State Bank
of
Pakistan

FINANCIAL STABILITY REVIEW-2018

Financial Stability Review

2018

State Bank of Pakistan

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Governor's Message

The year 2018 remained quite eventful from both global and domestic perspectives. The global economic momentum softened, amid increasing trade tensions and tightening financial conditions. The domestic economy faced various idiosyncratic challenges. The country had to go through uncertainties associated with the political transition in the first half. Afterwards, the widening twin deficits and elevated inflationary pressures necessitated policy measures for stabilization, which, as expected, slowed down the economic momentum. Resultantly, the investors' sentiments remained subdued and financial markets, particularly the foreign exchange and equity markets, observed increased volatility. In response to the market dynamics, the local currency depreciated and the KSE-100 index dipped. The money market, however, operated smoothly by virtue of the interest rate corridor mechanism and improved liquidity conditions.

Amid these challenges, the financial institutions, however, remained sound and facilitated the improvement in financial intermediation. Banks, the key player in the financial sector, carried forward the rising momentum in total loans with 22 percent growth, while maintaining strong solvency and liquidity profiles. Their capital adequacy ratio at 16.2 percent stood well above the international benchmark and the non- performing loans ratio decreased to 8 percent, despite some increase in NPLs during 2018. Moreover, the financial inclusion broadened due to joint efforts of the SBP and its regulated financial institutions. Particularly, to pursue the National Financial Inclusion Strategy, SBP introduced policy measures to enhance financial access to priority areas of SME, Housing and Agriculture, and to promote cross cutting themes of Islamic Banking and Digital Financial Services.

State Bank, in line with its strategic objective of ensuring financial system stability, under "Vision 2020", is closely monitoring global and domestic developments and responding appropriately where necessary. The current Financial Stability Review provides a detailed assessment of the emerging risks and highlights measures taken to beef up the financial sector stability. Among the emerging challenges, SBP stepped up its efforts to strengthen the overall AML/CFT regime and fortified the cyber resilience. In addition, SBP progressed towards Macro-Prudential Policy Framework by introducing regulatory guidelines for the designation of Domestic Systemically Important Banks (DSIBs), improving coordination among financial sector regulators and stepping up efforts for the establishment of an overarching National Financial Stability Council (NFSC).

I hope that the stakeholders would find this report helpful and informative. Any suggestions, comments and feedback are welcome.

Dr. Reza Baqir

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Data Convention and Coverage

The FSR 2018 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.

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:

- Banks (conventional and Islamic), 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.
- Data on Non-Bank Financial Institutions (NBFIs) is based on monthly reports submitted to SECP through Specialized Companies Return System (SCRS).
- Insurance is based on audited and un-audited financial statements for the year ending December 31, 2018.

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

Overview

Introduction:

CY18 has been challenging for the financial sector of Pakistan. The rise in macroeconomic vulnerabilities on external and fiscal fronts necessitated stabilization measures that led to a slowdown in the pace of domestic economic growth. The financial markets have remained volatile and have, generally, trended downwards. However, financial institutions and market infrastructure have largely remained resilient and performed steadily during the year.

On the global front, the economic growth has moderated to 3.6 percent in CY18, after peaking at 3.8 percent a year earlier. This growth is also not broad based as 52 percent of the economies posted growth in CY18 as against 57 percent of the economies a year earlier. The limitations of fiscal and monetary policies to respond to growing challenges, especially the rising trade tensions and geopolitical risks, increased the uncertainty in the global economy. These uncertainties coupled with Fed rate hikes affected the investors' sentiments, which led to capital outflows from EMDEs, including Pakistan. The policy measures adopted by EMDEs in response to these challenges have constrained the economic growth. Though the Fed's announcement to adopt more accommodative monetary policy has allayed some of the concerns, global economic prospects in the short term have been less than favorable and the global economy is expected to further slowdown in 2019 **(See Chapter 1)**.[1]

The domestic economic developments during CY18, though idiosyncratic in nature, influenced the performance and risk profile of the financial system. The macroeconomic vulnerabilities, which started to emerge in CY17, have further intensified in CY18. The rising twin deficits and elevated inflationary pressures have necessitated the adoption of economic stabilization agenda. The consequent measures like monetary tightening, exchange rate adjustments, and fiscal consolidation have affected the economic momentum. After posting a decade high growth of 5.53 percent during FY18, the economic growth has tapered off to 3.29 percent in FY19.[2] The Large Scale Manufacturing (LSM) has also contracted by 3.64 percent during FY19,[3] while the annual average inflation has also jumped to 7.3 percent during FY19.[4] Shrinking current account deficit remains the key improvement that has come at the back of various regulatory measures and an increase in the level of workers' remittances **(See Chapter 1)**.

The tightening domestic financial conditions along with rising uncertainty among the market participants have put the financial markets under stress.[5] The bearish trend in the equity markets has accentuated risk-averse sentiments and flight to safety as the investors have preferred money market and fixed income funds over stocks. In addition, the financial institutions have tilted their investments in government securities towards short-end of the maturity structure i.e. MTBs and retired long-term

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[1] IMF, World Economic Outlook Update, July 2019. As per IMF estimates, the global economy is expected to grow by 3.2 percent during 2019.

[2] Pakistan Bureau of Statistics (PBS). http://www.pbs.gov.pk/sites/default/files//tables/Table-1_0.pdf

[3] Source: PBS http://www.pbs.gov.pk/sites/default/files//industry_mining_and_energy/qim/2019/web%20note%20June%2019.pdf

[4] 12 months moving average inflation (Source: SBP Inflation Snapshot, http://www.sbp.org.pk/ecodata/MPM.pdf)

[5] Overseas Investors Chamber of Commerce and Industry (OICCI) Survey, Seventeenth Wave, January 2019 https://www.oicci.org/wp-content/uploads/2019/02/OICCI-BCI-Survey-Wave-17-Highlights-December-20181.pdf

SBP's Business Confidence Surveys, 2018-19. http://www.sbp.org.pk/research/BCS-r.asp

PIBs on net basis to avoid any mark-to-market losses. This strategy has led to a decline in the level of outstanding investments during CY18. Accordingly, the growth of the **financial sector** has moderated to 7.49 percent in CY18, and the financial depth, as measured by financial assets to GDP ratio, has moderated to 73.01 percent (**Table 1**).

Table 1: Asset composition of the financial sector

	CY15	CY16	CY17	CY18
Assets (PKR Billion)	19,448	21,771	24,716	26,568
Growth rate (Percent)	15.16	11.94	13.53	7.49
Percent of Total Assets				
MFBs	0.51	0.78	1.00	1.23
DFIs	0.98	0.96	0.92	0.90
NBFIs	4.89	5.06	4.41	4.46
Insurance	5.07	5.39	5.24	5.40
CDNS	15.83	15.10	14.23	13.93
Banks	72.72	72.72	74.21	74.08
YoY Growth				
MFBs	39.00	73.28	45.21	32.65
DFIs	8.14	9.63	9.18	4.60
NBFIs	11.10	15.77	-1.12	8.78
Insurance	11.88	19.03	10.34	10.88
CDNS	10.05	6.72	6.98	5.23
Banks	16.83	11.93	15.86	7.31
Assets as Percent of GDP*				
MFBs	0.35	0.56	0.75	0.90
DFIs	0.67	0.68	0.69	0.66
NBFIs	3.37	3.61	3.28	3.26
Insurance	3.49	3.84	3.90	3.94
CDNS	10.90	10.77	10.60	10.17
Banks	50.05	51.87	55.28	54.08
Overall assets	68.82	71.34	74.49	73.01

*GDP at market prices

Note: The total assets for NBFIs and Insurance sectors have been revised for CY16 and CY17, respectively.

Source: SBP, SECP and CDNS

Executive Summary

In CY18, the operations and risk profile of the domestic **financial markets** have been largely influenced by the growing external account vulnerabilities, tighter monetary policy response, and uncertainty among the market participants. While Government has succeeded in raising sizeable bilateral financial support, these flows could partially finance the high current account deficit. As a result, the SBP FX reserves depleted by around USD 7 billion and the PKR, cumulatively, depreciated by 23.61 percent against US dollar, leading to higher volatility in the FX market. Besides, uncertainties associated with the political transition and future economic direction led to bearish sentiments in equity market that pulled down the KSE-100 index by 7.58 percent (on average) during the year. However, volatility in the money market has remained contained due to interest rate corridor mechanism in place and prudent management of market liquidity by SBP (**See Chapter 2**).

Banking sector, the backbone of the financial sector, has generally weathered the challenging macro-financial conditions and performed steadily. The financing growth has increased, profitability remains reasonable, liquidity buffers stayed high, and solvency of the banking sector has remained adequate **(See Chapter 3.1)**.

The financial intermediation has improved with advances to deposit ratio attaining its highest level of 55.81 percent in the last eight years. The high financing growth in the private sector has mainly supported this improvement in intermediation. The demand for financing has mainly come from textile, food and beverage, cement, energy, chemical and real estate sectors. The rise in input costs, as reflected in almost 33.29 percent growth in the working capital loans, is partially responsible for the surge in demand. The funds generated through deposit mobilization coupled with net-retirement of investment in government securities enabled the banks to meet the increase in credit requirements.

The credit to private sector can get further thrust if the banking sector's exposure to government could be reduced. [6] Though, it is encouraging to note that the trend of rising credit to government has reversed in CY18, the exposure still remains high at 48.15 percent of the assets, with one-sixth of it lent to the

[6] Government exposure includes investments in government securities and lending to public sector entities.

public sector power entities and commodity finance operations. As the share of financing to these sectors is continuously growing, it is imperative to resolve the underlying structural issues related to energy sector circular debt and otherwise self-liquidating commodity operations.

Asset quality of the banking sector presents a mixed picture. A higher growth in advances has led to a decline in infection ratio, though the quantum of NPLs has increased during the year. The flow of fresh NPLs is mainly observed in sugar, energy and agriculture sectors domestically along with some impairment in the overseas portfolio in the Middle East region. Accordingly, Net NPLs and capital impairment ratios have observed some rise during the year.[7] **(Table 2)**

Table 2: Highlights of the banking sector

	CY15	CY16	CY17	CY18
Key Variables (PKR Billion)				
Total Assets	14,143	15,831	18,342	19,682
Investments (net)	6,881	7,509	8,729	7,914
Advances (net)	4,816	5,499	6,512	7,955
Lending to financial institutions	361	552	605	910
Deposits	10,389	11,798	13,012	14,254
Borrowings from financial institutions	1,766	1,942	3,125	3,001
Equity	1,323	1,353	1,381	1,406
Profit Before Tax (ytd)	329	314	267	243
Profit After Tax (ytd)	199	190	158	149
Non-Performing Loans	605	605	593	680
Non-Performing Loans (net)	91	90	76	110
Key FSIs (percent)				
CAR	17.32	16.17	15.83	16.19
ROA (Before Tax)	2.51	2.10	1.56	1.31
ROA (After Tax)	1.52	1.27	0.93	0.81
ROE (Before Tax)	25.83	23.86	19.51	17.39
ROE (After Tax)	15.63	14.43	11.55	10.71
Cost to Income Ratio	47.84	53.07	57.14	60.21
NPLs to Loans (Gross)	11.36	10.06	8.43	7.97
Net NPLs to Net Loans	1.89	1.64	1.16	1.38
Liquid Assets to Total Assets	53.81	53.73	53.97	48.69
Advances to Deposit Ratio	46.35	46.61	50.05	55.81

Note: Statistics of profits are on year-to-date (ytd) basis.

The deceleration in deposits, observed over the last couple of years, continues during CY18. Deposits have witnessed a growth of 9.55 percent compared to last five years' average of 12.26 percent. The slowdown is mainly driven by: a) strategy of the banks to focus on low cost deposits in a rising interest rate environment; b) scaling back of operations by few banks in the overseas markets; c) probable effect of withholding tax on banking transactions; d) enhanced KYC requirements for depositors; e) increasing placement of retail deposits in government securities through non-competitive bids; and f) liquidity generated through net retirement of investments. Among these factors, compliance with enhanced KYC is necessary to avoid ML/FT risks, while others like imposition of withholding tax needs appropriate policy tweaking for effectively pursuing the financial inclusion agenda and enhancing the banks' ability to improve intermediation.[8]

The banks have posted reasonable profit during CY18, though increase in provisioning charges against NPLs coupled with a rise in administrative expenses and one-off extraordinary pension expense have kept the profitability below the last year's level. Encouragingly, a healthy growth in advances has increased the share of interest income from core financing activity. Consequently, the net interest margin (NIM) has improved that has been falling for the last 3 years.

The solvency of the banking sector remains strong with capital adequacy ratio (CAR) at 16.2 percent – well above the minimum regulatory requirement of 11.9 percent.[9] (**Table** 2). Further, to address the possible systemic risk posed by the large institutions,

[7] Fresh NPLs, generally, require lower provisions leading to rise in net NPLs. As a result, the net NPLs to net Advances ratio and Capital impairment (net NPLs to Capital) ratio increase.

[8] The government has abolished the withholding tax on deposit withdrawals for filers while it maintained 0.6 percent tax rate for the non-filers in the interim budget 2019. (Finance Supplementary (Second Amendment) Act, 2019)

[9] This comprises minimum CAR requirement of 10 percent and capital conservation buffer of 1.9 percent that will increase to 2.5 percent by the end of CY19 (BPRD Circular No. 6 of 2013).

SBP has issued a framework for designation of Domestic Systemically Important Banks (D-SIBs).[10] Under the framework, three banks have been designated as D-SIBs that are subject to enhanced supervision; including the Higher Loss Absorbency Capital surcharge in the form of additional common equity tier-1 capital (CET1).[11]

Islamic Banking Institutions have maintained the fast growth over the years, and, as of end CY18, constitute almost 13.51 percent of the total banking sector assets. The growth in IBIs is mainly driven by financing activity, while healthy increase in Mudarabah based deposits provided the required funding. Among the Islamic financing categories, profit and loss sharing modes of Musharaka and Diminishing Musharaka have gained prominence with 53 percent share in financing. While IBIs have lent to diverse economic sectors, their share in financing to SMEs and Agriculture sector still remains small. As such, IBIs needs to make efforts to explore these potential financing avenues **(See Chapter 3.2)**.

IBIs have remained sound, with improved asset quality, higher profitability and CAR well above the minimum requirement. However, the sector continues to face the dearth of long-term Shariah compliant investment avenues that limits IBIs ability to effectively manage their liquidity. It is also affecting the deposit mobilization efforts of IBIs necessary for maintaining growth trajectory.

Challenging macro environment coupled with increased volatility in financial markets have particularly increased the risk aversion in **Non-Bank Financial Institutions** (NBFIs) directly linked with equity market. The **mutual funds**—the dominant segment of NBFI—have witnessed both contraction in assets under management as well as a flight to safety i.e. movement from equity stocks to money market funds. On the other hand, **Investment Finance Companies (IFCs)** and **Non-Bank Microfinance Companies (NBMFCs)** that are engaged in intermediation function have observed asset growth and exhibited relatively better performance. The improved availability of market-based funding has also facilitated the growth of NBMFCs during the year under review (**See Chapter 4.2**). Nevertheless, NBFIs continue to face various challenges that are hindering their growth. Particularly, the stiff competition from banks is limiting their ability to mobilize low cost funds and attract quality human resources. Development of an industry level strategy is needed to address the issues in order to enable the NBFIs to play an effective role in financial deepening.

