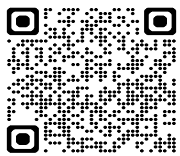
State Bank of Pakistan

Financial Stability Review 2023



Financial Stability Review

2023

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State Bank of Pakistan

Financial Stability Review

Annual Report
For the year 2023
of the Board of Directors of State Bank of Pakistan

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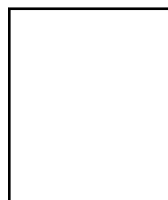

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Data Convention and Coverage

The FSR 2023 uses CY for the Calendar Year, FY for the Fiscal Year (starting in July of a CY and ending in June of the following CY), Q1-Q4 for the four quarters of the corresponding CY or FY and H1-H2 for the two halves of a CY or FY, as the case may be. Exact dates are given in long form (e.g., November 29, 2021) while specific months are given in short form (e.g., September 2021).

The review is generally based on the data reported in the unaudited or audited accounts (where available) of financial institutions for different components as follows:

- Banking sector (conventional and Islamic banks), Development Finance Institutions (DFIs), Microfinance Banks (MFBs) and Payment System are based on un-audited financial statements reported to SBP through Quarterly Reporting Chart of Accounts (RCOA) and various other returns.
- Non-Bank Financial Institutions (NBFIs) is based on monthly reports submitted to Securities & Exchange Commission of Pakistan (SECP) through Specialized Companies Return System (SCRS) and data extracted from the website of Mutual Funds Association of Pakistan (MUFAP).
- Insurance and Takaful companies is based on audited and un-audited financial statements extracted from the insurers' websites and regulatory returns submitted to SECP.

The data pertaining to the corporate sector has been obtained from SECP, SBP, PSX, Bloomberg and the financial statements of companies.

Governor's Message

After a sharp rebound in 2021 from Covid-19 pandemic, the global economic growth decelerated in 2022 and the trend continued in 2023 as well. The moderation reflects strong inflationary pressures and the consequent tightening of monetary policy stance across a number of advanced as well as emerging and developing economies. Nonetheless, tighter policy stance coupled with softening consumer demand, recovery in global supply chains and receding commodity prices put inflation on a falling trajectory in 2023 from its peak in 2022. However, the vulnerabilities that emerged in the wake of tighter monetary and financial conditions contributed to the banking sector turmoil in a couple of advanced economies in March 2023. The timely interventions by authorities, however, helped contain a widespread contagion and preserved the stability of global financial system.

Developing economies also faced pressures on several fronts, including higher debt-servicing costs and debt sustainability concerns. The increased frequency of geo-political tensions, especially the emergence of Middle East conflict and Red Sea disturbances, posed risks of supply-chain disruptions in global trade that could have implications for investors' sentiments and global financial markets.

Domestic economy continued to face some unprecedented economic challenges, particularly on the external front. Inflation touched a multi-decade high during CY23, affecting the purchasing power of households. Concomitantly, weak inflows kept external account under pressure, which translated into pressure on domestic currency. To respond to these challenges, SBP continued to implement tough but needed policy and regulatory interventions, including timely monetary and exchange rate policies along with other demand-management measures. Besides, SBP introduced reforms in exchange companies sector to improve transparency in the foreign exchange market. These stabilization measures have begun to yield desired results. Inflation is gradually coming down from its May 2023 peak; domestic currency has held ground and appreciated towards the end of CY23; and the macro-economy is on a recovery path. However, to put the economy on a sustainable growth path and address internal and external imbalances, it is imperative for the government to implement much needed structural reforms, including fiscal consolidation and broadening of tax base, achieving debt sustainability, and improving productivity and export competitiveness.

Despite tough economic conditions, the financial system remained resilient in 2023. Particularly, the banking sector, which contributes around 80 percent of the financial sector's assets, continued the provisioning of financial services, facilitated payments, exhibited steady performance and maintained its financial soundness. Assets of the banks recorded a notable expansion, which was mainly driven by investments, largely in government securities, reflecting the inadequate external financing and tax revenues that increased government's reliance on domestic sources of finance during CY23. However, the growth in advances moderated. Though deposit mobilization revived, banks also relied on borrowings to fund the asset growth. Nonetheless, banks' earning remained healthy on the back of increased volume of earning assets amid prevailing high interest rate environment.

The risks to financial stability that seemed relatively elevated at the start of the year subsided as the year progressed. The credit risk profile of the banking sector manifested no serious concerns due to adequate provisioning coverage of non-performing loans, though the infection ratio slightly inched up by end CY23, mainly due to moderation in the growth of advances. Solvency indicators such as capital adequacy ratio (CAR) of the banking sector improved further, largely on the back of higher earnings. The ratio remains well above the global standard as well as domestic minimum regulatory requirements.

SBP regularly conducts stress testing of the banking sector to assess its resilience against various hypothetical adverse scenarios. As per the latest assessment, the banking sector is expected to remain resilient to various hypothetical, severe but plausible, shocks over the projected horizon of three years and is expected to maintain its compliance with minimum capital adequacy requirements. As regards the key emerging risks, given the rising frequency of climate-related events in Pakistan and their likely impact on the banking sector, SBP has been incorporating the climate -related risks in its annual stress testing exercises. This year's FSR also includes a detailed 'Climate Risk Scenario Analysis' to assess the potential impacts of both physical and transition risks for the stability of banking sector of Pakistan.

The central bank is also actively engaged with all stakeholders to cater to the banking needs of under-served segments, especially SMEs, agriculture sector, and female clientele. The central bank is working to increase financial inclusion in the country by encouraging the usage of digital means to provide formal financial services to the unserved sections of the society. A significant progress has been made on the introduction and adoption of digital financial platforms in CY23. For instance, in-principle approvals were granted to five digital banks, and SBP's instant payment system, Raast, continued its growth momentum, with its outreach exceeding 34 million users. The introduction of new functionalities such as person-to-merchant (P2M) platform are expected to further boost adoption of this free instant payment system. Encouragingly, overseas Pakistanis increased their footprint as the gross inflows to Roshan Digital Accounts (RDA) have crossed US$ 7 billion, while the number of expatriates with active RDAs exceeded 650,000 in 2023.

SBP remains vigilant to the evolving economic and financial environment and stands ready to take necessary measures to effectively address the emerging risks to financial stability and support the continuation of financial services and flow of credit to the economy. I am pleased to mention that, in order to smoothly navigate the emerging challenges and to capitalize on potential opportunities posed by ever changing economic and financial landscape, SBP has set out its future trajectory with the launch of a five-year Strategic Plan, i.e., SBP Vision 2028. The Vision delineates strategic goals and activities and aspires to focus on five cross-cutting themes, viz., strategic communication, climate change, technological innovation, diversity and inclusion, and productivity and competitiveness to attain the statutory objectives in an effective and efficient manner. We are fully committed to transforming this vision into reality so that SBP is recognized as a credible, dynamic, and independent central bank with a high caliber team, committed to meaningfully contribute towards improving the well-being of the people of Pakistan.

Jameel Ahmad

The Overview

The Overview

The financial sector of Pakistan continued to navigate smoothly through a challenging macroeconomic environment in 2023, complicated by the post pandemic spike in global inflation and idiosyncratic factors like flash flooding, internal and external imbalances, and structural issues that necessitated stabilization measures and reforms. The asset base of the financial sector expanded by 27.0 percent in CY23 as compared to 18.6 percent growth in previous year. Accordingly, financial depth—in terms of assets to GDP ratio—inched up to 65.5 percent during the reviewed year (**Table 1**).

The global economy, despite continued interest rate hikes to address higher inflation, has been resilient as evident from the soft landing against recession concerns earlier. The global output grew by 3.2 percent in CY23 (3.5 percent in CY22) while global headline inflation fell to 6.8 percent in the year under review from 8.7 percent a year earlier.[1] However, major central banks (e.g., Federal Reserve, ECB, and BoE) maintained a cautious monetary policy stance during CY23 to contain the risks of inflation. Nonetheless, global financial conditions eased since April 2023 in the wake of optimism about economic prospects amidst continued disinflation and consequent expectations of reversal in policy rates in advanced economies (AEs) as equity valuations also rose.[2] Although banking turmoil in the US and Switzerland created global financial stability concerns momentarily, the timely interventions from authorities helped global financial markets weather the stress.

On domestic front, lagged impact of supply shocks, resultant high inflation and effects of stabilization policies that were compounded by chronic structural issues,[3] kept the economy under stress, particularly in earlier part of the year. As a result, real GDP *contracted* by 0.1 percent in CY23 compared to 4.6 percent growth in CY22.[4]

Assets Composition of the Financial Sector — Table 1

	CY21	CY22	CY23
Assets - billion Rupees			
MFBs	582	753	771
DFIs	539	1,431	2,338
NBFIs	2,023	2,563	3,447
Insurance	2,147	2,580	2,949
CDNS	3,884	3,390	3,179
Banks	30,058	35,796	46,364
Total	**39,234**	**46,513**	**59,048**
YoY Growth in Assets (percent)			
MFBs	17.8	29.4	2.4
DFIs	22.6	165.7	63.3
NBFIs	19.0	26.7	34.5
Insurance	10.7	20.2	14.3
CDNS	-8.5	-12.7	-6.2
Banks	19.6	19.1	29.5
Overall Financial Sector	**15.6**	**18.6**	**27.0**
Percent Share in Total Assets			
MFBs	1.5	1.6	1.3
DFIs	1.4	3.1	4.0
NBFIs	5.2	5.5	5.8
Insurance	5.5	5.5	5.0
CDNS	9.9	7.3	5.4
Banks	76.6	77.0	78.5
Assets as a Percent of GDP			
MFBs	1.0	1.1	0.9
DFIs	0.9	2.0	2.6
NBFIs	3.6	3.6	3.8
Insurance	3.8	3.6	3.3
CDNS	6.8	4.7	3.5
Banks	52.9	50.1	51.5
Overall Assets	**69.0**	**65.2**	**65.5**

Sources: SBP, SECP, CDNS & PBS

Macro-financial conditions in fact presented a mixed picture during CY23; facing a deterioration in H1CY23, the conditions started to show signs of some improvements in latter half of the year. Price pressures continued in the first half as average CPI increased by 33.0 percent, prompting SBP to further raise policy

[1] IMF (2024). World Economic Outlook. April.
[2] IMF (2023). Global Financial Stability Report. October
[3] Key structural issues include, inter-alia, low levels of private savings and investment, tax to GDP ratio, productivity growth, exports competitiveness, and global investment flows, and policy uncertainty.
[4] Industry and Services sectors output *contracted* by 4.7 percent and 0.6 percent, respectively, while agriculture output grew by 5.1 percent in CY23.

rate by 600 basis points (bps) in H1CY23. Delay in completion of 9th review under IMF's EFF, weak external financing inflows and external debt repayments pressures kept SBP's FX reserves under stress. Resultantly, local currency depreciated by 20.8 percent against the USD in the first half of CY23. Tight macro-financial conditions and high economic policy uncertainty in turn dampened business confidence[5] and economic activity.[6] In this backdrop, Moody's and Fitch downgraded Pakistan's credit rating during February 2023.

Additionally, high global interest rates and elevated country risk premium proved to be a major barrier to tapping international markets during H1CY23 for meeting external financing needs.

The second half of CY23, however, witnessed moderation in economic stress owing to a number of favorable developments. For instance, securing a nine-month **SBA** with the IMF in July 2023 helped address immediate external sector stability concerns.[7] Also, economic growth started to recover, mainly driven by strong agriculture output. Moreover, administrative and regulatory measures against speculative activity in the FX and commodity markets beefed-up market sentiments. These developments were manifested in receding economic policy uncertainty and improving Business Confidence Index (**BCI**) (**see Chapter 1**).[8]

Domestic financial markets experienced elevated volatility during CY23, mostly driven by the FX and equity markets. Despite material improvement in current account balance, domestic currency remained under strain amid debt repayments pressures and contained financial inflows. Nonetheless, administrative and regulatory measures in the FX market and IMF-SBA program helped contain volatility during H2CY23. Equity market—after witnessing subdued performance in first half—surged in second half of the year. Exchange rate stability, expectations of softening in monetary policy stance as reflected in secondary market yield curve, and moderation in political uncertainty primarily lifted investor confidence. Money market continued to operate smoothly as a rebound in deposits and OMOs injections kept volatility in money market low (**see Chapter 2)**.

The **banking sector,** which contributes a lion's share of 79 percent in total assets of the financial sector, remained resilient with adequate capital and maintained a strong growth trajectory during CY23. The asset base expanded by 29.5 percent—highest in two decades. The growth in assets was primarily driven by investments in government securities, reflecting an increased reliance of the government on banking sector to finance fiscal deficit. Banks' exposure to government reached 60.6 percent of the asset base in December 2023. In the wake of tight macro-financial conditions, overall growth in advances decelerated to 3.0 percent (16.8 percent in CY22). Within overall advances, domestic private sector advances witnessed a contraction of 2.4 percent in CY23 as compared to 16.4 percent growth in CY22. The expansion of balance sheet footing was mainly funded by deposits, which grew at a 20-year high rate of 24.2 percent due to, inter alia, high rate of return. The reliance on borrowing from financial institutions also remained high.

The credit risk profile of the banking sector did not present serious concerns in the reviewed year due to low level of delinquencies and adequate provisioning coverage against non-performing loans (NPLs). Baseline indicators i.e., NPLs to loans ratio marginally increased to 7.6 percent by end December 23 from 7.3 percent in CY22, reflecting mainly the moderation in growth of banks' advances. Nonetheless, with provisions to NPLs ratio at 92.7 percent, the

[5] Business Confidence Index (BCI) declined to 36.5 in April 2023, lowest since its inception in 2017
[6] Large Scale Manufacturing (LSM) index showed average contraction of 17.3 percent in H1CY23.
[7] Monetary Policy Statement, July 2023, State Bank of Pakistan
[8] BCI increased to 53.0 in December 2023. It entered in positive zone after remaining in negative territory for 14 consecutive waves

residual risks to solvency remained muted. It deserves an emphasis that the composition of banks' lending portfolio reflects a conservative approach in terms of credit worthiness of borrowers. Particularly, a major part of the loan portfolio comprises financing to borrowers who generally have better credit worthiness and established business track record, i.e., around 65 percent of corporate credit portfolio consists of firms rated by independent credit rating agencies.

As regards market risk, banks' exposure to movements in currency and equity prices remained contained due to a prudent regulatory regime as well as conservative approach on the part of banks. However, interest rate risk has emerged as an important market risk factor due to two reasons: one, historic levels of monetary policy tightening; two, investment of more than 50 percent of banks' assets in government securities, which are subject to mark-to-market revaluation. Encouragingly though, banks have displayed resilience to the revaluation losses resulting from a rise in interest rate in CY23. Moreover, banks—in order to mitigate interest rate risk -- have been increasing share of floating rate PIBs in their investment portfolio.[9]

With further deployment of funds in government securities, banking sector was able to maintain adequate liquidity cushions during CY23. This was evident by sector's compliance with Basel-III liquidity standards such as Liquidity Coverage Ratio (**LCR**) and Net Stable Funding Ratio (**NSFR**) by ample margins.

Earnings of the banking sector witnessed significant growth, mainly backed by high interest rates and expansion in earning assets. After-tax Return on Assets (ROA) rose to 1.6 percent (1.0 percent in CY22), and after-tax Return on Equity (ROE) increased to 27.1 percent (16.9 percent in CY22). The tax expense as percentage of pre-tax profit of the banks has, however, been increasing over time: 33.7 percent in 2014 to 43.9 percent in 2019 and 50.1 percent in 2023. This rising charge tends to, inter alia, reduce sector's ability to generate further capital buffers for unforeseen shocks as well as for investments in technology.

The solvency indicators of the banking sector, such as Capital Adequacy Ratio (**CAR**), ticked in at 19.7 percent in CY23 – well above the minimum regulatory requirement of 11.5 percent. Higher earnings, revaluation gains (in Q4CY24) and slow growth in risk-weighted assets contributed to the improvement in CAR. In the wake of rising overall exposure of banks on public sector, the leverage ratio (**LR**) declined to 4.0 percent at end CY23 from 5.1 percent in CY18, but it still remains above the regulatory benchmark of 3 percent. However, the steadily increasing public sector exposure on banks' balance sheet bears implications for the effectiveness of intermediation process and productive capacity of the economy by leaving less of the surplus savings for the private sector credit **(see Chapter 3).**

Islamic Banking Institutions (IBIs) continued to maintain their growth momentum as well as sound financial position during CY23. Asset base expanded by 24.4 percent (29.6 percent in CY22), chiefly on the back of investments while growth in financing decelerated to 7.1 percent in CY23 (19.9 percent in CY22). In the backdrop of a robust deposit growth of 30.8 percent and deceleration in financing, IBIs borrowings declined. Asset quality indicators were within comfortable levels. With strong earnings, IBIs contributed over one third in the overall banking sector's after-tax profits. Solvency position further improved indicating enhanced resilience of IBIs **(see Box 3.1 in Chapter 3).**

The **Microfinance banks (MFBs)** have been facing challenges for past few years now. The legacy of pandemic shock, catastrophic flooding of CY22 and recent unfavorable macroeconomic conditions continued to keep MFBs under

[9] The combined share of floating rate portfolio in their government securities in available for sale (AFS) and held-for-trading (HFT) categories increased to 63.9 percent by end of December 2023 from around 58.3 percent as at end December 2022.

pressure. In CY23, sector's expansion was the lowest whereas NPL ratio remained stable at 6.7 percent. However, provisioning coverage increased to 102.3 percent from 78.7 percent in CY22.[10]

The sector continued to witness losses for the fifth consecutive year, though the magnitude of losses was lower in CY23. Aggregate CAR of the sector dropped further to 7.6 percent in CY23 from 10.9 percent in CY22 – against the regulatory requirement of 15 percent. The sector, contributing only 1.3 percent in the financial sector, poses no systemic risk; nonetheless, it is playing an important role in financial inclusion by catering to low-income segment of the society. Accordingly, SBP continued its enhanced supervisory focus on the sector. As the sector was severely hit by heavy floods of 2022, several schemes were also introduced to contain the impact of shock on farmers as well as MFBs **(see Chapter 5)**.

Non-Bank Financial Sector showed healthy performance during CY23. **Development Finance Institutions (DFIs)** managed to grow at a robust pace of 63.5 percent in CY23. The balance sheet expansion was almost entirely driven by the investments in government securities while advances increased slightly. The uptick in assets was funded through borrowing. Asset quality indicators also manifested limited concern. Also after-tax earnings rose by 43.4 percent, whereas solvency position further improved during CY23. DFIs that are mainly focusing on money market activities and investments due to a number of constraints on long-term financing and allied products, may need to focus on developing and enhancing their investment banking capabilities and making concerted efforts to increase sustainable long-term financing for capital formation in the economy (**see Chapter 6.1).**

The asset base of **NBFIs** surged by 34.5 percent against 26.7 percent expansion in previous year. Mutual funds, having 64.7 percent share in NBFI assets, primarily drove-up the growth. Money market and income funds (both conventional and Islamic) mainly contributed in funds' growth while contribution from equity market funds remained marginal. On the contrary, the lending segment, which holds 10.4 percent share in total assets, expanded by only 2.4 percent (21.6 percent growth in CY22), reflecting the impact of high interest rates and subdued economic activity (**see Chapter 6.2**).

The **Insurance sector** witnessed growth in assets and gross premium, despite slowdown in economic activity. The sector is dominated by life insurance, which registered a growth of 19.5 percent in terms of assets, mainly due to investment in fixed income securities in the context of high interest rate environment. The non-life sector also posted an uptick on the back of healthy growth in premiums in the fire and property damage and motor segments (**see Chapter 6.2)**.

The Financial Market Infrastructures (FMIs) manifested robust performance and steady operational resilience during CY23. Retail transactions increased at a significant pace both in value and volume terms. *e*-banking—with a share of 86 percent and 43 percent, respectively, in volume and value —continued to drive growth in retail payments. The volume of paper based transactions, however, moderated. The large value payment segment has also witnessed a robust growth. Nonetheless, cyber security risk has become critical with the growing role of *e*-banking. In this regard, SBP has rolled out a detailed set of guidelines to enhance security of digital banking products and services.

Raast continued its functioning without any major interruption throughout the year. Importantly, SBP moved to implement the third phase of Raast, viz., person-to-merchant (P2M) mode, to facilitate digital payment acceptance for merchants and businesses. In addition, ATM

[10] Provision increased mainly in 'General Provisions' category, reflecting implementation of IFRS 9 and prudence amid economic slowdown.

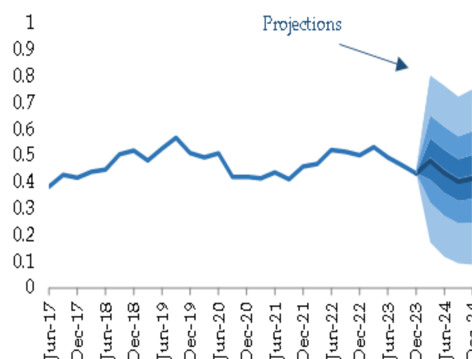
downtime reduced to a five-year low of 3.6 percent in CY23 (**see Chapter 8**).

The **Non-Financial Corporate Sector** exhibited resilience in its operational and financial performance, even in the face of a challenging economic environment that was marked by high inflation, contractionary economic policies, depressed demand and high finance cost during CY23.[11] The firms with surplus liquidity and equity investment in particular benefited from dividend and mark-up income. The impact of unfavorable macroeconomic environment was visible on sales of certain sectors such as automobile and fuel & energy, while other sectors (e.g., textile, cements, sugar, and chemicals & pharmaceutical) posted decent growth in sales.

Profitability and repayment capacity of the highly-leveraged segments came under some stress, however, solvency indicators, repayment capacity and behavior of the overall corporate sector remained satisfactory. Besides, analysis of top 30 borrowing groups of the banking sector indicates that although stressed economic conditions put pressures on their operating results, top borrowing firms continued to maintain adequate credit worthiness and satisfactorily served their financial obligations during the year under review **(see Chapter 7 and Box 7.1).**

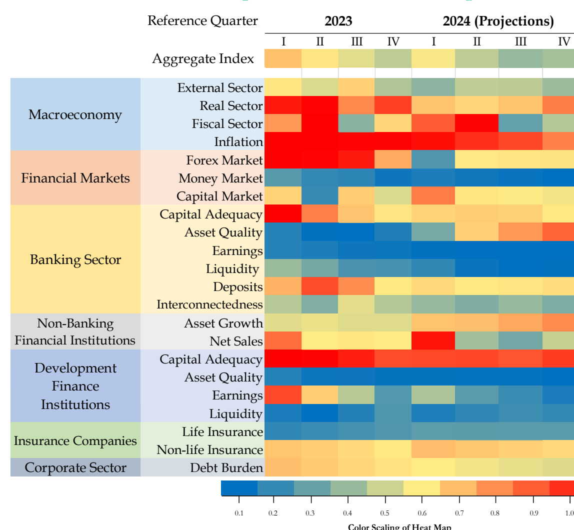
The **consolidated picture** of the state of financial stability, captured via Financial Sector Vulnerability Index (**FSVI**), reveals that risks—after growing in Q1CY23—subsided afterwards (**see Figure 1A and 1B**). Several factors contributed in reducing the magnitude of vulnerabilities. These included the finalization of SBA program from IMF, administrative and regulatory measures in FX and commodity markets, keeping policy rate unchanged at 22 percent since July 2023, announcement of general elections, and strong agriculture output.

Financial Sector Vulnerability Index (FSVI) Figure 1A



Source: SBP Staff Estimates

Financial Sector Heat Map Figure 1B



Source: SBP Staff Estimates

Risks to financial stability are expected to abate down the road. On global front, trend in international commodity prices has generally remained favorable. Nonetheless, risks to the commodity price outlook remain material, emanating from developments in the Middle East conflict, including shipping disruptions in the Red Sea. A sudden escalation in the conflict could potentially push-up the commodity prices, leading to challenges for the external sector of the economy and domestic inflation.

[11] Analysis is based on the set of financial and market price data of large 100 listed firms that has been used as proxy for the performance of overall corporate sector.

On domestic front, macroeconomic stress continues to moderate. National-CPI inflation has declined to 12.6 percent (YoY) in June 2024 from 29.7 percent in December 2023. Moreover, manufacturing activity, proxied by LSM index, manifested marginal growth of 0.4 percent during Jul-Apr FY24 against a 8.8 percent *contraction* in the corresponding period of previous year. Narrowing trade deficit continues to keep current account balance concerns under check. SBP's FX reserves have stabilized at USD 8.5 billion[12] and local currency remains largely stable against the US dollar. With ebbing policy uncertainty, business confidence index is in positive zone since December 2023. This is also manifested in historically high level of KSE-100 index during June 2024.[13]

The information gleaned from the market participants in January 2024 through SBP Systemic Risk Survey (**SRS**) also suggests declining macroeconomic risks (e.g., exchange rate risk, inflation, and fiscal deficit) in next six months. (**see Box 1 on SBP's Systemic Risk Survey**).

Besides, a peaceful political transition and successful staff-level agreement on the second and final review of the 9-month SBA by end April 2024 are welcome developments and suggest an improving outlook.

Despite nascent signs of macroeconomic stability, downside risks to financial stability may resurface. Inflation, though receding, still remains elevated and is susceptible to upside risks emanating from budgetary measures and potential adjustments in energy prices.[14] Also, a policy rate remaining higher-for-longer may have ramifications for the private sector credit demand, asset quality of the banks, especially of MFBs, and economic recovery. Particularly, delay in negotiating a new IMF loan program may induce external funding risks, creating concern for financial stability. In addition, political stability remains crucial in underpinning a resilient economic recovery.

The banking sector, in the face of such macro-financial risks, is expected to sail smoothly owing to robust risk management capabilities, sufficient capital and liquidity buffers built over the years under SBP's prudent regulatory regime. This view is supported by latest stress test results which suggest that the banking sector has adequate resilience to withstand the severe but plausible macro-financial shocks, as its capital adequacy ratio remains significantly higher than both domestic and global benchmarks of capital adequacy in the medium term (**see Chapter 4**).

Given the rising frequency of climate related events in Pakistan and their likely impact on the banking sector, SBP has been incorporating the impacts of climate -related risks in its annual macro stress testing exercise. In this regard, this year's FSR includes a 'Climate Risk Scenario Analysis' to assess the potential impacts of both physical and transition risks for the stability of banking sector of Pakistan (**see Box 4.1**).

With contained exposure in SMEs and consumer segments as well as a conservative lending approach towards corporate borrowers, banks are less likely to experience significant strain on asset quality and earnings. Encouragingly, banks' earnings are likely to remain healthy, supported by interest income from lending to corporate sector and government coupled with non-interest income that may also be augmented by increase in economic activity.

Keeping in view the rapidly evolving dynamics of risks to financial stability, SBP continued to proactively strengthen its regulatory and supervisory regime. In CY23, SBP conducted one Crisis Simulation Exercise (**CSE**)—with the collaboration of the World Bank —to test its preparedness to deal with financial crisis. SBP also developed a Supervisory Assessment

[12] The average of Jan-May CY24
[13] KSE-100 index surged to 78,810 on June 21, 2024
[14] Monetary Policy Statement, June 2024, State Bank of Pakistan.

Manual (**SAM**) with respect to implementation of IFRS-9. Another critical policy initiative by SBP has been to introduce structural reforms in the Exchange Companies (**ECs**) sector to improve the quality of governance, internal controls and compliance with laws and regulations.

In pursuance of Federal Shariat Court's judgement on Riba, SBP in collaboration with federal government and other stakeholders is actively working for the implementation of the judgment. In this regard, a multi-pronged approach under the guidance of a high-level Committee for Transformation has been adopted. This includes review of existing domestic laws and comparison with international best practices, assessment of existing regulatory framework, awareness sessions for Islamic banking and finance, and capacity building of stakeholders.[15]

Furthermore, SBP took several measures pertaining to digital financial services, financial inclusion, consumer protection and Anti-Money Laundering and Combating the Financing of Terrorism (**AML/ CFT**) during the reviewed year (**see Appendix A**).

Going forward, overall risks to financial stability appear to be manageable due to moderating macroeconomic stress, banking sector's buffers and risk management capabilities as well as SBP's continued supervisory and regulatory vigilance. However, policy continuity on structural reforms remains critical for a sustained improvement in country's macroeconomic fundamentals and resilience of the financial sector to withstand adverse shocks.

Box 1: SBP's Systemic Risk Survey – 13th Wave (January 2024)

SBP conducted the 13th wave of its biannual Systemic Risk Survey (SRS) in January 2024. The survey aims to capture the perceptions of market participants about various risks and their confidence in the stability of financial system. The survey is designed to gauge the present and near term (over the next six months) perceptions of the respondents across five broad categories, including, global, macroeconomic, financial markets, institutional, and general.

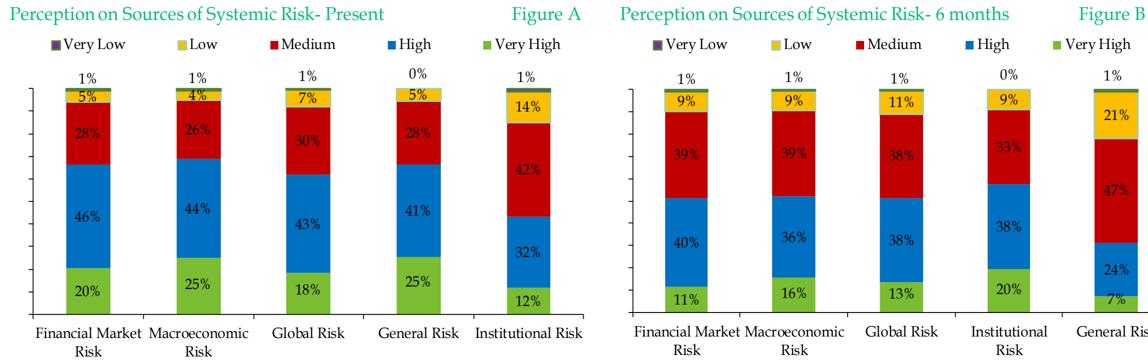
The respondents of the current edition of the SRS covered a broad spectrum of stakeholders, including senior executives of financial institutions, financial journalist, and others. In all, ninety-two respondents took part in the current wave as compared to ninety-eight in July 2023 wave, with a response rate of 44 percent.

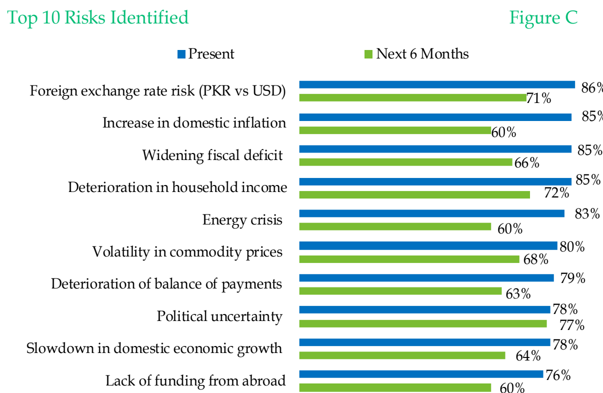
Summary of Results:

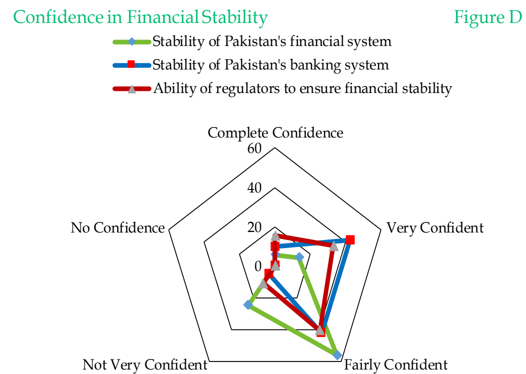
1. The responses reveal that the respondents, on aggregate, perceive vulnerabilities sourced from "*Financial Market*", "*Macroeconomic*", and "*Global*" as the major risks to the financial system (**Figure A**). Over the period of next six months, risk perceptions regarding these categories are expected to remain high (**Figure B**).
2. In terms of key risks at present, top five risks (in decreasing order) are those coming from "*Foreign Exchange*", "*Domestic Inflation", "Widening Fiscal Deficit*", "*Deterioration in Household Income"* and "*Energy Crises*". Over the next six months, risk perceptions regarding these categories are expected to ease in general (**Figure C**).
3. Regarding the stability of the financial system of Pakistan, the respondents seem to repose confidence in the system. However, the majority of the respondents demonstrated strong confidence on the stability of the banking system. Moreover, the participants of the survey also showed confidence on the ability of regulators to ensure the stability of the financial system (**Figure D**).
4. Comparison among the last three waves (11th, 12th, and 13th wave) indicates that the risk perception has improved across the majority of the risk categories. A significant improvement in risk perception was seen in

[15] For details see Box 3.2: SBP's Strategy to transform the banking sector to Islamic mode – key challenges and opportunities in FSR 2022.

"*sovereign default*", "*slowdown in global growth*", "*sovereign rating downgrade*", and "*interest rate*". On the other hand, risk perception deteriorated for "*natural disasters/increasing threat of climate change*", "*geopolitical risk for Pakistan*", and "*cyber security*" (**Figure E).**







Comparison of SBP's Systemic Risk Survey (SRS) Results (11th, 12th and 13th waves)

Figure E

	Risk Categories	11th Wave (Jan-23) Present (Average)	12th Wave (Jul-23) Present (Average)	13th Wave (Jan-24) Present (Average)
Global	Slowdown in global growth	2.17	2.50	2.46
	Sovereign default	2.38	2.68	2.78
	Lack of funding from abroad	1.93	1.89	1.97
	Volatility in commodity prices	1.82	2.06	1.89
Macroeconomic	Slowdown in domestic growth	2.00	1.93	2.00
	Increase in domestic inflation	1.67	1.69	1.82
	Widening fiscal deficit	1.79	1.89	1.82
	Deterioration of BoP	1.74	1.90	1.89
	Sovereign rating downgrade	1.98	2.17	2.26
	Slowdown in corporate sector growth	2.22	2.06	2.27
	Slowdown in infrastructure development	2.52	2.51	2.52
	Deterioration in household savings	1.91	1.85	1.82
	Volatility in real estate prices	2.69	2.81	2.80
	Energy crisis	1.73	1.97	1.89
	Political uncertainty	1.75	1.70	1.84
Financial Market	Foreign exchange rate	1.54	1.64	1.74
	Equity price	2.33	2.44	2.61
	Interest rate	1.93	1.97	2.13
	Liquidity	2.15	2.16	2.34

	Risk Categories	11th Wave (Jan-23) Present (Average)	12th Wave (Jul-23) Present (Average)	13th Wave (Jan-24) Present (Average)
Institutional	Regulatory	2.67	2.70	2.63
	Legal	2.91	2.82	2.88
	Asset quality deterioration	2.29	2.31	2.20
	Shortfall in capital requirement	2.39	2.44	2.45
	Access to funding (deposit mobilization & borrowings)	2.63	2.79	2.64
	Excessive private sector credit	2.62	2.74	2.78
	Concentration risk in PSC	2.63	2.81	2.74
	Concentration risk in mutual fund	3.06	3.07	3.07
	Operational	2.76	2.79	2.70
	Cyber security	2.34	2.38	2.21
	Disruption in financial market	2.61	2.66	2.72
General	Terrorism	2.41	2.55	2.34
	Geopolitical	2.21	2.26	2.08
	Natural disasters/ Increasing threat of climate change	2.34	2.11	2.18
	Social unrest	2.29	2.22	2.24

Scale: 1 Very High — 3 Medium — 5 Very Low

Global and Domestic Developments

1

Global economy continued to decelerate in CY23 owing to tight monetary policy, low investments, and weak trade growth while global inflation declined on account of softening demand, recovery in supply chains and moderating commodity prices. Although major central banks in Advanced Economies (AEs) kept a tight monetary policy course, overall global financial conditions eased in CY23, primarily due to expectations of interest rate cuts and higher equity valuations. Public debt continued to improve in AEs but remained elevated in Emerging and Developing Economies (EMDEs). The on-going conflicts in Middle East and Europe are the most important prevailing risk factors for the global economy. On domestic front, the long standing structural issues were compounded by the lagged impact of supply shocks, macroeconomic imbalances, and political uncertainty. Macroeconomic conditions started to improve in H2CY23, as with a resumption of multilateral financing, the FX reserves improved, risk premium moderated, exchange rate stabilized and, amid softening demand, the current account improved. Backed by positive developments, inflation moderated while signs of economic recovery emerged in the second half of CY23.

1 Global and Domestic Developments

1.1 Global Economic Dynamics

Global economic activity continued to decelerate in CY23…

The global economic growth continued to recede for another year, manifesting the impact of a tight monetary policy stance in the context of elevated inflation levels, low investment, and weak trade growth.[1] The growth moderated to 3.2 percent in CY23 from 3.5 percent in CY22 (**Table 1.1**).

The slowdown was mainly driven by moderating economic momentum in Advanced Economies (AEs) to 1.6 percent from 2.6 percent in CY22. Among AEs, the UK and Euro Area experienced a sharp deceleration in growth. In Europe, consumer spending and manufacturing activity remained subdued due to higher energy prices and interest rates. However, despite a tight monetary policy environment, the US maintained a strong growth trajectory owing to an expansionary fiscal policy and robust consumer spending.

Emerging and Developing Economies (EMDEs), especially EMDEs-Asia, nonetheless, continued to propel the global growth at a steady pace. Robust economic activity in Asia, notably India and China, contributed towards overall growth in EMDEs. Fast-paced expansion in India was largely driven by robust growth in investment and services. In case of China—despite soft consumer spending and contraction in the property sector—post COVID recovery helped spur economic activity to 5.2 percent GDP growth in CY23 as compared to 3.0 percent in CY22.

Global Economy: Real GDP Growth — **Table 1.1**

percent

	2021	2022	2023	2024*	2025*
World	6.2	3.5	3.2	3.2	3.2
Advanced Economies	5.4	2.6	1.6	1.7	1.8
EMDEs	6.7	4.1	4.3	4.2	4.2
EMDEs - Asia	7.4	4.5	5.6	5.2	4.9
USA	5.8	1.9	2.5	2.7	1.9
Euro Area	5.3	3.4	0.4	0.8	1.5
GCC	3.8	7.8	0.5	2.7	4.6
UK	8.7	4.3	0.1	0.5	1.5
Japan	2.6	1.0	1.9	0.9	1.0
China	8.5	3.0	5.2	4.6	4.1
Türkiye	11.4	5.5	4.5	3.1	3.2
India	9.7	7.0	7.8	6.8	6.5
Russia	6.0	-1.2	3.6	3.2	1.8
Saudi Arabia	5.1	7.5	-0.8	2.6	6.0
United Arab Emirates	4.4	7.9	3.4	3.5	4.2
Pakistan (FY)	5.8	6.2	-0.2	2.0	3.5

*IMF Projections

Source: International Monetary Fund

The Gulf Cooperation Council (GCC), an important destination for exports and a source of remittance flows for Pakistan, experienced a pronounced downturn and registered a muted growth of 0.5 percent in CY23. This was owing to oil production cuts (especially in Saudi Arabia). The non-oil activity, however, remained robust in these economies based on moderating inflation and supportive fiscal policies.[2]

… along with weak trade growth

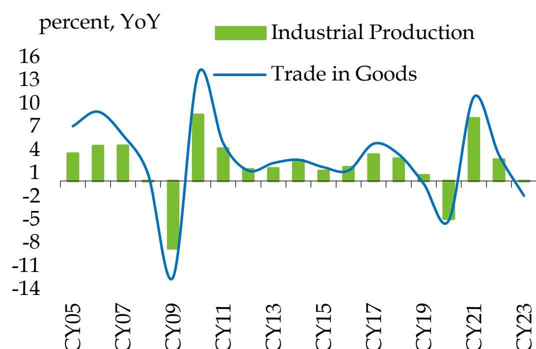
Importantly, barring the global financial crisis (GFC) of 2007-08 and pandemic shock, the global trade observed the sharpest slowdown during CY23 **(Figure 1.1).** This was owing to a weak global demand and more restrictive trade policies. Reflecting intensifying trade fragmentations, the number of trade restrictions

[1] World Bank. (2024). Global Economic Prospects. Washington, January

[2] International Monetary Fund. (2024). Regional Economic Outlook (Middle East and Central Asia). Washington, January

significantly increased to 3,000 in CY23; nearly three times the corresponding figure in 2019.[3]

Growth of Global Trade and Industrial Production **Figure 1.1**



Source: CPB Netherlands Bureau for Economic Policy Analysis

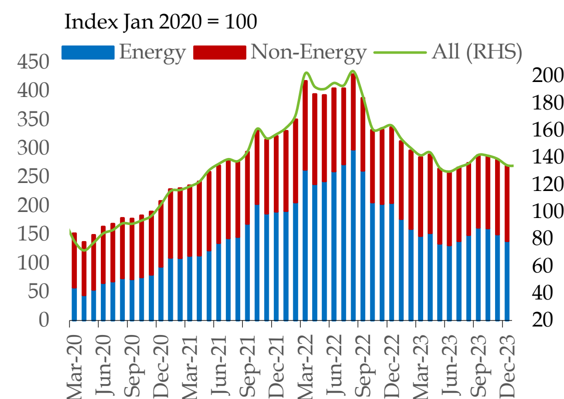
After surpassing multi decade high level last year, inflationary pressures eased during CY23

Global headline inflation fell to 6.8 percent in CY23 from 8.7 percent in the previous year. Several factors contributed to this ease in inflationary pressure including softening consumer demand in the wake of tight monetary policy stance, recovery in global supply chains and moderating commodity prices. Barring an interim surge in energy prices in second half of CY23, international commodity prices witnessed a fairly consistent decline during CY23; albeit remaining above the pre-pandemic levels **(Figure 1.2)**. Despite this temporary surge; that can be attributed to oil production cuts by OPEC+ and the Middle East conflict, average energy prices fell by 35.1 percent in CY23.

Non-energy prices, mainly represented by food and metals, also depicted moderating trend by registering a decline of 5.3 percent in CY23. Improved supply conditions in major crops and weak demand in major economies respectively explain the decline in food and metals prices in CY23.

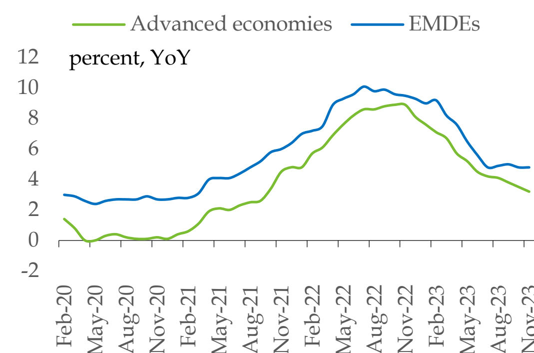
It is noteworthy that although overall global inflationary pressure substantially declined, the levels in general remained above the targets set by most of the advanced countries. Nonetheless, half of the countries in the EMDEs group witnessed inflationary pressures subsiding below their targets **(Figure 1.3)**.

International Commodity Prices Index **Figure 1.2**



Source: World Bank

Consumer Price Inflation **Figure 1.3**



Note: Data represents median headline inflation
Source: World Bank

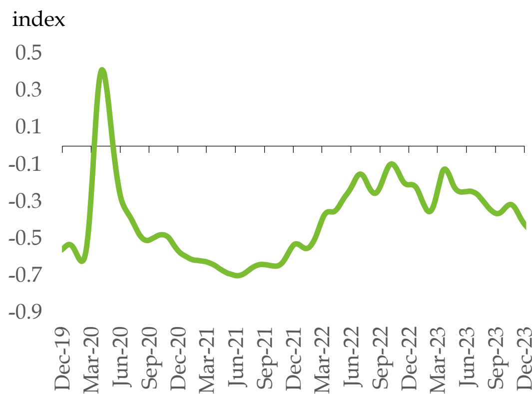
Despite tight monetary policy of major central banks in AEs, global financial conditions eased markedly in CY23

In order to bring down inflation to their respective targets, major central banks in AEs maintained a tight monetary policy stance. However, global financial conditions eased substantially after first quarter of CY23 **(Figure 1.4)**. This was primarily due to high expectations

[3] International Monetary Fund. (2024). World Economic Outlook: A Rocky Recovery. Washington, January.

of a reversal in key policy rates amidst softening inflationary pressures. Besides, higher equity valuations and lower stock volatility supported improvement in financial conditions.

Financial Conditions Index **Figure 1.4**

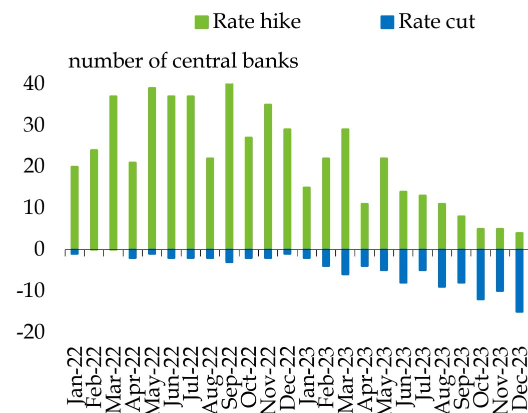


Source: fredhelp.stlouisfed.org

It is important to note that unlike central banks in AEs, certain emerging market economies, having achieved inflation targets, moved to cut policy rates during CY23. Among advanced economy central banks, the Federal Reserve and European Central Bank (ECB) adopted remarkably aggressive policy stance. As a result of tight financial conditions in the US and other vulnerabilities that were exposed by sudden change in macroeconomic conditions in the wake of the pandemic, certain banks in the US turned insolvent triggering global financial stability concerns in March 2023 (**for further details, see Box 1.1).** However, timely policy actions helped avoiding any further spread of contagion to USA and global financial system.

Analysis[4] of the monetary policy across the world reveals that during the first three quarters of CY23, 145 rate hikes and 51 policy rate cuts were observed, indicating a tight policy stance. However, the trend reversed during the last quarter in which 14 rate hikes and 37 rate cuts were observed. This accommodative monetary policy stance was majorly adopted by EMDEs while the most of the advanced economy central banks continued their tighter stance to signal their commitment to attaining inflation targets and anchor inflation expectations (**Figure 1.5**). The widening of interest rate differentials triggered capital outflow[5] from EMDEs and strengthened the AE currencies, especially the US dollar.[6]

Central Banks' Policy Rate Decisions **Figure 1.5**



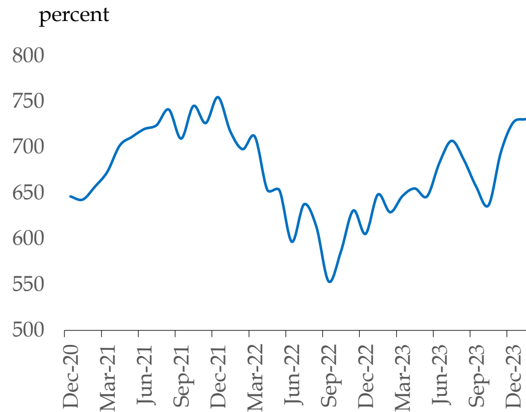
Source: CBrates.com

Global equity prices rebounded in CY23

Global equity markets manifested bullish sentiment as evidenced by a 20.0 percent rebound in the global equity price index in CY23. This was in contrast to the marked decline in valuations last year. Improved risk sentiments in AEs primarily drove up the equity indices. Although upbeat sentiment largely prevailed among AEs in CY23, equity prices observed a short-lived steep decline during October 2023 due to increased uncertainty in the wake of conflict in the Middle East **(Figure 1.6)**.[7]

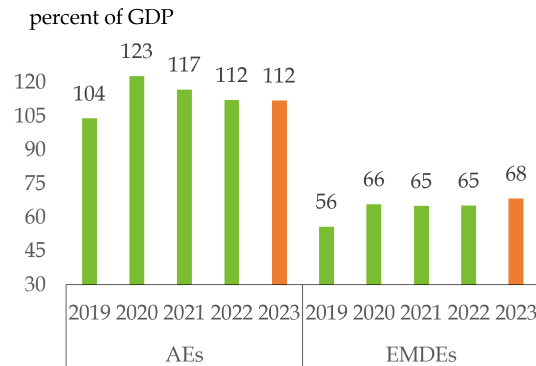
[4] Analysis is based on data listed on Cbrates.com.
[5] World Bank. (2024). Global Economic Prospects. Washington, January
[6] Around one-fifth of EMDEs- with weak credit rating- observed a substantial (30 percent) depreciation during 2023.
[7] Crude oil and Natural gas prices increased significantly. IMF Blog December 01, 2023.

Global Equity Price Index **Figure 1.6**



Source: Bloomberg

General Government Debt **Figure 1.7**



Note: 2023 represents projections of IMF.
Source: International Monetary Fund

Sovereign debt level remained contained in AEs but grew further in EMDEs

Sovereign debt levels increased substantially during the pandemic as governments around the world aggressively responded to mitigate the impacts of pandemic. However, after 2020, public debt continued to improve in AEs though still higher than pre pandemic level. The debt remained at elevated levels in EMDEs. The debt-to-GDP ratio in EMDEs increased to 68.3 percent at the end of CY23 from 65.3 percent at the end of CY22 **(Figure 1.7)**.[8] Besides idiosyncratic issues faced by these economies (e.g., fiscal constraints), depreciation of EMDEs' currencies against USD also played role.

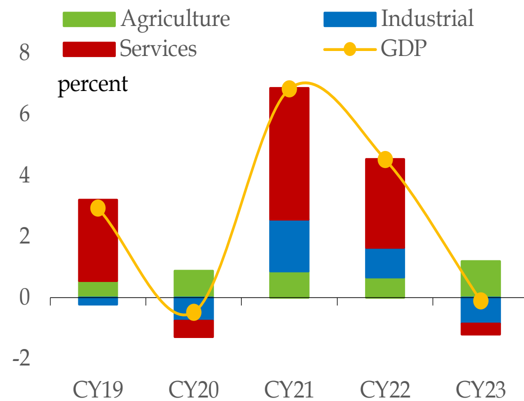
1.2 Domestic Economic Developments

A host of factors contributed to sub-optimal economic growth in CY23 …

Pakistan's economy experienced a challenging macroeconomic environment during CY23. Confluence of long standing structural issues,[9] the lagged impact of supply shocks, internal and external imbalances, the shocks to country risk premium and sentiments of economic agents and tight monetary policy to counter inflationary pressures, led to a sharp deceleration of GDP growth. The real GDP *contracted* by 0.1 percent in CY23 compared to a growth of 4.5 percent in CY22.[10] The slump in GDP was mainly attributable to industrial and services sectors, while a robust performance of agriculture sector helped contain the overall slowdown in economic activity **(Table 1.2, Figure 1.8).**

[8] Public debt increased to USD 24.9 trillion in September 2023 from USD 22.8 trillion in same period last year. Source: BIS Data Portal
[9] Key structural issues include low levels of private savings and investment, tax to GDP ratio, productivity growth, exports, and global investment flows.
[10] In terms of fiscal year (FY), real GDP growth declined from 6.2 percent in FY22 to -0.2 percent in FY23. Calendar year estimates of GDP provided in Table 1.2 are based on Quarterly NIA data recently released by PBS.

GDP Growth and Sectoral Contributions **Figure 1.8**

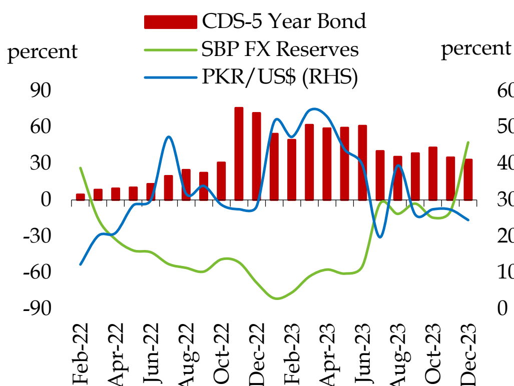


Source: Pakistan Bureau of Statistics

…particularly, the first half was marked by multidecade high inflation, and a sharp rupee depreciation…

Within CY23, first half remained particularly challenging. Political uncertainty, delays in IMF's stabilization program and low FX reserves led to a substantial rise in country risk premium and culminated into a considerable pressure on domestic currency (**Figure 1.9**). A sizeable currency depreciation precluded the trickle down of overall ease in global commodity prices (**Figure 1.2**) to domestic inflation outcomes. At the same time, the elevated risk premium restricted the country's access to global financial markets despite a broad easing of global financial conditions (**Figure 1.4**).

Credit Default Swap and YoY Change in SBP Reserves, and Exchange Rate **Figure 1.9**



Source: State Bank of Pakistan and Bloomberg

Key Economic Indicators of Pakistan* **Table 1.2**

	CY19	CY20	CY21	CY22	CY23
Real Sector			(percent)		
Real GDP Growth	2.9	-0.5	6.8	4.5	-0.1
Industrial Sector Growth	-1.2	-4.1	9.0	5.1	-4.7
Agricultural Sector Growth	2.4	3.7	3.8	3.0	5.1
Service Sector Growth	4.6	-0.9	7.4	4.9	-0.6
LSM Growth (Average YoY)	1.9	-9.7	14.7	6.7	-9.8
Inflation (Average YoY)	9.4	9.5	9.5	19.7	30.9
External Sector			(billion US dollars)		
SBP Reserves (End-of-Period)	11.3	13.4	17.7	5.6	8.2
Current Account Balance	-8.6	-0.7	-12.3	-12.2	-0.4
Exports (Goods & Services)	30.7	27.3	35.6	39.0	36.4
Imports (Goods & Services)	58.0	52.1	76.5	76.6	57.8
Remittances	22.1	25.9	31.1	29.9	26.4
PKR/USD Rate (End-of-Period)	154.8	159.8	176.5	226.4	281.9
Fiscal Sector			(percent)		
Fiscal Deficit (as % of GDP, FY)	-8.9	-8.1	-7.1	-7.9	-7.8
Revenue Growth (YoY)	12.3	10.1	17.5	16.9	34.3
Expenditure Growth (YoY)	18.9	9.4	11.3	31.1	30.3
Monetary Sector			(percent and trillion Rupees)		
Credit to Private Sector (YoY)	3.8	4.5	19.6	13.4	-1.1
Financing	3.4	3.5	3.6	5.6	7.2
Domestic	2.7	2.7	1.7	5.7	7.0
External	0.7	0.8	1.9	-0.1	0.2

*All data are on Calendar Year basis unless stated otherwise.

Source: Ministry of Finance, Pakistan Bureau of Statistics and State Bank of Pakistan

Coupled with the lagged impact of floods of CY22, administrative adjustments in prices of some commodities, and substantial currency depreciation translated into a multi-decade high level of inflation; necessitating appropriately tight monetary policy stance to tame inflation and anchor expectations.

Further, administrative measures to temporarily restrict imports in order to ease pressure on external account were introduced in CY22 and continued till H1CY23. The limited availability of imported inputs compounded the effects of supply bottlenecks and negatively affected growth while pushing up inflation. Against this backdrop, the LSM *contracted* by 17.3 percent during H1CY23, on average, while average CPI inflation reached 33.0 percent (**Figure 1.10**). The H2CY23, however, witnessed not only the recovery of manufacturing activity but moderation of inflation as well.

Large Scale Manufacturing **Figure 1.10**

Source: Pakistan Bureau of Statistics

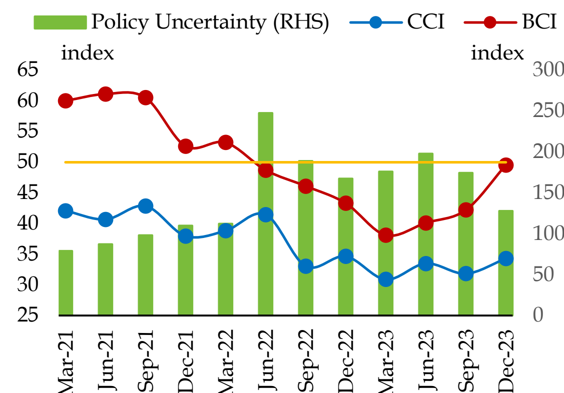
…however, macroeconomic environment improved in the latter half of CY23.

Macroeconomic environment moderately improved in H2CY23. The improvement was evident in the recovery of business confidence index (BCI), reduction in policy uncertainty, decline in risk premium and stability in exchange rate (**Figure 1.11**). As a result of these positive developments, and the favourable base effect, the average inflation declined to 28.8 percent (33.0 percent in H1CY23) and LSM contracted by 0.9 percent in H2CY23 (*negative* 17.3 percent in H1CY23).

External account posted substantial improvement amid reduced domestic demand and softening in global commodity prices

Due to subdued economic activity, stabilization policies, prioritization of essential imports during H1CY23 and ease in global commodity prices, import bill observed a significant compression. Imports of goods and services declined substantially to USD 57.8 billion in CY23 from USD 76.6 billion in CY22, representing a fall of 24.5 percent.

