Chapter 3: The Banking Sector

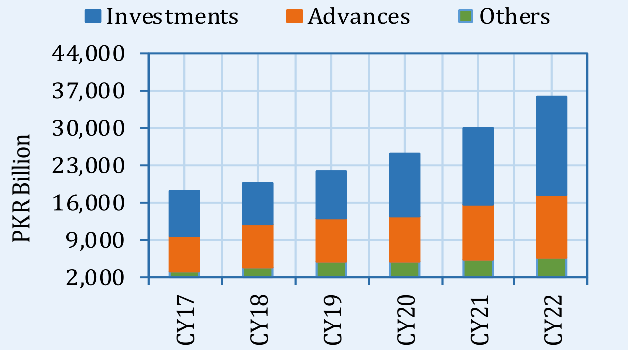
Banking sector stability indicators largely remained stable during CY22, though the overall macroeconomic dynamics portended significant challenges. Asset base of the sector showed steady growth that was mainly supported by investments, as exposure to the public sector increased further. In the wake of slowdown in deposits, banks' reliance on borrowings increased substantially. Earning indicators improved mainly on the back of net interest income, though tax expense significantly increased during CY22. Asset quality indicators manifested no serious concern despite damages due to floods and tighter financial conditions, and banks continued to maintain ample liquidity buffers and complied with the regulatory standards with wide margins. Encouragingly, the solvency position of the sector remained firm as CAR remained well above the minimum standard while the capital impairment ratio was at one of the its lowest levels during the past two decades. Islamic banking segment maintained its higher-than-industry growth momentum and its key FSIs of asset quality, earnings and liquidity showed improvement.

Banking sector posted steady growth mainly on the back of investment in government securities; while its overall risk dynamics largely remained satisfactory during CY22, reliance on borrowings however remained high

Asset base of the banking sector grew by 19.1 percent during CY22 — almost consistent with the 19.6 percent growth observed in last year. Like CY21, investments mainly supported the balance sheet expansion during the year under review, while growth of advances slightly decelerated[55] (**see Chart 3.1**).

It is noteworthy that due to increased borrowing of the government over the last few years, banks' asset composition has consistently shifted away from advances toward investments, which mainly comprise government securities. For instance, in CY18, the share of banks' exposure in investments and advances as a proportion of total assets was almost in balance at around 40 percent each. Afterwards, the share of investments in government paper steadily increased to 51.4 percent by end CY22 while the share of advances declined to 33.0 percent. Specifically, at end CY22, investment in government securities constituted 47.9 percent of banks' asset base (44.3 percent in CY21), while total credit to public sector (investments + loans to public sector enterprises (PSEs)) came to 55.5 percent of the asset base (51.8 percent in Dec-21). This high and growing public sector's exposure has a number of implications for the banking sector including crowding out of private sector credit and re-pricing/revaluation risks, among others.

Chart 3.1: Assets composition of the banking sector (Stocks)

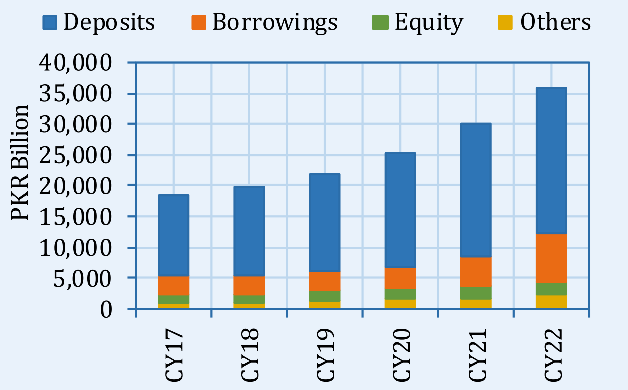


Source: SBP

On the funding side, banks' deposits registered a muted growth of 8.0 percent during CY22– the lowest mobilization rate in the last 7 years. In the wake of robust asset expansion and increased funding gap, banks' reliance on borrowings further increased during CY22 (**see Chart 3.2**).

[55] Investments and advances contributed to assets growth by 12.8 percent and 5.7 percent, respectively.

Chart 3.2: Funding composition of the banking sector (Stocks)



Source: SBP

In tandem with robust asset expansion, profitability surged by 27.4 percent in the reviewed year (8.3 percent growth in CY21), mainly driven by net interest income.

Asset quality dynamics remained favorable as delinquencies were contained and Gross Non-Performing Loans Ratio (GNPLR) moved down to 7.3 percent in CY22 from 7.9 percent a year ago.

Besides, banks' liquidity indicators showed further improvements due to expansion in liquid assets. Banks met the Basel liquidity standards i.e. Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) with wide margins. In addition, interconnectedness of the banking sector notably reduced manifesting banks' efforts to curtail deposits from other banks and financial institutions in order to improve their Advances to Deposits Ratio (ADR).

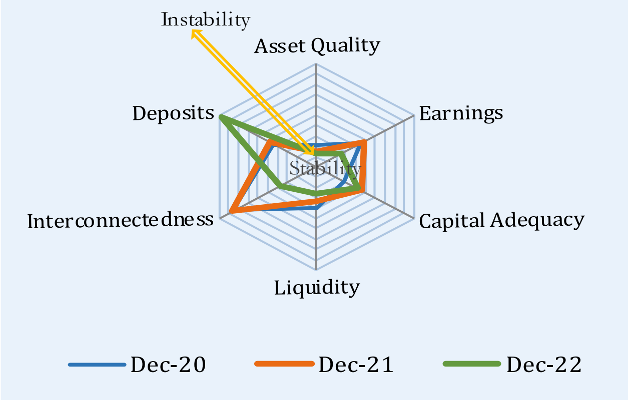
On the solvency front, banks maintained satisfactory loss absorbing capacity on the back of adequate capital base, steady earnings, and low non-performing loans. Capital Adequacy Ratio (CAR) under Basel capital accord-III stood at 17.0 percent that was well above the minimum regulatory requirement of 11.5 percent.

The overall risk profile of the banking sector reveals encouraging improvement in the different risk dimensions. Nonetheless, the sharp slowdown in deposits remained a concern (**Chart 3.3**).

Islamic banking segment maintained growth momentum by expanding 29.6 percent during CY22. Besides contained credit risk, IBIs' earnings rebounded during the year translating into enhanced capital buffers.

Chart 3.3: Banking Sector Stability Map

(Percentile Ranking)

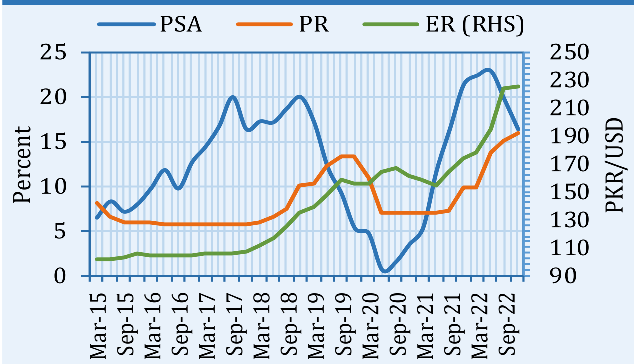


Source: SBP

Growth in private sector advances slowed in the face of unfavorable macroeconomic environment and high credit demand of government, however it remained noticeable ...

