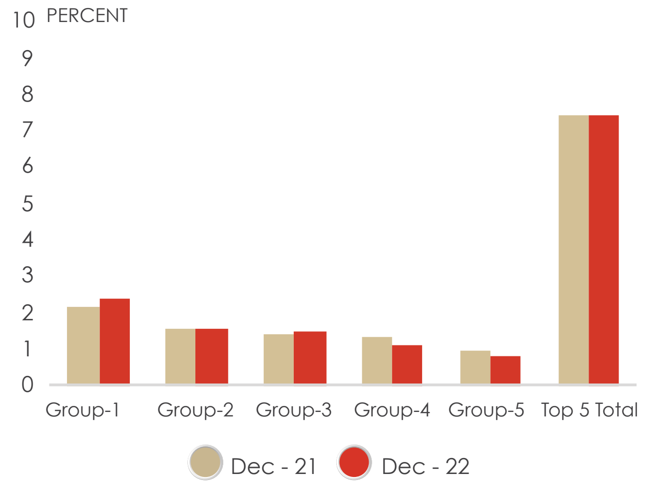
Concentration in the Banks' Lending Portfolio Exposes them to Sector-specific Risks

In 2022, personal loans to individuals retained their position as the largest segment, accounting for approximately 37.5 percent of the banks' lending portfolio. Following closely behind was credit extended to the service sector, comprising around 10 percent of the total credit provided by banks.

Personal loans had a less-than-average NPL ratio (2.7 percent) in 2022, while the NPL ratio of the construction sector, ranking third in credit allocation from banks, was the highest at about 14.1 percent (Graph 2.19). The construction sector has historically demonstrated lackluster performance predating the pandemic. However, a recent resurgence has been observed, with a modest growth in the construction sector's GDP in 2022, followed by an impressive 24.7 percent expansion in the first quarter of 2023. It is anticipated that the improvement in this sector will yield a positive impact on the non-performing loans (NPLs) of the sector.

Manufacturing (8 percent share) is a priority sector for economic diversification. Despite a decline of 4.3 percent in lending to the manufacturing sector following a growth of 15.4 percent in 2021, it is projected to continue growing in alignment with the objectives outlined in Vision 2040. The vision underscores the crucial role of the manufacturing sector in fostering economic development and facilitating job creation.

GRAPH 2.20
CREDIT CONCENTRATION

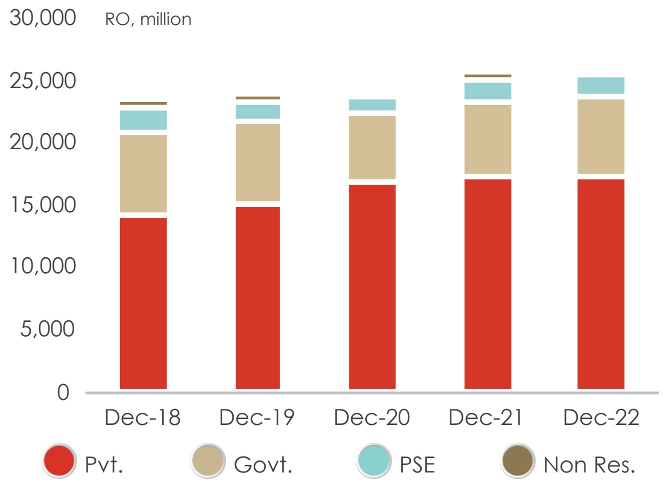


Lending to the five largest groups stood at about RO 2 billion or around 7.4 percent of the total lending portfolio as of December 2022. Nevertheless, these borrowers are well-diversified groups. Therefore, the likelihood of simultaneous default by all these groups remains low (Graph 2.20).

FUNDING CONCENTRATION

Savings Continued to Rise at a Slower Pace Amid the Resumption of Economic Activities and Stagnant Deposit Rates

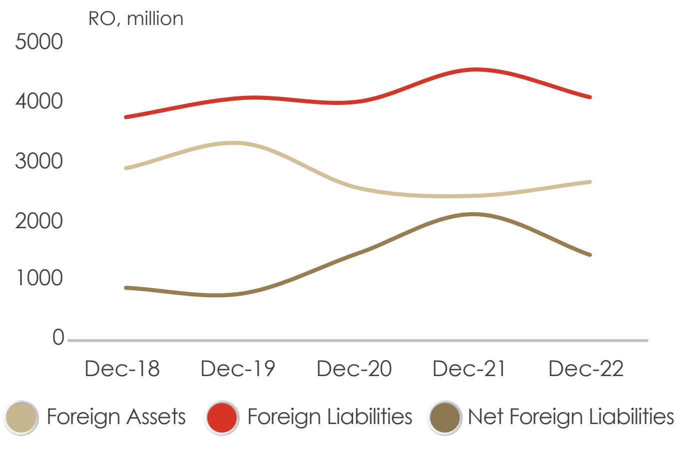
GRAPH 2.21
STRUCTURE OF DEPOSITS



During the year 2022, private sector deposits, which make up approximately 67 percent of the total deposits, experienced a growth of 0.3 percent. On the other hand, deposits from government and public sector entities, constituting around 31 percent of the total deposits, witnessed a rise of 7.4 percent during the same year. (Graph 2.21). The decline in the growth of private sector deposits aligns with the post-pandemic scenario observed in many other countries, where a significant portion of the savings accumulated during the pandemic has already been utilized. Additionally, the slower growth of private sector deposits can be attributed to low deposit rates during a period of rising inflation. Whereas, the increase in government deposits can largely be explained by a fiscal surplus resulting from higher hydrocarbon revenues.

Banks' Reliance on Wholesale Funding Remained Low as Net Non-resident Liabilities of the Banking Sector Further Decline

GRAPH 2.22
Non-resident Assets and Liabilities



Non-resident funding continues to represent a relatively small portion of the banks' overall balance sheets. This indicates that the banks rely less on external funding from non-resident sources compared to domestic funding avenues. During 2022, the net foreign liabilities of banks recorded a decline of approximately 33 percent. This decrease can primarily be attributed to a reduction of 10 percent in foreign liabilities (Graph 2.22).

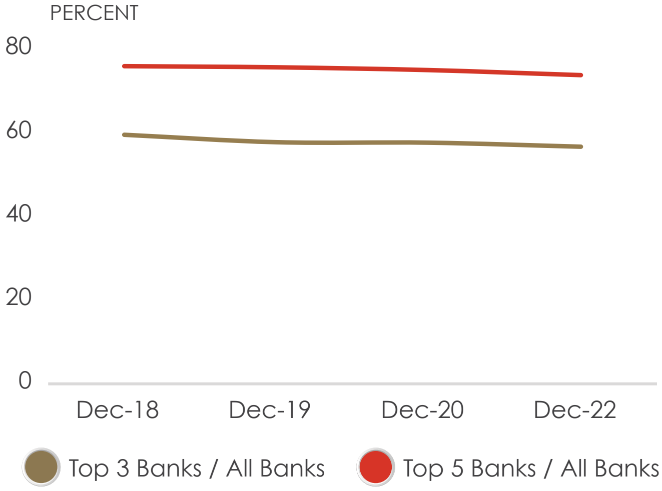
MARKET CONCENTRATION

Banking Sector Concentration Remained Moderately High – Closer Regulatory Watch Helped Deal with the Systemically Significant Banks

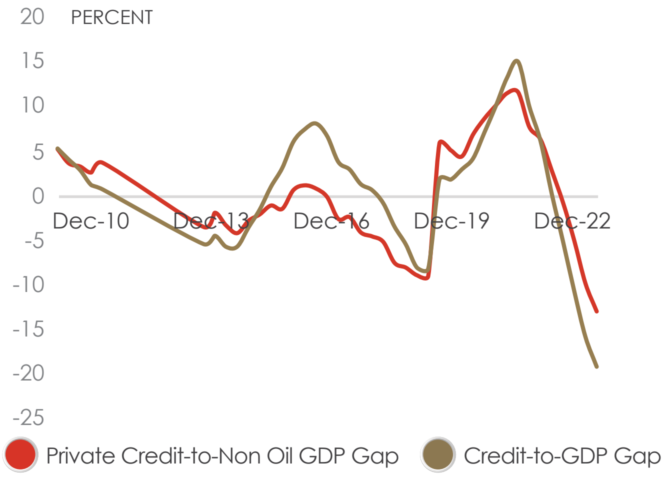
The Omani banking sector continued to exhibit a moderate level of concentration, as evidenced by the Herfindahl-Hirschman Index. This index is a measure of market concentration, and its indication of moderate concentration suggests that a few banks hold a significant portion of the market share.

Another measure of concentration in the banking sector is the share of the largest few banks in terms of total banking sector assets. In 2022, the largest bank accounted for approximately 34 percent of the sector's assets, indicating its substantial size and influence within the industry.

GRAPH 2.23
BANKING SECTOR CONCENTRATION - BY TOTAL ASSETS



GRAPH 2.24
PRIVATE CREDIT GAP



Furthermore, the combined assets of the top five banks constituted around 74 percent of the total banking sector assets, while the top three banks accounted for approximately 57 percent (Graph 2.23). Overall, these concentration measures suggest that the Omani banking sector is dominated by a relatively small number of banks, which hold significant control over the sector's assets and operations.

The higher concentration observed in Oman's banking sector is not unexpected, given the relatively small size of the market. It is important to note that this concentration is primarily present in sound and robust institutions, which helps mitigate some of its potential adverse consequences.

To address the risks associated with the presence of "too big to fail" institutions, the Central Bank of Oman (CBO) has implemented guidelines to identify, supervise, and regulate Domestic Systemically Important Banks (D-SIBs). The purpose of these guidelines is to ensure closer monitoring and supervision of identified D-SIBs, given their systemic importance.

D-SIBs are subject to additional regulatory requirements, including a systemic risk surcharge of CET 1 capital amounting to one percent of risk-weighted assets. This surcharge serves as a buffer to enhance their resilience and ability to withstand potential shocks. D-SIBs are also subjected to more intensive stress testing regimes to assess their resilience under adverse scenarios.

Furthermore, D-SIBs are required to develop recovery and resolution plans, which enable them to undertake self-propelled recovery efforts in case of financial distress. These plans also allow authorities to resolve D-SIBs in an orderly manner if circumstances require intervention while minimizing disruptions and costs to the national exchequer and safeguarding financial stability.

By implementing these measures, the CBO aims to mitigate the potential risks associated with concentrated banking institutions, ensuring that they are adequately supervised, prepared for contingencies, and their failure is managed in a manner that minimizes systemic disruptions and preserves financial stability.

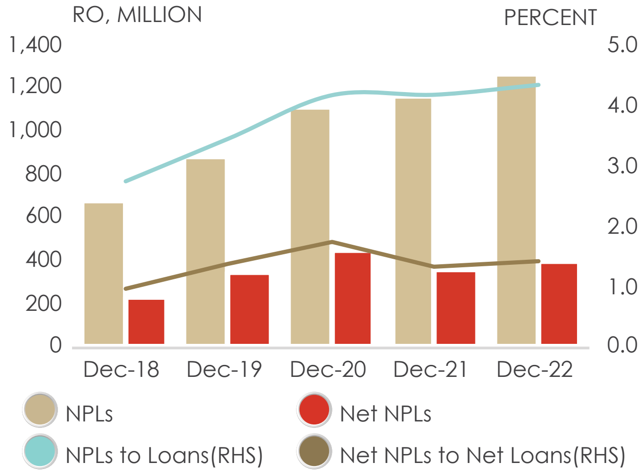
BUILD-UP OF SYSTEMIC RISKS

GDP Growth Outpaced Credit Growth Higher Growth than Credit Shunning Any Signs of Excessive Risk-Taking in the Post-Pandemic Recovery

The Private Sector Credit-to-GDP Gap (Private Sector Credit-to-GDP Ratio minus the Trend of Private Sector Credit-to-GDP ratio) is a key indicator in determining the excessive credit growth and Countercyclical Capital Buffers (CCyB) in Oman. In 2020, this Gap widened primarily due to a decrease in nominal GDP. However, a rapid rebound of GDP and sluggish credit growth led to the indicator reaching negative territory, indicating that credit expansion did not match the pace of GDP growth. Likewise, the gap between private sector credit and non-oil GDP also turned negative in 2021. Despite experiencing robust credit growth, this trend continued into 2022, as the economy sustained its recovery with a significant nominal GDP growth of 30 percent and non-hydrocarbon GDP growth of 16.9 percent. Consequently, the credit gaps remained negative throughout 2022 (Graph 2.24).

While several other economies are displaying signs of increasing systemic risks, Oman stands apart as there are no indications of excessive credit expansion. In 2022, credit growth remained at 4.5 percent, slightly higher than the 4 percent observed in 2021. This signifies the absence of widespread risks stemming from credit expansion. Consequently, the CBO maintained the Countercyclical Capital Buffer (CCyB) requirements at zero percent throughout 2022. Additionally, although CBO exited from most of the pandemic-related measures, it persisted with the reduced Capital Conservation Buffer (from 2.5% to 1.25% of risk-weighted assets). This measure is aimed to facilitate the provision of credit to households and businesses.

GRAPH 2.25
TRENDS IN NON-PERFORMING (STAGE 3) LOANS



CREDIT RISK

Asset Quality of the Banking Sector Remains Strong After the Implementation of Exit Strategy from Loan Deferment Scheme

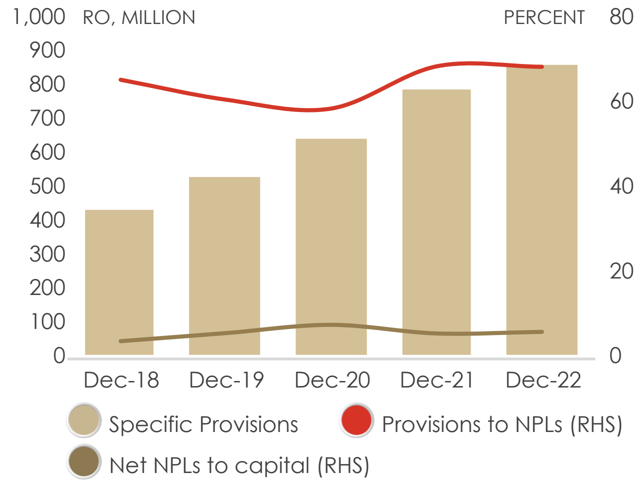
Credit risk remained a crucial component in the risk profile of the banking sector with the credit risk-weighted assets forming around 90 percent of the total risk-weighted assets. Asset quality remained well-contained with a low NPL ratio and adequate provision coverage.

In response to the exit strategy from the loan deferment scheme outlined by CBO, banks effectively managed the deferred loans by implementing mechanisms for restructuring / rescheduling options for the affected borrowers. As of December 2022, a substantial portion of loans, amounting to OMR 2.0 billion (38%), have been regularized. Additionally, OMR 3.2 billion (60%) have undergone or are currently undergoing the restructuring process, while a minor percentage of 2.2% (OMR 117.8 million) has been downgraded to Stage 3 or NPLs.