The **Development Finance Institutions** remains well capitalized; though, they continue to operate with limited suite of financing products. Particularly, the role of the DFIs in their key area of project financing remains less than encouraging due to lack of affordable long term funds. However, the renewed interest in SME financing during CY18 is a positive development. The DFIs need to make concerted efforts to raise long-term funding by exploring alternate resource mobilization avenues such as capital market (**See Chapter 4.1**).

The asset base of the **Insurance sector** has expanded by 10.88 percent in CY18, funded in part by 9.45 percent increase in gross premiums. However, the profitability indictors for the sector have slid down slightly owing to increase in net claims. Further, the concentration remains a concern as the public sector insurers dominate the insurance industry. Some non-life insurers are also facing solvency issues. These insurers need to work on viable recovery plans or pursue possible consolidation avenues. Nevertheless,

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[10] The framework follows two steps approach; in first step, a sample of banks based on quantitative and qualitative criteria is identified. In the second step, among these sample banks, D-SIBs are designated based on Size, Interconnectedness, Substitutability and Complexity.

[11] http://www.sbp.org.pk/press/2018/Pr-14-Jun-18.pdf

the low insurance penetration in the country provides an opportunity for the sector to grow (**See Chapter 4.3**).

Due to their peculiar business model of dealing in foreign currencies, the **Exchange Companies** (ECs) have benefited from the exchange rate dynamics. However, the operational risk, especially relating to AML/CFT, remains tangible for these companies. To address these concerns, SBP has further strengthened the regulatory regime for ECs during the year under review **(See Chapter 4.4)**.

Financial Market Infrastructure (FMI) remains resilient and continues to perform efficiently without any major disruption. Pakistan Real-time Inter-bank Settlement Mechanism (PRISM) has settled a higher volume and value of large-value transactions, whereas the retail-value segment has also registered an uptrend. The increasing adoption of electronic modes for payment indicates growing consumers trust in use of digital financial services. Furthermore, access of the PRISM allowed to retail customers and corporate securities settlement institutions[12] has infused efficiency in high-value retail settlements and operations of the markets (**See Chapter 6**).

The integration between FMIs has also increased the level of interconnectedness, which involves the element of contagion risk. Coupled with this, the cyber-security risk poses additional challenges to these FMIs, with retail payment segment being more vulnerable to the latter risk category. To safeguard against these emerging threats, SBP has taken various measures to protect the integrity of the FMIs. Particularly, a comprehensive set of instructions has been issued to ensure security of digital payments. Moreover, the National Clearing Company Limited (NCCPL) and Central Depository Company (CDC), which constitute the corporate securities settlement infrastructure, have also strengthened their risk management practices.

To guard against the cyber security risk, banks have also fortified mitigation measures. Most of the banks have implemented multifactor authentication to strengthen the security of internet banking transactions, whereas they continue to work on strengthening their intrusion detection and prevention systems to protect their IT infrastructure from cyber-attacks. Furthermore, in compliance with SBP's regulations, banks have been issuing payment cards with Euro-MasterCard-Visa (EMV) anti-skimming standards.

Financial inclusion in the country is accelerating due to increased access to quality financial services to a wider stratum of the population. Especially, the branchless banking and m-wallet accounts have remained the key drivers in enabling the financial access to the underserved areas of the country. Microfinance banks, an important element of National Financial Inclusion Strategy (NFIS), continue to perform well with improved resilience. At present, growing financial inclusion poses minimal concerns to financial stability due to lower inclusion base, risk based due diligence of customers, and comprehensive regulatory and supervisory framework in place (**See Chapter 7**).

The performance of **non-financial corporate sector** has moderated as reflected in the slackness of its operational efficiency and financial standing in CY18. The leverage of the sector has inched up, whereas liquidity, debt repayment capacity and profitability have slightly declined. The investors' perception about the corporate sector has also weakened as illustrated by a drop in stock prices and other leading market indicators. Positively, the rating culture in the corporate sector is on the rise. The phased decline in corporate tax rate as proposed in

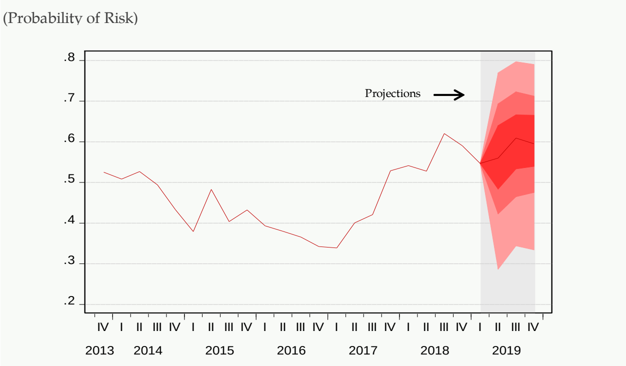
[12] CDC and NCCPL are corporate securities settlement systems which have been allowed as special participants of PRISM for settlement of transactions in the form of multilateral net settlement batches.

the interim fiscal budget is likely to augment profitability of the corporate sector (**See Chapter 5**).

Anti Money Laundering/Countering Financing of Terrorism (AML/CFT) is another key area where local regulatory bodies are making continuous efforts to safeguard the financial system against ML/FT risk. Though Pakistan has recently been identified as a jurisdiction with strategic AML/ CFT deficiencies, it has made a high-level political commitment to implement the action plan for overcoming the identified gaps. To this end, a number of measures have been introduced that demonstrates the seriousness of the country to ensure a robust AML/CFT regime. Key regulatory initiatives include a)- establishment of dedicated CFT desk in banks, b)- ensuring biometric verification of 100 percent portfolio, c)- issuance of guidance to bring more clarity on the regulatory expectations in the areas of consumer due diligence, corresponding banking, wire transfer, compliance with UNSC sanctions, definitions of beneficial owner and legal entity, counter measures for high-risk countries, etc., d) strengthening of regulations for NBFCs including adoption of risk-based approach, e) extension of regulatory regime to cover Designated Non-Financial Business & Professions, NGOs, Pakistan Post, etc. and f) amendment in the Protection of Economic Reform Act to strengthen the regime around foreign currency accounts and movement of foreign currency **(See Box-4).**

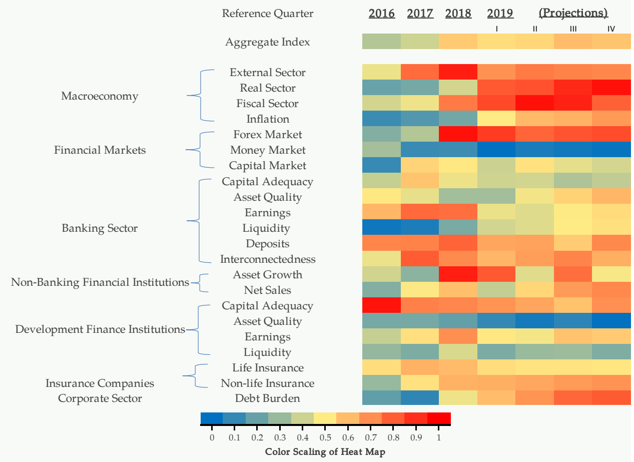
The consolidated picture thus reveals that, amid rising macro-financial challenges, risks to financial stability have somewhat increased during CY18 (**Chart 1a**) (**Chart 1b**).

Chart 1(a): Financial Vulnerability has increased in CY18



Source: Staff estimates

Chart 1(b): Rising macroeconomic imbalances has adversely affected financial sector performance



Source: State Bank of Pakistan

Financial Sector Outlook…

Post CY18, the macroeconomic imbalances, particularly the fiscal deficit, have widened. The current account deficit, though narrowing gradually, remains at elevated level putting pressure on foreign exchange reserves. SBP has raised the policy rate by 325 bps post CY18 (until July 2019) to address these macroeconomic challenges. In the near future, the necessary policy measures for the stabilization of the economy such as rationalization of taxes in the budget FY19-20 and adjustment in utility prices may further slowdown the pace of economic wheel. The real GDP is expected to rise modestly in FY20. The average CPI Inflation has remained within the range of 6.5-7.5 percent in FY19 but is anticipated to be considerably higher in FY20.[13]

There are considerable uncertainties around the projected path of the financial vulnerability index (**Chart 1b**).[14] External account imbalances may have strong repercussions for the financial markets. The uncertainty surrounding the equity market may continue to strain the performance of mutual funds and insurance sector, which are more dependent upon the capital market. The monetary tightening may affect the debt repayment capacity of the borrowers with some lag. In the backdrop of this challenging economic outlook, the corporate sector could perform below its full potential. Therefore, improvement in macroeconomic conditions and successful implementation of the IMF program will be the key drivers in ensuring stability of the financial sector.

The assessment of resilience of the banking sector to probable future domestic or global stress event in the medium term is of paramount importance. This year's stress testing results indicate that the banking sector can withstand for three years the severe and protracted downturn induced by hypothetical adverse global macroeconomic conditions. The large banks, however, carry sufficiently higher capital buffers and are able to sustain the impact of hypothesized shocks for around four years **(See Chapter 3.3)**.

The 3rd wave of SBP Systemic Risk Survey (conducted in Jan-2019), reveals that foreign exchange rate risk, balance of payment pressures, widening fiscal deficit and increase in domestic inflation would remain the key risks to financial system stability for the next six months (**See Box 1**).

SBP is aware of these emerging challenges to the financial sector and has taken steps to foster risk management practices and enhance transparency in its regulated sectors, which constitute 76.21 percent of the total financial sector's assets. SBP is also working in collaboration with other stakeholders for formulating and implementing a comprehensive and well-structured Macroprudential Policy Framework to ensure stability of the financial sector (**See Box 2**).

[13] State Bank of Pakistan. (2019). Monetary Policy Statement. May 2019 http://www.sbp.org.pk/m_policy/2019/MPS-May-2019-Eng.pdf

[14] Most of the underlying indicators of FSVI have been projected using the exponential smoothing technique of Holt-Winters.

Box 1: SBP's Systemic Risk Survey-3rd Wave (January, 2019)

SBP launched the 3rd wave of its biannual Systemic Risk Survey in January, 2019 to capture the risk perceptions of market participants and evaluate their confidence in the stability of the financial system. The respondents of the survey included senior executives of financial institutions, financial journalists and academia.[15]

The survey intends to gauge the present and future (over the next six months) risk perceptions of the respondents related to five broad categories i.e. global, macroeconomic, financial markets, institutional and general risks. The overall response rate to the survey stands at 40 percent.[16]

Summary of Results[17]:

1. At aggregate level, financial market and macroeconomic risks are perceived to be critical for financial stability both in current scenario as well as over the next six months (**Chart A & B**).

2. Among all the risks, the highest cited risks at present are deterioration in balance of payment, foreign exchange rate risk and the widening fiscal deficit. In addition, increase in domestic inflation, slowdown in domestic growth, volatility in commodity prices and cyber security risks are other high risk[18] sources having the potential to undermine financial stability (**Chart C**).

3. Over the next six months foreign exchange rate risk, balance of payment pressures, widening fiscal deficit and increase in domestic inflation were reported as key risks (**Chart C**).

4. The likelihood of occurrence of a high risk event in Pakistan's financial system over the short term is slightly higher than medium term according to survey results.

5. A higher proportion of respondents show confidence in the ability of regulators to ensure financial stability and felt confident about the stability of the overall financial system (**Chart D**).

6. A comparison of the results of the past three waves of the survey depict that risk perceptions of the respondents relating to external sector, rising domestic inflation and slowdown in growth have firmed up. On the other hand, risk of political uncertainty has subsided after the conduct of general elections (**Chart E**).

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[15] The respondents included executives from commercial banks, insurance companies, exchange companies, MFBs, DFIs, major financial market infrastructures, financial journalists, members of academia, SECP officials and think tanks.

[16] The 3rd wave of the survey was sent to 230 respondents out of which 92 responded.

[17] The results presented here are based on responses to the survey and do not necessarily reflect the State Bank of Pakistan views on risks to the financial system

[18] High risk is identified by aggregating percentage of respondents by clubbing together percentage of respondents choosing either high or very high as response to a particular risk category or type in the survey questionnaire.

Chart A: Perception on sources of systemic risk- present

(Percent)

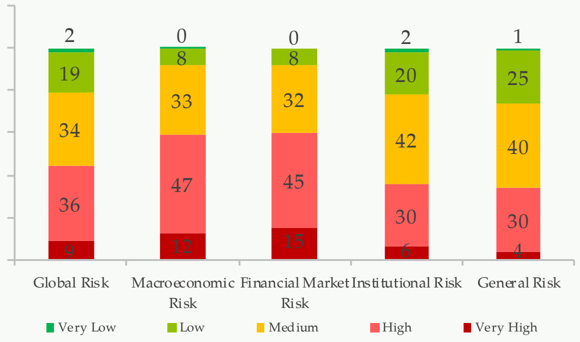


Chart B: Perception on sources of systemic risk- next 6 months

(Percent)

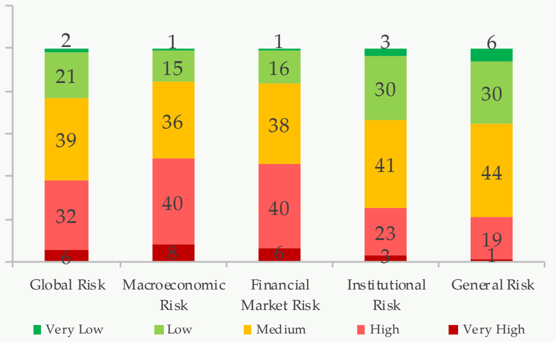


Chart C: Top 10 risks identified

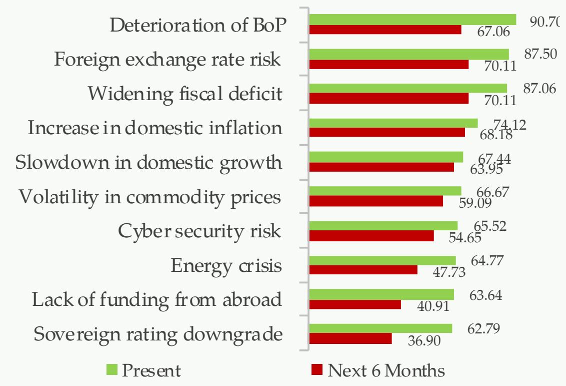


Chart D: Confidence in financial stability

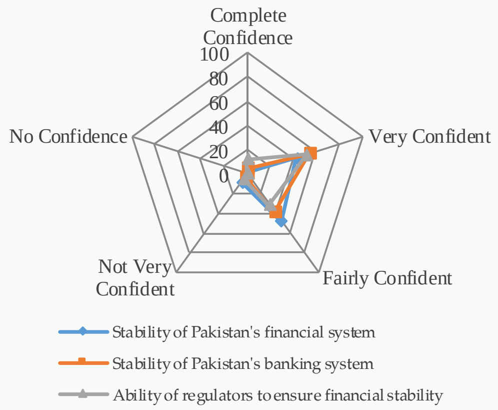
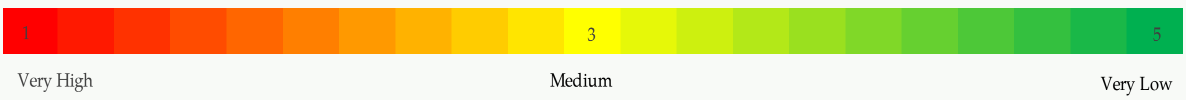