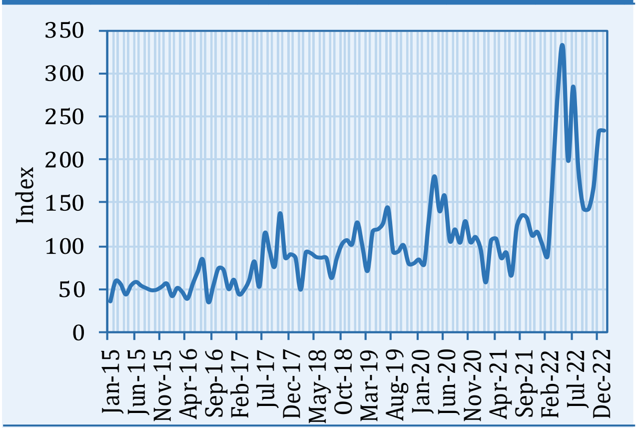
Private Sector Advances (PSA) increased by 16.4 percent during CY22 (21.5 percent in CY21). The strong momentum of PSA which prevailed till Jun-21 gradually began to weaken during H2CY22, as the economic activity slowed down due to macroeconomic stresses and consequent stabilization measures, while the flooding of Q3CY22 further compounded the challenges (**see Chart 3.4**). Specifically, policy rate was raised by 625 bps to 16 percent during CY22, and several policy actions were taken to contain aggregate demand including high bank cash reserve requirement, regulatory tightening of consumer finance, and curtailment of non-essential imports. In addition, PKR witnessed a marked depreciation due to external account pressures and dried up access to external finance, while political dynamics further heightened the uncertainty (**see Chart 3.5).** In this backdrop, Large Scale Manufacturing (LSM) index —after showing strong activity in H1CY22—lost its momentum during H2CY22.[56] Furthermore, Business Confidence Index (BCI)[57] slid to 40 (below the benchmark of 50) by end CY22 (55 in April-22): the lowest level since April-20.

Chart 3.4: Private sector advances, policy rate and exchange rate



Note: PSA represent YoY growth
Source: SBP

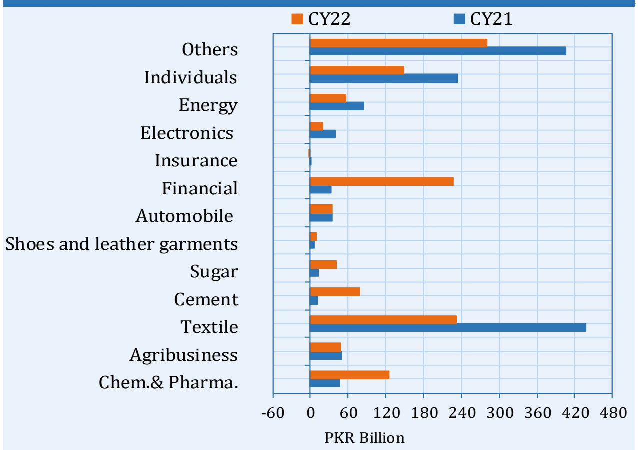
Chart 3.5: Economic policy uncertainty index



Source: SBP

Sector-wise flow of PSA during CY22 indicates that 57 percent of the total fresh advances were availed by the textile, financial, chemicals and pharmaceutical sectors along with individuals. Compared to the previous year, credit off-take by textiles sector remained significantly lower in CY22 reflecting weak global demand and lackluster performance of the domestic economy amid demand-curtailing measures and rising input costs (see **Chart 3.6**). Moreover, the inventory building process of the sector was also affected by the flooding in Q3CY22, which significantly damaged the cotton crop. (see **Global and Domestic Developments in Chapter 1**).[58] Similarly, advances to the energy sector recorded lower growth than the previous year. It appears that payments made to the power sector firms under circular debt settlement arrangements lowered their need for banks' credit. Also, long-term advances of certain firms matured as per schedule.

Chart 3.6: Sector-wise private sector advances flow



Source: SBP

Contrary to textiles and energy sectors, chemicals & pharmaceutical, financial, sugar and cement sectors availed higher financing during the reviewed year. In case of chemicals & pharmaceutical, higher financing flows could be attributed to sharp increase in raw material prices.[59] Impressive rise in advances towards non-bank financial sector indicates banks efforts to shore-up their advances as part of their asset-liability management strategy to improve ADR. In the sugar sector, 33 percent rise in sugarcane support price[60] during CY22 explains the growth in advances to finance the inventory. Firms in cement sector availed notably higher advances

[56] LSM YoY growth averaged -3.8 percent in H2CY22 as compared to 16.0 percent in H1CY22.
[57] BCI value below 50 shows dominance of pessimistic view about economic outlook.
[58] In CY22, textiles exports grew by 11.6 percent as compared to 32.4 percent growth in CY21.
[59] WPI increased, on average, by 31.1 percent in CY22 against 16.3 percent in CY21.
[60] Support price for sugarcane was fixed at PKR300 per maund in 2022 from PKR 225 in 2021.

owing to both increased input prices and capital investments.

Segment-wise analysis of PSAs reflects that the corporate sector remained the major user of bank finance. During the year under review, corporate sector took significant advances for working capital needs reflecting a mix of strong economic activity especially in the first half of CY22 and fast increase in input prices over the year. On the other hand, long-term advances of the corporate sector also increased during CY22, as a little over 25 percent of the additional loans were taken under SBP's concessionary refinance schemes i.e. Temporary Economic Refinance Facility (TERF) and Long Term Financing Facility (LTFF) together. The remaining long-term advances provided from banks' own sources partly manifested the impact of PKR depreciation on financing of import LCs of capital goods.

Table 3.1: Segment-wise private sector advances (stocks)

PKR Billion	Dec-20	Dec-21	Dec-22
Corporate Sector:	4,818	5,869	6,956
Fixed Investment	1,912	2,277	2,695
Working Capital	**1,742**	**2,106**	**2,703**
Trade Finance	1,164	1,486	1,558
SMEs:	**452**	**511**	**524**
Fixed Investment	104	125	139
Working Capital	308	345	347
Trade Finance	40	41	38
Agriculture	336	398	442
Consumer Finance:	**626**	**810**	**889**
Credit Cards	**51**	65	86
Auto Loans	258	351	333
Consumer Durable	1	2	1
Mortgage Loan	86	**144**	**215**
Other personal Loans	229	248	254
Commodity Financing	108	116	145
Staff Loans	**164**	**198**	**243**
Housing Finance	129	152	186
Others than housing finance	**34**	**46**	**57**
Others	**4**	**2**	**1**
Total	**6,508**	**7,904**	**9,201**

Note: These advances represent lending to domestic private sector

Source: SBP

Unlike fixed investment and working capital advances, trade financing flows remained low due to reduced demand for trade credit in the wake of slowdown in imports and foreign trade.

SMEs have a relatively small share in banks' overall loan portfolio. During the reviewed year, growth in credit to SMEs remained lower than last year. This year the anemic growth in lending to SMEs was mainly driven by long-term financing. A government sponsored finance scheme i.e. Prime Minister's Kamyab Jawan Youth Entrepreneurship Scheme significantly augmented the flow of long-term financing to SMEs over the last couple of years. Since this scheme was temporarily suspended in the mid of CY22,[61] the growth in long-term financing to SMEs slightly moderated. On the other hand, working capital finance posted only a slight uptick despite increase in input prices. This indicates that in the face of rising interest rate and a slowdown in economic activity, the supply and demand of SME credit was affected: banks adopted a risk averse strategy whereas the SMEs reduced their reliance on bank credit.