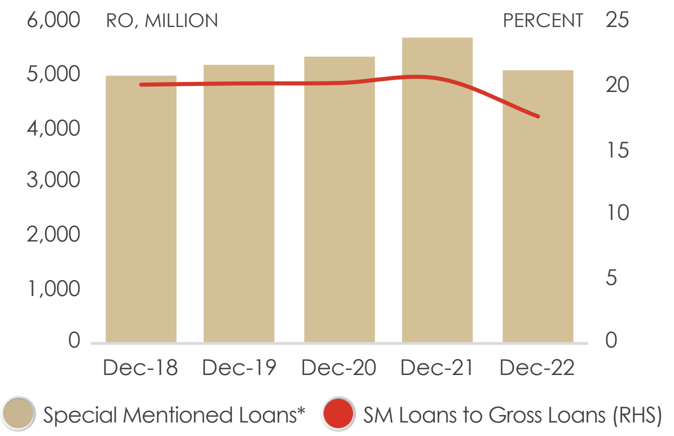
At the end of 2022, the stock of gross NPLs[8] amounted to RO 1.3 billion (2021: 1.2 billion) or 4.4 percent (2021: 4.2 percent) of the banks' gross loans (Graph 2.25). The asset quality of the Islamic banking financing portfolio also remained strong with a non-performance financing (NPF) ratio of 2.1 percent at the end of December 2022, which is among the lowest in the region. (Box 2.2: Islamic Banking Sector in Oman)

[8] Stage 3 loans since the implementation of IFRS 9 in 2018. Stage 3 is where financial assets are credit impaired.

GRAPH 2.26
PROVISIONS AGAINST NPLs

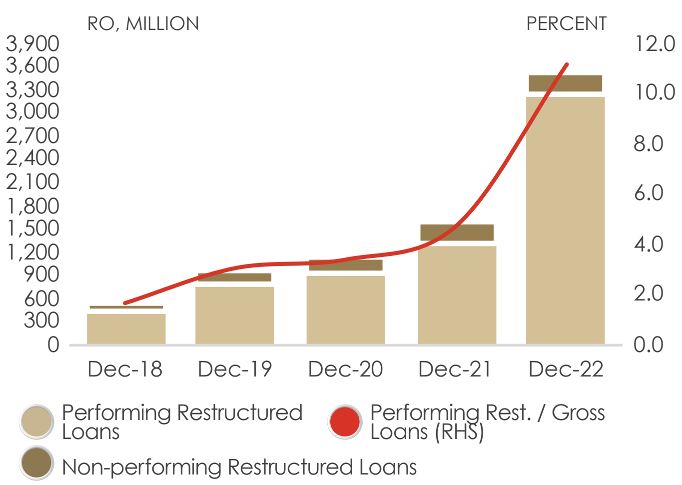


GRAPH 2.27
STAGE 2 LOANS



* For 2018 onwards : Stage 2 Loans instead of Special Mentioned

GRAPH 2.28
RESTRUCTURED LOANS



Net NPLs of the banking sector amounted to 396.8 million or 1.4 percent of the net loans at the end of 2022. This reflects that the existing loan portfolio of banks is well covered against credit losses through adequate provisions with the coverage ratio (Stage 3 provisions to NPLs) of 68.7 percent and 113.4 percent including Stage 1[9] & 2[10] provisions (Graph 2.26).

A decline in Stage 2 Loans may Indicate an Improved Asset Quality

Stage 2 classification and restructured loans may indicate financial challenges for the borrower. Any significant surge in these loans may signal deterioration in the asset quality of the banking sector as these loans may move to the impaired category if these borrowers' conditions marginally deteriorate.

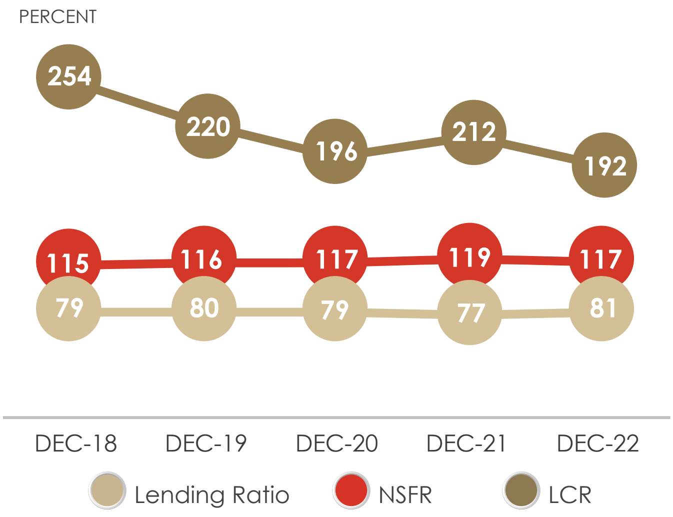
The recovery in the economic activities and the higher oil prices environment during the post-pandemic period has led to an improvement in the banks' Stage 2 loans with a drop of OMR 602 million in 2022 as compared to last year. In addition, most of the loans that were restructured were already classified as Stage 2. Therefore, restructuring of deferred loans did not adversely affect Stage 2 loans, which stood at OMR 5.4 billion at the end of the year 2022 (Graph 2.27).

The total restructured loans in 2022 rose to RO 3.5 billion (2021: RO 1.6 billion) with 92 percent in Stage 1 or 2 categories. (Graph 2.28). The increase was expected in line with the exit strategy by introducing a window for restructuring/rescheduling of affected borrowers.

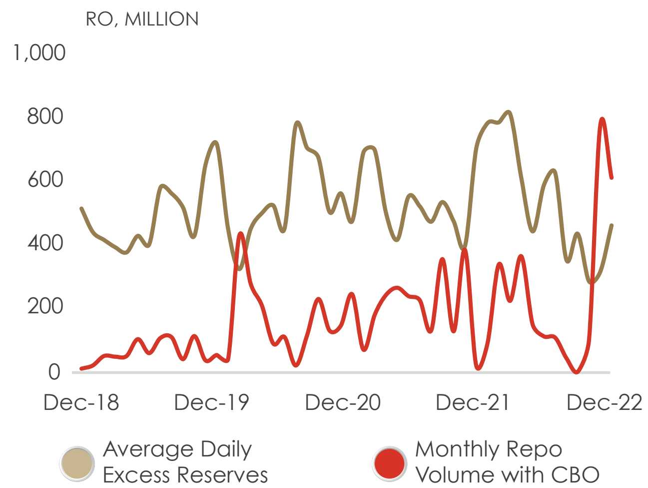
Due to the large volume of restructured loans, it is important to pay close attention and make concerted efforts to monitor and manage these loans effectively. Nevertheless, the stress tests indicate that banks remain resilient to a battery of rigorous shocks to their credit portfolio (Section 3: Resilience of the Banking System).

[9] Stage 1 is where credit risk has not increased significantly since initial recognition.
[10] Stage 2 is where credit risk has increased significantly since initial recognition.

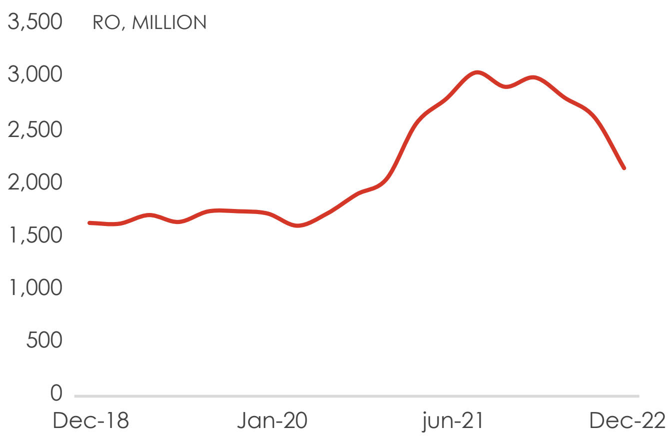
GRAPH 2.29
PRUDENTIAL LIQUIDITY INDICATORS



GRAPH 2.30
EXCESS RESERVES AND REPO VOLUMES



GRAPH 2.31
UNENCUMBERED T-BILLS AND GDBs



LIQUIDITY RISK

Banking System Continued to Maintain Strong Liquidity Buffers and Systemic Liquidity Remained Adequate Amid Monetary Policy Tightening

The banks continued to main strong prudential liquidity ratios. The lending ratio of banks stood at 80.7 percent at the end of 2022 against the ceiling of 92.5 percent and the banks' Liquidity Coverage Ratio (190.2%) and Net Stable Funding Ratio (115.1%) remained well above the regulatory requirements (100%) during the year 2022 (Graph 2.29). Liquidity stress tests also highlight the resilience of the banks against assumed deposit run-off and higher haircuts for liquid assets (Section 3: Resilience of the Banking System).

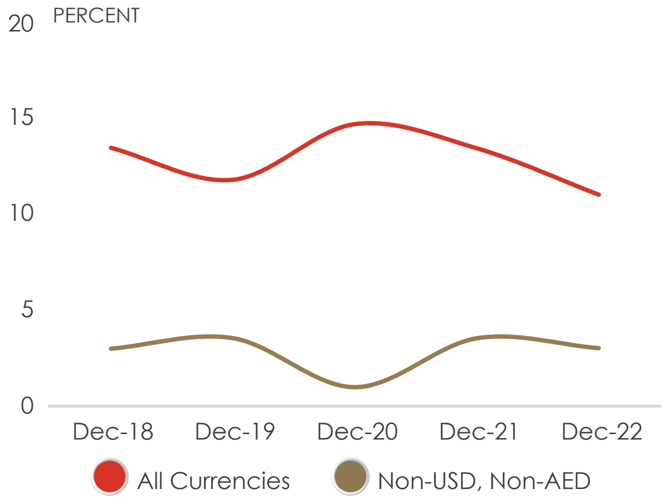
The average daily excess cash reserves in the banking system were RO 542 million (2021: RO 536 million) in 2022 (Graph 2.30). The excess reserves net of CBO facilities were RO 360 million and RO 320 million in 2022 and 2021, respectively. Since the start of the rate hike in early 2022, there has been a slight increase in the use of CBO liquidity facilities. The total value of repos (secured borrowing by banks from CBO) was RO 2.3 billion in 2022 as compared to RO 2.5 billion in 2021 (2020: RO 1.9 Billion). Nevertheless, the total value of repo transactions remains well above the pre-pandemic period.

Banks Hold Ample Amounts of Eligible Assets to Secure Additional Liquidity from CBO

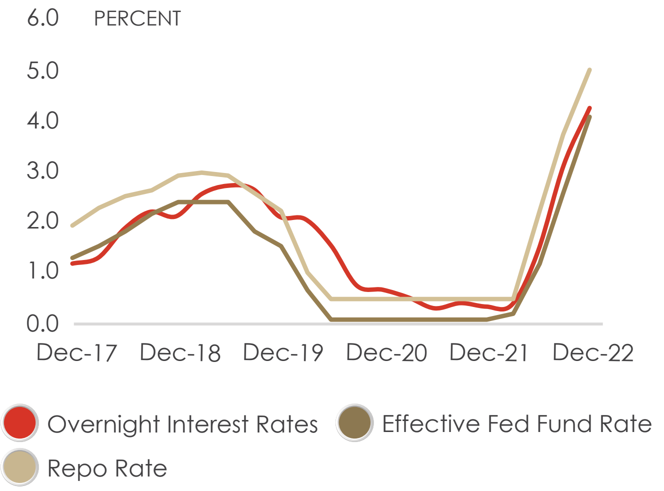
At the end of 2022, banks held over RO 2 billion[11] in unencumbered government bills and bonds that can be used to avail liquidity from CBO (Graph 2.31). The potential volume of liquidity available against government securities appear to be large considering that the reserve requirements of the banking sector are in the range of RO 1.4 billion. Other than repos against eligible government securities, banks can also avail additional liquidity by discounting Treasury bills, and rediscounting commercial papers (i.e- promissory notes, and bills of exchange).

[11] Excluding Sukuk as they are not eligible for CBO liquidity facilities.

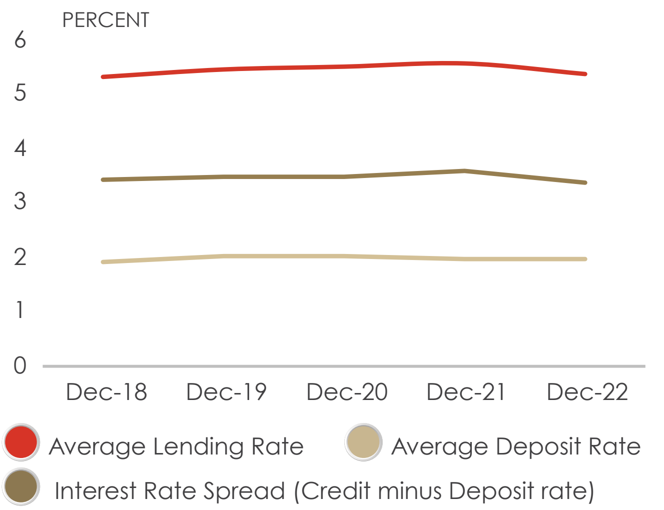
GRAPH 2.32
FOREX EXPOSURE TO TIER-1 CAPITAL



GRAPH 2.33
POLICY AND OVERNIGHT INTERBANK RATES



GRAPH 2.34
Credit and Deposit Rates (RO Portfolio)



MARKET RISK

Low Foreign Exchange Exposure Bodes Well for the Stability of the Banking Sector

Under the regulations set by the Central Bank of Oman (CBO), banks are permitted to have foreign exchange (FX) exposure of up to 40 percent of their Tier 1 capital. However, it is noteworthy that banks in Oman have traditionally maintained FX exposures at levels significantly lower than this threshold. Specifically, their FX exposures have historically remained below 20 percent of their Tier1 capital (Graph 2.32).

The FX exposure to Tier 1 capital at the end of 2022 was about 10.8 percent, (2021: 13.9 percent). Since the OMR (and currencies of most other GCC countries) is pegged to the USD, exposures in USD (and other currencies pegged to USD) do not entail any FX risk[12]. The effective FX exposure (exposure in non-USD and other non-pegged currencies) remained even much lower at about 4.3 percent of their Tier1 capital. This conservative approach to FX exposure highlights the prudent risk management practices adopted by banks in Oman. By keeping their FX exposures relatively low, banks aim to minimize potential risks arising from currency fluctuations.

Monetary Policy Tightening Continued Throughout the Year. Pass-through to Retail Rates Remained Limited

Following the increase in policy (repo) rate from 0.5 percent to 5.5 percent in December 2022, the overnight interbank lending rate increased to 4.27 percent in December 2022 from 0.37 percent a year ago (Graph 2.33). In Oman, the monetary policy transmission is not complete. Therefore, so far, the increase in policy and interbank rates has not affected the average retail interest rates. The weighted average interest rate in RO lending (Dec-2022: 5.38%; Dec-2021: 5.57%) remained stable (Graph 2.34). Going forward, if the policy tightening continues there may be pressure on retail rates, which may hinder demand for private sector loans.

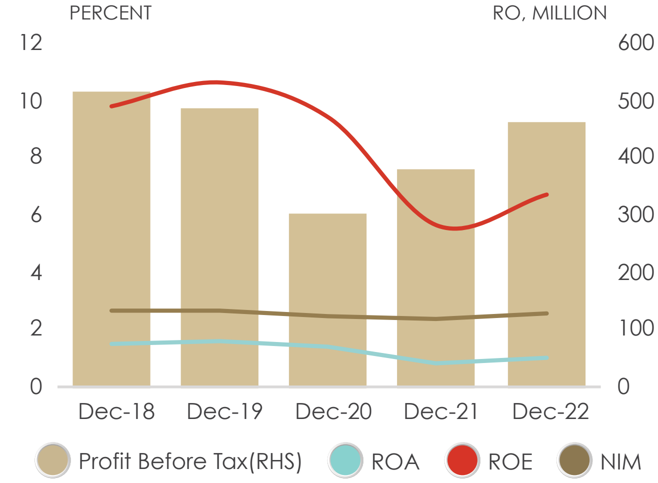
[12] This holds true if the peg is assumed to be credible. Since Oman and many other GCC countries are maintaining this peg for several decades, therefore a credible peg is a valid assumption.