Consumer and Business Confidence **Figure 1.11**



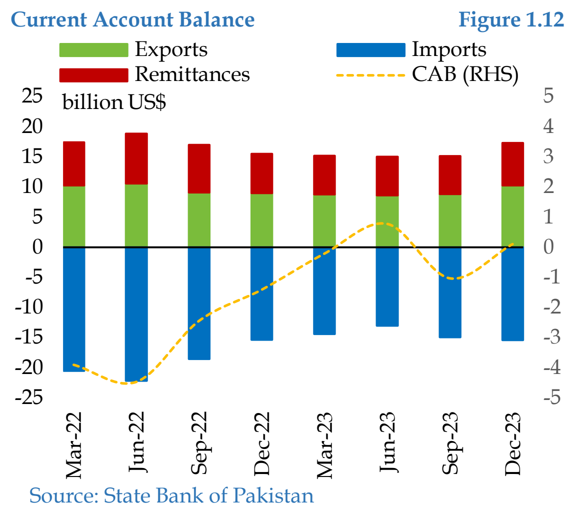
Source: State Bank of Pakistan and PolicyUncertainty.com

Amidst slowdown in global economic activity, particularly in Pakistan's major export destinations, supply chain disruptions affecting imported raw materials, high production costs, and continued impact of losses to agriculture produce due to flood-induced damages, the exports contracted as well. The exports of goods and services declined by 6.5 percent, from USD 39.0 billion in CY22 to USD 36.4 billion in CY23.

Remittances, the second largest source of foreign exchange, also contracted by 11.8 percent to USD 26.4 billion in CY23 from USD 29.9 billion in CY22. This decline in remittances was attributed to slowdown in advanced economies, higher spread between open market and interbank exchange rates especially in Q3CY23, and the gradual normalization of air travel following the pandemic.

However, on a positive note, the decline in imports outweighed the contraction in exports and remittances, leading to an improvement in current account balance, which posted a deficit of merely USD 0.4 billion in CY23 compared to a deficit of USD 12.2 billion in CY22 **(Table 1.2 & Figure 1.12)**.

Current Account Balance **Figure 1.12**



Source: State Bank of Pakistan

Pressures on domestic currency mounted in H1 but eased in the second half

In the first half of CY23, FX reserves—already ebbing— further decreased by USD 1.1 billion due to timely repayments of external debt and lower-than-expected official and bilateral inflows, amid delays in completion of 9th review of the IMF Extended Fund Facility (EFF) program. Low level of FX reserves coupled with domestic uncertainty adversely impacted investor confidence and translated into downgrade in the country's credit rating.[11] Additionally, tight monetary policy in AEs and elevated country risk premium kept it challenging to borrow from commercial sources.

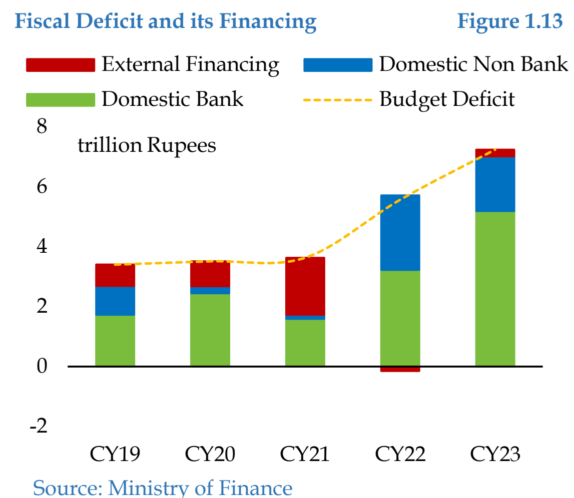
These developments exerted pressure on the domestic currency and the average monthly exchange rate depreciated by 24.4 percent in first nine months of CY23.

However, partly driven by the successful completion of the 9th review of the IMF EFF, SBP's FX reserves increased by USD 3.8 billion in H2CY23, compared to USD 1.1 billion decline in H1CY23. As a result of improvement in FX reserves and administrative measures to curb speculative demand for FX, stability in the FX market restored and average monthly exchange rate appreciated by 5.1 percent from PKR 297.7 per USD in September 2023 to PKR 283.3 per USD in December 2023.

Fiscal deficit continued its rising trend…

Fiscal deficit increased to Rs 7.2 trillion in CY23 from Rs 5.6 trillion in CY22, representing an annual increase of 30 percent. The major rise was owing to an increase in expenditures, which outweighed mobilization of revenues. Inadequate external financing flows forced the government to finance 97 percent of its deficit from domestic sources. Among domestic sources, banking sector financed 72 percent of the total budget deficit in CY23 **(Figure 1.13)**. (**for details see Chapter 3 on Banking sector**).

Fiscal Deficit and its Financing **Figure 1.13**



Source: Ministry of Finance

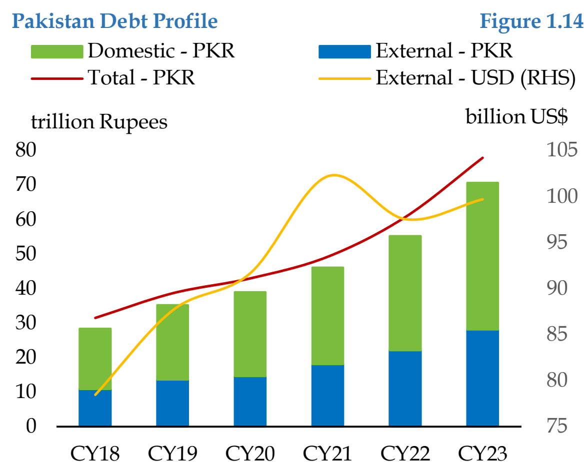
…leading to rise in public debt

Total public debt increased by 28.3 percent in CY23; up from 23.3 percent growth in CY22. The external debt, denominated in USD[12], increased by 2.2 percent, reaching USD 99.7 billion by the end of CY23. This modest rise in dollar denominated external debt was primarily due to low external financing and timely debt repayments in the first half of CY23. However,

[11] In February 2023, Moody's and Fitch downgraded the rating for Pakistan to Caa3 and CCC- respectively from Caa2 and CCC+.
[12] Includes Government debt from IMF and Foreign exchange liabilities.

in PKR terms, the external debt surged by 27.2 percent, due to the depreciation of the domestic currency **(Figure 1.14)**.

Pakistan Debt Profile **Figure 1.14**

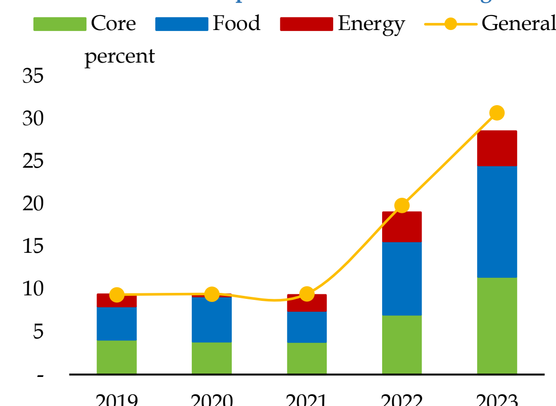


Source: State Bank of Pakistan

CY23 observed broad-based and multi-decade high inflation

Average national CPI inflation reached to 30.8 percent in CY23, up from 19.9 percent in CY22. With food sector being the main contributor, core and energy sectors also showed rising trends. Despite a notable contraction in domestic demand, the effects of escalating food and energy prices and currency depreciation trickled into inflation expectations and wages, driving core inflation up **(Figure 1.15)**.

CPI Inflation and Components **Figure 1.15**



Source: Pakistan Bureau of Statistics

Rising macroeconomic imbalances necessitated appropriate monetary policy response…

In response to elevated inflation and vulnerabilities in external sector, SBP continued its tight monetary policy stance. Subsequent to 900 bps rise in policy rate in CY22, policy rate was further increased by 600 bps to 22 percent in CY23. However, the entire increase in policy rate occurred in H1CY23 and policy rate was kept unchanged during H2CY23. With the implementation of effective monetary policy measures, YoY inflation decreased by 831 basis points to 29.7 percent in December 2023 from its peak of 38.0 percent in May 2023. [13]

…and confluence of stressed macro-financial conditions led to a deceleration in private sector credit growth…

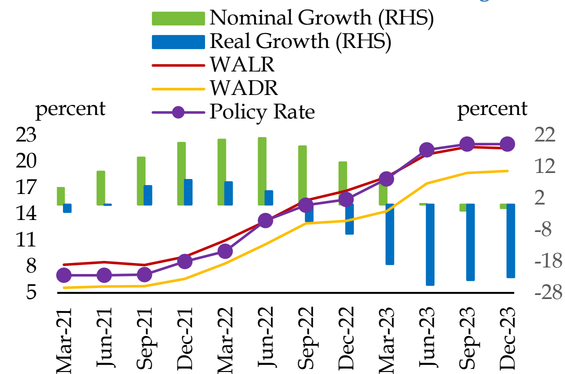
Private sector credit continued its decelerating trend, and even entered *negative* growth territory, during H2CY23. Similarly, inflation adjusted private sector credit *contracted* by 23.1 percent on YoY basis at the end of CY23 **(Figure 1.16)**.

The pronounced deceleration in private sector credit was driven by reduced economic activity

[13] Inflation continued its downward trajectory post-review period and declined to 23.1 percent in February 2023. However, monetary policy rate maintained status quo at 22 percent in March, 2024 amidst risks of any further adjustments in administered prices or fiscal measures that may weigh on inflation outlook.

owing to weak sentiments, higher borrowing costs, supply constraints amid import restrictions and administrative measures. On the supply side, banks' increased risk aversion towards lending to private sector in the wake of stressed macro-financial conditions and high government borrowing determined slowdown in private sector credit.

Interest Rates and Credit Growth **Figure 1.16**



WALR = Weighted Average Lending Rate, WADR = Weighted Average Deposit Rate
Source: State Bank of Pakistan

The contraction in private sector credit was particularly pronounced in the manufacturing, consumer finance, and energy sectors, among others. In an inflationary environment, the majority of financing was directed towards meeting working capital requirements and short-term financing needs.

…accordingly, banking sector exposure to government further increased

Due to the government's consistently increasing reliance on the banking sector for budgetary support, the exposure to the government further rose to 60.6 percent by December 2023 (55.8 percent in December 2022).

The banking sector, however, showed steady performance during the year. Its financial soundness indicators related to solvency, earnings, and liquidity showed improvement while asset quality indicators reflected a contained risk from delinquencies (**for details Chapter 3: The Banking Sector**).

Going forward

On global front, geopolitical tensions, trade fragmentations, and climate change are key risks to global growth. Rising geopolitical tensions create uncertainty and risks of surge in global commodity prices which could eventually translate into tighter financial conditions and may raise financial stability concerns.

With improvement in business confidence and reduction in country risk premium, domestic economic activity has started to recover while inflation is coming down. Current account deficit remains in check while fiscal consolidation is on track. These positive developments are setting the stage for a gradual recovery. To ensure sustainable growth and price stability, meaningful reforms in fiscal and energy and state-owned-enterprises are critically required.

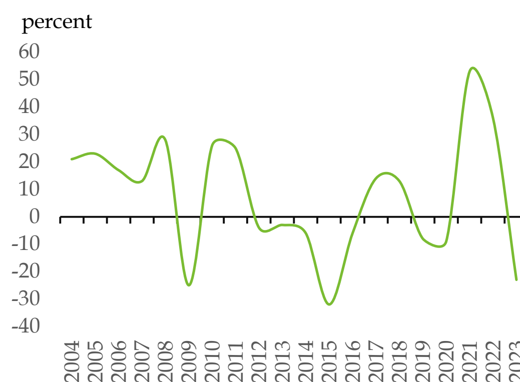
Alongside consistent pursuit of reforms agenda, economic outlook is also contingent upon availability of multilateral financing, political stability and movements in global commodity prices.

Box 1.1: Financial Stability Risks amid Rising Geopolitical Tensions and Changing Global Financial Conditions

In the past few years, the world has been increasingly exposed to distinct and complex challenges emanating from rapidly evolving global economic and geopolitical environment. In the wake of Covid-19, not only abundant liquidity and deep cuts in interest rates—driven by extraordinary monetary and fiscal stimuli—created financial fragilities[14] globally but also triggered questions about the resilience of complex supply chains.

Amid weak global economic conditions and enhanced financing needs of the governments during the pandemic, banks channeled ample deposits and liquidity mostly into risk free long-term securities[15] which exposed them to mark to market losses in case interest rates move-up. As the global economy navigated pandemic shock and manifested marked turnaround in 2021[16], inflationary pressures rapidly began to emerge showing the impact of post-pandemic recovery in demand and supply chain bottlenecks. Global commodity prices surged by 53.0 percent in 2021—highest increase since 2004 (**Figure 1.1.1**). Unlike emerging markets, most of the central banks in advanced economies, considering inflationary pressures transitory, kept monetary policy stance accommodative until towards the end of 2021.[17]

Global Commodity Price Index (YoY growth) **Figure 1.1.1**



Source: International Monetary Fund

In the early months of 2022, the outbreak of conflict between Russia and Ukraine not only reinforced global commodity prices[18] but also highlighted serious concerns over economic security driven by geopolitical dependence for critical goods. In the wake of uncertain evolution of the conflict and risk of entrenching inflation expectations, major central banks moved on monetary tightening course which was unprecedented in terms of magnitude and frequency. For example, Federal Reserve increased federal funds rate by 75 basis points in June 2022, the most aggressive tightening since 1994. [19,20] Also, European Central Bank (ECB) raised its key policy rates by 50 basis points in July 2022 for the first time in 11 years.[21] Moreover, Bank of England (BoE) raised its key interest rate by 325 basis points and 175 basis points, respectively in CY22 and CY23.

Global economic growth, as a result of multi-decade high inflation, tightened financial conditions, and conflict in Eastern Europe etc., fell to 3.5 percent in CY22.[22] Although global inflationary pressures moderated in CY23, central banks in AEs maintained a contractionary stance. The pace of global output expansion further slowed down to 3.2

[14] General government debts across AEs and EMDEs surged due to pandemic driven stimuli. Debt level soared to 123 percent of GDP in 2020 from 104 percent in 2019 in case of AEs (112 percent in 2023). EMDEs debt level jumped to 66 percent from 56 percent in 2019 (68 percent in 2023).
[15] For instance, American banks held USD 24 trillion in assets at the beginning of 2022. Around one fourth of the total assets was invested in securities, mostly Treasuries or mortgage backed bonds.
[16] Global output grew by 6.5 percent in 2021 as compared to contraction of 2.7 percent in 2020.
[17] Only Bank of England commenced monetary tightening in December 2021.
[18] The conflict further added pressure on prices because Russia and Ukraine are two key players in the global supply chain of various food and energy items
[19] https://www.cnbc.com/2022/06/15/fed-hikes-its-benchmark-interest-rate-by-three-quarters-of-a-point-the-biggest-increase-since-1994.html
[20] Cumulatively, federal funds rate increased by 425 bps in 2022 while 2023 observed another 75 bps rise reaching federal funds rate to 5.25 percent by end 2023.
[21] ECB raised its key interest rates by 200 bps in 2022 and 200 bps in 2023 reaching its main refinancing operation rate to 4.5 percent by end 2023.
[22] IMF. (2022). World Economic Outlook. *October*

percent in CY23, among others, increasing geo-economic fragmentation[23] and effects of monetary tightening, were major growth barriers.[24]

Besides remarkable pace of monetary tightening by major central banks; global economy is facing increasing risks of geo-economic fragmentation. This is evident from nearly threefold increase in trade restrictions between 2019 and 2022. The number of newly imposed trade barriers almost reached to 3,000—highest since 2010.[25] According to IMF, greater trade restrictions could shave global output by 7 percent in the long-term. In the backdrop of growing rivalry between the US and China, Covid-19 outbreak and Russia-Ukraine conflict, major economic powers are shifting towards "de-risking"[26] in order to preserve their critical infrastructure and supply chains.[27] CHIPs and Science Act of 2022[28] in the US and EU's new Economic Security Strategy[29] are a manifestation of changing global economic order.[30] World Trade Organization (WTO) maintains that international trade is gradually being aligned with geopolitical interests, a process called near-shoring/friend-shoring.[31]

Although risks to macroeconomic and financial stability stemming from geo-economic fragmentation appear to materialize gradually,[32] the sharpest pace of rate hike in four decades[33] by Federal Reserve exposed serious vulnerabilities among certain banks in the U.S. triggering global financial stability concerns during CY23. Within the span of one week during March 2023, three mid-sized banks failed in the U.S. Silicon Valley Bank (SVB)—16th largest lender in the US—rapidly came under stress owing to swift deposits withdrawal of USD 42 billion in a single day. SVB funding, that surged during pandemic, was concentrated in technology starts-ups, largely uninsured (i.e. above the USD250,000 threshold) while its assets were heavily invested in Held to Maturity (HTM) portfolio. In the wake of marked rise in interest rates and resultant expensive access to financing, SVB clients increasingly began to rely on their deposits amid liquidity pressures. Having faced with large deposits withdrawal, the bank sold USD 21 billion of its securities and suffered mark to market losses worth USD 1.8 billion. Deposits outflow further triggered owing to SVB's large exposure to interest rate risk and its announcement to raise capital to cover losses. Eventually, SVB was placed under the receivership of Federal Deposit Insurance Corporation (FDIC) on March 10, 2023.[34]

On March 12, 2023, Signature Bank—30th largest bank by deposits—also failed owing to run on its deposits .[35] Like SVB, 90 percent of its deposits were uninsured. Backed by SVB generated panic, the customers of Signature Bank

[23] According to WTO, geo-economic fragmentation refers to the turning away from the cooperative approach embedded in the current multilateral trading system towards more local and bloc-based trade and unilateral policies

[24] IMF. (2023). World Economic Outlook. *October*

[25] https://www.imf.org/en/Blogs/Articles/2023/08/28/the-high-cost-of-global-economic-fragmentation

[26] The process of managing the vulnerabilities generated by an interdependent world.

[27] According to McKinsey, amid the war between Russia and Ukraine, the share of global firms planning to regionalize their supply chain almost doubled to around 45 percent in 2022 against 2021.

[28] The Act aims to strengthen American manufacturing, supply chains, and national security, and invest in research and development, science and technology, and the workforce of the future to keep the United States the leader in the industries of tomorrow, including nanotechnology, clean energy, quantum computing, and artificial intelligence.

[29] Released in June 2023, the strategy would carry out thorough assessment of risks to economic security in four areas including resilience of supply chains, physical and cyber security of critical infrastructure, technology security and technology leakage, and risks of weaponization of economic dependencies or economic coercion

[30] https://www.centralbank.ie/news-media/press-releases/navigating-risks-geo-economic-fragmentation-remarks-vasileios-madouros-deputy-governor-1-september-2023

[31] WTO. (2023). World Trade Report: Re-globalization for a secure, inclusive and sustainable future

[32] It is because the share of global trade in world GDP—at 60 percent—remains relatively stable but signs of fragmentation are emerging in bilateral trade relations.

[33] https://www.economist.com/leaders/2023/03/16/whats-wrong-with-the-banks

[34] The latest information revealed by FDIC indicates that First–Citizens Bank & Trust Company agreed to buy all deposits and loans of Silicon Valley Bridge Bank.

[35] Flagstar Bank, National Association, Hicksville, New York, a wholly owned subsidiary of New York Community Bancorp, acquired almost all deposits (except approximately USD 4 billion of deposits related to digital-assets banking business) and certain loan portfolios of the Signature Bank.

started moving their deposits to large banks including JPMorgan Chase and Citigroup. The speed and magnitude of deposits outflow, in both cases, was unprecedented due to digital banking and social media networks of depositors.[36]

The failure of SVB and Signature Bank led to increased pressure on First Republic Bank, 14th largest by assets with 68 percent uninsured deposits. In Q1CY23, 41 percent deposits of the bank were withdrawn. Although, 11 biggest banks together provided USD 30 billion to shore-up finances of the First Republic during March 2023 but market sentiment didn't improve and the bank was eventually closed on May 01, 2023.[37] The failure of the Silvergate bank, one of the biggest banks dealing in cryptocurrency, was primarily driven by governance issues related to the collapse of crypto exchange-FTX. The bank experienced USD 8 billion deposits outflow during Q4CY22 and lost USD 1 billion in mark to market losses on sold debt securities, intended to be held to maturity, to cover deposit withdrawals.[38] The governance issues also made Credit Suisse—a Globally Systemically Important Bank (G-SIB) and 2nd largest bank in the Switzerland— to collapse during March 2023. Swiss Central bank raced to beef-up the liquidity by providing $54 billion but eventually UBS bank purchased the bank for about USD 3.25 billion

The banking turmoil in the U.S. underscored three key aspects.[39] First, the failed banks had funding concentration risk because they significantly relied on uninsured depositors.[40] These depositors responded quickly and in common way when stress emerged. Second, these banks were exposed to large revaluation losses, in the face of sharp rise in interest rates, as they had un-hedged long-term fixed rate debt securities. Third, poor interest rate risk management by banks along with less stringent regulatory regime for banks below the USD 250 billion asset threshold contributed to the crisis.[41]

Policies to ensure financial stability amid geopolitical risks:

Since geopolitical tensions could induce financial fragmentation[42], it is crucial to monitor the interaction between geopolitical risks and credit, market, liquidity and operational risks.[43] Moreover, supervisors need to develop a systematic approach to assess the transmission of geopolitical shock to the financial institutions. Countries that are highly exposed to geopolitical conflict must aim for strong buffer of international reserves should they experience sudden relocation of cross border capital flows. Also, large capital buffers at financial institutions could help mitigate such risks.

Lessons learnt from the banking turmoil in the U.S.:

- The crisis revealed that strong regulations makes for strong banks. Strong and consistent regulatory frameworks that strengthen capital ratios and risk management and mitigate the potential impact of vulnerabilities are critical for banks' resilience.
- The turmoil revealed that in times of rapid information flows, even a bank that is not considered to be a systemic bank, could still cause a lot of stress in the financial markets.
- The combination of high net worth depositors and investing a large chunk of assets in fixed rate (long-term) securities reveals that supervisors must be fully aware of banks' business models for a timely assessment of the emerging risks.

[36] Prior to SVB, the largest bank failure in US history was the failure of Washington Mutual, which experienced deposit outflows of around USD 28 billion in 39 days. On the contrary, SVB experienced a deposit outflow of more than USD 40 billion in single day and more than USD 100 billion was anticipated in queue for next day.
[37] JPMorgan Chase Bank, assumed all of the deposits and substantially all of the assets of First Republic Bank
[38] The bank was voluntarily liquidated on 08 March 2023 and the depositors were announced to be fully paid.
[39] Reserve Bank of Australia (2023). Financial Stability Review. *April*
[40] In the beginning of 2022, American banks held USD 19 trillion of total deposits—roughly half of them were not insured by FDIC
[41] The failed banks in the US were not considered systematically important one because their asset size was below the defined threshold. In America, such banks are exempted from maintaining and publicly reporting standard risk metrics like the Liquidity Coverage Ratio (LCR) or Net Stable Funding Ratio (NSFR).
[42] Financial fragmentation could increase banks funding cost, reduce profitability and trigger contraction in lending leading to adversely impact real economic activity.
[43] IMF. (2023). Global financial Stability Report. *April*

- Banks need to ensure that the capital positions, risk management and governance frameworks strengthen their resilience to prevail in uncertain and volatile environment.
- Bank supervisors needs to accurately comprehend evolving macrofinancial risks and ensure that banks adequately manage corresponding exposures and vulnerabilities
- It is essential that in times of stress, a regulator must have multiple policy choices to cater to dynamics of the situation.
- Finally, the unpreceded outflow of deposits driven by digital banking and social media interaction are posing a critical challenge for bank' liquidity management.

Pakistan's case:

Since the conflict between Russia and Ukraine further induced global commodity prices (e.g., oil and Liquefied Natural Gas) and contributed noticeably in tightening of global financial conditions, Pakistan faced challenging environment on external account front. The fresh conflict between Gaza and Israel involves risks of disruptions to global supply chains, as Middle East is a major international energy supplier, complicating macroeconomic stability landscape for Pakistan. In the wake of continued Red Sea disruptions, container shipping cost has risen sharply.[44]

In the context of potential strains on banking sector, the domestic banking sector of the country does not share unique balance sheet characteristics similar to the failed banks in the US The sector has remained sound and resilient under a robust regulatory and supervisory framework of SBP. The domestic banks, irrespective of their size[45], are required to recognize unrealized gains/losses (in their income and capital)[46] on the holdings of securities under Held for Trading (HFT) and Available for Sale (AFS) categories.[47] Moreover, banks investments in Held to Maturity (HTM) portfolio accounts for only 9 percent of the total investments. All the banks are subject to Basel-III framework which, inter alia, requires the internal capital adequacy planning process to cover all the potential risk and envisages stress testing as a key tool. SBP has also provided detailed guidelines on stress testing that cover both scenario (macro stress test) and single factor sensitivity analysis. It is noteworthy that the banking sector has adequate capital buffers to absorb severe shocks to market prices including interest rate risks — stress test results show that CAR would still remain above the regulatory requirement—including HTM portfolio.

On liability front, the domestic banks have stable funding base. In addition, Deposit Protection Corporation (DPC) has provided safety net by giving insurance cover up to Rs 500,000 to every depositor.[48] Under the DPC Act of 2016, presently 94 percent of the total depositors are fully protected.

[44] IMF. (2024). World Economic Outlook Update. *January*
[45] In the US, only very large banks must mark to market all of their bonds that are available for sale
[46] Unrealized gains/losses against HFT and AFS impact income and capital, respectively.
[47] As of end December 2023, banks' investments in AFS and HFT stood at 87 percent and 3 percent respectively of the total investments. Moreover, Banks' revaluation losses on government securities declined to PKR 126.7 billion by end December 2023 from PKR 235.8 billion a year before
[48] https://www.sbp.org.pk/press/2023/Pr-05-Oct-2023.pdf

2

Financial Markets' Behavior

Volatility in domestic financial markets remained elevated during CY23. The stress was driven by FX and equity markets. Despite material improvement in current account balance, PKR remained under pressure owing to political uncertainty, external debt re-payments and weak external financing. Nonetheless, demand containment measures coupled with administrative and regulatory measures in FX market as well as IMF SBA program helped contain volatility in the second half of CY23. Equity market—after remaining subdued—surged in H2CY23 owing to healthy emerging developments. Exchange rate stability, expectations of softening in monetary policy stance, and declining political uncertainty primarily lifted investors' confidence. Also, domestic equity market outperformed among regional group of countries during the year under review. Money market continued to operate smoothly under effective monetary operations. Despite strong government borrowings pressures on the banking sector, Overnight Repo Rate (ONR) remained tilted towards Revere Repo Rate. Substantial slowdown in private sector advances coupled with healthy deposit mobilization and OMOs injections kept ONR volatility at a lower level.

2 Financial Markets' Behavior

Global financial markets remained steady and witnessed lower volatility….

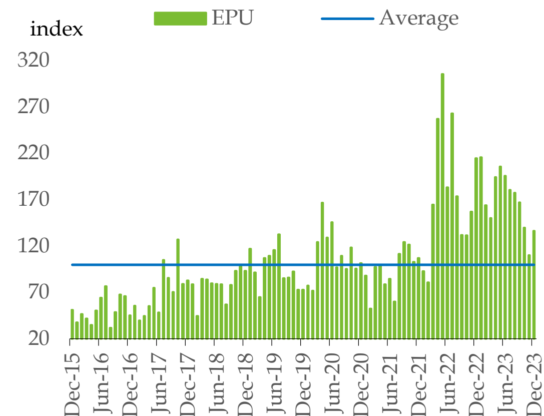
Global financial markets smoothly navigated banking turmoil in the US in the first half of CY23 and continued to exhibit relatively lower stress for most part of the CY23. Equity prices in the U.S., Euro area and Japan observed noticeable increase, while corporate credit spreads tightened.[1]

The lower volatility in financial markets was driven by increased investor expectations about softening in monetary policy stance by major central banks in advanced countries. Such upbeat expectations helped ease global financial conditions despite elevated interest rates as manifested in higher equity valuations. In emerging markets as well, higher equity valuations and expectations of a rate cut kept financial conditions easy during CY23.

Stress in domestic financial markets persisted, though the conditions improved towards the end of the year with the improvement in economic outlook …

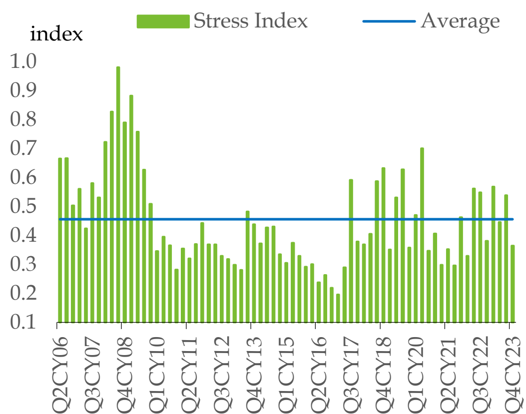
In the wake of weak economic conditions and challenging external account, overall stress in the domestic financial markets remained elevated during the reviewed year. Nonetheless, with the emergence of tentative signs of economic recovery and other upbeat developments like IMF SBA agreement during H2CY23, ebbing inflationary pressures, the economic outlook and market sentiments improved that was also reflected in an increase in business confidence index[2] and receding economic policy uncertainty (see **Figure 2.1**). Accordingly, strain in domestic financial markets moderated towards the end of CY23 (**Figure 2.2 and 2.3**).

Economic Policy Uncertainty Index **Figure 2.1**



Source: State Bank of Pakistan

Financial Markets Stress Index **Figure 2.2**



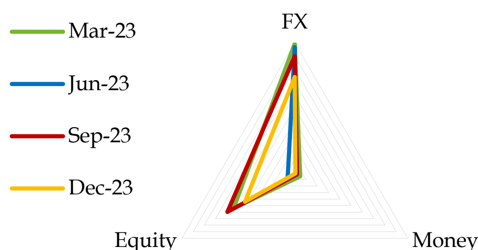
Source: SBP Staff Calculations

Within financial markets, FX market mainly contributed in the overall volatility followed by equity and money markets during CY23. The Rupee witnessed significant appreciation towards the end of the year, however, on YoY basis it depreciated against USD by another 19.7 percent during CY23 to reach Rs 281.9 per USD (22.0 percent in CY22) while KSE-100 index surged by 54.5 percent during CY23 compared to a decline of 9.4 percent in CY22. Money market witnessed bouts of volatility during

[1] IMF. (2023). Global Financial Stability Review. *October*
[2] BCI increased to 53.0 in December 2023; the highest level since June 2022

March 2023 and July 2023, however, it continued to function in an orderly manner due to SBP's effective monetary operations to ensure liquidity and keep the interest rates within the bounds of monetary policy.

Financial Markets Stability Map **Figure 2.3**



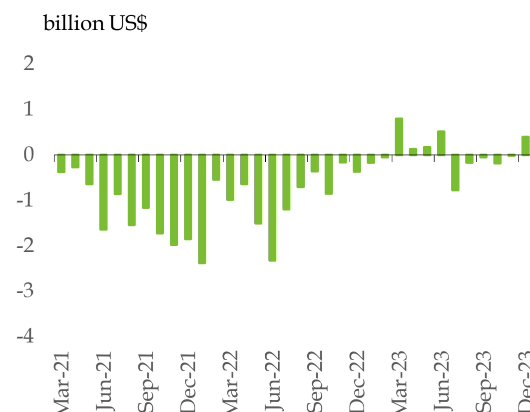
Note: Volatility in the respective markets is calculated using Exponential Weighted Moving Average (EWMA) method. Daily Overnight repo rate, KSE-100 index and Exchange Rate (PKR/US$) are used as indicators for the money, equity and foreign exchange markets, respectively.
Source: State Bank of Pakistan

2.1 FX Market

Despite material improvement in current account balance, FX market continued to remain volatile…

Current account balance, which underpinned a challenging macroeconomic environment in previous two years, exhibited noticeable improvement during CY23.[3] The current account shrank to USD 0.4 billion compared with a deficit of USD 12.2 billion in CY22 (**Figure 2.4**). A sizable import containment,[4] through demand management policies and regulatory measures coupled with remittances inflows, which though moderated during the year,[5] helped improve current account balance.

Trend in Current Account Balance **Figure 2.4**

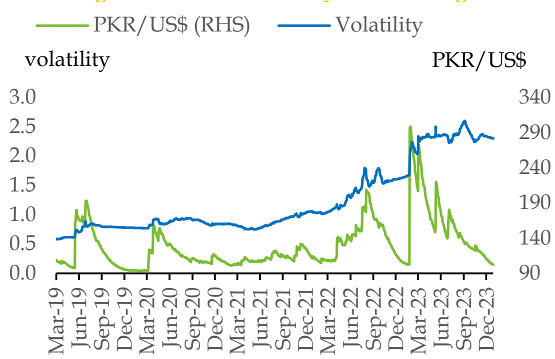


Source: State Bank of Pakistan

Nevertheless, Rupee volatility against USD, on average, remained higher in CY23 as compared to CY22 (**Figure 2.5**), as high external debt servicing and reduced financial inflows kept external account under pressure in the reviewed year (**Figure 2.6, 2.7 and 2.8**).[6] Also, high global interest rates coupled with the country's high risk premium (as reflected in CDS spread) during CY23 made it challenging to tap international markets (**Figure 2.9**). Moreover, continued appreciation of USD against major global currencies during CY23 also added pressure on local currency (**Figure 2.10**).

[3] On average, current account deficit amounted to USD 12.3 billion for CY21-22.
[4] Imports contracted by 26.6 percent in CY23
[5] Workers' remittances amounted to USD 26.4 billion in CY23 against USD 29.9 billion in CY22.
[6] External debt servicing (including principal and interest) amounted to USD 17.9 billion in CY23 as compared to USD 19.3 billion in CY22. Moreover, official external inflows amounted to USD 10.9 billion—lower than USD 11.9 billion received in CY22.

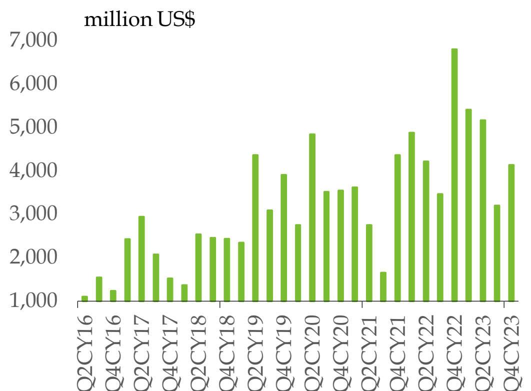
Exchange Rate and its Volatility* **Figure 2.5**



*Volatility is measured using Exponential Weighted Moving Average Method based on daily data

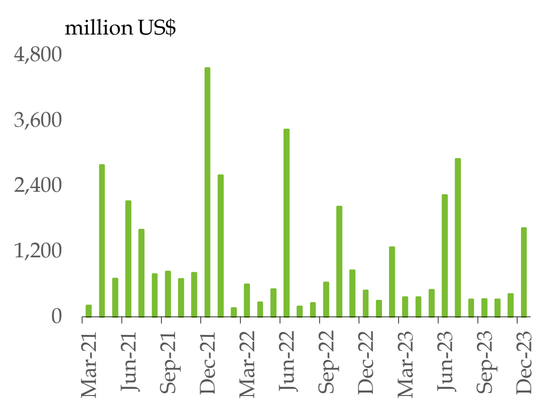
Source: State Bank of Pakistan

Trend in External Debt Servicing (Principal and Interest) **Figure 2.6**



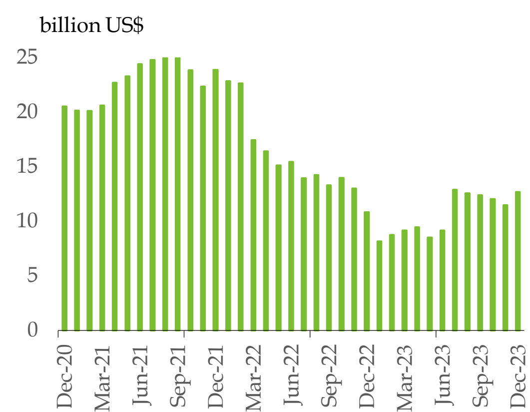
Source: State Bank of Pakistan

Trend in External Official Inflows **Figure 2.7**



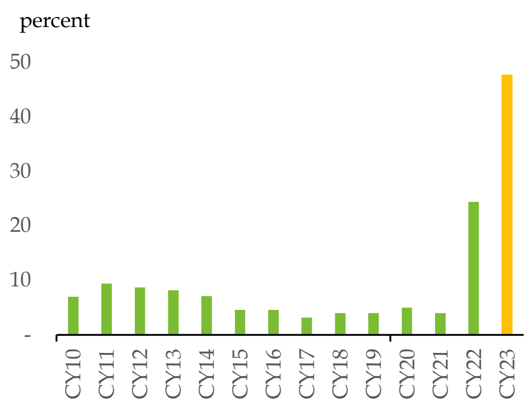
Source: Economic Affairs Division

Trend in Country's FX Reserves **Figure 2.8**



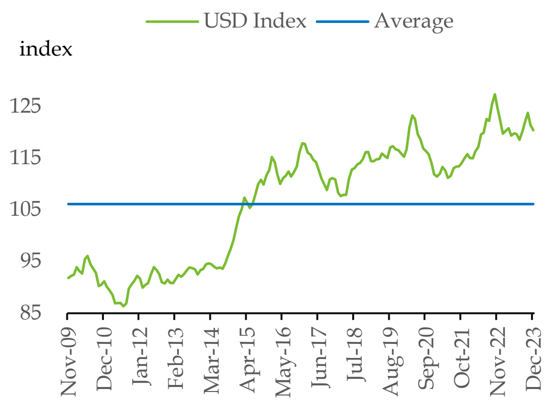
Source: State Bank of Pakistan

Pakistan's 5 year CDS (yearly average) **Figure 2.9**



Source: Bloomberg

Trend in Nominal Broad USD Index **Figure 2.10**



Source: Federal Reserve Bank of St. Louis

However, volatility subsided in H2CY23…

Further analysis reveals that stress in the FX market remained elevated in the first half of

CY23—particularly early months witnessed a spike in volatility. Rupee depreciated against USD by 20.8 percent during H1CY23 while the next half recorded an appreciation of 1.5 percent. A delay in 9th IMF Review under EFF program—causing multilateral and bilateral creditors to hold their financing—the external debt re-payment pressures and inadequate financial inflows, kept FX liquidity conditions tight and the volatility high in H1CY23.

However, volatility in the FX market gradually receded during H2CY23 mainly on account of securing the nine-month Stand-By Arrangement (SBA) with the IMF—which improved the prospects of multilateral and bilateral inflows—and administrative measures[7] as well as policy reforms in exchange companies (ECs) in the FX market leading to improved liquidity. It is noteworthy that due to administrative measures, Rupee consistently appreciated against USD between September 05 and October 16, strengthening by 10.9 percent.

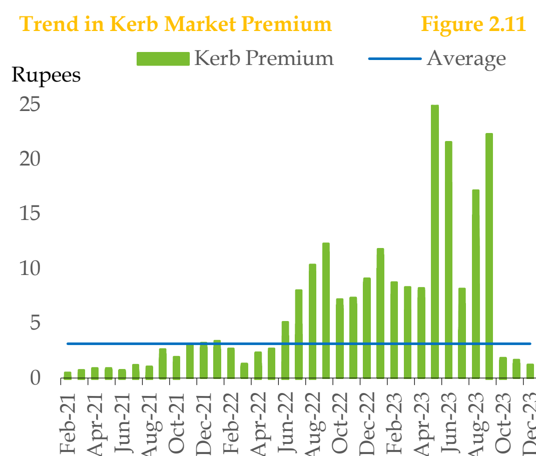
Backed by such developments, SBP's FX reserves increased to USD 8.2 billion by end December 2023 from USD 4.4 billion at end June 2023. Resultantly, SBP moved to reduce its foreign currency swaps/forward liabilities. From end August 2023 to end December 2023, SBP's net Swaps position declined by USD 1.0 billion to USD -3.6 billion.

Before declining in Q4CY23, open-market premium significantly increased….

The gap between open market and inter-bank market exchange rates widened momentarily to a marked extent during Q2CY23 and Q3CY23 (**Figure 2.11**). The average open market premium[8] was recorded at Rs 10.1 and Rs 6.0 in these quarters, respectively, which is higher than the average premium in normal circumstances.[9] The rising uncertainties associated with prospects of securing IMF program and tight liquidity conditions in the FX market drove-up the premium.

Nonetheless, the inter-bank and open market exchange rates aligned[10] in Q4CY23, primarily due to the actions taken to curb illicit activities in the FX market and SBP's initiatives. The normalization of kerb premium helped improve workers' remittances hence supported FX reserves.[11]

Trend in Kerb Market Premium **Figure 2.11**



Source: State Bank of Pakistan

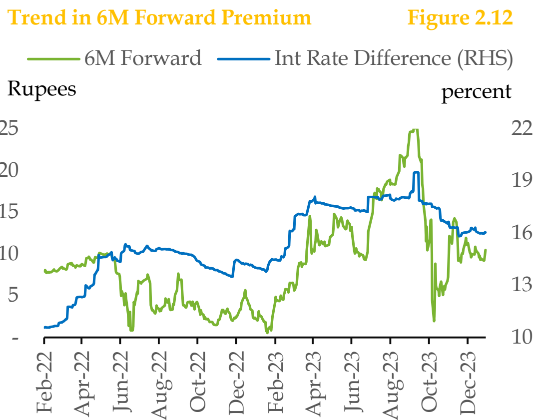
Continued pressure on local currency also reflected in increased forward premium during first half which though eased in later part of the year…

The prevailing macroeconomic stress was also reflected in the price of financial instruments such as forward currency contract. On average, 6-month forward premium increased to Rs 11.5 in CY23 from Rs 5.7 in previous year. Within the reviewed year, forward premium observed divergent episodes of spike and sharp decline (**Figure 2.12**). For instance, spike in forward premium during Q1CY23 manifested growing interest rates differential between KIBOR and Secured Overnight Financing Rate (SOFR) owing to significant monetary policy tightening

[7] It refers to the actions by law enforcement agencies
[8] The premium has been calculated from selling rates of the inter-bank and open market
[9] The premium rose, on average, to Rs 5.5 in CY23, from Rs 3.0 in CY22
[10] The average gap between inter-bank and open market exchange rates declined to Rs 0.73 only in Q4CY23,
[11] SBP' FX reserves increased to USD 8.2 billion by end December 2023 from USD 7.6 billion at end September 2023.

by SBP.[12] Also, deteriorating inflation outlook and tight FX liquidity conditions help explain noticeable increase in forward premium during this period.

Trend in 6M Forward Premium Figure 2.12



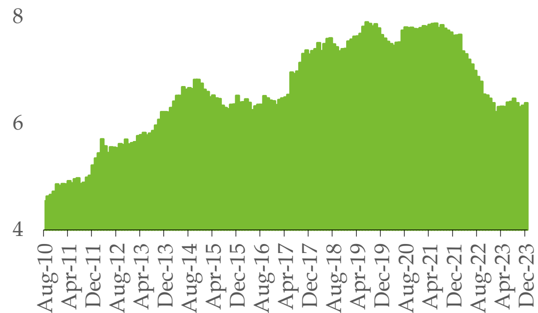
Source: State Bank of Pakistan

From late June 2023 to early September 2023, forward premium again rose noticeably. Nonetheless, it showed sharp decline afterwards until early October 2023. The marked fall in the premium was mainly driven by administrative actions and regulatory measures which helped improve FX liquidity and built expectations of appreciation in Rupee, which in turn further expedited the forward booking of FX inflows and provided further liquidity in the inter-bank market causing a decline in the premium.

FE-25 deposits' build-up momentum remained weak….

Foreign currency deposits observed gradual and consistent decline from September 2021 to February 2023, reflecting increasingly uncertain macroeconomic environment.[13] Although CY23 observed some improvement in these deposits, the build-up momentum remained weak possibly due to elevated domestic uncertainties and the impact of increased open market premium (**Figure 2.13**).

Trend in FE-25 Deposits Figure 2.13



Source: State Bank of Pakistan

2.2 Money Market

Monetary policy further tightened during H1CY23 and then remained steady as SBP adopted a measured approach…

In the wake of persistent and broad- based inflationary pressures,[14] along with unfavorable external account dynamics, SBP further increased policy rate by 600 basis points to reach 22.0 percent during the reviewed year. The aggressive tightening was witnessed only in the first half of the year while the second half observed no change in monetary policy stance as inflation pressures moderated relative to H1CY23, though still elevated (**Figure 2.14**).

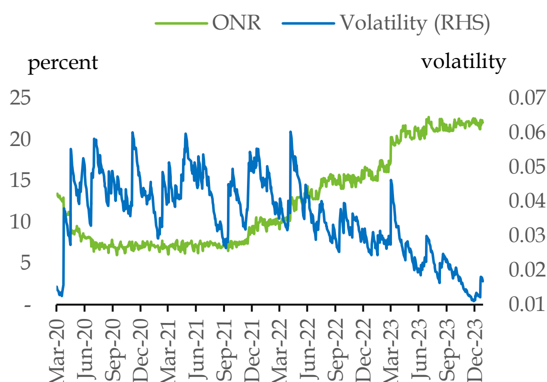
Accordingly, the market dynamics and expectations changed over the year, while SBP's monetary operations remained relatively more active…

Besides lower volatility, the average gap between ONR and policy rate turned negative[15] during CY23 manifesting ample availability of liquidity even though the government's reliance

[12] Policy rate further increased by 400 bps in Q1CY23
[13] FE-25 deposits fell by USD 1.6 billion in this period
[14] National-CPI and core inflation averaged (YoY) at 30.9 percent and 18.3 percent, respectively during CY23.
[15] Average gap between ONR and policy rate turned -0.24 as compared to positive gap of 0.02 in CY22. In H1 and H2 of CY23, the gap remained negative at 0.26 and 0.23 respectively. Moreover, on 153 instances, the gap was negative while it was positive on 52 instances during CY23

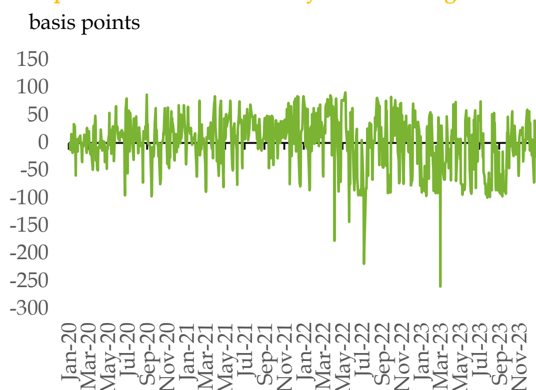
on bank credit for budgetary support increased two times (**Figure 2.15**). [16]

Trend in ONR and its Volatility — Figure 2.14



Source: State Bank of Pakistan

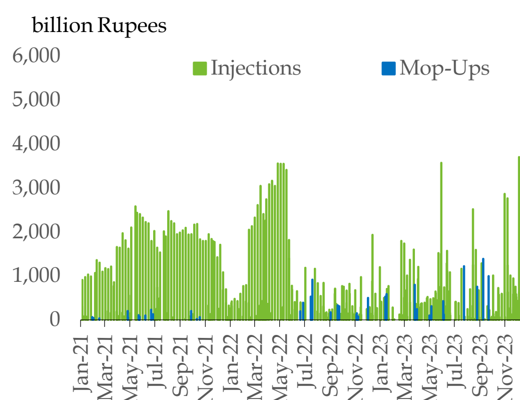
Gap between ONR and Policy Rate — Figure 2.15



Source: State Bank of Pakistan

A number of factors explain this development. First, private sector credit remained subdued[17] —driven by weak economic activity — providing liquidity cushion to the banks. Second, deposits mobilization rebounded, posting 24.2 percent growth in CY23 as compared to just 8.0 percent rise in CY22. Third, the average size of Open Market Operations (OMOs) injections in CY23 was lower than last year[18], though the frequency[19] and average tenor[20] of the OMOs injections were higher in CY23 (**Figure 2.16**).

OMOs Injections and Mop-ups — Figure 2.16



Source: State Bank of Pakistan

However, the liquidity profile of the market varied along the time as well as institutions, as SBP also conducted 13 mop-ups of Rs 7.6 trillion in total during CY23. Similarly, with an expectation of increase in policy rate – particularly in September 2023 – banks increasingly availed SBP floor facility to temporarily park the funds with a view to avail the opportunity of investing at higher rate. The banks parked, on average, their excess liquidity with SBP worth Rs 214 billion during CY23 (Rs 154 billion in CY22) availing floor facility 237 times during the reviewed year as compared to only 85 times in previous year.[21]

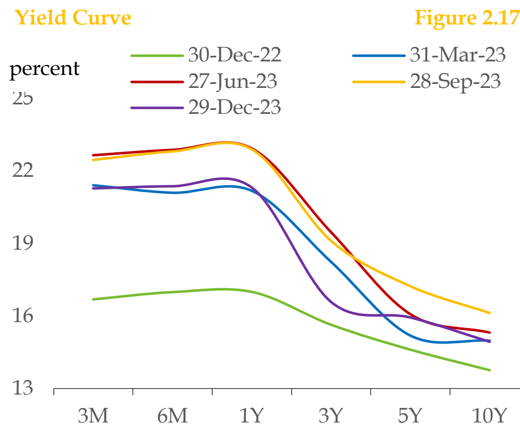
In line with sharp monetary tightening, yield curve shifted upward particularly at the short-end; however, a change in market expectations due to ease in inflation lowered the curve in last quarter … …

Yield curve of government securities increasingly shifted upward owing to sharp monetary tightening—until September 2023.[22]

[16] Government budgetary borrowing from the banks increased by Rs 7,140 billion in CY23 from Rs 3,361 billion in CY22.
[17] Domestic private sector advances declined by 2.4 percent in CY23 against 16.4 percent increase in CY22.
[18] Average OMOs injections were recorded Rs. 539 billion in CY23 against Rs.783 billion in CY22
[19] SBP injected 162 times in CY23 compared to 102 times in CY22.
[20] Average tenor of injections increased to 28 days from 20 days in CY22.
[21] In total, banks parked Rs 50,778 billion with SBP during CY23 against Rs 13,106 billion in CY22
[22] Yields on 3M, 6M, and 1Y government securities increased by 577 bps, 582 bps and 590 bps respectively between end December 22 and end September 2023.

However, the yield curve shifted downward by December 2023 when compared to September 2023 situation (**Figure 2.17**).[23] In the absence of further increase in policy rate in H2CY23 and softening inflation, along with relatively improved macroeconomic environment, led market participants to assume that interest rates had peaked.

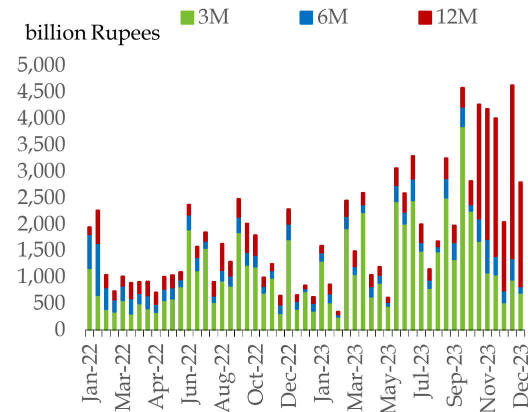
Yield Curve **Figure 2.17**



Source: Mutual Funds Association of Pakistan

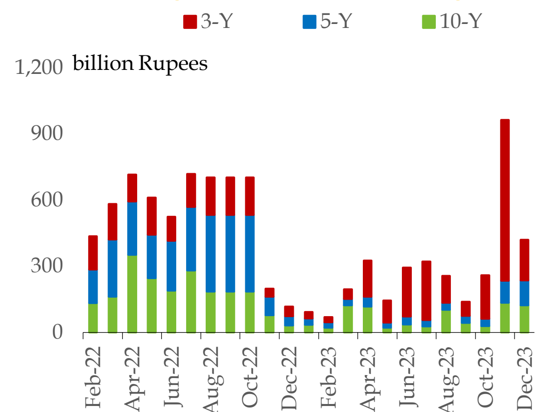
It is noteworthy that banks—having major investments in Available for Sale (AFS) and Held for Trading (HFT) categories[24] —are exposed to mark to market losses in case of upward shift in yield curve. Along the monetary tightening cycle, banks' revaluation deficit on treasury holding increased to Rs. 235.8 billion by end December 2022. The deficit further surged to Rs 307.2 billion by end September 2023 due to sharp increase in interest rate but afterwards steadily reduced to Rs 126.7 billion by end December 2023, as the yield curve shifted downward.[25] This was also manifested in banks' gain on sale of government securities on HFT which increased to Rs 6.1 billion in CY23 as compared to Rs. 2.2 billion in CY22.[26]

Bidding Behavior in T-bills Auctions **Figure 2.18**



Source: Sate Bank of Pakistan

Banks' Bidding for Fixed Rate PIBs **Figure 2.19**



Source: State Bank of Pakistan

…keeping banks' interest in short-term and floating rate instruments

Banks continued to show higher interest in Market Treasury Bills (MTBs) and floating rate Pakistan Investment Bonds (PIBs)[27] during CY23 due to high interest rate expectations. Within MTBs, however, banks' bidding noticeably increased for 12M TBs during Q4CY23 reflecting

[23] For instance, 3M and 3Y yields in secondary market declined by 118 bps and 253 bps between end September 2023 and end December 2023.

[24] As of end December 2023, banks held 88 percent and 3 percent of total investments in AFS and HFT categories.

[25] This is due to the fact that the value of government securities in secondary market is determined by PKRV rates. When PKRV rates rise, prices of the securities decline and vice versa.

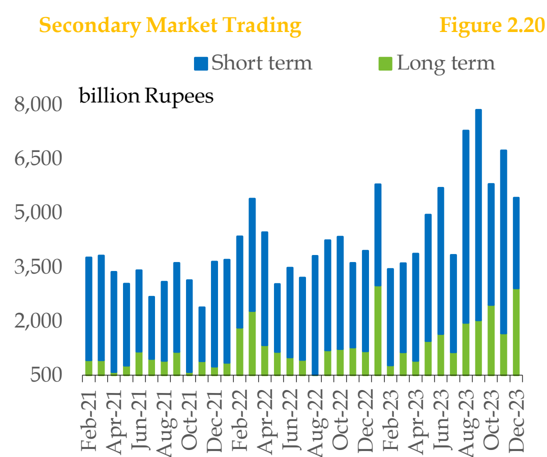
[26] Trading gains on sale of government securities were negative in first three quarters of CY23.

[27] Banks offered Rs. 5,209 billion in auctions for floating rate quarterly PIBs against government target of Rs. 3,450 billion in CY23. Similarly, in case of floating rate semiannual PIBs, banks offered Rs. 7,517 billion against target of Rs. 2,390 billion.

expectations of possible monetary easing in near future (**Figure 2.18**). The impact of increased yield curve inversion and expectations that policy rate has peaked was also visible in banks' bidding for fixed rate PIBs, which increased towards the end of the year (**Figure 2.19**).

The trading of government securities in secondary market was in sync with primary market dynamics as trading remained concentrated in short-tenor securities owing to rising interest rate environment (**Figure 2.20**). Moreover, the total volume of the secondary market trading surged by 35.1 percent to reach Rs. 64,346 billion[28] in CY23 which was encouraging for market efficiency and depth.

Secondary Market Trading — Figure 2.20



Source: State Bank of Pakistan

The rollover risk of the government has reduced over-time while banks sensitivity to changes in interest rates remained contained as the repricing duration of their fixed-income portfolio is quite low …

The rollover risk of the government has been steadily declining over-time reflecting consistent improvement in debt maturity profile of the government. The share of MTBs in total federal government securities declined to 24.2 percent (65.9 percent in CY18) while PIBs share increased to 58.9 percent in CY23 (28.1 percent in CY18).

It deserves an emphasis that due to reduced repricing duration and ample capital cushion, banks' resilience to adverse shocks in interest rates remained intact. The results of sensitivity (stress testing) analysis shows that under the most severe shock scenario (i.e. parallel upward shift in the yield curve by 300 basis points), CAR of most of the banks remains well above the minimum requirement (**for detail see the section on Market Risk in Chapter 3 on Banking Sector**).[29]

2.3 Equity Market

KSE-100 index rebounded in H2CY23….

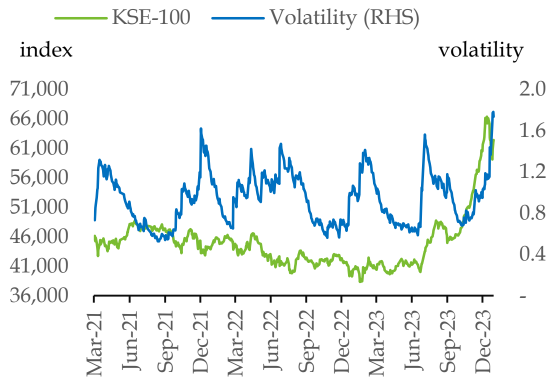
The benchmark KSE-100 index surged by 54.5 percent in CY23 against a contraction of 9.4 percent in CY22. The index reached 66,130 in December 2023. However, within the reviewed year, equity market dynamics rapidly changed. In first half of CY23, the index increased only by 2.6 percent while in H2CY23 it recorded an impressive increase of 50.7 percent. Accordingly, market capitalization increased by 39.4 percent in CY23 (15.4 percent decline in CY22). Moreover, Price to Earning (P/E) ratio—that had been steadily declining over the years—further declined to 4.2 in CY23 (4.6 in CY22).[30]

The volatility of the index, on average, remained higher during the reviewed year. It spiked in early months of CY23 and bouts of volatility were also witnessed in H2CY23 (**Figure 2.21**). Rising stress in the early period of CY23 was driven by a number of factors such as sharply rising inflation, policy rate increase of 400 basis points (100 bps in January 2023 and 300 in March 2023), a deteriorating Rupee-USD parity (**Figure 2.22**), evolving political situation, delay in 9th IMF program review and downgrade in country's credit rating. The resultant bearish sentiment in the wake of such environment kept

[28] It represents realized value of the traded securities.
[29] For details see, Stress Testing Results of the Banking System available at https://www.sbp.org.pk/ecodata/fsi/qc/2023/Dec.pdf
[30] Average P/E ratio was 8.6 and 6.9 in CY20 and CY21 respectively.