Consumer financing also slowed down and its share in overall private sector loan portfolio of banks almost remained stable at 7.5 percent. The slowdown was mainly contributed by net retirement in auto financing, reflecting the impact of SBP macro-prudential measures which, inter alia, shortened the term of auto loans, reduced the loan-to-value ratio, and increased the requirement in respect of debt-servicing capacity. Moreover, auto industry faced marked reduction in production and sales of automobiles due to external account pressures and significant increase in prices of automobiles. However, mortgage financing kept the growth momentum under enabling policy environment and got traction from government sponsored refinance

[61] The scheme was launched by the Government in July 2019 in order to provide self-employment opportunities to unemployed youth by offering subsidized loans. The scheme was put on hold from July 01, 2022 and was re-introduced with certain amendments on December 12, 2022.

scheme[62] although the latter was suspended in CY22. (**Table 3.1**)

Public sector advances increased by PKR 454.7 billion to PKR 2,719 billion during CY22 (against PKR 274.6 billion increase in CY21). The government borrowed PKR 240.8 billion for commodity operations—notably higher than the previous year's borrowing of PKR 149.0 billion. This increase was due to substantial uptake in wheat financing driven by noticeable rise in minimum support price and higher wheat imports during CY22.[63]

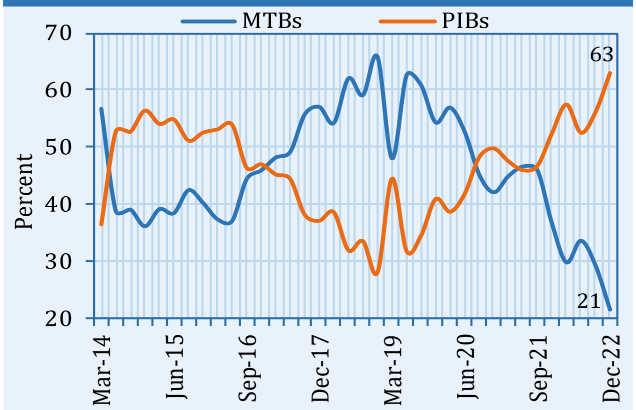
However, investments observed robust growth as government's demand for bank credit remained high…

Investment portfolio of the banks surged by 26.4 percent during CY22 to PKR 18,400 billion. Government securities, which constitute 92.7 percent of total investments, posted a strong growth of 28.8 percent. On the other hand, equity stock and private sector bonds registered a muted growth in the backdrop of lackluster performance of capital market, and their share in total investment lowered to 1.2 percent and 6.2 percent at the end of CY22 from 1.5 percent and 7.5 percent in CY21, respectively.,.

Detailed analysis shows that investments in MTBs declined by 24.5 percent to PKR 3,682 billion while investments in PIBS substantially increased by 54.8 percent to PKR 10,820 billion. However, as the banks mainly focused on floating rate bonds, the share of banks' investments in floating rate PIBs (in total holding of Government securities) increased to 49.5 percent from 38.1 percent in CY21. Similarly, investments in Ijara Sukuk also increased by 82.8 percent to PKR 2,642.9 billion during the reviewed period.

It is noteworthy that since CY19, banks' exposure in short-term MTBs has been consistently ebbing while rising in the long-term bonds i.e. PIBs (**Chart 3.7**). This trend was particularly supported by the introduction of floating-rate PIBs which improves debt profile and mitigates rollover risk for the government and lowers interest rate risks for banks – though having implications for government's financing costs in a rising interest rate scenario.[64]

Chart 3.7: Percent share of MTBs and PIBs in total Govt securities



Source: SBP

A detailed analysis shows that banks' preferences for different government securities changed over the year under review, in line with the dynamics of macro financial conditions. For instance, offered-to-target ratio in the auctions of MTBs remained at 1.7 times both in H1CY22 and H2CY22. However, banks showed increased interest in the auctions of fixed-rate PIBs during H1CY22 as offer-to-target ratio was high at 5.6 times, then came down to 2.9 times in the second half. Banks' abated interest in fixed-rate PIBs in H2CY22 indicates their expectations of rise in interest rates that entails potential for revaluation losses.[65] The offered-to-target ratio for the

[62] The scheme Mera Pakistan Mera Ghar (MPMG) enables banks to provide financing for the construction and purchase of houses at very low financing rates for low- to middle-income segments of the population. However, the scheme was put on hold on June 30, 2022. Please see IH&SMEFD Circular No. 09 of 2022.

[63] Wheat support price increased to PKR 2,200 per 40KG in 2022 from PKR 1,800 per 40KG in 2021. Moreover, 3 million MT of wheat was imported in CY22 against 2.2 million MT in CY21.

[64] Mark-up payments accounted for 51.6 percent of total revenue for Jul-Mar FY23. (Source: Ministry of Finance)

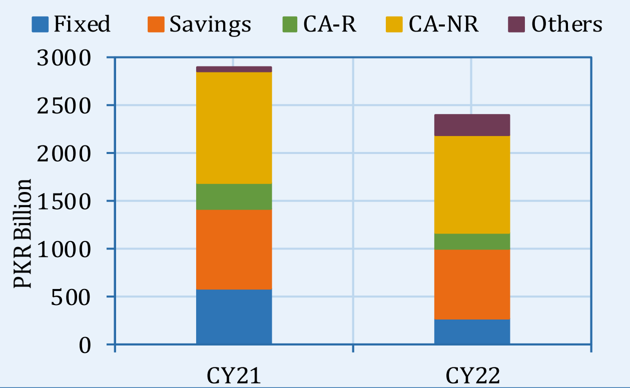
[65] Banks' revaluation losses on Federal Government securities increased to PKR 235.8 billion by end Dec-22 from PKR 70.9 billion at end Dec-21.

floating-rate bonds increased from 1.8 times in H1CY22 to 3.6 times in second half.

Deposits' growth observed notable deceleration…

Banking sector's deposits growth decelerated to 8.0 percent in CY22—down from 17.3 percent growth in previous year. A detailed analysis shows that customers' deposits, which form around 96.3 percent of total deposits, grew by 11.9 percent (compared to 16.8 percent in the last year). Within customers' deposits, marked weakening was recorded in the growth of fixed deposits – as banks strategized to lower the share of high return deposits in the funding base – followed by current and savings accounts (**Chart 3.8**). On the other hand, financial institutions' deposits contracted by PKR 662.4 billion as compared to growth of PKR 292.4 billion in CY21.

Chart 3.8: Customers' deposits flow



CA= Current Account; R= Remunerative; NR= Non-Remunerative; Source: SBP

Further analysis reveals that deposits growth during the first three quarters of CY22 remained strong at 15.7 percent, however, it dipped to 8.0 percent in Q4CY22, dampening growth numbers for the entire year.

Deposit mobilization observed a considerable deceleration owing to multiple factors. A general slowdown in domestic economic activity and home remittances[66] coupled with high inflation affected the depositors' capacity to save. Banks' incentive to enhance deposit mobilization and ALM strategy could also have been affected by the ADR-linked tax policy, which envisaged higher taxation on income from government securities for banks having lower ADR.[67] Further, muted demand for credit due to stressful macroeconomic conditions coupled with government's borrowing for budgetary needs further constrained the banks' ability to increase loan portfolio in prudent manners which resulted in a slow growth in deposit (i.e., the multiplier effect).

In the face of uncertainties and external account pressures, FX deposits declined by USD 1,182 million to USD 6,470 million in CY22 against a decline of USD 121 million in CY21.

Consequently, banks' reliance on borrowings further increased…

In the wake of growing funding gaps due to asset expansion and slowdown in deposits, banks' reliance on borrowings, especially from SBP, significantly increased over the year to PKR 7,845 billion. With an additional borrowing of PKR 3,107.1 billion during the year, the borrowings supported 21.9 percent of assets by the end CY22 (up from 15.8 percent in CY21). Borrowing from SBP dominated the overall borrowings (with 82.5 percent share), while inter-bank repo and call borrowings at the end of CY22 were lower than their last year's level by PKR 555.2 billion and PKR 49.4 billion, respectively.

Banks' profitability improved mainly on the back of increased interest income, however sharp rise in income tax charges contained the bottom line indicators

Pre-tax profit of the banking sector increased by 55.8 percent during the year to PKR 703.0 billion

[66] Remittances contracted by 4.8 percent during CY22.
[67] 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 has further enhanced these rates, that is, for tax year 2023 and onwards, tax rates will 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 has been withdrawn for tax year 2024. Source: S.R.O 226 (I)/2023.