Chart E: Comparison of results (1st, 2nd and 3rd waves)

	1st Wave (Jan-18) Present (Average)	2nd Wave (Aug-18) Present (Average)	3rd Wave (Jan-19) Present (Average)		1st Wave (Jan-18) Present (Average)	2nd Wave (Aug-18) Present (Average)	3rd Wave (Jan-19) Present (Average)
Slowdown in global growth	2.94	2.63	2.85	Interest rate risk	2.82	2.52	2.40
Sovereign default risk	3.16	2.95	3.29	Liquidity risk	2.84	2.67	2.67
Lack of funding from abroad	2.41	2.14	2.34	Regulatory risk	2.68	2.69	2.55
Volatility in commodity prices	2.13	2.22	2.28	Legal risk	2.93	2.98	2.94
Slowdown in domestic growth	2.54	2.42	2.27	Asset quality deterioration	2.72	2.52	2.55
Increase in domestic inflation	2.56	2.32	2.16	Shortfall in capital requirement	2.81	2.67	2.77
Widening fiscal deficit	2.00	1.89	1.84	Access to funding (deposit mobilization & borrowings)	2.93	2.78	2.87
Deterioration of BoP	1.78	1.70	1.71	Excessive private sector credit	2.95	2.97	3.11
Sovereign rating downgrade	2.60	2.36	2.29	Concentration risk in private	2.84	2.93	2.95
Slowdown in corporate sector growth	2.90	2.64	2.47	Concentration risk in mutual fund	3.23	3.32	3.35
Slowdown in infrastructure development	2.96	2.86	2.88	Operational risk	2.65	2.75	2.78
Deterioration in household savings	2.57	2.66	2.60	Cyber security risk	2.18	2.43	2.23
Volatility in real estate prices	2.95	3.11	3.01	Disruption in financial market	2.74	2.80	2.92
Energy crisis	2.26	2.39	2.36	Terrorism	2.19	2.26	2.78
Political uncertainty	1.90	2.44	2.41	Geopolitical risk for Pakistan	2.22	2.28	2.63
Foreign exchange rate risk	1.92	1.79	1.80	Natural disasters/ Increasing threat of climate change	2.97	2.79	3.09
Equity price risk	2.59	2.62	2.44	Social unrest	2.68	2.93	3.07



Box 2: SBP's Initiatives to Strengthen the Stability of the Financial Sector

Post Global Financial Crises (GFC) of 2008, ensuring the stability of the financial system as a whole or, in other words, the containment of systemic risk, has emerged as one of the key priority areas of the policy makers.[19] Accordingly, various jurisdictions have established a well-defined and formal Macro Prudential Policy Framework (MPPF). Though diversity prevails across jurisdictions in terms of MPPF structure, the IMF-FSB-BIS, in a joint policy paper in August 2016, have taken stock of such structures existing around the globe. According to them, the key elements for an effective MPPF include (a) defining the objective and scope of MPP, (b) establishing an elaborate institutional structure, (c) assessing the systemic risk and identifying the policy toolkit, and (d) collaborating to contain the cross-border spillovers.[20]

Financial Stability—A Macro Perspective

The economies where banks are the key providers of financial services, the MPPF largely revolves around the banking sector (IMF-FSB-BIS, 2016). Since in Pakistan the financial sector is bank centric with 73 percent share in total assets, the primary responsibility for MPP lies with SBP.[21] This is the reason that SBP has been instrumental in making progress towards formation of a well-structured MPPF.

SBP's strategic plan "Vision 2020" envisages "Strengthening of Financial Stability Regime" as one of the key goals. Under this goal, SBP vowed to establish a comprehensive systemic stability framework consistent with FSB principles.

To formalize an institutional structure for an MPPF, SBP has made several arrangements that include formation of Financial Stability Executive Committee (FSEC) within SBP, Council of Regulators (COR) comprising SBP and SECP, and working towards establishing an overarching National Financial Stability Council (NFSC) involving SBP, SECP, and Ministry of Finance.[22]

Using these forums, SBP has initiated deliberations to assess the macro-financial risks, their probable repercussions for the stability of the financial sector and any needed remedial measures. The main themes of discussions included macroeconomic developments that may impact the financial sector, risks arising from Financial Action Task Force (FATF) evaluation of Pakistan, designing a large exposure framework to contain concentration risk, streamlining exchange of data/information between SBP and SECP etc.

In-house, SBP has strengthened the process of assessment and communication of systemic risk. To enhance its assessment of pro-cyclical systemic risk capabilities, SBP has brought in substantial improvements in its macro stress-testing regime to capture the macro-financial interlinkages.[23] Further, a suit of variables has been identified, which serve as Early Warning Indicators (EWIs) for build-up of systemic risk. These EWIs hint at possible risks

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[19] Systemic risk has two dimensions i.e. Pro-cyclical (or Time dimension) and Structural (or Cross-sectional dimension).

[20] Please see "Elements of Effective Macro Prudential Policies", BIS, August 2016.

[21] Pakistan has shallow capital market (low market capitalization to GDP ratio), non-complex thin volume trading in financial markets, limited cross border exposures, almost negligible volume of mortgage financing (thus, expectedly, limited role of real estate prices), and less reliance on wholesale funding (thus, expectedly, low interconnectedness)

[22] For further detail, please see FSR 2017 Overview Box 2

[23] The macro stress testing model include univariate Auto Regressive Moving Average (ARMA), Vector Auto Regressive (VAR) model, vector error correction model (VECM) etc.

emanating from external and financial sectors and their interaction with the real sector.[24]

SBP has launched its Systemic Risk Survey (SRS) that helps to gauge the risk perceptions and confidence of the respondents in the stability of the financial system. The survey provides useful insights into the current and emerging risks (over the next six months) to guide policy actions.[25] SBP has conducted regular waves of SRS to closely monitor the industry's risk perceptions about the macroeconomy and the financial sector.

To contain structural risk, SBP has developed a framework for designation and supervision of Domestic Systemically Important Banks (D-SIBs). Under this framework, SBP has designated three large banks as D-SIBs with enhanced supervisory and regulatory requirements. Additional supervisory measures for D-SIBs include preparing comprehensive risk appetite framework, conducting macro stress tests/scenario analysis, preparing recovery plans and enhanced supervisory engagement with the top management and Board of the designated banks. Additional regulatory measures include higher loss absorbency requirement in the form of CET1 over and above the standard capital requirements.

To monitor up and down stream risks emerging from financial conglomerates (including non-financial entities), SBP is conducting Consolidated Supervision (CS) through continuous coordination with SECP. SBP has been in touch with the IMF to further strengthen its CS framework.

Regarding communication of financial risk assessment, SBP has been regularly publishing the yearly "Financial Stability Review", half-yearly "Performance Review of the Banking Sector", and quarterly "Compendium: Statistics of the Banking System". All these publications enhance transparency by providing detailed data including financial soundness indicators, discussion about various emerging risks and mitigating actions taken there against.

In terms of introduction and calibration of MPP tools, SBP has implemented Net Stable Funding Ratio (NSFR) and Liquidity Coverage Ratio (LCR), as prescribed under Basel III capital standards, at 100 percent for both NSFR and LCR. Further, in CY18, CAR has been increased from 11.275 percent to 11.90 percent, which is to be further raised to 12.5 percent by end of CY19. This will help in building up of the liquidity and capital buffers in the wake of recent credit expansion in the banking sector **(See Chapter 3.1)**.

One of the key elements of MPPF is the international coordination to limit the cross-border spillovers of policy actions. Though the probability of cross-border spillovers is limited, SBP has active presence on various international forums and coordinates with multilateral agencies, national level stakeholders, and cross-border supervisory institutions.

An efficient ex-post resolution framework, including existence of credible financial safety nets, limits the spread of a system-wide contagion in a crisis. Such a framework helps maintain confidence in the system. In this regard, with the objective of compensating the small and financially unsophisticated depositors (to the extent of protected deposits), Deposit Protection Corporation (DPC) has been established as a wholly owned subsidiary of SBP (under the Deposit

[24] These EWIs incorporate spreads, market price indicators and their volatility, deviation from trend, and growth rates of financial and external variables.

[25] SRS is a biannual survey and its respondents include executives from commercial banks, insurance companies, exchange companies, MFBs, DFIs, , major financial market infrastructures, financial journalists, members of academia and SECP officials and think tanks.

Protection Corporation Act-2016). The Corporation commenced its business with effect from June 01, 2018[26]. Accordingly, DPC has taken following initiatives in order to initiate and implement an effective deposit protection mechanism/ framework; (a) all scheduled banks operating in Pakistan were notified as members of the Corporation, thus included in the protection framework[27], (b) DPC has rolled out deposit protection mechanism for banking companies including Islamic banks effective from July 01, 2018, in line with its statute and Core Principles for Effective Deposit Insurance Systems issued by International Association of Deposit Insurers (IADI)[28], (c) a separate deposit protection arrangement has been made for the Shariah based deposits under Shariah Compliant Deposit Protection Mechanism for depositors of Islamic Banking Institutions (IBIs)[29]and (d) all member banks have started paying the required premium contributions on quarterly basis.[30]

Financial Stability—A Micro Perspective

The presence of sound financial institutions and efficient markets is essential to ensure financial stability enabling the country to cope with the emerging risks, adapt the changing market dynamics, and ensure smooth flow of financial services. As per BIS-FSB-IMF (2016), micro prudential regulation and supervision complements the macro prudential framework. SBP—in its regulatory and supervisory domains—has taken various measures to address the emerging risks. The key focus areas include:

Foreign Exchange Policy & Operations: SBP is well cognizant of the vulnerable external sector, which has jittered the foreign exchange market **(See chapter 2)**. It is monitoring the FX flows and taking measures to limit speculative activities. It is also strengthening the operating procedures to contain the likelihood of ML/FT activities. The following SBP initiatives are worth mentioning:

To facilitate enhanced monitoring, SBP has introduced amendments in Protection of Economic Reforms Act (PERA), 1992 through Finance Act, 2018, which has allowed SBP to bind all carriers of foreign currencies of Exchange Companies (ECs) to declare cash currencies to Custom authorities **(Chapter 4.4)**. Further, another amendment in PERA, has also restricted deposit of cash foreign currency in foreign currency account to income tax returns filers only and allowed the federal government to make rules governing deposits in and withdrawals from the foreign currency accounts. [31]

In order to keep abreast with the fast changing market dynamics, SBP has made revisions in its Foreign Exchange Manual related to authorized dealers, foreign currency loans, overdrafts and guarantees, forward exchange facilities etc.[32]

Weighing the risk associated with the virtual currency (e.g. bitcoin, Litecoin, Pakcoin, OneCoin etc.) including volatility in the price and use of such currencies in illegal activities such as money laundering and the trade in illegal goods, SBP has barred ECs and ECs of 'B' category from processing, using, trading, holding, transferring value, promoting and investing in Virtual Currencies/Tokens. Further, ECs and ECs of 'B' Category have also been restricted from facilitating their customers to transact in VCs/ICO tokens. **(See Chapter 6)**.[33]

[26] DPC Circular No. 02 dated May 31, 2018

[27] DPC Circular No. 03 dated June 22, 2018

[28] DPC Circular No. 04 dated June 22, 2018

[29] This mechanism has been developed in accordance with the requirements of Section 7(3) of the Act, to comply with the Shariah requirements of such protection arrangement

[30] The protected amount has been determined by the Corporation to be PKR 250,000 per depositor per bank, which is 1.46 times of GDP per capita.

[31] EPD Circular Letter No. 05 of 2018

[32] FE Circular No. 14 of 2018

[33] FE Circular No. 03 of 2018

AML/CFT: SBP has taken several initiatives to strengthen AML/CFT regime. These include a) amendments in AML/CFT regulations to bring about clarity on various terminologies, b) guidance on compliance of SROs and notifications issued by GoP under UNSC resolutions, and c) enhancement in scope of KYC requirements.

Overseas Operations: The overseas operations contribute around 5 percent share in the assets of the banking sector. In response to challenges emerging for the banking sector in the overseas markets, SBP has issued a comprehensive Governance Framework for banks' overseas operations in 2018. The framework is aimed at strengthening banks' capacity to understand, identify and manage various risks posed by its foreign operations. Banks are required to strengthen their governance, risk management & compliance practices for their overseas branch & subsidiary operations.[34]

Quality of Disclosures: SBP has revised the financial statement format/disclosures of banks/DFIs to align them with the regulatory changes and international best practices. The objective is to bring consistency in financial reporting among the banking industry while enhancing the transparency and quality of their disclosures. [35] [36]

Dynamic Provisioning: IFRS 9, the new accounting standard has presented a major overhaul of financial instruments accounting by introducing an expected credit loss approach based on probability of default. SBP has advised the banking industry in 2018 to carry out a 'Quantitative Impact Assessment' of IFRS 9 implementation on their balance sheets. The purpose of this exercise was to determine the banking sector's readiness and identification of the challenges expected during its implementation. This step is expected to complement the MPPF later as IFRS 9 encourages dynamic provisioning.

Risk Based Supervision: SBP has made major strides in the development of Risk Based Supervision (RBS) framework by entering into a Long Term Country Engagement (LTCE) program with Toronto Centre (TC) for capacity building of SBP officials. LTCE program spreads over two and a half years (July 2018 – Dec 2020). During this time, the RBS framework will be developed, tested and refined.

IT Inspection: For comprehensive assessment of IT systems of the supervised financial institutions, Information Systems' Inspection Framework (ISIF) has been developed. ISIF would form part of overall RBS framework, which is presently in development phase. ISIF assess the risk in core IT functions i.e. IT operations, IT value delivery, Alternate delivery channels, Project management and IT procurement & Service Level Agreement (SLA) management, while controls and governance aspects are also assessed.

Banking Conduct and Consumer Protection: SBP considers Financial Consumer Protection or Responsible Banking Conduct crucial for stability and inclusive growth of the sector. In this connection, some of the most eminent conduct milestones achieved by SBP in CY18 include:

- SBP has issued guidelines on 'Prohibited Banking Conduct. These guidelines will enable banks to exhibit responsible conduct by ensuring the inclusion of adequate and preemptive controls in their Fair Treatment of Consumers (FTC) frameworks.[37]

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[34] BPRD Circular No. 06 of 2018

[35] BPRD Circular No. 02 0f 2018

[36] Few changes include as (a) movement of revaluation surplus/deficit under equity head, (b) separate line for intangible assets, (c) single line presentation for provision against NPLs and investment, (d) addition of new line for income from derivative, (e) addition of state of comprehensive income, and (f) few changes in the notes of financial statements.