BUFFERS – PROFITABILITY AND SOLVENCY

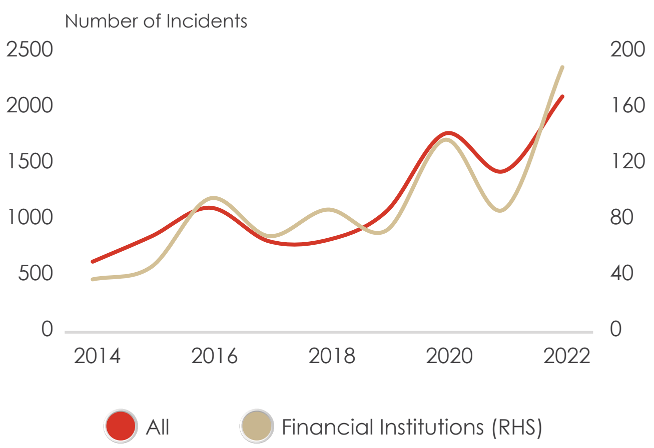
With the Upturn in the Economy, the Profitability Indicators for Banks also Improved

In 2022, banks in Oman reported pre-tax profits of RO 464 million, representing a notable increase from the previous year's figure of RO 382 million. This improvement in pre-tax profit can be primarily attributed to the increase in interest income by RO 133 million. The abolition of prize-linked saving deposits also helped banks save over RO 30 million on account of non-payment of prizes.

GRAPH 2.35
PROFITABILITY OF THE BANKING SECTOR



GRAPH 2.36
GLOBAL CYBER EVENTS



SOURCE: CISSM, University of Maryland

Large Capital Buffers by Banks Highlight their Ability to Absorb Unexpected Losses

The banking sector in Oman maintained a high level of capitalization, as indicated by a common equity tier 1 capital ratio (CET1) of approximately 15 percent at the end of 2022. This CET1 ratio signifies the proportion of a bank's core equity capital in relation to its risk-weighted assets, serving as a measure of its financial strength and ability to absorb losses. Furthermore, the overall capital adequacy of banks, as measured by the Capital to Risk-Weighted Assets Ratio (CRAR), stood at an impressive average of 19.7 percent at the end of 2022 (Graph 2.35). This figure significantly surpasses the regulatory requirement set by CBO, which mandates a minimum CRAR of 12.25 percent. The higher CRAR demonstrates that banks have ample capital buffers to mitigate potential risks and withstand adverse economic conditions. The CET1 capital of banks in Oman alone was sufficient to meet the total regulatory capital requirement of 12.25 percent, emphasizing the strength of banks' capital buffers. This strong capital position further instills confidence in the banking sector's resilience and its ability to support economic activities.

The stress testing exercise (Section 3) shows that the banking system remains resilient to various stress scenarios. Even when severe credit and market shocks are applied, domestic banks remain solvent with a comfortable level of system-wide CRAR that exceeds regulatory requirements.

EMERGING RISKS TO FINANCIAL STABILITY

Global Increase in Cyber Risks Pose Considerable Headwinds for Financial Stability

Embracing new technology is indispensable for the financial sector. With the increasing use of technology, the frequency of cyber-attacks is also on the rise. After a surge in 2020, the number of cyber-attacks declined in 2021, but in 2022 they reached a new peak, with reported cyber incidents showing a significant 46 percent increase (Graph 2.36).

The financial sector is a prime target for cybercriminals to attack due to the potential for large gains. In 2022, globally the reported cyberattacks on financial institutions doubled compared to 2021. This marked the highest cyberattacks reading in recent years. This renewed surge in cyberattacks, especially targeting financial institutions, could negatively impact customer trust in digital financial services and the financial sector as a whole.

Oman has also not experienced any significant disruptions from cyber risks in recent times. However, like any other jurisdiction, the Omani financial sector is vulnerable to such risks. Therefore, cybersecurity remains a top strategic priority for CBO. Despite the increased demands on payment and settlement systems (PSS) since the pandemic, Oman's PSS infrastructure has remained resilient and robust (Box 2.3 gives an overview of Omani PSS).

The CBO is actively monitoring developments in various emerging areas and has established task forces dedicated to studying Central Bank Digital Currencies (CBDCs) and other digital innovations. This proactive approach allows the CBO to equip itself with the expertise required to navigate the evolving landscape of digital finance and stay prepared to take appropriate action when necessary.

Risks Associated with Climate Change Pose Challenges for Financial Stability and its Assessment

Climate change risks pose significant concerns to the financial system, giving rise to both micro and macroprudential risks. The impacts of climate change, such as weather events, can have profound implications for individual financial institutions (micro-prudential risk) as well as the stability of the entire financial system (macroprudential risk). These risks include physical risks (direct impacts from climate-related events), transition risks (risks associated with the transition to a low-carbon or green economy), and liability risks (legal or financial consequences arising from climate-related damages). It is crucial for financial regulators, policymakers, and institutions to proactively consider, manage and mitigate these risks to safeguard the stability and resilience of the financial system in the face of ongoing climate change.
Moreover, financial institutions, especially in hydrocarbon-dependent countries like Oman, face an additional challenge in addressing the implications of transitioning to a greener and low-carbon economy. The shift towards reducing carbon footprints requires significant changes in the structure of the economy, which can have profound implications for the operations, investments, and overall business strategies of these institutions. This transition may involve a fundamental restructuring of industries, diversification of revenues for the government and businesses, and adoption of sustainable practices. Financial institutions need to actively assess and manage the risks and opportunities associated with this transition to ensure long-term viability and resilience in a changing economic landscape

Assessment of climate risks remains a challenge because of the difficult-to-predict shocks and significantly long-time horizon spanning over decades for modeling and analysis of transition risks. CBO is working on expanding its capacity to formally incorporate these risks in its assessment of financial stability. As part of national efforts to tackle climate risks, the CBO is actively involved in fulfilling its responsibilities. It has advised banks and financial leasing companies (FLCs) to refine their risk management policies and practices in line with the Basel consultative paper on 'Principles for the effective management and supervision of Climate-related financial risks'. Additionally, they have been encouraged to develop policies that support green financing.

Furthermore, the CBO has prepared a preliminary roadmap aimed at fostering sustainable and green financing within the Omani financial system. This roadmap will be implemented to promote environmentally friendly financial practices. Moreover, CBO along with other government entities is also part of G-20 initiatives on climate change.

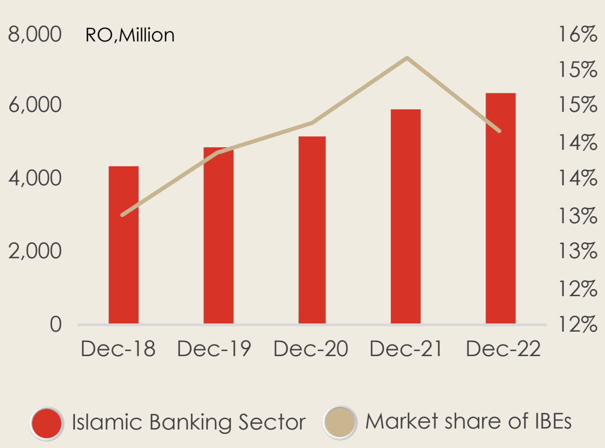
Box 2.1: Islamic Banking Sector in Oman

The Islamic banking sector in the Sultanate of Oman consists of two Islamic banks and five Islamic banking windows. The sector has been experiencing growth in line with the ongoing economic conditions, which rebounded after the subsiding of the pandemic. Islamic banking's importance is increasing as it steadily captures a larger market share. In December 2022, Islamic banking accounted for 16.5 percent of total banking sector assets, compared to 15.3 percent during the same period in 2021 (Graph 2.1.1).

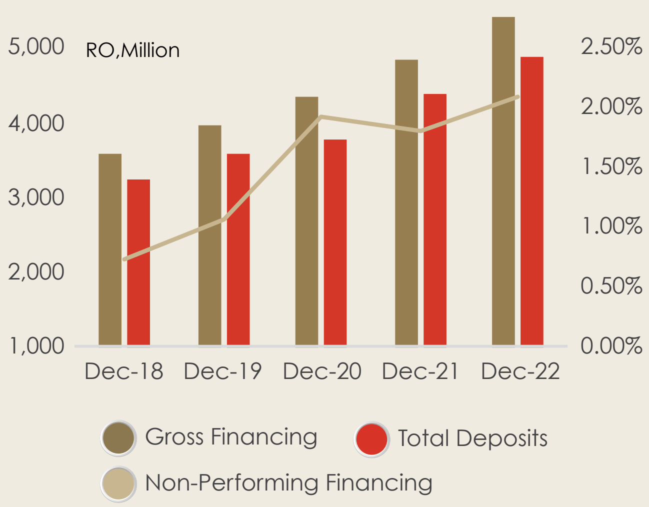
The Islamic Banking Entities (IBEs) in Oman have witnessed consistent and rapid growth since their introduction in 2012. As of December, 2022, the growth is evident in the increase of total assets, which rose by 8.7 percent, reaching RO 6.4 billion, while conventional banks experienced a decline by 0.6 percent in total assets. The expansion of IBEs' total assets is primarily driven by financing activities, with financing and investments both increasing by 12.2 percent and 12.8 percent, reaching RO 5.4 billion and RO 5.8 million, respectively. On the liabilities side, total deposits exhibited a similar pattern, recording a growth of 10.9 percent to reach RO 4.9 billion (Graph 2.1.2). To meet the funding demand and support the growing asset base, borrowings witnessed an increase of 14.6 percent, reaching RO 2.8 million.

IBEs play a vital role as intermediaries. The robust growth in financing has resulted in a slight increase in the financing-to-deposit ratio, reaching 111.4 percent at the end of December 2022, compared to 110.1 percent in the previous year. The sector's solvency remains robust, with the Capital Adequacy Ratio (CAR) rising to 16.42 percent as of December 2022, compared to 16.91 percent a year earlier, surpassing the regulatory requirement of 12.25 percent. Credit risk, as indicated by asset quality indicators, remains under control. The non-performing financing (NPF) ratio increased to 2.1 percent in December 2022, compared to 1.8 percent in 2021 (Graph 2.1.2). The stage 2 to total finance ratio, although slightly declining from 24.11 percent in 2021 to 23.93 percent in 2022, remains relatively high, reflecting the banks' conservative approach to loan restructuring management.

GRAPH 2.1.1
ISLAMIC BANKING ASSET GROWTH AND MARKET SHARE



GRAPH 2.1.2
FINANCING, TOTAL DEPOSITS AND NPF



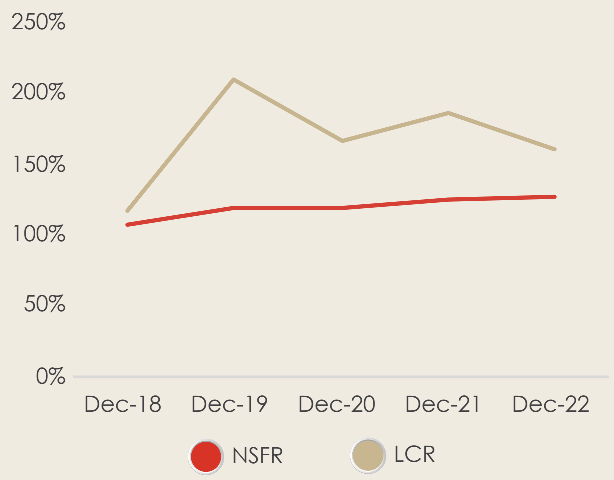
Furthermore, after-tax profits of IBEs observed a growth of 26.02 percent over the year. Although the profit environment and asset base are strong, the Return on Assets (ROA) and Return on Equity (ROE) of the sector moderated to 0.97 percent (2021: 1.01 percent) and 7.43 percent (2021: 7.92 percent), respectively (Graph 2.1.4). The prudential liquidity indicators demonstrate an improvement in the sector's liquidity position. As of December 2022, the Liquidity Coverage Ratio (LCR) stood at 160.10 percent (2021: 185.4 percent), well above the regulatory requirement ratio of 100. The Net Stable Funding Ratio (NSFR) increased slightly to 125.81 percent, compared to 123.9 percent in 2021 (Graph 2.1.3). It's worth mentioning that the liquid assets to total asset ratio of the IBEs moderated to 10.18 percent by the end of 2022, compared to conventional banks' ratio of 14.7 percent, recording a marginal decline from 12.7 percent and 16.7 percent, respectively, in 2021. This ratio is relatively close to that of the conventional banking sector, indicating the availability of Shariah-compliant instruments and facilitating liquidity management in the sector.

The corporate sector drove the majority of financing flows, contributing 60 percent as of December 2022. The household/retail sector accounted for 36.5 percent (2021: 40.5 percent), followed by small and medium enterprises at 3.5 percent. Most of the personal financing comprised low-risk housing finance, making up 30.5 percent of total credit. The construction and manufacturing sectors also made significant contributions to total gross financing, with 15.7 percent (2021: 14.3 percent) and 8.3 percent (2021: 8.1 percent), respectively.

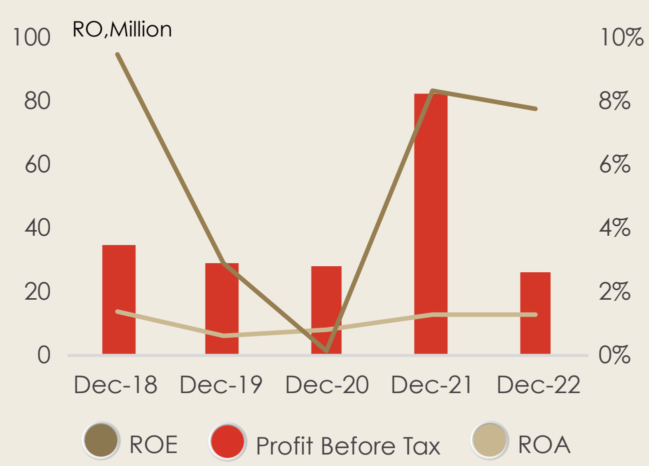
In terms of the mode of financing, the participatory mode, consisting of diminishing Musharaka and Mudarabah, continued to dominate the flow of financing, contributing 53.55 percent and 0.18 percent, respectively. The share of Ijarah was 17.75 percent, followed by Wakala Bil Istithmar at 15.61 percent.

A noteworthy development in the Islamic banking sector is the 7-year sukuk worth RO150 million that was issued in 2022, compared to zero issuances in 2021. Additionally, to ensure the resilient and ongoing expansion of the sector, the CBO is making progress in introducing a range of Sharia-compliant liquidity management instruments to meet the liquidity needs of IBEs. One of these products, the Wakala Money Market, was introduced on December 28, 2022, and other products are expected tol be introduced in due course.