(**Table 3.2**). The year was marked by a sharp tightening in monetary policy which drove-up interest income as the increases in policy rate continued to translate into prices of banks' earning assets.

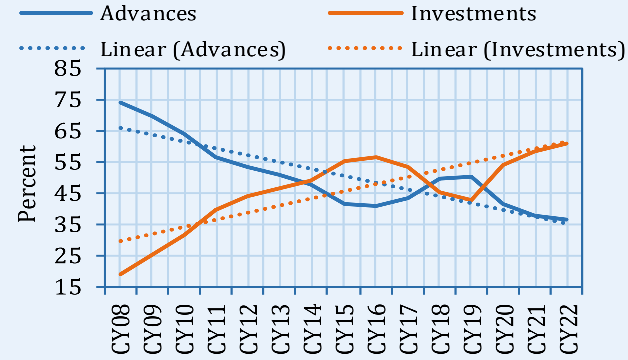
Table 3.2: Profit and Loss Statement

PKR Billion	CY21	CY22	YoY Growth
Mark-Up/ Return/Interest Earned	1,832	3,420	87
Mark-Up/ Return/Interest Expenses	993	2,243	126
Net Mark-Up / Interest Income	**839**	**1,177**	**40**
Provisions & Bad Debts Written Off Directly/(Reversals)	50	59	17
Net Mark-Up / Interest Income After Provision	**789**	**1,119**	**42**
Fees, Commission & Brokerage Income	143	173	21
Dividend Income	18	22	20
Income From Dealing In Foreign Currencies	35	80	132
Other Income	43	23	(46)
Total Non - Markup / Interest Income	**239**	**298**	**25**
Total Income	1,027	1,417	38
Administrative Expenses	565	705	25
Other Expenses	11	10	(13)
Total Non-Markup/Interest Expenses	**576**	**714**	**24**
Profit before Tax and Extra ordinary Items	451	703	56
PROFIT/ (LOSS) BEFORE TAXATION	**451**	**703**	**56**
Taxation/ (Reversal, Benefit)	187	367	96
PROFIT/ (LOSS) AFTER TAX	**264**	**336**	**27**

Source: SBP

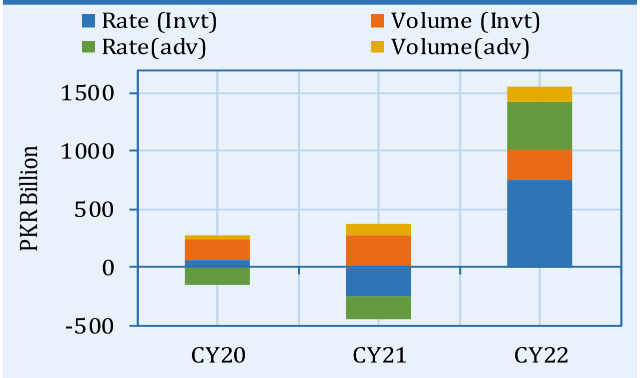
Besides increase in interest rates, expansion in the volume of earning assets also augmented the interest income which grew by 86.7 percent in CY22 (decline of 4.8 percent in CY21). Importantly, share of interest income from investments has been increasing over time in line with increase in banks' holding of government securities (**Chart 3.9**). Since the increase in policy rate translates onto savings deposits relatively earlier than on assets which are repriced according to their respective contractual maturity or repricing date, the growth in interest expense was higher i.e. 126.0 percent, as the funding base (deposits plus borrowings) also grew over the year. Accordingly, the net interest income (NII) grew by 40.3 percent in CY22 (1.6 percent decline in CY21). Detailed analysis shows that change in NII was mainly driven by increase in rates while growth in volume of assets and liabilities also contributed to the growth of income and expense, respectively **(Chart 3.10A and 10B)**.

Chart 3.9: Percent share of interest income from investments and advances in total interest income



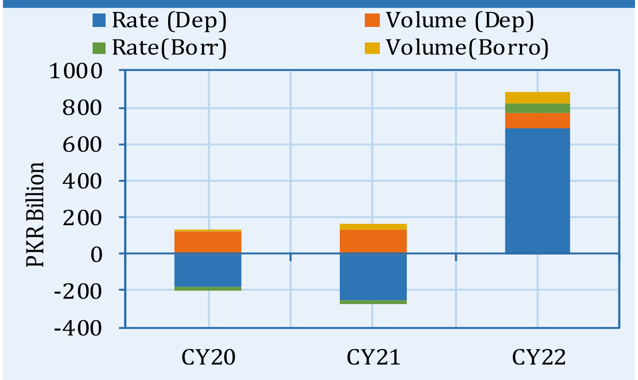
Source: SBP

Chart 3.10A: YoY change in earnings on investments and advances -Impact of Rate vs. Volume



Source: SBP

Chart 3.10B: YoY change in interest expense on deposits and borrowings- Impact of Rate vs. Volume



Source: SBP

Besides NII, Non-interest income also observed a noticeable rise (**Table 3.2**). Fee and commission incomes, which constitutes major part of banks' non-interest income, increased by 21.2 percent during CY22. However, income from dealing in FX particularly posted substantial growth as the FX market witnessed significant volatility due to demand-supply gaps. Nevertheless, banks on average remained short on their net open position (NOP), hence exposed to the risk of depreciation in PKR. The, trading gains on sale of securities remained low i.e. PKR 1.5 billion due to lackluster performance of capital market and significant increase in interest rates which adversely affected the valuations.

The non-interest expenses of the sector rebounded during CY22, growing by 23.9 percent. This reflected the impact of marked expansion in branch network as well as inflation. In CY22, banks added 769 new branches in their network; it was the largest expansion after CY15. In the backdrop of relatively higher growth in incomes vis-à-vis the rise in expenses, cost to income ratio moved down to 48.4 percent as compared to 53.5 percent in last year.

It deserves an emphasis that growth in pre-tax profit i.e. 55.8 percent was highest in previous 13 years, however, due to sharp rise in tax expenses after-tax earnings grew by 27.4 percent. The tax expenses surged significantly during CY22 – reaching 52.1 percent of pre-tax profit (41.4 percent in CY21).

Accordingly, bottom line indicators of Return on Assets (ROA-after tax) with a fractional improvement remained stable at 1.0 percent (0.96 percent in CY21) and Return on Equity (ROE-after tax) inched-up to 16.9 percent (14.0 percent in CY21).

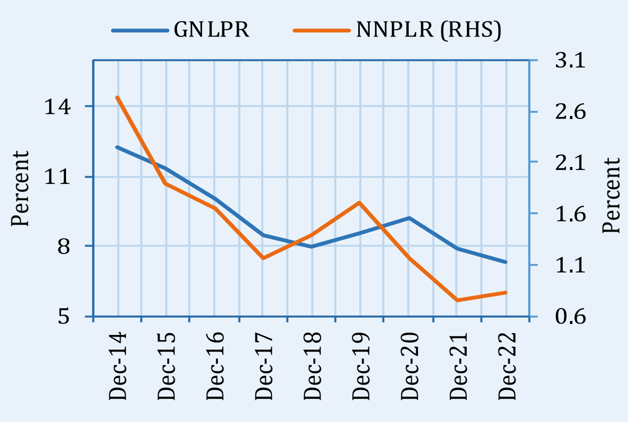
Credit Risk

Credit risk dynamics in terms of asset quality indicators largely remained encouraging, though macroeconomic dynamics deteriorated over the year

Credit risk is the primary financial risk faced by the banking sector, accounting for around 80 percent of the regulatory capital requirements of the sector.[68] The asset quality indicators showed improvement during CY22. Stock of NPLs increased by PKR 63.8 billion (7.4 percent) to PKR 924.0 billion, however relatively stronger growth in advances led to decline in gross non-performing loans ratio (GNPLR) to 7.3 percent from 7.9 percent last year (**Chart 3.11**).