[37] BC&CPD Circular No. 02 of 2018

- In order to strengthen the FTC regime, SBP has embraced effective conduct monitoring tools to collect market data, highlight malpractices, analyze the root causes and recommend corrective actions. Accordingly, SBP has recently conducted off-site thematic examination on "Marketing Disclosures for Individual Lending Products" by banks.

- In view of digital transformation, the functional importance and allied conduct risks of call centers, SBP undertook a diagnostic review of "Call Center Management at banks". Based on the thematic review, detail guidelines on the Call Center management, eliciting the related bare minimums, have been issued for the banks and MFBs.[38]

- SBP has granted the certificate of commencement of business to Aequitas Information Service Limited, first private credit bureau in Pakistan, and license to another credit bureau viz. Data Check Limited in the year 2018.

Financial Market Infrastructure (See Chapter 5): Pakistan Real Time Interbank Settlement Mechanism (PRISM) is the payment system of systemic importance facilitating large scale transactions. Keeping in view that significant developments have taken placed in terms of scope and operational efficiency of PRISM, SBP has updated PRISM Operating Rules (PORs) which are in line with international standards and offer directions related to PRISM (RTGS) business operations.[39]

Electronic Fund Transfers (EFTs) enable customers to access their bank accounts electronically for fund transfers and account management using different channels like ATMs, internet and mobile banking etc. SBP has issued Regulations for EFTs with the purpose to promote, ensure consumer protection and payments transparency by standardizing EFTs as broadly outlined in Payment System & Electronic Fund Transfer (PS&EFT) Act 2007[40]. These regulations identify the minimum information of originator and beneficiary required to initiate/process an EFT, highlight the responsibilities of originator, Payment System Operators (PSOs) /Payment Service Providers (PSPs) and beneficiary compensation policy for unauthorized and / or delayed EFTs, disclosure requirements and dispute resolution process etc.

To safeguard banks/MFBs and their customers from potential losses due to cyber-crimes and online banking frauds, SBP has issued a comprehensive set of instructions – advising banks to take pre-emptive measures and ensure security of card data.[41]

SBP has issued guidelines to broaden the scope of payment services as well as enhance the operational efficiency of financial transactions. Such initiatives include allowing NBFIs to offer ATM services (called White Label ATM Operator)[42], advising banks to enable customers' credit card payments through alternate delivery channels (internet banking, mobile banking, ATMs etc.)[43], assigning 1Link and National Clearing Corporation of Pakistan Limited (NCCPL) as Special Participants of PRISM to bring in further efficiency in the clearing process and limit the settlement risk etc.[44,45]

Financial Stability—Financial Inclusion Perspective

A vast literature has established that, besides supporting poverty reduction and economic growth, the financial inclusion also promotes financial stability.[46] In fact, providing greater access and better

[38] BC&CPD Circular No. 01 of 2018

[39] PSD Circular No. 02 of 2018

[40] PSD Circular No. 03 of 2018

[41] PSD Circular No. 09 of 2018

[42] PSD Circular No. 05 of 2018

[43] PSD Circular letter No. 02 of 2018

[44] PSD Circular No. 04 of 2018

[45] PSD Circular No. 01 of 2018

[46] **Indicators used to proxy financial inclusion** (e.g. share of credit provided to SMEs, number of bank branches per 1000 population, number of ATMs per 1000 population, number of

uses of financial services to a vast under-privileged section of the society strengthens the financial stability, given the country has already implemented financial infrastructure and skilled supervision (Okpara 2011; Prasad 2010; Cull et al. 2012). Morgan and Pontines (2014) highlighted that increased share of lending to small and medium-sized enterprises (SMEs) aids financial stability, mainly by reducing non-performing loans (NPLs) and the probability of default by financial institutions. Han and Melecky (2013) observed that financial inclusion, measured by wider access to and use of deposits, can build the banks' deposit base stronger in period of financial trauma, which ultimately promotes financial stability of countries, especially the middle income countries. On the other hand, greater financial access may lead to financial risks if driven by rapid credit growth or the expansion of relatively unregulated parts of the financial system (BIS Quarterly Review, March 2015).

SBP has long been promoting the development finance including microfinance, SME finance, Agriculture finance, Infrastructure and Housing finance and Islamic Banking. Increasing financial inclusion is one of the key strategic goals of SBP Vision 2020. The developments in this regard are as under:

National Financial Inclusion Strategy (NFIS): To promote financial inclusion, government launched NFIS in 2015. With the ultimate objective of enhancing inclusion, the federal government has published new policy directions for its implementation during the next five years. [47,48] The policy offers a national framework, definite action plan and targets for achieving universal financial inclusion. The updated policy contributes headline targets and specific tasks for their accomplishment, assigned to the relevant institutions, with given timeline and Key Performance Indicators (KPIs) for implementation until 2023.[49] These targets focus on broad areas, such as;

- Enhancing usage of digital payments (65 million transaction accounts including 20 million share of women)
- Increasing deposit base to 55.0 percent of GDP[50]
- Promoting SME finance (achieve 17 percent of private sector credit and increase borrowers to 700,000)[51]
- Increasing agricultural finance (target annual disbursement of PKR 1.8 trillion and cater to 6 million farmers digitally), enhancing low-cost housing, increasing share of Islamic banking (to 25 percent of banking industry and attain 30 percent share in overall branch network)

Microfinance: In order to address funding constraints of the microfinance sector, SBP has established a Line of Credit (LoC) Fund for Microfinance Banks (MFBs)

SME borrowers, number of accounts at formal institutions, and financial inclusion index etc.)

Indicators used to proxy financial stability (bank Altman's Z-score, stock market volatility, provision for non-performing loan, standard deviation of deposit, financial stability index etc.)

[47] Publication "NFIS Government's 100 day Agenda" (retrieved from http://www.finance.gov.pk/NFIS.pdf)

[48] In 2015, Government of Pakistan (Ministry of Finance (MoF)) and SBP introduced the National Financial Inclusion Strategy (NFIS) per implementation plan until 2020.

[49] With regard to the implementation framework, a central monitoring and coordination system has been realized through the creation of "Transformation Office" at PM office. The ultimate responsibility for the implementation rests with the assigned institution.

[50] According to World Bank, the deposit to GDP ratio was 32.0 percent in 2016 (https://fred.stlouisfed.org/series/DDOI02PKA156NWDB)

[51] As of December 30 2018, the credit to SME sector as percent of Pvt. Sector financing was 8.46 percent and SME borrowers were 180,704. (Source: Annual SME Finance Review, 2018: http://www.sbp.org.pk/sme/PDF/DFG/2018/QSMEF-Dec-2018.pdf)

and Non-Bank Microfinance Companies (NBMFCs) for onward lending to microfinance borrowers. This has been carried out with the funding support of GoP under WB's Financial Inclusion and Infrastructure project.[52]

SME Financing: To promote SMEs, SBP's following initiatives are noteworthy:

- The scope of current Credit Guarantee Scheme (CGS) has been extended through inclusion of low-end medium enterprises under this scheme.
- To enable un-incorporated SMEs to use[53] moveable assets as collateral, SBP is facilitating establishment of an electronic registry under Financial Institutions (Secured Transaction) Act, 2016.
- In consideration of the fact that majority of the SMEs lack expertise to professionally manage financial, technological, marketing and human resource aspects of their businesses, banks have been advised to adopt Non-Financial Advisory Services (NFAS) in their SME banking to better serve their existing and potential SME clients. [54]
- SBP introduced the modus operandi for the Refinance Scheme for Working Capital Financing of Small and Low-End Medium Enterprises in selected economic sectors.[55] Similarly, in an effort to improve financing access for women entrepreneurs, the coverage under 'Refinance and Credit Guarantee Scheme for Women Entrepreneurs in Underserved Areas' has been extended by increasing the number of eligible districts.[56]

Housing Finance: The housing finance has a meager share in Pakistan (0.5 percent of GDP). In order to promote housing finance, Pakistan Mortgage Refinance Company (PMRC), established with the equity contributions from Financial Institutions (FIs) and the Government of Pakistan (GoP), has been granted permission to commence business. PMRC is mandated to provide long term funding to Primary Mortgage Lenders (PMLs) and will also contribute to the development of bond market.

Islamic Finance**:** In order to provide Shariah compliant alternative of conventional Long Term Financing Facility (LTFF), SBP has issued Mudarabah based Islamic Long Term Financing Facility (ILTFF) to facilitate export industries for purchase of imported or locally manufactured new plant and machinery.[57]

SBP has revised 'Shariah Governance Framework for Islamic Banking Institutions'. The framework covers the roles of various organs of Islamic. Also, IBIs have been advised to undertake enhanced measures for training and capacity building of their staff.

[52] AC&MFD Circular No. 01 0f 2018

[53] IH&SMEFD Circular Letter No. 01 of 2018

[54] IH&SMEFD Circular No. 10 of 2017

[55] This scheme was introduced in December 2017 (IH&SMEFD Circular No. 11 of 2017)

[56] IH&SMEFD Circular Letter No. 02 of 2018

[57] IH&SMEFD Circular No. 01 of 2018

1 Global and Domestic Macro-financial Environment

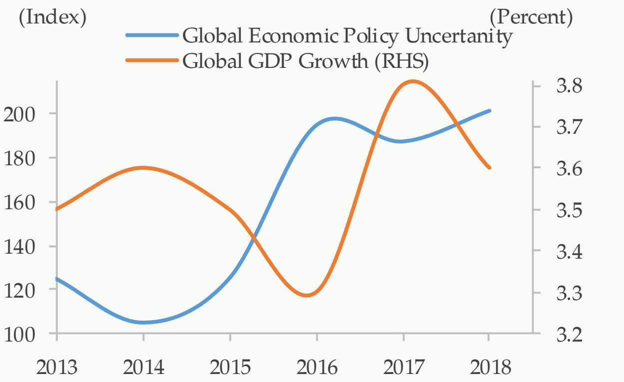
The global economic cycle has trended downwards during 2018 amid rising trade tensions and tightening financial conditions. Short-term risks to global financial stability have risen modestly, while the medium-term risks remain elevated. Financial vulnerabilities in the global financial system continue to build-up in the form of elevated leverage and stretched asset prices. Likewise, the domestic economy has decelerated owing to rising twin deficits, elevated inflationary pressures and the stabilization measures taken to contain the macroeconomic imbalances. A combination of monetary tightening and fading economic activity may undermine the repayment capacity of the borrowers. The pace of economic expansion is expected to remain weak in the short-term.

Global Developments

Pace of global economic expansion has moderated during 2018…

In 2018, the global growth momentum has softened to 3.60 percent after peaking at 3.80 percent in 2017. Increased policy uncertainty—driven by trade tensions—and tighter financial conditions, particularly in the emerging markets and developing economies (EMDEs), have primarily undermined the pace of global expansion **(Chart 1.1)**.[58]

Chart 1.1: Rising policy uncertainty is undermining global economic expansion.



Source: World Economic Outlook, IMF, April 2019. Policyuncertainty.com

Among the advanced economies (AEs), weak economic activity in the euro area, United Kingdom and Japan along with rising vulnerabilities in certain EMDEs (i.e. Turkey and Argentina) have resisted the world economy to maintain its growth momentum.

Contrary to the global economic slowdown, the growth in the US has accelerated (2.90 percent in 2018 versus 2.20 percent in 2017), which has helped moderate the global downturn. **(Table 1.1)**.

Table 1.1: Global economy: Real GDP growth (percent)

	2017	2018	2019*	2020*
World	3.80	3.60	3.30	3.60
Advanced Economies	2.40	2.20	1.80	1.70
EMDEs	4.80	4.50	4.40	4.80
EMDEs - Asia	6.60	6.40	6.30	6.30
MENAP	2.20	1.80	1.50	3.20
USA	2.20	2.90	2.30	1.90
Euro Area	2.40	1.80	1.30	1.50
U.K	1.80	1.40	1.20	1.40
Japan	1.90	0.80	1.00	0.50
Argentina	2.70	-2.50	-1.20	2.20
China	6.80	6.60	6.30	6.10
Turkey	7.40	2.60	-2.50	2.50
India	7.20	7.10	7.30	7.50
Russia	1.60	2.30	1.60	1.70
Saudi Arabia	-0.70	2.20	1.80	2.10
United Arab Emirates	0.80	1.70	2.80	3.30
Pakistan	5.22	5.53	2.90	2.80

*IMF-Projections

Source: World Economic Outlook, IMF, April 2019

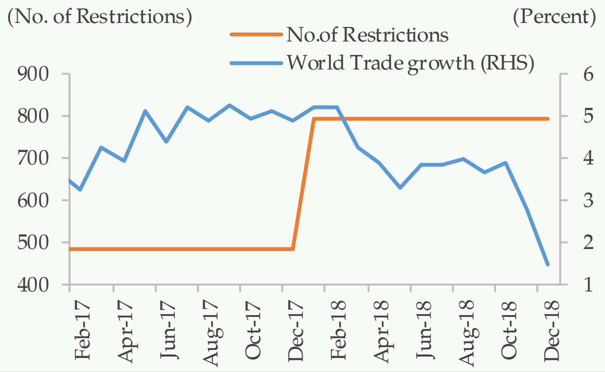
The mounting trade tensions have weakened the business confidence and resultantly global trade has observed weaker growth of 3.27 percent in 2018 against 4.68 percent in 2017 **(Chart 1.2)**.[59] The trade restrictions, in turn, are hindering the overall growth

[58] International Monetary Fund. (2019). World Economic Outlook. Washington, April.

[59] In the wake of trade restrictions imposed since the start of 2018, the import of goods in the US and Chinese economies has declined by about 12 percent and 6.5 percent, respectively. World Bank. (2019). Global Economic Prospects. Washington, January.

and investment.[60] The downward trend in global economy is, thus, likely to continue if the trade tensions among major economies, particularly, the US and China are not resolved.

Chart 1.2: Rising trade restrictions are weakening trade growth

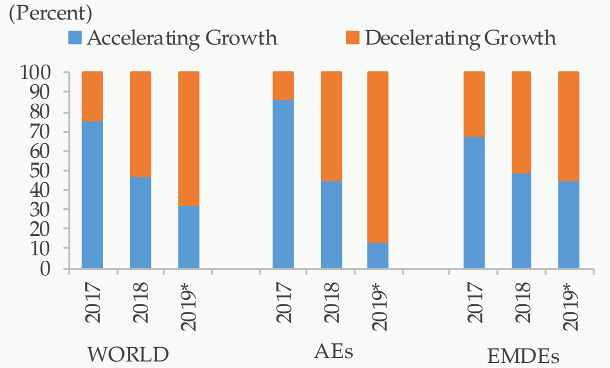


Source: CPB Netherlands Bureau for Policy Analysis and Global Trade Alert
Note: Number of trade restrictions represents annual data

...along with receding growth synchronization

Besides moderating, the global economic growth has remained less synchronized during 2018. In 2017, 58 percent of the world's economies (representing 75 percent of global GDP) had experienced upturn in growth. However, in the reviewed year, the expansion has been contained to 52 percent of the economies (representing 47 of global GDP), indicating a possible tilt of the business cycle towards a trough **(Chart 1.3)**.[61]

Chart 1.3: Increasing share of economies (in global GDP) with weak economic expansion



Source: International Monetary Fund
*2019 IMF Forecast

A number of factors have constrained euro area growth...