GRAPH 2.1.3
ISLAMIC BANKING LIQUIDITY INDICATORS



GRAPH 2.1.4
PROFITABILITY INDICATORS OF IBES



Box 2.2: Overview of Payment and Settlements Activities

CBO made significant strides in developing a secure and robust payment infrastructure with progressive solutions while mitigating potential risks. Advancements are strategized in line with CBO's vision of enhancing the quality of national payment systems services provided to the banking and financial sector as well as the society in the sultanate. In June 2023, CBO announced the launch of the new national Real Time Gross Settlement System (RTGS), which operates on a 24/7 basis.

In accordance with the best practices, international standards, and the Principles for Financial Market Infrastructures (PFMI),the new RTGS system provides a mechanism for the processing and settlement of high-value payments exchanged between market participants on a continues basis.

The new RTGS system is expected to enhance liquidity, increase payment processing security, reduce associated risks due to its added feature for risk mitigation by enabling the monitoring of liquidity requirements in real-time around the clock. These new features will contribute in enhancing the efficiency, effectiveness and robustness of payments transaction processing in the banking and financial sector in Oman.
Notably, the new system integrates with the GCC payment system 'AFAQ' in order to facilitate cross-border payments.

The new system integrates will also with the Arab Regional Cross-Border Payment System (Buna) by including the Omani rial as a settlement currency among the other currencies in the Arab system.

Markedly, electronic transactions are on the rise, particularly in e-commerce and point-of-sale transactions, with a decrease in cheque usage, which reduces settlement and credit risks. The developments necessitate using technology-based solutions to enhance customer experience and to ensure the safety and security of their credentials.

Transactions in the Payment and Settlement Systems

The volume of transactions processed in the Payment and Settlement Systems (PSS) has progressively increased by 37.6 percent to 275.1 million transactions compared to 199.9 million transactions in 2021. Similarly, the aggregate value of transactions processed through the system recorded 15.6 percent growth in 2022 from the previous year (RO 178.8 billion) reaching RO 206.6 billion. Despite the increase, the value of transactions in 2022 remained lower than pre-pandemic levels primarily because of lower RTGS values (Graph 2.2.1).

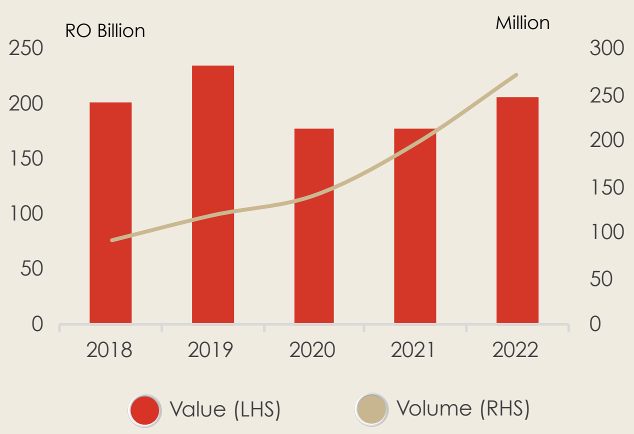
In 2022, the number of bank transfers through the RTGS[1] has marginally decreased by 4.56 percent, the value of those transfers has however increased by 15.9 percent when compared to 2021 from RO 154.7 billion to RO 179.3 billion, with a daily average value of RO 491.4 million (Graph 2.2.2).

Digitization and Retail Payments

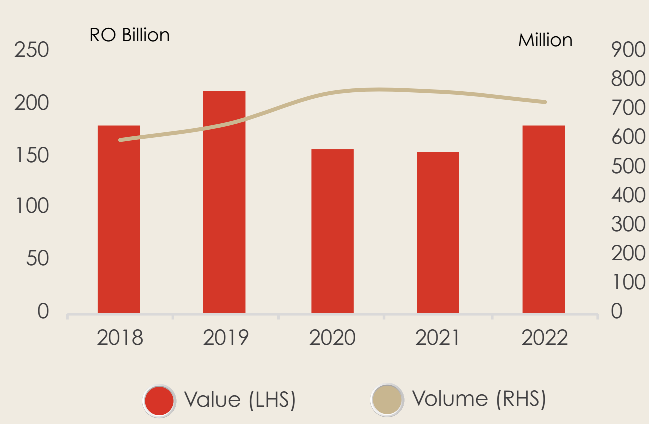
Aggregate retail[2] volume has exponentially increased by 37.8 percent from the previous year reaching 274.4 million from 199.2 million transactions in 2021. Additionally, the value of transactions executed via retail systems increased by 13.1 percent from the previous year reaching a total value of RO 27.3 billion (Graph 2.2.3). The main driver for this growth has been the rising use of e-payment services.

Digital payment initiatives emerged as a cornerstone during the pandemic to make safer and quicker payments for goods and services. The advancement in terms of reach and utilization of progressive payment systems has been emboldening, highlighting the exponential increase in volume of transactions processed through the retail payment systems during the years 2021 and 2022. For example, ACH usage has grown by 25 percent in both volume and value terms. Additionally, OmanNet usage increased

GRAPH 2.2.1
AGGREGATE VALUES & VOLUMES



GRAPH 2.2.2
RTGS VALUES & VOLUMES (CBO OPERATED)



[1] CBO operates and oversees the Real Time Gross Settlement (RTGS) System where all Inter-Bank payments are processed and settled in real time on-line mode. The RTGS System enables the Banks to have real time information on, for example, account balances, used and available intra-day credit, queue status, transaction status, etc.

[2] There are three clearing systems operated by CBO: (1) Electronic Cheque Clearing System (ECC) - Responsible for exchanging interbank cheques (2) Automated Clearing House (ACH) – catering to the recurring and single small value transactions (direct credit & direct debit), (3) OmanNet Switch- responsible for routing transactions done through one of these payments channels (POS, ATM, and E-commerce).

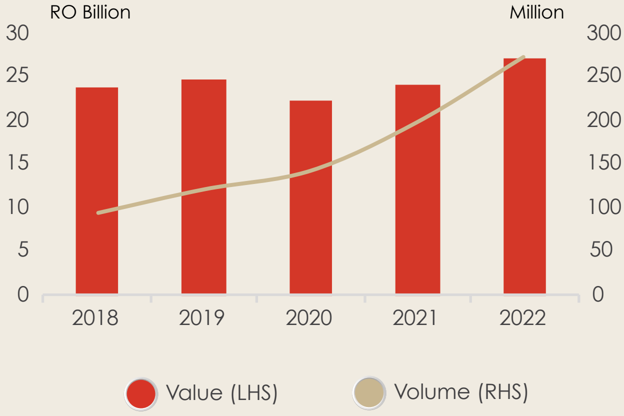
by nearly 40 percent in transactions and about 13 percent in value terms primiraly led by the the increase in E-commerce transactions. Similarly, the cheque payments volume has beendecreasing- falling below the 5-year average- indicating the move from paper-based to digital alternatives. Whereas, mobile payment usage showed a significant increase of 551 percent in transactions and 385 percent in value (Graph 2.2.4).

Accordingly, the volume of E-Payment transactions increased by 39.4 percent in 2022 to 252.9 million transactions compared to 180.8 million transactions in 2021, primarily driven by POS transactions (50.2 percent), followed by transactions via e-commerce (35.5 percent). In comparative terms, the growth of ATM transaction volume was at a slower pace (8.75 percent) compared to transactions performed via cashless means as people were encouraged during the pandamic to avoid unnecessary cash usage (Graph 2.2.5).

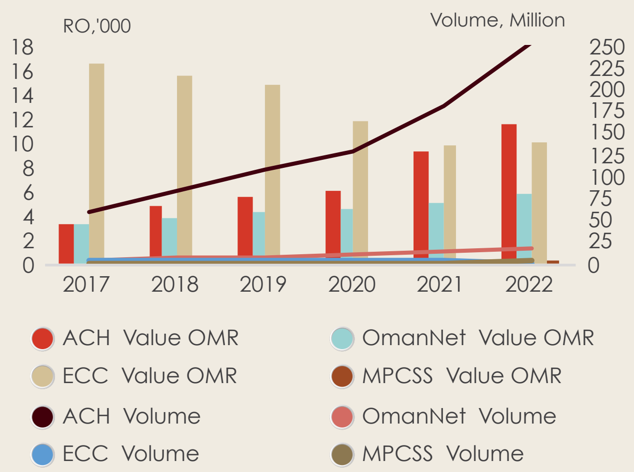
Liquidity and Concentration in the System

The clearing balances of banks continued -on average- to be in surplus for the year 2022 with an average daily closing balance of around RO 1.36 billion(Graph 2.2.6). Non-utilization of the intra-day credit facility by the banks despite absence of penalty charges on utilization of this facility corroborates this further.

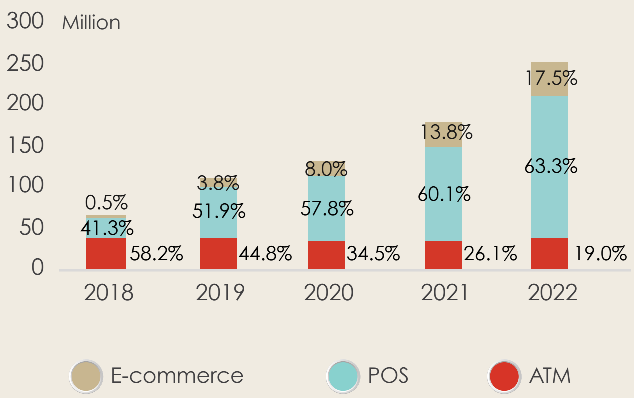
GRAPH 2.2.3
RETAIL PAYMENT SYSTEMS VALUES & VOLUMES



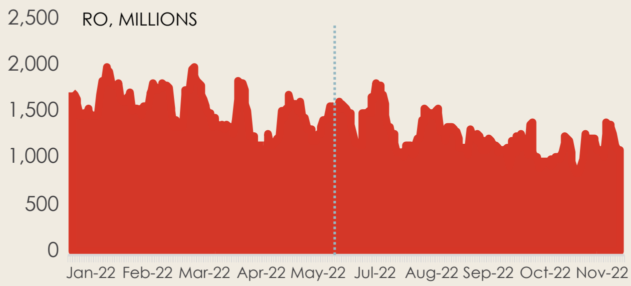
Graph 2.2.4
RETAIL PAYMENT SYSTEMS VALUES & VOLUMES



GRAPH 2.2.5
OmanNET LOCAL TRANSACTION VOLUME



GRAPH 2.2.6
DAILY AGGREGATE CLOSING BALANCES 2022



The Herfindahl Index (HI)[3] during the year 2022 remained low, with a daily average of around 0.1, suggesting a low concentration in liquidity held by participants.

In stark contrast, the daily HI of RTGS payment during 2022, showed a moderately concentrated market (ranging between a minimum of 0.09 to as high as 0.25, (Graph 2.2.7). The relatively high and persistent concentration in payment suggests that payment is not made evenly by all participants and that a significant share of the payment is made by only a few banks.

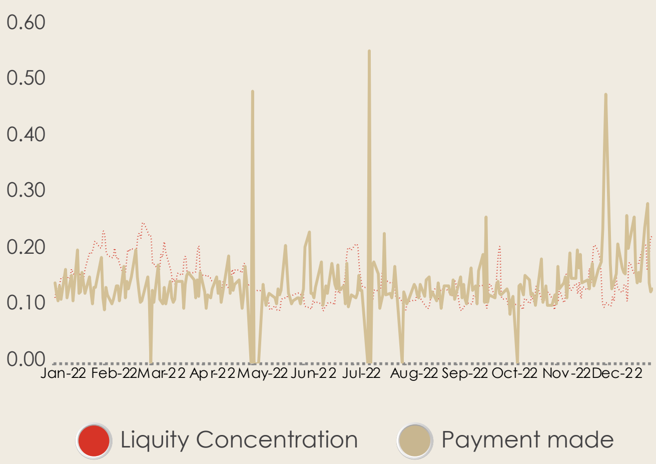
Transactions in Cheques

With the rise of electronic payments, there is a notable decrease in the use of cheques for payments since 2018—from about 4.7 million to 3.8 million in 2022 which indicates the transition from paper-based payments to digital payments (Graph 2.2.8).

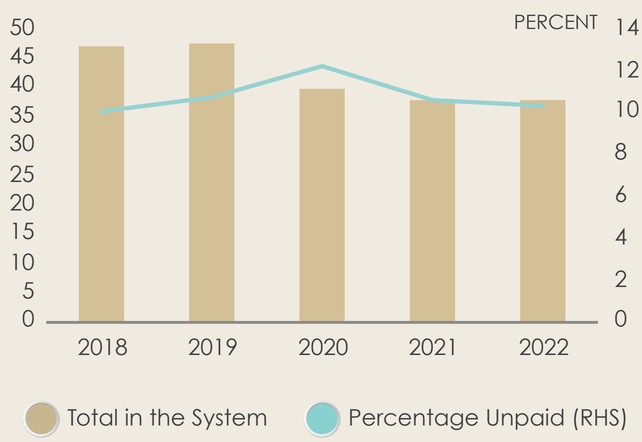
For the same reason, the volume of unpaid cheques in the system fell from 399 thousand in 2021 to 387 thousand in 2022 (Graph 2.2.8) and (Graph 2.2.9). The percentage of unpaid cheques to the total cheques presented in the system decreased from 10.6 percent in 2021 to 10.3 percent in 2022.

A significant volume of the unpaid cheques are returned due to financial reasons.For instance, "Insufficient Funds" still led the list for reasons behind the unpaid cheques with a total volume of 309,728 and accounting for 80.1 percent of all unpaid cheques (Graph 2.2.10). This was followed by "Account Closed / Frozen / Transferred" totaling 39,457 (10.1 percent).

GRAPH 2.2.7
HHI Liquidity and PAYMENT CONCENTRATION 2022



GRAPH 2.2.8
TOTAL CHEQUES PRESENED FOR CLEARING AND PERCENTAGE OF UNPAID CHEQUES



[3] Herfidahl index (HI) is used to assess the degree of concentration of the system in liquidity and payment. For the liquidity concentration, the index is calculated for the daily closing balance in the clearing for the participating banks as following:

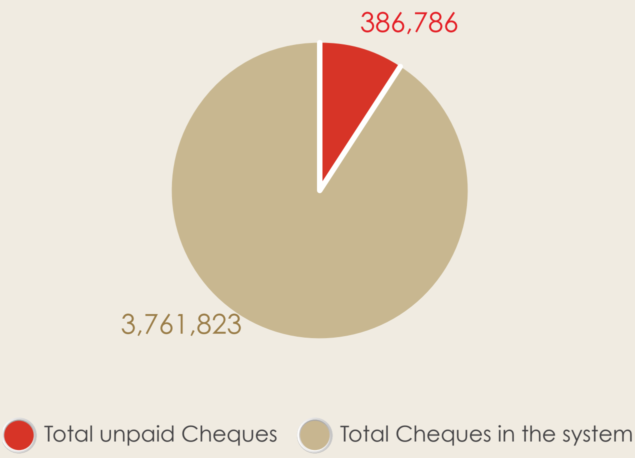
HI (Liquidity)= ∑_banks(Closing balance of bank i/Closing balance of all banks)*2

The index ranges between zero and one, with larger values of index pointing to higher concentration in the system.