As banks adequately provided for the fresh NPLs, overall provisioning coverage ratio remained almost stable at 89.5 percent and Net Non-Performing Loans Ratio (NNPLR) slightly inched-up to 0.82 percent by end Dec-22 (0.74 percent at end Dec-21) – still remaining at one of the lowest levels of last two decades. Accordingly, capital impairment ratio (net NPLs to capital) with slight deterioration to 4.6 percent (4.0 percent in last year) remained contained, indicating relatively low risk to the solvency of the banking sector from the delinquent loan portfolio.

Chart 3.11: Asset quality indicators



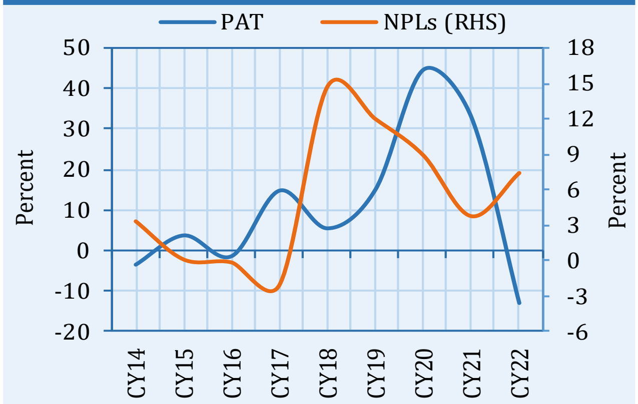
Source: SBP

[68] The other two risks, market and operational risk, account for 4.9 percent and 17 percent of the capital requirements, respectively at end Dec-22.

Challenging macroeconomic conditions indicated increase in credit risk; however, borrowers generally continued to service their financial obligations smoothly ...

One of the key determinants of credit risk is the macroeconomic conditions, which significantly deteriorated over the reviewed year and affected the performance of non-financial corporations—the major users of bank credit. SBP's assessment of select firms shows that profitability of these firms declined (YoY) by 12.8 percent in CY22 as compared to 32.8 percent growth (YoY) in last year **(Chart 3.12)**. Consequently, their repayment capacity weakened as interest coverage ratio (ICR)[69] declined over the year but still remained in comfortable range (**see Chapter 7**). Nevertheless, steady financial standing of the corporate sector, which was also buttressed by last year's strong performance, enabled them to serve their financial obligations in orderly manner and delinquencies remained contained during CY22.

Chart 3.12: Corporates profitability and NPLs growth

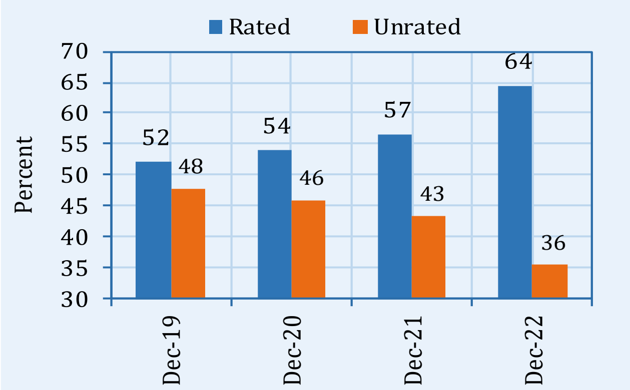


Source: SBP

Banks follow a relatively cautious and risk-averse approach in their lending strategy...

It is noteworthy that banks have been preferring the rated corporate borrowers especially the ones with better credit worthiness and established track record in business. Particularly, rated exposures observed a significant increase during CY22 (**Chart 3.13**), reflecting cautious approach of the banks in the wake of unfavorable economic conditions. This view is strengthened from disaggregated analysis showing that even within rated borrowers, banks increasingly preferred to lend to the borrowers having better credit worthiness (**Table 3.3**).

Chart 3.13: Banks' rated and unrated lending exposure



Source: SBP

Table 3.3: Percent share of banks' rated exposure against credit risk weights

	Dec-19	Dec-20	Dec-21	Dec-22
20%	41	42	41	48
50%	49	48	52	47
100%	10	10	7	6
150%	0	0	0	0

Source: SBP

NPLs flow during CY22 was mainly driven by overseas operations and textile sector ...

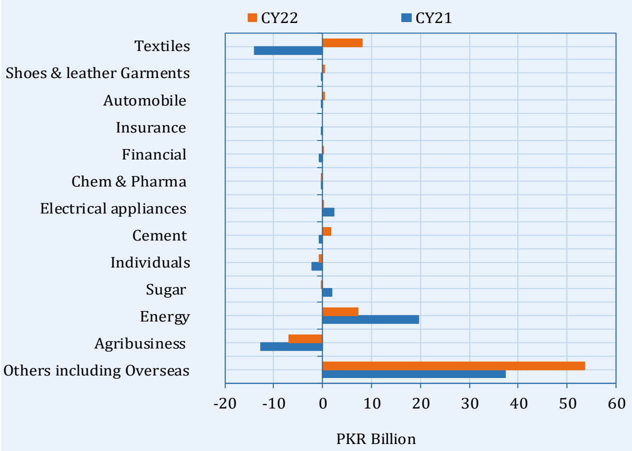
Detailed analysis shows that more than 85 percent of the growth in NPLs during CY22 pertained to banks' overseas branch operations[70] (**Chart 3.14**). Within overseas NPLs, deprecation in exchange rate was the key reason for increase in PKR value of foreign currency denominated NPLs.[71]

[69] ICR = EBIT/Financial Expenses.

[70] On outstanding basis, overseas NPLs represent 21.6 percent of total NPLs as of end Dec-22.

[71] When local currency depreciates against USD, overseas NPLs value in PKR terms also rises.

Chart 3.14: Sector-wise flow of NPLs



Source: SBP

In addition, textile sector – which constitutes 18 percent of total NPLs – observed a rise in NPLs during CY22 against a substantial contraction in previous year. This was due to the economic slowdown in the export markets as well as high interest rates prevailing in the domestic economy, which dented repayment capacity of a few borrowers in the textile sector. NPLs of agriculture sector continued to decline; however, decline in this year remained slightly lower than last year, as the catastrophic flooding in a large part of the country adversely impacted the income and wealth of agriculture sector's borrowers in those regions.

In the energy sector – with 9 percent share in total NPLs –the infection remained contained as last year's rise was mainly due to firm specific issues.[72]

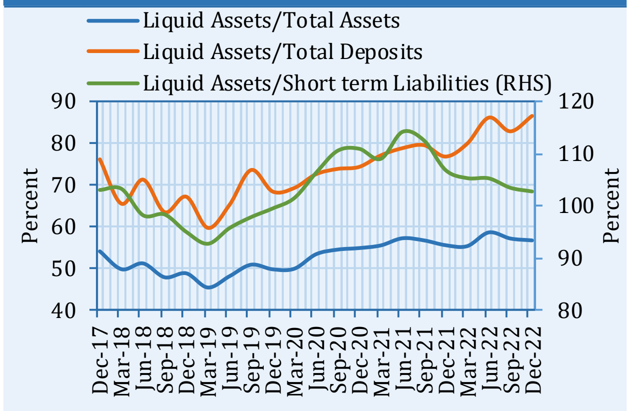
NPLs in consumer finance portfolio increased by around PKR 2 billion. The major increase was observed in personal loans category (by PKR 1.1 billion) followed by mortgage loans (by PKR 793 million) and auto NPLs (PKR 361 million). Repayment capacity of households and asset quality of consumer finance are relatively more prone to monetary tightening and deterioration in economic conditions**.** However, it is important to note that major part of banks' consumer finance is backed by assets i.e. auto and mortgage constituting 37.1 percent and 24.5 percent of total consumer finance portfolio, respectively. The recent increase in auto prices and low markup rates on mortgage loans as financed through SBP refinance scheme bode well for asset quality of this secured portfolio.