Euro area has struggled to grow as it recorded 1.80 percent growth in 2018—down from 2.40 percent in the year 2017. The notable slowdown in the economic activity has come from: (i) waning consumer and business confidence, (ii) weak industrial output in Germany and France due to revision of auto emission standards and the street protests (yellow vests movement), respectively, (iii) fiscal policy uncertainty; and (iv) dent in the external demand for exports owing to appreciation of Euro.[62] Moreover, the growth outlook may further deteriorate to 1.30 percent in 2019, if the uncertainties arising from trade tensions and a no deal-Brexit continue.

EMDEs including China have followed slow growth trajectory...

The EMDEs have delivered 4.50 percent growth in the year 2018—down from 4.80 percent achieved in the previous year. Corrective policy measures in response to growing idiosyncratic vulnerabilities (i.e. macroeconomic imbalances, external leverage etc.), coupled with capital outflows in the backdrop of rise

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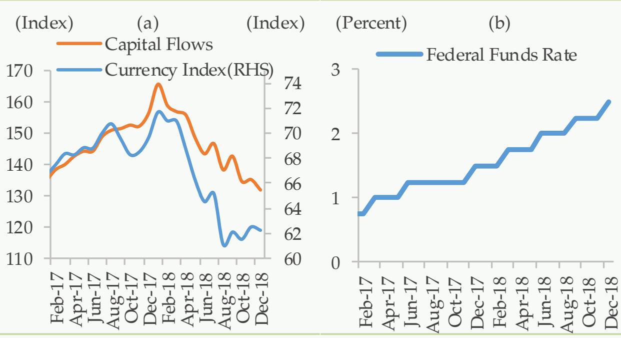
[60] Organization for Economic Co-operation and Development (2019). Interim Economic Outlook. France, March.
[61] International Monetary Fund. (2018). World Economic Outlook. Washington, October.

[62] International Monetary Fund. (2019). World Economic Outlook. Washington, April.
World Bank. (2019). Global Economic Prospects. Washington, January.

in federal funds rate and escalating trade tensions, have constrained their economic activity and triggered risk aversion **(Chart 1.4**). [63,64] However, jittery sentiments in such markets have not spread to other EMDEs because the country-specific factors seem to be instrumental in investors' decisions.[65]

Chart 1.4: Rising federal funds rate has compounded EMDEs vulnerabilities



Source: Bloomberg and Fedralreserve.gov

Among the EMDEs, Chinese economy has slightly moderated to 6.60 percent in 2018 as compared to 6.80 percent in the previous year. This deceleration has largely resulted from regulatory measures taken during 2017 to limit high indebtedness[66,] partly brought about by growing shadow banking intermediation, and softening of export demand due to on-going trade conflict with the US.

Anticipating further deceleration in economic activity, the People's Bank of China has provided liquidity support and reduced reserve requirements in early 2019. Moreover, there has been targeted fiscal policy loosening as well.[67]

The uncertainties surrounding trade tensions with the US are likely to critically determine future economic course of the Chinese economy. Unless the aforementioned dynamics play out positively,[68] the growth is expected to further moderate to 6.18 percent in CY19.

While GCC economies have performed well…

The pattern of economic activity in the Gulf Cooperation Council (GCC) economies is tied to the oil price dynamics. In 2017, as the oil prices dropped so did their growth (0.40 percent). With increase in oil prices, GCC economies are expected to bounce back with 2.40 percent growth in 2018 **(Table 1.2)**. The economic recovery has allowed some fiscal space to UAE, Qatar and Kuwait to invest in public projects.

Table 1.2: Gulf Cooperation Council (GCC) macroeconomic performance

	2016	2017	2018*	2019*
GDP (Annual change, percent)	2.9	0.4	2.4	3.0
Current Account Balance (Percent of GDP)	-5.6	-0.2	4.3	5.2
Fiscal Balance (Percent of GDP)	-10.4	-5.5	0.0	2.5
Average Oil Price (US$ per barrel)**	42	54	70.5	60
CPI (year avg - percent)	2.3	1.0	2.5	3.1

Source: Regional Economic Outlook, Middle East and Central Asia, IMF (Nov-2018); Bloomberg and calculations

*Projections

**Oil prices represent the Average price of UK Brent, Dubai Fateh and West Texas intermediate crude Oil, Oil prices for 2018 is actual data and Oil prices for 2019 is IMF Projections

The growth outlook though encouraging, remains uncertain as it is mainly contingent upon the future path of oil prices. Rising trade concerns, geo-political tensions in the gulf region, as well as global growth slowdown could dampen the demand for oil. This may jeopardize GCC economies growth prospects.

…and so has the US economy…

The US economy—given its considerable weight in the global output—has uniquely performed by

[63] Yield on EMDEs sovereign bonds has risen by 140 bps in 2018.

[64] International Monetary Fund. (2019). World Economic Outlook. Washington, April.

[65] IMF. (2018). Global Financial Stability Report. Washington, October.

[66] Debt levels have reached to its historically highest level of USD 34 trillion (over 253.40 percent of GDP) as of Q1CY18, compared to USD 6 trillion (145.80 percent of GDP) in Q1CY08 (Source: BIS. https://stats.bis.org/statx/srs/table/f1.2)

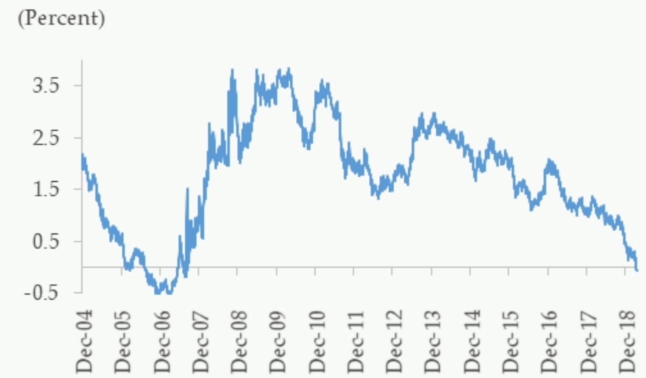
[67] Reserve Bank of Australia. (2018). Financial Stability Review. October.

[68] For example, the positive market expectation surrounding the trade talks between China and the US.

growing at 2.90 percent in 2018, higher than 2.20 percent observed in the previous year. The continued growth momentum—despite Fed's monetary tightening during 2018—is due to strong labor market conditions and robust consumption spending.

In the near term, nonetheless, the restrictions on bilateral trade may dent exports and investments. Therefore, the economic activity is expected to slow down to 2.30 percent in 2019.[69] The growth momentum may further stall as the fiscal expansion fades down. More recently, the term-premium[70] in the US has dipped into negative territory indicating increased risk perceptions of the investors about US growth outlook (Chart 1.5).

Chart 1.5: Term premium has dipped into a negative territory

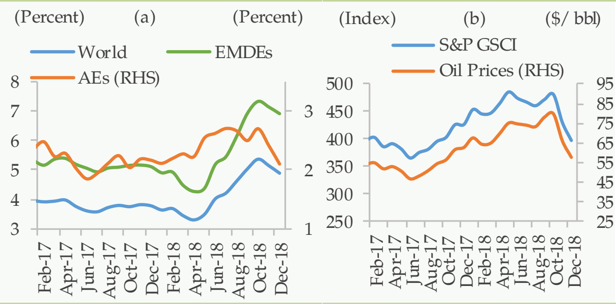


Source: Federal Reserve Bank of St. Louis
Note: Term premium is difference between 10 Year US treasury constant maturity and 3 month treasury constant maturity

Inflationary concerns, due to softening global growth, remains benign…

Globally, inflationary pressures have remained moderate during CY18 **(Chart 1.6a).** In AEs, inflation has hovered around 2.0 percent level during 2018—up from 1.70 percent in CY17.[71] In EMDEs, it has inched-up to 4.80 percent compared to 4.30 percent in 2017. Marginal uptick in the headline inflation is due to rising oil prices[72] **(Chart 1.6b)** and the pass through impact of currency depreciation in EMDEs. It is important to note that the core inflation across AEs and EMDEs has remained subdued reflecting softening of economic momentum.

Chart 1.6: Inflationary pressures remain moderate during CY18



Source: Haver Analytics, IMF; Bloomberg.
Note. Standard and Poor Goldman Sachs Commodity Index (S&P GSCI)

Risks to global financial stability have somewhat risen…

Near-term risks to global financial stability have risen modestly during CY18 amid tightening in financial conditions. Short-term risks to global financial stability could sharply elevate in response to sudden tightening of financial conditions,

[69] World Bank. (2019). Global Economic Prospects. Washington, January.

[70] Kopp, E. & Williams, P. D. (2018). A Macroeconomic Approach to Term Premium, Working Paper No. 18/140, International Monetary Fund.

[71] According to OECD database: Consumer price indices (CPIs) of OECD reached to 3.1 percent level in October 2018 and sharply reversed back to 2.1 in January 2019- on the back of lower energy prices.

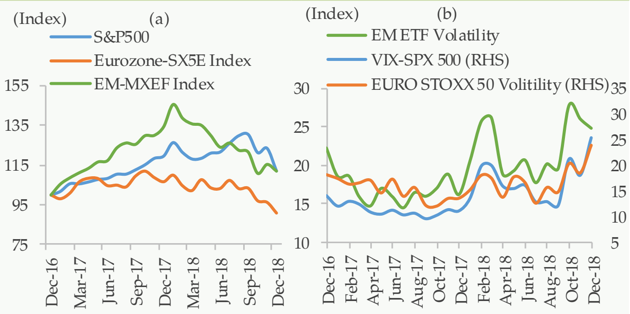
[72] In October 2018, average oil price jumped to USD 80 per barrel, achieving its peak since November 2014. The prices increased due to supply side factors, including a decrease in supply from Iran following the US sanctions and a fall in Venezuela's production. However, in recent months, oil prices have declined sharply and have settled around USD 58 a barrel. The decision by Organization of Petroleum Exporting Countries (OPEC) and Non-OPEC exporters not to cut production and the waiver given by the US from sanctions to eight countries to continue importing Iranian oil has led to this development.

unexpected growth slowdown, further increase in trade tensions, and geopolitical risks.

…and the financial vulnerabilities continue to build-up

A prolonged period of easy financial conditions has been feeding vulnerabilities into the global financial system; hence, the medium-term risks to global financial stability remain elevated. The stretched equity valuations in the US along with lower volatility[73] , amid accommodative monetary policy, represent vulnerabilities in the form of possible asset price corrections.[74] **(Chart 1.7a-b)**

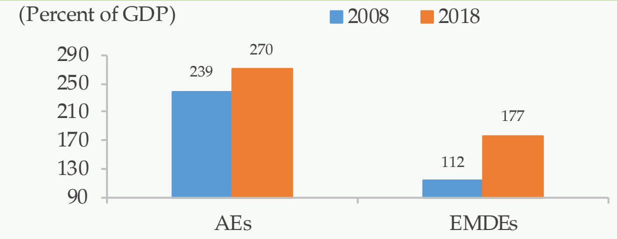
Chart 1.7: Equity valuations remain stretched in the US



Source: Bloomberg

Besides, low interest rates in AEs are triggering leverage. Total non-financial sector debt stands at USD 183 trillion (217.80 percent of world GDP)—up from USD 119 trillion (178.90 percent of world GDP) a decade earlier.[75] Most of the global debt pertains to AEs (69.41 percent share in the global debt). However, EMDEs have increased accumulation of the global non-financial debt as a percentage of GDP during the last decade **(Chart 1.8)**.

Chart 1.8: Global non-financial sector debt has risen mostly in EMDEs



Source: Bank for International Settlements
AEs comprise Australia, Canada, Denmark, the euro area, Japan, New Zealand, Norway, Sweden, Switzerland, the United Kingdom and the United States
EMDEs comprise Argentina, Brazil, Chile, China, Colombia, the Czech Republic, Hong Kong SAR, Hungary, India, Indonesia, Israel, Korea, Malaysia, Mexico, Poland, Russia, Saudi Arabia, Singapore, South Africa, Thailand and Turkey.

It deserves emphasis that in AEs, financial risk taking has increased and resultantly the stock of lower-rated investment grade bonds (BBB) has quadrupled since the global financial crisis.[76] A reversal in financial conditions or negative growth shock could hamper repayment capacity of the weaker firms and may trigger defaults.

EMDEs near-term outlook is less than encouraging…

The growth in EMDEs is likely to dip to 4.4 percent in the year 2019—slightly down from 4.5 percent in 2018. Slowing pace of economic activity reflects the impact of deceleration in China's growth, recession in Turkey, the lagged impact of weaker activity in 2018, and downturn in Iran.

Moreover, the interplay between the idiosyncratic challenges and the external environment marked by softening growth momentum in AEs and elevated trade concerns would continue to determine the near-term prospects for the EMDEs.[77]

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[73] In 2018, escalating trade tensions, concerns about possible rise in inflation due to strong wage growth in the US and hike in federal funds rate resulted in bouts of volatility across the globe in the early (February and March) and later (October to December) part of the year.

[74] Standard valuation metrics suggest that equity prices in the USA are hovering at levels significantly above its historical norm. (Source: ECB. (2018) Financial Stability Review. November)

[75] Source: BIS Database (About two-third of the total debt is held by private sector and the rest is public debt)

[76] For instance, the average exposure of European insurers to BBB-rated corporate and sovereign bonds increased from about 5 percent to more than 20 percent from 2008 to 2017 (Source: Global Financial Stability Report (April-2019).

[77] International Monetary Fund. (2019). World Economic Outlook. Washington, April.