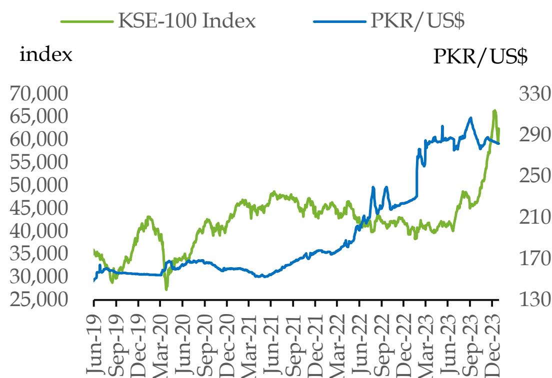
KSE-100 index at an average level of 40,886 during H1CY23.

KSE-100 Index and its Volatility **Figure 2.21**



Source: State Bank of Pakistan

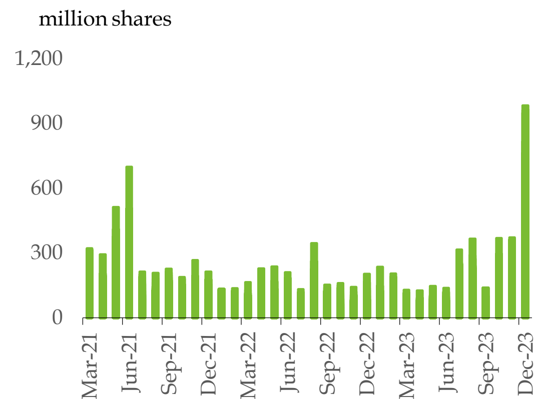
KSE-100 Index and Exchange Rate **Figure 2.22**



Source: State Bank of Pakistan

In the second half of CY23, risk aversion began to fade due to improving macroeconomic prospects. The index consistently and rapidly moved upward, especially from September 2023, hovering at an average level of 51,451 during H2CY23. The strong recovery in investors' confidence was due to a number of healthy developments such as (i) securing IMF SBA program (ii) inflows from friendly countries (iii) administrative interventions in FX market resulting in improved Rupee-USD parity, (iv) moderation in inflationary pressures and expectations of monetary easing (v) recovery in economic activity (vi) establishment of Special Investment Facilitation Council and (vii) declining political uncertainty. (**Figure 2.23**).[31]

Trading Volume of KSE-100 **Figure 2.23**



Source: Bloomberg

It is noteworthy that foreign investors—after remaining net sellers for a couple of years—turned net buyers of equities in CY23.[32] Besides, the absence of further monetary tightening in advanced economies (AEs), foreign inflows in local equity market were particularly due to relatively stable domestic currency during H2CY23 (**Figure 2.24**).

Mutual funds continued to remain largest net sellers….

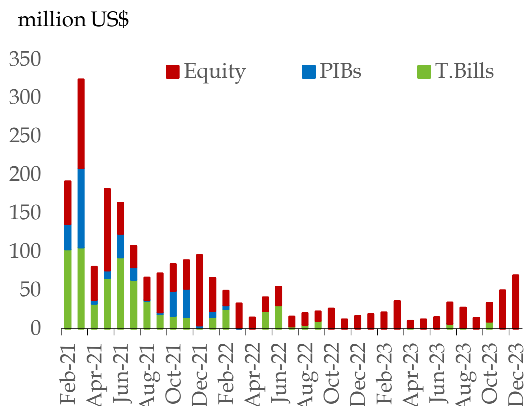
Among local investors, mutual funds were the largest net sellers of equities followed by banks/DFIs and brokers (**Figure 2.25**). This was possibly owing to the narrowing gap between earning yield[33] on shares and risk free instruments – especially in H1CY23 – that made fixed-income government securities more attractive (**Figure 2.26**). The composition of

[31] Average trading volume was 164.5 million shares in CY23 against 100.0 million in CY22. Within CY23, trading increased to 243.6 million shares (on average) in H2CY23 from 82.8 million in H1CY23.

[32] Net selling amounted to USD 48 million in CY22 while in CY23 net buying by foreign investors amounted to USD 74 million.

[33] It refers to the earnings per share for the most recent 12-month period divided by the current price per share

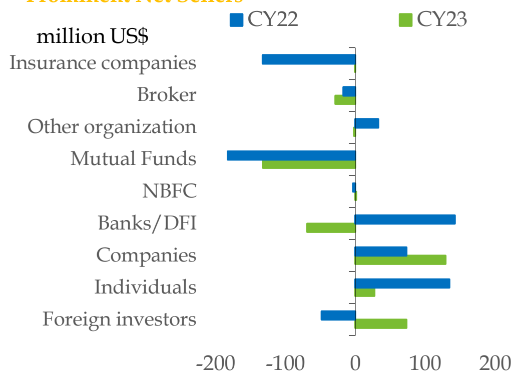
Foreign Portfolio Inflows **Figure 2.24**



Source: State Bank of Pakistan

mutual fund assets reveals that their exposure in equities (as percent of their total assets) further declined to 9.1 percent by end December 2023 from 10.8 percent in CY22 (19.7 percent in CY21). Although mutual funds investment increased in equities during Q4CY23 owing to surge in stocks prices and expectations of monetary easing, the assets remained concentrated in income and money market instruments.[34]

Mutual Funds and Banks were Prominent Net Sellers **Figure 2.25**

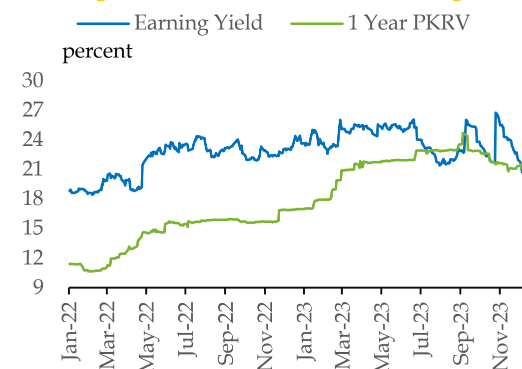


Source: National Clearing Company of Pakistan Limited

Sector-wise analysis reveals that highest net buying by foreign investors was witnessed in banks' stocks followed by power sector (including exploration and marketing companies) sector during CY23 (**Figure 2.27**).

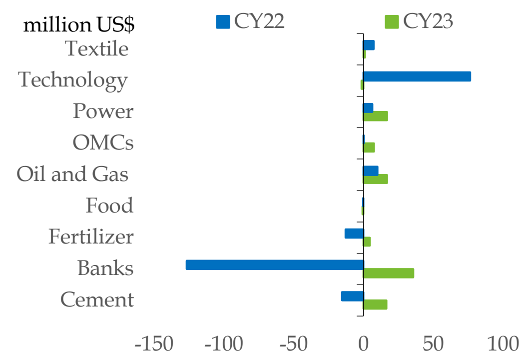
Elevated interest rates and associated expectations of higher profitability appear to explain investors' interest in banks' stocks. In case of Oil and Gas sector, possibility of liquidity improvement on the back of circular debt resolution could be the driving factor.

Earning Yield and 1 Year PKRV **Figure 2.26**



Source: Bloomberg and Mutual Funds Association of Pakistan

Net Buying was Highest in Banks Stocks **Figure 2.27**



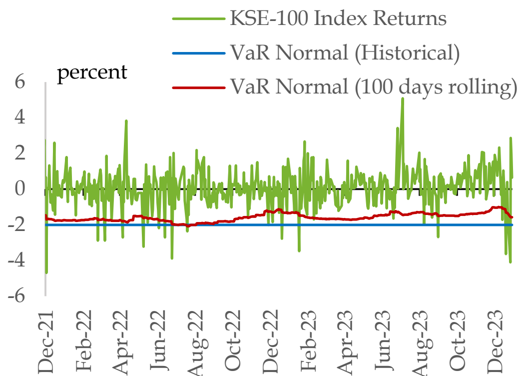
Source: National Clearing Company of Pakistan Limited

The risks in equity market remained at a relatively lower level….

Value at Risk (VaR) analysis indicates that daily returns of KSE-100 index breached VaR Normal (100 days rolling) 13 times, same as in CY22, however, the average extent of breaches was lower, showing relatively contained risks in CY23 (**Figure 2.28**).

[34] Mutual funds' investments in income funds, equity, and money market increased by Rs 210 billion, Rs 58 billion, and Rs 40 billion, respectively, in Q4CY23.

Value at Risk of KSE-100 Index Returns Figure 2.28



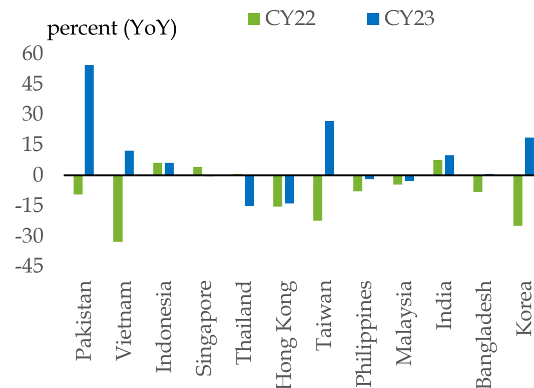
Source: Pakistan Stock Exchange and SBP Staff Estimates

It is noteworthy that the banks' investment in equities remained immune to the equity market stress episodes observed during the reviewed year. In the backdrop of a conservative regulatory regime of SBP, banks are maintaining a limited exposure to the equity market which makes them less sensitive to volatility in equity market. Investment in equities stood at 6.8 percent of banks' regulatory capital at end December 2023 (6.8 percent in CY22). The latest sensitivity analysis (stress testing) results also suggest that even with in a hypothetical shock scenario of 36.1 percent decline in equity prices (KSE-100 index), which is equal to historically highest quarterly decline in the index, no CAR-compliant bank is expected to breach the regulatory minimum requirement of CAR.[35] Moreover, probability of default analysis indicates low likelihood of default of the firms in KSE-100 index (**see Box 2.1**).

Domestic equity market outperformed among regional group of countries…

In previous year, the performance of the domestic equity market was in line with the regional markets. Nonetheless, in the reviewed year, domestic equities outperformed several regional markets **(Figure 2.29).**

Regional Countries Equity Markets Performance Figure 2.29



Source: Haver Analytics

Going forward, performance of domestic financial markets will hinge on a number of factors including the geopolitical course especially the evolving conflict in the Middle East, inflation dynamics and associated monetary policy stance, the resilience of domestic economic recovery, political stability and how swiftly the government engages with IMF over a fresh funding program.

[35] For details see, Stress Testing Results of the Banking System available at https://www.sbp.org.pk/ecodata/fsi/qc/2023/Dec.pdf

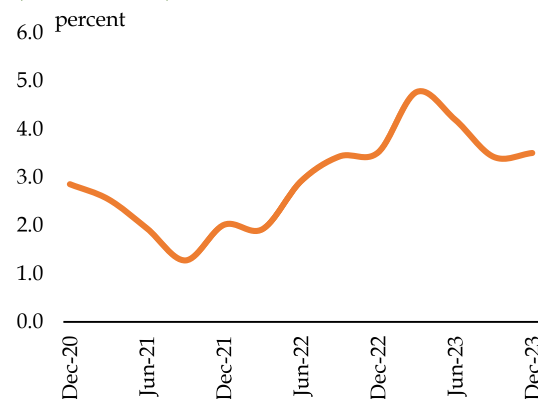
Box 2.1: How market perceives the credit worthiness and soundness of KSE-100 firms?

Stock market index incorporates macroeconomic developments, participants' views on corporate performance, and news flow on a real time basis. The stock market index can, thus, be a useful aggregate risk indicator on underlying firms' financial health. The assessment about borrowers' repayment capacity and possibility that they may falter on their commitments, viz., probability of default (PD), can be used by investors, lenders and regulators to make portfolio, lending and policy decisions. In this regard, the Merton's (1974)[36] distance to default model is a widely used tool, which assesses the structural credit risk of a company by modeling its equity as a call option on its assets. The model extracts credit risk of the firm from market information and provides insights into a company's PD based on its market implied balance sheet structure. For instance, market value of equity (E) can be calculated from the firm's stock market price and the number of outstanding shares. However, the market value of assets (A) is treated as unobservable while the liabilities (L) are taken at book value. The Merton model relates these values in an option pricing framework. For a selected maturity (usually one year), a liability threshold (L) is chosen based on the firm's entire liability structure, which represents the point at which the firm defaults. The probability of default is then defined as the probability of value of assets falling below the liability threshold at the end of the time horizon (T).

Along these lines, the PDs for the constituent firms of KSE-100 index have been taken from Bloomberg to gauge their credit risk. To arrive at a representative number for all firms in KSE-100, a size-weighted average probability of default is computed.[37]

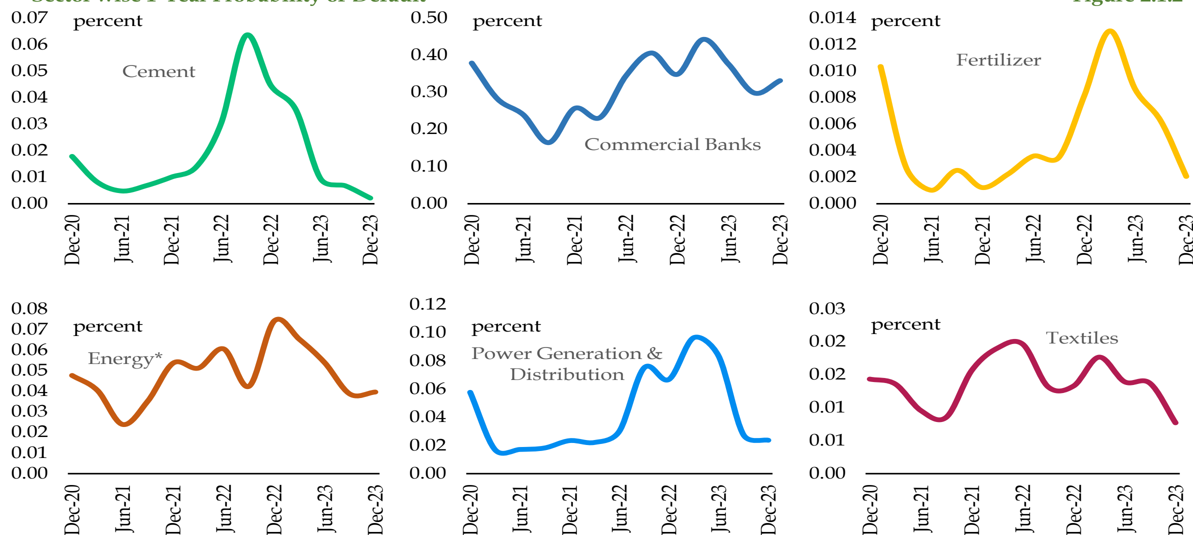
Post-pandemic, the aggregate PD declined on the back of a rebound in economic activity when mobility restrictions

1-Year Probability of Default (KSE-100 Index) Firms — **Figure 2.1.1**



Source: Bloomberg and SBP Staff Calculations

Sector wise 1-Year Probability of Default — **Figure 2.1.2**



*Energy includes Oil & Gas Exploration, Oil and Gas Marketing and Refinery
Source: Bloomberg and SBP Staff Calculations

[36] Merton, Robert C. (1974). "On the Pricing of Corporate Debt: The Risk Structure of Interest Rates" (PDF). *Journal of Finance*. **29** (2): 449–470.

[37] The analysis is based on available data of 90 firms, which still represent the major part of the KSE-100 index and total assets of listed firms.

were eased (**Figure 2.1.1**). There is, however, an uptick in the probability after Q2CY21, when the macroeconomic environment was characterized by elevated inflationary pressures, subdued economic activity, muted business confidence and strains in the global banking system led to further tightening of global liquidity and financial conditions. Nevertheless, the probability of default started to decline in H2CY23, as the inflation began to moderate from its peak of 38.0 percent in May 2023, economic growth revived in H2CY23 and stock market rebounded. These positive developments helped in improving the risk outlook of the listed firms in KSE-100 index which also includes 14 commercial banks, and was reflected in their sector wise PDs (**Figure 2.1.2**). The PDs, overall as well as sectoral, are on a declining trend ever since. Reassuringly, however, the PDs show low likelihood of default of the firms in KSE-100 index.

3

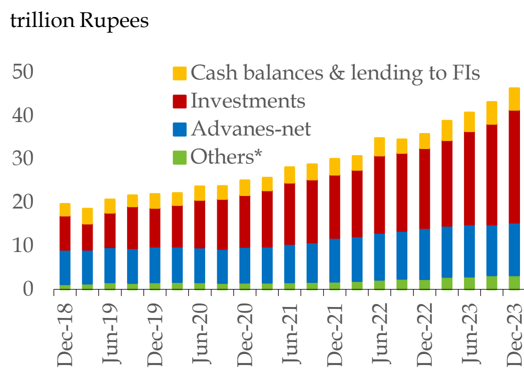
The Banking Sector

The banking sector maintained its soundness in a challenging macro-financial environment during 2023. Asset base expanded by 29.5 percent to touch Rs 46.4 trillion by end December, 2023, mainly driven by investments. A lackluster demand due to weak economic activity and tight macro-financial conditions coupled with risk averse strategy of banks dampened the growth in loan portfolio. While deposit growth remained healthy in a higher return environment, however, the higher pace of investments in government securities increased the banks' reliance on borrowings. Earnings indicators improved mainly on the back of higher net interest/markup income. Despite subdued economic activity and tight financial conditions, the assets quality indicators of banks manifested muted risk to solvency. Liquidity profile in terms of liquid assets vis-à-vis liabilities remained comfortable – augmented by the increased investments in government securities. In the backdrop of a conservative regulatory regime, banks could comfortably manage currency and equity price movement risks, while the market risk also remained contained due to relatively shorter repricing maturity of investment portfolio. Baseline solvency indicator viz. Capital Adequacy Ratio (CAR) at 19.7 percent not only strengthened further on the back of higher earnings but also stood well above the minimum regulatory requirements. Islamic Banking Institutions (IBIs) maintained their growth momentum and sound financial position, which contributed to the overall stability of banking sector.

3 The Banking Sector

The banking sector continued its steady performance and remained resilient in terms of its operational and financial soundness in a challenging economic environment during CY23. Assets base of the sector expanded by Rs 10,568 billion or 29.5 percent to touch Rs 46,364 billion by end December, 2023, which is a 20-year high growth (**Figure 3.1**). The expansion in assets was mainly driven by investments (largely government securities), while growth in advances moderated due to a challenging macroeconomic environment.

Assets Composition of Banks **Figure 3.1**

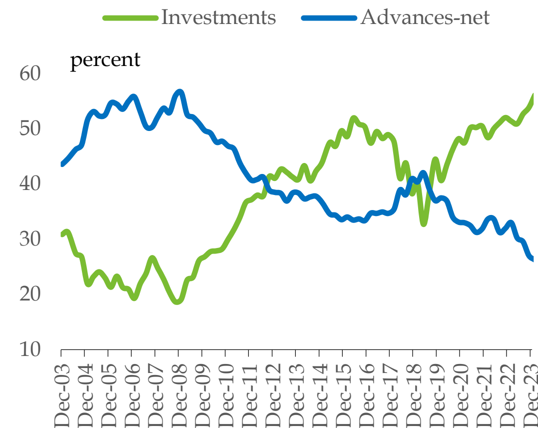


*Others include Fixed assets, Deferred Taxes and Other Assets
Source: State Bank of Pakistan

Assets composition further tilted towards investments, constituting around 56 percent in assets by end December 2023 (**Figure 3.2**). The rising share of government securities on balance sheet of banks reflects the structural imbalances in the economy such as large fiscal deficit leading to the government's increased reliance on domestic resources, especially banking sector, to meet its financing needs.

Investments increased by Rs 7,619 billion, expanding at a 14-years high rate of 41.4 percent in CY23, higher than 26.4 percent in CY22. Around 98 percent of the expansion in investments emanated from increase in the government securities. The pattern of investments, remained tilted towards shorter tenor MTBs and floating rate PIBs, constituting around 58 percent of total investment. However, banks also showed interest in fixed-rate instruments such PIBs and Fixed Rental Rate Sukuk in auctions, which may reflect their view about inflection point of the tightening cycle (see **Chapter 2 on Financial Markets Behavior**).

Share in Total Assets of Banking Sector **Figure 3.2**



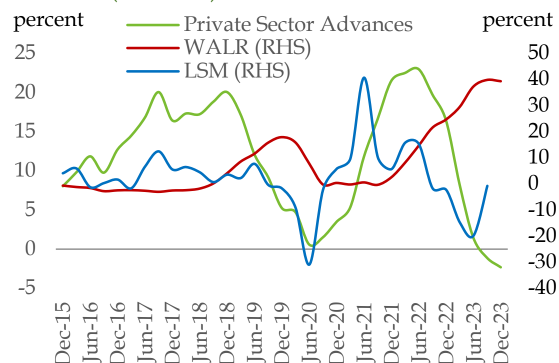
Source: State Bank of Pakistan

Tough year for advances but a silver lining was visible in Q4CY23

In contrast to double-digit growth rates in last two years i.e. 22.1 percent in 2021 and 16.8 percent in 2022, growth in advances decelerated to 3.0 percent, mainly reflecting lackluster credit demand amid subdued economic activity and tight macro-financial conditions. This deceleration was mainly driven by domestic advances, which constitute 94.2 percent of banking sector's total loan portfolio, reflecting that a challenging domestic macro-financial environment and subdued economic and large-scale manufacturing activity coupled with high public sector borrowings weighed on private sector credit during CY23 (**Figure 3.3**).[1]

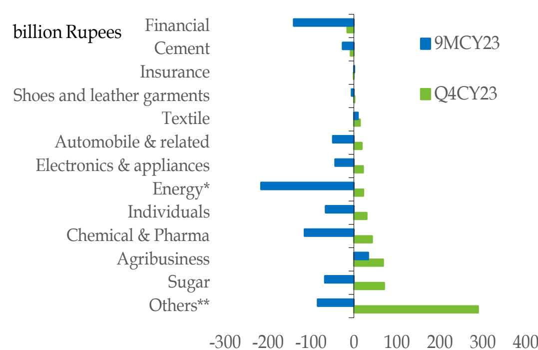
[1] LSM fell by 9.8 percent in CY23 compared to increase of 6.7 percent in CY22.

LSM, WALR and Private Sector Advances (Domestic) **Figure 3.3**



Source: State Bank of Pakistan and Pakistan Bureau of Statistics

Flow of Sector wise Private Advances (Domestic) **Figure 3.4**



*Production and transmission of energy
**Others mainly include manufacturers of food products, paper & paper products, coke & refined petroleum products, basic metals, construction, wholesale & retail trade, and communication
Source: State Bank of Pakistan

Domestic *private sector advances* witnessed a broad-based contraction in CY23. Nonetheless, a notable borrowing activity was visible in the last quarter when domestic private advances rose by Rs 554.1 billion. Though the increase in Q4CY23 was lower than Rs 672.9 billion uptick in fourth quarter of CY22, adjusting for the ADR-related tax policy, flow of advances for Q4CY23 was higher than the same period last year.[2] A number of sectors including Sugar, Chemicals & Pharmaceuticals, Automobiles and Textile increased their credit intake in Q4CY23. The increased borrowing can be traced to working capital requirements amid a seasonal rebound in production activity in various sectors during the last quarter, increased input prices and cash flow problems of certain sectors (**Figure 3.4**).[3]

Consumer financing recorded a net retirement of Rs 80.8 billion in CY23, for the first time since CY11. The retirements were mainly driven by repayments in auto financing, as households faced tight purchasing power conditions amid 30.8 percent average inflation and elevated prices of vehicles as well as tightened macro-prudential policy.

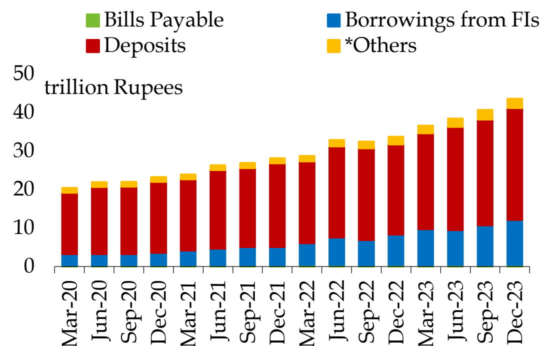
However, *public sector advances*, which constitute 27.2 percent of total domestic advances, increased strongly by Rs 642.0 billion (23.6 percent) in CY23 and supported the growth in overall loan portfolio. Public sector entities in commodity operations and energy related sector (mainly refined petroleum) increased their bank borrowing while the government also availed a foreign currency loan from the banking sector.

Deposits mobilization revived

On funding side, deposits increased by Rs 5,667 billion or 24.2 percent in CY23, a 20-years high growth. The major impetus came from rate sensitive deposits as banks' deposit rates responded to the high policy rates (**Figure 3.5**).[4]

[2] In order to improve their ADR amid applicability of ADR-related taxation policy, banks increased lending to non-bank financial entities. This was a one-off phenomenon in Q4CY22 and normalized in CY23, as the applicability of this taxation policy was withdrawn for Tax year 2024.
[3] For instance, a 68.9 percent fall in sales of passenger cars may have resulted in cash flow problems and contributed in bank financing of auto sector in CY23.
[4] For instance, Weighted Average Deposit Rate (excluding interbank and zero markup) on fresh deposits rose to 19.0 percent by end December 2023 from 14.4 percent at end December 2022

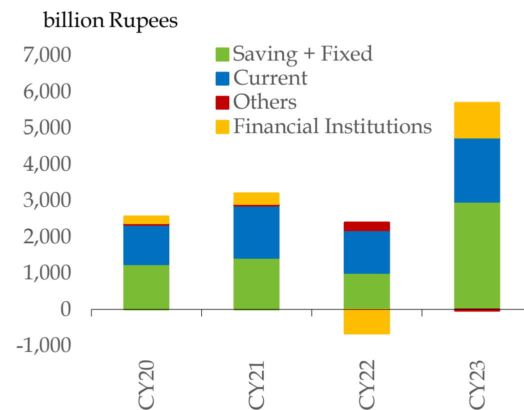
Funding Composition of Banking Sector **Figure 3.5**



*Other include Sub-ordinated loans, Liabilities against Assets subject to Finance Lease, deferred tax liabilities and other liabilities

Source: State Bank of Pakistan

Composition of Deposit Mobilization **Figure 3.6**



Source: State Bank of Pakistan

Besides, SBP digitization initiatives such as Raast, that has recorded increased transaction volumes, also contributed to deposits growth during 2023. Moreover, a part of the sharp revival in deposit mobilization reflected a rebound from last year's deceleration of 8.0 percent amid ADR-linked taxation policy in CY22.[5] Particularly in Q4CY22, banks seemed to have slowed down their deposit mobilization (especially deposit from non-bank financial institutions) to manage their ADR level, as there was low demand for bank loans from private sector due to stressed macro-financial conditions. However, with the withdrawal of this tax policy, banks' deposits from financial institutions (especially NBFIs) grew by Rs 960.9 billion in CY23 compared to a fall of Rs 662.4 billion in CY22 (**Figure 3.6**).

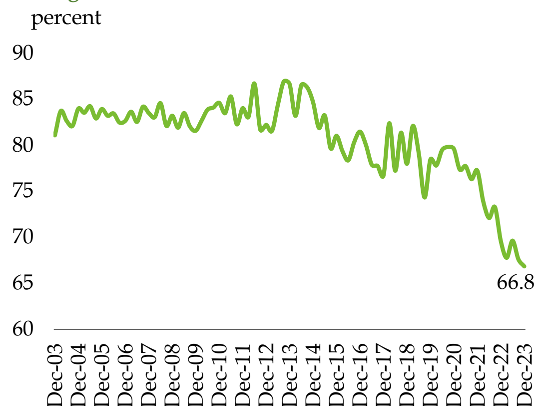
However due to a sharp increase in asset base during the year under review, the share of deposits in overall funding declined to 66.8 percent of total liabilities in December2023 from 69.6 percent last year.

while reliance on borrowings increased further during CY23

Post pandemic, deposits mobilization has fallen short of asset growth, and has led to an increased reliance of banks on borrowings (**Figure 3.7**). The borrowings rose by 48.8 percent in CY23 and their share in funding base rose to 26.8 percent (23.3 percent at end CY22) (**Figure 3.8**). Around 80 percent of the additional borrowing in CY23 came from SBP, reflecting increased reliance of the banks on central bank liquidity. The rising share of borrowings contributes in raising interest expenses because most of the fresh borrowing reflects expensive short term borrowings while deposits are a relatively economical source of funding as around one-third of the deposits are in current (non-remunerative) accounts category.

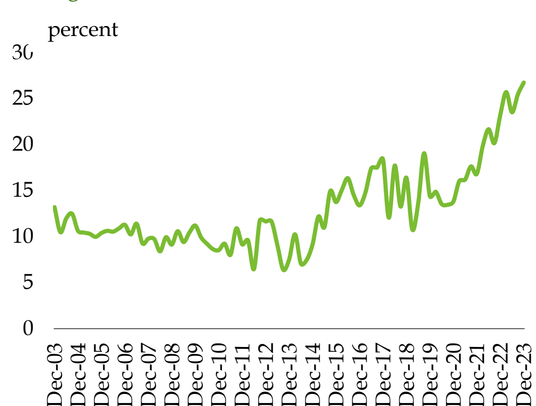
[5] Under the Finance Act, 2021, income attributable to investment in the Federal Government securities of banks was made taxable at tax rates of 40 percent, 37.5 percent and 35 percent, if ADR was up to 40 percent, between 40 to 50 percent and above 50 percent respectively. The Finance Act 2022 further enhanced these rates, that is, for tax year 2023 and onwards, tax rates would be 55 percent, 49 percent and 39 percent for these ADR slabs, respectively. Source: FBR Circular C.No.4(21) IT-Budget/2022 dated July 21, 2022. However, this policy was withdrawn for tax year 2024. Source: FBR S.R.O 226 (I)/2023.

Share of Deposits in Total Liabilities of Banking Sector **Figure 3.7**



Source: State Bank of Pakistan

Share of Borrowings in Total Liabilities of Banking Sector **Figure 3.8**



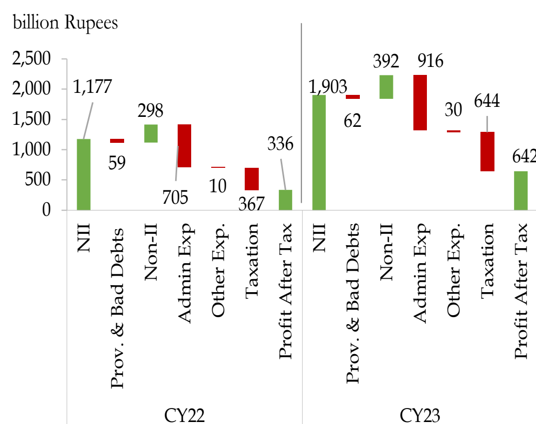
Source: State Bank of Pakistan

Earnings remained upbeat

After-tax profit of the banking sector surged by 90.9 percent to Rs 642.2 billion in CY23, and baseline indicators also improved over CY22. After-tax ROA rose to 1.6 percent from 1.0 percent in CY22, while after-tax ROE increased to 27.1 percent in CY23 from 16.9 percent in the previous year.

While fee-based and FX incomes posted noticeable expansion, the growth in bottom line was mainly supported by net interest/markup income (NII), as the pass-through of tightened monetary policy to earning assets led to a faster growth in interest income vis-a-vis interest expenses (**Figure 3.9**).

Composition of Profit After Tax **Figure 3.9**



Source: State Bank of Pakistan

A rate-volume analysis of increase in interest earnings and interest expenses shows that the rate component was more pronounced for earnings and expenses on advances, investments, and deposits vis-à-vis growth in volume. However, in case of borrowings, the increase in interest expenses were due to higher volumes of borrowings specifically during last two quarters of CY23.

In line with rising share of investments in balance sheet of the banking sector, the proportion of interest/markup earnings from investments is also on a consistent increase since March 2019 and has reached 64.1 percent of interest income, manifesting concentration of earrings.

On the expenses side, non-interest expenses increased by 32.5 percent in CY23, which was in sync with the rise in admin costs in the high inflation environment as well as the branch network expansion.[6] Non-interest expense, which mainly comprised of administration expenses of banks, has a strong correlation with

[6] By adding 534 new branches, banks expand its network to 16,867 branches by end CY23. Data source: RCOA, SBP

overall inflation in the economy.[7] Provisioning expenses rose in line with the movement in gross NPLs.

Various metrics suggest increasing tax incidence on the banking sector in recent years

Taxation expenses of banking sector continued to be on a higher side, though income tax expenses as percent of profit before tax slightly fell to 50.1 percent in CY23 from 52.1 percent in CY22. An extended Du Pont analysis of ROE also suggests rising tax expenses (as percent of before tax earnings) on the banking sector in the recent years (**Table 3.1 below**).[8]

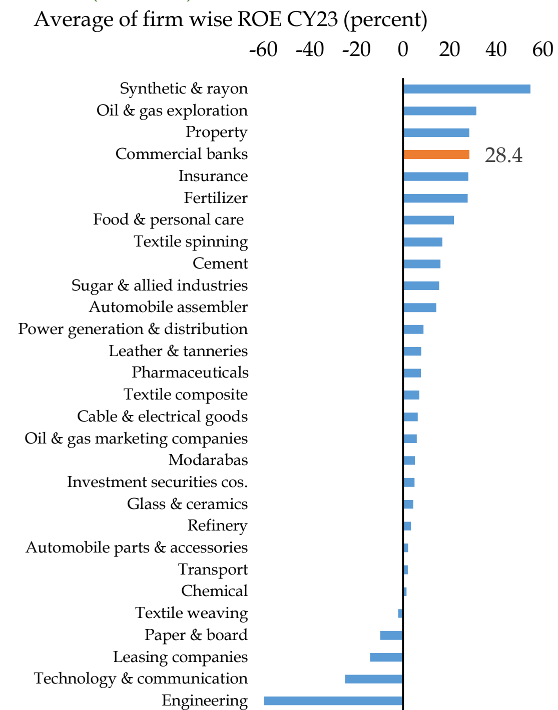
Extended Du Pont Breakup of Banking Sector's After-Tax ROE **Table 3.1**

	CY21	CY22	CY23
Impact of tax i.e., PAT/PBT (a)	0.59	0.48	0.50
Operating efficiency i.e., PBT/NII (b)	0.54	0.60	0.68
Interest Margin i.e., NII/Interest Income (c')	0.46	0.34	0.30
Yield on Assets i.e., Interest Income/Assets (d)	0.07	0.10	0.16
Leverage i.e., Assets/Equity (e)	14.7	16.7	17.3
ROE (f = a x b x c x d x e)	**14.0%**	**16.9%**	**27.1%**

Source: State Bank of Pakistan

It may be noted that due to its importance in the overall economic stability and growth, the banking sector is subject to comparatively stricter entry and exit barriers as well as enhanced governance and financial reporting requirements, including minimum capital requirements and prudential standards. An implication of higher taxation on banks is that it reduces sector's ability to build further capital buffers against unforeseen shocks, which are necessary for sector's financial soundness and thus overall economic stability of the economy. Moreover, relatively higher taxes discourage capital investments, which may be important to promote efficiency and financial inclusion.

Sector wise ROE of Listed Firms on PSX (418 firms) **Figure 3.10**



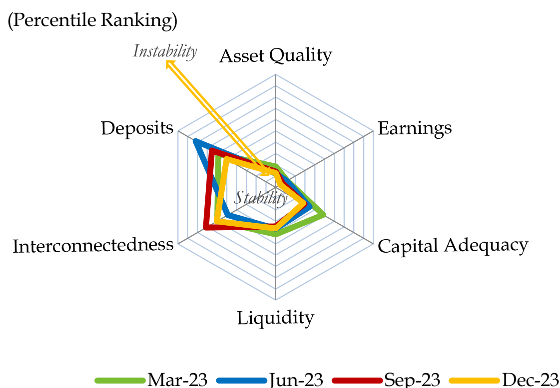
Source: Capital Stake

Risks to Financial stability subsided over the year

The banking sector stability map (BSSM)[9], which assesses key financial soundness indicators, shows that risks to financial stability have subsided along various dimensions, including Asset Quality, Earnings, Capital Adequacy, Liquidity and Deposits as the year 2023 progressed (**Figure 3.11**).[10]

[7] The unconditional correlation coefficient between YoY CPI inflation and YoY changes in admin expense is 0.89 and is statistically significant at 5 percent significance level.
[8] Net interest/Markup income rose by 61.6 percent to Rs 1.9 trillion in CY23 from Rs 1.2 trillion in CY22.
[9] BSSM ranks the Financial Soundness Indicators of the current period vis-à-vis their historical level. It is based on percentile rankings (scaled from 1 to 10) of various indicators, and the summary score of these indicators in a particular dimension e.g. asset quality. A ranking close to 10 value on the summary statistic suggests increased risks but not necessarily immediate stability concern. This is because the summary statistic is based on percentile rankings of historical series and the actual indicators for the quarter may still be in comfortable position or above the minimum regulatory requirement. Methodology of BSSM is based on Dattels, P., McCaughrin, R., Miyajima, K., & Puig, J. (2010). "Can you map global financial stability?" IMF Working Papers, 1-42
[10] Although the banking sector's interconnectedness with financial institutions increased in Q3CY23 due to peculiar interim circumstances, however, the situation largely normalized by end CY23.

Banking Sector Stability Map **Figure 3.11**



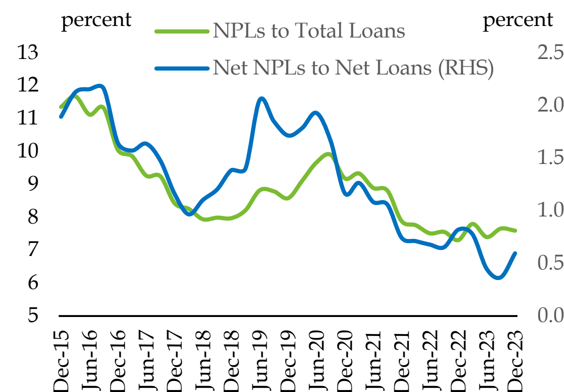
Source: State Bank of Pakistan

3.1 Credit risk

The asset quality indicators of the banking sector suggested no serious concerns as the existing stock of delinquent loans is adequately provided for with provisioning coverage of 92.7 percent. Although NPLs to loans ratio slightly inched-up to 7.6 percent in CY23 (7.3 percent in CY22) due to moderate growth in banks' loan portfolio vis-à-vis NPLs, the net NPLs ratio at 0.6 percent remains at one of its lowest level of last two decades (**Figure 3.12**). Gross NPLs rose by Rs 70.8 billion (or by 7.7 percent) in CY23, compared to Rs 63.8 billion in CY22, mainly pertaining to domestic operations.[11]

While specific provisions rose in line with gross NPLs, general provisions rose by Rs 35.1 billion in CY23, much higher than Rs 9.1 billion increase in CY22, reflecting efforts to shield the potential impact of adoption of IFRS-9 by banks with effect from January 01, 2024.[12] The implementation of IFRS-9 is expected to further strengthen both risk management practices in banks as well as their cushions to withstand potential as well as incurred losses.

Asset Quality Indicators of Banking Sector **Figure 3.12**



Source: State Bank of Pakistan

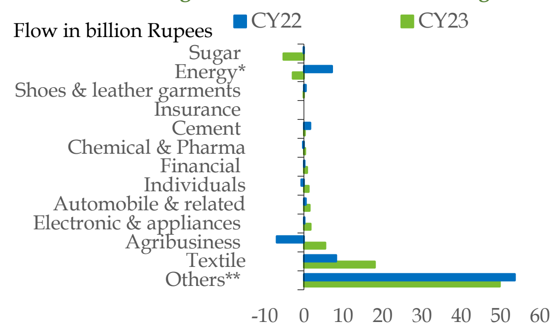
Sector wise analysis shows that in line with its largest share in banks advances, the textile sector contributed the leading part of the increase in NPLs during CY23. Besides textiles, the NPLs in agribusiness, auto and individuals also rose. Agribusinesses faced high input costs such as fertilizer, POL etc., and lagged impact of floods in monsoon of 2022 and 2023, which squeezed borrowers cash flows; sales in auto sector declined, while elevated inflation squeezed the purchasing power of individuals (**Figure 3.13**).[13]

[11] NPLs in domestic and overseas loan portfolios rose by Rs 67.0 billion and Rs 3.8 billion, respectively, in CY23, compared to Rs 8.4 billion and Rs 55.4 billion in CY22.

[12] IFRS-9 requires provisioning against financial instruments (loans and investments) on Expected Credit Loss (ECL) approach, instead of Incurred Credit Loss approach

[13] Average Fertilizer-WPI rose 19.8 percent YoY, Pesticides-WPI rose 15.2 percent YoY and Diesel Oil (an input in agriculture) showed 22.8 percent inflation during CY23. The YoY change for these input were 54.8 percent,4.9 percent and 76.9 percent, respectively, in CY22.

Sector wise Change in Gross NPLs **Figure 3.13**

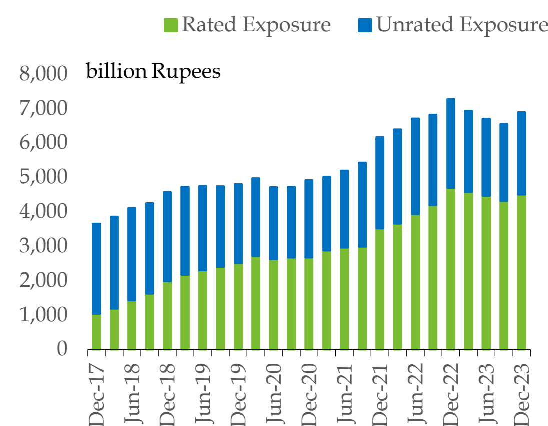


*Production and Transmission of Energy
**Others mainly include manufacturers of food products, paper & paper products, coke & refined petroleum products, basic metals, construction, wholesale & retail trade, and communication
Source: State Bank of Pakistan

It is noteworthy that the overall credit risk profile of banking sector is in a comfortable position, which is evident by relatively contained increase in NPLs despite stressed macroeconomic environment. Banks' loan portfolio reflects a relatively conservative approach in terms of credit worthiness of borrowers, as it mainly comprises large borrowers with generally better credit worthiness and established business track record e.g. around 65 percent of corporate and commercial credit portfolio is lent to rated borrowers (**Figure 3.14**). Moreover, within rated exposure, 45 percent carries credit risk weight of 20 percent, reflecting relatively better credit worthiness of the borrowers. These large rated borrowers can also access the capital market for their financing needs, however, they prefer bank borrowings due to a number of reasons including the possible reason of limited outreach of capital markets.

It is pertinent to mention that the SBP duly recognizes the importance of a developed capital market for financial stability and sustainable economic growth. In this regard, SBP is cooperating with Securities and Exchange Commission of Pakistan (SECP) for the implementation of Capital Market Development Plan and Road Map.[14] Through its regulatory regime, SBP is also promoting corporate governance regime and incentivizing the firms to access capital market funding.[15]

Rated and Unrated Exposure of Banks **Figure 3.14**



Source: State Bank of Pakistan

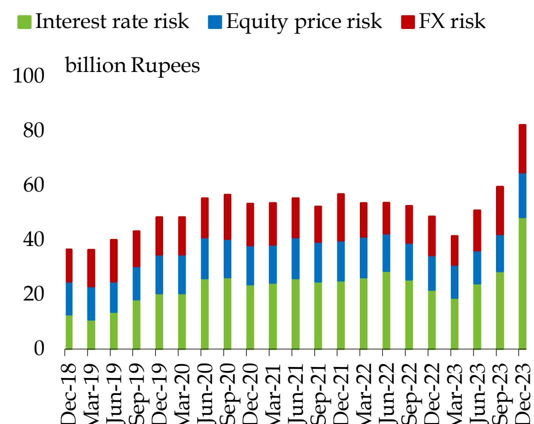
3.2 Market Risk

The market risk accounts for only 5.1 percent of the minimum required regulatory capital at end CY23. This low capital charge is due to limited exposure of the banking sector in FX and equities. However, due to higher exposure in government securities, a zero-rated from credit risk perspective, interest rate risk increased over the year under review (**Figure 3.15**).

In particular, investment in government securities has reached 53.0 percent of the banking sector's asset base by end CY23. Furthermore, despite healthy deposits mobilization during CY23, reliance of banks on borrowings from FIs also increased, which reached 25.2 percent of assets.

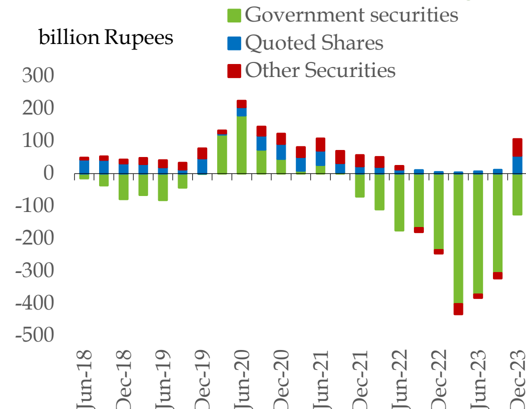
[14] Source: Capital Market Development Plan and Road Map, 2020-2027, SECP
[15] For instance, as per SBP's prudential regulations, audited financial statements of the borrower is a pre requisite for corporate sector lending by banks/DFIs. Similarly, lending to large unrated borrowers (with total exposure of more than Rs 3 billion) involves higher capital charge for banks/DFIs, thus incentivizing the large borrowers to get themselves rated which is also essential for accessing the capital market funding in the form of shares, bonds, and Sukuk.

Capital Charge for Market Risk **Figure 3.15**



Source: State Bank of Pakistan

Revaluation Surplus on Securities **Figure 3.16**



Source: State Bank of Pakistan

Despite elevated interest rate environment, the revaluation losses subsided as year progressed

Around 90 percent of the government securities were held in Available for Sale (AFS) and Held for Trading (HFT) categories. Both these categories are subject to regular mark-to-market adjustment for any changes in interest rates to represent the true and fair value of these instruments in equity and capital cushions of banks.

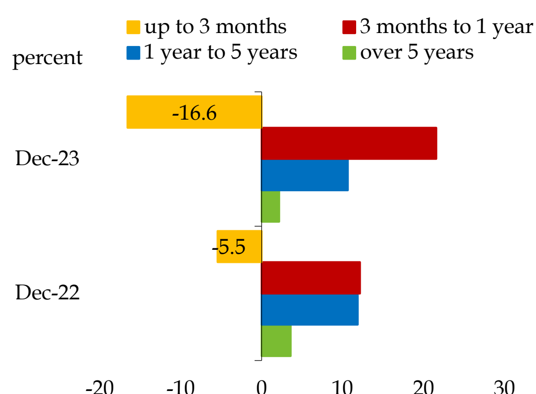
SBP raised the policy rate by a cumulative 600 bps during CY23. Accordingly, the increase in PKRV rates also affected banks through revaluation losses on government securities held in AFS category. However, the revaluation deficit on government securities, which rose to Rs 307.2 billion by end September 2023, fell to Rs 126.7 billion by end December 2023. The improvement mainly emanated from a downward shift of yield curve in Q4CY23 as well as gradual decline in duration of the investments, which resulted in lowering the revaluation losses on AFS in Q4CY23. Besides, the rebound in domestic equity market also resulted in revaluation gains on quoted shares, which also contributed in the reduction of overall deficit on revaluation of securities to only Rs 20.9 billion by end CY23 from Rs 242.2 billion at end December 2022 (**Figure 3.16**).

Exposure to floating rate securities increased

Banks have also strategized to increase the combined share of floating rate portfolio in their government securities in AFS and HFT categories, which rose to 63.9 percent by end 2023 from 58.3 percent at end 2022. The weighted average duration of the floating rate instruments is 2.4 months for AFS category and 1.1 months for the floating rate instruments under HFT category. The increasing share of shorter maturity/repricing tenors of the investment portfolio helped banks to contain the impact of revaluation losses in a rising interest rates environment.

The gap of rate sensitive assets and liabilities (RSA and RSL) is another channel that impacts banks' financial health in case of changes in interest rates. The banking sector was able to maintain a positive RSA-RSL gap in different maturity buckets. However, the gap for up to 3-month bucket widened in December 2023 (**Figure 3.17**) due to mobilization of saving deposits and short-term borrowing to support the growth in banks assets.

Gap of Rate Sensitive Assets and Liabilities as Percent of Total Assets **Figure 3.17**



Source: State Bank of Pakistan

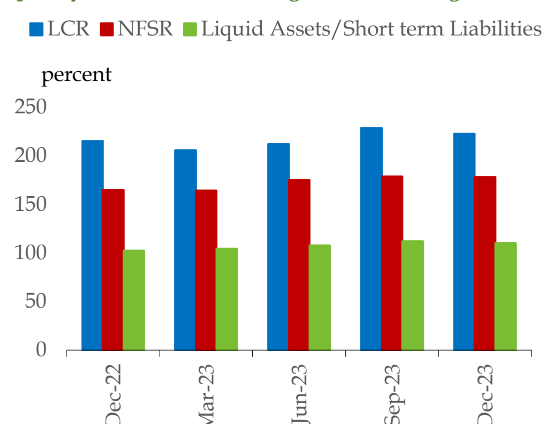
Nonetheless, the results of the latest stress testing exercise show that the banking sector in general remained resilient to hypothetical severe shocks related to various market risk factors such as up to a 300 bps upward shift in yield curve along all maturities, up to 30 percent depreciation of PKR against USD, and up to 36.1 percent decline in equities (the maximum quarterly fall in the KSE-100 index).[16]

3.3 Liquidity Risk

On the back of a significant increase in the holding of government securities, the banking sector maintained a comfortable liquidity profile during CY23 that is also reflected in liquidity-related FSIs of the sector (**Figure 3.18**). The higher government securities in asset mix facilitated banks to manage their liquidity requirements, as these instruments have a reasonably developed secondary market.

The banking sector remained compliant with statutory requirements of the Basel-III standards of Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) of at least 100 percent that cover different aspects of banks overall liquidity profile in dynamic manners. The LCR and NSFR ratio of the banking sector improved to 223.0 percent and 178.2 percent, respectively, in December 2023 from 215.5 percent and 166.0 percent at end December 2022, suggesting a satisfactory liquidity profile.[17]

Liquidity Indicators of Banking Sector **Figure 3.18**



Source: State Bank of Pakistan

A substantial expansion of balance sheet required a concomitant increase in funding. However, the deposit growth could not keep pace with asset growth, necessitating borrowing from financial institutions, especially the central bank. Specifically, the reliance of banks on the SBP's OMOs injections remained intact (**Figure 3.19**). Besides assisting banks in managing their day-to-day liquidity requirements, these OMO injections helped SBP to keep the overnight rate close to the policy rate.

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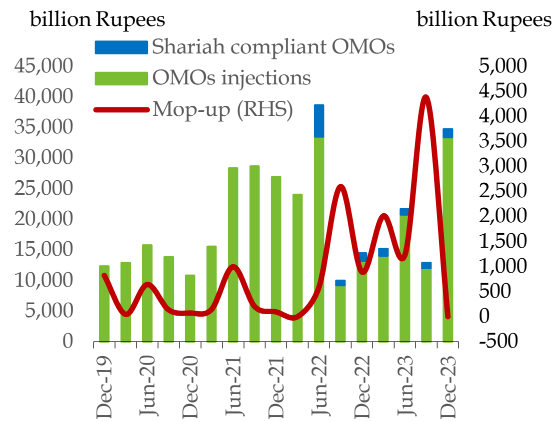
[16] The results of stress testing (sensitivity analysis) is available at: https://www.sbp.org.pk/ecodata/fsi/qc/2023/Dec.pdf

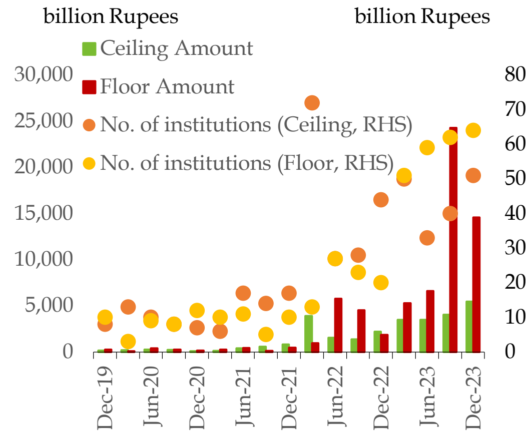
[17] The minimum LCR requirement ensures that banks have high-quality liquid assets to cover all of their liabilities maturing in next 30 days. NSFR, which has long-term perspective, requires that banks have stable funding available to cover at least 100 percent required stable funding needs of their business. Available Stable Funding is the portion of a bank's capital and liabilities that will remain with the institution for more than one year, while Required Stable Funding is the amount of stable funding that it is required to hold given the liquidity characteristics and residual maturities of its assets and the contingent liquidity risk arising from its off-balance sheet exposures. Details of NSFR is available at: www.bis.org/fsi/fsisummaries/nsfr.htm

SBP OMOs Injections and Mop-up **Figure 3.19**



Source: State Bank of Pakistan

Use of SBP Standing Facilities **Figure 3.20**



Source: State Bank of Pakistan

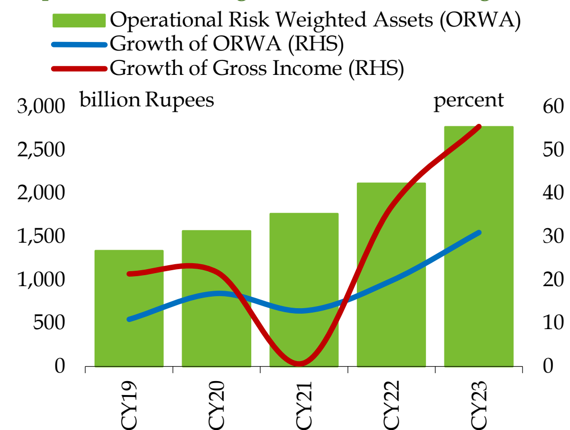
Moreover, the higher use of SBP standing facility (floor) was a notable phenomenon, especially in Q3CY23, reflecting surplus liquidity with certain banks which they preferred to place for short-term in line with their expectations on interest rates (**Figure 3.20**). Specifically before the monetary policy review of September 14, 2023, the market was possibly perceiving a rise in SBP policy rate on the back of increase in global oil prices and their pass-through to domestic prices, and current account's deficit in July 2023 which was in surplus during previous two quarters of 2023.[18]

Nonetheless, the sensitivity stress testing exercise of hypothetical liquidity shocks suggests that most of the banks survive withdrawal of up to 10 percent of customer deposits till 5th day; however, in a severe hypothetical shock of withdrawal of up to 50 percent wholesale deposits, a few banks may face liquidity constraints beyond five days.[19]

3.4 Operational Risk

Operational Risk Weighted Assets (ORWA) have been rising steadily in recent years; however, with a doubling of earnings (gross income) in CY23 (compared to CY21), ORWA has recorded a sharp increase (**Figure 3.21**). Its share in total risk weighted assets rose to 19.9 percent in 2023 (17.0 percent at end 2022), and is still second major component of total risk weighted assets of the banking sector.[20]

Operational Risk Weighted Assets **Figure 3.21**



Source: State Bank of Pakistan

[18] Domestic petrol prices rose Rs 14.9 per liter and High speed diesel oil price rose Rs 18.4 per liter on September 1, 2023. These prices were increased by Rs 17.5 per liter for petrol and Rs 20.0 per liter for High speed diesel on August 16, 2023.

[19] https://www.sbp.org.pk/ecodata/fsi/qc/2023/Dec.pdf

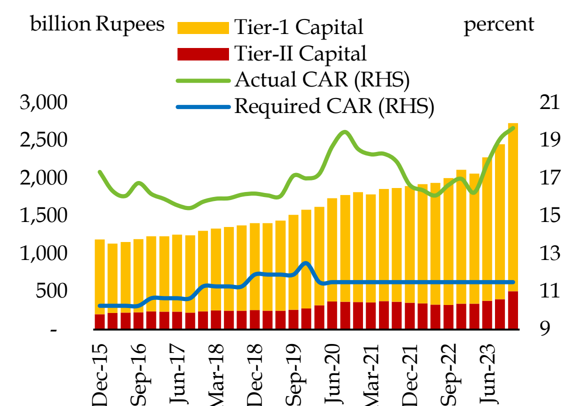
[20] Gross income forms the basis of calculating the ORWA under Basic Indicators approach (BIA) of Basel-III standards and is used by most of the banks in Pakistan. Capital charge for operational risk under the BIA is a fixed percentage of the average annual gross income of a bank over past three years.