Liquidity Risk

Core balance sheet indicators manifested comfortable liquidity position of banks ...

Analysis reveals that due to significant increase in holding of risk-free, readily marketable government securities, liquid assets to total assets and total deposits ratios further improved in CY22 (**Chart 3.15)**. On the other hand, liquid assets to short-term liabilities ratio showed steady decline over the last two years. as banks' reliance on borrowings increased and they focused more on mobilization of current account deposits vis-à-vis remunerative deposits in the wake of rise in interest rates; however the ratio still remained at high level at end CY22.

Chart 3.15.: Trend in liquidity indicators



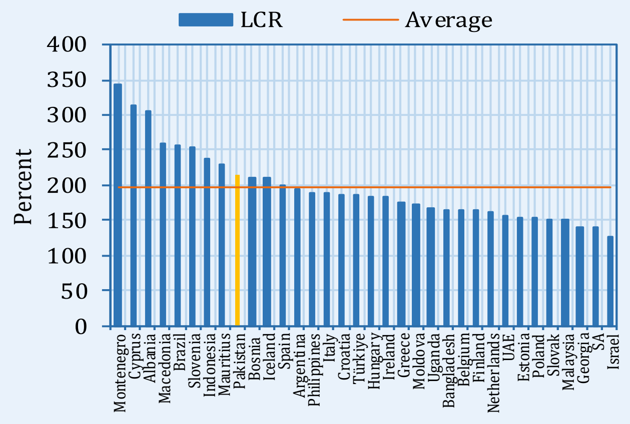
Source: SBP

Importantly, the banking sector complied with both statutory liquidity requirements and Basel liquidity standards with wide margins. Specifically, LCR and NFSR stood at 215.5 percent and 166.0 percent, respectively, at end Dec-22 — well above the required level of 100 percent. Cross country comparison indicates that high income countries on average maintained LCR at

[72] In CY21, NPLs of an oil marketing company mainly drove-up energy sector NPLs.

184.0 percent in CY22 while it was at 209.9 percent in case of EMDEs. This phenomenon shows that contrary to AEs, banks in EMDEs have less avenues to invest other than government securities. Also, relatively high economic uncertainty in developing markets made banks to prefer risk free instruments over private sector lending. **Chart 3.16** shows that Pakistan falls in top 10 of select countries in terms of LCR.

Chart 3.16: LCR of selected countries in 2022



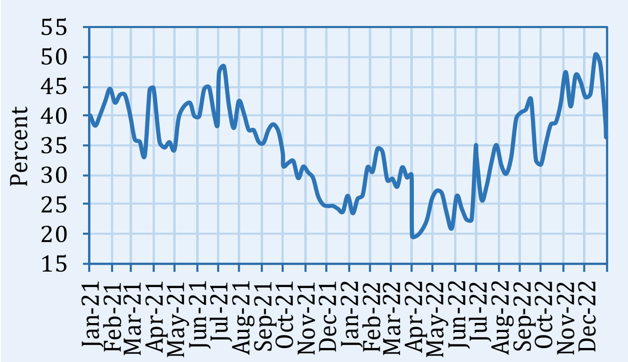
Source: IMF

It is also noteworthy that in 2019, average LCR of selected countries[73] stood at 176.0 percent but increased to 210.3 percent in 2020 revealing the rise in governments' debt levels in the wake of pandemic related fiscal measures.

However, market conditions showed significant liquidity pressures as deposit growth and interbank activity remained low vis-à-vis high credit demand, especially from the government.

In the wake of persistently higher government borrowing[74,75] from the banks (**Chart 3.17**) and noticeable private sector credit demand particularly during H1CY22, liquidity conditions in the market remained tight as growth in deposits also remained low. This was also reflected in elevated positive spread between overnight rate and policy rate that prevailed in most of the period during CY22 (see **section on Money Market in Chapter 2**). Accordingly, the volume and frequency of banks' usage of SBP's standing facility (discount window) increased during CY22.[76] Banks availed financing of around PKR 4,869.3 billion in aggregate during CY22 which is the highest for the last 12 years., The frequency of this borrowing also remained high; there were 85 days (against 53 days in CY21)on which banks availed such financing (**Chart 3.18**). Moreover, the total number of times banks accessed standing facility for funding during CY22 was 197 (highest since CY14) as compared to 117 times in CY21.

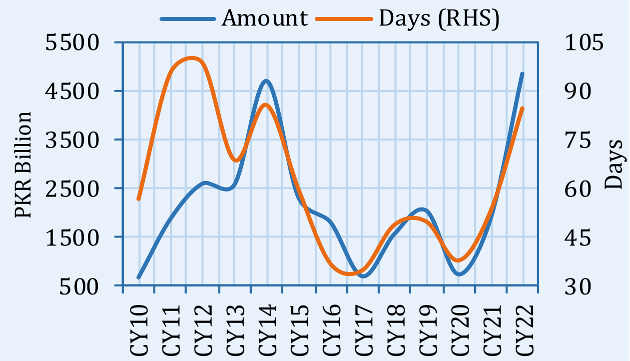
Chart 3.17: Govt budgetary borrowing from banks (YoY growth)



Source: SBP

[73] 12 countries including AEs and EMDEs.
[74] Government borrowed PKR 3,359.5 billion in the reviewed year as compared to PKR 2,082.7 billion in CY21. On a weekly average basis, Government borrowing stocks remained at PKR 12.6 trillion during CY22 against PKR 9.5 trillion in CY21.
[75] None of the bids were rejected in MTBs auctions during CY22 as compared to 17 rejections[75] in CY21.
[76] At times of liquidity shortage, scheduled banks, PDs and DFIs can access SBP Reverse repo facility to borrow funds (against eligible collateral) from SBP on overnight basis to meet their liquidity requirement.

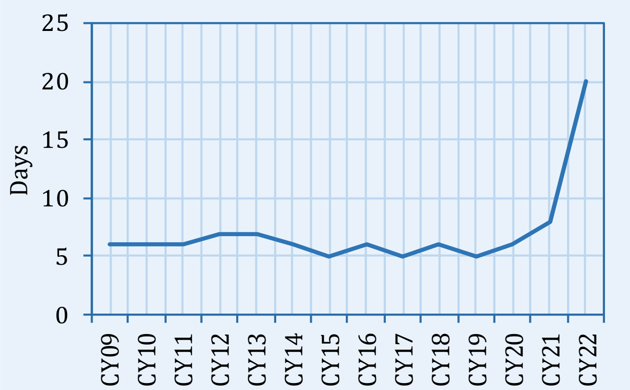
Chart 3.18: Banks' borrowings under ceiling facility and number of days



Source: SBP

In this backdrop, to keep the interest rates within the policy bound and ensure smooth functioning of inter-b the money market, SBP enhanced the frequency and quantum of OMOs' injections and also introduced longer-term OMOs (**Chart 3.19**).[77] CY22 observed PKR 85,791 billion worth of OMOs' injections—second highest during the past 13 years[78]— and the outstanding stock of SBP's lending (OMOs' injections) to banking sector increased to 13.2 percent (of total assets) at end Dec-22 from 5.6 percent a year ago.