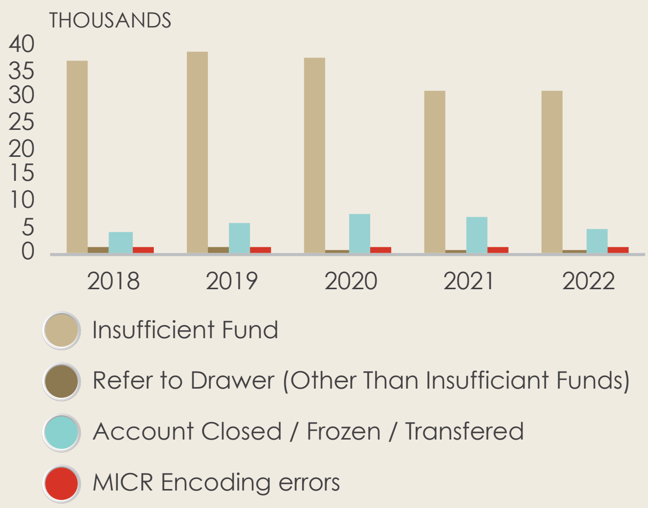
It's worth mentioning that an unpaid cheque or bouncing a cheque is considered a serious offense and can lead to legal consequences, including fines and imprisonment. Some countries have initiated the implementation of partial fulfillment of cheques where it is prossibe to cash a cheque for an amount less than the full amount written on the cheque. While typically a cheque would bounce if the full amount to honor it was not available in the drawer's account, after the amendments introduced in some countries, banks are required to fulfil partial amounts of the cheque equal to the amount available in the drawer's account, unless the cheque bearer rejects the option for partial payment.

Oman is also working on modalities to introduce partial fulfillment of cheques. This would provide mechanisms to ensure the maximum possible cheque value is collected in the fastest and simplest way possible.

GRAPH 2.2.9
VOLUME OF ISSUED CHEQUES AND RETURNED CHEQUES in 2022



GRAPH 2.2.10
REASONS FOR UNPAID CHEQUES



Box 2.3: Credit Conditions Survey

The Credit Conditions Survey was initially undertaken by CBO in June 2022 to enhance its understanding of prevailing credit conditions in Oman. This initiative aligns with the CBO's overarching objectives in the realm of preserving financial stability. The survey is addressed to senior credit officers of all banks and Financial Leasing Companies (FLCs) operating in Oman to assess loan demand, credit availability, changes in lending standards in 2022, and expectations for the year 2023. The survey covers lending to households, corporates, small and medium-sized enterprises (SMEs), and general questions on factors driving changes in credit demand or supply.

Results from the survey are reported as a net balance (expressed as a percentage). A positive score indicates that banks observed (or expected) an increase in credit demand or availability, or eased their lending standards, and a negative score indicates the opposite. Taking demand for loans as an example, net percentage balance = (% Reporting "Increased Significantly" + 0.5 x % Reporting "Increased Somewhat") – (% "Decreased Significantly"+ 0.5 x % Reporting "Decreased Somewhat"). Other indicators follow the same computations.

This box presents the results of second iteration of the Credit Conditions Survey carried out inDecember 2022.s. The results presented here are solely based on responses of suvey participants and do not necessarily reflect CBO's views on credit conditions in the economy.

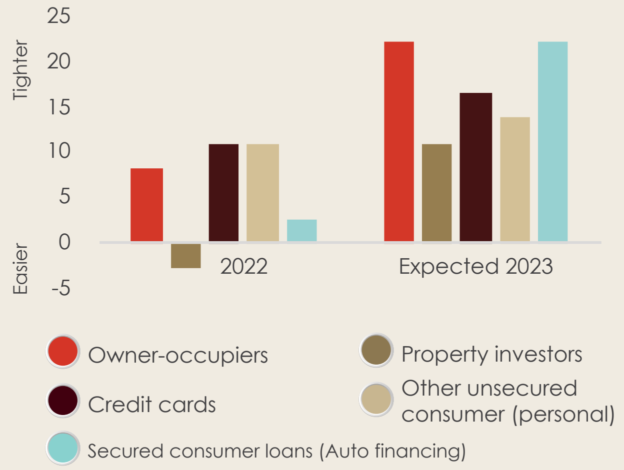
Household lending

According to the responses to the Credit Conditions Survey (CCS) 2022, there was a moderate increase in demand for personal loans across all categories, with exception of property investment loans in 2022 due to rising interest rates, which lowers the appeal of real estate investment. Increased demand was the strongest for credit cards and other unsecured consumer loans. It could be noted that these lending products have lower entry barriers, involve less administrative work, and get approved faster than mortgage lending (Graph 2.3.1).

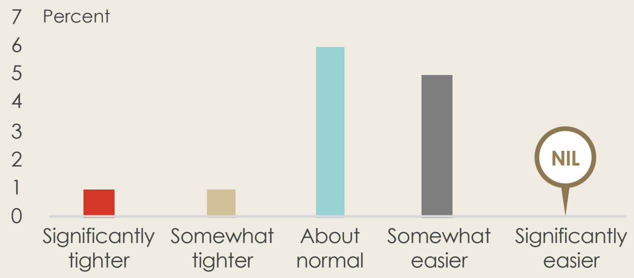
For the year 2023, an upsurge in demand is expected across all categories of household lending. The largest increase is expected in mortgage and auto loans. The demand for these segments is expected to rise the most as more nationals join the workforce, moreover these secured loans typically have lower Equal Monthly Installments (EMIs) and longer repayment periods than unsecured consumer loans.

Credit availability refers to the ease with which borrowers can obtain loans to finance their purchases. This can be affected by various factors such as economic conditions, the level of competition among lenders, and the availability of mortgage products. Survey respondents believe credit availability for the household sector was somewhat eased in 2022 benchmarked against the past three years (Graph 2.3.2). With respect to overall credit availability for different segments of household lending, survey respondents reported that credit availability for both residential mortgages and consumer loans was eased in 2022. Though banks remain cognizant of the heightened risks in their approach to lending, especially in certain high-risk segments for consumer lending as there were expectations about rising interest rates. Therefore, some tightening in pricing is expected for household lending in 2023 (Graph 2.3.3). Survey results pointed out that while the lending policies and credit terms were eased for owner-occupied residential mortgages in 2022, the collateral requirements and serviceability standards were tightened (Graph 2.3.4).

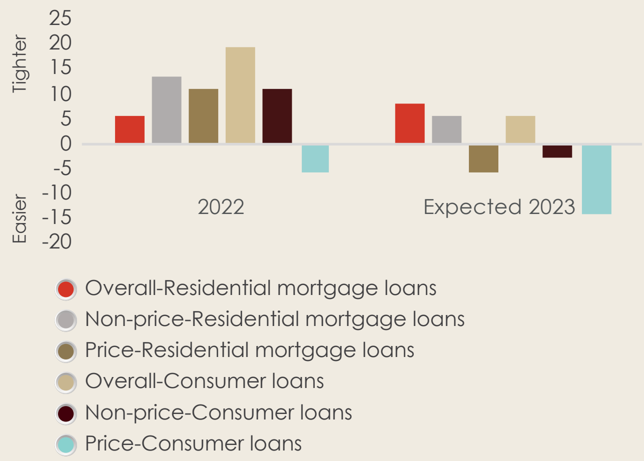
GRAPH 2.3.1
DEMAND FOR CREDIT - HOUSEHOLDS



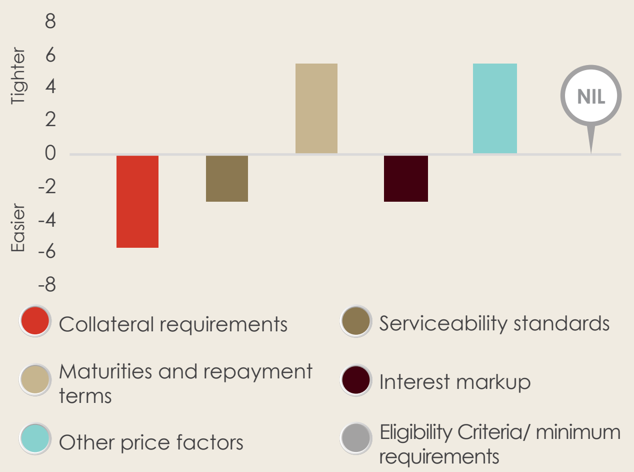
GRAPH 2.3.2
CREDIT AVAILABILITY FOR HOUSEHOLD SECTOR COMPARED TO LAST THREE YEARS



GRAPH 2.3.3
CREDIT AVAILABILITY- HOUSEHOLDS



GRAPH 2.3.4
LENDING POLICIES AND CREDIT TERMS-HOUSEHOLDS (PROPERTY INVESTORS)



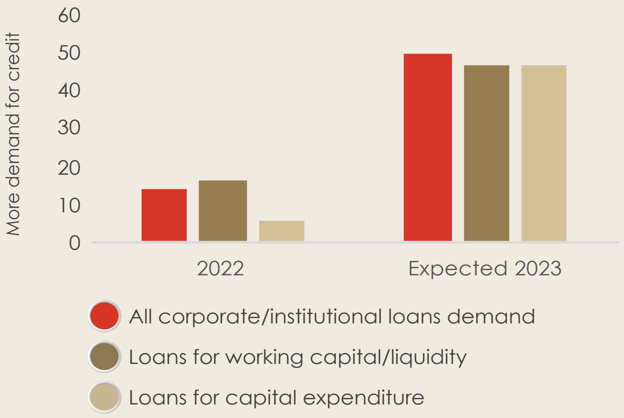
Corporate/Institutional Lending

Survey results suggest a strong demand for corporate lending in 2022, driven by an increase in loans for working capital and capital expenditure. The appetite for corporate credit is expected to surge further in 2023(Graph 2.3.5).

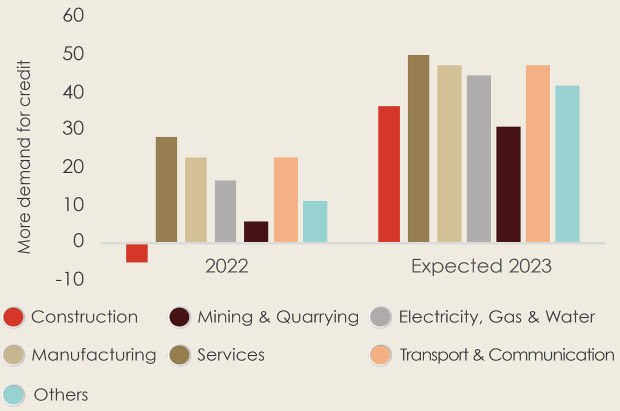
By sector, survey respondents noted increased demand for corporate loans across all economic activities and industries except for construction. The solid demand from services sector indicates a reasonable recovery in the subsectors most impacted by the mobility restrictions imposed to contain the pandemic, followed by strong demand in the manufacturing, and transport & communication sectors. For the year 2023, a further increase in credit appetite and demand for business loans are expected across all economic activities, predominately in the services, manufacturing, and transport & communications sectors. Although the construction sector had been underperforming for a while, survey respondents expect a rebound in the credit demand for this sector as well in 2023 (Graph 2.3.6).

Survey respondents believe credit availability for the corporate sector was somewhat tightened in 2022 benchmarked against the past three years (Graph 2.3.7). Nevertheless, a notable increase in credit supply for corporate loans across all sectors is expected in 2023, although the pricing terms will remain tightened (Graph 2.3.8). Furthermore, the vast majority of survey respondents reported that their lending standards for corporates remained stringent in 2022. Most of the respondents expect lending standards for corporate credit to remain tightened in 2023 in terms of collateral requirements, serviceability standards, loan covenants, and risk pricing (Graph 2.3.9).

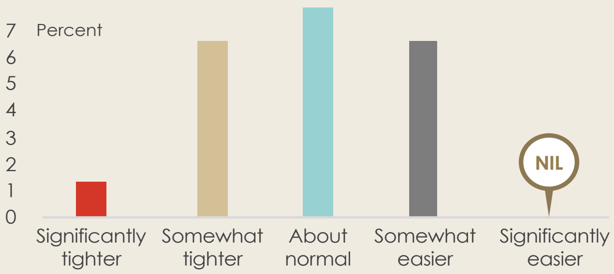
GRAPH 2.3.5
DEMAND FOR CREDIT - CORPORATE LENDING



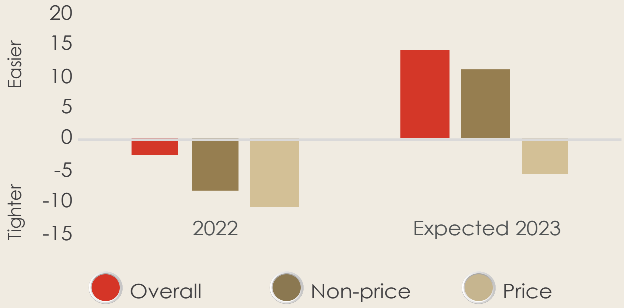
GRAPH 2.3.6
DEMAND FOR CREDIT BY ECONOMIC ACTIVITIES



GRAPH 2.3.7
CREDIT AVAILABILITY FOR CORPORATE SECTOR COMPARED TO LAST THREE YEARS



GRAPH 2.3.8
CREDIT AVAILABILITY- CORPORATE LENDING

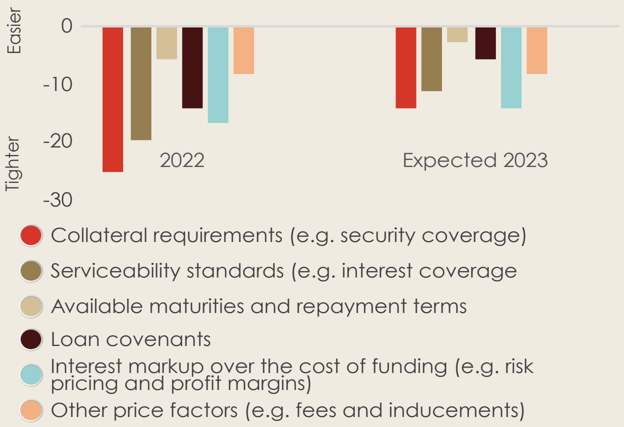


SME Lending

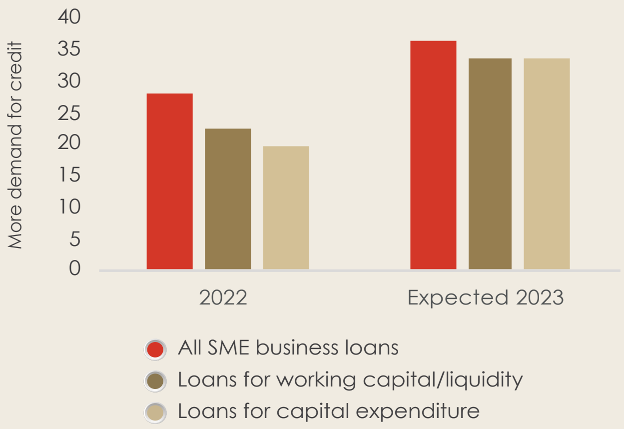
Survey participants reported that overall demand for loans from small and medium-sized enterprises (SMEs) businesses increased significantly in 2022, including both working capital and capital expenditure financing (Graph 2.3.10). Respondents to the survey expect strong demand for both working capital and capital expenditure loans from SMEs in 2023 reflecting a focus of the government on supporting entrepreneurship and job creation as well confidence in the economic outlook for 2023.