With the expanding outreach of banking sector and transaction volumes along with increased use of alternative delivery channels and digitization, there has been an associated increase in various types of operational and fraud risks in the operations of banks. SBP has provided an enabling regulatory regime to mitigate the risk of such frauds; moreover, it proactively supervises the effectiveness of banks' controls system and engages with them to minimize the occurrence of such incidents to protect depositors and users of financial services. During the year under review, SBP took a number of measures to improve the controls against sophisticated fraud techniques and raise public awareness (**for details see Appendix A on SBP Regulatory Developments during CY2023**).

3.5 Solvency

Solvency of the banking sector improved as the Capital Adequacy Ratio (CAR) increased to 19.7 percent by end December 2023 from 17.0 percent at end December 2022. The uptick in CAR emanated from higher growth in regulatory capital that outpaced growth in total risks weighted assets. While the higher profits enabled banks to retain earnings that augmented Tier-I Capital, Tier-II capital also rose due to revaluation gains on AFS securities (**Figure 3.22**). Particularly, these gains occurred in Q4CY23, when the yield curve shifted

Solvency Indicators of Banking Sector **Figure 3.22**

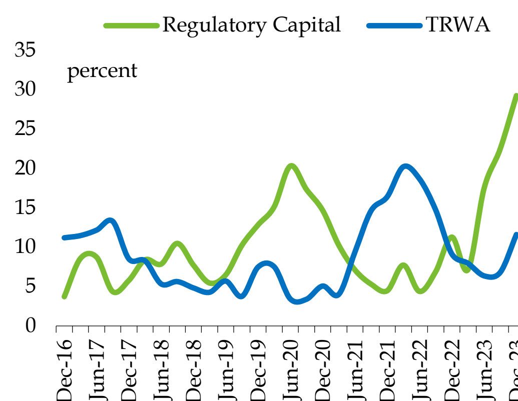


Source: State Bank of Pakistan

downward from its end September 2023 level (**see the section on Market Risk for details**).

On the other hand, a subdued expansion in overall advances suppressed growth in Credit Risk Weighted Assets, which is the major component (73.0 percent at end December 2023) of Total Risk Weighted Assets (TRWAs), and favorably contributed to solvency. A higher growth in regulatory capital that outpaced the growth of TRWAs, raised the CAR by end 2023 (**Figure 3.23**). The prevailing CAR was well above the domestic and international minimum benchmarks of 11.5 percent and 10.5 percent, respectively.

Growth in Regulatory Capital and Total Risk Weighted Assets (TRWA) of Banking Sector **Figure 3.23**

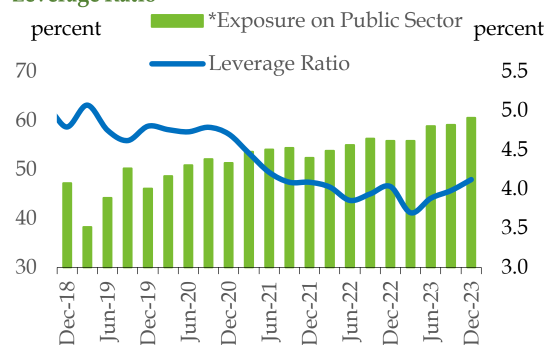


Source: State Bank of Pakistan

Over the last few years, banking sector exposure in government securities has significantly increased which requires no capital charge (involving zero risk weight) for credit risk and relatively low capital charge in respect of market risk. In order to avoid the excessive leverage that banks can built in such an investment proposition, banks are subject to a minimum leverage ratio requirement i.e., 3.0 percent as per Basel standards. This ratio acts as non-risk backstop to CAR requirement to address any model issues in calculating the risk weights and

address the issues of excessive leveraging.[21] The leverage ratio of Pakistan's banking sector has come down in the last few years due to increase in assets base and exposure, particularly the investment in government securities – declining from 4.8 percent at end December 2018 to 4.1 percent at end CY23 (**Figure 3.24**). However, the ratio is still higher than the minimum requirement of 3 percent.

Banks' Exposure to Public Sector and Leverage Ratio **Figure 3.24**



*Exposure to Public Sector = Investment in Government Securities + Public Sector Advances
Source: State Bank of Pakistan

Nevertheless, substantial increase in banks' exposure on government has implications for private sector credit and economic growth as well as the performance of banks.[22] It is, therefore, important to both improve the fiscal position by rationalizing the expenditures and enhancing revenues through broadening of tax net as well as tap alternate sources e.g. capital market for financing the fiscal needs.

As regards the key financial risk to the solvency of banking sector, i.e., credit risk, the capital impairment ratio (net NPLs to capital) of 2.7 percent at end December 2023 stands at a comfortable level, suggesting a contained risk to the solvency of the sector from its existing delinquent loan portfolio. The results of stress tests, which SBP conducts regularly, also show that the banking sector has adequate resilience to withstand a set of severe but plausible hypothetical shocks in key risk factors (credit, market and liquidity risks) as well as macroeconomic conditions (**for details see chapter on Resilience of the banking sector**).

[21] Leverage ratio, a non-risk based constraint on banks' exposures vis-à-vis capital levels, was introduced by the Basel Committee on Banking Supervision in 2014. It is defined as LR = Tier 1 Capital/Total Exposure. Exposure means on and off balance sheet exposures at their nominal value, without assigning any lower risk weight to government exposures.

[22] See (i) Ahmed, J. (2016). Credit conditions in Pakistan: supply constraints or demand deficiencies? The Developing Economies, 54(2), 139-161. (ii) Zaheer, S., Khaliq, F., & Rafiq, M. (2017). Does government borrowing crowd out private sector credit in Pakistan. State Bank of Pakistan, Working paper, 83.

Box 3.1: Islamic Banking Institutions: Performance and Soundness

Islamic banking institutions (IBIs) continued their growth momentum during CY23. Their asset base expanded by 24.4 percent (Rs 1,765 billion) on the back of strong growth in deposits. The growth in assets was mainly contributed by investments, while growth in financing decelerated to 7.1 percent in CY23, which was however higher than the growth in advances of conventional counterparts (**Table 3.1.1**).

The increase in IBIs' investments was driven by Government of Pakistan Ijarah Sukuk, which raised the share of investments in asset base to 47.1 percent by end CY23. Shariah-compliant investments in government securities has recorded double-digit growth in last four years (CY20-CY23), as the government issued Shariah-compliant instruments (Sukuk) for meeting its rising fiscal needs. This is helpful for the development of Sukuk market in the country and diversifying government debt instruments. Moreover, the rising share of Sukuk on balance sheet of IBIs also facilitated them in managing their liquidity.

Performance of Islamic Banking Institutions — **Table 3.1.1**

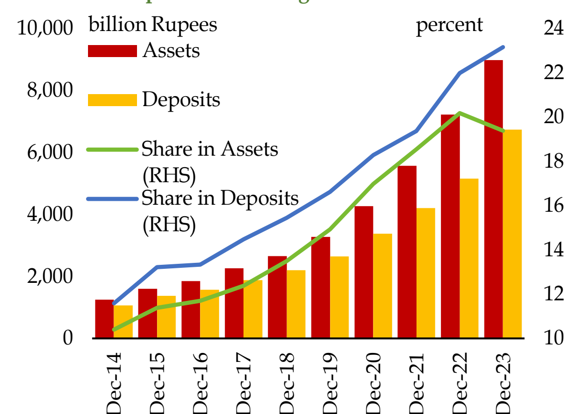
	CY21	CY22	CY23	CY21	CY22	CY23
	IBIs			Conventional Banks		
billion Rupees						
Total assets	5,577	7,229	8,994	24,482	28,567	37,369
Investments-net	1,852	3,051	4,235	12,703	15,349	21,784
Advances-net	2,597	3,113	3,335	7,523	8,705	8,843
Deposits	4,211	5,161	6,749	17,509	18,301	22,379
Borrowings	671	1,115	872	4,067	6,730	10,801
YoY Change (percent)						
Total assets	30.6	29.6	24.4	17.4	16.7	30.8
Investments-net	46.8	64.8	38.8	19.0	20.8	41.9
Advances-net	38.1	19.9	7.1	17.4	15.7	1.6
Deposits	24.2	22.6	30.8	15.7	4.5	22.3
Borrowings	91.3	66.1	-21.8	41.9	65.5	60.5
Share within Total Assets (percent)						
Investments-net	33.2	42.2	47.1	51.9	53.7	58.3
Advances-net	46.6	43.1	37.1	30.7	30.5	23.7
Deposits	75.5	71.4	75.0	71.5	64.1	59.9
Borrowings	12.0	15.4	9.7	16.6	23.6	28.9
FDR/ADR (%)*	61.7	60.3	49.4	43.0	47.6	39.5

*FDR=Financing to Deposits ratio and ADR=Advances to Deposits ratio

Source: State Bank of Pakistan

Since the asset base of conventional banks posted relatively stronger growth on the back of higher borrowings and investment in government securities, the IBI's share in asset base of overall banking sector slightly came down to 19.4 percent by end CY23 (20.2 percent at end CY22). Their share in total deposits, however, rose to 23.2 percent by end CY23 from 22.0 percent in December 2022, as IBIs maintained a healthy deposit mobilization in CY23 – surpassing the deposit growth of conventional counterparts (**Figure 3.1.1**).

Share of Islamic Banking Institutions in Assets and Deposits of Banking Sector — **Figure 3.1.1**



Source: State Bank of Pakistan

In line with the overall trend in banking sector, weak financing demand, subdued economic activity and tight financial conditions dampened the IBIs' financing activity. Financing grew by significantly lower amount i.e. Rs 222.0 billion in CY23 compared to Rs 515.9 billion in last year. This increase was mainly driven by private financing to sectors such as agribusinesses, textile, chemicals, sugar etc. However, the net retirements by commodity procurement agencies suppressed the overall increase in financing during CY23.

On funding side, deposits showed strong growth in CY23. Besides the abolishment of ADR-linked tax policy, full conversion of one bank as a full-fledged Islamic bank, may have supported this strong growth in CY23. Accordingly, IBIs' reliance on borrowings declined over the year – borrowing declined by Rs 242.6 billon in CY23, as compared to Rs 443.5 billion increase in last year. The reduced average size of Murabaha-based OMOs injections (from Rs 132.8 billion in last year to Rs 64.7 billion in CY23) also suggests IBI's lower reliance on central bank liquidity facilities during the year under review.

Due to faster growth in deposits compared to financing, the FDR ratio fell to 49.4 percent by end December 2023, though the ratio was still higher than ADR of conventional banks (**Table 3.1.1**).

Islamic Banking Institutions maintained soundness

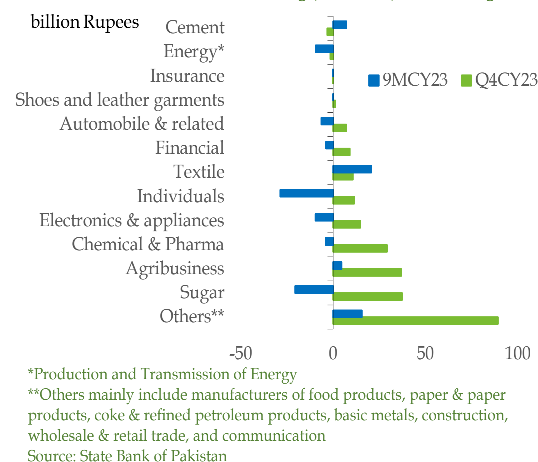
By maintaining a sound financial position, IBIs contributed to the overall stability of banking sector. The non-performing financing (NPF) to total gross financing ratio rose to 3.8 percent, however, the overall asset quality indicators remained at a comfortable level with provisioning coverage of 91.5 percent and contained net NPF ratio.

Earning indicators such as ROA and ROE showed significant improvement, as after tax profit almost doubled in CY23 to Rs 225.4 billion. Major push to the earnings came from net profit income in a high benchmark rate environment, while non-markup income, such as fee income, also contributed. IBIs contributed 35 percent of after tax profit to the overall banking sector during CY23, much higher than their market share in overall banking sector.

Liquidity profile of IBIs improved on the back of increased investments in Sukuk and reduction in short-term borrowings.

Solvency indicators such as CAR improved to 20.7 percent in CY23, as higher earnings augmented Tier-I capital. The CAR which mainly comprised Tier-I capital was well above the minimum regulatory requirement of 11.5 percent as well as higher than the overall CAR of the banking sector (**Table 3.1.2**).

Flow of Sector wise Private Financing (Domestic) of IBIs **Figure 3.1.2**



*Production and Transmission of Energy
**Others mainly include manufacturers of food products, paper & paper products, coke & refined petroleum products, basic metals, construction, wholesale & retail trade, and communication
Source: State Bank of Pakistan

Financial Soundness Indicators of Islamic Banking Institutions **Table 3.1.2**

			percent
	Dec-21	**Dec-22**	**Dec-23**
Asset Quality			
NPFs to Total Financing	2.7	2.6	3.8
Provision to NPFs	90.8	96.1	91.5
Net NPFs to Net Financing	0.3	0.1	0.3
Net NPFs to Capital	2.1	0.8	1.7
Earnings			
ROA before Tax	2.0	2.9	4.9
ROA after Tax	1.3	1.7	2.8
ROE before Tax	32.6	51.4	75.5
ROE after Tax	21.4	30.5	43.2
Liquidity			
Liquid Assets to Total Assets	33.2	41.6	49.1
Liquid Assets to Total Deposits	44.0	58.2	65.4
Liquid Assets/Short term Liabilities	74.9	88.6	112.1
Financing to Deposits	61.7	60.3	49.4
Customer Deposits to Total Financing	145.6	149.5	177.1
Capital			
Total Capital to Total RWA	16.0	17.8	20.7
Tier 1 Capital to Total RWA	12.8	15.0	17.3
Capital to Total Assets	5.7	5.9	7.3

Source: State Bank of Pakistan

4

Resilience of the Banking Sector

The stress scenario used in this assessment is not a forecast of macroeconomic and financial conditions. It is a hypothetical, coherent, tail-risk setting designed specifically to assess the resilience of the banking sector against hypothesized deterioration in macroeconomic conditions. Under both the baseline and stress scenarios, the solvency level of the banking sector comes under strain but remains well above the domestic regulatory benchmark over the projected three-year horizon. Systemically important large banks carry sufficiently higher capital buffers and are expected to sustain the impact of the assumed shocks over the assessment period. Similarly, the medium and small sized banks are also expected to remain resilient to the shocks. However, credit growth under the baseline scenario is projected to remain low but positive. Under the stress scenario, loans growth is projected to be lower –entering even in negative growth territory. Considering the uncertainty regarding global commodity markets and macro financial conditions, the SBP continues to closely watch the evolving situation and remains ready to take actions necessary to safeguard financial stability.

4 Resilience of the Banking Sector

4.1 Overview and Scenario Design

In order to gauge the resilience of regulated entities, SBP conducts a series of periodic stress tests[1] on a regular basis, including a yearly comprehensive top-down Macro Stress Testing[2] (MST) exercise for the external stakeholders. The MST exercise involves mapping the impact of credit, market and operational risks, under baseline and stressed scenarios, on banks' solvency position. The projection horizon for the MST exercise is three years.

The MST exercise incorporates two hypothetical scenarios, namely, *baseline* or *business as usual* (S_0) and *stressed* (S_1). The horizon spans Q1CY24 to Q4CY26. A dynamic balance sheet is assumed, where advances and their delinquency rates are estimated based on dynamics of macro-financial risk factors under the assumed scenarios. Whereas for the solvency, the projected paths of lending portfolio and non-performing loans (NPLs) are used to estimate the regulatory capital (RC) and risk weighted assets (RWA). Specifically, the RC and RWAs are impacted by the credit, market and operational risks. Projections are obtained using a suite of vector auto-regressive (VAR) models.

In addition to the system level assessment, the cross-sectional heterogeneity is also captured for the different segments of the banking industry in terms of size, i.e., small, medium, and large banks.

4.2 The Baseline Scenario (S_0)

The confluence of long standing structural weaknesses with shocks to country risk premium and economic agents' sentiments led to a challenging macroeconomic environment during first half of CY23. Driving factors behind these shocks included heightened level of political uncertainty and disruptions in the IMF stabilization program at a time when foreign exchange (FX) reserves were at a low position. Lagged impact of floods in Q3CY22 and insufficient fiscal consolidation also played their role in pushing inflation up.[3] As a result of these challenges, domestic economy faced historically high levels of inflation and currency depreciation, coupled with a sharp reduction in real GDP growth.[4]

However, macroeconomic environment improved in second half of CY23. Positive developments in external sector included resumption of the IMF program, considerable reduction in country risk premium, surplus in current account on annual basis, improvement in FX reserves and stability in exchange rate. On real side, developments included improvement in business confidence, signs of recovery in large-scale manufacturing and reduction in inflation. Against this backdrop, the baseline scenario, S_0, is built around three main assumptions regarding global and domestic risk factors.

The new government will be able to unlock multilateral financing and implement economic reforms in a stable policy environment…

First, S_0 assumes that the formation of new coalition government will bring about stability to ensure continuity of multilateral financing under a new IMF program, which is in part contingent upon implementation of economic reforms in fiscal, energy and state-owned-

[1] SBP applies various approaches i.e. top-down & bottom-up; methodologies i.e. sensitivity & macro stress tests, and; a suit of models. Currently, SBP follows stress testing regime established under Stress Testing Guidelines of FSD Circular No. 01 of 2020.
[2] MST is considered an important risk analysis tool as it evaluates the shock absorption capacity of financial institutions towards adverse macroeconomic developments in a forward-looking manner.
[3] A brief account of global and domestic developments during CY23 has been covered in Chapter-1.
[4] Real GDP growth declined from 6.2 percent in FY22 to -0.2 percent in FY23. YoY inflation and depreciation during CY23 were 29.7 and 19.7 percent, respectively.

enterprises sectors. Further, the presence of domestic stability, together with availability of multilateral financing, will boost sentiments, stabilize domestic currency and pave the way for gradual economic recovery. However, owing to fiscal discipline under assumed multilateral funding arrangement and cautious monetary policy stance amid ongoing inflationary environment, GDP growth is not likely to exhibit a sharp rebound.

Public debt is expected to remain under check owing to fiscal consolidation measures and stable exchange rate…

Second, the scenario assumes that owing to implementation of fiscal consolidation measures under the new IMF program, fiscal deficit will be manageable. On the other hand, resumption of multilateral flows is likely to boost confidence, reduce risk premium and stabilize the exchange rate. Based on these two assumptions, the public debt, which increased by 28.4 percent in CY23, is likely to remain in check. However, to control rise in circular debt, revisions in energy tariff and disbursement of power subsidies under the Circular Debt Management Plan FY24, alongside other fiscal measures, are assumed to put upward pressures on prices.

Global commodity prices are expected to remain broadly stable…

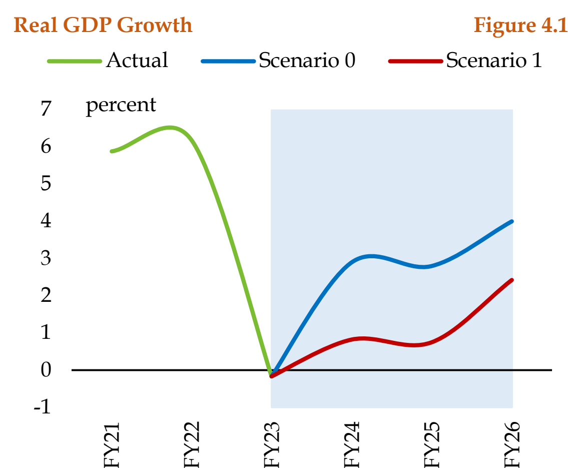
Finally, global food and energy prices, which peaked in the aftermath of the Russia-Ukraine conflict amidst post-pandemic recovery, have leveled off after observing a substantial decline in 2023. Following global projections and future oil contracts, the scenarios assumes that oil prices will remain stable in 2024 before observing a slight decline in 2025. In case of food, favorable supply conditions may lead to around 5 percent reduction in global food price index.[5]

Two other factors are also incorporated in the baseline scenario. First, given Pakistan's vulnerability to global warming, climate risk related events of moderate scale may lead to economic losses during the projection horizon.[6] The scenario assumes that average level floods may impact economic activity to some extent, while causing temporary bouts of food inflation. Second, global geo-economic fragmentation and resulting slowdown in global trade and productivity are likely to negatively affect external inflows for the domestic economy.

Consequently, growth is assumed to exhibit gradual recovery while inflationary pressures are likely to ease in a stable but consolidating policy environment…

In this perspective, S_0 assumes GDP to grow by around 2.5 percent in FY24 and 2.8 percent in FY25. However, the growth is expected to rise to 4.0 percent in FY26 on account of the assumed ameliorations in global and domestic economic environment (**Figure 4.1**). Further, YoY average CPI inflation may stay at elevated levels of 25.1 percent and 12.8 percent during FY24 and FY25, respectively. Inflation is assumed to reach 7.0 percent during FY26 (**Figure 4.2**).

Real GDP Growth **Figure 4.1**

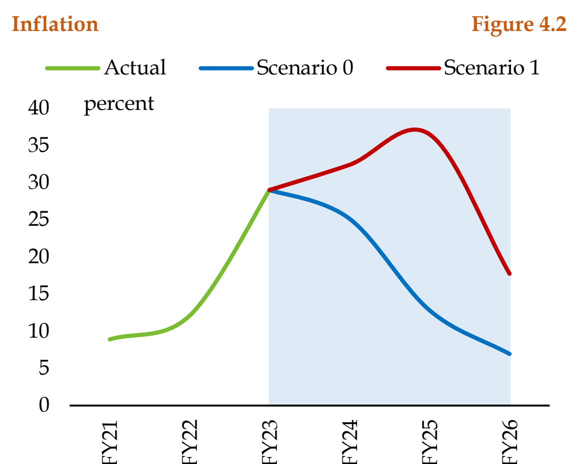


Source: SBP Staff Calculations

[5] World Bank Commodity Markets Outlook, April 2024.

[6] The Germanwatch has included Pakistan in the category of countries that are recurrently affected by the catastrophes and has ranked it at 8th position in long-term climate risk index. Global Climate Risk Index (CRI) 2021. Germanwatch.

Inflation Figure 4.2



Source: SBP Staff Calculations

4.3 The Hypothetical Stressed Scenario (S_1)

The S_1 is built around the following assumptions regarding global and domestic risk factors.

Domestic uncertainty may lead to lagging pace of economic reforms…

Economic reforms are critical to address long-standing structural issues of fiscal sector, particularly pertaining to the energy sector and state-owned enterprises. The S_1 assumes that owing to political cost, an inaction or resistance may lead to a slow pace of reforms agenda. Delays or disruptions in economic reforms may affect productivity of the economy in the long-term and stability in the short-term.

…culminating into delays or disruptions in the multilateral financing

Assumed slowdown on economic reforms may adversely affect prospects of smooth inflows from multilateral sources. Given the low level of FX buffers, this situation may push up risk premium and exert pressure on exchange rate. In the absence of multilateral flows, realization of official bilateral, as well as private flows, may either become difficult or costlier.

Climate-change related events of high severity pose a major risk to macro economy…

Considering the recurring history of climate risk related events, as discussed in the previous section, S_1 assumes that climate events of extreme severity may lead to economic losses during the projection horizon. A major climate related event is assumed in the first year of the projection horizon – e.g., recurrence of rains and floods similar to CY22.

A rise in geopolitical tensions may result in resurgence in global commodity prices…

S_1 assumes continuation of geopolitical conflicts in the Middle East and Eastern Europe that may push food and oil prices up and precipitate negative supply shocks for global food and energy markets, culminating into a surge in global commodity prices. Resultantly, S_1 assumes that the average oil prices may rise to USD 98 per barrel by the end of FY24, before gradually declining to USD 83 per barrel by the end of projection horizon.[7]

… leading to elevated inflation necessitating continuity of tight global financial conditions

Global headline inflation indicators are showing declining trends and monetary policy rates in advanced economics are likely to ease. However, the assumed surge in commodity prices together with inflation inertia, may lead to elevated levels of inflation globally. This situation may call for delays in anticipated interest rate cuts leading to realization of "higher-for-longer" scenario. S1, thus, assumes that financial conditions may tighten in the near term, making external financing for emerging markets and developing economies (EMDEs), including Pakistan, more expensive and difficult. This may also build pressure on

[7] Corresponding baseline assumptions are USD 82.4 per barrel at the end of FY24 and USD 70 per barrel at the end of projection horizon.

EMDEs' domestic currencies and may result in flight to safety.

To sum up, the domestic economy may continue to face the stagflation during the projection horizon…

Consequently, the real economy is assumed to grow by 0.4 percent and 0.8 percent in FY24 and FY25, before resuming a growth level of 2.4 percent in FY26 (**Figure 4.1**). Under S_1, the adverse supply shocks are assumed to preclude normalization of ongoing domestic inflationary trend. Accordingly, headline inflation in FY24 and FY25 is assumed to be 32.4 and 36.5 percent, respectively. Inflation is gradually assumed to come down to 17.8 percent in FY26 (**Figure 4.2**).

4.4 Stress Testing Results: System Level

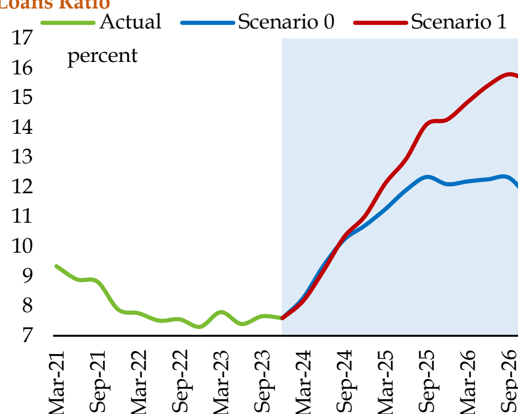
a) Impact on Credit Riskiness

The results of the MST exercise indicate that the gross non-performing loans ratio (GNPLR)[8], under S_0, is likely to remain on the higher side over three-year projection horizon (**Figure 4.3**). The rise in loan delinquency ratio, despite assumption of gradual recovery, may be explained by two factors. First, advances are projected to decline initially in response to a sharp deceleration of GDP in recent past. This denominator effect explains the rise in GNPLR. However, the advances' growth becomes positive in the second half of projection horizon; leading to slight reduction in baseline GNPLR towards the end of projection horizon. On average, advances are projected to grow by 3.0 percent over FY24 –FY26 under S_0.

Second, the lagged effects of economic challenges of recent past e.g. slowdown in economic activity, high inflation and high interest rate may lead to surge in NPLs. As a result, the GNPLR peaks at 12.3 percent from current level of 7.6 percent before settling at 11.6 percent by the end of projection period CY26.

The asset quality indicator, under hypothetical stressed scenario, S_1, on the other hand, follows an upward trajectory because of the assumed sharp slowdown amid elevated global commodity prices and domestic supply shocks. The advances growth may also significantly be affected. Under S_1, the lending portfolio is projected to contract, on average, by 2.3 percent over the projection period. The delinquency rate peaks at 15.8 percent and remains elevated until the end of projection horizon (**Figure 4.3**).

System-Level Gross Non-Performing Loans Ratio **Figure 4.3**



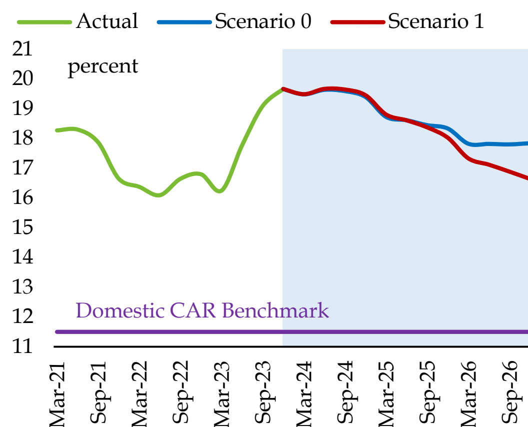
Source: SBP Staff Calculations

b) Impact on Solvency

The impact on solvency is measured via the Capital Adequacy Ratio (CAR) of the banking system.[9] The CAR of the system declines in both the scenarios. Under the baseline, the CAR shrinks by 183 bps by the end of CY26 from the prevailing level of 19.7 percent. However, in stress scenario, it falls by 303 bps from the current level (**Figure 4.4**).

[8] GNPLR = Gross Non-Performing Loans ÷ Gross Advances
[9] CAR = Eligible Capital ÷ Risk Weighted Assets

System-Level Capital Adequacy Ratio **Figure 4.4**



Source: SBP Staff Calculations

Positively though, under both the scenarios, the banking industry maintains its CAR above the local minimum regulatory requirement of 11.5 percent and global benchmark of 10.5 percent during the entire period of projection horizon.

The resilience of the banking sector, despite the substantial level of assumed slowdown in real economy, can be justified based on following facts. First, the banking sector is already maintaining higher capital buffers i.e. 817 bps above the regulatory benchmark of 11.5 percent. Second, the release of 100 bps capital conservation buffer during COVID-19 has not been reversed yet, which gives banks additional liquidity. Third, favorable overall repricing gaps amidst assumed policy rate movements provide further cushion during times of stress. Finally, the sector's historical behavior has been to re-balance asset portfolio from riskier private sector loans to risk-free treasury investments.[10] Moreover, the banks in general follow a conservative lending strategy and prefer to lend to borrowers with better credit worthiness, as well as capacity to withstand macroeconomic shocks.

4.5 Results: Cross Sectional Dynamics of Banking Segments

In line with the system-level credit risk analysis, infection ratios of banking segments (small, medium and large sized banks)[11] have also been projected separately. This aspect of the banking industry is included to assess how cross-sectional heterogeneity affects the resilience of banks against various macroeconomic risks.

For the GNPLR, system-level projections of NPLs and gross advances are distributed proportionately based on the contribution of each segment to the aggregate loan portfolio of the banking system as of December 2023. Similarly, capital is also distributed proportionately to compute segment level CARs.

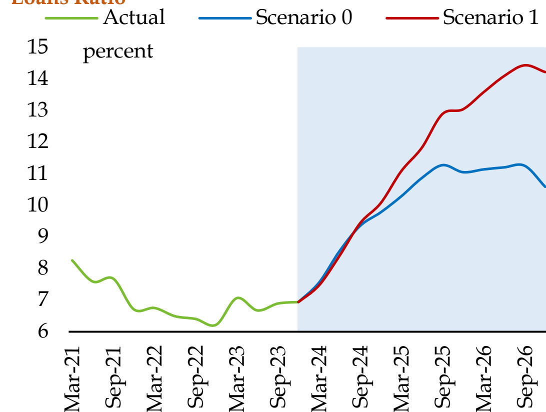
(a) Large Banks

The large banks segment - comprising 76.7 percent of the banking sector's assets – under S_0 witnesses an increase of 365 bps in GNPLR by end-CY26 from its current level of 6.9 percent. Under S_1, however, the rise in infection ratio is a bit sharper: 729 bps by the end of projection horizon (**Figure 4.5**). The CAR decreases by 183 bps in the baseline scenario and falls by 304 bps in the stressed scenario from prevailing level of 19.7 percent over the projection horizon (**Figure 4.6**). Remarkably though, the CAR remains, respectively, 641 bps and 520 bps higher than the local benchmark under S_0 and S_1.

[10] The share of credit to public sector relative to total assets of banks increased from 55.81 percent at the end of CY22 to 60.56 percent at the end of CY23.

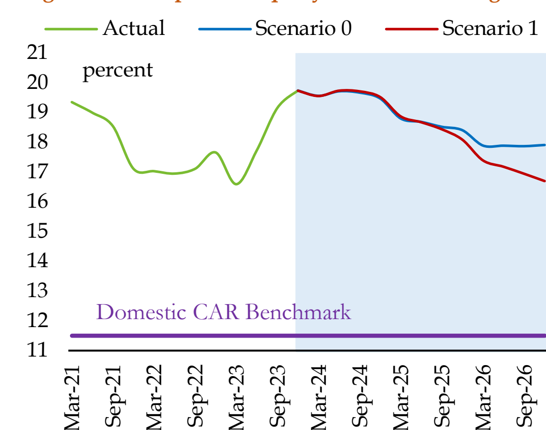
[11] The categorization has been done based on balance sheet footing. The banks with assets above 70th percentile of the entire banking sector are termed as 'Large' while below 30th percentile are categorized as 'Small'. The banks falling in between these two thresholds are categorized as 'Medium' sized banks.

Large Banks - Gross Non-Performing Loans Ratio **Figure 4.5**



Source: SBP Calculations

Large Banks - Capital Adequacy Ratio **Figure 4.6**



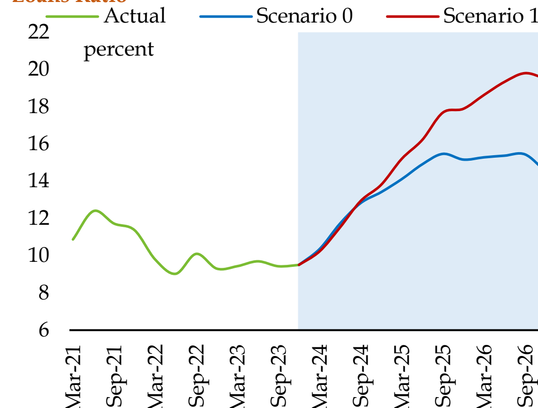
Source: SBP Calculations

The large banks are generally well-placed to withstand stress over the simulation horizon. Higher capital buffers available with larger banks are the likely factor behind this resilience. Incidentally, these banks generally have relatively lower costs of funds due to their wider outreach, giving them a competitive advantage to maintain a loan portfolio of relatively better rated obligors. More importantly, the systemically important banks are also likely to remain well-capitalized and resilient to the shocks assumed in stressed scenario.

(b) Medium-sized Banks

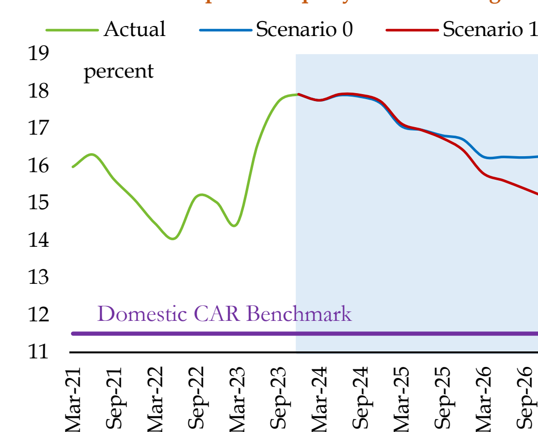
By the end of the projection period, the infection ratio of medium-sized banks (having market share 17.5 percent) increases by 501 bps and 999 bps in S_0 and S_1, respectively, from existing 9.5 percent (**Figure 4.7**). The CAR, correspondingly, attains 166 bps and 276 bps lower level compared with the prevailing reading of 17.9 percent, under S_0 and S_1. The medium-sized banks are, therefore, also expected to remain compliant with the regulatory CAR standards, even under the stressed scenario (**Figure 4.8**).

Medium Banks - Gross Non-Performing Loans Ratio **Figure 4.7**



Source: SBP Calculations

Medium Banks - Capital Adequacy Ratio **Figure 4.8**



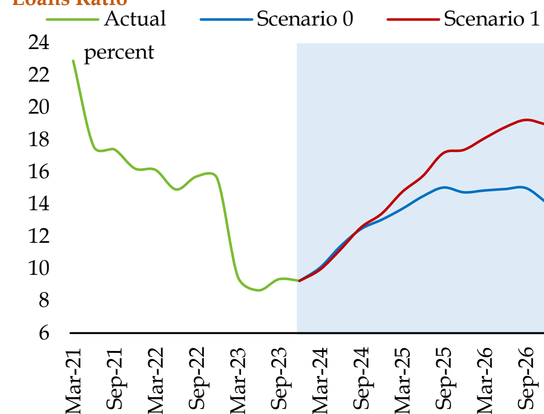
Source: SBP Calculations

Their level of CAR remains 476 bps and 367 bps percentage points above the minimum regulatory requirement (11.5 percent) in S_0 and S_1, respectively. Although their delinquency ratios are higher and pre-shock capital buffers are lower than the large and small banks segments, however, medium-sized banks also carry sufficient capital buffers and can withstand assumed shocks under stressed scenario.

(c) Small Banks

Small banks – contributing 5.7 percent of the banking sector assets – are also found to be resilient against both baseline and stressed scenarios. From its existing level of 9.3 percent, the loan delinquency rate increases by 487 bps in S_0, whereas it rises by 971 bps under S_1, by the end of horizon (**Figure 4.9**).

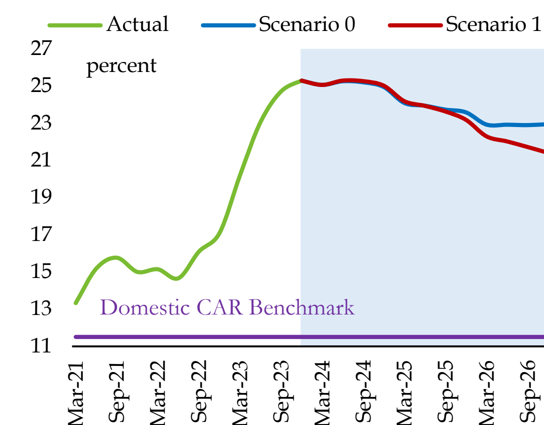
Small Banks - Gross Non-Performing Loans Ratio **Figure 4.9**



Source: SBP Calculations

In terms of solvency, the CAR of small banks falls by 235 bps and 389 bps under S_0 and S_1 from the prevailing level of 25.3 percent (**Figure 4.10**). The CAR, however, remains 1,146 bps higher than the local benchmark in S_0 while staying 992 bps above the minimum requirement under S_1. Over time, this segment has strengthened its resilience by substantially building the capital adequacy levels.

Small Banks - Capital Adequacy Ratio **Figure 4.10**



Source: SBP Calculations

Overall, under the baseline scenario, although the delinquency ratio rises, the solvency of the banking sector portrays an encouraging picture with capital adequacy staying well above the domestic regulatory benchmark. Under the hypothetical stress scenario as well, the banking sector is expected to withstand a severe slowdown induced by adverse global and domestic macroeconomic conditions, including the global commodity market pressures. In terms of size, all the segments of the sector (small, medium, and large) can withstand the stressful conditions as well. Reassuringly, the large size banks, whose stability has particular significance for economy and financial system, carry higher capital buffers and are thus able to sustain the impact of hypothesized shocks for the projection period of three years.

Also, the other two segments of banks meet the solvency criteria during the projection horizon. Furthermore, if history is any guide, the domestic banking sector has generally performed quite reasonably during severe downturns, such as the external sector crises in 2008, COVID-19 pandemic and flash floods of 2022. This is clearly visible in the results of the stressed scenario (S_1), as the sector remains well capitalized and resilient.

That said, the exact severity, duration, and paths of assumed global commodity markets and macro financial conditions due to ongoing geopolitical tensions in Middle East and Eastern Europe remain highly uncertain. As a result, the stress-test results are also subject to significant uncertainty. SBP continues to closely watch the evolving situation and remains ready to take necessary actions to safeguard the financial stability.

Box 4.1: Climate Risk Scenario Analysis

Introduction

Climate change is one of the many structural changes that affect the financial system. The issue has got significant attention of the financial sector regulators, international organizations and market participants towards understanding the implications of climate change for the financial sector and its stability. SBP, recognizing its importance and criticality, has also included climate change as one of the strategic themes in its Vision 2028.[12]

According to the Global climate risk index, Pakistan is the 8th most vulnerable country to climate change.[13] Over the years, physical hazards due to climate - related changes have adversely impacted the economy of Pakistan.[14] Climate change may impact the banking sector by affecting the credit worthiness of counterparties or through holding of financial assets that are vulnerable to climate change. Besides its direct impact on financial sector, climate change can impact the wider economy, which may in turn affect the banking system.

On a broader level, risks to financial stability from climate change are classified into Physical and Transition risks. **Physical risks** include possible economic costs and financial losses resulting from the increased severity and frequency of climate-change related weather events. Whereas, **Transition risks** relate to the process of adjustment towards a low carbon economy including shifts in policies designed to mitigate and adapt to climate change.

Given Pakistan's economic vulnerability to climate change, an assessment of climate related risks to the banking sector is crucial. SBP has been incorporating the impacts of climate - related physical risks through demand side variables in its annual stress testing exercises published in the FSR. Building on the climate risk assessment work presented previously, this box is dedicated to the scenario analysis of physical and transition risks for the stability of banking sector of Pakistan.

Physical risk

Physical risks include economic losses from extreme weather events related to climate change as well as long terms progressive shifts of climate. Physical risk drivers are further classified into acute and chronic. Acute risk drivers include floods, wildfires, excessive precipitation, lethal heatwaves, storms and cyclones. Chronic risk drivers encompass gradual degradation caused by climate change e.g. rising sea levels, increase in average temperatures, ocean acidification and desertification as a result of extended periods of high temperature.

According to United Nations Office for Disaster Risk Reduction (UNISDR) (2014), 75 percent of the natural losses arising due to natural hazards in Pakistan are attributable to the flooding.[15] The floods of 2010 and 2022 have accentuated country's vulnerability to these events. On the back of this context, physical risk scenario analysis

* This special section has been prepared with a technical assistance from the World Bank under the "Program to Enhance the Financial Sector Stability and Crisis Preparedness". This is a research based analytical note containing staff estimates which are subject to certain assumptions and limitations and do not represent the official views of SBP.
[12] SBP Vision 2028 available at https://www.sbp.org.pk/SBPVision/Index.html.
[13] See the Global Climate risk index published by German Watch
[14] German Watch (2017), estimates Pakistan annual average losses from climate change at USD 3.8 billion.
[15] See UNISDR (2014), Prevention Web: Basic country statistics and indicators

Lending Portfolio of Banks & MFBs in Flood Vulnerable Sectors/Districts at December 2023 **Table 4.1.1**

Sr.no	Sector	Banks	MFBs
			million Rupees
1	Agriculture, forestry and fishing	270,585	193,591
2	Mining and quarrying	532	0
3	Manufacture of food products	215,704	906
4	Manufacture of textiles	229,083	2,056
5	Manufacture of wearing apparel	3,725	206
6	Manufacture of leather and related products	5,868	36
7	Manufacture of wood and of products of wood	239	33
8	Manufacture of paper and paper products	747	2
9	Construction	18,718	1,841
10	Land transport and transport via pipelines	3,245	297
11	Accommodation	491	106
12	Real estate activities	1,709	1
13	Consumer Financing	139,578	37,566
	Total vulnerable portfolio	**890,226**	**236,641**
	Gross Loans as of end December 2023	**13,100,595**	**407,790**
	Flood vulnerable portfolio (percent)	**6.8**	**58.0**

Source: State Bank of Pakistan

presented in this exercise attempts to estimate the incremental credit losses to the banking sector in case of recurrence of flooding equal in intensity to the floods of 2022. The scope of this exercise extends to the lending portfolio of banks and MFBs.

For the purpose of this exercise, geographical (district-wise) loan data of banks and MFBs, as of December 31, 2023 is utilized. For identification of vulnerable sectors[16], climate stress tests carried out by various jurisdiction were reviewed.[17] Only the sectoral lending portfolio in the districts affected by floods in 2022 is stressed for this exercise (**Table 4.1.1**).

The district wise sectoral lending exposures reveals a stark contrast: only 6.8 percent of banks' gross loan portfolio, amounting to Rs 890.2 billion, is disbursed in the affected districts and vulnerable sectors. For MFBs, 58 percent of their gross loan portfolio, amounting to Rs 236.6 billion, is concentrated in these districts and sectors. On sectoral basis, agriculture, forestry and fishing are the most vulnerable sector with major share of disbursements followed by manufacturing of textiles and consumer lending.

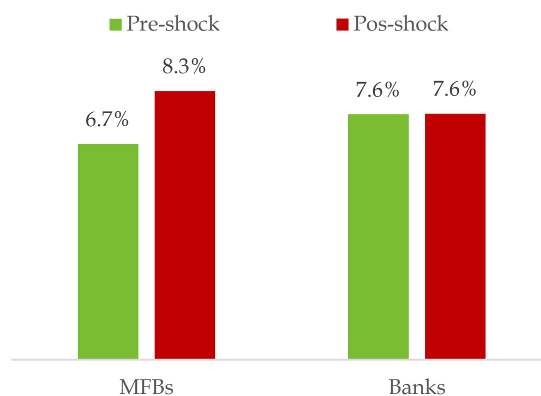
Two hypothetical scenarios have been developed to test the resilience of banks and MFBs to another episode of devastating floods, identical in the intensity to the 2022 episode. The first scenario maps the actual, post-floods sectoral growth of NPLs over four quarters i.e. Q3CY22 to Q2CY23. This intuitively incorporates the impact of regulatory relief offered by the central bank and government. A second scenario assesses the credit losses of the banks in the absence of any such relief. Deterioration in the credit portfolio of institutions during the one - year window assists in capturing the deterioration in the repayment capacity of the borrowers due to flood related economic losses.

Scenario 1 - Presence of regulatory reliefs: In this scenario, vulnerable portfolio in flood affected districts is stressed equivalent to the actual growth in credit delinquencies observed during the one-year period following the floods of 2022. The stress in this scenario is relatively subdued, as banks, in line with SBP guidance, rescheduled or restructured a significant amount of loans to dampen the impact of floods. Due to the higher concentration of their portfolio in the flood affected districts and relatively low net worth of their borrowers, MFBs are more vulnerable to

[16] These sector are based on ISIC-4 classification of advances.
[17] For reference, see climate stress tests conducted by the ECB and Bank of Canada.

floods as their non-performing loans ratio (NPLR) surges to 8.3 percent post-shock. Despite, the larger volume of loans extended by the commercial banks in the flood affected districts, their losses are relatively contained as their borrowers mainly consist of high net worth individuals and corporates (**Figure 4.1.1**).

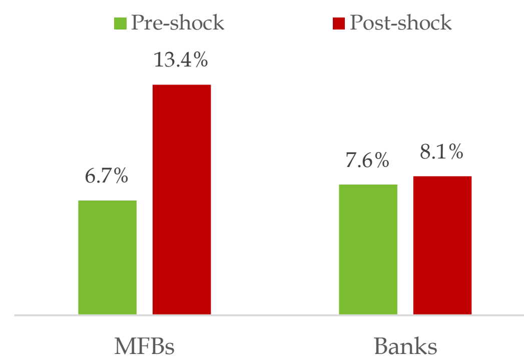
Pre and Post Shock Infection Ratios (Presence of Regulatory Relief) **Figure 4.1.1**



Source: SBP Staff Estimates

Scenario 2 - Absence of regulatory relief: This scenario is built on the assumptions similar to the previous scenario; however, the impact of restructured /rescheduled loans and any write-offs made by the institutions during the Q3CY22 - Q2CY23 have been added back.[18] Under this scenario, the asset quality of MFBs deteriorates significantly as their non-performing loan ratio (NPLR) doubles to 13.4 percent. For scheduled banks, the infection ratio surges by only 50 basis points to 8.1 percent, which, nonetheless, translates into a substantial amount given large volume of banks' lending portfolio **(Figure 4.1.2)**.

Pre and Post Shock Infection Ratios (Absence of Regulatory Relief) **Chart 4.1.2**



Source: SBP Staff Estimates

Overall, the MFB sector with relatively higher concentration of advances in the flood affected areas, is more vulnerable to climate-related physical risks compared to the scheduled banks. However, due to the relatively smaller size of their portfolio, chances of systemic risk for financial sector are muted.

Transition risk

Transition risks include potential disruptions and economic shocks arising out of transition towards a low carbon economy. Transition risk drivers include climate policies, technology and consumer/investor sentiments. Changes in these drivers may disrupt different sectors of the economy, especially the financial sector if these changes are abrupt and not planned in advance.

Imposition of carbon tax is a major climate risk mitigation policy that may affect the credit risk of banks through their counterparty exposures. Numerous central banks, regulatory authorities and the IMF have employed the use of carbon taxation scenarios to study the impact of climate related transition risks on the financial sector.[19]

For transition risk scenario, the impact of a carbon tax on the Pakistan Stock Exchange (PSX) listed firms' probabilities of default (PDs) and Interest Coverage ratios (ICR) is explored. Beginning with a carbon tax floor of USD 5 per ton of CO_2 emission (tCO_2e), changes in PDs and ICRs of corporates up to USD50/tCO_2e[20] are presented.

Probabilities of Default

Corporate sector is a major user of bank credit in Pakistan.[21] Impact of imposition of carbon tax on the financial

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[18] Write-off amounts of only Q1 and Q2 of CY23 have been included, whereas restructured/rescheduled amount of all four quarters is included in the shock.

[19] See ECB and Bank of Canada climate stress tests, IMF FSAP for Norway & Chile and transition risk stress tests for Columbia and Japan.

[20] (i) PKR-USD parity rate is the average rate for the month of December, 2023.

[21] As of December, 2023, 74.5 percent of the total private sector advances were extended to the corporate sector.

health of PSX listed firms is estimated in this scenario. To capture the transition risk to the banking sector, evolution of probabilities of default (PDs) of the firms post carbon tax is assessed.

The workhorse model to estimate PDs is based on Altman Z-score, augmented with the macroeconomic factors. However, the coefficients have been re-estimated for Pakistani firms by employing a Logit model.

$$\mathbf{Pr}(\boldsymbol{y_i} = \mathbf{1}) = \boldsymbol{\Lambda}(\boldsymbol{X_i\beta})$$

$$\boldsymbol{X} = [\frac{\boldsymbol{WC}}{\boldsymbol{TA}}; \frac{\boldsymbol{Sales}}{\boldsymbol{TA}}; \frac{\boldsymbol{RetEarn}}{\boldsymbol{TA}}; \frac{\boldsymbol{Eqty}}{\boldsymbol{TA}}; \frac{\boldsymbol{EBIT}}{\boldsymbol{TA}}; \boldsymbol{GDP_Growth}; \boldsymbol{Int.Rate}\ ]$$

Using data on 275 non - financial firms spanning over 2013 to 2022, the model estimates *pre*-shock PDs. We proxy the default ($y_i = 1$) by using firm specific data from SBP's Credit Registry, where a firm is taken to have defaulted if its credit obligations remain overdue by 90 days and above (OD ≥ 90).

For *post*-shock analysis, relevant variables are adjusted for the amount of carbon tax. The tax is calculated based on the level of sales of firms and their carbon intensity. Specifically,

Evolution of Sectoral PDs in Response to Carbon Tax **Table 4.1.2**

Sector	Carbon Intensity	No tax	Tax Rate (US$) 5	10	20	25	30	50
	(per million US$ Sales)	*Probabilities of Default (percent)*						
Fuel & Energy	2,036	14.6	14.8	15.0	15.5	15.8	16.1	17.6
Cement	888	1.9	1.9	2.0	2.0	2.1	2.1	2.2
Chemical	888	2.5	2.6	2.7	2.9	2.9	3.0	3.4
Textile	501	19.7	19.7	19.8	19.9	20.0	20.1	20.3
All		13.8	13.8	13.9	14.0	14.1	14.2	14.5
ECL* (billion Rupees)		136	139	142	149	153	157	175
GNPLR (percent)		7.6	7.6	7.6	7.7	7.7	7.8	7.9

*Expected Credit Loss = LGD x PD x EAD
Source: S&P Global (Intensities) and SBP Staff Calculations

$$\text{Emission} = [\text{Sales} \div \text{Threshold}] \times \text{Intensity},$$

Where, 'Threshold' is the PKR equivalent of one million US dollars (≈ PKR 282 million), assuming exchange rate of PKR 282 against USD. The Carbon 'Intensities' for the sectors are proxied using Standard & Poor's data on greenhouse gas emission of global industries.[22] Intensities for sectors under study are given in **Table 4.1.2.**

Finally, the Carbon Tax is given by

$$\text{Carbon Tax} = \text{Emission} \times \text{Tax Rate}$$

The tax rates ranges from USD 5/tCO_2e to USD 50/tCO_2e (in equivalent PKR). Incidentally, IMF (2021) suggests a floor of USD 25/tCO_2e for lower income emerging countries.[23] Also, as per World Bank's Carbon Pricing Dashboard, 30 jurisdictions have imposed carbon taxes in the range of 1 USD/tCO_2e (Ukraine) to 156 USD/tCO_2e (Uruguay), with an average tax of USD36/tCO_2e.[24] Therefore, the tax range used in the study is well within the plausible range.

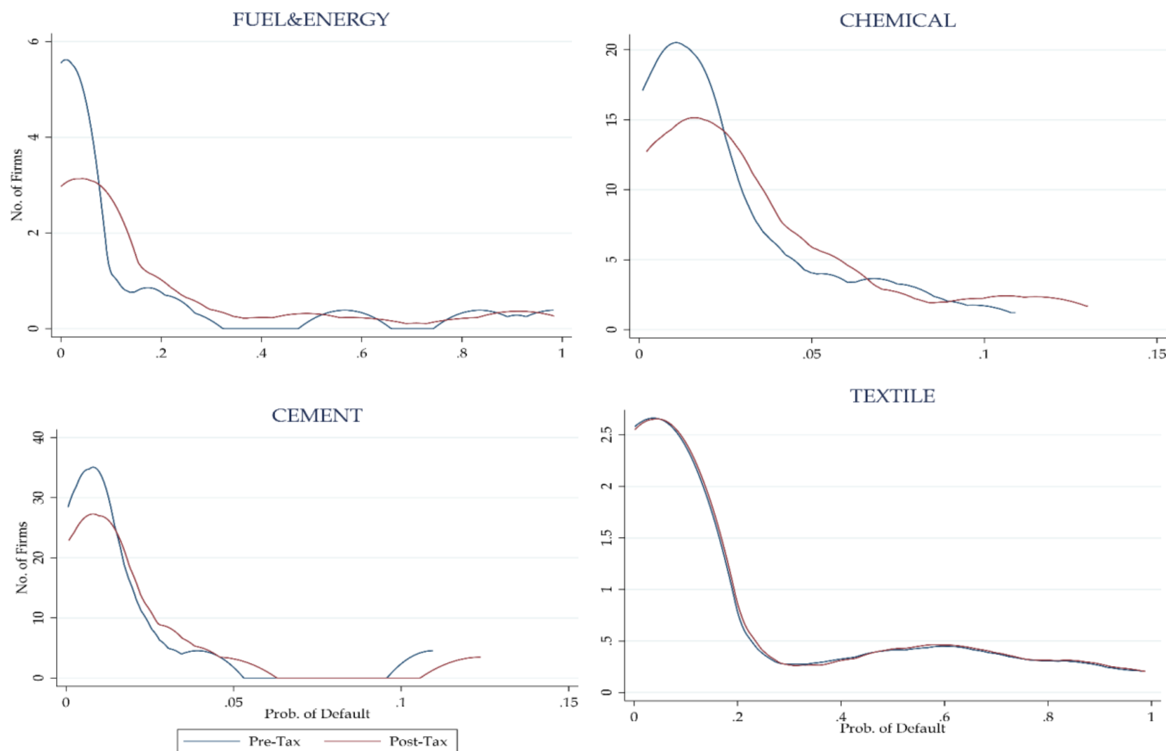
[22] See S&P (2021), "Transition Risk: Historical Greenhouse Gas Emissions Trends for Global Industries" for sectoral emission intensities.
[23] Parry, I., Black, S., & Roaf, J. (2021). Proposal for an international carbon price floor among large emitters. Staff Climate Note No. 01 of 2021, International Monetary Fund.
[24] World Bank (2023). State and Trends of Carbon Pricing Dashboard.

The Logit estimates put *pre*-shock average PD[25] of the corporates at 13.8 percent, which surges by 78 basis points (bps) to 14.5 percent in case of imposition of a 50 USD/tCO_2e carbon tax **(Table 4.1.2)**.

A marginal increase in the PD at this higher level of tax implies the financial resilience of Pakistani corporate sector. Among major sectors, Fuel & Energy and Chemicals sectors exhibit the highest vulnerability to carbon tax, given their higher emission intensities, as their PDs rise by 300 bps and 90 bps, respectively from pre-shock levels of 14.6 percent and 2.5 percent. Textile sector, with the largest share of corporate lending and relatively higher *pre*-shock PD (due to a few firms in tail of PD distribution) remains resilient in response to the imposition of carbon tax which signifies two facts: first, robust financial health of firms (as the mass of PDs is concentrated below 30 percent), and, second, low assumed carbon intensity.

The sectoral PD distributions suggest minimal migration of firms from safe **(< 0.5)** to the default zone of **(> 0.5)**. Post tax, distribution for Fuel & Energy, Chemical and Cement sectors reflect some rightwards movement i.e. rise in PDs, however, no migration to the default zone is observed for any of the firm in these sector (**Figure 4.1.3**).

Sectoral PD distribution **Figure 4.1.3**



Source: SBP Staff Calculations

Density distributions correspond to a US$ 50 tax

Results of the exercise provide some evidence that carbon tax could impact the PDs of firms in the sectors with higher emission intensities; however, the magnitude of increase in PDs is relatively contained and likely to have commensurate impact on the solvency of the banking system. This can be gauged from the fact that the credit risk

[25] These are staff model based estimates and shall not interpreted as official SBP view.

due to carbon tax (US$ 50) results in an incremental *expected credit loss*[26] of only Rs 39 billion. As a result, the infection ratio may increase from current level of 7.6 percent to 7.9 percent at maximum tax levels.