Domestic Developments

After robust economic expansion during FY18, economic prospects are fading…

The domestic economy has managed to grow by 5.53 percent during FY18—up from the 5.22 percent in FY17. The momentum was backed by robust consumption and relatively low inflationary environment.[78] However, in FY19, economic prospects are fading[79] amid rising twin deficits, elevated inflationary pressures, and corrective policy measures taken by the authorities to rein in macroeconomic imbalances **(Table 1.3)**

Table 1.3: Key economic indicators of Pakistan

	FY16	FY17	H1FY18	FY18	H1 FY19
Real Sector	(Percent)				
Real GDP Growth	4.56	5.22		5.53	
LSM Growth (YoY)	2.98	5.64	6.58	5.12	(1.82)
Inflation (YoY Average)	2.86	4.16	3.75	3.92	6.05
External Sector	(USD Billion)				
Trade Balance	(19.3)	(26.7)	(15.2)	(31.8)	(16.0)
Exports (Goods)	22.0	22.0	11.8	24.8	11.9
Imports (Goods)	41.3	48.7	27.0	56.6	27.8
Remittances	19.9	19.4	9.9	19.9	11.0
Current Account Balance	(4.9)	(12.6)	(9.0)	(19.9)	(8.3)
SBP Reserves (End-of-Period)	18.1	16.1	14.1	9.8	7.2
PKR/USD Rate (Year Average)	104.4	104.8	106.0	110.0	129.7
Fiscal Sector	(Percent)				
Fiscal Deficit (as % of GDP)	(4.56)	(5.85)	(2.22)	(6.57)	(2.68)
Revenue Growth (YoY)	13.12	11.01	19.80	5.90	(2.39)
Expenditure Growth (YoY)	7.58	17.33	14.03	10.12	5.53
Monetary Sector	(Percent & PKR Trillion)				
Credit to Private Sector (YoY Growth)	11.15	16.81	14.21	14.92	19.10
Government Budgetary Borrowing	7.2	8.3	8.6	9.4	10.0
Borrowing from SBP	1.4	2.4	2.3	3.6	4.9
Borrowing from Schedule Banks	5.8	5.9	6.2	5.8	5.2

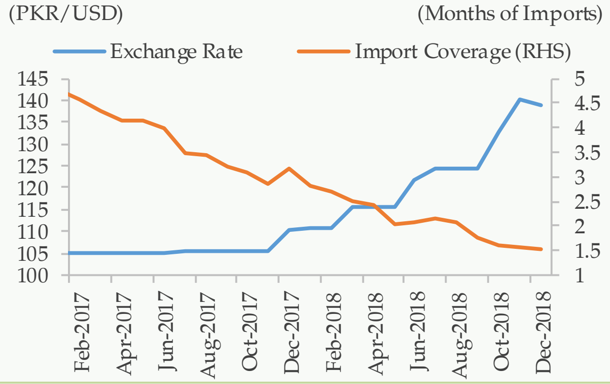
Source: Ministry of Finance, PBS and SBP

External account pressures remain instrumental risk to the growth…

In FY18, current account deficit has been 57.65 percent higher than FY17. Resultantly—absent matching inflows—SBP forex reserves declined by USD 6.4 billion to reach USD 9.8 billion by Jun-2018.

The external account vulnerabilities have continued into H1-FY19, despite marginal improvement in current account deficit. Though pickup in worker's remittances has provided some support, surge in trade deficit has overshadowed this improvement. Particularly, increase in international oil prices has led to rise in dollar value of imported petroleum products and overall imports. This coupled with a meager increase in exports has further worsened the trade deficit and curtailed the improvement in current account deficit **(Table 1.3)**.[80] Consequently, SBP's forex reserves have further declined to USD 7 billion by end Dec-2018; weakening the capacity to finance imports and leading to depreciation of domestic currency (**Chart 1.9**).

Chart 1.9: Shrinking import coverage and exchange rate pressure



Source: State Bank of Pakistan

[78] In FY18 consumption expenditure have increased by 7.23 percent

[79] Large Scale Manufacturing (LSM) growth has turned negative to 1.82 percent during H1FY19 against 6.58 percent expansion in H1FY18.

[80] State of Pakistan's Economy – Second Quarterly Report 2018-19

…and more so the fiscal imbalance…

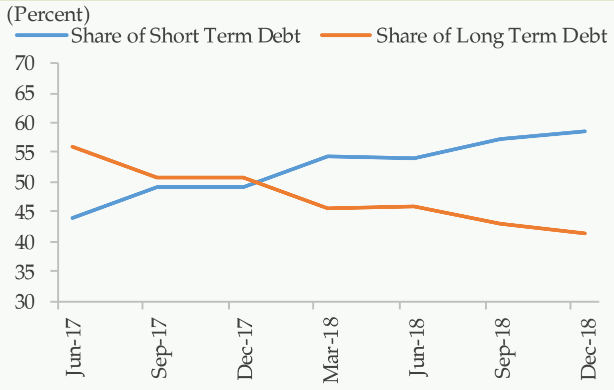
During FY18 the fiscal deficit widened to 6.57 percent from 5.85 percent in FY17. The upswing in deficit has sustained in H1FY19 despite cut in developmental spending. This increase has come from significant rise in overall expenditures and contraction in revenue collection. Resultantly, the revenue expenditure gap has widened leading to higher fiscal deficit in the first half of the current fiscal year.

Consequently, debt accumulates…

The widening twin deficits have been financed through increased borrowing from both the domestic and external sources. As of end CY18, Pakistan's gross public debt has reached to PKR 27 trillion (equivalent to 71.21 percent of GDP).

The domestic government debt has risen by 6.82 percent during H1FY19—up from 3.96 percent in H1FY18. The dynamics of domestic debt reveal that the debt structure has tilted towards short-term maturity **(Chart 1.10)**.[81] This concentration of debt at the lower end of the maturity spectrum has exposed the government to rollover risk.

Chart 1.10: Increasing share of short-term debt in Government Debt



Source: SBP

Besides, the government has heavily relied on bilateral and commercial loans leading to higher accumulation of external debt during H1FY19.[82] If the external account vulnerabilities persist, the foreign debt is likely to accumulate to bridge the financing gap leading to weakening in repayment capacity.

Besides twin deficits, growing inflationary pressures remain a concern….

Inflation began to rise since late FY18—largely due to demand pressures—and increased further during H1FY19. Average headline inflation has risen to 6.05 percent in H1FY19—up from 3.75 percent in the comparable period of the previous year. More importantly, core inflation (non-food non-energy) has increased to 8.0 percent in H1FY19 against 5.5 percent in H1FY18.

While demand pressures eased during H1FY19, rising price level is driven by a number of factors encompassing; (1) PKR depreciation (2) pass through of higher international oil prices to domestic consumers (3) upward adjustment in gas and electricity tariffs (4) higher regulatory duties on imports; and (5) increase in government borrowing from SBP.[83]

The Corrective policy measures are likely to contain domestic demand…

Notable adjustment in the exchange rate (cumulative depreciation of 23.61 percent in PKR), monetary tightening (425 bps rise in policy rate), cut in PSDP

[81] In rising interest rate scenario, banks have been reluctant to invest in long-term PIBs due to anticipated revaluation losses. Therefore, banks demanded higher return on long-term investments and kept their interest in TBills.

[82] Government's external debt has increased by USD 1.4 billion during H1FY19 reaching to USD 66 billion by the end of Dec-2018.

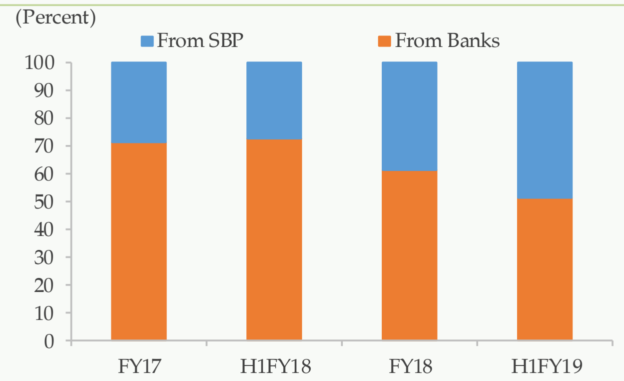
[83] Monetary Policy Statement during H1FY19.

expenditures[84], and increased regulatory duties[85] on imports during CY18, indicate a combination of policy measures taken to address the rising macroeconomic vulnerabilities. The stabilization measures have had an impact on economic activity but their full translation into moderation in aggregate demand may take some more time.

Despite monetary tightening, lending rates have been slow to respond…

In CY18, the rise of 268 bps in weighted average lending rates (**WALR**) despite 425 bps increase in policy rates indicate availability of ample liquidity with the banks. The shifting pattern of the government budgetary borrowing from banks[86] to SBP has improved banks' liquidity which led lower increase in WALR (**Chart 1.11**).

Chart 1.11: Budgetary borrowing from the banking system as a percentage of total budgetary borrowing



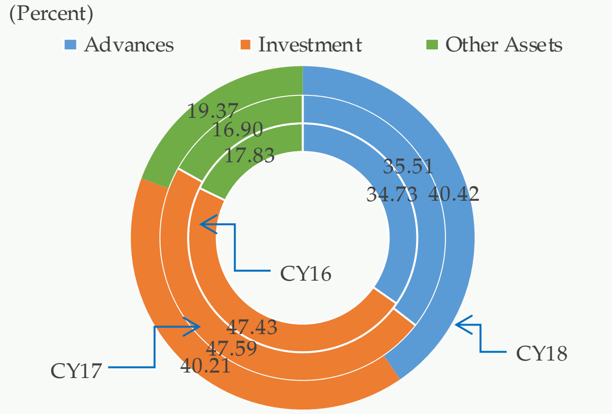
Source: SBP

…and the private sector advances have continued to surge

In the wake of ample liquidity, the banking sector has increased its lending to the private sector. The domestic private sector advances have surged by 20.03 percent (YoY) during CY18 as compared to 16.40 percent in the previous year. The robust increase in advances has resulted from higher working capital needs. However, fixed investment advances have decelerated to 8.25 percent during CY18 down from 14.97 percent in CY17. Moreover, the growth in private sector advances has been broad-based as textile, energy, chemicals, cement sectors along with individuals have availed advances **(See Chapter 3.1)**.

Resultantly, the advances share—in total assets—has risen to 40.42 percent in CY18 against 35.51 percent in CY17, while banking sector exposure to the government securities has declined **(Chart 1.12).**

Chart 1.12: Asset mix of the banking sector



Source: SBP

A combination of higher interest rates and lower economic activity may undermine the repayment capacity…

The asset quality of the banking sector may come under stress due to continued monetary tightening and receding economic activity. With higher interest rates, re-pricing of existing loans could increase the financial costs for the borrowers. This may weigh on repayment capacity and earnings of the corporates, while hurting the profitability of the banks due to higher provisioning expense **(See Chapter 3.1 and 5)**.

[84] PSDP expenditures during H1FY19 have declined by 36.86 percent.

[85] State of Pakistan's Economy – Second Quarterly Report 2018-19

[86] On net basis the government retired PKR 1073 billion to the banking sector.

The domestic economy is likely to follow slow growth trajectory in the short-term…

The much needed stabilization measures are expected to further rein in aggregate demand and higher inflation. The resultant slackness in economic activity would help abate the intensity of macroeconomic imbalances in the external and fiscal sectors. Reaching an adequate level of forex reserves seems to be the upfront challenge for favorable investor sentiments and lower risk perceptions.

2 Financial Markets Risk Analysis

Deteriorating economic conditions and uncertainty among market participants about future economic direction have kept the financial markets under stress. The forex and equity markets have witnessed higher volatility in CY18, while the money market has remained calm. The dearth of US dollar liquidity in the domestic economy has been an important aspect of markets behavior and the associated spillover effects. Going forward, the stability of the financial markets largely depends upon the intended outcome of the corrective policy measures taken to address the economic imbalances.

Vulnerabilities might be building up in the global financial markets…

In recent years, global valuations across a broad range of asset classes (equities and bonds)—driven by strong global growth, low inflation and largely accommodative monetary policies—have remained high. The rising asset prices along with lower volatility, growing leverage in non-financial sector and continued deterioration in under-writing standards represent build-up of significant financial vulnerabilities.[87,88]

In 2018, escalating trade tensions, concerns about possible rise in inflation due to strong wage growth in the US and measured hike in federal funds rate resulted in bouts of volatility in the 1st and 4th quarter of the year. (**See Chapter 1**.) However, the financial conditions have remained relatively easy in Advanced Economies (**AEs**), mainly US and EU, which have contributed to further buildup of financial vulnerabilities.

As far as the vulnerabilities in the Emerging Markets and Developing Economies (EMDEs) are concerned, they remain moderate at large. For some EMDEs (e.g. Turkey and Argentina), however, the stress[89] has risen due to higher external leverage, weak policy buffers, geopolitical tensions, and escalated trade tensions. The jittery sentiments in such markets have not spread to other EMDEs because the country-specific factors seem to be instrumental in investors' decisions.[90]

Going forward, further escalation of trade dispute between the USA and China, geopolitical risks, and any negative growth shock could lead to widespread volatility, higher risk premia, re-pricing in financial assets and increased financial system stress at the global level. The monetary policy direction in AEs, especially in the US, also remains a key risk factor in this regard.

Volatility in domestic financial markets–driven by idiosyncratic conditions—has risen in CY18…

In CY18, rising twin deficits, inflationary pressures and uncertainty among market participants about economic outlook has translated into higher volatility in the forex and equity markets (Chart 2.1). The exchange rate has cumulatively depreciated by 23.61 percent against the US dollar in CY18. In

[87](a)Reserve Bank of Australia (2018). Financial Stability Review. October.
(b) Low risk free rates—in the backdrop of accommodative monetary policy—are driving up asset prices, as these rates are central to many asset prices.
(b) According to IMF (Global Financial Stability Report-2018),total nonfinancial sector debt in jurisdictions with systemically important financial sectors has grown from $113 trillion (more than 200 percent of their combined GDP) in 2008 to $167 trillion (close to 250 percent of their combined GDP).

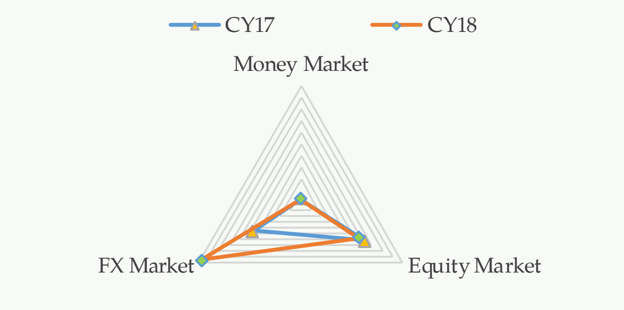
[88](a)Standard valuation metrics suggest that equity prices in the USA are hovering at levels significantly above its historical norm.

[89] Stress represents rising bond spread, declining equity prices and notable currency depreciation.

[90]IMF. (2018). Global Financial Stability Report. Washington, October.

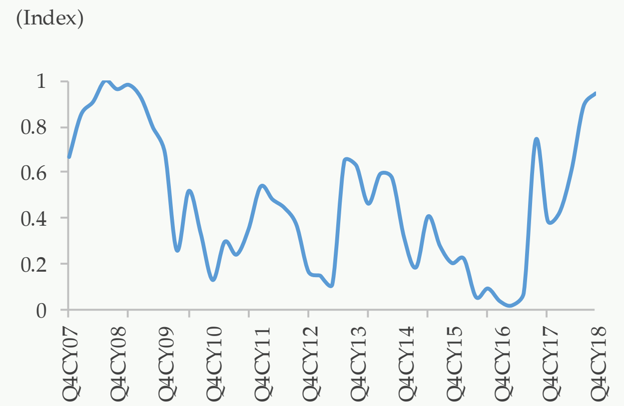
similar vein, domestic equity market was down by 7.58 percent (on average). Accordingly, stress in financial markets[91] has risen to higher level (**Chart 2.2**). However, volatility in money market, on average, has remained contained due to interest rate corridor mechanism in place, prudent management of market liquidity by SBP and better liquidity conditions prevailing in the last quarter of the year.