In terms of credit availability, it may be noted that considering that COVID-19 has had a serious negative impact on the SMEs, survey respondents believe credit availability for the SME sector was still somewhat better in 2022 benchmarked against the past three years (Graph 2.3.11). However, tighter non-price factors (e.g. lending policies) and price factors (e.g. markup, risk pricing, and fees) were observed by respondents (Graph 2.3.12).

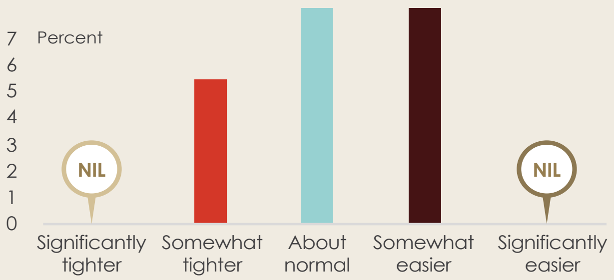
GRAPH 2.3.9
LENDING POLICIES AND CREDIT-CORPORATE LENDING



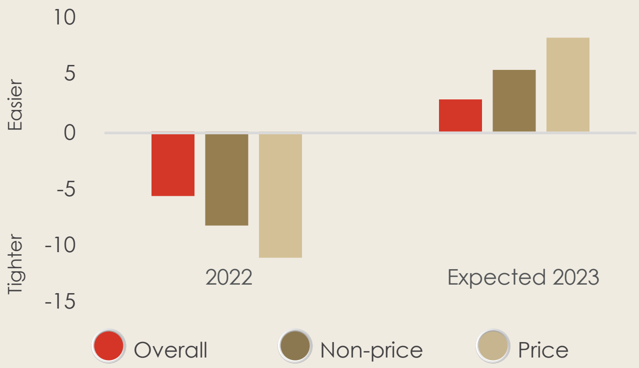
GRAPH 2.3.10
DEMAND FOR CREDIT - SME LENDING



GRAPH 2.3.11
CREDIT AVAILABILITY FOR SME SECTOR COMPARED TO LAST THREE YEARS



GRAPH 2.3.12
CREDIT AVAILABILITY- SME LENDING



Nevertheless, overall credit availability to SMEs is expected to ease in 2023 in terms of collateral requirements (e.g. security coverage), serviceability standards (e.g. interest coverage), and risk pricing, besides ease in fees and inducements (Graph 2.3.13).

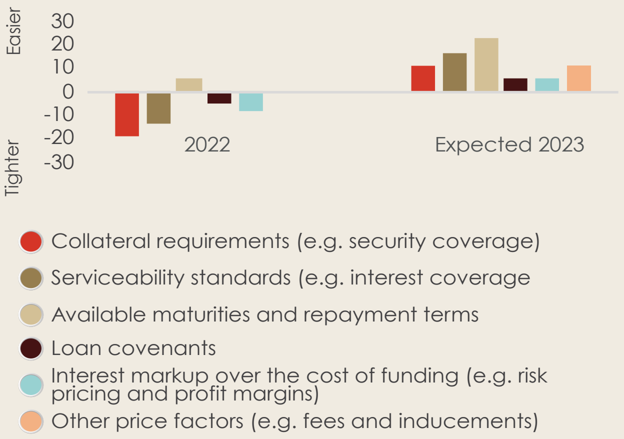
Lending Conditions, Expectations, and Loan Performance

Participants were presented with a range of broad questions such as their perspective on economy-wide lending growth in 2023 across various sectors, changes in credit conditions due to different factors, reasons for loan rejections, and drivers influencing the credit availability.

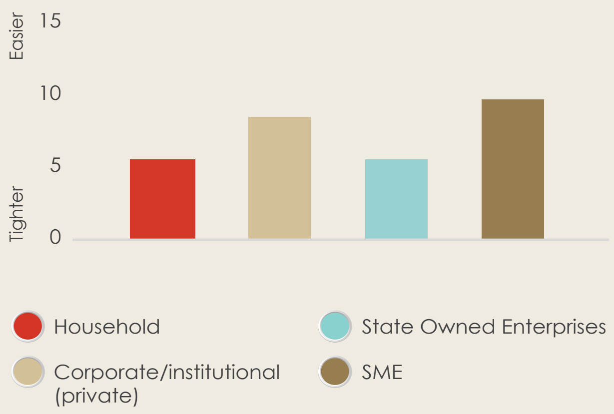
Respondents expect SME lending growth to be 9.6 percent in 2023 despite stringent lending standards (which appears significantly high considering compound annual growth rate of 2.7% over the last five years), followed by corporates (8.5 percent), and lending to state-owned enterprises and households (both 5.5 percent) (Graph 2.3.14).

In spite of lenders' stance on tightening the credit scoring criteria, respondents believe that the loan approval rate increased somewhat in 2022 and it is expected to increase significantly during 2023. Whereas NPLs increased somewhat in 2022 and they are expected to decrease to some extent during 2023. Credit card limits decreased somewhat in 2022 and are expected to increase slightly in 2023 (Graph 2.3.15).

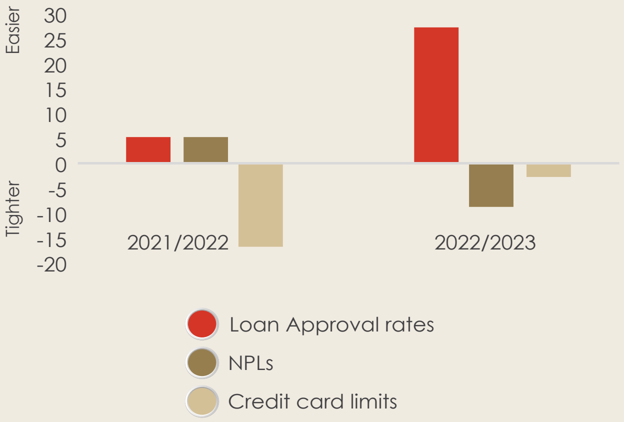
GRAPH 2.3.13
LENDING POLICIES AND CREDIT TERMS-SME LENDING



GRAPH 2.3.14
ECONOMEY-WIDE LENDING GROWTH EXPECTATION IN 2023



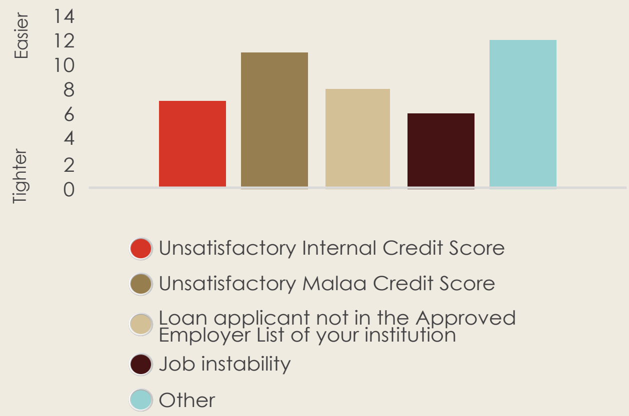
GRAPH 2.3.15
CHANGES IN CREDIT CONDITIONS



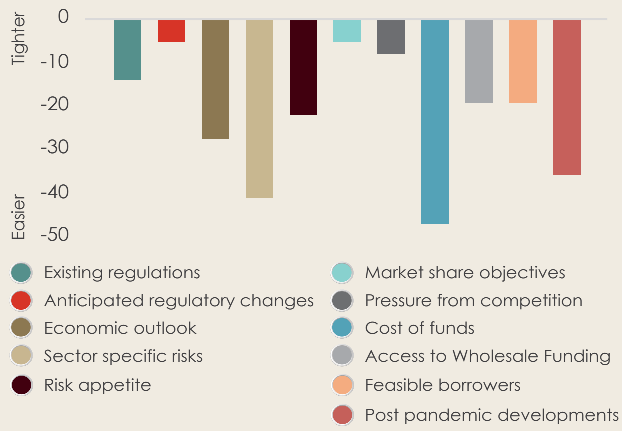
Participants were asked about the reasons behind the rejection of loan applications in 2022. A low credit score 'unsatisfactory Mala'a[1] credit score' was selected as the leading reason (25 percent) behind the rejection of loan applications in 2022. This was followed by 'loan applicant not in the approved employer list of the borrower institution' (18 percent), followed by 'unsatisfactory internal credit score for the applicant' (16 percent), and' job instability' (14 percent) (Graph 2.3.16).

The survey highlighted a range of determinants that contributed to tightening of credit availability. The most important detriments were their cost of funds, sector-specific risks, and post-pandemic developments while anticipated regulatory changes had a small contribution to credit availability (Graph 2.3.17).

GRAPH 2.3.16
REASONS BEHIND THE REJECTION OF LOAN APPLICATIONS



GRAPH 2.3.17
DRIVERS OF CREDIT TIGHTENING DURING 2022



1 Oman Credit and Financial Information Centre (Mala'a) was established by Royal Decree as a financially and administratively independent entity under the supervision of the Central Bank of Oman to enables access to credit through its primary products: Mala'a Credit Report, and Mala'a Credit Score for individuals and corporates.

Mala'a enables access to credit through its primary products: Mala'a Credit Report, and Mala'a Credit Score for individuals and corporates.

Appendix 1

Select Banking and Market Indicators	2016	2017	2018	2019	2020	2021	2022
Balance Sheet Items							
Cash and CBO Deposits	2,748.2	2,482.5	2,923.2	2,377.1	1,874.4	2,526.1	2,485.3
Credit to Government	107.3	34.6	39.5	136.9	477.8	620.4	844.6
Credit to Public enterprises	2,017.2	2,213.4	2,640.8	2,710.9	3,128.6	3,642.2	3,753.3
Credit to Private Sector	19,735.9	21,018.2	22,049.8	22,673.4	22,912.6	23,435.7	24,422.9
Credit to Non-Residents	270.0	278.3	327.5	309.2	157.1	150.1	202.4
Loans and Advances (Net)	21,434.2	22,810.0	24,252.9	24,955.6	25,577.6	26,594.2	27,783.4
Growth Rate	**10.2%**	**6.4%**	**6.3%**	**2.9%**	**2.5%**	**4.0%**	**4.5%**
Investment in Govt. Bonds and T-Bill	1,796.5	2,458.0	2,813.6	3,185.6	3,652.2	4,274.4	3,722.7
Total Investments	2,593.5	3,108.5	3,447.5	3,952.3	4,762.8	5,359.6	3,722.7
Total Assets	29,885.9	31,488.6	33,958.6	35,221.0	35,814.1	38,521.9	38,817.1
Growth Rate	**6.2%**	**5.4%**	**7.8%**	**3.7%**	**1.7%**	**7.6%**	**0.8%**
Private Sector Deposits	13,250.3	13,943.5	14,316.3	15,200.7	16,806.1	17,300.1	17,359.9
Government Deposits	5,923.5	6,363.9	6,423,57	6,646.4	5,601.5	6,106.0	6,366.0
PSE Deposits	997.6	982.6	1,936.3	1,433.4	1,277.3	1,680.0	1,732.5
Non-resident Deposits	252.1	279.9	359.9	376.8	480.6	524.4	443.4
Total Deposits	20,423.5	21,569.9	23,255.3	23,657.3	24,165.5	25,610.4	25,901.9
Growth Rate	**5.2%**	**5.6%**	**7.8%**	**1.7%**	**2.1%**	**6.0%**	**1.1%**
Asset Quality							
ECL (Stages 2 & 1)	305.3	321.6	360.3	322.6	385.2	447.9	566.1
ECL (Stage 3)	276.2	287.2	448.8	544.3	704.0	799.7	870.8
Gross NPL Ratio	1.8%	1.9%	2.7%	3.5%	4.2%	4.2%	4.4%
Net NPL to Net Loans	0.5%	0.7%	1.0%	1.4%	1.6%	1.4%	1.4%
Stage 3 or Specific Provisions to NPLs Ratio	70.4%	65.2%	65.7%	61.2%	63.4%	68.8%	68.7%
Restructured loans to Gross Loans	1.2%	1.6%	2.3%	3.8%	4.3%	5.8%	12.1%
Stage 2 loans to Gross Loans	5.8%	7.5%	20.0%	20.2%	20.2%	20.5%	17.6%
Solvency							
Total Regulatory Capital	4,539.4	5,011.5	5,230.8	5,469.8	5,538.5	5,814.4	6,011.7
Tier 1 Capital	4,037.1	4,554.3	4,852.1	5,165.1	5,216.0	5,524.5	5,758.3
CET1 Ratio	13.5%	13.9%	13.9%	14.3%	14.7%	15.5%	15.0%
CRAR	16.7%	17.4%	17.9%	18.5%	18.8%	19.4%	19.7%
Liquidity							
LCR	259.0%	216.0%	254.0%	220.0%	196.0%	212.1%	190.2%
NSFR	110.0%	116.0%	115.0%	116.0%	117.0%	118.6%	115.1%
Credit-to-Deposit Ratio	108.4%	109.2%	107.8%	109.2%	110.4%	108.7%	112.8%
Lending Ratio	79.1%	79.9%	78.6%	79.6%	79.7%	76.9%	80.7%
Profitability							
ROA	1.4%	1.5%	1.6%	1.4%	0.9%	1.1%	1.2%
ROE	10.5%	9.8%	10.6%	9.4%	5.7%	6.8%	7.9%
NIM	2.8%	2.5%	2.7%	2.7%	2.5%	2.6%	2.8%
Profit before Tax	438.1	451.8	514.1	487.6	303.2	382.4	464.0
Market Indicators							
Repo Rate	1.2%	2.0%	2.9%	2.2%	0.5%	0.5%	4.8%
Overnight Interest Rate	0.5%	1.2%	2.1%	2.1%	0.7%	0.4%	3.9%
RO Average Lending Rate	5.1%	5.2%	5.3%	5.5%	5.5%	5.6%	5.4%
RO Average Deposit Rate	1.5%	1.7%	1.9%	2.0%	2.0%	2.0%	2.0%
MSM Price Index	5,783	5,099	4,324	3,981	3,659	4,130	4,857
Change in MSM Index	**7.0%**	**-11.8%**	**-15.2%**	**-7.9%**	**-8.1%**	**12.9%**	**17.6%**

Appendix 2

Payment System Indicators Volumes in Million, Values in RO Million		2016	2017	2018	2019	2020	2021	2022
ACH	Volume	4.783	5.179	7.240	8.650	10.453	14.548	18.506
	Value	3,146	3,358	4,679	5,553	6,030	9,178	11,460
ECC	Volume	4.383	4.642	4.697	4.565	3.910	3.780	3.745
	Value	18,196	16,680	15,548	14,827	11,771	9,796	9,969
OmanNet	Volume	45.263	59.201	64.278	108.275	129.853	180.816	252.929
	Value	2,945	3,323	3,720	3,960	4,547	432	5,865
Total Retail	Volume	54.429	69.022	76.215	121.490	144.216	199.144	275.180
	Value	24,287	23,361	23,947	24,340	22,348	19,406	27,294
RTGS	Volume	0.496	0.579	0.597	0.650	0.754	0.757	0.723
	Value	152,275	158,811	178,907	212,157	155,542	154,649	179,347
Total Cheques	Volume	4.441	4.642	4.697	4.714	3.975	3.780	3.762
Bounced Cheques	Volume	0.362	0.427	0.469	0.379	0.486	0.399	0.387
	Value	704	1,519	856	1,367	547	656	710

SECTION 3

RESILIENCE OF THE OMANI BANKING SYSTEM

FINANCIAL STABILITY REPORT **2023**

Solvency Stress Testing

The Central Bank of Oman (CBO) conducts a suite of stress tests to assess the resilience of the banking system in withstanding adverse but plausible deterioration in financial and macroeconomic conditions over a time horizon. The solvency stress testing of CBO comprises macro scenario-based, hypothetical, and reverse stress testing. Macro stress testing is a coherent, tail-risk setting designed specifically to assess the resilience of the banking sector to hypothetical deterioration in macroeconomic conditions.