The PD model, however, relies on a multitude of factors, some of which are strong enough to dampen the aggregated impact of a carbon tax on the PDs of corporates. Resultantly, no sizeable migration of firms to the default zone is observed.

Interest Coverage Ratio:

To isolate the impact of transition risk on the debt repayment capacity of non-financial corporates, a potential source of increase in credit risk of the banking sector, changes in interest coverage ratio (ICR) of the non-financial firms in response to the imposition of a carbon tax are analyzed.

The ICR is defined as the extent of (or times/multiples) a firm's earnings before interest and taxes (EBIT) to cover the interest payments. Balance sheet and firm level emission data is utilized to estimate changes in the PSX listed firms' coverage ratios for carbon tax levels up to USD 50/tCO_2e.

Estimates of this analysis assume that firms fully absorb the carbon tax levied on their emissions. However, in practice output prices, quantities, production processes and inputs would all adjust to a transition. Modelling these dynamics is highly complex and beyond the scope of this exercise. Therefore, these results may be interpreted as an upper bound of the financial impact on firms due to the carbon taxation.

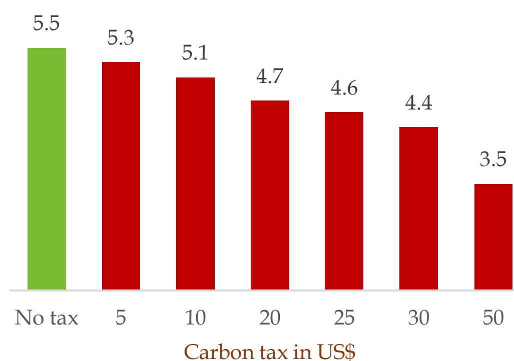
The median ICR of the listed firms, *pre*-tax, stands at comfortable 5.5X (**Figure 4.1.4**). With a carbon tax of USD 25/tCO_2e, a floor suggested in the IMF (2021), the median ICR drops to 4.6X while with a tax of USD50/tCO_2e, it further drops to 3.5X.

Median ICR numbers with carbon taxation are comfortable; however, there are some firms with weaker financial position. Pre-shock, the share of firms for which EBIT does not cover interest payments (ICR < 1X), i.e. debt-at-risk, is 5 percent and another 11 percent of the firms have an ICR between 1X and 2X.

The number of firms with debt-at-risk substantially increases with the imposition of carbon tax. For instance, at USD 25/tCO_2e, the share of firms with an ICR below 1X doubles to 10 percent whereas with a per ton carbon tax of USD 50, the share increases to 20 percent (**Figure 4.1.5**). Because of the significant increase of the debt-at-risk in the case of a USD50 tax, banks' credit risk would surge. Specifically, with implementation of IFRS-9, the transition adjusted expected credit losses of banks may rise.

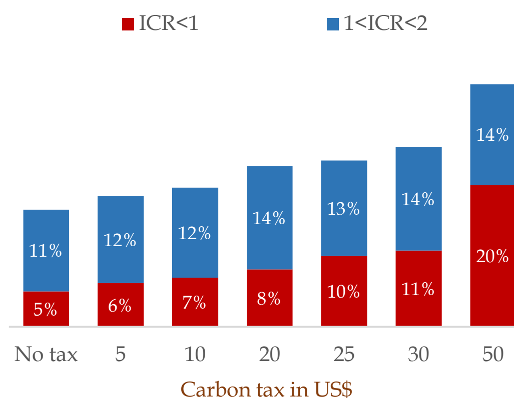
At sectoral level, Fuel & Energy followed by the Chemical and Cement are the sectors most vulnerable to carbon taxation. This is expected given high emission levels in these sectors,

Median ICR under Carbon Tax Scenario for Listed PSX Firms **Figure 4.1.4**



Source: SBP Staff Estimates

Share of Firms with Debt at Risk **Figure 4.1.5**

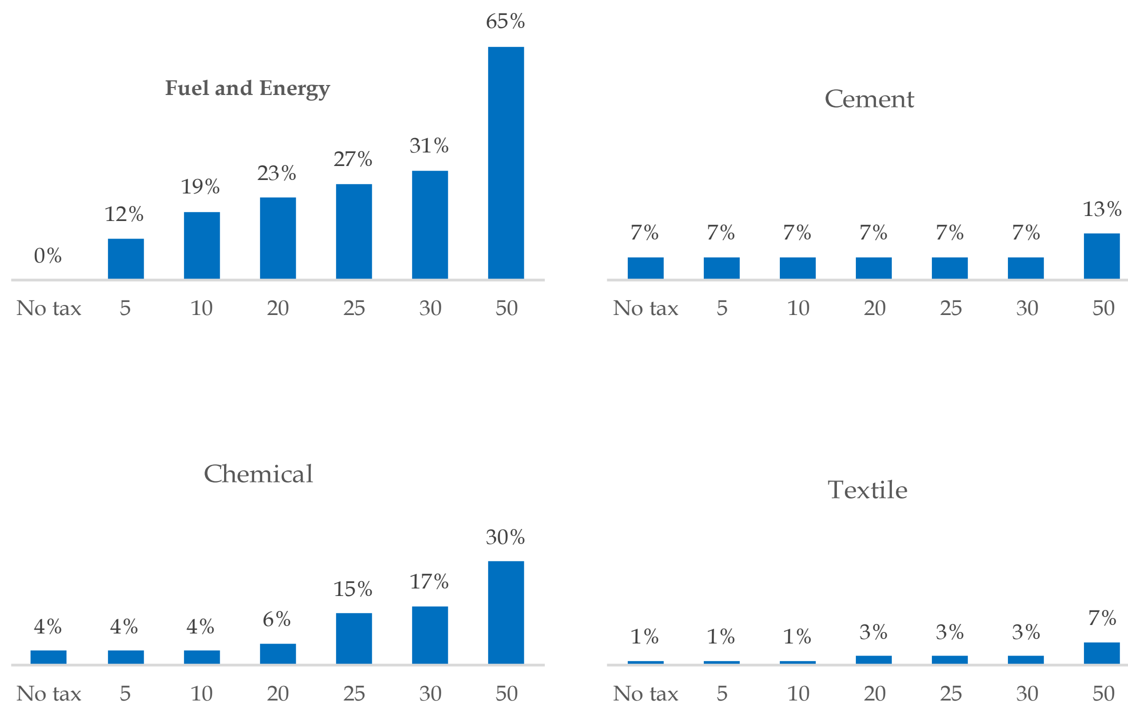


Source: SBP Staff Estimates

[26] Expected Credit Loss (ECL) = LGD x PD x EAD. NPL provision coverage ratio is used as a proxy for Loss Given Default (LGD), PDs are model based estimates and Exposure at Default (EAD) is the quantum of outstanding performing loans of the firms.

Share of Firms at Sectoral Level with Debt at Risk **Figure 4.1.6**

In percent, ICR < 1, Carbon tax in US$

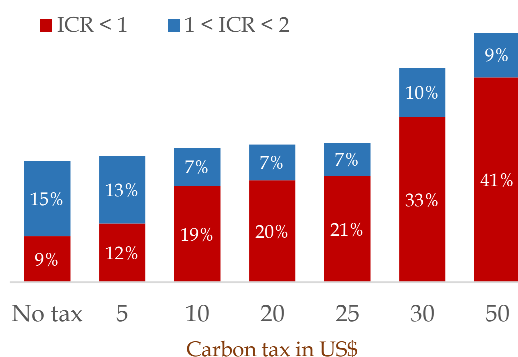


Source: SBP Staff Estimates

and it also suggests greater vulnerability of these sectors to transition risk. At a tax rate of USD25/tCO_2e, suggested in IMF (2021) for keeping the emissions below 2°C, 27 percent of the firms operating in Fuel & Energy sector may face impairment of their debt repayment capacity i.e. ICR<1. Percentage of firms in other sectors with debt-at-risk are estimated at 15 percent for Chemical and 3 percent for Textile (**Figure 4.1.6**).

Banks' exposure to transition risk is indirectly linked to their lending to corporates that may face a decline in their repayment capacity in response to the imposition of a carbon tax. Pre-shock, 9 percent of the banking sector's exposure to PSX listed firm is at-risk (ICR<1X). At a carbon tax of USD25/tCO_2e, 21 percent of the banking sector's lending portfolio becomes at–risk, which further increases to 41 percent at a tax of 50 USD/tCO_2e (**Figure 4.1.7**). Therefore, depending on the strategy to achieve the net-zero target, a gradual path with low carbon tax would entail a low transition risk while a more aggressive one with higher tax levels may enhance credit risk of the banking sector.

Share of Banking Sector's Exposure to PSX Listed Firms at Risk **Figure 4.1.7**



Source: SBP Staff Estimates

5

Microfinance Banks

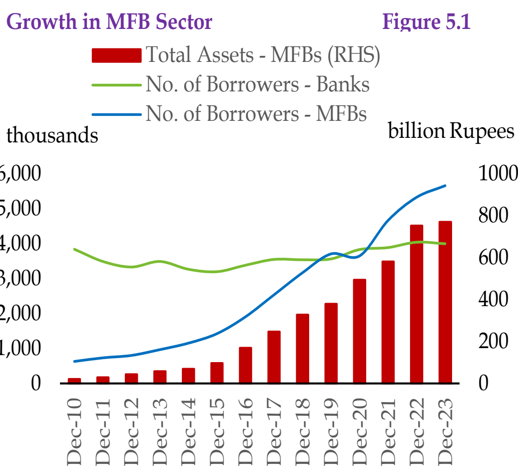
In line with the overall macro environment that has been particularly stressful for Microfinane Banks (MFBs), CY23 remained a challenging year for the sector. Asset quality indicators deteriorated during the first half of the year as the infection ratio reached its historic high; however, the ratio recovered and stabilized by the year-end. Nevertheless, weak repayment capacity of the borrowers persists amid challenging macroeconomic environment and disruptions caused by the rain/flooding of 2022 and 2023. MFBs' aggregate earnings remained in red for the fifth year in a row, though the losses halved in CY23 compared to the previous year. Accordingly, the sector's overall solvency further deteriorated. Although MFBs are facing challenges, they pose a low risk to the financial stability due to their smaller share in the total financial sector assets and contained inter-sectoral exposures. However, from financial inclusion and grass root development perspective, MFBs hold significance, as they provide financial services to the under-served, low-income segments and micro borrowers. In view of the stressed macro environment, SBP continued enhanced supervision of MFBs to ensure solvency of the sector and smooth provisioning of credit to the under-served segment of the population.

5 Microfinance Banks

MFBs are instrumental for the financial inclusion of low-income urban and rural customers, although their share in the financial sector asset base is nominal.

Despite challenging macroeconimc conditions, Microfinance Banks (MFBs) continue to expand their outreach of financial services to the low-income segment of the population. MFBs pose relatively low systemic risk as they represent only 1.3 percent of the total financial sector assets. Nonetheless, given its broad customer base that exceeds the banking sector in terms of number, MFBs are crucial for achieving the objectives set under the National Financial Inclusion Strategy **(Figure 5.1)**.[1]

Growth in MFB Sector **Figure 5.1**



Source: State Bank of Pakistan

Stressed macroeconomic environment, however, resulted in dampened balance sheet growth.

Over the last five years, MFBs, on average, grew by 19.1 percent (YoY); however, during CY23, the sector expanded by a meager 2.4 percent (YoY), which is the lowest level ever recorded. The growth was mainly generated by advances, which increased by 11.0 percent during CY23.

percent and were the leading cause of the slowdown in asset growth. Overall investments fell, as the MFB sector reduced its investments in mutual funds, while investment in government papers slightly grew by 3.8 percent reaching Rs 152 billion. This is in contrast to the scheduled banks whose investment portfolio increased by 41.4 percent in CY23 due to strong growth in government securities.

Asset mix of the MFBs further inclined towards advances during CY23 as it's share in the total assets rose to 49.3 percent (45.5 percent in CY22). This strategy can be attributed to the sector's effort to improve its net interest income and reduce its overall losses.

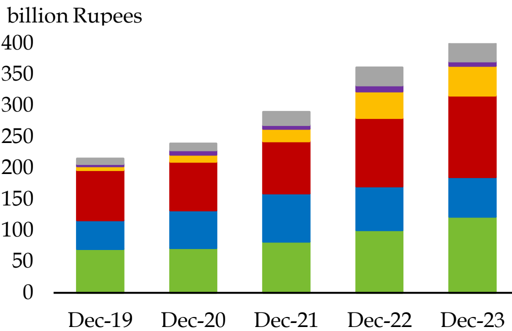
… which is mainly financed by deposits…

The growth in the asset base of MFBs was supported by a 15.8 percent (Rs 81.3 billion) increase in deposits from CY22. Meanwhile, borrowings by MFBs fell by 57.3 percent (Rs 78.6 billion) from the previous year due to lower investment activity.

Most of the segments experienced an uptick in advance.

A detailed analysis of growth in advances by segements reveals that most of the segments recorded an increase in advances during CY23. In particular, loans to agriculture and livestock rose by Rs 21.6 billion and Rs 20.8 billion, respectively. On the contrary, loans to enterprises and consumer segments fell by Rs 6.4 billion and Rs 1.8 billion, respectively **(Figure 5.2)**.

[1] By end of CY23, the number of bank borrowers stood at 4.0 million, whereas, borrowers of MFBs stood at 5.7 million.



Source: State Bank of Pakistan

The financing for agriculture and livestock rose, in part, due to the Prime Minister's Youth Business and Agriculture Loan Scheme (PMYB&ALS) that started in December 2022. The objective of this scheme was to ensure the provision of loans to the agriculture and SME sector. Under this scheme, a new tier of interest-free microloans was introduced. [2]

In addition Government of Pakistan (GoP) introduced three more schemes under the Kisan Package-2022 to provide relief to the farmers of rain/flood-affected areas.[3] Under the schemes, GoP provided a Mark-up Waiver Scheme (MWS) for subsistence farmers against agricultural loans. In contrast, the GoP Mark-up Subsidy Scheme (GMSS) was used to revive the agriculture and livestock sectors. Moreover, interest-free loans and the risk-sharing mechanism for landless farmers (IF&RSLF) in flood-affected areas were also introduced.

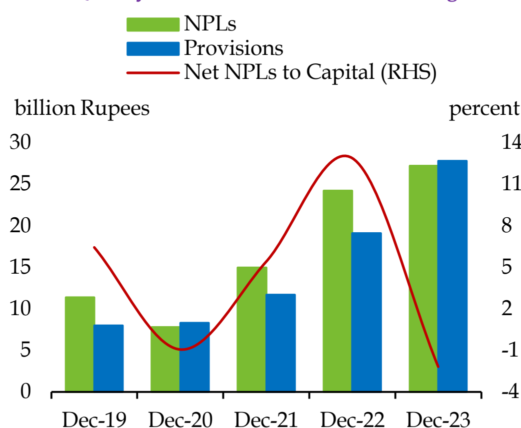
Asset quality that was under pressure due to severe and prolonged macroeconomic and exogenous shocks stabilized by the end of CY23.

MFBs continued to face the challenging situation that started in the wake of the COVID-19 pandemic and further compounded by the 2022 floods and their continued impact in 2023, prolonged stress in macroeconomic conditions, and consequent tightened economic policies to address the high inflation.[4] The infection ratio that had consistently increased over the last few years remained at 7.8 percent by June 2023, the highest level ever recorded. However, during the second half of CY23, the total NPLs of the sector began to drop, allowing asset quality positions to improve. By end of the year, total NPLs reached Rs. 27.2 billion after an addition of Rs 2.9 billion in CY23 (9.3 billion in CY22). As a result, the infection ratio moderated to 6.7 percent in CY23.

Provisioning standards remained higher during CY23, as the MFBs raised their provisioning by Rs 8.8 billion to reach Rs 27.8 billion. The improvement in provisioning coverage also reflects the implemtation of IFRS-9 with effect from January 01, 2024. Additional provisioning has further improved the MFB's ability to absorb potential losses, as evidenced by other asset quality ratios. For instance, the provisioning coverage ratio rose to 102.3 percent in CY23 (78.8 percent in CY22), net NPLR improved to -0.2 percent in CY23 (1.5 percent in CY22), and capital impairment ratio (net NPLs to Capital) also enhanced to -2.2 percent in CY23 (12.9 percent in CY22), suggesting muted credit risks to solvency from the delinquent portfolio, which is adequately provided for **(Figure 5.3)**.

[2] For details see SBP's IH&SMEFD circular no. 12 of 2022
[3] For details see SBP's AC&MFD Circular No. 3 of 2022
[4] For details on losses caused by 2022 floods, see Chapter 2 in The State of Pakistan's Economy Half Yearly Report (2022-2023), State Bank of Pakistan

Asset Quality Indicators **Figure 5.3**



Source: State Bank of Pakistan

The business model of microfinance banks is generally associated with higher financial risk

MFBs have provided around 58 percent of their total loan portfolio without any collateral, i.e. loans secured through personal guarantees and expected cash flows. While this feature has helped rise in usage of financial services, it also involves relatively higher credit risk for MFBs. Various factors, such as a lack of data-driven credit models, high susceptibility of the borrowers to economic shocks, and exposure to an agriculture sector that is vulnerable to climate risk, mainly drives the overall credit risk of the MFBs.

One of the critical concepts in microfinance banks is group lending. It involves providing micro-loans to a group of individuals who are from low-income backgrounds. This approach has several advantages when applied adequately, such as group guarantees rather than individual guarantees, social pressure within the group to repay loans, internal group monitoring and support to repay loans, and risk diversification in multiple groups within a community. During CY08, group lending comprised 80.4 percent of the total lending of the MFBs. However, this form of lending lost its ground over the years, and during CY23, it accounted for only 3.3 percent of total lending (5.0 percent in CY22).

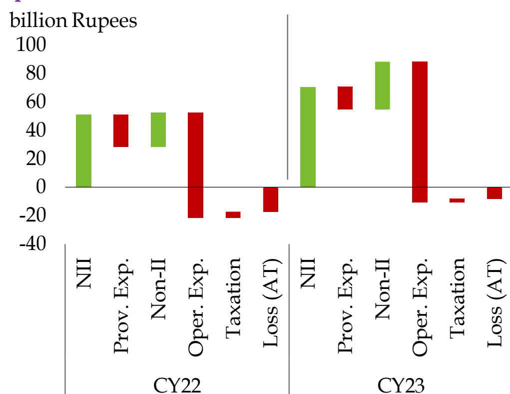
The sector's profitability remained in the losses for the fifth consecutive year; however, the magnitude of losses remained lower than the previous year.

The aggregate profitability of the MFBs remained in losses for the fifth year in a row. The sector's pre-tax losses by the end of CY23 stood at Rs 10.8 billion, lower than last year's loss of Rs 21.6 billion. Consequently, the ROA (before tax) reached -1.5 percent (-3.4 percent in CY22), and ROE (before tax) stood at -26.4 percent (-42.9 percent in CY22). Operational Self Sufficiency (i.e., the ratio of financial revenue to all expenses) stood at 78.8 percent in CY23 (69.8 percent in CY22). Although the sector posted losses during the year under review, it is worth mentioning that the incurred losses were lower than last year. This indicates some signs of recovery, possibly because of the fading impact of the COVID-19 pandemic and the rain/flooding in 2022 and 2023.

Further investigation of the MFB's profitability indicates a substantial increase in the net interest income (NII), which almost doubled, reaching Rs 54.8 billion by the end of CY23 **(Figure 5.4)**.[5] This strong growth can be attributed to the rising interest rates in CY23, allowing interest income to outpace expenses. The net interest margin (NIM) rose to 12.2 percent in CY23 (10.1 percent in CY22). The sector's income level was further supported by the non-interest component, which expanded 39.7 percent (42.0 percent in CY22) to reach Rs 33.6 billion.

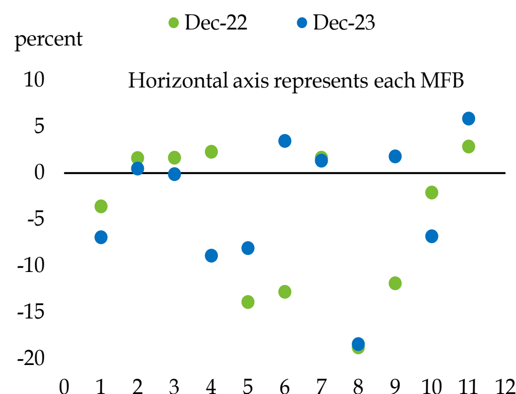
[5] Growth in NII is attributed to growth in average yield that significantly outpaced the growth in average cost.

Composition of MFBs' Income and Expenses **Figure 5.4**



Source: State Bank of Pakistan

MFB-wise ROA (before tax) **Figure 5.5**



Source: State Bank of Pakistan

Administrative expenses, which surged in CY22, grew by 5.7 percent in CY23, reaching Rs 74.8 billion **(Figure 5.4)**. Most of these expenses were incurred due to branch expansion carried out by several MFBs. Higher administrative expenses are a universal phenomenon for microfinance banks due to their unique business model that involves a vast number of borrowers and the need to maintain continuous interaction. However, emerging technological advancements are offering opportunities that banks can leverage to reduce their operating costs.

The number of loss-making institutions in the sector remained the same as the previous year. Most loss-making MFBs experienced higher administrative expenses in CY23, whereas, in CY22, higher provisioning against bad debts drove overall losses **(Figure 5.5)**.

Liquidity indicators improved because of higher investments in risk-free government securities.

In the year under review, liquidity indicators improved due to higher accumulation of liquid assets and lesser reliance on borrowing from other financial institutions. The overall liquid assets of the sector experienced a relatively strong growth of 13.9 percent (9.2 percent in CY22) when compared with the growth of 2.4 percent in asset base. Accordingly, the share of liquid assets in total assets increased to 29.4 percent by the end of CY23 (26.5 percent in CY22) **(Table 5.1).** Liquid assets rose on the back of higher investments in government securities particularly in MTBs – though overall investments declined due to contraction in mutual funds holding.[6]

During CY23, MFBs were less reliant on borrowings and instead mobilized deposits to finance their asset base. This led to 9.8 percent drop in MFB's exposure to short-term liabilities, thereby, increasing the proportion of liquid assets to short-term liabilities to 42.1 percent in CY23 (31.9 percent in CY22) **(Table 5.1)**.

[6] Treasury investments increased from Rs 146.4 billion in December, 2022 to Rs 152.0 billion in December, 2023.

Financial Soundness Indicators (FSIs) of MFBs — **Table 5.1**

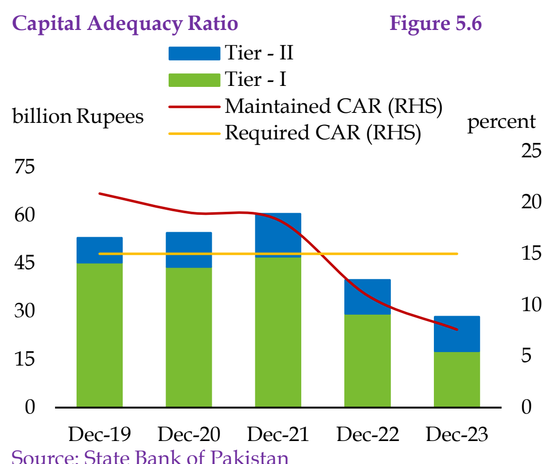
				percent
	Dec-20	Dec-21	Dec-22	Dec-23
Capital				
Total Capital to Total RWA	19.0	18.3	10.9	7.6
Tier 1 Capital to Total RWA	15.3	14.3	8.1	4.7
Asset Quality				
NPLs to Total Loans	3.3	5.2	6.7	6.7
Provision to NPLs	106.5	78.1	78.8	102.3
Net NPLs to Net Loans	-0.2	1.2	1.5	-0.2
Net NPLs to Capital	-0.9	5.4	12.9	-2.2
Earnings				
ROA before Tax	-0.8	-1.3	-3.4	-1.5
ROE before Tax	-7.1	-12.7	-42.9	-26.4
Operational Self Sufficiency (OSS)	81.9	76.8	69.8	78.8
Liquidity				
Liquid Assets to Short Term Liabilities	50.9	42.4	31.9	42.1

Source: State Bank of Pakistan

Solvency indicators dropped further below the minimum required level.

In the wake of continued stressful credit risk and earning conditions, MFB's solvency indicators remained under pressure during CY23 as the aggregate capital adequacy ratio (CAR) of the sector dropped to 7.6 percent by end CY23 from 10.9 percent at end-CY22 – against the minimum regulatory requirement of 15 percent. The realization of loan losses triggered by the COVID-19 pandemic and flash floods of 2022 absorbed a sizeable portion of the sector's capital base. Although the sector has witnessed a significant amount of equity injection by several institutions over the last few years, however, due to losses emanating from severe exogenous shocks, the capital base remained low vis-à-vis asset base (**Figure 5.6)**. However, within the sector, only a few institutions with a market share of 28.3 percent have CAR below minimum regulatory requirements. Excluding these institutions, the overall CAR of the MFBs sector rises to 17.2 percent. Keeping in view the solvency issues of the MFBs and their importance from the financial inclusion perspective, SBP continued enhanced supervision of the sector and engagement with individual institutions.

Capital Adequacy Ratio — **Figure 5.6**



Source: State Bank of Pakistan

MFBs continue to lead financial inclusion objectives through branchless banking.

Despite their small share in the financial sector, MFBs have been instrumental in widening financial inclusion through Branchless Banking (BB). BB accounts provide easy access and a cost-effective way of delivering financial services to the unbanked and underserved population.

MFBs account for around 80 percent of the total BB accounts of banks and MFBs combined. During CY23, the number of BB accounts rose by 18.1 percent (23.2 percent in CY22), reaching 114 million accounts. The number of active accounts reached 64.1 million depicting significant growth of 50.9 percent in CY23, as opposed to last year's decline of 5.4 percent.

Continued macroeconomic stress that has been regularly compounded by severe exogenous shocks remains the determinant of MFB's financial performance and standing.

Stress in the MFB sector is a continuation of disruption that started during the pandemic, compounded by the flash floods of 2022 and worsened by the deteriorating macro-financial conditions afterward. Continued stress in CY24 might add further pressure to the sector's credit risk and funding cost. Moreover, the sector's

portfolio vulnerability to climate risks (e.g flooding) is another significant source of risk that may adversely impact the sector's already stressed solvency level.

Going forward, the MFBs' performance will depend on their ability to build buffers to withstand such disruptions, especially reestablishing the institution-borrower relationship that was severed during the post-pandemic period. Tackling these issues is crucial for enhancing loan recoveries and lowering the credit risk thus protecting their already stressed solvency position.

MFBs also need to revisit their business models to rationalize and curb operating costs that have hauled their profits during the past several years. In addition, given the increase in credit risk due to high inflation and consequent stabilization policies, MFBs need to manage the underlying risks preemptively by enhancing their risk management capacities and strengthening capital buffers. MFBs need to focus on raising funds through stable sources for profit generation and supporting the policy objective of financial inclusion in a sustainable manner.

6.1 Development Finance Institutions

Development Finance Institutions (DFIs) recorded considerable headway in asset base primarily driven by investments in government securities, as borrowings particularly repo borrowing through OMOs increased significantly. Advances portfolio led to contained growth due to stressed macroeconomic conditions. However, the overall asset mix was further skewed towards risk-free government securities. The sector registered healthy margin in profitability owing to massive expansion in net-interest income. Furthermore, CAR of the sector inched up due to robust increase in capital base vis-à-vis risk-weighted assets; the CAR remains well above the regulatory benchmark.

6 Development Finance Institutions

Asset base of DFIs posted extraordinary growth on back of record borrowings led investments…

Asset base of the development finance institutions (DFIs) increased significantly (63.5 percent) during CY23 but at a slower pace than previous year (165.5 percent) (**Table 6.1.1**). The expansion in asset base was primarily driven by investments, financed through borrowing.

The advances saw a slight growth, as lending by DFIs remained virtually stagnant compared to CY22. In tandem with sluggish rise in advances, NPLs to Advances ratio, which was already on a falling trajectory, did not deteriorate further. Main reason for this below-average performance in advances was lack of demand for credit from private sector.

The increase in investments, mostly in risk free government securities, continued during CY23. Investments surged by 73.3 percent while treasury exposures increased by 82.0 percent. Aggressive participation by DFIs in Open Market Operations (OMOs)[1] facilitated this substantial size of investments. The OMOs can facilitate day-to-day asset-liability management of DFIs as they face constrained sources of funding.

Capital Adequacy Ratio (CAR) of DFIs improved to 43.3 percent in CY23 (36.5 percent in CY22). The increase is mainly attributed to faster increase in eligible capital than growth of risk weighted assets (RWAs).

Key Variables and Financial Soundness Indicators — Table 6.1.1

	CY19	CY20	CY21	CY22	CY23
billion Rupees					
Investments (net)	240	287	338	1,168	2,025
Advances (net)	92	111	140	188	188
Total Assets	377	439	539	1,430	2,338
Borrowings	229	261	348	1,223	2,117
Deposits	12	27	34	38	45
Equity	117	132	136	145	144
NPLs	15	16	15	15	15
percent					
CAR	44.9	43.1	38.7	36.5	43.3
NPLs to Advances	14.5	12.8	9.5	7.3	7.4
Net NPLs to Net Advances	4.2	3.1	1.6	0.9	(1.2)
ROA (After Tax)	2.7	3.3	2.4	1.6	0.9
ROE (After Tax)	7.2	10.7	8.9	10.1	13.3
Cost to Income Ratio	32.4	25.2	32.5	26.9	24.0
Liquid Assets to Short-term Liabilities	97.6	97.5	98.0	98.2	95.9
Advances to Deposits	763.8	405.1	412.6	493.4	417.7

Source: State Bank of Pakistan

Investment portfolio grew on the back of fresh investments in floating rate PIBs ….

Investments demonstrated very robust growth of 73.3 percent during CY23 and their share in asset base rose to 86.6 percent (81.7 percent in CY22). Almost the entire fresh investments (91.8 percent of the increase) went to government securities which grew by 72.4 percent to Rs 1,871.5 billion, and their share in total investments remained almost unchanged to 92.4 percent (92.6 percent in CY22). On the other hand, investments in equity stock dropped by 64.6 percent to Rs 17.7 billion during the reviewed year.

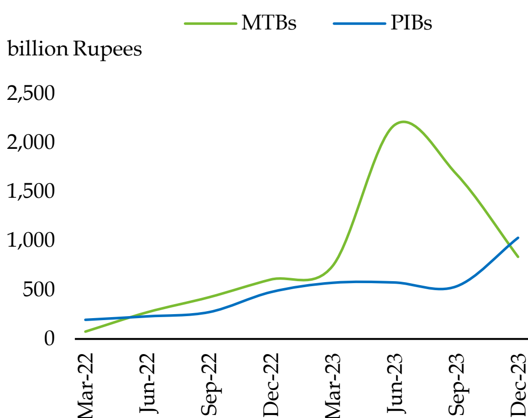
Considerable volume of investment was made in floating rate PIBs and MTBs ….

Detailed data shows that the major increase in government securities occurred during H1CY23, and MTBs accounted for almost three-fourth of this increase, followed by floating-rate PIBs. However, a reversal of trend was observed in Q4CY23 when investments in floating-rate PIBs

[1] SBP allowed all DFIs to participate in Open Market Operations in 2022. For details see DMMD Circular No. 11 of 2022

dominated shorter tenor instruments, mainly owing to a downward shift of yield curve in Q4CY23. This development reflected both (a) the access to short-term OMOs and bank funding that necessitated the investment in matching short term bills to minimize liquidity risk, and (b) rising interest rate scenario that entailed revaluation losses on longer term fixed investments bonds.[2] Therefore, DFIs preferred to invest in MTBs and floating rate PIBs that have relatively lower sensitivity to changes in interest rates. The portfolio of MTBs posted noteworthy increase of Rs 231.4 billion to reach Rs 838.7 billion by end December 2023; with an increase of Rs 554.6 billion, overall stock of PIBs reached Rs 1.03 trillion by end of CY23 **(Figure 6.1.1)**.

Stock of MTBs and PIBs **Figure 6.1.1**

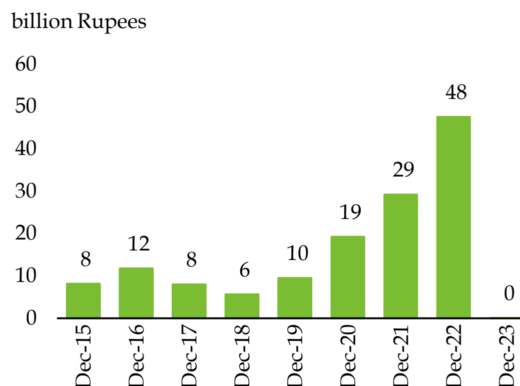


Source: State Bank of Pakistan

Advances posted muted growth owing to rising interest rates and economic slowdown…

Growth in advances remained stagnant to 0.1 percent in CY23 compared to 33.9 percent increase in CY22 **(Figure 6.1.2)**. Meagre growth in advances along with investments led expansion in assets further pushed their share in the overall asset base down to 8.0 percent in CY23 from 13.1 percent in CY22. The decrease in advances was primarily due to lack of demand for credit from private sector as well as the relatively lower amounts of fresh funding from SBP's long-term refinance schemes under LTFF, Rs 17.9 billion (Rs 20.7 billion in CY22), Renewable Energy, Rs 3.6 billion (Rs 3.8 billion in CY22) and TERF, Rs 7.7 billion (Rs 8.0 billion in CY22).

Flow in Advances (Net) **Figure 6.1.2**



Source: State Bank of Pakistan

Corporate sector remained the major user of DFIs financing…

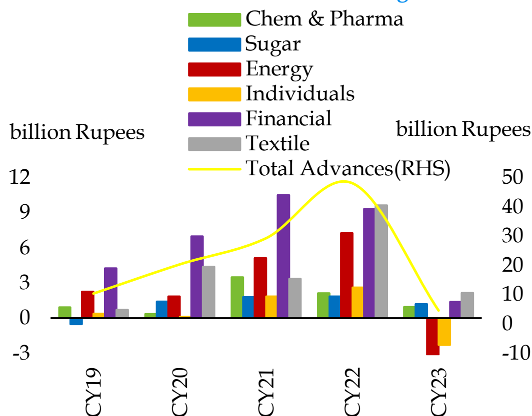
Corporate sector remained the major user of financing by DFIs. Large share of corporate sector in advances was due to working capital requirements, augmented by higher inflation and commodity prices followed by fixed investment purposes.

Advances remained broad based …

Sector wise assessment explains that advances were well-distributed across different sectors. Textile was the major contributor followed by Financial, Chemical & Pharmaceuticals and Sugar **(Figure 6.1.3)**.

[2] SBP raised the policy rate by a cumulative 600 bps during CY23

Sector-wise Flow in Advances **Figure 6.1.3**

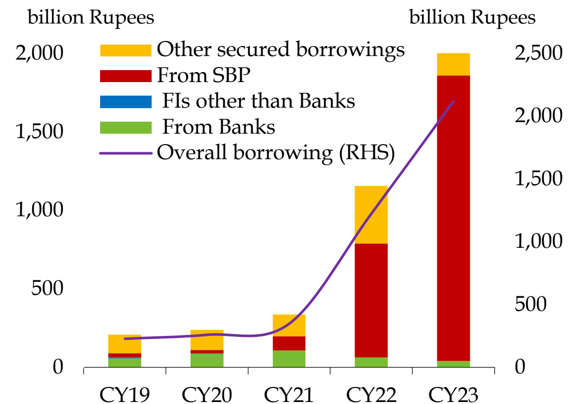


Source: State Bank of Pakistan

Repo borrowing was the leading source of funding …

DFIs have been mainly relying on interbank market to finance their assets for years, as the mobilization of funding through deposits and other instruments remained contained due to limited outreach of capital market. However, the access to funding through OMOs in CY22 has significantly increased DFI's ability to generate liquidity. Resultantly, their reliance on borrowings has significantly increased over the last couple of years as the share of borrowing in total asset base rose to around 91.0 percent by end CY23 (86.0 percent in CY22). Of the total borrowing, secured borrowing from SBP constituted the major part i.e. 85.8 percent followed by other secured borrowings **(Figure 6.1.4).**

Composition of Borrowings **Figure 6.1.4**



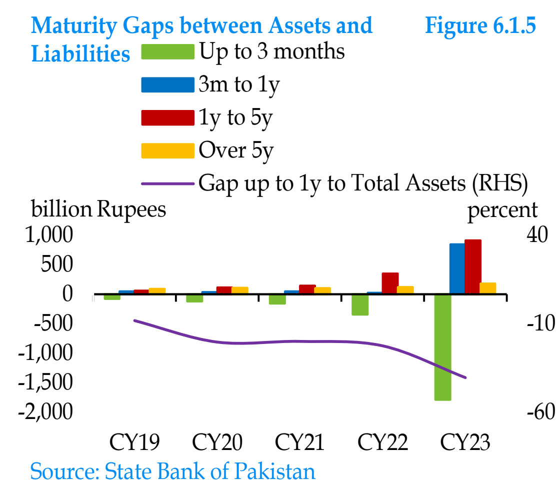
Source: State Bank of Pakistan

Maturity mismatch increased significantly, though liquidity indicators shows stable funding profile of DFIs …

Maturity-wise breakup reveals that major part of assets and liabilities have shorter maturity, i.e. around 49.0 percent of assets and 95.0 percent of liabilities mature within one year. The maturity mismatch in this time bucket significantly increased over the year to 40.5 percent of total assets (22.5 percent in CY22) as the sector heavily relied on short-term borrowing to finance the asset base **(Figure 6.1.5).** However, sufficient availability of liquidity buffers in the form of low-risk assets mitigated the concerns of maturity mismatch[3], as the share of liquid assets in total assets increased to 85.5 percent (77.9 percent in CY22). Furthermore, liquid assets to short-term liabilities ratio largely remained stable at 95.9 percent. Basel-based net stable funding ratio (NSFR) also improved to 133.0 percent (120.0 percent in CY22) –well above required benchmark of 100 percent.

[3] However, repricing risk still remains

Maturity Gaps between Assets and Liabilities **Figure 6.1.5**



Source: State Bank of Pakistan

While majority of earning assets had longer maturity, their repricing maturity was relatively shorter…

Long-term fixed investment loans were around 52.2 percent of total loans while 52.3 percent of government securities comprised PIBs at end December 2023. However, maturity analysis in terms of remaining time to repricing of assets revealed that a major portion of the loans and investments had relatively shorter maturity. That is, 56.9 percent of advances were repricing within three months and 11.2 percent in three months to one year, while 32.5 percent of investments, which form major part of the balance sheet, were repricing within three months and 64.5 percent in three months to one year.

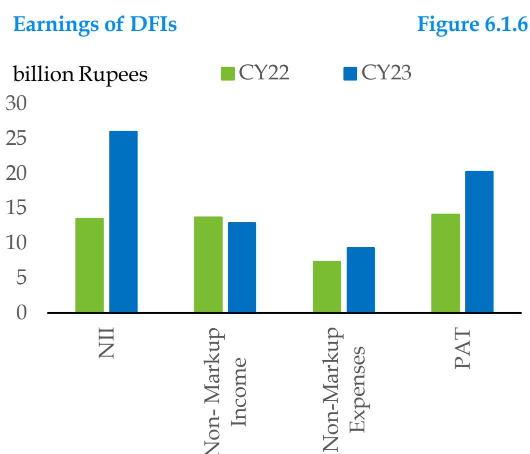
Considerable growth in net interest income led to higher profitability …

Profit after tax (PAT) of DFIs increased by 43.4 percent to Rs 20.3 billion in the year under review (Rs 14.1 billion in CY22), owing to enormous growth in net interest income. However, non–interest earnings declined by 6.1 percent to Rs 12.9 billion (Rs 13.7 billion in CY22). While gross income posted strong growth of 42.7 percent, operating expenses also grew at an accelerated pace i.e. 27.2 percent.

However, tax charges of the sector on aggregate basis inched up to 28.3 percent of pre-tax profit (23.3 percent in CY22).

Detailed analysis shows that major boost to gross income came from net-interest income which accelerated by 92.2 percent – due to significant growth in interest earning assets. However, non-interest income marginally declined due to a significant fall in other income, although steep rise in dividend income abated its adverse impact. On the other hand, interest expenses grew at a faster pace as the impact of rise in interest rates translated onto short-term borrowings and deposits relatively earlier as compared to assets (especially loans and long-term investments), which are repriced according to their respective terms and conditions (**Figure 6.1.6**). Accordingly, net interest margin (NIM)[4] of the DFI sector contracted over the year to 1.2 percent from 1.6 percent in CY22.

Earnings of DFIs **Figure 6.1.6**



Source: State Bank of Pakistan

However, ROA contracted as the growth in profitability occurred on the back of significant expansion in asset base, while ROE improved due to relatively modest growth in equity …

With substantial buildup in asset base vis-à-vis earnings, after tax return on assets (ROA) declined to 0.9 percent during CY23 (1.6 percent in CY22).

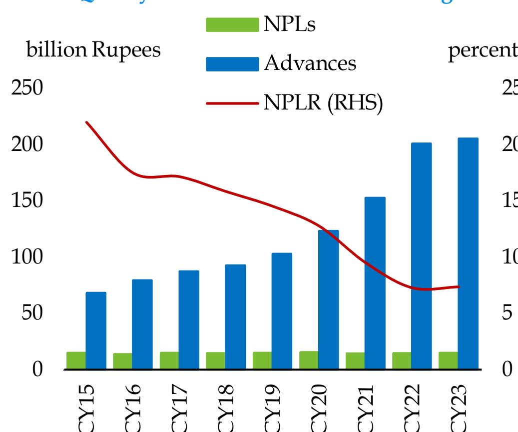
[4] Net Interest Margin (NIM) is defined as = Net Interest Income (NII) / average earning assets.

On the other hand, return on equity (ROE) improved to 13.3 percent during the reviewed year (10.1 percent in preceding year) due to robust earnings and modest growth in equity. Notably, as the growth in asset-base was mainly in risk free assets, this enabled DFIs to support strong balance sheet expansion with relatively slower growth in capital base.

Asset quality indicators remained largely stable in CY23…

Over the years, infection ratio of the DFI sector has shown improvement on the back of growth in advances, better credit risk management including enhanced recovery efforts and recoveries of non-performing loans (NPLs). However, during CY23, NPL to advances ratio slightly deteriorated to 7.4 percent from 7.3 percent in CY22 **(Figure 6.1.7)**. As against 3.5 percent increase in NPLs to Rs 15.1 billion, DFIs set aside higher amount of provisioning to cover loan losses. Thus, the provisioning coverage improved to 114.8 percent by end CY23 (87.9 percent in last year). Accordingly, Net NPLs to net loans and capital impairment ratios further improved over the year to -1.2 percent (0.9 percent in CY22) and -1.6 percent (1.2 percent in CY22), respectively.

Asset Quality of DFIs in CY23 **Figure 6.1.7**

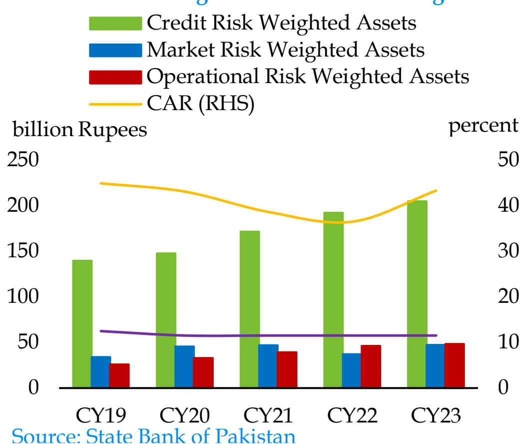


Source: State Bank of Pakistan

CAR of the DFI sector surged considerably owing to faster increase in capital base vis-à-vis RWAs…

CAR of DFI sector normally remains well above the required benchmark due to strong capital base and risk averse business strategy, as the asset base is mainly dominated by the investment in risk-free government securities vis-à-vis lending. During the year under review, CAR increased by a healthy margin to 43.3 percent (36.5 percent in previous year). The ratio remained considerably higher than the regulatory requirement of 11.5 percent **(Figure 6.1.8).**

CAR and Risk Weighted Assets of DFIs **Figure 6.1.8**



Source: State Bank of Pakistan

The robust increase in CAR was apparently due to faster increase in eligible capital (i.e. 29.3 percent) vis-à-vis the increase in RWAs (i.e. 9.0 percent). Further analysis of RWAs reflects limited positive momentum in financing activity, as credit RWAs showed suppressed growth of 6.1 percent. Furthermore, market RWAs increased by 27.3 percent owing to higher investment in government securities entailing elevated capital charge for interest rate risk. Operational RWAs also surged by 4.9 percent because of expansion in gross income emanating from growth in business volume. Relative share of credit, market and operational risks in RWAs remained 68.2 percent, 16.1 percent and 15.7 percent, respectively.

Initially, the steps to support the establishment of DFIs were carried out to enhance development finance and improve capital formation in the economy. However, various challenges curtailed the growth of DFIs and

forced them to follow a conservative business strategy. Over the decades, the challenges faced by DFIs mainly included: limited outreach to capital market, low national saving rate, competition from banks, limited mandate for deposit mobilization, absence of funding support from government or international development agencies, and relatively low demand for long-term financing due to various factors. These issues heavily restricted the growth of the DFI sector, and alongside curtailed its ability to contribute to the national economy.

6.2 Non-Bank Financial Institutions

Despite challenging macro financial conditions, non-bank financial institutions (NBFIs) demonstrated financial and operational resilience and exhibited higher growth than the previous year, primarily contributed by the asset management segment. In the wake of weakened economic activity and elevated interest rates, low-risk debt markets continued to remain the preferred avenue for the investors of asset management segment. However, the lending segment grappled with the impacts of stressed macro-financial conditions and posted only a muted growth during the year under review. Going forward, the performance of NBFIs will depend upon the evolving domestic and geopolitical economic conditions.

6.2 Non-Bank Financial Institutions

Non-Bank Financial Institutions (NBFIs)[1] sector and its wider ranging financial services hold a key significance for an economy. Although, the financial system in Pakistan is bank-centric with the NBFIs sector constituting only 5.8 percent in the asset base of the financial system, it has been growing at a steady pace over the years and providing some key non-bank financial services to the economy.

The NBFIs operated in an elevated interest rate environment in CY23 amidst multi-decade high inflationary pressures, reduced economic activity, political uncertainty and external imbalances. Nevertheless, the sector posted a significant growth of 34.5 percent in CY23 (26.7 percent in CY22) driven almost solely by the Asset Management[2] segment, which dominates the NBFIs sector with 89.6 percent asset share (**Table 6.2.1**)

Asset Profile of NBFIs — Table 6.2.1

billion Rupees

		Dec-21	Dec-22	Dec-23
Asset Management	**AMCs/IAs (own assets)**	**46**	**48**	**58**
	Mutual Funds	1,192	1,574	2,232
	Pension Funds	40	44	61
	Portfolios	374	358	547
	Total AUMs	**1,605**	**1,976**	**2,840**
	RMCs	8	9	13
	REITS	67	168	168
	PE & VC Firms	0	0	0
	PE Funds	10	12	10
Lending	Modarabas	57	65	56
	Leasing Companies	5	6	6
	Housing Finance Cos.	0	1	1
	IFCs	78	109	100
	NBMFCs	146	168	195
	Total Assets	**2,023**	**2,563**	**3,447**

Source: Securities and Exchange Commission of Pakistan

6.2.1 Asset Management Segment (AM)

The AM segment increased its asset base to Rs 3,089 billion, posting an impressive growth of 39.6 percent in CY23 as compared with 27.5 percent in CY22. This segment is dominated by Mutual Funds and Portfolios. The Assets Under Management (AUM)[3] registered a substantial growth of 43.7 percent in CY23 driven by strong growth in both the Mutual Funds and Portfolios.

Strong growth in mutual funds further extended their asset share in the NBFI sector…

The mutual funds, with a share of 64.7 percent in the NBFIs' overall asset base, recorded a notable growth of 41.8 percent over the year, mainly driven by Islamic income and money

[1] NBFIs for the purpose of this analysis include NBFCs, Real Estate Investment Trusts (REITs), and Modaraba Companies. As per section 282A of the repealed Companies Ordinance, 1984 (wherein Part VIIIA - consisting of sections 282A to 282N – does not stand repealed and is applicable to NBFCs), Nonbanking finance companies (NBFCs) include companies licensed by the Commission to carry out any or more of the following forms of business, namely: Investment finance services, Leasing, Housing Finance Services, Venture Capital Investment, Discounting Services, Investment Advisory Services, Asset Management Services, and any other form of business which the Federal Government may, by notification in the official Gazette specify from time to time. Non-bank Microfinance Companies (NBMFCs) are also included in NBFCs.

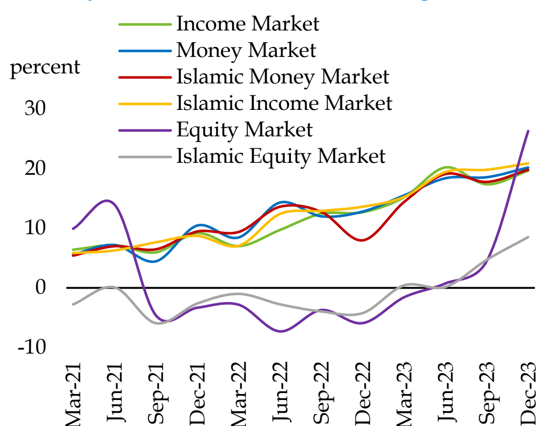
[2] The Asset Management (AM) segment includes: Asset Management Companies (AMCs), Investment Advisors (IAs), Real Estate Investment Trusts (REITs), Mutual Funds, Pension Funds, Private Equity (PE) Funds, and Discretionary/ Non-discretionary Portfolios.

[3] Assets Under Management (AUM) include assets of mutual funds, pension funds, and portfolios under management of AMCs/ IAs.

market funds. The major thrust in growth came in the latter half of the year when economic and political uncertainties subsided, and SBP kept the policy rate unchanged in H2CY23 after a cumulative 600 bps increase in H1CY23.

Investors continued to prefer the debt instruments as an investment option during CY23, as they offered lower level of risk and yielded better returns compared to equity funds. (**Figure 6.2.1**). The growth in AUM was primarily due to the increase in net sales in CY23 followed by higher returns (**Figure 6.2.2a**).

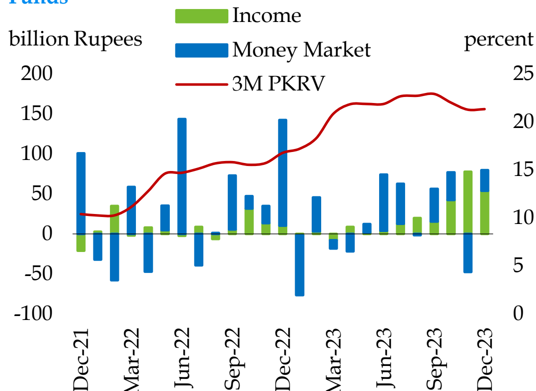
Monthly Returns of Mutual Funds **Figure 6.2.1**



Source: Mutual Funds Association of Pakistan

Equity funds, after contracting in CY22 and H1CY23, also rebounded to increase its asset base in the latter half of CY23, as the KSE-100 index saw sharp gains in the wake of improvement in economic outlook and developments, e.g., securing of IMF-SBA program, clarity on general election schedule,

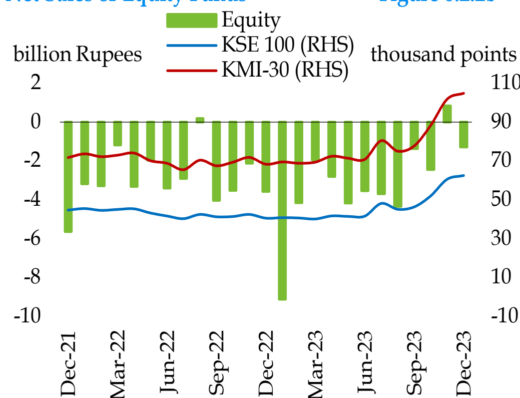
Net Sales of Money and Income Funds **Figure 6.2.2a**



Source: Mutual Funds Association of Pakistan

reduced political uncertainty, and better corporate profitability. Overall equity funds posted a growth of 9.1 percent in CY23, reaching Rs 202.8 billion in CY23 from Rs 169.4 billion in CY22. This growth was mainly attributed to increase in Net Asset Value (NAV). As far as net sales are concerned, the equity market continued to face redemptions in CY23 (**Figure 6.2.2b**).

Net Sales of Equity Funds **Figure 6.2.2b**



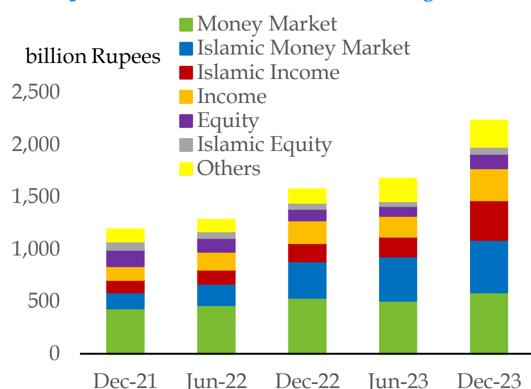
Source: Mutual Funds Association of Pakistan & Pakistan Stock Exchange

The number of Asset Management Companies/ Investment Advisors remained 29 in CY23, unchanged from the previous year. However, their own asset base increased from Rs 48 billion in CY22 to Rs 58 billion in CY23, showing a strong growth of 20.7 percent. The number of funds and plans managed by AMCs/IAs also increased from 313 to 345 while the total AUM increased from Rs 1,574 billion in CY22 to Rs 2,232 billion in CY23.

Money market funds continued to dominate while income fund also made asset share gains…

The composition of mutual funds is still dominated by money market funds despite a decline in its asset share from 56.2 percent in CY22 to 48.8 percent by the end CY23. Following a notable growth, particularly in the latter half of CY23, asset share of income market funds in mutual funds increased from 24.8 percent in CY22 to 30.8 percent in CY23 (**Figure 6.2.3**).

Composition of Mutual Funds Figure 6.2.3



Source: Securities and Exchange Commission of Pakistan

However, money and income funds, at Rs 1,777 billion, constitute about 79.6 percent of mutual funds in CY23. The higher interest rate environment has led to increased competition in the debt market as there are limited investment avenues available. This could potentially lead to concentration risks. Particularly, money market is encountering challenges in identifying ample short-term investment opportunities, given the limited availability of short-term instruments with maturities of six months or less in the secondary market.

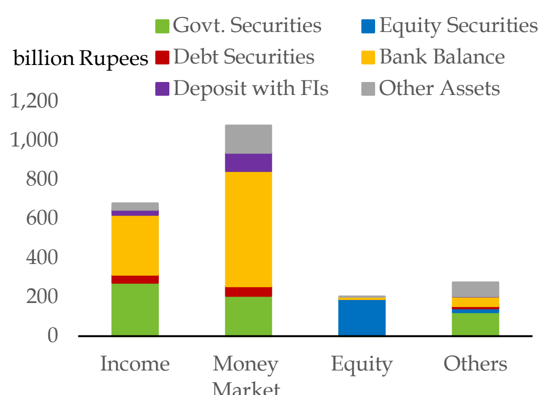
Further, there was also a remarkable growth in Islamic income and money market funds as their asset base grew to almost catch up with their conventional counterparts. Islamic money market and income funds grew at 68.4 percent to reach Rs 882 billion in CY23 while conventional money market and income funds grew at 19.1 percent to reach Rs 895 billion. Besides the consideration of Shariah-compliant investment, higher returns on Islamic funds vis-à-vis saving accounts of Islamic banks which generally offer relatively low returns to depositors, may have attracted more investors to these funds.

As such, policy makers are deliberating on the potential issuance of short-term Islamic debt instruments to enhance and diversify investment opportunities, particularly in the Islamic money market.[4]

Overall mutual funds maintained a low risk profile…

The asset allocation of mutual funds indicates that bank balances, government securities, and deposits with financial institutions (FIs) form a high share in the money and income funds. Given the contained credit risk, ready liquidity of these investments, and steady performance and resilience of the domestic banking sector, mutual funds face limited risks on these investments and fund placements (**Figure 6.2.4**).

Asset Allocation of Mutual Funds Figure 6.2.4



Source: Securities and Exchange Commission of Pakistan

In terms of quality of portfolio and asset quality, total classified assets of the mutual funds industry also declined from Rs 3.5 billion to Rs 2.3 billion in CY23, constituting only 0.1 percent of assets under management.

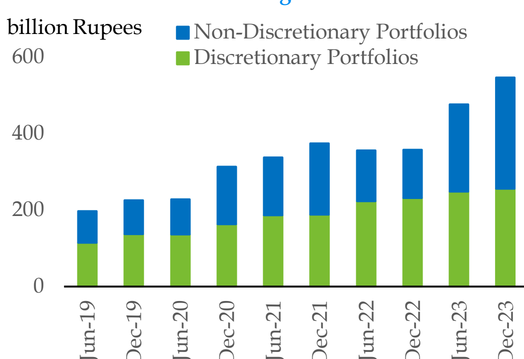
Portfolios also registered impressive growth driven by non-discretionary portfolios...

[4] Annual Report 2023, Securities and Exchange Commission of Pakistan (SECP)

Portfolios (Under Management)[5] have the second highest market share in the NBFIs at 15.9 percent, following the mutual funds.