Chart 2.1: Elevated volatility in FX and equity markets



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

Chart 2.2: Stress in financial markets has risen

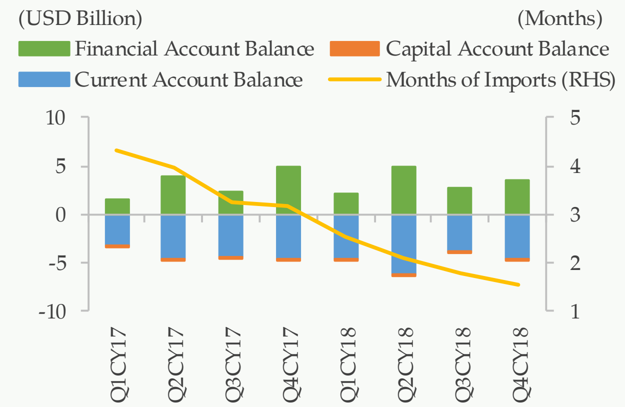


Source: SBP

Rising current account deficit leading to depreciation of domestic currency

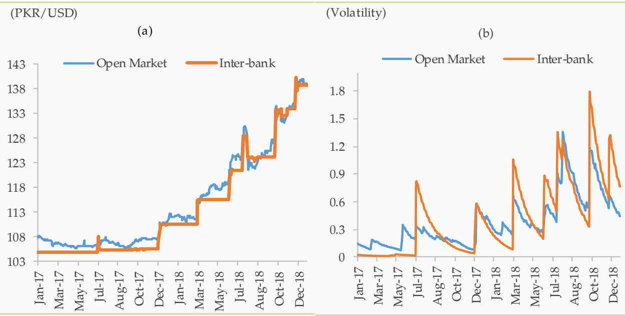
The continued surge in trade deficit[92] during CY18 has resulted in surge in the current account deficit, which contracted the SBP foreign exchange reserves by USD 6.9 billion to reach USD 7.2 billion or equivalent to 1.5 months of imports. (**Chart 2.3**). Because of weakening in capacity to finance imports, PKR has cumulatively depreciated by 23.61 percent[93] during CY18. Resultantly, volatility in the inter-bank forex and open markets has risen to a notable scale (**Chart 2.4a & b**). In addition, the average spread (between open market and the inter-bank exchange rates) during CY18 has remained at PKR 1—lower than PKR 2 in CY17, suggesting increased synchronization between interbank and open markets.

Chart 2.3: External sector pressures have continued in CY18



Source: SBP

Chart 2.4: Notable depreciation of PKR and rising volatility



Source: SBP

Changing exchange rate dynamics have influenced economic agents' behavior…

The notable adjustment in exchange rate has affected price and volume of short-term and long-term

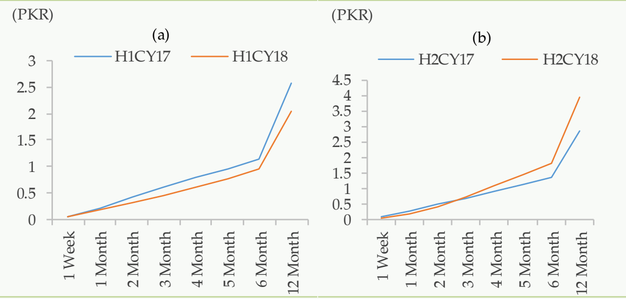
[91] Financial Market Stress Index is a composite indicator that measures the level of stress emerging from foreign exchange, money, and equity markets. For technical details see Appendix A.

[92] In CY18, trade deficit stands at USD 33 billion against USD 31 billion in CY17.

[93] On average, exchange rate has depreciated by 15.48 percent during CY18.

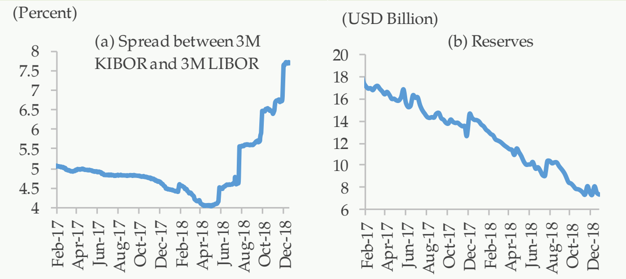
financial instruments, respectively. Lower interest rates differential kept the forward premium/Swap points[94]—a short-term forex instrument— lower during H1CY18 as compared to the previous year (**Chart 2.5a, 2.6a**).[95] However, in H2CY18—despite notable interest rate spread between domestic and international interest rates—forward premium has remained compressed (**Chart 2.5b**). This indicates higher demand for US dollars in the domestic market due to increase in external sector vulnerabilities. [96] **(Chart 2.6b)**

Chart 2.5: Forward premium has squeezed in H2CY18



Source: SBP

Chart 2.6: Rising interest rates spread and falling SBP reserves



Source: SBP; Federal Reserve Bank of St. Louis

Similarly, in case of longer-term financial instruments (such as the derivatives) a compositional change is quite apparent. While, in CY17, most of the derivative deals comprised of interest rates swaps (IRS),[97] the cross currency swaps (CCS)[98] have dominated the derivative market transactions in CY18.[99] This reflects the rising tendency of the market participants to hedge themselves against the growing exchange rate risk.

Besides influencing the price and volume of financial instruments, the changing exchange rate dynamics may alter the borrowing pattern of businesses as well. When a firm envisages expansion, it takes into account exchange rate dynamics to determine its cost of imports. In times of rising forex market volatility, the investors' long-term financing appetite, generally, dwindles. This may be evident from the decelerating private sector fixed investment advances that expanded by 8.25 percent in CY18—down from 14.97 percent growth in CY17 (**Chart 2.7a**). Moreover, in volatile times, pricing of foreign currency loans becomes expensive and demand recedes. The abating level of foreign currency loans confirms this assertion. **(Chart 2.7b)**. Therefore, the stability in the FX market is important for increased business confidence.

[94] Forward premium on currency swap is based on interest rate differential prevailing between two currencies in a pair. Higher the differential implies higher forward premium. However, the settlement of interest rate spread at par requires easy liquidity conditions of both currencies involved. For instance, if US dollar liquidity is tight in the domestic market then in such conditions, the US dollar lender would pay less premium than what interest rate differential suggest against PKR borrowing.

[95] Lower spread in H1CY18—compared to H1CY17—has been on account of consistent increase in LIBOR.

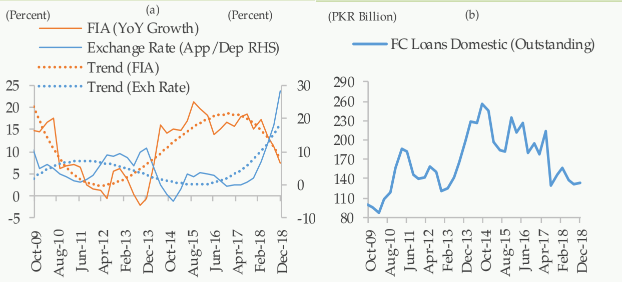
[96] SBP net reserves, on average, stood at USD 8 billion in H2CY18 against USD at 14 billion in H2CY17.

[97] In CY18, IRS deals amount to PKR 19 billion—down from PKR 23 billion in CY17.

[98] In CSS deals, counterparties exchange two different currencies at spot rate at the inception of the contract. Both parties receive interest rates on lending currency and pay on borrowed currency. The currencies are exchanges at the end of the contract with pre-determined exchange rate.

[99] In CY18, CSS deals amount to PKR 22 billion—up from 11 billion in CY17.

Chart 2.7: Exchange rate dynamics continue to influence fixed investments and foreign currency loans

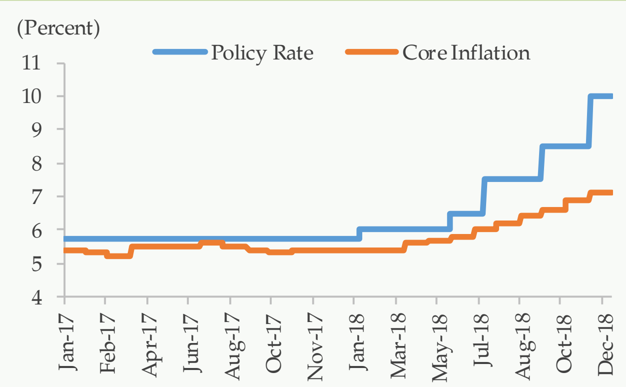


Source: SBP

Interest rates at the short-end of the yield curve have moved up in tandem with monetary policy tightening….

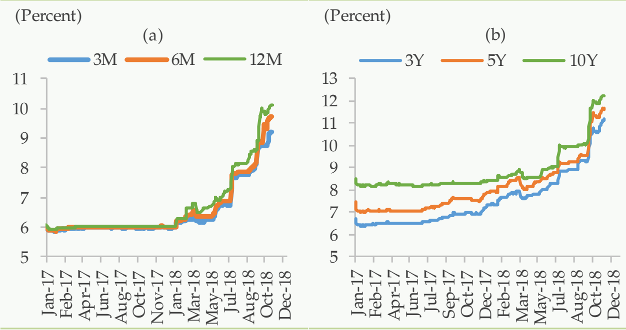
The policy rate—after remaining unchanged since Jun-16—began to move up in Jan-18. Rising inflationary pressures and higher fiscal and current account deficits explain the successive increases in policy rate during CY18 (**Chart 2.8**). Cumulatively, policy rate has risen by 425 basis points to reach at 10.0 percent in Dec-18. Accordingly, the short-term interest rates on government securities have inched up in the secondary market (**Chart 2.9a**).

Chart 2.8: Monetary policy tightening in response to rising inflation



Source: SBP

Chart 2.9: Rising YTM in short-term and long-term government securities



Source: SBP

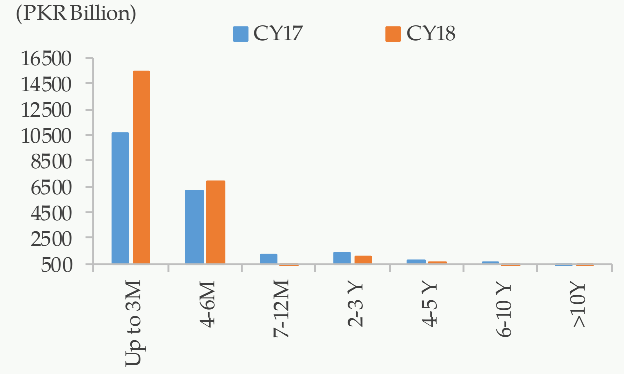
…and the interest rates at the long-end of the yield curve have inched up…

In CY17, yield on long-term government securities averaged at 7.38 percent. With rise in policy rate in CY18, average yield has increased by 200 basis points to 9.35 percent (**Chart 2.9b**). However, in perspective of term premium[100], the yield on long-term securities has risen to a lesser extent as compared to the short-term securities. As a result, the term-premium is trending downwards. This may suggest less than optimistic expectations of market participants about the future economic prospects.

In the secondary market, most of the trading activity of government securities during CY18 has taken place in maturities of up to 3 months, mirroring the primary market developments (increasing interest in short-term securities by market participants) (**Chart 2.10**). Thin trading in longer-term maturities may undermine their true price discovery, besides reflecting the risk averse behavior of market participants.

[100] The term-premium has been proxied by the spread between long-term (3Y PIBs) and short-term (3M T-bills) yield.

Chart 2.10: Secondary market trading remains concentrated in short-term maturities

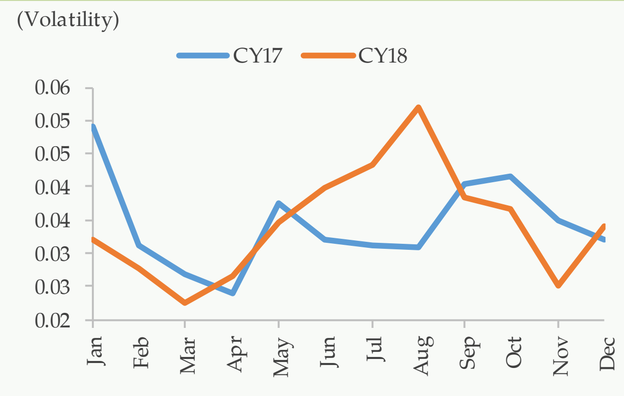


Source: SBP

Government's borrowing pattern as well as market's bidding behavior have remained key drivers of money market volatility…

In CY18, overnight repo rate, on average, has been one basis point above the policy rate (versus 7 basis points higher in CY17). The average volatility has also remained at a lower level in CY18 compared to CY17. However, dynamics of the overnight repo rate during the year reveals that—from Apr-18 to Aug-18—volatility has remained high and it declined only towards the end of CY18 (**Chart 2.11**).

Chart 2.11: Changing volatility dynamics during CY18

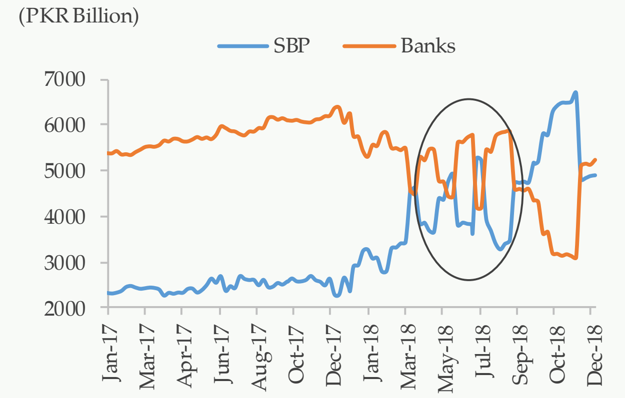


Source: SBP

The liquidity conditions in the money market are strongly influenced by the government's institutional choice for budgetary borrowings as well as market participant's appetite for government bonds. Due to transition in government during the mid of the year, consistency in choice of government borrowing has been effected, which increased uncertainty and volatility in the market during Apr-Aug 18. Moreover, during the same period, banks have not been a willing lender to the government, which added to the volatility.

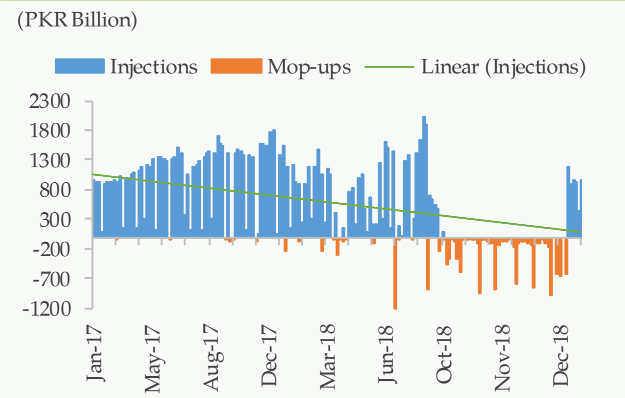
Moreover, SBP has had to calibrate its market interventions according to the liquidity conditions existing in the market (**Chart 2.12 and 2.13**). It has made injections until Aug 18 and thereafter mostly mop-ups. It is interesting to note that despite injections during Apr-Aug 18, the money market has remained volatile, due to government's borrowing pattern.