Chart 3.19: Average OMOs injections tenor



Source: SBP

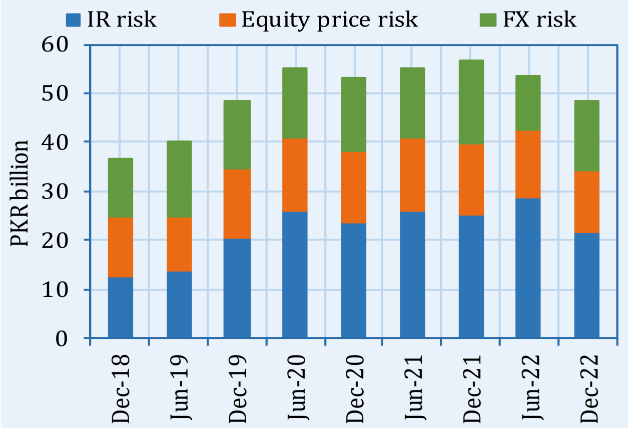
Market Risk

In terms of capital charge, market risk accounts of for only 4.9 percent of overall regulatory capital requirements of banks. This low level of capital requirements signifies contained exposure of banks in FX and equity stocks, while investment in fixed-income securities largely comprises high-quality instruments involving relatively lower capital charge for interest rate risk.

Interest rate risk has become important for banks due to sharp increase in holding of government securities and changing dynamics of funding sources …

Interest rate risk is the leading component of banks' market risk (see **Chart 3.20**). Over the last couple of years its significance has particularly increased as policy rate changed significantly and banks' aggregate investments surpassed half of the asset base by end Dec-22,[79] while most of the banks' investment to asset ratios fall between 40 to 60 percent.

Chart 3.20: Capital charge for market risks



Source: SBP

Recent turmoil in the US banking sector highlights that repricing gaps between rate sensitive assets (RSAs) and liabilities (RSLs) and greater sensitivity of investments to interest rate changes can have implications for banks' financial standing

[77] On December 17, 2021, SBP started first lengthy OMOs injection that had maturity of 63 days. The lengthiest injection involved 77 days conducted on June 24, 2022.

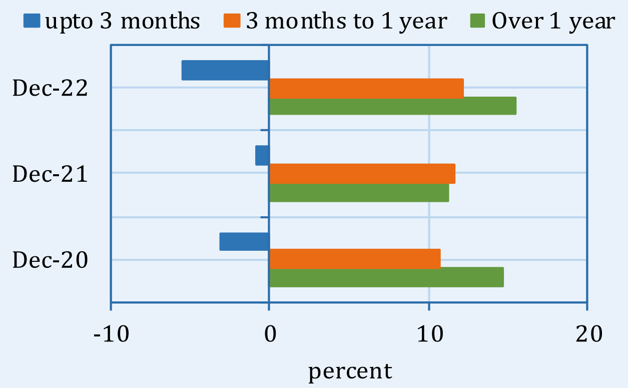
[78] In CY21, OMOs' injections amounted to PKR 104 trillion, highest in 13 years. However, average maturity in CY21 was 8 days.

[79] Investment to assets ratio rose to 51.7 percent by end Dec-22 from 48.7 percent at end Dec-21.

especially in the context of sharp rise in interest rates.

Domestic banking sector's increased reliance on borrowings towards the end of CY22 led to an expansion in gaps between RSLs and RSAs for up to 3-month maturities bucket (**Chart 3.21**). However, relatively low gaps, indicated contained sensitivity of NII to changes in interest rate.

Chart 3.21: Gap (RSA-RSL) as percent of total Assets



Source: SBP

Lower interest rate sensitivity of investments and improved capital cushions enabled the banking sector to withstand sharp increase in interest rates…

The increased proportion of short-term and floating rate instruments (i.e. MTBs and floating rate PIBs) helped in reducing the sensitivity of investments to the sharp hike in interest rate during the year under review. Accordingly, the regulatory capital charge for interest rate risk came down despite significant increase in the stock of government securities.

Due to a hefty increase in banks' exposure in government securities and rise in interest rates, overall revaluation deficit on government securities rose to PKR 235.8 billion by end Dec-22 from PKR 70.9 billion at end Dec-21 (compared to surplus of PKR 45.0 billion at end Dec-20).[80]

Nevertheless, adequate capital cushions that were also augmented by growth in NII and earnings, which enabled the sector to withstand the impact of revaluation losses. The latest sensitivity (stress testing) results based on Dec-22 data also suggest that the banking sector in general has adequate resilience against interest rate risk (see **Table 3.4**).

Table 3.4: Stress Testing Results of the Banking System

Position based as December 2022 (Un-audited)

Shock Details			Number of Banks with CAR*			
			< 0%	0% - 8%	8% - 11.50%	> 11.5%
Pre-Shock Position			3	1	0	28
Market Shocks			< 0%	0% - 8%	8% - 11.50%	> 11.50%
IR-1	Parallel upward shift in the yield curve - increase in interest rates by 300 basis points along all the maturities.	Hypothetical	4	0	0	28
IR-2	Upward shift coupled with steepening of the yield curve by increasing the interest rates along 3m, 6m, 1y, 3y, 5y and 10y maturities equivalent to the historical maximum quarterly increase.	Historical	4	0	0	28
IR-3	Downward Shift plus flattening of the yield curve by decreasing the interest rates along 3m, 6m, 1y, 3y, 5y and 10y maturities equivalent to the historical maximum quarterly increase.	Historical	3	0	1	28
IR-4	Impact of Increase in interest rate by 100bps on investment portfolio only	Hypothetical	3	1	0	28
ER-1	Depreciation of Pak Rupee exchange rate by 30%.	Hypothetical	3	1	0	28
ER-2	Depreciation of Pak Rupee exchange rate by 15.9% equivalent to the historical quarterly highest depreciation of rupee against dollar.	Historical	3	1	0	28
ER-3	Appreciation of Pak Rupee exchange rate by 7.0% equivalent to the historical quarterly highest level of appreciation of rupee against dollar .	Historical	3	1	0	28
EQ-1	Fall in general equity prices by 41.4% equivalent to maximum decline in the index.	Historical	3	1	0	28
EQ-2	Fall in general equity prices by 50%.	Hypothetical	3	1	0	28

Source: SBP

FX risks emanated from external account pressures and uncertainties; however, banks' exposure and sensitivity to FX risk remained contained.

Exchange rate volatility peaked in April 2022 in response to weakness in the external sector of the economy, rising inflationary pressures and heightened uncertainties. The PKR depreciated by 22.0 percent in CY22 against USD (9.4 percent deprecation in CY21).

In line with conservative Foreign Exchange Exposure Limit (FEEL) prescribed by SBP, banks follow a cautious approach in managing their exposure to FX risks. Accordingly, the FX risk weighted assets decreased during CY22 (see **chart 3.20**). Furthermore, banks maintained sufficient resilience in terms of capital cushions to withstand large FX shocks, as also evident from

[80] Banks hold around 86 percent of the investment portfolio in Available for sale and Held for trading categories at end Dec-22.

the results of latest stress testing exercise (see **Table 3.4**).

Banks showed strong resilience against adverse movements in equity prices mainly due to limited exposure...

The domestic equity market exhibited lackluster performance on the back of tightening cycle of monetary policy and a challenging macroeconomic environment. The benchmark equity index (KSE-100 index) fell 9.4 percent over the year to 40,420 points. On seven instances, KSE-100 index fell more than 1,000 points in a day during CY22; almost all in H1CY22, when the uncertainties brought significant volatility in equity prices (for details see the **section on Equity market in Chapter 2**). However, the volatility in equity market did not pose any stability concerns for the banking sector, as the sector had both limited exposures to equity market and adequate capital cushions to withstand any shocks in equity prices. Investment in equity stocks comprised only a fraction i.e. 1.2 percent of total investments of banks. During the year under review, the net position in equity stock as percent of banks' eligible capital further declined to 6.8 percent (from 7.3 percent at end CY21), suggesting further reduction in risk exposure (**see Chart 3.20**).