Portfolios recorded a notable growth of 52.9 percent to reach Rs 547 billion in CY23 (Rs 358 billion in CY22), following a slight contraction in CY22. The growth was concentrated in the non-discretionary portfolios, as its assets grew from Rs 126 billion in CY22 to Rs 291 billion in CY23, leading to an increase in its asset share in total portfolios to 53.1 percent in CY23 (35.3 percent in CY22) (**Figure 6.2.5**).

Classification of Portfolios by Investment Decision Making **Figure 6.2.5**



Source: Securities and Exchange Commission of Pakistan

REIT sector was marked by a slowdown in CY23 owing to reduced economic activity and policy uncertainty…

REIT[6] sector has emerged as a relatively new investment avenue for small investors over the recent years, enabling them to invest in real estate projects. Although, eight more REIT Management Companies (RMCs) were licensed in CY23, taking the total number of RMCs to 24, only 4 of these RMCs were offering REIT schemes to investors as of end CY23.

Widespread outreach efforts by the regulator coupled with amendments to REIT regulations led to an increase in the number of schemes from 11 to 15 in CY23. However, the asset base of the REIT sector increased only marginally from Rs 167.6 billion in CY22 to Rs 168.4 billion in CY23, primarily because of the slowdown in real estate sector during CY23 amidst the reduced economic activity, low business sentiments and uncertain political situation in the country.

Pension funds registered strong growth in CY23, though their share in overall NBFI sector remained low…

Pension funds also registered a strong growth of 39.3 percent in CY23, increasing the asset base from Rs 44 billion to Rs 61 billion. Both the conventional and Shariah compliant pension funds contributed to the growth.

Khyber Pakhtunkhwa government launched a voluntary pension scheme (VPS) in CY23 for its employees that have joined the government service on or after June 07, 2022. In this scheme, employees' and employers' contributions are both invested and the proceeds are used to buy a pension and/or other benefits at retirement. This step has the potential to solve the problem of growing public pension bill, and efficiently managing the fiscal space.

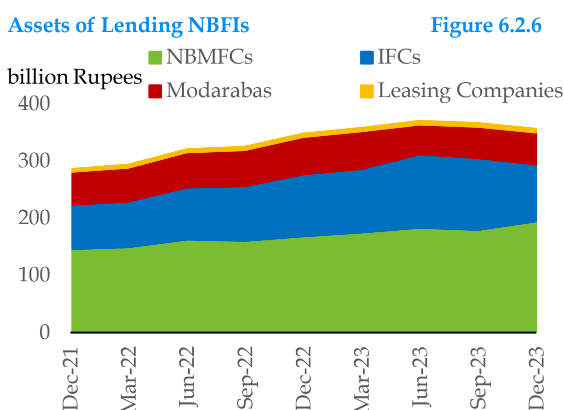
[5] Portfolios (Under Management) are investments of eligible investors (person offering a minimum of Rs 3 million investment) managed by investment advisors. Under "Discretionary Portfolios", investment decisions are made and executed by the investment advisor on behalf of clients. While under a "Non-Discretionary Portfolio", investment decisions are executed as per the written instructions of the clients.

[6] Real Estate Investment Trusts (REITs) are investment schemes that own and most often actively manage income-producing real estate. Through such schemes, investors may own, operate or finance income generating property across various categories of real estate. For further details, please see: https://invest.gov.pk/sites/default/files/2020-08/REITS%20FAQs.pdf

6.2.2 Lending NBFIs Segment

The higher interest rates and economic downturn presented the lending segment of NBFIs with substantial challenges.[7] Lending segment holds 10.4 percent of the market share in the NBFI sector. This asset base of the segment expanded modestly by 2.4 percent in CY23 to reach Rs 357.8 billion as compared to 21.6 percent growth in the previous year. The marginal growth in CY23 reflects the impact of elevated policy rate during the year amidst inflationary pressures and reduced economic activity. Non-bank Microfinance Companies (NBMFCs) exhibited growth in the lending segment while investment finance companies (IFCs) and Modarabas experienced contraction during the year under review (**Figure 6.2.6**).

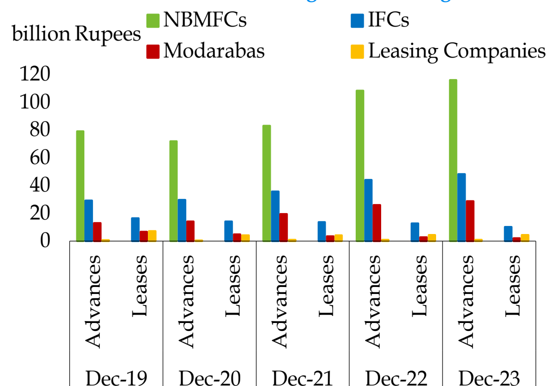
Assets of Lending NBFIs **Figure 6.2.6**



Source: Securities and Exchange Commission of Pakistan

NBMFCs continued to dominate the advances portfolio of lending NBFIs. The expansion in the advances portfolio of the NBFIs' lending segment decelerated in CY23 to 8.3 percent (28.7 percent in CY22) due to stressed macroeconomic conditions which also reflected in negative growth in banking sector's advances to private sector (**Figure 6.2.7**).

Advances and Leases of Lending NBFIs **Figure 6.2.7**



Source: Securities and Exchange Commission of Pakistan

NBMFCs registered growth expanding its asset share in the lending segment …

The NBMFCs expanded its asset share within the lending segment to 54.4 percent (48.2 percent in CY22) after posting a growth of 15.6 percent in CY23 despite a challenging macroeconomic and financial environment.

The high interest rate environment coupled with elevated inflation and dampened economic activities, that particularly affect the repayment capacity of low-income segment of the society, curtailed the expansion in the advances portfolio of NBMFCs, which grew at a modest rate of 7.0 percent during CY23 as compared to 30.3 percent in CY22. The share of advances in total assets of NBMFCs also fell down from 64.6 percent in CY22 to 59.9 percent in CY23, as the NBMFCs shifted their strategy towards investments and bank placements seeking to capitalize on higher returns at relatively low risks.

Even though NBMFCs have shown resilience and registered growth in CY23, the tightened macro financial conditions for longer periods can pose challenges for NBMFCs as their borrowers significantly lack cushions to withstand severe and prolonged economic shocks while the operating cost of these

[7] Lending NBFIs (also referred to as the non-AM segment) include Leasing Companies, Modarabas, Investment Finance Companies, Housing Finance Companies, Non-Bank Microfinance Companies (NBMFCs), etc.

institutions are high due to the peculiar nature of business.

Classified assets of Investment Finance Companies (IFC) sector saw a sharp increase as new entries helped advances portfolio grow…

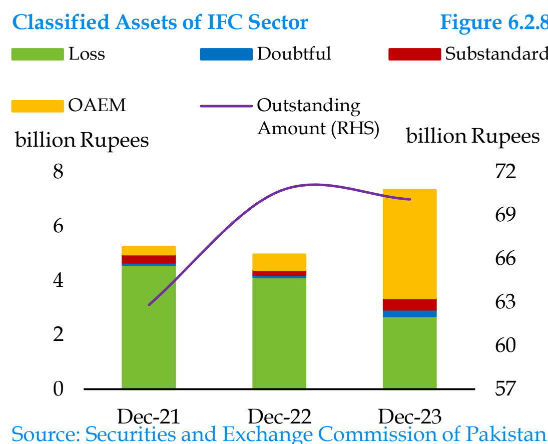
Although, a few new players entered the IFC sector, the asset base of IFCs contracted by 8.4 percent from Rs 109 billion in CY22 to Rs 100 billion in CY23. The decline in investments and money deposits, contributed towards contraction in asset base, while the advances portfolio posted a decent growth of 9.5 percent in CY23.

The IFC sector continued to be dominated by a couple of institutions, constituting about 68.9 percent of the asset share in the sector. These two major firms were also the drivers of increase in advances. Additionally, there were also new entries, of predominantly fintechs, into the market which further boosted the advances portfolio. One of the two large firms mostly operates as an institutional lender providing financing to NBMFCs while the other has recently diversified its portfolio by moving from leasing to advances.

The asset contraction of the sector was also mainly driven by one of the two large firms as it disposed of about 80.7 percent of its investments to pay off some of its liabilities as well as increase its lending portfolio over the year.

The classified assets of the IFC sector have shown a sharp increase reaching Rs 7.3 billion in CY23 from Rs 4.9 billion, particularly driven by increase in OAEM category. However, this increase does not seem to be broad based and could be an attendant consequence of shifting from leasing to advances portfolio. Although, this is not an immediate concern, the prevailing strain in macro financial conditions warrants enhanced focus and risk management efforts to ensure effective management of stressed loan portfolio and stem further delinquencies. Further, the entry of fintechs into the market necessitates timely enhancement of the regulatory and supervisory frameworks to further improve their efficiency to mitigate any emerging risk (**Figure 6.2.8**).

Classified Assets of IFC Sector **Figure 6.2.8**



Source: Securities and Exchange Commission of Pakistan

Modarabas saw growth in advances despite the stressed macro financial environment…

The asset base of the Modarabas[8] segment declined from Rs 65 billion in CY22 to Rs 56 billion in CY23. However, this was mainly attributed to the conversion of a few Modarabas to normal listed companies as well as separation of one division of a Modaraba, effectively decreasing the total number of Modarabas from 27 in CY22 to 22 in CY23.

The advances portfolio of Modarabas experienced a decent growth of 11.0 percent in CY23, increasing from Rs 25.8 billion to Rs 28.6 billion despite the high interest rate environment. The deposits also posted a modest growth rate of 5.5 percent in CY23. The deposit to assets ratio of the sector increased from 28.0 percent in CY22 to 34.8 percent in CY23, getting closer to the equity to assets ratio of 41.6 percent.

The infection ratio of the sector also continued its declining trend from last year, further

[8] The Modarabas are Islamic financial institutions, which are allowed to conduct any business, provided it is Shariah-compliant and approved by the Religious Board of Modarabas. For example, Modarabas can undertake Ijarah (leasing), Murabaha (cost plus sale), Musharakah (partnership), Diminishing Musharakah, Salam (deferred delivery sale) and Istisna financing activities; invest in the stock market; trade halal commodities; conduct project financing activities; manufacture items; among other activities.

decreasing to 6.8 percent in CY23 (9.3 percent in CY22 and 11.7 percent in CY21) indicating better asset quality management.

Generally, the Modaraba sector has proved resilient and posted a slight growth in assets in the latter half of the year. However, the sector faces numerous challenges in a challenging business environment marked by high inflation and external account pressures, tightened economic policies, and slowdown in economic activities and low investors' sentiments.

Leasing sector saw muted activity in CY23…

The leasing sector has remained more or less stagnant with an asset base of about Rs 6 billion over the past few years. A new entry into the market kept its asset base from shrinking further over the year.

Interconnectedness between banking and Mutual Funds sector remained manageable in CY23…

The banking sector's stake in the mutual funds industry increased over the year as banks injected more equity into their associated AMCs/IA. However, at Rs 13 billion, the investments of banking sector in mutual funds is miniscule given the size of banks' asset base.[9] Considering their relative sizes as well as the risk profile of the mutual fund industry, any accumulation and transfer of systemic risk from asset management segment to banking sector remained minimal during the year under review.

However, banks owned AMCs/IAs managed around 79.1 percent of the total assets under management which highlights the implications of performance of the sector for the concerned banks' reputation, though the banks' direct investments in mutual funds remain low. Conversely, mutual funds also increased their investments in banking products such as deposits and securities to reap rewards of high returns at relatively low levels of risk. This underscores the crucial role of banking sector's performance and stability for the mutual funds industry (**Table 6.2.2**). Nevertheless, any concerns of systemic risks in inter sector

Asset Management Segment's Flow of Funds and Exposure to the Banking Sector

Table 6.2.2

Description	Dec-21			Dec-22			Dec-23		
	Total Value (i)	Banks share (ii)	Banks share in Total* (iii= ii/i)	Total Value (iv)	Banks share (v)	Banks share in Total* (vi= v/iv)	Total Value (vii)	Banks share (viii)	Banks share in Total* (ix= viii/vii)
	billion Rupees		percent	billion Rupees		percent	billion Rupees		percent
1. Equity of AMCs/ IAs	33	17	53.0	33	18	55.4	43	25	58.7
2. Assets Under Management of AMCs/ IAs	1,605	1,257	78.3	1,976	1,537	77.8	2,840	2,247	79.1
3. Mutual Funds size	1,192	22	1.8	1,574	15	0.9	2,232	13	0.6
4. Mutual Fund exposure in Financial Institutions	724	673	92.9	749	589	78.6	1,111.16	972	87.4
5. Mutual Funds exposure in top 20 equity securities	75	9	12.5	62	5	8.4	56	7	11.7
6. Mutual Funds exposure in top 10 debt securities	20	7	36.7	64	9	14.7	64	9	13.9
7. Top 20 holders of mutual fund units	194	14	7.1	344	27	7.9	393	-	-

*Banks share for the respective head means:

1.Equity of Bank-owned AMCs /IAs
2.Mutual/Pension Funds and Portfolios being managed by bank-owned AMCs /IAs
3.Banks' investments in mutual fund units
4.Mutual Funds' investments in deposits, COD/TDR/COI and money at call/placements with banks
5.Mutual Fund investments in ordinary shares of banks
6.Mutual Funds investments in TFCs/Commercial Paper/Sukuk etc. issued by banks
7.Banks(investment value) in the top 20 holders of mutual fund units

Source: Securities and Exchange Commission of Pakistan

[9] The asset and equity base of banking sector are Rs 46.3 trillion and Rs 2.5 trillion respectively while the total size of AUM is Rs 2.8 trillion at end CY23.

exposures between banking sector and NBFI sector remained manageable given the relatively smaller size of these exposures, and stability and resilience of the banking sector.

Going forward, the performance of the NBFI sector will depend upon the economic recovery, traction of stabilization measures and IMF program, political stability, and any effects of ongoing geo-political conflicts on international commodity markets. These factors will have a discernible impact on macro financial environment through interest rates, exchange rates and economic activity that will trickle into preferences of investors as well as the strategy and growth of NBFI sector.

Insurance & Takaful Companies 6.3

The insurance sector exhibited growth in CY23 despite stressed macro-financial conditions. For the non-life sector, growth mainly came from the increase in fire and property damage premium charges as inflationary pressures drove up the price levels of machinery and property, prompting the insurers to increase premium charges. In the life segment, growth was mainly contributed by group premiums mainly on the back of government health insurance initiatives through public life insurers. However, similar to the previous year, the sector experienced an uptick in the claims ratio, attributed to an increase in group claims and surrender claims by individuals. However, the segment's bottom line was augmented by an increase in investment income. Looking ahead, while the dynamics of ongoing geopolitical tensions may have a significant impact on the non-life segment, and public health insurance program for life segment, the overall performance of the insurance sector will largely depend upon the emerging macro-financial conditions with regard to inflationary pressures and level of economic activity.

6.3 Insurance & Takaful Companies

Pakistan's insurance sector[1] is dominated by the Life and Family Takaful segment with 85.3 percent share of total assets and 66.0 percent share in total gross premiums of the industry.

The segment remained resilient in the face of stressed macro-financial conditions and registered decent growth in all the segments in terms of assets.

The asset base of the industry expanded by 19.9 percent in CY23 to reach Rs 2,948.9 billion, as compared to 14.8 percent in CY22. Although this growth was mainly contributed by the life segment owing to its large market share, non-life segment also posted notable growth in CY23 (**Table 6.3.1**). Gross premiums of the whole insurance industry increased by 15.1 percent to Rs 611.8 billion in CY23.

6.3.1 Non-life Insurance and General Takaful Segment

The asset base of the non-life insurance sector expanded by 20.8 percent in CY23 to reach Rs 346.6 billion, against a growth 17.0 percent in CY22. This growth was primarily contributed by the premiums, which grew by 28.3 percent. Accordingly, on the liability side, provisions for unearned premium also increased by 29.0 percent to Rs 71.4 billion in CY23 and provisions for outstanding claims increased by 14.1 percent to Rs 72.6 billion during the year under review, to cover the estimated claims expense.

Investments posted notable growth over the year, as non-life insurers inclined towards the equity market due to its revival in H2CY23…

The overall investment portfolios of the non-life segment posted notable growth of 23.5 percent in CY23 to reach Rs144.1 billion contrary to the last year's contraction of 3.4 percent.

Snapshot of Insurance Industry **Table 6.3.1**

million Rupees

Description		Total Assets	Equity	Gross Premium	Net Premium	Net Claims
Life	Dec-22	2,061,062	47,879	359,381	354,389	263,448
	Dec-23	2,462,707	62,169	385,415	379,888	313,981
Family Takaful	Dec-22	41,246	2,126	12,305	11,713	7,057
	Dec-23	53,600	2,250	18,226	17,583	11,653
Non-Life	Dec-22	286,980	103,401	131,571	60,095	32,945
	Dec-23	346,551	124,127	168,850	70,233	37,713
General Takaful	Dec-22	6,727	1,442	4,207	2,187	1,770
	Dec-23	9,144	2,046	5,366	3,044	2,473
Reinsurance	Dec-22	63,855	14,321	24,271	7,929	4,312
	Dec-23	76,887	18,136	33,969	9,323	4,707

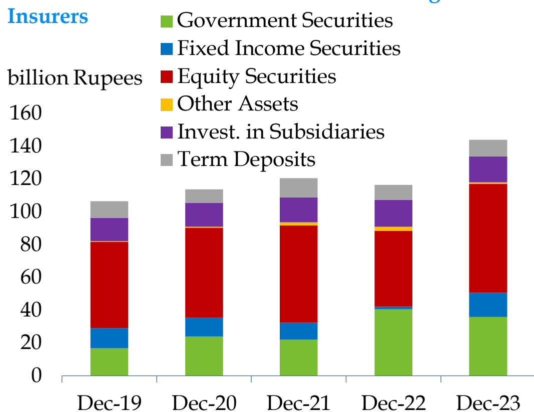
Source: Unaudited/audited Accounts of Insurers

[1] The analysis in the chapter is based on the data of 6 life insurers and 24 non-life insurers covering almost 100 percent and more than 80 percent of the life and non-life insurance sectors' assets, respectively. The analysis also covers two Family Takaful companies, two active General Takaful companies, and sole reinsurer, thus, covering almost the entire insurance industry. The analysis covers data up to period ending December 31, 2023. Further, data has also been estimated, where necessary.
The financial close for insurers is December of the corresponding year. All growth ratios for flow items are on year-on-year basis.

Although, there was some volatility in the capital markets over the last year, the domestic equity market experienced a surge of about 54.5 percent in CY23. As such, non-life insurers seemed to be inclined towards equity investments which increased by 43.3 percent while their investments in government securities declined slightly from year end CY22 levels.

Accordingly, the share of equities in investments increased from 39.7 percent in CY22 to 46.0 percent in CY23, while the share of government securities declined to 24.9 percent from 34.8 percent. Additionally, the share of fixed income securities also increased from 1.3 percent in CY22 to 10.3 percent in CY23 (**Figure 6.3.1**).

Investment Portfolio of Non-life Insurers **Figure 6.3.1**



Source: Unaudited/ audited Accounts of Insurers

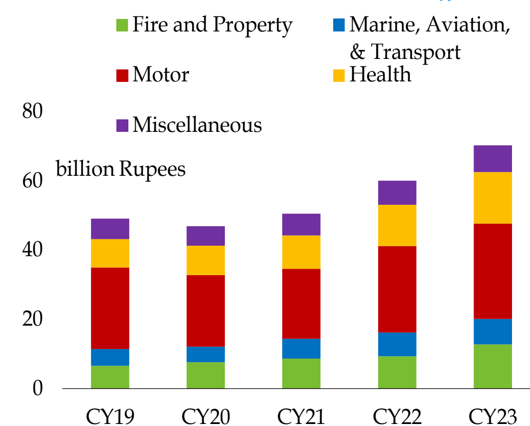
Growth in gross premiums and net premiums was mainly driven by fire and property damage premiums, while health and auto premiums also augmented net premiums…

Gross premiums for the non-life sector, similar to the previous year, posted a significant growth of 28.3 percent in CY23 to reach Rs 168.8 billion. This growth was primarily contributed by fire and property damage premiums, which posted a growth of 41.4 percent, followed by marine & aviation, and health with growths of 22.0 percent and 21.8 percent, respectively. The surge in gross premiums within the property and fire damage insurance segment can be largely attributed to the impact of inflation and the escalating costs of machinery and properties. Inflationary pressures inherently drive up the replacement and repair costs associated with damaged properties.

However, the net premiums of the non-life sectors only increased by Rs 10.1 billion in CY23 to reach Rs 70.2 billion, as a significant proportion of the gross premiums was ceded to reinsurers by insurers to protect themselves by spreading their risks. Consequently, the premium retention ratio declined to 41.6 percent in CY23 (45.7 percent in CY22 and 49.0 percent in CY21).

Increase in the net premiums for the non-life sector was mainly contributed by fire and property damage, health and auto premiums. Net premiums increased by 37.5 percent for fire and property damage, 25.1 percent for health, and 10.1 percent for motor. Motor premiums mainly increased due to the increase in prices of vehicles over the year leading to an increase in premium amounts (**Figure 6.3.2**).

Net Premiums for Non-Life Sector **Figure 6.3.2**



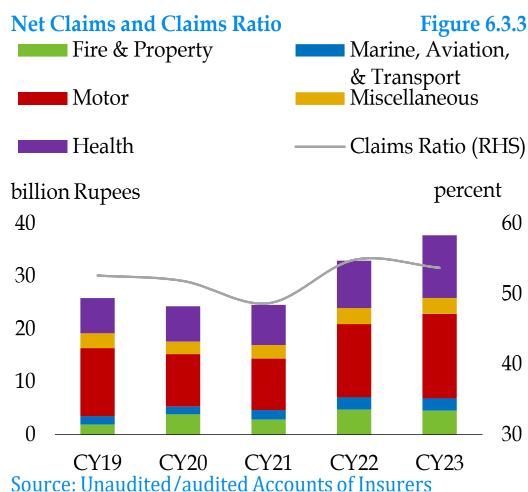
Source: Unaudited/audited Accounts of Insurers

Growth in net claims slowed down in CY23 compared to CY22, leading to decline in claims ratio…

The net claims grew by 14.5 percent in CY23 as compared to 34.0 in CY22. The slowdown in growth of net claims was primarily contributed by lower fire and property damage claims which contracted by 4.1 percent in CY23. This was in contrast to 69.0 percent growth in last year due

to elevated economic activity, some fire incidents and severe weather events like torrential rains and flooding. Net claims also slowed down for marine & aviation and motor, while the net claims for the health segment registered growth (**Figure 6.3.3**).

Net Claims and Claims Ratio **Figure 6.3.3**



Source: Unaudited/audited Accounts of Insurers

Consequently, profitability of the non-life insurers improved as underwriting results and investment income registered notable growth…

As the claims expense slowed down and the claims ratio declined, the underwriting results for the sector increased by 45.8 percent in CY23 as compared to a 36.9 percent contraction in CY22. Further, investment income also registered notable growth in CY23, increasing by Rs 8.5 billion from Rs 8.8 billion in CY22 to Rs 17.3 billion in CY23.

Accordingly, non-life insurers' profit-before-tax increased by 75.5 percent to Rs 27.4 billion and profit-after-tax increased by 61.6 percent to Rs 17.2 billion in CY23.

Accordingly, key performance indicators remained more or less steady for the non-life sector…

The key financial indicators of the non-life insurers remained more or less steady in CY23 after deteriorating in CY22 when there were stressed macroeconomic conditions, torrential monsoon rains and flooding leading to increased claims expenses as well as disrupting business activities (**Table 6.3.2**).

Soundness of Non-Life Insurance **Table 6.3.2**

percent

Description	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23*
Capital to Assets	11.8	10.9	10.6	9.5	8.1
Claims Ratio	52.6	51.8	48.6	54.8	53.7
Combined Ratio	91.0	92.3	87.8	92.7	92.1
Premium Retention	54.0	50.1	49.0	45.7	41.6
Return on Assets	6.6	5.9	7.5	5.9	8.7

*Estimated Figures
Source: Unaudited/audited Accounts of Insurers.

Dedicated Takaful Operators posted notable growth in asset base…

The two dedicated General Takaful operators (DTOs) increased their asset base by Rs 2.4 billion to Rs 9.1 billion in CY23. However, in terms of net premium, the DTOs constitute only 4.2 percent of the combined non-life and general Takaful segment.

Their investments increased by a strong growth rate of 91.0 percent to Rs 1.6 billion in CY23, mainly emanating from an increase in investments in equity instruments.

Participants' Takaful Fund (PTF) profitability for the DTOs increased from Rs 27.4 million in CY22 to Rs 228.3 million in CY23, driven by a 39.2 percent increase in net premium. However, Shareholders' Fund (SHF) profitability declined from Rs 283 million in CY22 to Rs 240 million in CY23 owing to increased commission and management expenses and muted growth in Wakala fee.

The net contributions of this sub-segment increased from Rs 3.3 billion in CY22 to Rs 4.3 billion in CY23, marking a growth of 28.7 percent. On the other hand, net claims increased by 39.7 percent CY23 slightly outpacing the growth in net premiums. However, the underwriting results for the DTOs increased from Rs 9.3 million in CY22 to Rs 159.5 million in CY23 posting increase of Rs 150 million.

Profitability of the non-life reinsurer improved significantly in CY23…

The underwriting profit of the non-life reinsurer improved significantly in CY23, posting a growth of 14.6 percent against a contraction of 5.2 percent in CY22. The steady earnings of the non-life insurer are on the back of strong growth of 78.6 percent in investment income in CY23 (36.3 percent growth in CY22). Accordingly, the non-life reinsurer posted profits of Rs 5.1 billion in CY23 as compared to Rs 3.6 billion in CY22.

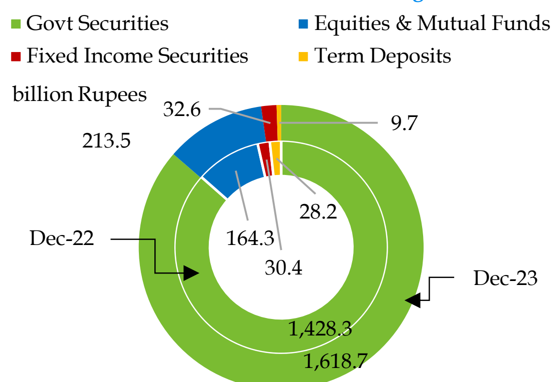
6.3.2 Life Insurance and Family Takaful Segment

The asset base of the life insurance segment increased by 19.5 percent to Rs 2,462.7 billion in CY23. Due to the long-term horizon of the life insurance business, this segment has largely remained immune from downturns in economic activity and stressed financial conditions.

High interest rate environment has slightly altered the investment mix…

The life insurance segment increased its total investments by 13.5 percent to Rs 1,874.5 billion in CY23. Due to the high interest rate environment, the life insurance sector increased its already significant market share in government securities as a percentage of total investments (which increased from 78.5 percent in CY22 to 86.5 percent in CY23) (**Figure 6.3.4**).

Life Sector Investments **Figure 6.3.4**



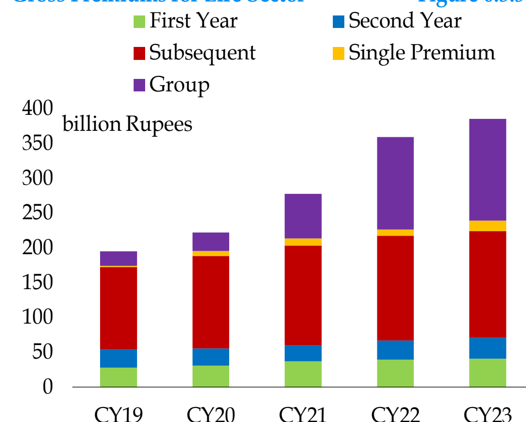
Source: Unaudited/audited Accounts of Insurers

Investments in equities increased by 29.9 percent to Rs 185.7 billion, its share has slightly increased from 8.7 percent in CY22 to 9.9 percent in CY23.

The stressed economic conditions suppressed growth in overall gross premiums…

Gross premiums posted an increase of 7.2 percent to Rs 385.4 billion in CY23 due to the relatively longer production cycle of life insurance. This growth could have been higher, however, the prevalent stressed macroeconomic conditions led to muted growth in first year and second year premiums, indicating pressures on policyholders' financial position and purchasing power. This is supported by the significant increases in surrender claims of 27.3 percent and 31.1 percent in CY22 and CY23, respectively (**Figure 6.3.5**).

Gross Premiums for Life Sector **Figure 6.3.5**



Source: Unaudited/audited Accounts of Insurers

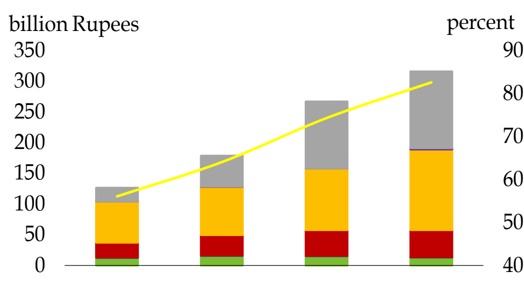
Nevertheless, the overall increase of Rs 26.0 billion in gross premiums in CY23 (an increase of Rs 81.6 billion in CY22) was mainly driven by the rise of Rs 13.5 billion in group premiums during year under review compared to increase of Rs 68.6 billion in CY22. Group premiums have expanded rapidly in recent years due to the government's funding of public health insurance schemes through the public life insurer. However, any policy reversal on part of the government may have implications for further outlay on such health insurance schemes in the future, which, in turn, may put pressure

on group premiums in CY24. Nevertheless, one of the major life insurers is planning steps like entering into corporate health insurance segment, introducing new plans like term insurance for government employees, expanding Bancassurance and Bancatakaful operations which may contribute in growth of life insurance segment going forward.

Claims under group policies have increased in tandem …

The increase in Surrender Claims and Group Claims have led to an increase in gross claims from Rs 266.9 billion in CY22 to Rs 316.3 billion in CY23 (**Figure 6.3.6**).

Gross Claims for Life Sector — Figure 6.3.6



Source: Unaudited/audited Accounts of Insurers

While Group Claims have increased in tandem with the hike in group premiums, the significant increase in Surrender Claims for the second consecutive year may be a sign that the stressed economic conditions such as high inflation and low economic activity may be affecting the disposable income of policyholders.

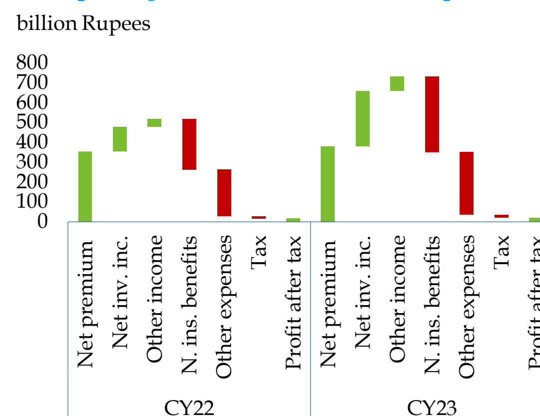
It may be noted that the increase in group claims is within the expected levels as they mostly pertain to the health insurance business.

Net insurance benefits have dented the bottom line of the life insurance sector…

The two main sources of income for the life segment are premium revenue and investment income. While premium revenue has not increased substantially compared to the previous year (with a growth of Rs 81.2 billion in CY22 and Rs 25.5 billion in CY23), the significant investments in government securities (as discussed above) coupled with the high interest rate environment has boosted investment income. Investment income (excluding trading and fair value gains/losses) has increased from Rs 160.7 billion in CY22 to Rs 227.3 billion in CY23.

However, net insurance benefits, which mostly comprises of claims expense, has constrained substantial increase in the bottom line. Net insurance benefits increased by Rs 124.5 billion to Rs 380.9 billion in CY23 (**Figure 6.3.7**).

Earnings Components for Life — Figure 6.3.7



Source: Audited/unaudited Accounts of Insurers

In addition, due to inflationary pressures there have been increases of 14.9 percent and 26.1 percent in acquisition and administration expenses, respectively over the previous year. Consequently, pre-tax profit has only increased from Rs 27.4 billion in CY22 to Rs 34.4 billion in CY23. Accordingly, pre-tax return on assets (ROA) inched up to 1.5 percent in the year under review (1.4 percent in CY22).

Financial performance and soundness indicators presented a mixed picture…

Due to the hike in overall claims expense, the claims ratio has increased from 74.3 percent in CY22 to 82.7 percent in CY23. This, coupled with muted growth in first year and second year

premiums along with the rise in expense ratio explain the slow growth in the bottom line of the life segment (**Table 6.3.3**).

Performance Indicators of Life Insurers **Table 6.3.3**

						percent
Description	CY18	CY19	CY20	CY21	CY22	CY23
Claims Ratio	52.2	51.8	56.1	64.1	74.3	82.7
Expense Ratio	26.3	26.0	22.9	21.6	18.6	20.7
Equity to Assets	2.0	1.9	2.1	1.9	2.3	2.5
ROA pre tax	0.7	0.6	0.8	0.8	1.4	1.5

Source: Unaudited/audited Accounts of Insurers

Asset base of the dedicated takaful operators (DTOs) expanded in CY23, although the new business growth remained muted…

The Family Takaful Segment consists of three Dedicated Takaful Operators (DTOs)[2] and seven Window Takaful Operators. DTOs' asset base grew by approximately 30.0 percent to Rs 53.6 billion in CY23 against a growth of 4.7 percent in CY22.

DTOs' gross contributions surged by 48.1 percent, reaching Rs 18.2 billion in CY23 as compared to a muted growth of 2.3 percent in CY22. This growth was primarily driven by exponential growth in top-up contributions, followed by a 13.1 percent rise in group contributions. However, the first- and second-year premiums of family DTOs' posted contractions while the subsequent year premiums remained flat.

The net contributions for PTF increased by 50.1 percent in CY23 whereas the net claims for PTF increased by 57.0 percent, reflecting muted underwriting results for the DTOs.

PTF's surplus before tax declined from Rs 267.2 million to Rs 147.6 million in CY23, owing to increase in net takaful benefits. However, SHF pre-tax profit posted a slight growth of 5.9 percent reaching Rs 249.1 million in CY23 from Rs 235.2 million in CY22, mainly due to offsetting declines in wakala fees and acquisition expenses.

Surrender claims for the family DTOs' posted a significant growth of 83.7 percent in CY23 as compared to 6.1 percent growth in CY22. They were followed by group claims which posted a growth of 28.4 percent in CY23, similar to the previous year. Consequently, claims ratio increased from 63.4 percent in CY22 to 66.3 percent in CY23. However, the profitability indicators remain comfortable, reflecting the DTOs' financial strength and operational resilience. The expense ratio has decreased as acquisition costs declined in line with muted new business growth (**Table 6.3.4**).

Soundness of Dedicated Family Takaful Operators **Table 6.3.4**

				percent
Description	CY20	CY21	CY22	CY23
Return on Assets	0.9	0.7	0.6	0.5
Return on Equity	16.1	13.6	11.4	11.3
Claims ratio	55.6	57.2	63.3	66.3
Expense ratio	31.5	29.5	28.9	17.3
Contribution Retention	94.9	95.3	95.1	96.4

Source: Unaudited/audited Accounts of Dedicated Family Takaful Operators

Outlook hinges on evolving market conditions…

Looking ahead, the performance of the insurance sector hinges on emerging macroeconomic conditions, geopolitical conflicts, and companies' capabilities to adjust to the evolving market conditions.

Premium rates may rise in 2024, prompted by factors such as high inflation, geopolitical tensions, and any severe weather events, as Pakistan ranks among the countries which are highly vulnerable to climate change. Further, an increase in reinsurance rates offered by international re/insurers may potentially increase reinsurance expenses for insurers in Emerging Markets and Developing Economies

[2] One DTO has recently entered the family Takaful segment and is not covered in this chapter due to non-availability of financials.

(EMDEs), particularly for non-life insurers which have extensive reinsurance arrangements.

On the other hand, the life insurance business, with its longer-term focus, is anticipated to remain relatively resilient to prevailing macroeconomic pressures. The growth in this sector is also partly contingent on the continuity of government health insurance programs that have significantly supported the premium growth over the last couple of years. Nevertheless, any changes in macro-financial conditions in terms of inflationary pressures and economic activity are likely to have concomitant effects on the segment.

7

Corporate Sector

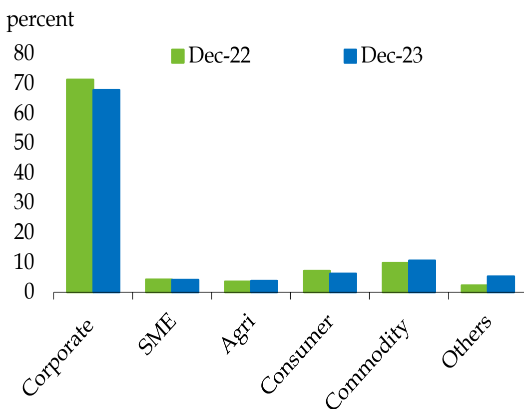
Corporate sector showed steady solvency with improved debt-servicing capacity and posted improved financial performance during CY23, despite a significantly stressed macro financial environment. The large corporate firms in general improved their profit margins as their efficiency indicators demonstrated improvement. The large borrower groups of banking sector, especially observed steady repayment capacity with sound financial performance and standing. Accordingly, the delinquencies in banks' corporate loans remained well-contained; the credit-risk rating profile of firms also suggest that they have strong ability to honour financial obligations. Going forward, the performance of corporate sector will largely depend upon the macro financial conditions which have started to show signs of modest recovery, while some uncertainties related to global geopolitical tensions and successful completion of domestic economic stabilization program remain key determinants of the sector's overall performance.

7 Corporate Sector

A sound corporate sector is imperative for financial stability

Corporate sector constitutes a significant portion (67.8 percent as of December 2023) of the banking sector's loan portfolio, indicating that the financial performance and repayment capacity of the corporate segment have a direct bearing on the overall stability of the banking and financial system **(Figure 7.1)**.

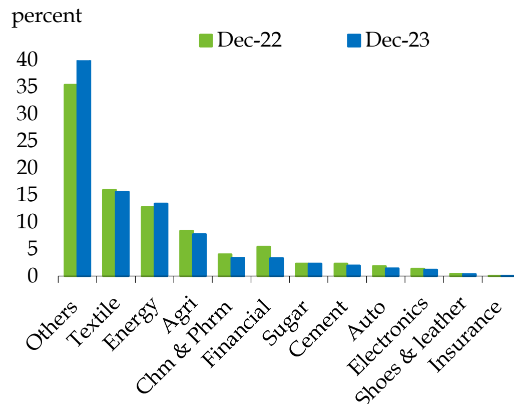
Segment-wise Share in Bank Advances **Figure 7.1**



Source: State Bank of Pakistan

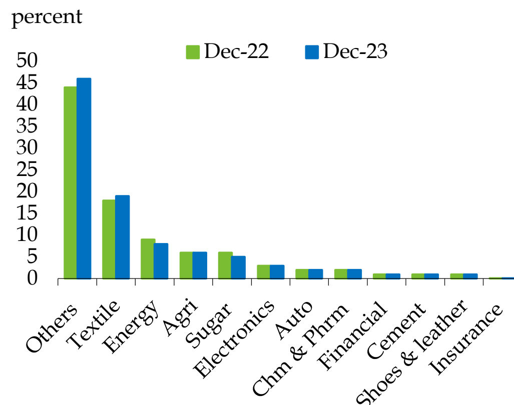
Sector-wise share in total banking exposure shows a large representation from textile and energy sectors, which are important contributors to economic growth **(Figure 7.2)**. Certain sectors such as cement, sugar, auto and chemicals & pharmaceuticals, despite constituting a small part of the overall banking exposure, contribute significantly to economic growth. Any adverse changes in economic conditions may therefore impact the repayment capacity of these sectors **(Figure 7.3)** which may translate in deterioration of asset quality of banking sector.

Sector-wise Share in Bank Advances **Figure 7.2**



Source: State Bank of Pakistan

Sector-wise Share in NPLs **Figure 7.3**



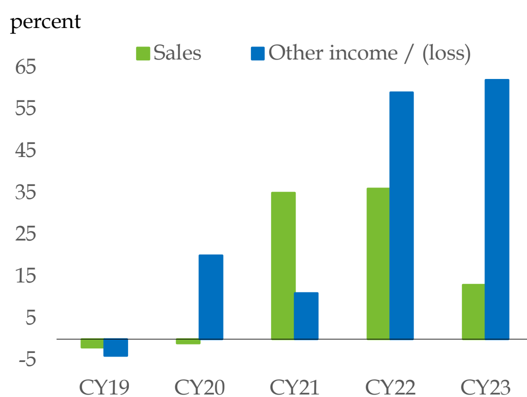
Source: State Bank of Pakistan

Amidst challenging economic environment, large corporations exhibited resilience, bolstering profitability through upward price adjustments and diversified revenue streams

Even in the face of a challenging economic environment e.g. high inflation, contractionary economic policies, depressed demand and high finance cost during CY23, the corporate sector showed resilience in its operational and financial performance as reflected by improved

profitability margins of the large companies (**Table 7.1**).[1] This resilience stemmed from three key factors: higher earnings due to upward price adjustments, easing of pressure on global commodity prices and diversification of revenue streams, particularly the flows of income from investment activities. The growth in other income, which contributes around 44 percent of net profits of the sector, has outpaced the growth in sales (core-earnings) in CY22 and CY23 **(Figure 7.4)**. Detailed analysis shows that the rise in other income is primarily driven by interest earnings from investments in government securities and dividend income from equity investments and affiliated entities.

Growth of Sales and Other Income (YoY) Figure 7.4



Source: State Bank of Pakistan

7.1 Financial Assessment of Corporate Sector

The tough macroeconomic conditions and depressed demand resulted in lower growth of 19 percent in Q3CY23, as compared to 23 percent in Q3CY22 of corporate sector's assets. Both long-term and short-term borrowings witnessed subdued growth during Q3CY23 as compared to Q3CY22 owing to high finance cost. The corporate sector in Q3CY23 had sufficient cash and liquid assets (cash, near-cash instruments, short-term investments, and inventory) to cover its short-term obligations, as reflected in healthy current ratio **(Table 7.1)**. This was possible as stable leverage levels did not diminish these resources.

Excerpt Financial Statements of PSX Listed Companies and Ratio Analysis — Table 7.1

	Q4 CY21	Q1 CY22	Q3 CY22	Q4 CY22	Q1 CY23	Q3 CY23	YoY Growth
	billion Rupees						percent
Balance Sheet							
Non-Current Assets	3,824	3,915	4,344	4,430	4,558	5,248	*20.8*
Current Assets	5,007	5,401	6,146	6,178	6,663	7,103	*15.6*
Total Assets	8,831	9,316	10,491	10,608	11,221	12,351	*17.7*
Shareholders' Equity	4,131	4,304	4,593	4,679	4,866	5,454	*18.7*
Non-Current Liabilities	1,186	1,220	1,457	1,434	1,513	1,799	*23.4*
Current Liabilities	3,513	3,791	4,441	4,496	4,842	5,099	*14.8*
Total Equity & Liabilities	8,831	9,316	10,491	10,608	11,221	12,351	*17.7*
Income Statement							
Sales	2,272	2,401	2,933	2,876	2,861	3,319	*13.2*
Cost of sales	1,840	1,942	2,493	2,487	2,313	2,688	*7.8*
Gross profit / (loss)	432	459	441	389	548	630	*42.9*
General, admin. & other expenses	150	136	168	149	190	188	*11.9*
Other income / (loss)	45	74	89	81	139	125	*40.4*
EBIT	327	397	361	322	497	567	*57.1*
Financial expenses	34	41	72	73	109	104	*44.4*
Profit / (loss) before taxation	292	356	289	249	388	463	*60.2*
Tax expenses	79	96	105	84	132	177	*68.6*
Profit / (loss) after tax	213	260	184	165	256	286	*55.4*
Financial Ratios							
Gross Profit Margin (%)	19	19.1	15	13.5	19.1	19	
Net Profit Margin (%)	9.4	10.8	6.3	5.7	9	8.6	
Return on Equity (%)	20.6	24.2	16	14.1	21.1	21.0	
Return on Assets (%)	9.7	11.2	7	6.2	9.1	9.3	
Current Ratio (units)	1.4	1.4	1.4	1.4	1.4	1.4	
Asset Turnover (units)	102.9	103.1	111.8	108.4	102	107.5	
Capital to Total Assets(%)	60.2	59.3	57.7	57.6	56.9	58.7	
Debt Equity Ratio (units)	1.1	1.2	1.3	1.3	1.3	1.3	
Debt to Capital Employed (units)	0.9	0.9	0.97	0.97	1	0.95	
Interest Coverage Ratio (units)	9.5	9.7	5	4.4	4.6	5.5	
Financial Leverage (units)	2.1	2.2	2.3	2.3	2.3	2.3	
Operating cash-flow to current liabilities (%)	-1.4	4.5	-3.3	2.8	-1.4	5.4	
Operating cash-flow to total debt (%)	-1.1%	3.4%	-2.5%	2.1%	-1.0%	4.0%	
Cash flow margin (%)	-2.2%	7.0%	-5.0%	4.4%	-2.3%	8.3%	
Cash conversion cycle	78.2	58.3	99.5	135.7	95.0	78.2	

(*Data of 100 companies were used that represent 79% of total assets of all listed non-financial entitles)
Source: State Bank of Pakistan

However, in first half of CY23, the ability of companies to pay their current and long-term debts solely from their core operations weakened due to deterioration in their cash flows. This impact was temporary as economic conditions improved in second half of CY23. Accordingly, the cash flow ratio significantly improved in H2CY23, thereby shoring up

[1] The analysis is conducted on a sample of 100 non-financial companies listed on the Pakistan Stock Exchange, serving as a representative subset of the larger corporate sector.

liquidity while solvency levels remained stable. This improved liquidity, especially from operations, showing that companies may be able to meet their obligations sustainably. However, taking a cautious approach due to high finance cost, companies did not excessively take on more debt for asset purchases, as evidenced by the stable debt-to-equity ratio, further easing the overall leverage burden on the sector.
The improved liquidity and stable solvency ratios were sustained by augmented profitability, as evidenced by improvement in bottom line indicators of ROE and its contributory indicators of gross, operating and net margins over the year. While strong profitability and consistent earnings growth represent healthy financial performance of firms; the indicators related to sustainability of earning and operational efficiency of firms also indicated improvement.

One leading efficiency indicator i.e. cash conversion cycle, which represents how quickly firms can convert their inventory and products into cash through sales – marked significant improvement during the year under review. Further analysis of the cycle shows that the selected firms were able to avail higher amount of supplier credit (purchase of goods and services from suppliers on credit) and lower the pending receivables from buyers, indicating these firms' relatively stronger market power and ability to fetch better terms of trade from their customers and suppliers. These factors also hold out the strong performance of the large corporate sector and contained delinquencies in the banks' corporate loan portfolio, even in the face of significantly stressed macro financial conditions.

The DuPont analysis reveals encouraging signals for long-term earnings sustainability. The rise in Return on Equity (ROE) is primarily attributed to enhancements in both net profit margin and asset turnover, coupled with the consistent financial leverage ratio within the corporate sector. However, higher taxes proved to be a drag on ROE in CY23 **(Table 7.2)**.

ROE - DuPont Analysis **Table 7.2**

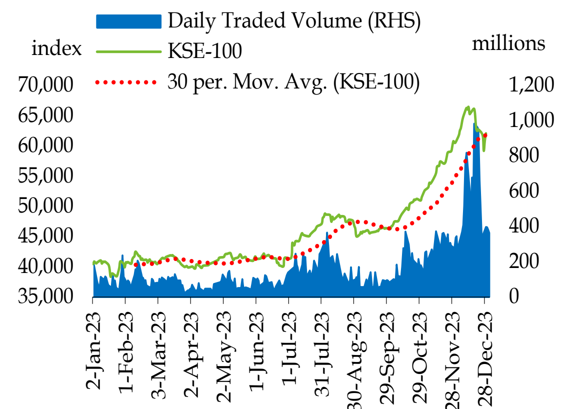
				Ratio unless specified
	CY20	CY21	CY22	CY23
Tax Retention Rate (A)	0.76	0.73	0.69	0.62
Interest Burden (B)	0.87	0.89	0.81	0.82
Operating Profit Margin (C)	0.16	0.14	0.12	0.17
Asset Use Efficiency (D)	0.8	1.03	1.08	1.07
Financial Leverage (E)	2.15	2.14	2.23	2.26
Return on Equity (ROE) % (A×B×C×D×E)	18.2	20.05	16.15	21.00

Source: State Bank of Pakistan

7.2 KSE-100 Index

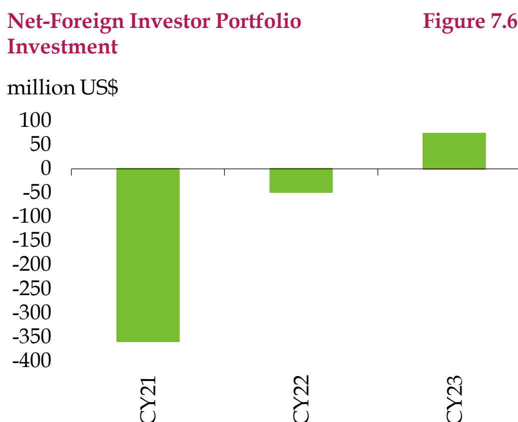
The KSE-100 index experienced subdued growth due to stressed macroeconomic conditions and delay in review of IMF program **(Figure 7.5 and 7.6)**. However, in the latter half of CY23, the stock market witnessed a notable resurgence. The positive momentum in key sectors i.e. banking, power, oil & gas, and cement, coupled with overall improved corporate financials and a favorable exchange rate, contributed to the remarkable turnaround in market performance.

KSE-100 Index During CY23 **Figure 7.5**



Source: Pakistan Stock Exchange

Net-Foreign Investor Portfolio Investment **Figure 7.6**



Source: National Clearing Company of Pakistan Limited

7.3 Sectoral Analysis

Sectoral analysis revealed that six sectors[2] contributed a combined 80 percent to the profitability of all listed companies while only 5 sectors suffered losses. Details on performance and risk analysis of a few major sectors are given below.

Textile Sector

The textile industry faced considerable challenges in CY23 as its exports declined by 15 percent YoY, to USD 15.81 billion.
The decline in textile exports was due to lower international orders because of a slowdown in global demand while energy tariff hikes, upward revision of rate on subsidized financing facilities[3] and high financing costs also adversely impacted sector's profitability. The increase in domestic cotton production, whilst favorable, was not enough to mitigate negative impact of aforementioned factors on the sector.

Due to these challenges, working capital requirements of the sector also remained lower as compared to CY22.

The sector's profitability remains vulnerable to higher costs related to energy and financial charges. However, the prospects of improved cotton supply in 2024 and the subsequent decline in local cotton prices, bodes well for the sector while the greater availability of local cotton will also help to reduce the country's import expenditure on raw cotton and will help in reducing the sector's susceptibility to fluctuations in global cotton prices.

Power Sector

As the domestic economy remained subdued in CY23, demand for electricity reduced during the year, causing overall power generation to decline by 5.3 percent on YoY basis to 130,002 GWh. This decline in power generation led to lower revenues for power generation and distribution companies as well as increased capacity charges (Rupee/kWh), causing payables of CPPA-G to rise. Accordingly, power sector circular debt also rose during the year under review to Rs 2.6 trillion by October 2023.[4] In order to curb the growth of circular debt, the government increased power and gas sector tariff, thereby putting pressures on capacity utilization of the power sector.

As a mitigation measure, industries either reduced power requirements, increased dependence on capacity power producers or shifted towards cheaper fuel sources such as domestic coal. The share of renewables, such as wind and solar, has increased, yet it remains

[2] Out of total of 37 sectors, top 6 sectors include commercial banks (34 percent), oil & gas exploration companies (29 percent), fertilizer (6 percent), textile composite (5 percent), chemical (4 percent), cement (3 percent).
[3] Markup rate on LTFF for plant & machinery linked with the SBP Policy Rate and with any change in the Policy rate, markup rate for LTFF is revised automatically so that the gap between policy rate and LTFF rate is maintained at 3 percent.
[4] Circular Debt Report - October 2023, Ministry of Energy (Power Division); https://power.gov.pk/Reports.

relatively small in overall electricity supply in the country.[5]

Working capital requirements of power sector decreased, which can be attributed to lower power generation and payments made by the government to the sector, thus reducing the net receivables of the sector during CY23.

Recent hike in gas and electricity prices is expected to play a critical role in resolving the circular debt issue and is expected to ease liquidity constraints within the sector. While adjustments in electricity tariffs may help in curbing the buildup of circular debt, however, effective resolution of the issue requires concerted efforts for curtailing losses in power transmission and distribution.

Fertilizer Sector

The fertilizer sector witnessed substantial hike in average urea prices due to upward adjustments in gas prices by the government in CY23. Furthermore, the Federal Budget of FY24 imposed a 5 percent FED on fertilizers. Despite the increase in prices, the overall urea offtake remained consistent with the previous year, reaching 6.6 million metric tons. On the other hand, DAP offtake, which observed a dip in consumption in CY22 due to heavy floods, increased by 31 percent YoY during CY23, reflecting the normalization of demand. The industry also witnessed gas supply disruptions, affecting the overall production of urea.

The improvement in profitability of fertilizer sector was driven by higher urea prices coupled with increase in demand in CY23. Earnings of the sector were also supported by healthy growth in other income[6] driven by elevated interest rates. On the downside, the sector experienced rise in distribution expenses on account of higher fuel prices as well as axle load regime requirements.[7] Fertilizer companies are characterized by sound liquidity profile and thus, working capital needs are mostly met through internally generated cash flows.

The sector made net retirement of Rs 89.6 billion in working capital loans during CY23 compared to the net borrowing of Rs 42.9 billion a year earlier.[8] The decline in working capital loans can be attributed to improved liquidity stemming from increased sales on account of higher demand and lower inventory stocks during CY23.[9] Moreover, the higher demand allowed companies to secure advance cash sales, particularly in DAP, thereby improving their liquidity position.

During 2024, the fertilizer consumption is anticipated to improve driven by higher farm output and enhanced support prices. However, the sector faces challenges due to gas supply shortages and ongoing gas price increases. Reductions in subsidies, that the industry receives from the government through discounted gas prices, may lead to higher fertilizer prices. This will impact the affordability of inputs for farmers as well as the sector’s profitability if increased prices translate into fall in demand.

Cement Sector

The local dispatches for cement were faced with limited demand in CY23 due to decreased spending in the Public Sector Development

[5] Pakistan’s power generation (GWh) uses a fuel mix where Hydel contributes 30 percent, Nuclear 17 percent, RLNG 19 percent, Coal 17 percent, Gas 9 percent, Renewable 4 percent (Wind, Solar, Bagasse) and Furnace Oil 2 percent (CY23).
[6] Other income contributes around 33 percent to net profit. It includes investment income on deposits, mutual funds, Government securities and dividend payout by subsidiary/associated companies.
[7] Implemented in November 2023, Pakistan's axle load regime enforces weight limits on vehicles, aiming to bolster road safety, preserve infrastructure, and optimize transportation efficiency.
[8] Loans by Manufacture of fertilizers and nitrogen compounds and Wholesale of fertilizers and agrochemical products (Outstanding Position at the end of December 2023 (P) Based on ISIC 4 Classifications of Private Sector Businesses
[9] Average closing inventory stock of total fertilizer (including urea, DAP, CAN etc.) stood at 684,544 tons during CY23 vs stock of 1,134,822 tons during CY22.

Program (PSDP), higher construction costs and electricity costs, weak household demand and overall subdued economic activity, particularly in the first half of CY23. However, the adverse impacts of cement offtake on sales were mitigated through consistent price hikes by cement manufacturers.

Apart from price hikes, cement manufacturers have traditionally turned to exports when local demand weakens, so as to ensure operational viability of cement production. This trend, combined with decreasing coal costs[10] due to easing global commodity prices, fueled export growth. Southern manufacturers of cement sector gained a larger advantage (197.9 percent increase YoY as compared to 39.6 percent growth for north) due to their proximity to seaports, as these locations benefit from lower coal transportation costs.

Price hikes and an increase in other income provided support to the sector's net income. Due to high interest rates and increased profitability following the expansion, companies have prioritized debt repayment. Consequently, the sector witnessed a net reduction of Rs 27 billion in its total outstanding debt during CY23.

Despite declining international coal prices, the axle-load regime and the Red-Sea disruptions may continue to exert upward pressure on imported coal prices for domestic cement manufacturers. Furthermore, cement sales may remain sluggish due to decreased government expenditure in development projects, reduced construction activity, and household budget constraints caused by inflation.

Petroleum sector

The petroleum sector comprises of firms involved in the exploration and marketing of oil and gas. The exploration companies saw uptick in their profitability due to currency depreciation, taxation reversal on depletion allowance[11] and exchange rate gains made during CY23. The earnings of these companies also benefitted from rise in other-income attributable to short-term investments.

However, the oil marketing companies saw compressed margins because of subdued economic activity and ensuing inflationary pressures (price hikes for Motor Spirit & High Speed Diesel) which further contributed towards decreased domestic demand from key sectors such as auto, power (Furnace Oil requirement decreased) and also retail consumers. The price hikes supported earnings of the sector and mitigated the impact of decline in volumetric sales.