Under the baseline scenario (business as usual), the solvency level of the banking sector remains stable and well above the domestic regulatory benchmark of 12.25 percent over the three-year horizon. Under a more adverse scenario as well, the stress testing results showed that the Omani banking sector is expected to comfortably maintain its solvency against a downturn induced by adverse macroeconomic conditions associated with severe pressures on the global oil prices and associated deterioration of economic conditions in Oman. In the reverse stress testing, CBO assesses the percentage increase in NPLs that would result in banks breaching CBO's CRAR requirement. The results showed that the Omani banking system can absorb a deterioration of 8.5 percent of current performing loans before breaching CBO's required CRAR, reaffirming the high capacity of Omani banks to absorb large unexpected credit losses without becoming insolvent.

TABLE 3.1:
ASSUMPTIONS UNDERLYING BASELINE MACRO SCENARIO

	YEAR		
MACRO VARIBLES	**2023**	**2024**	**2025**
Crude Oil Prices	82.74	85.13	81.19
Nominal GDP Growth	-2.6%	4.5%	1.9%
Real GDP Growth	2.5%	2.4%	2.4%
Lending Interest Rate	5.4%	4.9%	4.6%
Share Price Index	-2.6%	4.5%	1.9%
Estimated NPLs Ratio (Satelite Mode)	4.5%	5.6%	6.7%

Note:"Output from Oxford Economics Model and CBO staff calculations"

Macro Stress Testing

Considering the key role of hydrocarbon in the Omani economy, the anchor variable for macro stress testing is the oil price. The adverse scenario comprises a protracted decline in oil prices starting from an average of USD 95.4/barrel in 2022 to USD 50/barrel in 2023 and further declining to USD 40/ barrel in 2024 and 2025. The oil price shock is used to generate relevant macroeconomic variables for Oman via the macroeconomic model (Oxford Economics Model). These macroeconomic outcomes are then fed into a satellite model (Box 3.1) to generate default rates or probability of default. These default rates are used in the stress testing engine to generate projections for relevant financial variables for banks. The macro stress test covers nine domestic banks, which represent more than 95 percent of the banking sector's assets.

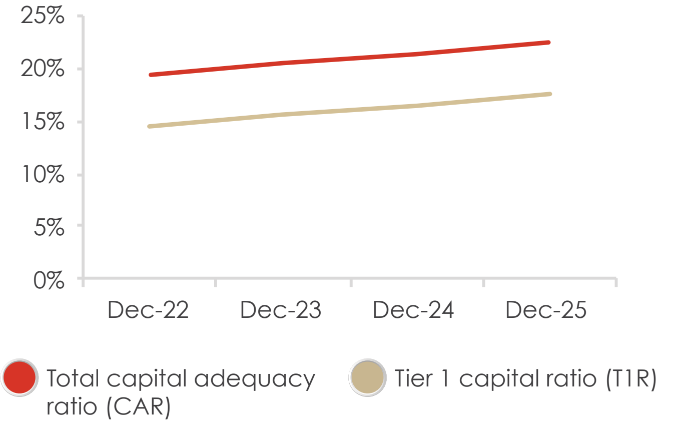
Baseline Scenario

The baseline scenario traces the path of macro-financial variables based on the expected dynamics of the global and domestic economy. Table 1.1 shows the assumptions underlying the baseline scenario.

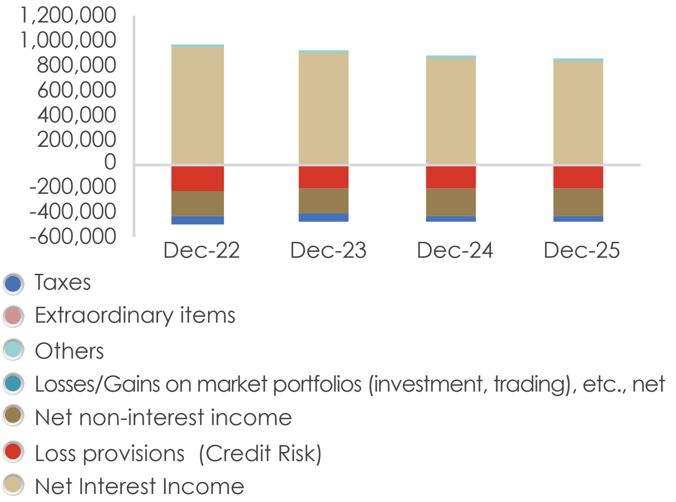
According to the baseline scenario, the overall performance of the domestic banks would remain positive over the next three-year horizon. The CRAR of all domestic banks is projected to improve throughout this period. Specifically, the aggregate CRAR is expected to increase from its level of 19.3 percent at the end of December 2022 to 22.3 percent at the end of 2025. The improvement is anticipated despite the projected rise in the aggregate NPLs ratio from 3.4 percent t0 6.6 percent during the same period (Graph 3.1).

Under the baseline scenario, banks would experience a slight increase in their credit provisioning expenses. However, they would be able to cover these losses ad remain profitable over the next three years, the retained earnings from these profits would strengthen the CRAR (Graph 3.2).

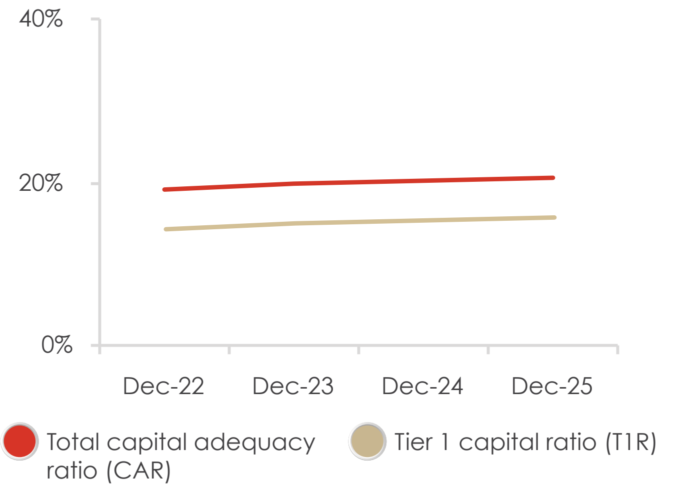
GRAPH 3.1
AGREGATE CRAR OF DOMESTIC BANKS UNDER BASELINE SCENARIO



GRAPH 3.2
AGREGATE NET PROFIT COMPONENTS OF DOMESTIC BANKS UNDER BASELINE SCENARIO



GRAPH 3.3
AGREGATE CRAR OF DOMESTIC BANKS UNDER ADVERSE MACRO SCENARIO



Adverse Scenario

Adverse macro scenario analysis is employed to evaluate the impact of unfavorable macro-financial conditions resulting from a significant decline in oil prices over a stress horizon of 3 years. The implications of assumed changes in macroeconomic and financial indicators such as output, interest rate, stock market index, and exchange rates on the stability of the domestic banks has been assessed through non-performing loans, profitability and capital adequacy. specifically, the assumed economic downturn can negatively affect the profitability of businesses and households, impacting their debt servicing capacity and amplifying credit risk for banks. This, in turn, may put adverse pressure on the profitability of banks and negatively impact their solvency.

Under the adverse macro scenario, oil prices are assumed to experience a sharp decline throughout the years 2023 and 2024, and remain at a low level in 2025, resulting in negative GDP growth before recovering in 2025 (Table 3.2). Under the adverse macro conditions, the aggerate NPL ratio of domestic banks would increase from the current level of 3.4 percent at the end of December 2022 to 10.1 percent by the end of 2025[1]. However, banks would still be able to generate some profits and slightly increase their aggrege CRAR ratio from 19.3 percent in 2022 to 21.7 percent in 2025 (Graph 3.3).

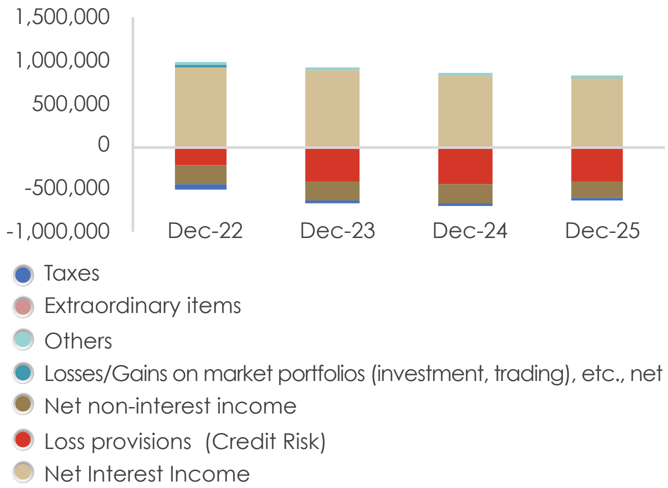
TABLE 3.2:
ASSUMPTIONS UNDERLYING ADVERSE MACRO SCENARIO

	YEAR		
MACRO VARIBLES	**2023**	**2024**	**2025**
Crude Oil Prices	50	40	40
Nominal GDP Growth	-11.9%	-4.9%	2.4%
Real GDP Growth	0.8%	0.4%	2.1%
Lending Interest Rate	5.4%	4.9%	4.6%
Share Price Index	-11.9%	-4.9%	2.4%
Estimated NPLs Ratio (Satelite Mode)	5.6%	8.0%	10.1%

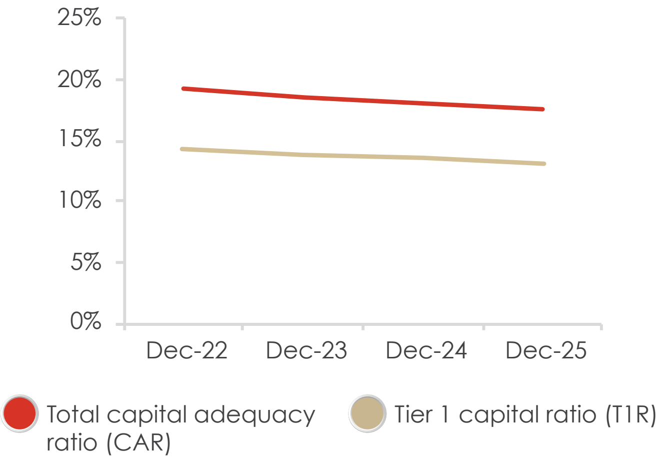
Note:"Output from Oxford Economics Model and CBO staff calculations"

[1] The default rate under the adverse scenario as per credit risk model increase from 1.1% to 1.3% in 2023. Since elasticities may be non-linear and sensitivities of credit loss rates may increase sharply in severe stress ((Hardy and Schmieder (2010)), and in the time of high volatility the coefficients tend to increase (Loretan and English (2000)), therefore, to account for this, in the severe scenario, we inflate the coefficients of credit risk model by a factor of 2. The results reported here represent severe scenario with default rates (New NPLs) of 2.3% in 2023.

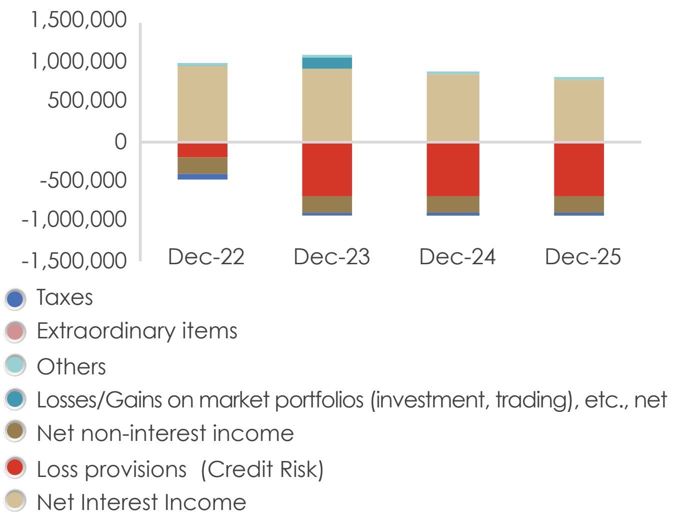
GRAPH 3.4
AGGREGATE DOMESTIC BANKS' NET PROFIT COMPONENTS UNDER MACRO ADVERSE SCENARIO



GRAPH 3.5
AGGREGATE CRAR OF DOMESTIC BANKS UNDER THE HYPOTHETICAL SCENARIO



GRAPH 3.6
AGGREGATE DOMESTIC BANKS' NET PROFIT COMPONENTS UNDER THE HYPOTHETICAL SCENARIO



Under the adverse macro scenario, banks would encounter a significant rise in credit provisioning expenses, Nevertheless, they would be able to cover these losses and remain profitable during the stress horizon (Graph 3.4).

Adverse Hypothetical Scenario

The adverse hypothetical scenario simulates the combined effects of credit, equity, interest rate, and forex shocks over a 3-year stress horizon on the CRAR of domestic banks. The magnitude of these shocks is more severe compared to the shocks in the adverse macro scenario. It is assumed that all four shocks occur simultaneously. In this scenario, banks utilize their profits as the first line of defense., Any remaining impact from the shocks is absorbed by the banks' capital, and the Risk-Weighted Assets (RWA) are adjusted for provisions. The assumptions underlying the adverse hypothetical scenario is given in Table 3.3.

Under the hypothetical adverse conditions, the aggerate NPL ratio of domestic banks would increase from its current level of 3.4 percent by the end of December 2022 to 14.4 percent by the end of 2025, resulting in a decline in the aggregate CRAR of domestic banks from 19.3 percent to 17.9 percent over the same time frame. (Graph 3.5). Under this stress scenario, 8 of 9 domestic banks, would still be able to maintain a CRAR higher than the regulatory requirement of 12.25 percent. Only One domestic bank failed to the pass the test as its CRAR would drop to 10.0%, below CBO's requirement.

TABLE 3.3:
ASSUMPTIONS UNDERLYING ADVERSE HYPOTHETICAL SCENARIO

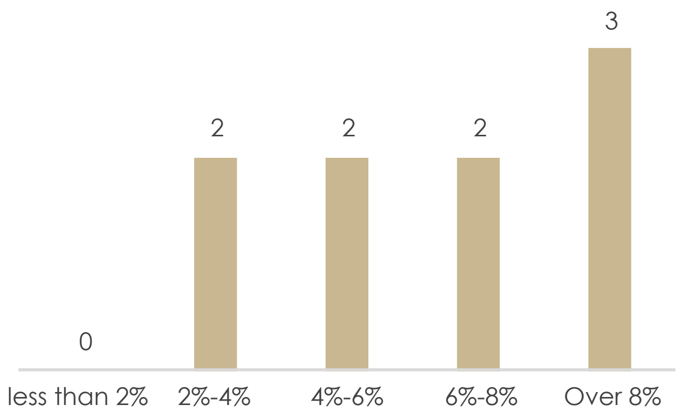
	YEAR		
MACRO VARIBLES	**2023**	**2024**	**2025**
Lending Interest Rate	5.4%	4.9%	4.4%
Omani Rial Devaluation	-20.0%	0.0%	0.0%
Share Price Index	-25.0%	-25.0%	-25.0%
NPLs Ratio	7.0%	10.7%	14.4%

The banks' net interest income would help mitigate the impact of substantial provisioning, thus reducing the overall net losses in the banking sector. (Graph 3.6).