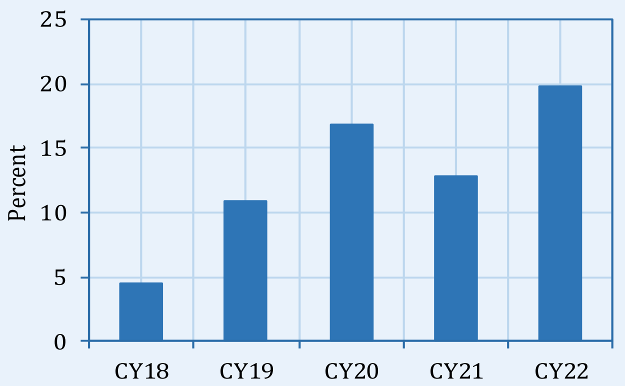
The latest sensitivity (stress testing) analysis for Dec-22 also suggests a strong resilience of banks against adverse movements in stock prices (see **Table 3.4**).

Operational Risk

Growth in capital requirement for Operational Risk rebounded with the growth in incomes along with rise in general banking frauds....

Operational Risk Weighted Assets (ORWA) that represent 17.0 percent of Total Risk Weighted Assets (TRWA) grew by 19.8 percent during CY22 compared to 12.9 percent growth in CY21 (**Chart 3.22**). Rebound in ORWA was driven by strong increase in gross income during the year.[81]

Chart 3.22: Yearly growth in ORWA



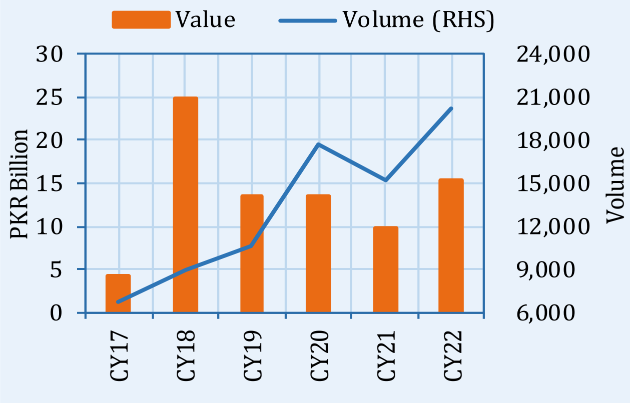
Source: SBP

However, general banking frauds (in terms of volume and value) also increased (**Chart 3.23**). Moreover, information pertaining to digital frauds reveals that such frauds trended upward particularly in the final quarter of CY22 (**Chart 3.24**). It is pertinent to mention that in the wake of increased use of technology and digitization of financial services, cyber and information technology risk has emerged as one of leading risks across the globe. In order to cope with this risk, SBP has introduced a comprehensive regulatory and supervisory framework on cyber security and technology governance. The framework gives necessary guidance and prescribes best principles and minimum standards on key risk areas; the supervisory process proactively monitors the underlying risks and takes corrective actions[82] . Moreover, SBP took a number of measures during CY22 to enhance the resilience against cybersecurity risks (see **Annex-A** on Regulatory and Supervisory Developments).

[81] Most of the banks in Pakistan use the Basic Indicators Approach (BIA) to calculate operational risk capital charge; this approach uses gross income as a proxy for estimating the ORWA.

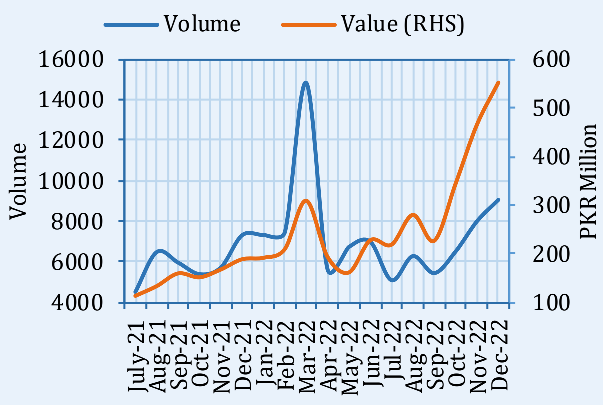
[82] Please see Box 8.1 of FSR 2021 i.e. Cyber Security – Emerging Trends, Challenges and Policy Responses.

Chart 3.23: General banking frauds



Source: SBP

Chart 3.24: Digital frauds in the banking sector



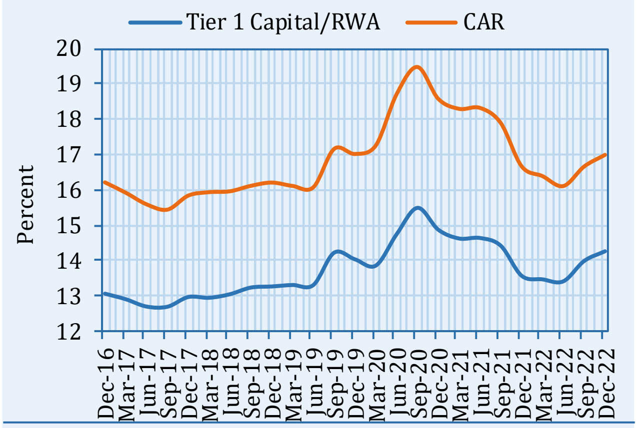
Source: SBP

Solvency

Banks' solvency remained steady on account of improvement in capital adequacy ratio, growth in earnings, and contained delinquencies ...

CAR of the banking sector slightly improved to 17.0 percent by end Dec-22 from 16.7 percent at end Dec-21, as total eligible capital (**TEC**) grew by 11.2 percent in CY22 compared to 9.1 percent growth in total risk weighted assets (TRWA). It is noteworthy that CAR which was trending downward since Dec-20, began to rise again during the reviewed year (**Chart 3.25**). Moreover, the sector's Leverage Ratio remained at 4.0 percent vis-à-vis minimum standard of 3.0 percent.[83]

Chart 3.25: Tier 1 Capital and CAR



Source: SBP

Further analysis of capital reveals that Tier I capital increased by PKR 226.9 billion (compared to PKR 90.6 billion in CY21) and solely pushed-up Eligible Capital while Tier 2 capital declined during the year. The marked increase in Tier I capital was mainly driven by strong increase in retained earnings supported by profits of CY22.

Tier II capital however declined by PKR 13.5 billion (PKR 9.2 billion decline in CY21), mainly due to revaluation losses[84] on AFS securities. These losses reflect the impact of notable rise in yields on government securities and lackluster performance of the capital market in the wake of tightening of monetary policy and economic slowdown in the later part of CY22.

Within TRWA, credit risk weighted assets (CRWA) increased by 8.9 percent — down from 18.0 percent growth in CY21. The sizable deceleration was due to slowdown in lending activities of the banks in the wake of increased macroeconomic stress. Market risk weighted assets (MRWA) observed contraction of 14.4 percent against 6.5 percent increase in previous year.

[83] Leverage Ratio is a non-risk based indictor under Basel III accord. It is a ratio of Tier 1 capital to total on- and off-balance sheet exposures of a bank. Unlike CAR that applied varying risk-weights to exposures, leverage ratio takes all the exposures at face value.

[84] Unrealized losses on AFS pertaining to government securities increased to PKR 235.8 billion at end Dec-22 from PKR 70.9 billion at end Dec-21.

The overall solvency position of the banking sector remained steady as CAR was well above the minimum regulatory requirement of 11.5 percent – supported by a continuous stream of earnings while residual risk from delinquent loans was well contained as the loan infection and capital impairment ratios were at one of the lowest levels of last two decades. Though the prevailing stressed macroeconomic conditions may have implications for asset quality and operating performance of the sector, the results of stress test exercise show that the sector holds adequate resilience to withstand macroeconomic shocks over the projected period of next three years (see **Chapter 4: Resilience of Banking Sector against Adverse Conditions**).