While the relatively stable parity and slightly increased auto sales in the latter half of the year, signal a potential rise in domestic petroleum demand, a more substantial boost in economic activity is needed for a significant improvement in the future outlook of these products. Moreover, pending issues of receivables arising from circular debt also need to be addressed for improved performance of the petroleum sector.

Automobile sector

CY23 presented several challenges for the auto industry. Economic activity remained subdued especially in first half of CY23, with only the agricultural sector seeing an uptick, leading to increased tractor sales. Though the appreciating rupee in the latter half of the year caused a decrease in vehicle prices, it was not enough to offset significant price hikes from previous years, causing end-consumer demand to remain subdued. Import-related restrictions implemented as part of administrative measures led to increased costs and production delays for the heavily import-dependent sector. Despite lifting of these restrictions in June 2023, the year on year increase in auto sales was mainly due to

[10] Coal prices declined by around 45 percent YoY during CY23

[11] The Supreme Court of Pakistan (SCP)'s decision to exclude the deduction of royalties from well-head value for depletion allowance benefitted the sector as it resulted in the reversal of prior years' tax provisions, ultimately reducing the tax charge.

a low-base effect, as sales figures remained significantly below those of previous years. Furthermore, auto sales were also impacted by reduced auto financing due to macro-prudential measures[12] taken by the SBP in later part of 2021 as well as by high interest rates during the same period.

An anticipated improvement in the domestic economy in 2024 could provide an opportunity for the auto industry to revive. Moreover, recently, auto assemblers have also reduced prices of certain models which will help prop consumer demand.

Sugar sector

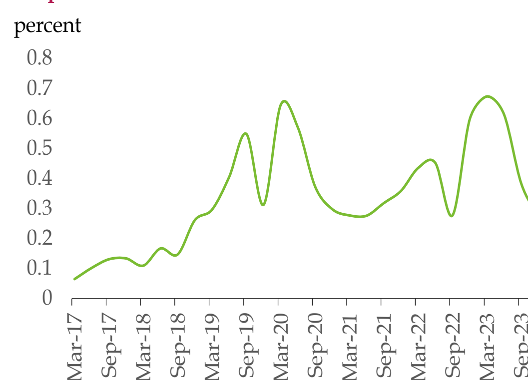
Sugarcane constitutes approximately 23 percent of the production of major crops[13], 3.7 percent in agriculture's value addition and 0.9 percent in GDP. The sector witnessed improved profitability in MY22[14], attributed to higher sugar prices and consumption levels. Domestic sugar consumption in Pakistan has been on the rise since MY18, due to increased consumer demand and sugar supplies. The elevated interest rates adversely affected net profit margins of the sector due to higher finance costs.

Retail prices of sugar are expected to remain high amid inflationary pressures, which is anticipated to positively impact gross margins of the sector. Nevertheless, challenges persist, particularly regarding rising selling and distribution expenses, as well as finance costs.

Firms' market-based resilience indicators improved over the year, mainly reflecting the operating performance and revival in investors' sentiments towards the firms' value and potential ….

In line with the improvement in financial performance and revival in investors' sentiments especially in the later part of CY23, the weighted average 1-year probability of default (PD) of selected firms of the corporate sector decreased over the year **(Figure 7.7)**.[15] The decrease was, primarily, due to rebound in the equity market post June 2023, driven by improvements in operating performance and increased investors' confidence which was reflected in the market capitalization of the stocks listed on PSX. The enhancement of financial and operational profit metrics has strengthened the solvency buffer and contributed indirectly to the improved market capitalization of the firms.

Weighted average 1 year PD of Corporate Sector **Figure 7.7**



Source: Bloomberg and State Bank of Pakistan

Further, the quantum of PDs, itself, is at the lower side and does not pose imminent default

[12] These measures included reduction in maximum tenor of auto loans from 7 to 5 years, increase in minimum down payment to 30 percent from 15 percent of the value of vehicle, and limiting total loan value up to Rs 3 million etc. The relevant circular is accessible at https://www.sbp.org.pk/bprd/2021/CL29.htm.

[13] Important crops include wheat, rice, cotton, sugarcane and maize.

[14] MY refers to "Marketing Year" – Brazil MY "April to March", India, China, USA & Pakistan MY "Oct-Sep".

[15] The PD (1 Year PD) demonstrates firms' credit risk and ability to honor short-term obligations. The PD is calculated based on Merton Model, which uses value of equity and volatility in stock prices to measure default probability. The model assumes that the firm provides both equity (E) as well as debt (X), such that the value of the firm (V) is E + X. According to this model, the firm will default only when the value of the firm is less than the face value of debt (X) and it will happen only at maturity period. In this chapter, the calculations are derived from 434 companies listed on the PSX, and a weighted average of the Probability of Default (PD) is computed for the sample. These weights are determined by the market capitalization at the end of December 2023.

risk (credit risk) to the lenders of corporate firms. As such, these corporate firms maintained strong financial soundness and decent operating performance despite challenging macro-financial conditions.

…banking sector's leading borrowing firms demonstrated resilient financial standing and adequate repayment capacity…

Given that banks' financial soundness is significantly influenced by the performance of their large borrowing firms and some of these firms and their business groups have systemic importance for entire banking sector, an assessment of banking sector's top 30 borrowing groups (along with their 226 identified firms) is made. These identified firms together account for around 21.4 percent of the banks and financial institutions' combined loan portfolio.

In CY23, top borrowing groups showed resilient financial performance and continued to show adequate debt repayment capacity. Further, banks in general continued to prefer lending to better rated firms (for details see **Box 7.1**).

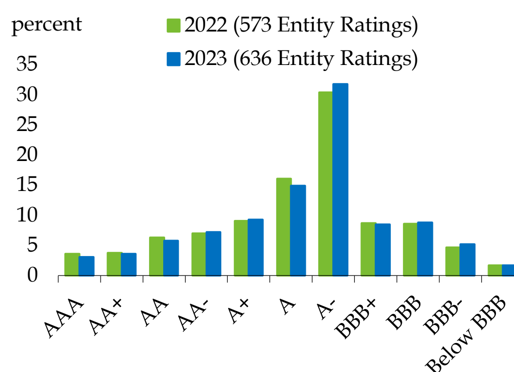
Credit risk rating profile shows steady solvency position of corporate sector, whereas increasing numbers of large corporate firms are resorting to get themselves rated, indicating an improvement in corporate governance practices …

Credit rating provides an assessment of a firm's solvency and capacity to honour its financial obligation.

The number of rated companies in Pakistan increased from 573 in CY22 to 636 in CY23. Many companies in Pakistan rely on debt financing through banks or internal sources such as retained earnings and remain less reliant on capital markets for their funding needs.[16]

In Pakistan, the ratings universe is shared between two domestic credit rating agencies - the Pakistan Credit Rating Agency (PACRA) and VIS Ratings. Between themselves, they have 636 public opinions (entity ratings).[17] The ratings universe is concentrated mostly in high rating categories (investment grade: AAA to BBB-), representing 98.3 percent of the total **(Figure 7.8)**. Higher concentration in investment grade category can be attributed to the fact that majority of the rated entities are large corporate firms having sound repayment capacity. Whereas, in terms of short-term ratings, majority of the firms (95 percent) were rated as A2 and above which represents satisfactory capacity for timely repayment **(Figure 7.9)**.[18]

Long-term Ratings of Companies **Figure 7.8**



Source: Pakistan Credit Rating Agency and VIS Credit Rating Company Limited

This overall rating profile of the corporate sector suggests that large corporate firms in Pakistan have the potential to access long-term and short-term financing from capital markets to finance

[16] In order to facilitate the growth of capital market and improve corporate governance regime, SBP aims to encourage firms to get themselves rated. Along with other tools, SBP incentivizes the large firms to get themselves rated by applying higher capital charge on banks' exposures on unrated firm whose total exposure exceeds PKR 3 billion).

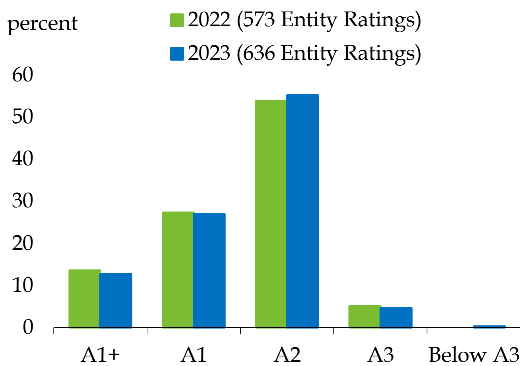
[17] Only entity ratings are taken into account. The Credit Rating Agencies (CRAs) also issue other ratings, including Asset manager, IFS, Performance ranking etc.

[18] PACRA & VIS rating of companies accessed on 06 February 2024.

their capital expenditures and operating activities.

Sector-wise distribution of entity ratings shows heavy concentration in textile (23 percent), followed by energy (14 percent), consumer goods (6 percent) and sugar (5 percent).

Short-term Ratings of Companies **Figure 7.9**



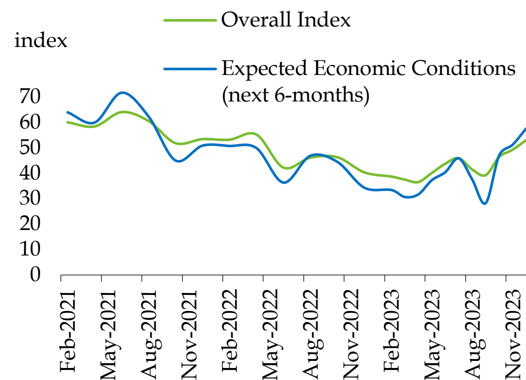
Source: Pakistan Credit Rating Agency and VIS Credit Rating Company Limited

Corporate sector outlook

Going forward, a moderate economic recovery is projected in CY24, primarily driven by the agriculture sector. Recent consumer and business confidence surveys **(Figure 7.10)** also indicate a steady increase in economic activity and improvements in capacity utilization in the manufacturing sector. These developments bode well for the performance and soundness of industrial sector in the coming months.

Although, recent sizeable adjustments in administered energy prices have adversely impacted inflation outcomes and its near-term outlook, the recent data is showing a notable decline in inflationary pressures. Nonetheless, the escalated geopolitical tensions and disruptions in the Red Sea have led to increased global freight charges, posing risks to global trade and commodity prices. Looking ahead, with the expectation of moderate economic growth, the earnings growth outlook for companies seems favorable. Moreover, large firms possess sufficient liquidity and a robust financial cushion to finance their operations and meet repayment obligations to financial institutions.

Business Confidence Index **Figure 7.10**



Source: State Bank of Pakistan

Box 7.1: Financial Performance and Soundness of Top Borrowing Groups of the Banking Sector

Corporate sector constitutes major share of banks' loan portfolio i.e. 67.8 percent as of December 2023. Many of these firms are also part of business conglomerates and multiple banks may have taken exposure on a large firm and conglomerate, thus creating credit concentration risks as well as systemic implication for banks. For this reason, SBP has set regulatory prudential limits on banks' exposure to single borrower, borrowing group, and related party exposures. Moreover, regulations define large exposure and prescribe an aggregate limit on large exposures.[19] In this box, the repayment behavior and capacity as well as overall financial health of large borrowers and borrowing groups of the banking sector have been analyzed on the basis of following:

a. Banks' own assessment of creditworthiness of large borrowers and borrowing groups' as captured through Obligor Risk Rating (ORR) which is assigned by banks to each corporate sector borrower.[20] The rating continuum goes from 1 to 12, with 1 to 9 scales for performing categories and 10 to 12 for default categories.
b. Borrowers' repayment behavior in terms of any overdue payments in their loan obligations to banks.
c. Latest financial indicators of leading corporate borrowers as well as market-based indicators that show how investors value these firms.

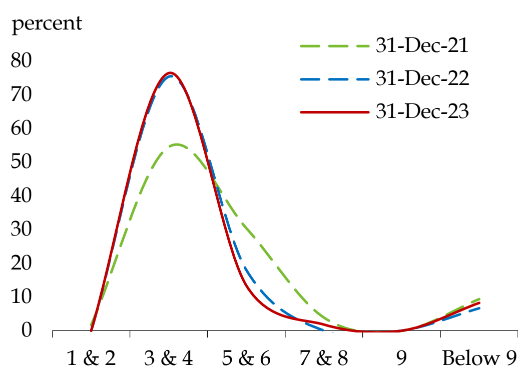
For this purpose, 30 large borrowing groups and large borrowers (comprising 226 firms) have been identified based on SBP's internal exercise, using a diversified set of sources of information on ownership of firms, including information contained in regulatory returns, financial statements of the firms, group's websites etc. Further, groups with a fund based exposure of Rs 40 billion and above are considered given their systemic risk implications.

Loans of Top 30 Borrowing Groups by their Obligor Risk Rating

The creditworthiness has been assessed for top 30 borrowing groups based on ORR assigned to them by banks. Identified firms of these business groups together hold around 31 percent (of the corporate/commercial lending portfolio of banks and DFIs at end December 2023.[21]

Based on ORRs of different entities of the borrowing groups, overall average rating (weighted by size of loans) of each group was compiled to assess the strength of these groups with risk rating of groups on X-axis and percentage of borrowings of groups on Y-axis. Assessment indicates that around three-fourths of the top 30 groups have highest to very good quality (rating: 1 to 2) or good to medium (rating: 3 to 4) quality ratings. Even though CY23 was a relatively challenging year for businesses due to stressed macroeconomic conditions, the credit portfolio of banks continued to show steady position of large 30 borrowing groups' creditworthiness and tendency on the part of banks to prefer lending to borrowers with the better creditworthiness, as significant increase in government demand for bank credit also contracted the pool of banks' loanable funds. The average internal credit rating profile of banks' loan portfolio has remained stable from CY22 to CY23, implying that the banks prefer lending to higher quality borrowers in the wake of weak macroeconomic conditions **(Figure 7.1.1)**. It is important to note that around 65 percent of banks' corporate and commercial loan portfolio comprises of borrowers who have been rated by independent external rating agencies. By and large, top 30 borrowing groups exhibited strong repayment capacity except for a few groups (around 7 percent of total exposure) which fall under overdue category.

Internal Credit Rating of Top 30 Borrowing Groups **Figure 7.1.1**



Source: State Bank of Pakistan Estimates

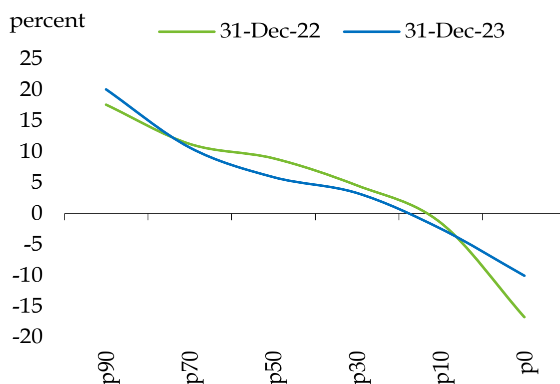
[19] Regulation R-1 of SBP Prudential Regulation for Corporate/Commercial Banking.
[20] BSD Circular No. 08 of 2007
[21] This share is 29.4 percent at end December 2022

Financial Soundness and Market Performance of Listed Firms of Top 30 Borrowing Groups

Out of the 226 identified firms in top 30 borrowing groups, 71 firms were listed on PSX. To analyze the financial soundness of these firms and assess how they are valued by the market, an assessment of these 71 listed firms was made using the financial and market-based indicators on the basis of available data for the period ended December 2023 and December 2022.

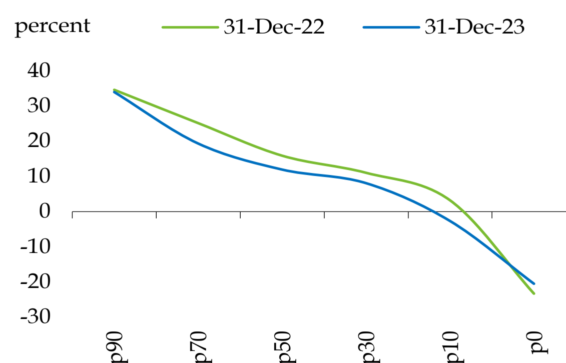
Due to tough macroeconomic conditions, depressed demand, high finance cost and high taxation in CY23, earnings of the selected firms, in general, came under pressure (**Figure 7.1.2 and Figure 7.1.3**).

Percentile Standing of Companies vis-a-vis ROA **Figure 7.1.2**



Source: State Bank of Pakistan and Capital Stake

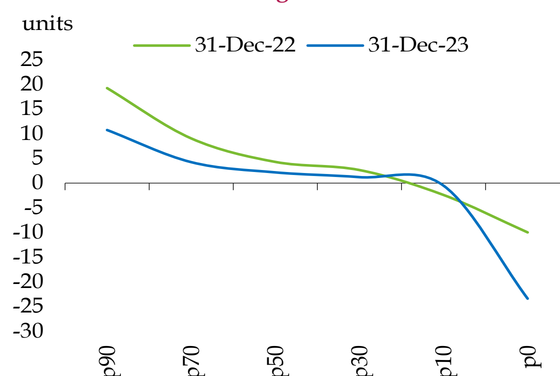
Percentile Standing of Companies vis-a-vis ROE **Figure 7.1.3**



Source: State Bank of Pakistan and Capital Stake

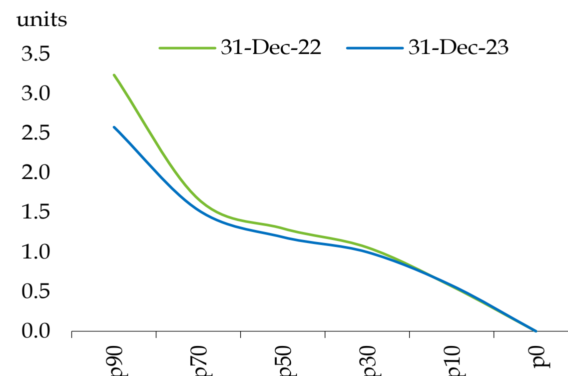
Similarly, the financial indicators related to repayment capacity came under stress due to constrained sales and tight monetary policy environment in CY23. However, most of the firms in the sample demonstrated comfortable interest coverage ratio (**Figure 7.1.4**). Sample firms also faced slight slackness in current ratio over the year under review; however, the ratio of most of the firms remained in comfortable range showing the availability of ample liquidity cushions to honor their short-term financial obligations. Moreover, sample firms also showed stable repayment behavior as there was no significant rise in the delinquencies during the year under review (**Figure 7.1.5**).

Percentile Standing of Companies vis-a-vis Interest Coverage Ratio **Figure 7.1.4**



Source: State Bank of Pakistan and Capital Stake

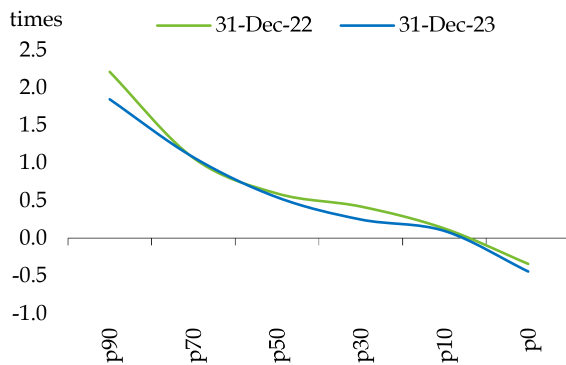
Percentile Standing of Companies vis-a-vis Current Ratio **Figure 7.1.5**



Source: State Bank of Pakistan and Capital Stake

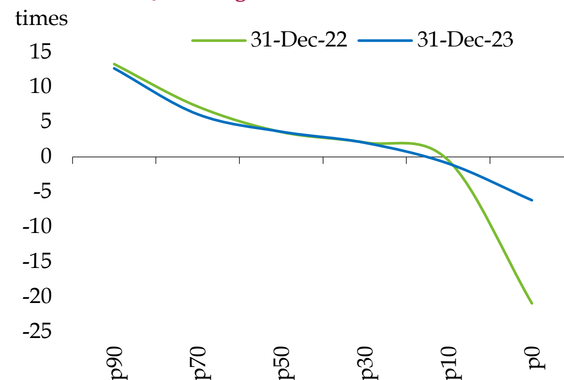
An analysis of market-based indicators of the select firms shows that the investors in general hold steady view about the performance and potential of these firms. Relatively stable P/B and P/E ratios of these firms, even in the face of significant volatility and large movements in the market index, show that investors' perception about the value and potential of these firms remain immune from the general market conditions (**Figure 7.1.6 and Figure 7.1.7**).

Percentile Standing of Companies vis-a-vis Price/ Book Ratio **Figure 7.1.6**



Source: State Bank of Pakistan and Capital Stake

Percentile Standing of Companies vis-a-vis Price/ Earnings Ratio **Figure 7.1.7**



Source: State Bank of Pakistan and Capital Stake

Conclusion

The comparative position of ORR and repayment behavior of the top 30 borrowing groups of the banking sector shows that these groups have generally maintained their creditworthiness. The steady internal credit ratings reflect a prudent strategy on the part of banks to have higher exposure on large, well-established firms, which have better creditworthiness. The top borrowing firms showed relatively resilient financial performance and continued to serve their financial obligations during the year under review.

8

Financial Market Infrastructure

The Financial Market Infrastructures (FMIs) remained robust and continued to provide payment and allied services in a smooth manner during CY23. Pakistan Real-time Interbank Settlement Mechanism (PRISM) transactions showed growth both in volume and value terms. The services of PRISM were available throughout the period under review without any disruptions. The e- banking continued to be a major driver behind retail payment growth. SBP launched Person to Merchant (P2M) module of its RAAST initiative, which will further enhance digital payment acceptance for merchants and businesses. The performance of National Clearing Company of Pakistan and Central Depository Company (CDC) remained steady throughout the year under review. These institutions took various measures to enhance their efficiency and operational resilience and to facilitate investors' onboarding process.

8 Financial Market Infrastructures

Financial Market Infrastructure (FMI) is defined as a multi-lateral network among participating financial institutions which are responsible for clearing, settling, or recording of payments, securities or any other financial transactions. The FMI of Pakistan is composed of a) Large Value Payment System (LVPS) i.e. Pakistan Real-time Interbank Settlement Mechanism (PRISM), b) Retail Value Payment System (RVPS), which includes Raast, c) Interbank and ATM switch i.e. 1-Link, d) National Institutional Facilitation Technologies (NIFT), a clearing house for paper based instruments, e) a corporate securities settlement company i.e., NCCPL, and f) a corporate securities depository i.e. CDC.

A sound and secure financial market infrastructure is necessary for operational efficiency and stability of financial system as it facilitates flow of transactions between different counterparties in the market. The systemic nature of FMI components make them pivotal for the clearance and settlement of different financial transactions among all financial institutions in the country. Smooth functioning of payment systems is thus crucial for efficiency of the financial system with regards to uninterrupted provision of financial services, effective transmission of the monetary policy signals, and stability of the financial markets.

8.1 Payment Systems and their Performance

Provisions of the recently amended SBP Act, 1956 authorize SBP to ensure the soundness and efficient functioning of national payment and settlement systems.[1] The Payment Systems and Electronic Funds Transfer (PSEFT) Act, 2007 empowers SBP to regulate, operate and facilitate the national payment systems of the country.[2]

Payment systems showed robust growth driven by digital channels

The national payment systems showed a robust growth in both large value (PRISM) and retail transactions during CY23. Both the modes have shown a double digit growth in volume and value terms during the period under review. The growth in volume of retail transactions was primarily driven by *e*-banking, showing further traction in customer preferences for digital channels vis-à-vis cash-based payments as the volume of paper based transactions decreased by 1.8 percent over the year **(Table 8.1).**

Profile of Payment System Mechanisms — **Table 8.1**

Mechanism	CY20	CY21	CY22	CY23	Growth in CY23
Volume in millions, Value in trillion Rupees					percent
a. PRISM					
Volume	3.4	4.4	4.5	5.4	19.6
Value	373.3	577.8	647.0	824.0	27.4
b. Retail Payments (i+ii)					
Volume	1,382.7	1,788.2	2,206.2	2,764.7	25.3
Value	209.3	272.7	371.7	485.4	30.6
i. Paper Based					
Volume	389.7	393.4	384.2	377.4	-1.8
Value	136.0	166.4	210.8	277.8	31.7
ii. E-Banking					
Volume	993.0	1,394.8	1,822.0	2,387.3	31.0
Value	73.3	106.2	160.8	207.6	29.1

Source: State Bank of Pakistan

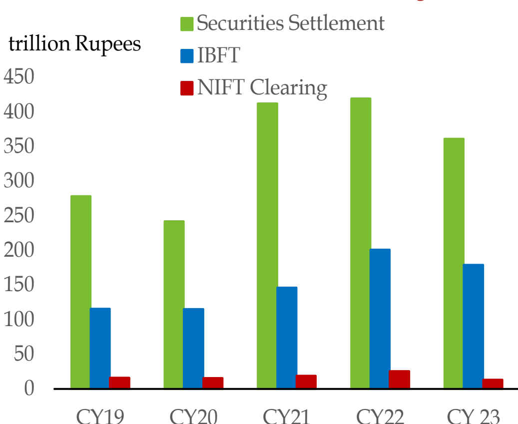
PRISM handled higher value and volume of transactions

PRISM is a Real Time Gross Settlement System (RTGS) operated by SBP that offers a powerful mechanism for providing settlement in real time on gross basis, thus minimizing systemic risks that are inherent in large-value settlement

[1] The SBP Act, 1956 (amended up to January 2022)
[2] https://www.sbp.org.pk/psd/2007/EFT_Act_2007.pdf

systems. Since PRISM is used for large value payments, it has a share of 62.9 percent in total value of transactions, while in volume it has a share of 0.19 percent. In CY23, PRISM showed 19.6 percent and 27.4 percent growth in volume and value, respectively. Detailed data shows that the growth in value of PRISM transactions was largely driven by security settlements and interbank funds transfer, with a growth rate of 31.6 percent and 28.4 percent, respectively (**Figure 8.1a**). The volume of securities settlement decreased by 6.9 percent whereas interbank funds transfer increased by 21.3 percent on yearly basis **(Figure 8.1b)**. The continuous availability of PRISM for payments settlement was ensured through its business continuity planning framework.

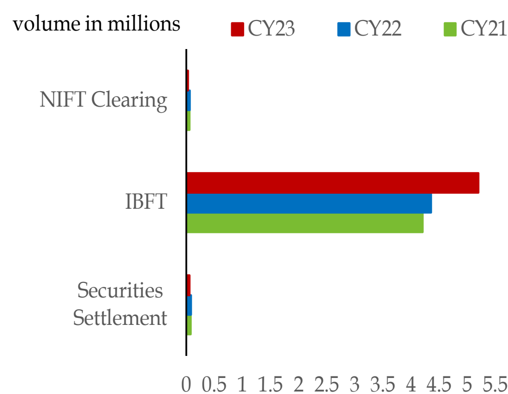
Value Profile of PRISM Transactions Figure 8.1a



Source: State Bank of Pakistan

It is important to note that PRISM has undergone significant developments since its inception in 2008. PRISM has several features to address settlement and systemic risk. It enables financial transactions to be settled in real time throughout the day instead of the day-end clearance, thereby reducing settlement risk. For settlement of securities, PRISM offers securities to be settled via DvP (Delivery versus Payment) or PvP (Payment versus Payment), which ensures that the security is only delivered after payment is made.

Volume Profile of PRISM Transactions Figure 8.1b



Source: State Bank of Pakistan

During the payment process, PRISM facilitates participants via providing queuing and priority setting facilities. This ensures that participants have control over the payment process and can act in accordance with criticality of a certain payment in case of limited funds. There is also a feature of GRIDLOCK, which if enabled, can reorganize the payments queued up using different algorithms.[3] In order to facilitate the liquidity needs of participants, SBP has given the intraday liquidity facility against approved government securities. The continuous availability of PRISM services in case the primary site goes down is ensured by its disaster recovery sites as part of SBP's business continuity plan. Since the introduction of PRISM, its operating rules have been proactively reviewed and strengthened to bring them at par with international standards and emerging market dynamics to safeguard the system against emerging risks including cybersecurity. The enhanced measures to ensure security of the PRISM system include multipoint network level encryption, firewalls, malware protections and prevention systems to mitigate chances of unauthorized or illegal access to the system.

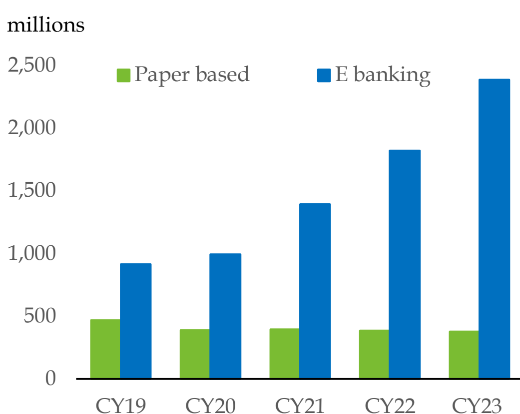
[3] Gridlock Mechanism is a settlement mechanism used in case a RTGS member bank has insufficient funds to clear multiple transactions simultaneously. It nets the positions of originating bank and destination bank for settlement purposes by auto-selecting the transactions with an algorithm.

Retail transactions continued their momentum in terms of value and volume with e-banking modes dominated paper based modes in terms of volume

Retail payments have shown a sustained growth in CY23. The volume and value of retail transactions increased by 25.3 percent and 30.6 percent, respectively in CY23. With a share of 86 percent and 43 percent in total volume and value, respectively, with *e*-banking dominating retail payments in CY23. Paper based modes of transactions grew in value, however, their volume declined by 1.8 percent, showing clear shift of consumer preferences from paper based to *e*-banking channels **(Figure 8.2a and 8.2b)**.[4] The share of *e*-banking has been on the rise due to multiple initiatives taken by SBP for digitization under the umbrella of National Payment System Strategy, launched in 2019, with the aim of bringing retail payment system at par with international best practices.[5]

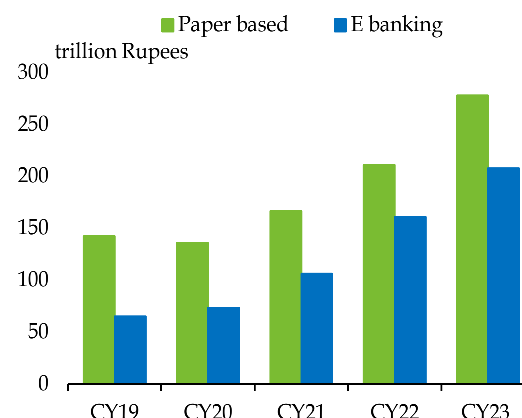
Due to increasing share of *e*-banking, various risks such as unauthorized access, malware, phishing scams, and vishing scam (voice phishing) are also emerging. To address these risks, SBP has rolled out a detailed set of guidelines on enhancing security of digital banking products and services. These guidelines require banks to formulate a Digital Fraud Prevention Policy to manage digital fraud risk. Furthermore, banks are also instructed to report fraudulent transactions. SBP mandates swift action, requiring banks to block withdrawals and investigate suspicious activity within set time frames.[6]

Volume Profile of Retail Transactions **Figure 8.2a**



Source: State Bank of Pakistan

Value Profile of Retail Transactions **Figure 8.2b**



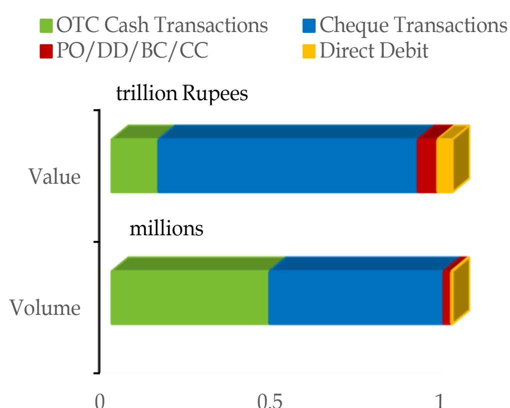
Source: State Bank of Pakistan

With declining share in overall retail payments, paper-based transactions are dominated by cheque payments and OTC transactions

Paper-based transactions have moderated over years with a significant volume of transactions shifting towards *e*-banking modes. Overall, paper-based transactions contracted by 1.8 percent in volume. However, the value of these transactions increased by 31.7 percent, showing that customers prefer large value payments through paper-based modes **(Figure 8.3).** Disaggregated data shows that cheques dominated paper based transactions, contributing 51 percent and 76 percent in volume and value, respectively. The second most-favored mode of payment was over the counter (OTC) transactions, which contributed 46 percent and 13 percent in volume and value, respectively.

[4] E banking channels consist of internet banking, mobile banking, Point of Sale (POS), Real Time Online Branches (RTOB), ATMs and E-commerce.
[5] National Payment Systems Strategy available at: https://www.sbp.org.pk/ps/PDF/NPSS.pdf
[6] BPRD circular 4 of 2023 available at: https://www.sbp.org.pk/bprd/2023/C4.htm

Value- and Volume-wise Paper Based Transactions **Figure 8.3**



Source: State Bank of Pakistan

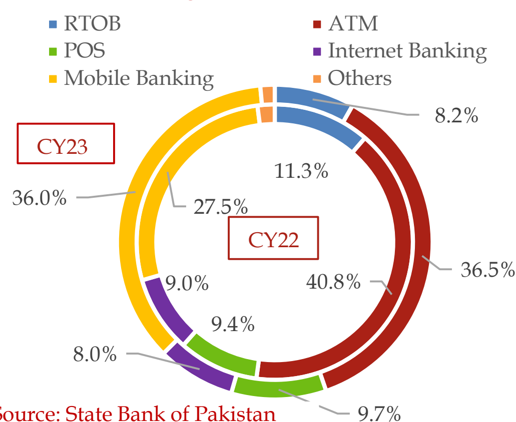
e-banking transactions maintained their momentum of strong growth…

e-banking transactions grew by 31.0 percent and 29.1 percent in volume and value during CY23, respectively. This growth largely stems from usage of mobile banking and internet banking by customers due to their cost effectiveness and convenience.

A detailed analysis of *e*-banking transactions shows that in terms of volume, ATMs have the largest share i.e. 36.5 percent, followed by mobile banking with 36.0 percent. Mobile banking improved its share in the period under review from 27.5 percent last year to 36.0 percent.

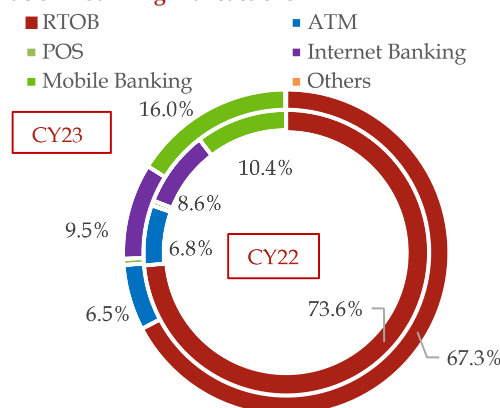
However, in terms of value of transactions, *e*-banking is dominated by Real Time Online Branches (RTOB) (67.3 percent) followed by mobile banking (16.0 percent). The share of RTOB, however, decreased from 73.6 percent in CY22 to 67.3 percent in CY23. The share of mobile banking, on the other hand, increased from 10.4 percent in CY22 to 16.0 percent in CY23 whereas internet banking slightly improved to 9.5 percent from 8.6 percent in CY22. A continuous increase in digitization of payments shows a strong push of economy to formalization **(8.4a and 8.4b).**

Instrument-wise Share in Total Volume of E-banking Transactions **Figure 8.4a**



Source: State Bank of Pakistan

Instrument-wise Share in Total Value of E-banking Transactions **Figure 8.4b**



Source: State Bank of Pakistan

Raast

Raast is SBP's flagship initiative to revolutionize digital payments in Pakistan. Its bulk payment module went live in January 2021 followed by Person to Person (P2P) module in February 2022.[7,8] It aims to revolutionize the Pakistani financial landscape by providing an instant, secure, and cost-effective platform for digital payments among individuals, businesses, and

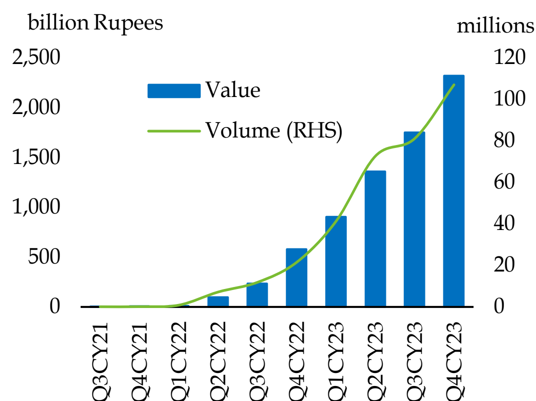
[7] https://www.sbp.org.pk/press/2021/Pr-11-Jan-21.pdf
[8] https://www.sbp.org.pk/disd/2022/C1.htm

government entities. Raast is a real time funds transfer mechanism which utilizes advanced encryption and security protocols to safeguard transactions and customer information. Moreover, Raast will reduce cash dependency, promote transparency in financial transactions thereby contributing to overall financial stability.

Transactions through Raast showed a strong momentum while exhibiting exponential growth in terms of both value and volume. The volume of RAAST transactions increased from 41 million transactions in CY22 to 302 million transactions in CY23. In value terms, transactions jumped from Rs 0.9 trillion last year to Rs 6 trillion in CY23. Detailed analysis reveals that the total momentum in Raast transactions is primarily due to successful introduction and wide adoption by market of P2P module in the RAAST ecosystem in February 2022. It contributed 99.7 percent in terms of volume and 96.8 percent in value during the period under review.[9] Moreover, both modules G2P and P2P maintained robust growth in value and volume in CY23. The volume in bulk payment module increased from 0.1 million to 0.8 million transactions, whereas value increased from Rs 30 billion to Rs 170 billion during the period under review.

In the last quarter of CY23, G2P transactions grew by 90 percent and 52 percent in volume and value, respectively, from the preceding quarter. Whereas P2P transactions grew by 32 percent in both volume and value. Raast continued its functioning without any interruptions throughout the year handling the increasing value and volume of the transactions **(Figure 8.5).**

Trend in Raast Transactions **Figure 8.5**



Source: State Bank of Pakistan

Recently, SBP launched the third phase of Raast i.e. Person-to-Merchant (P2M) to facilitate digital payment acceptance for merchants and businesses.[10] The P2M service will enable payment acceptance by businesses using Quick Response (QR) Codes, Raast Alias, IBAN and Request to Pay (RTP) utilities. This module has immense potential to digitize the financial landscape as it includes merchant service providers who will onboard other businesses, individuals and offer them multiple acceptance modes. However, few risks such as fraudulent tactics to obtain important customer information can be an important concern in upcoming years and requires increasing awareness against these tactics by financial institutions.

e-banking infrastructure

The *e*-banking infrastructure plays a significant role to ensure that customer's needs are met in a digital financial ecosystem. The *e*-banking infrastructure showed growth in terms of number of online branches, ATMs and POS. Within the payment cards category, both credit and debit cards showed 8 percent growth in CY23 **(Table 8.2).**

[9] The volume of P2P module increased from 41 million to 301 million transactions whereas the value increased from Rs 0.9 trillion to Rs 6 trillion during the same period.
[10] https://www.sbp.org.pk/psd/2023/C4.htm

E-Banking Infrastructure **Table 8.2**

Description	CY20	CY21	CY22	CY23
Online Branches	16,165	16,571	17,005	17,625
ATMs	16,041	16,709	17,547	18,117
POS	62,480	92,153	108,899	118,444
Total Payment Cards *of which:*	Number in thousands ('000)			
Credit Cards	1,691	1,740	1,914	2,070
Debit Cards	27,592	30,934	32,524	35,113
ATM only cards	7,246	4,782	.	.
Social welfare cards	7,624	11,096	10,160	8,406
Prepaid Cards	133	125	99	91

Source: State Bank of Pakistan

Branchless banking has continued its momentum

Branchless banking plays a pivotal role in extending formal financial services to underserved areas. It uses the branchless banking agent-model to maximize its outreach to far-flung areas, where it is not feasible to open bank branches. In CY23, branchless banking transactions increased by 29 percent in volume and 44 percent in value. The deposit base of branchless banking has expanded by 31 percent, reaching an all-time high of Rs 115 billion in CY23 as compared to last year. Along with this, the number of accounts in the branchless banking segment have surged by 18 percent in the same period; however, active accounts have decreased by 33.8 percent. In view of the expanding branchless banking network, SBP is cognizant of AML/CFT risks associated with it.[8] Therefore, SBP has revised industry vide controls for banks and microfinance banks providing branchless banking services. These controls include biometric verification, deployment of new devices in high risk areas, and better record mechanism for risk assessment **(Table 8.3).**

Key Highlights of Branchless Banking **Table 8.3**

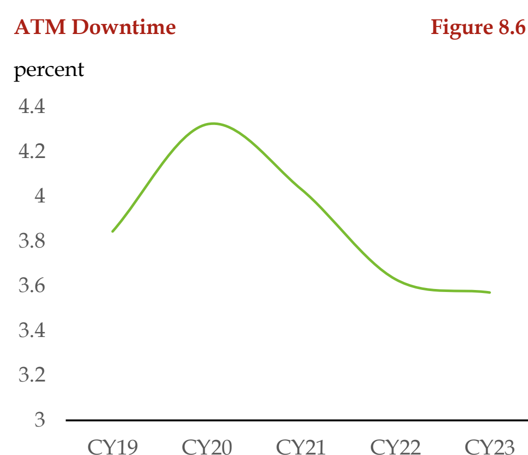
Description	CY21	CY22	CY23
No. of Agents	587,547	622,884	649,683
No. of Accounts	78,810	97,097	114,643
No. of Active Accounts	44,905	42,484	64,122
Deposits at period end (million Rupees)	65,580	88,488	115,409
No of transactions (million)	2,501	3,049	3,938
Value of Transactions (billion Rupees)	8,971	12,602	18,182
Average Daily Transactions (thousands)	6,948	8,471	10,939
Average size of transactions (Rupees)	3,577	4,129	4,828
Average Deposit in accounts (Rupees)	799	911	1,007

Source: State Bank of Pakistan

ATM Efficiency

ATMs are one of the most important Alternative Delivery Channels (ADCs) in the FMIs. ATMs hold largest share in volume of *e*-banking. It is important to keep them functioning without any prolonged or unanticipated interruption to enhance trust in banking services. ATM downtime has further reduced to 3.6 percent of activity time in CY23, which is the lowest in previous five years **(Figure 8.6).**

ATM Downtime **Figure 8.6**



Source: State Bank of Pakistan

8.2 FMIs other than Payment Systems

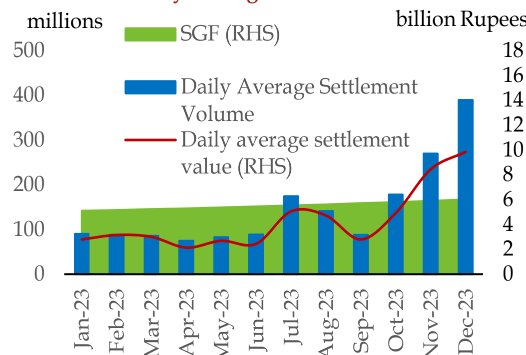
NCCPL

The National Clearing Company of Pakistan Limited (NCCPL) plays a pivotal role in ensuring smooth operations of Pakistan's capital markets. It has three major roles. First, it acts as the central counter party for all trades executed at the Pakistan Stock Exchange (PSX). It guarantees the settlement of all trades taking place, thereby decreasing the counterparty risk. Second, it is responsible for electronic transfer of security and funds between parties of a trade without any friction. Lastly, it acts as Centralized Know-Your-Customer Organization (CKO) for all capital market participants. Furthermore, it also provides national custodial services, which entails providing safekeeping and asset servicing for investor securities.

NCCPL has multiple risk mitigating measures in place which include maintaining a settlement guarantee fund (SGF). Under SGF, participants regularly contribute towards a pool of money, depending on their risk profile and trading activity, so that financial losses could be covered in case a member defaults on his obligations. The fund stood at Rs 6 billion at the end of December 2023.

In CY23, daily average settlement value stood at Rs 4.3 billion compared to Rs 3.2 billion last year. Further trading volume has also slightly increased from last year's 110.7 million transactions to 146 million in CY23. Though macro-financial conditions remained challenging, the Fund remained unutilized, which also reflects NCCPL's adequate capacity to deal with risk of default **(Figure 8.7).**

Comparison of Settlement Guarantee Fund with Daily Average of Settlement **Figure 8.7**



Source: National Clearing Company of Pakistan Limited

NCCPL working on to transition from T+2 to T+1 settlement cycle

NCCPL is working on the practicality of turning their settlement cycle from T+2 to T+1, as it will increase efficiency of securities market operations. The transition to a shorter settlement cycle will also require realignment of risk mitigation measures specially in terms of SGF and default management. Moreover, operational efficiency requirements for custodian clearing members may correspondingly be increased as they are responsible for majority of trade.[11]

NCCPL increased operational efficiency by improving investor onboarding process

NCCPL took a number of measures to facilitate investor onboarding process, e.g., by introducing application programming interface (API) connectivity with NADRA database for CNIC verification. Additionally, they introduced an app "NCC Bioverify" to facilitate biometric verification so that customers can get biometrically registered via their smartphones.

Central Depository Company (CDC)

CDC acts as the major securities depository in Pakistan. It facilitates the electronic settlement of transactions on the PSX and offers other related

[11] NCCPL, Annual Report 2023 (nccpl.com.pk) available at: https://www.nccpl.com.pk/en/media-centre/annual-report/annual-report-2023

services for equity, debt, and other financial instruments. The Company provides depository services which entail holding securities electronically for investors, eliminating need for physical certificates. It acts as a central party ensuring that both sides of a trade are fulfilled. Lastly CDC maintains investor records and facilitates transfer and ownership of shares bought and sold. CDC has taken multiple initiatives to facilitate investors in CY23 while ensuring uninterrupted services to investors in capital market.

Pilot project for digitization of national saving certificates

CDC is working on its objective of dematerializing all financial instruments in Pakistan. The pilot project for digitization of national saving certificates will enable Central Directorate of National Savings (CDNS) to release national saving certificates in electronic format instead of physical certificates. This initiative will reduce physical process flows and increase operational efficiency and make the process environment friendly by eliminating the use of paper. This project will facilitate investors to invest in multiple securities and maintain their entire portfolio in a single account in CDC.[12]

Raast payment gateway used for mutual funds investment

CDC has decided to use SBP's micro gateway initiative, Raast, to facilitate investors in accessing mutual funds market. CDC will act as a "Payment Aggregator" by using Raast's P2P function to facilitate investors in mutual funds industry. The investor can enter its payment using Raast in their bank portal. This payment will be forwarded to a payment aggregator, which in return will transfer units to the Asset Management Company (AMC). The most important advantage of using Raast for funds transfer is that it is free of cost and it promotes an end-to-end digital experience for investors and AMCs.[13]

[12] CDC Newsletter 89 for Jan-March 2023 available at: https://www.cdcpakistan.com/downloads-category/publications/
[13] CDC Newsletter 91 for July-September 2023 available at: https://www.cdcpakistan.com/downloads-category/publications/

SBP – Regulatory and Supervisory Developments in CY23

Ensuring financial stability is one of the statutory mandates of State Bank of Pakistan.[1] It strives to fulfil this responsibility through effective regulation and supervision of financial institutions (FIs) and payment systems (i.e., Banks, Microfinance Banks (MFBs), Development Finance Institutions (DFIs), Exchange Companies (ECs), Payment System Operators and Providers (PSOs/PSPs), and Electronic Money Institutions (EMIs)). Keeping abreast with international best standards, the SBP plays a vital role in ensuring financial stability, developing the financial sector and promoting economic growth.

CY23 saw adverse geo-economic conditions, marked by the March 2023 banking turmoil and rising geopolitical tensions. Many central banks around the world continued to hike policy rates to curb the multi-decade high inflation which appeared to be sticky in the backdrop of post-pandemic Russia-Ukraine and Middle East conflict. These interest rate hikes had unintended consequences for financial stability, leading to the shutdown of major regional US banks, including First Republic Bank, Silicon Valley Bank, and Signature Bank, and rescue of a Global Systemically Important Bank (G-SIB), Credit Suisse.[2] The strain on the stability of the financial systems across the globe posed serious regulatory and supervisory challenges for central banks around the world. In Pakistan's case, financial conditions remained tight during CY23, testing the resilience of the financial system. Despite significant increase in the interest rates in Pakistan (i.e., 600 bps in CY23) to historic high levels i.e., 22.0 percent, and persistently high inflation, the banking sector showed strong resilience and remained well capitalized and profitable.

During CY23, the SBP's regulatory and supervisory efforts were mainly aimed at strengthening foreign exchange policy and operations, and developing digital financial services infrastructure.

Financial Stability – A Macro Perspective

Crisis Preparedness: Ensuring stability of financial system requires navigating through financial crisis-like situations effectively through prompt response from regulatory and supervisory bodies. Planning for these crisis situations and building the capacity to manage such critical events in a structured and timely manner is crucial for the regulator. In pursuance of this objective, SBP engaged with Toronto Centre, Canada and World Bank to conduct Crisis Simulation Exercises (CSEs) to build the capacity of its staff and test the effectiveness of its actions, decisions and communication in a hypothetical financial crisis situation, tailored to the local dynamics. SBP, along with its relevant subsidiaries, participated in these CSEs and were able to practice contingency planning, resolution options for dealing with failing banks and systemic consequences of bank failures. These CSEs provided valuable insights for preparing and managing a crisis as well as an opportunity to check the adequacy of the powers and tools available to the supervisory authorities. Post CSE drill, SBP remained engaged with World Bank in order to strengthen crisis preparedness framework in light of the feedback received during the CSE exercise.

Based on the learning from World Bank CSE, held in March 2023, World Bank fielded a

[1] State Bank of Pakistan Act, 1956

[2] Basel Committee on Banking Supervision. (2023). Report on the 2023 Banking Turmoil. October. For details, please visit: Report on the 2023 banking turmoil (bis.org)

mission in June, 2023 to discuss the observations made during the CSE, which culminated into an understanding to undertake Technical Assistance (TA) from World Bank to enhance financial sector stability and crisis preparedness of SBP. Subsequently, the World Bank fielded a technical assistance mission in September, 2023 which covered the following themes: (i) strengthening the SBP's regime for early intervention and recovery planning, (ii) bank resolution, (iii) deposit insurance, (iv) strengthening of the current operational framework for emergency liquidity assistance (ELA) and (v) crisis coordination mechanism. In addition, the mission also discussed SBP's existing climate stress-testing arrangements. The said TA particularly focused on the capacity development of officers and provision of guidance to draft secondary legislation and internal policies along the main work streams.

Macro Stress Testing (MST) Framework: Under enhanced supervisory requirements for systemically important banks, sample Domestic-Systemically Important Banks (D-SIBs) were advised to develop and implement Macro Stress Testing (MST) framework under Stress Testing Guidelines 2020 and submit it as part of Internal Capital Adequacy Assessment Process (ICAAP) documents on annual basis. Financial Stability Department (FSD) reviewed the relevant sections of submitted ICAAP documents, conducted physical and online meetings with sample D-SIBs and provided detailed feedback to the sample D-SIBs on an individual basis to improve their existing MST frameworks. A one-week hand-on technical training was also conducted for the sample D-SIBs on MST.

SBP regularly shares its assessment of financial stability with external stakeholders to keep them abreast with emerging risks, resilience of the system and financial soundness performance of the sector. In this connection, SBP published Quarterly Compendium of Banking Statistics and Financial Soundness Indicators (FSIs), Mid-year Performance Review of banking sector for H1CY23, annual Financial Stability Review for CY22, and Governor's Annual Report for FY23.

SBP actively participated in cross-border experience, knowledge sharing events and initiatives, which are beneficial in understanding and tackling the challenges being faced by financial systems. In December 2023, SBP officials held a virtual meeting with Central Bank of Uzbekistan to exchange information on macroprudential supervision. Moreover, SBP participated in Financial Stability Board (FSB) Regional Consultative Group for Asia (RCG Asia) meetings where vulnerabilities and financial stability issues affecting Asia were discussed, along with other emerging issues including crypto assets regulation and non-bank financial intermediation. Additionally, SBP provided feedback on FSB and IMF surveys.

Financial Stability – A Micro Perspective

Assessment of Cyber Hygiene: Cyber security has been an eminent threat across the globe. Under its supervisory mandate, SBP performed cybersecurity assessment throughout the year under review. Cyber Hygiene controls and practices play a significant role in providing baseline fortification against the cyber-attacks. In this regard, SBP initiated assessment of Cyber Hygiene practices in the industry, and developed a Cyber Hygiene Control Questionnaire. It comprised 52 controls based on international best practices and regulatory prescriptions in various jurisdictions. Subsequently, a few financial institutions were engaged to share the self-assessment of Cyber Hygiene Practices of their respective institutions.

International Financial Reporting Standard (IFRS) 9: State Bank of Pakistan identified the key elements of supervisory concerns in the implementation of IFRS-9 and assessed current level of preparedness of the banks. Based on assessment, SBP developed a Supervisory Assessment Manual (SAM) to enhance supervisory capacity and understanding of the critical facets of IFRS-9. The SAM covers all essential elements of the Standard that include

qualitative elements i.e., Governance, Credit Risk Management Framework, Business Model assessment, Impairment assessment, as well as quantitative elements, which included Expected Credit Loss model and the adjustments of the SBP findings in the profitability and capital ratios.

Development of Business Intelligence Tools: During CY23, SBP developed a business intelligence tool namely 'Trade Data Analytical Tool (TDAT)' for monitoring of international trade transactions and identification of trade-based red-flags. This tool is based on the data extracted from Pakistan Single Window (PSW).[3] The salient features of TDAT include, i) Analysis of bank-wise and commodity wise import trends, ii) importer & exporter profiling iii) suspected over/under invoicing, iv) transactions with related parties v) import of dual use goods, and vi) mis-utilization of financial instruments through multiple tagging of shipping documents.

Foreign Exchange Policy and Operations

Structural reforms in ECs **sector:** SBP introduced structural reforms in the ECs sector to improve governance quality, internal controls and compliance with laws and regulations. As part of these reforms, SBP initiated a transformation program whereby the ECs-B and Franchise ECs were provided the following options: Conversion of ECs-B into full-fledged ECs and conversion of franchises into branches of the ECs.[4] Moreover, in order to strengthen the solvency of ECs and enable them to have robust infrastructure and systems, the minimum paid-up capital requirement of ECs was enhanced from Rs 200 million to Rs 500 million (free of losses).[5] These reforms were introduced to bring transparency and competitiveness in the ECs sector and provide better services to the general public.