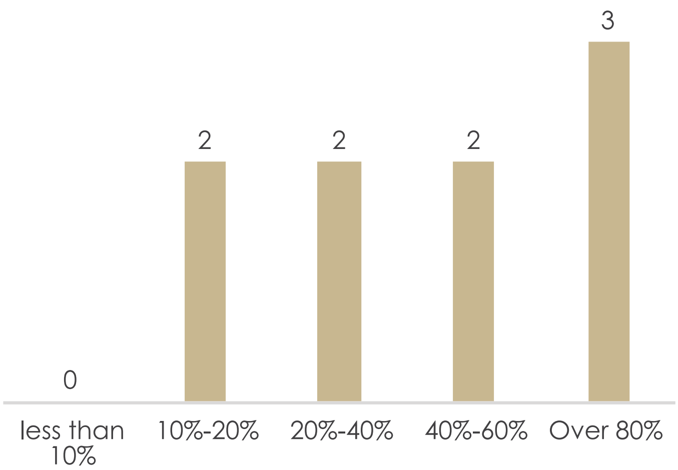
Reverse Stress Testing

In a Reverse Stress Test, tail credit risk scenarios that would render the banks non-compliant with the regulatory CRAR requirement are assessed. In the reverse stress test, it is assumed that provisioning would be 100% of new NPLs and banks would make no profits. The increase in additional provisioning for loan losses is fully absorbed by bank capital. The given adverse scenario involves computing the amount of provisioning that would deplete the "excess" capital buffer, which is defined as the difference between the actual capital held by individual banks and the minimum capital requirement mandated by CBO.

GRAPH 3.7
DISTANCE FROM BREAK POINT (%) FOR DOMESTIC BANKS AS OF 31 DECEMBER 2022



GRAPH 3.8
DISTANCE FROM BREAK POINT (%) FOR FOREIGN BANKS AS OF 31 DECEMBER 2022



As of December 31, 2022, reverse stress Testing reveals that the Omani banking system can absorb a deterioration of 8.5 percent of current performing loans before breaching the required CRAR set by the CBO. (Graph 3.7) Shows that the distance from break point (%) which is the difference between the NPL level at which the new provisions deplete the bank's buffers above minimum capital requirements and the actual NPL ratio. 7 out of 9 domestic banks would require a deterioration of more than 4 percentage points of their performing loans before breaching CBO's capital requirements, while the other 2 banks would breach the capital requirement for a deterioration of 3.7 and 1.9 percentage points of their performing loans. Further, it is worth noting that the historical annual default rate or new NPLs as a percentage of performing loans of the Omani banking system is 1.1 percent. Additionally, the reverse stress test shows that foreign banks have a very high capacity to absorb credit losses, primarily due to their high capital buffer, (Graph 3.8).

Liquidity Stress Testing

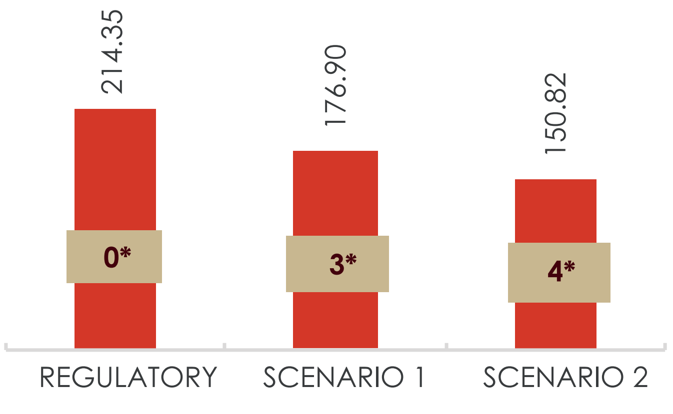
CBO has upgraded its liquidity stress testing methodologies to better gauge the resilience of banks against liquidity shocks. The first approach focuses on assessing the adequacy of the Liquidity Coverage Ratio (LCR) under adverse liquidity conditions. The stressed LCR framework benchmarks the banks' stressed LCR against the minimum regulatory requirement to determine whether the banks' counterbalancing capacity is sufficient to absorb persistent liquidity outflows during a one-month survival period. the second approach involves an analysis of liquidity risk with a focus on stressed cash outflows lasting 6 months. The stressed cash outflows factors are hypothetical, and banks are evaluated based on their ability to remain liquid at the end of the assessment period.

LCR-based Liquidity Stress Test

The LCR-based liquidity stress test comprises a baseline and two adverse scenarios. The bassline scenario incorporates the minimum haircuts/rates specified in the regulatory LCR, while the adverse scenarios involve higher haircuts and outflow rates compared to the regulatory LCR. Adverse scenario 1, assumes higher outflows with unchanged haircuts for High Quality Liquid Assets (HQLA). Adverse scenario 2, assumes higher outflows along with larger haircuts. In both stress scenarios, all banks are assessed against the regulatory required LCR of 100 percent. Box 3.2 provides a description of the baseline and adverse scenarios.

Overall, liquidity conditions in the Omani banking sector are robust, with the aggregate LCR at 214 percent in December 2022, surpassing the regulatory minimum of 100 percent. Under adverse scenario 1, the aggregate LCR would decrease to 177 percent, which is still well-above regulatory requirement (Graph 3.9). At the individual bank level, three domestic banks would slightly drop below the 100 percent required LCR in scenario 1. Under the more severe liquidity stress of scenario 2, the LCR would further drop to 151 percent, remaining comfortably above the minimum requirement of 100 percent. This reaffirms the notion that banks maintain a sufficient level of liquidity.

GRAPH 3.9
SYSTEM LCR UNDER VARIOUS LIQUIDITY STRESS SCENARIOS



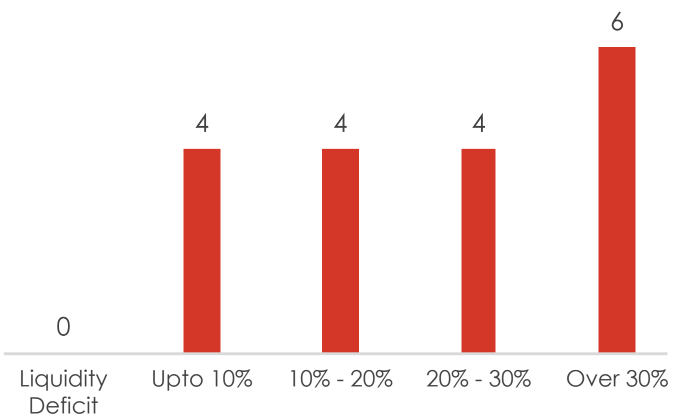
*Number of banks below 100% LCR

System-Wide Liquidity Analysis

This approach is developed to examine the risk that multiple banks face liquidity stress. Banks would concurrently face liquidity stress from simulated shocks to capital outflows, liquidity demand from corporates, and deposits outflows. It assesses the impact of liquidity stress in terms of a survival period of six months by looking at the cash outflows and available counterbalancing capacity. The main outcome of this approach is derived from the bank's Net liquidity position (NLP), which is the difference between available liquidity and the expected outflows during the assumed stressed period. The assumptions underlying the rate of cash inflow and outflow under liquidity stress are given in Box 3.3 The simulations use aggregate individual bank-level data to generate post-shock liquidity positions for banks.

Under the hypothetical severe liquidity shocks, the Omani banking system would face an overall cash outflow amounting to 17 percent of its total liabilities over six months. The results of the assumed liquidity drain revealed that the banking system possesses sufficient counterbalancing capacity to withstand the simulated outflows during the reference period of six months. None of the banks would face a liquidity deficit by the end of the liquidity drain horizon. All banks would maintain a satisfactory positive ratio of net liquidity position to total liabilities (Graph 3.10).

GRAPH 3.10
SURPLUS LIQUIDITY IN A 6-MONTH LIQUIDITY STRESS SCENARIO



References:
Hardy, D., and Schmieder, C. (2010), Rules of Thumb for Bank Solvency Stress Testing, International Monetary Fund WP/232/13
Loretan, M., and English, W. (2000), Special feature: Evaluating changes in correlations during periods of high market volatility, BIS Quarterly Review, June 2000

Box 3.1: Credit Risk Model

In macroprudential stress testing, satellite models serve the purpose of establishing a connection between macroeconomic factors and banking sector variables. Specifically, in the credit risk model, we employ empirical estimation to develop a parsimonious model that links macroeconomic variables to a measure of the probability of default (PD). The projected PDs under baseline and adverse scenarios are used to generate NPLs and loan loss provisions for the horizon of the stress test – three years in our case – which are fed into the calculation of capital adequacy ratios under baseline and adverse scenarios. The estimation of the credit risk model is based on 64 quarters of data from Q1-2007 to Q4-2022.

Dependent Variable

Our dependent variable for credit risk is a measure of PD or default rate (DR). It is calculated as a ratio of new NPLs during four recent quarters (t-3 to t) to the initial stock of NPLs (at time t-4) . As a measure of credit risk, a flow variable (e.g., default rate, new NPLs) is preferable over a stock variable like NPLs or NPL ratio. This is because the stock of NPLs is a legacy variable that contains NPLs accumulated over time. Moreover, changes in NPLs do not necessarily reflect changes in credit risk. For instance, a decrease in NPLs could be due to write-offs, which depend on the write-off policy. Due to data limitations, the model is estimated using the aggregate data of the entire credit portfolio instead of separate estimations for different economic sectors.

Explanatory Variables

A battery of macroeconomic variables that may have a bearing on debt servicing capacity or default rate (DR) was considered as potential candidates for explanatory variables for estimation. These variables include changes in oil, real GDP growth, lending rates , inflation, and stock market returns. Real GDP data is available only at an annual frequency. Therefore, the annual data was interpolated into quarterly data. The real GDP growth was subsequently calculated as the YoY growth rate.

Estimation of Model

Using the time series of default rate (DR) as the dependent variable and a set of macroeconomic variables as explanatory variables, the DR was modeled as a function of macroeconomic developments as follows:

$$DR_t = \beta_X * X_{t-L} + \varepsilon_t, \quad \text{for } t=1,\dots,T$$

Where, DR_t is the probability of default for the banking sector at time t, X^t is a vector of macroeconomic variables the sub-index L denotes time lags, and. ε_t is an iid error term. Several specifications were tested and the final model was chosen based on economic intuition (correct signs), statistical and economic significance, and overall fitness of the model. The final model included oil price growth, lagged lending rates, and lagged real GDP growth. The default rate is negatively related to growth in oil prices and real GDP growth, whereas it is positively related to lending rates. The observed relationship is consistent with the literature. The estimation results are given in Table 3.1.1.

Table 3.1.1:

VARIABLES	Default Rate
Oil Price Growth	0.00213-*
	(0.0011)
Lending Ratest1-	0.239***
	(0.0510)
Real GDP Growtht4-	0.0491-***
	(0.0153)
Constant	0.000772
	(0.0028)
Observations	64
R-squared	0.286
Standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.1	

Box 3.2: Assumptions underlying the deposits cash outflow rates/HQLA haircuts of basline and adverse senarios

Deposits Outflow			
Retail Deposits (Customer Deposits):	**Regulatory LCR**	**Scenario 1**	**Scenario 2**
Demand Deposits + Term Deposits with residual maturity upto 30 days			
...Stable deposits (deposit insurance scheme meets addl criteria)	3.0%	4.5%	6.0%
- Stable Deposits	5.0%	7.5%	10.0%
- Less Stable retail Deposits	10.0%	15.0%	20.0%
Term Deposits with residual maturity of more than 30 days	0.0%	0.0%	0.0%
Unsecured Wholesale Funding:			
Demand and term deposits (less than 30 days) -stable deposits	5.0%	7.5%	10.0%
Less Stable deposits	10.0%	15.0%	20.0%
Non financial corporates, sovereigns,central banks and PSE	40.0%	40.0%	40.0%
…If entire portion covered by deposit insurance	20.0%	20.0%	20.0%
Cooperative banks in an institutional network (qualifying deposits with with the centralised institution)	25.0%		
Other legal entity customers	100.0%	100.0%	100.0%
Operational deposits generated by clearing, custody and cash management activities	25.0%	37.5%	50.0%
…..Portion covered by deposit insurance	5.0%	7.5%	10.0%
HQLA haircuts			
Level 1 assets:			
Coins and bank notes	100.0%	100.0%	100.0%
Qualifying central bank reserves	100.0%	100.0%	100.0%
Qualifying marketable securities from sovereigns,central banks, PSEs and multilateral development banks	100.0%	95.0%	90.0%
Domestic sovereign or Central Bank debt for non%0- risk weighted sovereigns	100.0%	95.0%	90.0%
Level 2 assets:			
Sovereign,CB,PSE, multilateral development banks assets (qualifying for %20 risk weighing)	85.0%	80.0%	75.0%
Qualifying Corporate debt securities AA- or higher	85.0%	80.0%	75.0%
Qualifying Covered bonds AA- or higher	85.0%	80.0%	75.0%
Level 3 assets:			
Qualifying corporate debt securities, rated between A+ and BBB-	50.0%	50.0%	50.0%
Qualifying common equity shares	50.0%	50.0%	50.0%

Box 3.3: Assumptions underlying the cash inflows/outflows rates rates under adverse senarios

Segment	Type	Factor value
Cash on Hand	Inflows	100%
Deposits with CBO	Inflows	100%
Balances due from HO/Affiliates/Branches	Inflows	100%
Balances due from Other Banks	Inflows	100%
Investments	Inflows	80%
Bills of Exchange and Promissory Notes	Inflows	100%
Overdrafts	Inflows	0%
Loans and Advances	Inflows	0%
Non Performing Loans	Inflows	0%
Fixed Assets	Inflows	0%
Net Inter-branch Transactions	Inflows	0%
Accrued Interest	Inflows	100%
Other Assets	Inflows	100%
Spot and Forward Purchases	Inflows	100%
Swaps	Inflows	100%
Options	Inflows	0%
Reverse Repos	Inflows	50%
Committed Lines of Credit	Inflows	50%
Current Deposits	Outflow	20%
Saving Deposits	Outflow	20%
Time Deposits	Outflow	20%
Other Deposits	Outflow	20%
Balances due to HO/Affiliates/Branches	Outflow	0%
Balances due to Other Banks	Outflow	100%
Certificate of Deposits	Outflow	0%
Other Borrowings	Outflow	20%
Net Inter-branch Transactions	Outflow	0%
Bills Payable	Outflow	0%
Interest Payable	Outflow	100%
Prov. other than for Loan Losses and Dep.in Invts.	Outflow	0%
Other Liabilities	Outflow	100%
Spot and Forward Sales	Outflow	100%
Swaps	Outflow	100%
Options	Outflow	0%
Repos	Outflow	0%
Letters of Credit/Guarantees/Acceptances	Outflow	5%
Committed Lines of Credit	Outflow	5%
Unutilized portion of Overdraft and Loans and Advances	Outflow	5%

نتقدم بثقة
Moving Forward
with Confidence

رؤية عُمان 2040
OmanVision