Timely Realization of Export Proceeds: In order to ensure timely realization of export proceeds, SBP decided to initiate necessary action in all those export cases where full export proceeds were not realized within prescribed time period as defined in Para 6 of Chapter 12 of the Foreign Exchange (FE) Manual.[6] Accordingly, necessary changes were made in the relevant sections of the FE Manual.[7]

Facilitation of IT Based Exporters/Freelancers: To facilitate the freelancers, SBP has developed a comprehensive framework for opening and operations of their bank accounts. Under the framework, freelancers will be able to open an Exporters' Special Foreign Currency Account (ESFCA) as defined in the Foreign Exchange Manual for retention of export proceeds concurrently with corresponding primary PKR account, in-person or remotely through digital means.[8] Furthermore, in order to encourage the exporters of Software, Information Technology (IT), IT enabled Services (ITeS), and freelance services to boost their export earnings, SBP increased the retention limit in ESFCAs from 35 percent to 50 percent of the export proceeds and further liberalized the utilization of the retained funds. Going forward, such exporters may freely make payments abroad of current account nature using these accounts, without prior approval of the SBP.[9] Moreover, SBP advised Authorized Dealers (ADs) to facilitate these exporters in opening their ESFCAs and for carrying out remittances transaction from their Exporters' Special FCY retention accounts by issuing corporate debit cards and providing digital platforms, including FX digital portal. SBP further advised ADs to provide proper training to relevant staff of all foreign exchange dealing branches to ensure facilitation to the IT

[3] PSW is an Integrated Digital Platform that allows parties involved in trade to lodge standardized information and documents with a single-entry point to fulfill all import, export, and transit-related regulatory requirements.
[4] FE Circular No. 03 of 2023
[5] EPD Circular Letter No. 13 of 2023
[6] FE Circular No. 01 of 2023
[7] FE Circular No. 02 of 2023
[8] BPRD Circular No. 05 of 2023
[9] EPD Circular Letter No. 17 of 2023

based exporters and freelancers, and establish permanent help desks.[10]

Incentive Scheme for Marketing of Home Remittances: In order to encourage domestic FIs to enhance their marketing efforts for mobilizing home remittances through formal channels, the Government of Pakistan approved revisions in the scheme. Under the revised scheme, a performance based incentive will be granted, by the end of FY24, to those financial institutions whose home remittance mobilization efforts result in growth of their home remittances from the previous year (FY23). Moreover, the scheme will be effective from FY24 onwards on perpetual basis.[11]

Import of Cash US Dollars: Under the ECs Manual (ECM), ECs were allowed to export permissible foreign currencies other than US Dollars through cargo and security companies and repatriate equivalent US Dollars in their foreign currency accounts maintained with banks in Pakistan. However, in order to facilitate customers, SBP introduced a temporary measure to allow ECs to import cash US Dollars, on need basis, against the value of their export consignments of permissible foreign currencies, through reputed cargo and security companies. This arrangement was in place till December 31, 2023 and was subject to the condition that total cash US Dollars imported by an EC during this period shall not exceed 50 percent of the value of its export consignments.[12]

Foreign Investment in Real Estate Investment Trust (REIT) Schemes: The existing provisions allowed non-residents to invest in REIT Schemes listed at Stock Exchange and through new Public Offers. In order to further facilitate foreign investment in REIT Schemes, SBP also decided to allow general permission to REIT Management Companies (RMC) to issue their units through private placements and transfer such units, in favor of non-residents.[13]

Margin Restriction on Import of Items: SBP, in 2017, advised banks to obtain 100 percent cash margin on import of certain items.[14] However, the cash margin requirement (CMR) was later relaxed in August 2022 to 25 percent and zero percent for term of payment from import of 91 to 180 days and 181 days and above, respectively.[15] In 2023, SBP decided to withdraw existing CMR on import of items with effect from March 31, 2023, while also withdrawing all previous instructions pertaining to margin restriction on import of items.[16]

Islamic Banking

Adoption of 'Accounting and Auditing Organization for Islamic Financial Institutions' (AAOIFI) Shariah Standards: With a view to further strengthen Shariah compliance framework and harmonize the Shariah practices in Islamic banking industry, the AAOIFI Shariah Standards No. 15 (Ju'alah), No. 39 (Mortgage and its Contemporary Applications) and No. 46 (Al-Wakalah Bi Al-Istithmar (Investment Agency)) were adopted during the year under review.[17]

Digital Financial Services

Launch of Raast Person to Merchant (P2M) Service: As part of Raast implementation project, the SBP also launched an interoperable Raast P2M service to facilitate digital payment acceptance for merchants and businesses. The P2M service will enable payment acceptance by businesses using Quick Response (QR) Codes, Raast Alias, IBAN and Request to Pay (RTP). The Raast P2M service is set to accelerate the pace of digitization of merchant and business transactions in Pakistan. Accordingly, SBP advised its Regulated Entities (REs) to enable

[10] EPD Circular Letter No. 02 of 2023
[11] EPD Circular Letter No. 15 of 2023
[12] EPD Circular Letter No. 11 of 2023
[13] EPD Circular Letter No. 07 of 2023
[14] BPRD Circular No. 02 of 2017
[15] BPRD Circular Letter No. 25 of 2022
[16] BPRD Circular Letter No. 06 of 2023
[17] IFPD Circular No. 01 of 2023

necessary capabilities for processing P2M transactions via their delivery channels and take necessary measures for creating awareness about Raast Merchant Services and promoting its adoption.[18]

Regulations for EMIs: SBP issued Regulations for EMIs with the aim of fostering innovation in the payments industry and promoting financial inclusion through digital financial services in the country. In order to increase the uptake of *e*-money services, encourage new as well as already established EMIs to come up with new business models, use cases and technological solutions, SBP revised the Regulations for EMIs in light of the indigenous experiences and international best practices. The updated regulations allow EMIs to offer their customers, including minors and freelancers, increased monthly wallet limits, offer new payment services such as Payments Aggregation, Invoice Aggregation, Payment Initiation, Account Information, Escrow Services for domestic *e*-commerce transactions, Services via APIs to FIs/FinTechs/ Third Party Service Providers and inward cross border remittances to their customers.[19] Since the issuance of these Regulations, SBP has received an encouraging response from the market participants and a number of entities have been licensed to provide electronic money (*e*-money) services in the market.[20] SBP expects that the revised regulations would attract more FinTech companies from Pakistan and across the globe to enter into the EMI business in Pakistan and provide innovative, affordable and improved payment services, thus increasing digital financial inclusion in Pakistan.

Digital Payment Services to Unauthorized Digital Lending Apps: A number of un-authorized and un-licensed digital lending mobile applications and platforms were using banking channels, for loan disbursement and collection, and to perform credit worthiness checks through integration with bank accounts of customers. Such usage of digital banking channels and integrations with mobile banking platforms by these un-authorized and un-licensed digital lending apps could pose serious concerns on consumer protection and be a cause of reputational risk for banks as well. As such, REs were advised to ensure that the licensing status of digital lending platforms and mobile applications and their authorization to conduct business are duly verified from the relevant regulatory bodies (SECP, SBP etc.) as part of the KYC/CDD process. Moreover, SBP advised REs to implement reasonable measures, including, at the time of customer on-boarding and transaction monitoring, ensuring that their banking channels and platforms are not used by unauthorized financial service providers, either directly or indirectly. SBP also advised REs not to extend services such as deposits or lending products, mobile application integration with third parties, payment gateway services, credit scoring and credit worthiness checks, wallet services, and/or API integration services to unauthorized and unlicensed digital lending platforms (individuals or businesses), either directly or indirectly.[21]

Guidelines for Downtime of Digital Channels and Services: In recent years, the use of digital channels for carrying out day-to-day transactions has increased manifold. However, it was observed that in cases of service outages, customers were not informed in a timely manner, causing inconveniences for them. Accordingly, SBP issued instructions to all REs to timely inform SBP and their customers about any planned activity or any unanticipated service disruption of more than thirty minutes, which may result in the unavailability of services. Furthermore, SBP advised all REs to establish mechanisms to continuously monitor social media platforms in order to proactively identify and address customer complaints or issues relating to the availability of digital

[18] PSP&OD Circular No 04 of 2023
[19] External Communications Department | Press Release June 21, 2023
[20] PSP&OD Circular No 03 of 2023
[21] PSP&OD Circular No 02 of 2023

channels. SBP, on its part, shall also be regularly monitoring the availability of digital channels.[22]

Improving Payment Card Acceptance Infrastructure in Pakistan: In 2020, SBP identified some key challenges being faced by the Point of Sale (POS) acquiring industry in Pakistan, including high Interchange Reimbursement Fee (IRF), lower than cost Merchant Discount Rate (MDR) to onboard high value merchants and less interest by banks in offering low cost domestic payment cards to their customers. SBP addressed these challenges by setting limits on IRF at maximum of 0.5 percent and MDR at 1.5-2.5 percent, and by advising card issuers to offer the SBP approved Domestic Payment Scheme (DPS) Card as the default card at the time of issuance or renewal of debit cards.[23] In 2023, to further facilitate the acceptance of card-based payments, SBP took the following steps, (i) capped IRF at 0.2 percent and 0.7 percent for debit/prepaid cards and credit cards, respectively; (ii) abolished lower range of MDR i.e., 1.5 percent, and (iii) advised all *e*-commerce and online payment acquirers to enable acceptance of Domestic Payment Scheme (DPS) card for card-not-present (CNP) transactions on their respective payment gateways.[24]

Digital Retail Banks: In a bid to foster innovation, financial inclusion and availability of affordable digital financial services, SBP granted In-Principle Approval (IPA), in CY23, for establishing five digital retail banks, namely, HugoBank Limited, KT Bank Pakistan Limited, Mashreq Bank Pakistan Limited, Raqami Islamic Digital Bank Limited and Telenor Microfinance Bank Limited.[25] As these would be the first digital banks to be established in Pakistan, therefore, SBP developed a Supervisory Framework for supervision of these banks to be implemented once they start operations.

Measures to Enhance Security of Digital Banking Products and Services: The rapid growth in digital banking products and services supports digital transformation of the financial landscape and enables the banks and MFBs to cater to the growing needs of banking customers. However, adoption of digitization needs to be supplemented with necessary controls to mitigate the risk of fraudulent activities. in order to enhance the security of digital banking products and services, SBP prepared a set of comprehensive control measures covering governance, management control, operational controls, and liability framework. Accordingly, SBP advised Banks and MFBs to develop a comprehensive plan with monthly milestones to be implemented by December 31, 2023 and required them to submit monthly progress reports.[26] These new measures are part of wider SBP objective to enhance digital financial inclusion and promote digital financial services by creating and enhancing customer trust in the safety, security and soundness of the digital banking ecosystem.[27]

Framework on Outsourcing to Cloud Service Providers (CSPs): SBP developed the CSP Framework to enable SBP's REs to design and offer innovative products and services by embracing the cloud technology and effectively manage the risks arising out of these arrangements. The framework sets out minimum requirements for the SBP's REs to outsource their material and non-material workloads to CSPs through a risk-based approach in a safe and secure manner.[28]

Anti-Money Laundering and Combating the Financing of Terrorism (AML/ CFT)

AML/CFT Regulations: In order to further strengthen the controls against Money Laundering (ML) and Terrorist Financing (TF) risks, SBP issued the following instructions to

[22] PSP&OD Circular No 01 of 2023
[23] PSD Circular No. 01 of 2020
[24] PSP&OD Circular Letter No 01 of 2023
[25] External Communications Department | Press Release September 20, 2023
[26] BPRD Circular No. 04 of 2023
[27] External Communications Department | Press Release May 18, 2023
[28] BPRD Circular No. 01 of 2023

banks and MFBs offering Branchless Banking services: (i) perform Biometric Verification (BV) of account and wallet holders for all types of 'cash-in' and 'cash-out' transactions at Branchless Banking agents' locations effective from January 31, 2024, (ii) deploy new BV devices at agents' locations, (iii) strengthen their Automated Transaction Monitoring Systems (ATMS) to ensure that all Branchless Banking transactions are captured, and (iv) ensure adequate and meaningful coverage of BB operations in the Internal Risk Assessment Reports (IRARs) as required under the SBP's AML/ CFT/ Countering Proliferation Financing (CPF) Regulations.[29]

Implementation of Shared Electronic Know Your Customer (e-KYC) Platform: SBP, over the years, has strengthened the AML/CFT regime including processes for "Know Your Customer (KYC)" and "Customer Due Diligence (CDD)". To further streamline the KYC/CDD processes, SBP allowed banks to rely on third party financial institutions for performing effective and efficient KYC/CDD. With an objective of bringing further efficiency in KYC and onboarding process, Pakistan Banks Association (PBA), under the guidance of SBP, has undertaken the development of a "shared e-KYC platform". This new platform will provide a number of benefits to banks including; timely exchange and updating of customers KYC/ CDD information across the banking industry through a secure digital channel, standardization of KYC/ CDD data, enhancing customer onboarding experience and cost savings for the banks. The 'shared e-KYC platform' has been built on Distributed Ledger Technology (DLT) whereby customer's KYC/ CDD related information shall reside with the banks only, without the need for a central entity to house this critical customers' data. Further, to protect the rights of the banks' customers, the data will be accessed only with their explicit consent.[30]

[29] BPRD Circular Letter No. 20 of 2023
[30] BPRD Circular Letter No. 22 of 2023

Consumer Protection

Launch of Sunwai - A Customer Complaint Management Service by the SBP: SBP, to further improve the effectiveness and fairness of the banking system, has developed a Portal and Mobile App namely 'Sunwai- a customer complaint management service' with an aim to facilitate customers in the lodgment of their complaints with the Banks, DFIs and MFBs. Furthermore, SBP advised Banks, DFIs and MFBs to (i) ensure meticulous compliance of the respective Turn-Around-Time (TAT) for the resolution of various types of complaints as prescribed by SBP, (ii) update in an accurate and timely manner status of complaints on the said portal, (iii) ensure that senior management reviews and monitors the breaches of TATs and takes corrective measures for the resolution of complaints on timely basis, and (iv) create awareness amongst the customers about Sunwai.[31]

Financial Inclusion

ASA Microfinance Bank Limited: SBP has allowed ASA Microfinance Bank (Pakistan) Limited to commence microfinance lending business nationwide from November 13, 2023. ASA Microfinance Bank (Pakistan) Limited, licensed by the SBP under the Microfinance Institutions Ordinance 2001, is a wholly owned subsidiary of ASA International Group plc. which is recognized as one of the largest international microfinance institutions. By commencing business, ASA Microfinance Bank (Pakistan) Limited became the 12th Microfinance Bank (MFB) to operate in the country. MFBs play an important role to serve a large number of microcredit borrowers and depositors. The commencement of business by ASA Microfinance Bank (Pakistan) Limited is expected to increase the market share of MFBs regulated by SBP within the overall financial sector. Given the focus on women across their international network, ASA Microfinance Bank

[31] CPD Circular No. 01 of 2023

(Pakistan) Limited is expected to play an important role towards gender mainstreaming and female empowerment by providing small, socially responsible loans to low-income women entrepreneurs belonging to less-privileged and unbanked segments of the society.[32]

[32] External Communications Department | Press Release November 14, 2023

Appendix B

Indicators used to derive Financial Sector Vulnerability Index (FSVI)

FSVI was first introduced in FSR 2016, and since then it has been modified and regularly published in the subsequent reviews. In FSR-2018, few modifications were made in terms of coverage, indicators and methodology (See Appendix A in FSR-2018).

To recall, FSVI is a composite index derived from averaging the sub-indices of macro-economy, financial markets, banking sector, Non-Banking Financial Institutions, Development Finance Institutions, Insurance Companies and Corporate Sector. The complete list of indicators used within each dimension is given in the table below:

Financial Sector Vulnerability Index (FSVI) and Financial Sector Heat Map (FSHM): Risk Areas, Risk Dimensions and Indicators — **Table 1**

<table>
<tr><th>Sr. No.</th><th>Risk Area</th><th>Risk Dimension</th><th>Risk Indicator(s)</th><th>Impact on Financial Stability</th></tr>
<tr><td rowspan="4">1</td><td rowspan="4">Macro-economy
$\frac{1}{n}\sum Ex, R, F, In$
n = 4</td><td>External Sector (Ex)
$Ex = \frac{1}{n}\sum_{i=1}^{n} ex_i,$
$n = 3$</td><td>ex_1 = *Total Liquid Foreign Reserve Position (with SBP) as percent of GDP*
ex_2 = *Current Account Balance as Percentage of GDP*
ex_3 = *Balance of Trade as Percentage of GDP*
ex_4 = *Terms of Trade Index*
ex_5 = *Real Effective Exchange Rate Index*</td><td>Positive
Positive
Positive
Positive
Negative</td></tr>
<tr><td>Real Sector (R)</td><td>*Real GDP Growth*</td><td>Positive</td></tr>
<tr><td>Fiscal Sector (F)</td><td>Fiscal Deficit as Percentage of GDP</td><td>Negative</td></tr>
<tr><td>Inflation (In)</td><td>CPI inflation</td><td>Negative</td></tr>
<tr><td rowspan="3">2</td><td rowspan="3">Financial Markets
$\frac{1}{n}\sum FE, MM, CM$
n = 3</td><td>Foreign Exchange (FE)</td><td>*Mark-to-market Revaluation Exchange Rate Exponential Moving Weighted Average (EMWA) Volatility*</td><td>Negative</td></tr>
<tr><td>Money Market (MM)</td><td>*Overnight Repo Rate Exponential Moving Weighted Average (EMWA) Volatility*</td><td>Negative</td></tr>
<tr><td>Capital Market (CM)</td><td>*KSE-100 Index Exponential Moving Weighted Average (EMWA) Volatility*</td><td>Negative</td></tr>
<tr><td rowspan="6">3</td><td rowspan="6">Banking Sector
$\frac{1}{n}\sum C, AQ, E, L, D, I$
n = 6</td><td>Capital Adequacy (C)
$C = \frac{1}{n}\sum_{i=1}^{n} c_i, n = 3$</td><td>$c_1$= *Capital Adequacy Ratio(CAR)*
c_2=*TIER 1 (CAR)*
c_3=*Capital to Asset Ratio*</td><td>Positive
Positive
Positive</td></tr>
<tr><td>Asset Quality (AQ)
$AQ = \frac{1}{n}\sum_{i}^{n} aq_i,$
$n = 4$</td><td>aq_1 = *NPLs to Total Loans*
aq_2 = *Net NPLs to Capital*
aq_3 = *Provisions to NPLs*
aq_4 = *Loss to NPLs*</td><td>Negative
Negative
Positive
Negative</td></tr>
<tr><td>Earnings (E)
$E = \frac{1}{n}\sum_{i=1}^{n} e_i,$
$n = 6$</td><td>e_1= *Return on Assets Before Tax*
e_2=*Return on Equity (Avg. Equity and Surplus) Before Tax*
e_3 = *Net Interest Margin*
e_4 = *Net Interest Income/Gross Income*
e_5 = *Cost to Income Ratio*
e_6 = *Trading Income to Total Income*</td><td>Positive
Positive
Positive
Positive
Negative
Negative</td></tr>
<tr><td>Liquidity (L)
$L = \frac{1}{n}\sum_{i=1}^{n} l_i,$
$n = 4$</td><td>l_1= *Liquid Assets/Total Assets*
l_2= *Liquid Assets/Total Deposits*
l_3= *Liquid Assets/Short term liabilities*
l_4=*Borrowings/Assets*</td><td>Positive
Positive
Positive
Negative</td></tr>
<tr><td>Deposits (D)
$D = \frac{1}{n}\sum_{i=1}^{n} d_i,$
$n = 2$</td><td>d_1= *Deposits to Assets*
d_2= *Deposit growth (YoY)*</td><td>Positive
Positive</td></tr>
<tr><td>Interconnectedness (I)
$I = \frac{1}{n}\sum_{i=1}^{n} i_i,$
$n = 2$</td><td>i_1= *Call lending and borrowing/Total Assets*
i_2= *Financial Liabilities (SBP exclusive)/Total Assets*</td><td>Negative
Negative</td></tr>
</table>

4	Non-Banking Financial Institutions $\frac{1}{n}\sum A, E$ n = 2	Assets (A)	*Asset Growth (YoY)*	Positive
		Earnings (E)	*Net Sales*	Positive
5	Development Finance Institutions $\frac{1}{n}\sum C, AQ, E, L$ n = 4	Capital Adequacy (C) $C = \frac{1}{n}\sum_{i=1}^{n} c_i, n = 3$	c_1= *Capital Adequacy Ratio(CAR)* c_2=*TIER 1 (CAR)* c_3=*Capital to Asset Ratio*	Positive Positive Positive
		Asset Quality (AQ) $AQ = \frac{1}{n}\sum_{i}^{n} aq_i,$ $n = 3$	aq_1 = *NPLs to Total Loans* aq_2 = *Net NPLs to Capital* aq_3 = *Net NPLs to Net Loans*	Negative Negative Negative
		Earnings (E) $E = \frac{1}{n}\sum_{i=1}^{n} e_i,$ $n = 4$	e_1= *Return on Assets Before Tax* e_2=*Return on Equity (Avg. Equity and Surplus) Before Tax* e_3 = *Net Interest Income/Gross Income* e_4 = *Cost to Income Ratio*	Positive Positive Positive Negative
		Liquidity (L) $L = \frac{1}{n}\sum_{i=1}^{n} l_i,$ $n = 3$	l_1= *Liquid Assets/Total Assets* l_2= *Liquid Assets/Total Deposits* l_3= *Advances /Deposits*	Positive Positive Positive
6	Insurance Companies $\frac{1}{n}\sum Li, NL$ n = 2	Life (Li) $\mathrm{Li} = \frac{1}{n}\sum_{i=1}^{n} \mathrm{li}_i,$ $n = 4$	li_1= *Claims ratio* li_2= *Return on Assets before tax* li_3= *Return on Investment before tax* li_4= *Capital to Assets*	Negative Positive Positive Positive
		Non-life (NL) $\mathrm{NL} = \frac{1}{n}\sum_{i=1}^{n} \mathrm{nli}_i,$ $n = 5$	nli_1= *Claims ratio* nli_2= *Premium Retention* nli_3= *Return on Assets before tax* nli_4= *Return on Investment before tax* nli_5= *Capital to Assets*	Negative Negative Positive Positive Positive
7	Corporate Sector	Corporate Debt	*Debt Burden (average of asset/equity and debt/equity)*	Negative

Annexure I - Balance Sheet and Profit & Loss Statement of Banks

BALANCE SHEET	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
			million Rupees		
ASSETS					
Cash & Balances With Treasury Banks	1,987,096	2,014,703	2,276,963	1,829,335	2,922,048
Balances With Other Banks	232,671	277,988	253,008	265,732	395,676
Lending To Financial Institutions	978,640	1,079,071	1,095,663	1,132,188	1,629,493
Investments - Net	8,939,438	11,934,634	14,554,438	18,400,000	26,019,114
Advances - Net	8,248,973	8,291,572	10,120,509	11,818,241	12,178,293
Operating Fixed Assets	596,924	626,251	704,729	824,231	951,397
Deferred Tax Assets	74,052	91,820	133,061	202,613	198,305
Other Assets	933,542	807,816	919,931	1,323,191	2,069,286
TOTAL ASSETS	**21,991,337**	**25,123,855**	**30,058,303**	**35,795,532**	**46,363,611**
LIABILITIES					-
Bills Payable	231,178	313,827	328,566	439,979	409,720
Borrowings From Financial Institution	2,932,082	3,216,866	4,738,036	7,845,098	11,672,920
Deposits And Other Accounts	15,953,489	18,518,525	21,719,885	23,461,394	29,128,202
Sub-ordinated Loans	123,218	121,854	122,815	161,581	176,073
Liabilities Against Assets Subject To Finance Lease	7,446	7,534	8,025	8,268	9,873
Deferred Tax Liabilities	43,602	46,549	29,319	9,793	48,862
Other Liabilities	1,042,073	1,036,267	1,170,116	1,783,706	2,131,021
TOTAL LIABILITIES	**20,333,089**	**23,261,422**	**28,116,763**	**33,709,818**	**43,576,672**
NET ASSETS	**1,658,248**	**1,862,433**	**1,941,540**	**2,085,713**	**2,786,939**
NET ASSETS REPRESENTED BY:					-
Share Capital	556,886	556,131	568,000	592,776	628,419
Reserves	349,529	392,599	445,470	509,887	652,682
Unappropriated Profit	521,807	642,965	721,894	873,629	1,209,273
Share Holders' Equity	**1,428,222**	**1,591,696**	**1,735,364**	**1,976,291**	**2,490,374**
Surplus/Deficit On Revaluation Of Assets	230,026	270,737	206,176	109,422	296,565
TOTAL	**1,658,248**	**1,862,433**	**1,941,540**	**2,085,713**	**2,786,939**

PROFIT AND LOSS STATEMENT	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
Mark-Up/ Return/Interest Earned	1,851,790	1,924,328	1,831,650	3,420,449	6,366,447
Mark-Up/ Return/Interest Expenses	1,156,062	1,071,898	992,650	2,243,024	4,463,672
Net Mark-Up / Interest Income	**695,727**	**852,430**	**839,000**	**1,177,424**	**1,902,775**
Provisions & Bad Debts Written Off Directly/(Reversals)	67,855	123,039	50,405	58,768	61,614
Net Mark-Up / Interest Income After Provision	**627,872**	**729,391**	**788,595**	**1,118,656**	**1,841,161**
Fees, Commission & Brokerage Income	123,895	118,322	142,803	173,148	217,417
Dividend Income	12,325	10,810	18,003	21,681	25,684
Income From Dealing In Foreign Currencies	26,269	21,854	34,746	80,448	111,283
Other Income	19,628	65,920	43,161	23,193	37,144
Total Non - Markup / Interest Income	**182,117**	**216,906**	**238,713**	**298,470**	**391,527**
Administrative Expenses	495,018	521,253	565,230	704,573	916,191
Other Expenses	10,517	13,690	10,987	9,531	29,798
Total Non-Markup/Interest Expenses	**505,535**	**534,943**	**576,216**	**714,104**	**945,989**
Profit before Tax and Extra ordinary Items	304,454	411,355	451,092	703,022	1,286,699
Extra ordinary/unusual Items - Gain/(Loss)	48.78	-	-	-	-
PROFIT/ (LOSS) BEFORE TAXATION	**304,405**	**411,355**	**451,092**	**703,022**	**1,286,699**
Less: Taxation	133,656	167,315	186,870	366,532	644,475
PROFIT/ (LOSS) AFTER TAX	**170,749**	**244,039**	**264,222**	**336,490**	**642,224**

Source: State Bank of Pakistan

Annexure II - Financial Soundness Indicators of the Banking Sector

		Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
	percent					
CAPITAL ADEQUACY						
	Risk Weighted CAR^	17.0	18.6	16.7	17.0	19.7
	Tier 1 Capital to RWA	14.0	14.8	13.5	14.2	16.0
	Capital to Total Assets	7.2	7.2	6.3	5.9	5.9
ASSET QUALITY						
	NPLs to Total Loans	8.6	9.2	7.9	7.3	7.6
	Provision to NPLs	81.4	88.3	91.2	89.5	92.7
	Net NPLs to Net Loans	1.7	1.2	0.7	0.8	0.6
	Net NPLs to Capital^^	8.9	5.3	4.0	4.6	2.7
EARNINGS						
	Return on Assets (Before Tax)	1.5	1.8	1.6	2.1	3.1
	Return on Assets (After Tax)	0.8	1.0	1.0	1.0	1.6
	ROE (Avg. Equity& Surplus) (Before Tax)	20.1	23.2	24.0	35.3	54.4
	ROE (Avg. Equity &Surplus) (After Tax)	11.3	13.8	14.1	16.9	27.1
	NII/Gross Income	79.3	79.7	77.9	79.8	82.9
	Cost / Income Ratio	57.6	50.0	53.5	48.4	41.2
LIQUIDITY						
	Liquid Assets/Total Assets	49.7	54.8	55.4	56.6	63.5
	Liquid Assets/Total Deposits	68.4	74.3	76.7	86.4	101.1
	Advances/Deposits	51.7	44.8	46.6	50.4	41.8

**Based on unaudited Quarterly Report of Condition (QRC) submitted by banks.*

^Data for Dec-13 and onwards is based on Basel III, and data from CY08 to Sep-13 is based on Basel II with the exception of IDBL, PPCBL, and SME Bank, which is based on Basel I.

^^Effective from June 30, 2015, Regulatory Capital, as defined under Basel requirements, has been used to calculate Net NPLs to Capital Ratio. Prior to Jun-15, Balance Sheet Capital was used for calculation of this ratio.

Source: State Bank of Pakistan

Annexure III - Balance Sheet and Profit & Loss Statement of MicroFinance Banks

BALANCE SHEET	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
million Rupees					
ASSETS					
Cash & Balances With Treasury Banks	17,624	23,900	28,991	43,814	45,956
Balances With Other Banks	40,777	53,236	57,931	24,589	34,278
Lending To Financial Institutions	6,242	12,387	1,052	15,476	21,782
Investments - Net	52,169	96,774	133,419	228,199	163,477
Advances - Net	206,965	231,047	278,318	342,358	379,946
Operating Fixed Assets	25,062	23,825	24,689	25,210	27,680
Deferred Tax Assets	1,768	2,531	4,687	14,141	21,229
Other Assets	29,404	50,283	53,017	59,194	76,988
TOTAL ASSETS	**380,011**	**493,984**	**582,104**	**752,982**	**771,336**
LIABILITIES					
Bills Payable	687	758	1,079	702	1,041
Borrowings From Financial Institution	19,808	26,909	59,022	137,025	58,461
Deposits And Other Accounts	266,195	373,084	422,998	515,760	597,023
Sub-ordinated Loans	8,472	8,672	9,041	12,391	12,447
Liabilities Against Assets Subject To Finance Lease	-	-	-	-	-
Deferred Tax Liabilities	-	-	-	-	-
Other Liabilities	34,428	34,384	33,262	43,382	64,965
TOTAL LIABILITIES	**329,590**	**443,806**	**525,401**	**709,261**	**733,937**
NET ASSETS					
NET ASSETS REPRESENTED BY:					
Share Capital	29,323	37,850	36,609	42,196	42,379
Reserves	21,634	23,747	41,401	46,122	54,991
Unappropriated Profit	(580)	(11,567)	(20,829)	(44,225)	(60,275)
Share Holders' Equity	**50,376**	**50,030**	**57,181**	**44,094**	**37,096**
Surplus/Deficit On Revaluation Of Assets	(19)	133	(487)	(408)	213
Deferred Grants/Subsidies	64	12	9	35	90
TOTAL	**50,421**	**50,175**	**56,703**	**43,721**	**37,399**
PROFIT AND LOSS STATEMENT					
Mark-Up/ Return/Interest Earned	66,841	75,284	78,436	105,207	164,898
Mark-Up/ Return/Interest Expenses	26,246	30,426	32,067	53,918	94,147
Net Mark-Up / Interest Income	**40,595**	**44,858**	**46,368**	**51,289**	**70,752**
Provisions & Bad Debts Written Off Directly/(Reversals)	13,089	11,612	16,291	22,823	15,991
Net Mark-Up / Interest Income After Provision	**27,506**	**33,246**	**30,077**	**28,466**	**54,761**
Fees, Commission & Brokerage Income	13,859	11,976	14,720	21,631	23,839
Dividend Income	14	14	-	-	-
Income From Dealing In Foreign Currencies	-	-	-	-	(26)
Other Income	1,501	1,294	2,195	2,391	9,756
Total Non - Markup / Interest Income	**15,373**	**13,284**	**16,915**	**24,022**	**33,569**
Administrative Expenses	48,098	49,246	52,990	70,802	74,838
Other Expenses	709	638	822	3,211	24,311
Total Non-Markup/Interest Expenses	**48,807**	**49,883**	**53,812**	**74,013**	**99,149**
Profit before Tax and Extra ordinary Items	(5,929)	(3,354)	(6,820)	(21,525)	(10,819)
Extra ordinary/unusual Items - Gain/(Loss)	-	-	-	-	-
Subsidies received	5.33	55.79	25.06	33.19	16.16
PROFIT/ (LOSS) BEFORE TAXATION	**(5,934)**	**(3,409)**	**(6,845)**	**(21,558)**	**(10,835)**
Less: Taxation	2,183	2,474	1,235	(4,403)	(2,717)
PROFIT/ (LOSS) AFTER TAX	**(8,117)**	**(5,883)**	**(8,080)**	**(17,155)**	**(8,118)**

Source: State Bank of Pakistan

Annexure IV - Financial Soundness Indicators of the MicroFinance Banks

	Dec-19	Dec-20	Dec-21	Dec-22	Dec-23
percent					
CAPITAL ADEQUACY					
Risk Weighted CAR	20.9	19.0	18.3	10.9	7.6
Tier 1 Capital to RWA	17.8	15.3	14.3	8.1	4.7
Capital to Total Assets	13.9	11.0	10.4	5.3	3.7
ASSET QUALITY					
NPLs to Total Loans	5.3	3.3	5.2	6.7	6.7
Provision to NPLs	70.0	106.5	78.1	78.8	102.3
Net NPLs to Net Loans	1.7	-0.2	1.2	1.5	-0.2
Net NPLs to Capital^	6.5	-0.9	5.4	12.9	-2.2
EARNINGS					
Return on Assets (Before Tax)	-1.7	-0.8	-1.3	-3.4	-1.5
Return on Assets (After Tax)	-2.3	-1.4	-1.6	-2.7	-1.1
ROE (Avg. Equity& Surplus) (Before Tax)	-12.4	-7.1	-12.7	-42.9	-26.4
ROE (Avg. Equity &Surplus) (After Tax)	-16.9	-12.2	-15.0	-34.1	-19.7
NII/Gross Income	72.5	77.2	73.3	68.1	67.8
Cost / Income Ratio	87.2	85.8	85.0	98.3	95.0
LIQUIDITY					
Liquid Assets/Total Assets	28.2	35.7	31.3	26.5	29.4
Liquid Assets/Total Deposits	40.3	47.3	43.1	38.6	38.0
Advances/Deposits	77.7	61.9	65.8	66.4	63.6

^ *Effective from June 30, 2015, Regulatory Capital, as defined under Basel requirements, has been used to calculate Net NPLs to Capital Ratio. Prior to Jun-15, Balance Sheet Capital was used for calculation of this ratio.*

Source: State Bank of Pakistan

Annexure V - List of Banks

	Dec-22		Dec-23
	A. Public Sector Com. Banks (5)		**A. Public Sector Com. Banks (5)**
1	First Women Bank Ltd.	1	First Women Bank Ltd.
2	National Bank of Pakistan	2	National Bank of Pakistan
3	Sindh Bank Ltd.	3	Sindh Bank Ltd.
4	The Bank of Khyber	4	The Bank of Khyber
5	The Bank of Punjab	5	The Bank of Punjab
	B. Local Private Banks (20)		**B. Local Private Banks (20)**
1	AlBaraka Bank (Pakistan) Ltd.	1	AlBaraka Bank (Pakistan) Ltd.
2	Allied Bank Ltd.	2	Allied Bank Ltd.
3	Askari Bank Ltd.	3	Askari Bank Ltd.
4	Bank AL Habib Ltd.	4	Bank AL Habib Ltd.
5	Bank Alfalah Ltd.	5	Bank Alfalah Ltd.
6	BankIslami Pakistan Ltd.	6	BankIslami Pakistan Ltd.
7	Dubai Islamic Bank Pakistan Ltd.	7	Dubai Islamic Bank Pakistan Ltd.
8	Faysal Bank Ltd.	8	Faysal Bank Ltd.
9	Habib Bank Ltd.	9	Habib Bank Ltd.
10	Habib Metropolitan Bank Ltd.	10	Habib Metropolitan Bank Ltd.
11	JS Bank Ltd.	11	JS Bank Ltd.
12	MCB Bank Ltd.	12	MCB Bank Ltd.
13	MCB Islamic Bank Ltd.	13	MCB Islamic Bank Ltd.
14	Meezan Bank Ltd.	14	Meezan Bank Ltd.
15	SAMBA Bank Ltd.	15	SAMBA Bank Ltd.
16	Silk Bank Ltd	16	Silk Bank Ltd
17	Soneri Bank Ltd.	17	Soneri Bank Ltd.
18	Standard Chartered Bank (Pakistan) Ltd.	18	Standard Chartered Bank (Pakistan) Ltd.
19	Summit Bank Ltd	19	Bank Makramah Limited (formerly Summit Bank Ltd.
20	United Bank Ltd.	20	United Bank Ltd.
	C. Foreign Banks (4)		**C. Foreign Banks (4)**
1	Citibank N.A.	1	Citibank N.A.
2	Deutsche Bank AG	2	Deutsche Bank AG
3	Industrial and Commercial Bank of China Ltd.	3	Industrial and Commercial Bank of China Ltd.
4	Bank of China Limited	4	Bank of China Limited
	D. Specialized Banks (3)		**D. Specialized Banks (3)**
1	Punjab Provincial Co-operative Bank Ltd.	1	Punjab Provincial Co-operative Bank Ltd.
2	SME Bank Ltd.	2	SME Bank Ltd.
3	Zarai Taraqiati Bank Ltd.	3	Zarai Taraqiati Bank Ltd.
	All Commercial Banks (29)		**All Commercial Banks (29)**
	Include A + B + C		Include A + B + C
	All Banks (32)		**All Banks (32)**
	Include A + B + C + D		Include A + B + C + D

Source: State Bank of Pakistan

Annexure VI - Composition of Islamic Banking Institutions

	Dec-22		Dec-23
	Islamic Banks		**Islamic Banks**
1	AlBaraka Bank (Pakistan) Ltd.	1	AlBaraka Bank (Pakistan) Ltd.
2	BankIslami Pakistan Ltd.	2	BankIslami Pakistan Ltd.
3	Dubai Islamic Bank Pakistan Ltd	3	Dubai Islamic Bank Pakistan Ltd
4	MCB Islamic Bank Ltd.	4	Faysal Bank Ltd.
5	Meezan Bank Ltd	5	MCB Islamic Bank Ltd.
		6	Meezan Bank Ltd
	Conventional Banks having Islamic Banking		**Conventional Banks having Islamic Banking**
1	Askari Bank Ltd.	1	Askari Bank Ltd.
2	Allied Bank Ltd.	2	Allied Bank Ltd.
3	Bank Al Habib Ltd	3	Bank Al Habib Ltd
4	Bank Alfalah Ltd	4	Bank Alfalah Ltd
5	Faysal Bank Ltd.	5	Habib Bank Ltd
6	Habib Bank Ltd	6	Habib Metropolitan Bank
7	Habib Metropolitan Bank	7	National Bank of Pakistan
8	National Bank of Pakistan	8	Silk Bank Ltd
9	Silk Bank Ltd	9	Sindh Bank Ltd
10	Sindh Bank Ltd	10	Soneri Bank Ltd
11	Soneri Bank Ltd	11	Standard Chartered Bank
12	Standard Chartered Bank	12	Summit Bank Ltd.
13	Summit Bank Ltd.	13	The Bank of Khyber
14	The Bank of Khyber	14	The Bank of Punjab
15	The Bank of Punjab	15	United Bank Ltd.
16	United Bank Ltd.	16	Zarai Taraqiati Bank Ltd.
17	Zarai Taraqiati Bank Ltd.		
	Grand Total 22 (5+17)		Grand Total 22 (6+16)

Source: State Bank of Pakistan

Annexure VII - List of Development Finance Institutions (DFIs)

Dec-22	Dec-23
1 House Building Finance Company Ltd.	1 House Building Finance Company Ltd.
2 PAIR Investment Company Ltd.	2 PAIR Investment Company Ltd.
3 Pak Brunei investment Company Ltd.	3 Pak Brunei investment Company Ltd.
4 Pak Libya Holding Company Ltd.	4 Pak Libya Holding Company Ltd.
5 Pak Oman Investment Company Ltd.	5 Pak Oman Investment Company Ltd.
6 Pak-China Investment Company Ltd.	6 Pak-China Investment Company Ltd.
7 Pakistan Kuwait Investment Company (Private) Ltd.	7 Pakistan Kuwait Investment Company (Private) Ltd.
8 Pakistan Mortgage Refinance Company Ltd.	8 Pakistan Mortgage Refinance Company Ltd.
9 Saudi Pak Industrial & Agricultural Investment Company Ltd.	9 Saudi Pak Industrial & Agricultural Investment Company Ltd.

Source: State Bank of Pakistan

Annexure VIII - List of Microfinance Banks (MFBs)

	Dec-22		Dec-23
1	Advans Pakistan Microfinance Bank Limited	1	Advans Pakistan Microfinance Bank Limited
2	APNA Microfinance Bank Limited	2	APNA Microfinance Bank Limited
3	FINCA Microfinance Bank Limited	3	FINCA Microfinance Bank Limited
4	Khushhali Microfinance Bank Limited	4	Khushhali Microfinance Bank Limited
5	Mobilink Microfinance Bank Limited	5	Mobilink Microfinance Bank Limited
6	NRSP Microfinance Bank Limited	6	NRSP Microfinance Bank Limited
7	Pak Oman Microfinance Bank Limited	7	Lolc Microfinance Bank Limited (Pak Oman Microfinance Bank Limited)
8	Sindh Microfinance Bank Limited	8	Sindh Microfinance Bank Limited
9	Telenor Microfinance Bank Limited	9	Telenor Microfinance Bank Limited
10	The First Micro Finance Bank Limited	10	HBL Microfinance Bank Limited (formerly The First Micro Finance Bank Ltd.)
11	U Microfinance Bank Limited	11	U Microfinance Bank Limited

Source: State Bank of Pakistan

Annexure IX - List of Non-Bank Financial Institutions

	Asset Management Companies (AMCs)/ Investment Advisors (IAs)
1	786 Investments Limited
2	Aaraf Investment Advisory Limited
3	ABL Asset Management Company Limited
4	AKD Investment Management Limited
5	Alfalah Asset Management Limited
6	Alliance Investment Management Limited
7	Al-Meezan Investment Management Limited
8	Atlas Asset Management Limited
9	AWT Investment Limited
10	BMA Investment Advisors Limited
11	Faysal Asset Management Limited
12	First Capital Investments Limited
13	Habib Asset Management Limited
14	HBL Asset Management Limited
15	Interloop Asset Management Limited
16	JS Investments Limited
17	Kifayah Investment Management Limited
18	Lakson Investments Limited
19	Magnus Investment Advisors Limited
20	Mahaana Wealth Limited
21	MCB Investment Management Limited
22	National Investment Trust Limited
23	NBP Fund Management Limited
24	Pak Oman Asset Management Company Limited
25	Pak Qatar Asset Management Co. Limited
26	PNO Capital Limited
27	Sarmuz Investments Limited
28	UBL Fund Managers Limited
29	Vision Capital Limited

	Modarabas
1	Allied Rental Modaraba
2	B.F. Modaraba
3	Elite Capital Modaraba
4	Equity Modaraba
5	First Al-Noor Modaraba
6	First Fidelity Leasing Modaraba
7	First IBL Modaraba
8	First Imrooz Modaraba
9	First Paramount Modaraba
10	First Punjab Modaraba
11	First Treet Manufacturing Modaraba
12	Habib Modaraba
13	Modaraba Al-Mali
14	Orient Rental Modaraba
15	Orix Modaraba
16	Popular Islamic Modaraba
17	Prudential Modaraba
18	Sindh Modaraba
19	Tri-Star Modaraba
20	Trust Modaraba
21	UDL Modaraba
22	Unicap Modaraba

	Non-Bank Microfinance Companies (NBMFCs)
1	Agahe Pakistan
2	Akhuwat Islamic Microfinance
3	AL-Mawakhat Microfinance Company Limited
4	Asaan Qarz Financing Services Private Limited
5	Balochistan Rural Support Programme
6	Bluesky Financial Services Limited
7	Care Financial Services Private Limited
8	Cashew Financial Services Limited
9	Creditfix Financial Services Limited
10	CSC Empowerment & Inclusion Programme
11	Damen Support Programme
12	Farmers Development Organization
13	Farmers Friend Organization
14	Ghazi Barotha Taraqiati Idara
15	Gold Lion Financials (Private) Ltd.
16	Humraah Financial Services Ltd
17	JWS Pakistan
18	Kashf Foundation
19	MG Financial Services (Pvt) Limited
20	Mojaz Support Program
21	National Rural Support Programme (NRSP)
22	OPD Support Program
23	Organization for Poverty Reduction and Community Training Program
24	Pakisnova Microfinance Company (Private) Limited
25	Punjab Rural Support Programme
26	Rural Community Development Programme (RCDP)
27	Saath Microfinance Foundation Pakistan
28	Safco Microfinance Company (Pvt) Limited
29	Sarhad Rural Support Programme (SRSP)
30	Sarmaya Microfinance (Pvt) Ltd.
31	Sayya Microfinance Company
32	Shah Sachal Sami Foundation (SSSF)
33	Simak Financial Services (Private) Limited
34	Sindh Rural Support Organization
35	Soon Valley Development Program
36	TEZ Financial Services Limited
37	Thardeep Microfinance Foundation
38	Titlistec Finance Limited
39	Union Microfinance Company Limited
22	QistBazaar (Private) Limited
23	Security Investment Bank Limited
24	Seedcred Financial Services Limited
25	Taleem Finance Company Limited
26	Trukkr Financial Services Limited
27	Umeed Pay (Pvt) Limited
28	Visioncred Financial Services (Pvt) Limited
29	WASL Investment Finance Limited

	Housing Finance Companies
1	Akhuwat Housing Finance Company Limited
2	Assan Ghar Finance Limited
3	Pakistan Housing Finance Company Limited
4	Trellis Housing Finance Company

Source: State Bank of Pakistan

Annexure IX - List of Non-Bank Financial Institutions (cont.)

Investment Finance Companies (IFCs)		REIT Management Companies (RMCs)	
1	4sight Finance Services (Private) Limited	1	AKD REIT Management Company Limited
2	Abhi (Private) Limited	2	Arif Habib Dolmen REIT Management Limited
3	Creditbook Financial Services (Private) Limited	3	Bodla REIT Management Company Limited
4	Escorts Investment Bank Limited	4	DHAI REIT Management Company Limited
5	Finja Lending Services Limited	5	Fast REIT Management Company Limited
6	First Credit & Investment Bank Limited	6	IMM REIT Management Company Limited
7	Goldfin Limited	7	ISE Towers REIT Management Limited
8	Infra Zamin Pakistan Limited	8	Providential REIT Management Company Limited
9	Invest Capital Investment Bank Limited	9	Rockville REIT Management Company Limited
10	Jazzcash (Private) Limited	10	SB Global REIT Management Limited
11	Jinglecred Digital Finance Limited	11	Shields REIT Management Company Limited
12	Legend Financial Services (Pvt) Limited	12	Sinolink REIT Management Company Limited
13	LSE Financial Services Limited	13	The Lake City REIT Management Limited
14	Microcred Financial Services Limited	14	TPL REIT Management Company Limited
15	Neem Exponential Financial Services (Pvt.) Ltd.	15	Veritas REIT Management Company Limited
16	Orix Leasing Pakistan Limited	16	Zameen REIT Management Company Limited
17	Pakistan Development Fund Ltd	**Leasing Companies**	
18	Pakistan Microfinance Investment Co. Ltd	1	Cordoba Leasing Limited
19	Parwaaz Financial Services Limited	2	Grays Leasing Limited
20	PostEx Financial Services (Pvt) Limited	3	Pak Gulf Leasing Company Limited
21	Qisstpay BPNL (Private) Limited	4	Primus Leasing Limited
22	QistBazaar (Private) Limited	5	SME Leasing Limited
23	Security Investment Bank Limited	**Private Equity & Venture Capital Firms (PE&VC)**	
24	Seedcred Financial Services Limited	1	Fatima Gobi Ventures (Pvt) Limited
25	Taleem Finance Company Limited	2	Ijarah Capital Partners Limited
26	Trukkr Financial Services Limited	3	NIDA Venture Capital Management Limited
27	Umeed Pay (Pvt) Limited	4	PNO Capital Limited
28	Visioncred Financial Services (Pvt) Limited	5	Sai Venture Capital (Pvt) Limited
29	WASL Investment Finance Limited	6	TMT Ventures Limited
Discounting			
1	Smart Finance Limited		

Source: State Bank of Pakistan

Annexure X - List of Insurance Companies

No.	Company	No.	Company
Non-Life Insurance Companies			
1	Adamjee Insurance Company Limited	17	PICIC Insurance Limited*
2	Alfalah Insurance Company Limited	18	Premier Insurance Limited
3	Allianz EFU Health Insurance Limited	19	Reliance Insurance Company Limited
4	Alpha Insurance Company Limited	20	Security General Insurance Company Limited
5	Asia Insurance Company Limited	21	Shaheen Insurance Company Limited
6	Askari General Insurance Company Limited	22	Silver Star Insurance Company Limited*
7	Atlas Insurance Limited	23	Sindh Insurance Limited
8	Century Insurance Company Limited	24	The Asian Mutual Insurance Company (Guarantee) Limited*
9	Chubb Insurance Pakistan Limited	25	The Cooperative Insurance Society of Pakistan
10	Crescent Star Insurance Co. Limited	26	The Pakistan General Insurance Company Limited*
11	East West Insurance Company Limited	27	The United Insurance Company of Pakistan Limited
12	EFU General Insurance Limited	28	The Universal Insurance Company Limited
13	Habib Insurance Company Limited	29	TPL Insurance Limited
14	IGI General Insurance Limited	30	TRAFCO Insurance Company Limited
15	Jubilee General Insurance Company Limited	31	UBL Insurers Limited
16	National Insurance Company Limited		
General Takaful Companies			
1	Pak-Kuwait Takaful Company Limited	3	Salaam Takaful Limited (Formerly Takaful Pakistan Limited)
2	Pak-Qatar General Takaful Limited		
Life Insurance Companies			
1	Adamjee Life Assurance Company Limited	5	Jubilee Life Insurance Company Ltd.
2	Askari Life Assurance Company Ltd. (Previously East West Life Assurance Company Limited)	6	State Life Insurance Corporation of Pakistan
3	EFU Life Assurance Company Limited	7	TPL Life Insurance Limited (Previously Asia Care Health & Life Insurance Company Ltd.)
4	IGI Life Insurance Limited	8	Postal Life Insurance Company Limited
Family Takaful Companies			
1	5th Pillar Family Takaful Limited	3	Dawood Family Takaful Limited
2	Pak Qatar Family Takaful Limited		
Reinsurance Companies			
1	Pakistan Reinsurance Company Limited		

* Direction under section 63 of the Insurance Ordinance 2000 issued to cease the Company from entering in to new contracts of insurance.

Source: State Bank of Pakistan

List of Abbreviations

A

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
AD	Authorized Dealer
ADC	Alternative Delivery Channel
ADR	Advances-to-Deposit Ratio
AEs	Advanced Economies
AFS	Available for Sale
ALS	Agriculture Loan Scheme
AM	Assets Management
AMC	Assets Management Company
AML	Anti-Money Laundering
API	Application Programming Interface
ATM	Automatic Teller Machine
ATMS	Automated Transaction Monitoring System
AUM	Assets Under Management

B

BB	Branchless Banking
BCI	Business Confidence Index
BCS	Business Confidence Survey
BIS	Bank for International Settlements
BoE	Bank of England
bps	Basis Points
BSSM	Banking Sector Stability Map
BV	Biometric Verification

C

CAB	Current Account Balance
CAD	Current Account Deficit
CAR	Capital Adequacy Ratio
CCI	Consumer Confidence Index
CDC	Central Depository Company
CDD	Customer Due Diligence
CDNS	Central Directorate of National Savings
CDS	Credit Default SWAP
CFT	Combating the Financing of Terrorism
CKO	Centralized Know-Your-Customer Organization
CMR	Cash Margin Requirement
CNIC	Computerized National Identity Card
CNP	Card-Not-Present
CO_2	Carbon Dioxide
COD	Certificate of Deposit
COI	Certificate of Investment

	COVID/ COVID-19	Corona Virus Disease
	CPB	Central Planning Bureau
	CPF	Countering Proliferation Financing
	CPI	Consumer Price Index
	CPPA-G	Central Power Purchasing Agency
	CRI	Climate Risk Index
	CRWA	Credit Risk weighted assets
	CSE	Crisis Simulation Exercise
	CSP	Cloud Service Provider
	CY	Calendar Year
D		
	DAP	Diammonium phosphate
	DFIs	Development Finance Institutions
	DPC	Deposit Protection Corporation
	DPS	Domestic Payment Scheme
	D-SIB	Domestic Systemically Important Bank
	DTL	Distributed Ledger Technology
	DTO	Dedicated Takaful Operator
E		
	EAD	Economic Affairs Division
	EBIT	Earnings Before Interest and Taxes
	EC	Exchange Company
	ECB	European Central Bank
	ECL	Expected Credit Loss
	ECM	Exchange Companies Manual
	ECs	Exchange Companies
	EFF	Extended Fund Facility
	E-KYC	Electronic Know Your Customer
	ELA	Emergency Liquidity Assistance
	EMDEs	Emerging Markets and Developing Economies
	EMI	Electronic Money Institution
	ESFCA	Exporters' Special Foreign Currency Account
	EU	European Union
F		
	FDIC	Federal Deposit Insurance Corporation
	FDR	Financing to Deposit Ratio
	FE	Foreign Exchange
	FED	Federal Excise Duty
	FI	Financial Institution
	FMIs	Financial Market Infrastructures
	FSB	Financial Stability Board

	FSD	Financial Stability Department
	FSI	Financial Soundness Indicator
	FSR	Financial Stability Review
	FSVI	Financial Sector Vulnerability Index
	FX	Foreign Exchange
	FY	Fiscal Year
G		
	GCC	Gulf Cooperation Council
	GDP	Gross Domestic Product
	GFC	Global Financial Crisis
	GMSS	Government of Pakistan Mark-up Waiver Subsidy Scheme
	GNPLR	Gross Non-Performing Loan Ratio
	GoP	Government of Pakistan
	GSIB/G-SIB	Global Systemically Important Bank
	GW	Gigawatt
	GWh	Gigawatt hours
H		
	H1	First Half
	H2	Second Half
	HFC	Housing Finance Company
	HFT	Held for Trading
	HTM	Held to Maturity
I		
	IA	Investment Advisor
	IBAN	International Banking Account Number
	IBIs	Islamic Banking Institutions
	ICAAP	Internal Capital Adequacy Assessment Process
	ICR	Interest Coverage Ratio
	IF&RSLF	Interest free Loans and Risk Sharing Mechanism for Landless Farmers
	IFC	Investment Finance Company
	IFRS	International Financial Reporting Standard
	IMF	International Monetary Fund
	IPA	In-Principle Approval
	IRAR	Internal Risk Assessment Reports
	IRF	Interchange Reimbursement Fee
	ISIC	International Standard Industrial Classification
	IT	Information Technology
	ITeS	IT enabled Services
K		
	KIBOR	Karachi Interbank Offer Rate
	KMI-30	KSE Meezan Index-30

	KSE	Karachi Stock Exchange
	kWh	Kilowatt hour
L		
	LCR	Liquidity Coverage Ratio
	LGD	Loss Given Default
	LR	Leverage Ratio
	LSM	Large Scale Manufacturing
	LTFF	Long Term Financing Facility
	LVPS	Large Value Payment System
M		
	MDR	Merchant Discount Rate
	MFB	Microfinance Bank
	MPC	Monetary Policy Committee
	MRWA	Market Risk weighted assets
	MST	Macro Stress Testing
	MTBs	Market Treasury Bills
	MUFAP	Mutual Funds Association of Pakistan
	MWS	Mark-up Waiver Scheme
	MY	Marketing Year
N		
	NADRA	National Database and Registration Authority
	NAV	Net Assets Value
	NBFCs	Non-Banking Finance Companies
	NBFIs	Non-Bank Financial Institutions
	NBMFC	Non-Bank Microfinance Company
	NCCPL	National Clearing Company of Pakistan Limited
	NFSR	Net Stable Funding Ratio
	NIA	National Income Accounts
	NIFT	National Institutional Facilitation Technologies (Private) Limited
	NII	Net Interest Income
	NIM	Net Interest Margin
	NPF	Non-Performing Financing
	NPL	Non-Performing Loans
	NPLR	Non-Performing Loans Ratio
	NSFR	Net Stable Funding Ratio
O		
	OAEM	Other Assets Especially Mentioned
	OD	Over Due
	OMOs	Open Market Operations
	ONR	Overnight Repo Rate
	OPEC+	Organization of the Petroleum Exporting Countries (OPEC) including Russia
	ORR	Obligor Risk Rating

	ORWA	Operational Risk Weighted Assets
	OSS	Operational Self Sufficiency
	OTC	Over The Counter
P		
	P/B	Price-to-Book
	P/E	Price-to-Earnings
	P2M	Person-to-Merchant
	PACRA	Pakistan Credit Rating Agency
	PBA	Pakistan Banks Association
	PBS	Pakistan Bureau of Statistics
	PD	Probability of Default
	PE	Private Equity
	PIB	Pakistan Investment Bond
	PKR	Pakistani Rupee
	PKRV	Pakistan Revaluation Rate
	PMYB	Prime Minister's Youth Business
	POL	Petroleum Oil & Lubricants
	POS	Point of Sale
	PRISM	Pakistan Real-time Interbank Settlement Mechanism
	PSDP	Public Sector Development Program
	PSEFT	The Payment Systems and Electronic Funds Transfer Act 2007
	PSO	Payment System Operator
	PSP	Payment System Provider
	PSW	Pakistan Single Window
	PSX	Pakistan Stock Exchange
	PTF	Participants' Takaful Fund
	PVP	Payment versus Payment
Q		
	Q1	First Quarter
	Q2	Second Quarter
	Q3	Third Quarter
	Q4	Fourth Quarter
	QoQ	Quarter on Quarter
	QR	Quick Response
R		
	RC	Regulatory Capital
	RCG	Regional Consultative Group
	RE	Regulated Entity
	REER	Real Effective Exchange Rate
	REIT	Real Estate Investment Trust
	RHS	Right Hand Side
	RMCs	Real Estate Investment Trust (REIT) Management Companies

ROA	Return on Assets
ROE	Return on Equity
RSA	Rate Sensitive Assets
RSL	Rate Sensitive Liabilities
RTGS	Real Time Gross Settlement System
RTOB	Real Time Online Branch
RTP	Request to Pay
RVPS	Retail Value Payment System
RWAs	Risk Weighted Assets

S

S_0	Baseline Scenario
S_1	Stressed Scenario
SAM	Supervisory Assessment Manual
SBA	Stand-By Arrangement
SBP	State Bank of Pakistan
SECP	Securities and Exchange Commission of Pakistan
SGF	Settlement Guarantee Fund
SHF	Shareholders' Fund
SIB	Systemically Important Bank
SIFC	Special Investment Facilitation Council
SME	Small & Medium Enterprise
SOFR	Secured Overnight Financing Rate
SRS	Systemic Risk Survey
SVB	Silicon Valley Bank

T

TA	Technical Assistance
TAT	Turn-Around Time
TB	Treasury Bill
tCO_2e	Tonnes (t) of Carbon Dioxide (CO_2) Equivalent (e)
TDAT	Trade Data Analytical Tool
TDR	Term Deposit Receipt
TERF	Temporary Economic Refinance Facility
TFC	Term Finance Certificate
TRWA	Total Risk Weighted Assets

U

UBS	Union Bank of Switzerland
UK	United Kingdom
UNISDR	United Nations International Strategy for Disaster Reduction
US/USA	United States of America
USD/US$	Unites States Dollar

V

VAR	Vector Auto-Regressive

	VaR	Value at Risk
	VCs	Virtual Currencies
	VPS	Voluntary Pension Scheme
W		
	WADR	Weighted Average Deposit Rate
	WALR	Weighted Average Lending Rate
	WTO	World Trade Organization
Y		
	YoY	Year on Year