Chart 2.12: Rising budgetary borrowing from SBP during CY18



Source: SBP

Chart 2.13: OMO's injections have slowed down in CY18

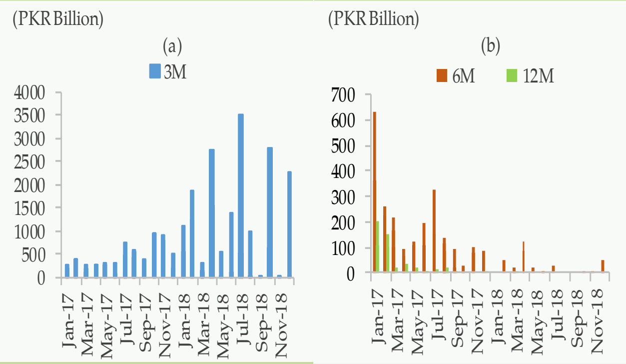


Source: SBP

Banks increasingly invested in short-term treasury bills…

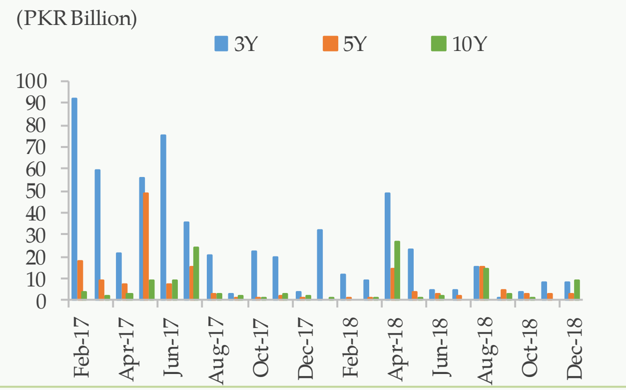
The analysis of primary market reveals that the banks have been actively participating in 3 months treasury bills auctions since latter half of CY17, while their participation in 6 months and 12 months treasury bills auctions have remained negligible (**Chart 2.14**).[101,102] This is mainly due to higher interest rate expectations—a fact corroborated by decreasing interest of banks in long-term government securities (PIBs). The banks have not only demanded higher returns on PIBs during CY18 but have also offered lower amounts **(Chart 2.15)**. [103] This also suggests that the formation of higher interest rate expectations by the market participants began a few months prior to the monetary policy tightening.

Chart 2.14: Banks have been offering higher investments in 3M treasury bills auctions



Source: SBP

Chart 2.15: Reduced banking sector's appetite in PIBs during CY18

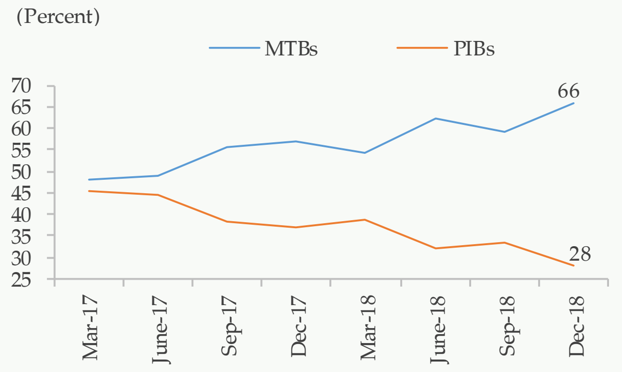


Source: SBP

...leading to higher rollover risk for the Government

Banks interest in short-term government securities have led to further increase in rollover risk for the government[104]. The share of MTBs in total government debt from the banking sector has increased to 65.86 percent in Dec-18 from 57.06 percent a year ago, while that of PIBs has declined to 28.07 percent in Dec-18 from 37.17 percent in Dec-17 (**Chart 2.16**).

Chart 2.16: Increasing exposure of the Government on short-term debt



Source: SBP

The equity market valuation is trending downwards...

In CY18, equity market—down by 7.58 percent on average—has remained bearish and range bound (**Chart 2.17**). Tightening macrofinancial conditions (rise in interest rates, exchange rate depreciation, inflationary pressures etc.), uncertainty (arising from political transition), and net-foreign outflows in response to persistent increase in the Federal funds rate have contributed to the equity market slowdown. As a result, the market capitalization has

[101] CY17 statistics show that out of the total 26 auctions held for 6M treasury bills, banks—with one rejection—participated in 25 auctions. However, in CY18, participation is down to 13 auctions with 6 rejections due to higher bidding.

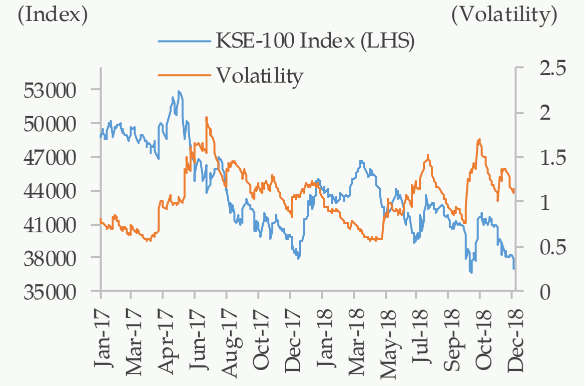
[102] Banks participated in 20 auctions against 12M treasury bills during CY17 while 4 were rejected. In CY18, banks have participated just in one auction which has been rejected.

[103] In CY18, most of the bids have been rejected in PIBs.

[104] Re-pricing of the debt with higher frequency could lead to higher cost of debt servicing especially in rising interest rate scenario.

reduced by 10.25 percent during CY18 (versus 10.98 percent decline in CY17) (**Table 2.1**).

Chart 2.17: Equity market has remained volatile during CY18



Source: SBP

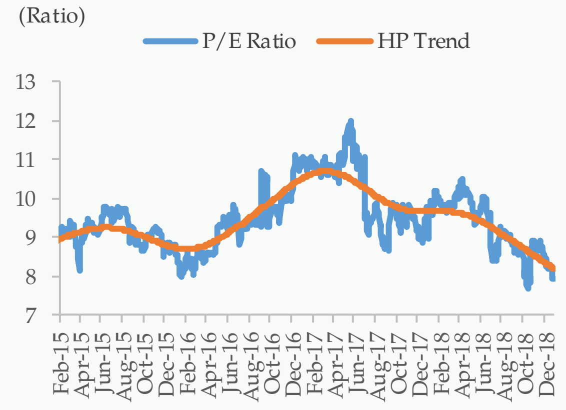
Table 2.1: Capital market developments in Pakistan

	Dec-16	Dec-17	Dec-18
Million PKR except companies, index and bond data			
Total No. of Listed Companies	558	559	546
Total Listed Capital - PKR	1,291,040	1,276,801	1,322,748
Total Market Capitalization - PKR	9,628,514	8,570,926	7,692,787
KSE-100™ Index	47,807	40,471	37,067
Growth (KSE-100 Index)	45.7%	-15.3%	-8.41%
KSE-30™ Index	25,852	20,215	17,174
KSE Meezan Index (KMI-30)	81,795	68,611	61,174
KSE All Share Index	32,842	29,774	28,043
New Companies Listed during the year	4	7	3
Listed Capital of New Companies - PKR	5,490	12,549	5,432
New Debt Instruments Listed during the year	1	1	6
Listed Capital of New Debt Instruments - PKR	10,000	10,500	28,820
Average Daily Turnover - Shares in million	293	249	194
Average value of daily turnover - PKR	11,638	12,099	7,871
Average Daily Turnover (Future™) YTD	49	60	68
Average Value of Daily Turnover - YTD	3,057	4,307	3,022

Source: Pakistan Stock Exchange

The corporate profitability has also come under pressure as their earnings[105] growth declined to 2.91 percent in CY18 from 18.77 percent a year earlier.[106] **(See Chapter 5)**. This along with PKR depreciation has resulted in reduced dividends (USD 1.9 billion in CY18 versus USD 2.4 billion in CY17) on foreign portfolio (in dollar terms) and inflow of direct investments.

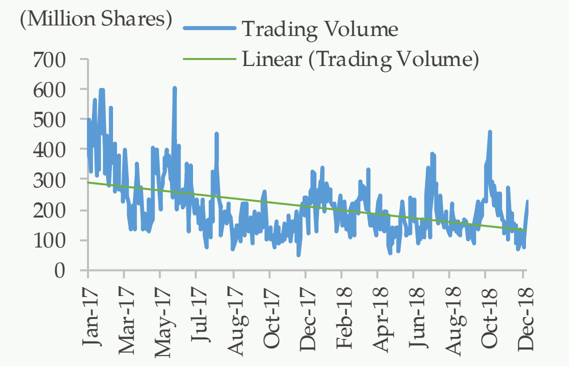
Chart 2.18: Downtrend in equity market valuation



Source: Bloomberg

With decline in market prices and the corporate earnings, the average Price-to-Earnings ratio (P/E) has also reduced to 9.24 in CY18 against 10.18 in CY17. **(Chart 2.18)**. Further, the investors became risk averse and refrained from taking aggressive positions, which has squeezed trading volume in equity to 194 million shares in CY18 against 249 million shares in CY17 (**Chart 2.19**).

Chart 2.19: Trading activity in equity market remains weak during CY18



Source: SBP

...leading to increase in risk aversion...

The narrowing gap between earnings yield[107] in equities and risk-free money market instruments in CY18 has compounded the risk averse behavior

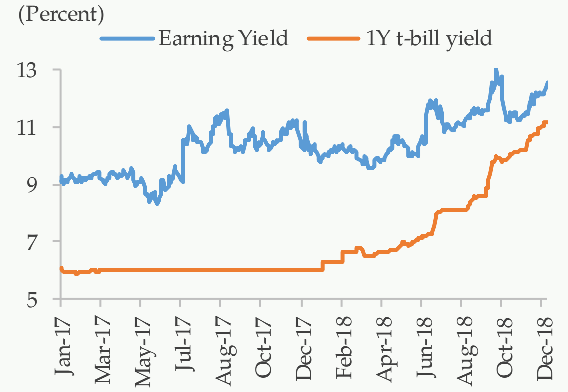
[105] Earnings before interest and taxes (EBIT). It represents 303 firms listed on Pakistan Stock Exchange

[106] Financial expenses of 303 listed firms are higher by 19.35 percent in CY18 as compared to CY17.

[107] Earnings yield refer to the earnings per share for the most recent 12-month period divided by the current market price per share.

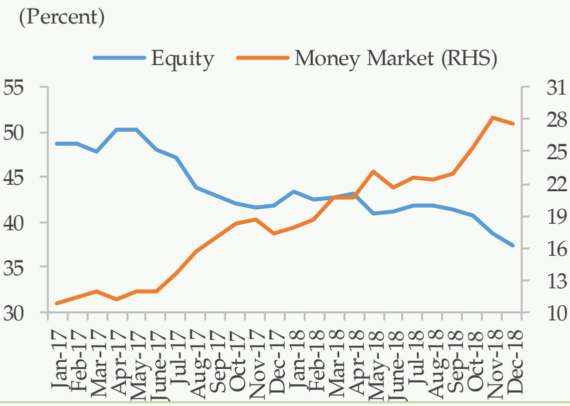
(**Chart 2.20**). This is evident from the changing composition of asset portfolio held by the mutual funds. The share of money market assets (in total assets) has increased to 27.67 percent (17.42 percent in Dec-17), while the exposure to equity market has declined to 37.43 percent (41.90 percent in Dec-17) (**Chart 2.21**).

Chart 2.20: Narrowing gap between earning yield and money market yield



Source: SBP

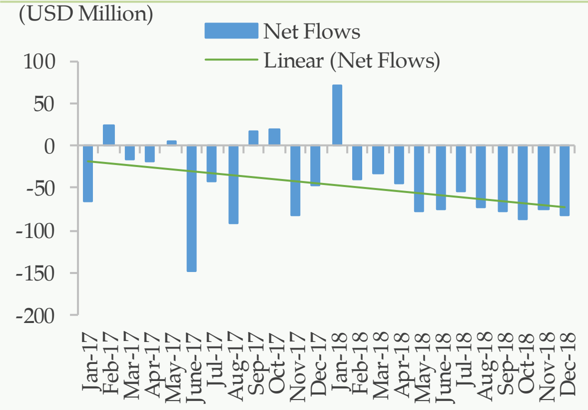
Chart 2.21: Increasing investments of mutual funds in money market instruements



Source: SBP

Increased risk aversion is also reflected in the persistent net outflow of foreign portfolio investment (**Chart 2.22**). [108] Though the foreign investors has been net sellers in the previous year as well, the bearish sentiment has been re-enforced by the fading macroeconomic prospects.[109]

Chart 2.22: Foreign portfolio investment has observed consistent outflow in CY18

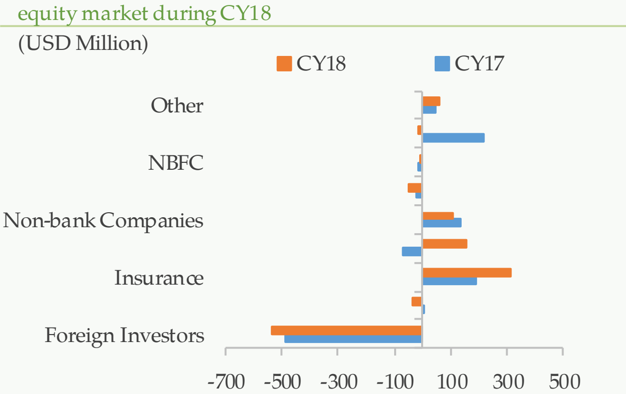


Source: SBP

...and rise in market volatility

The non-conducive market conditions have kept the volatility in the equity market at elevated level (**Chart 2.17**). Notably, the nervous withdrawal by the foreign investors from the market could have resulted in higher volatility, had it not been mitigated by active participation of domestic institutional investors such as Insurance (**Chart 2.23**).

Chart 2.23: Insurance sector has absorbed most of the selling in equity market during CY18



Source: Pakistan Stock Exchange

Though, the downside risks to equity market returns remain muted...

Value at Risk[110] (VaR) analysis indicates that—despite the prevailing stress in the equity market—

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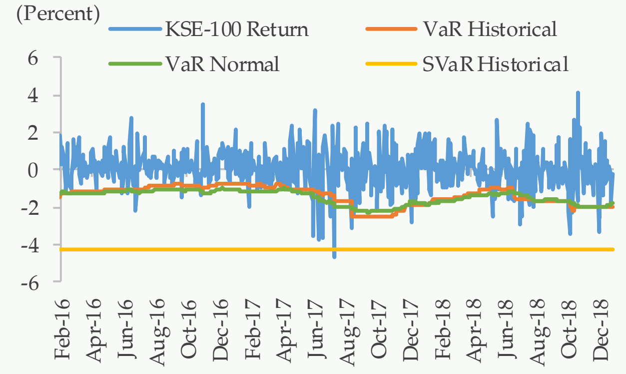
[108] In CY18, cumulative net foreign investment outflow from equities stands at USD 647 million against USD 447 million in CY17.

[109] Pakistan's sovereign risk ratings by Fitch has been revised downward to B in Jan-18 and further to B Negative in Dec-18.

[110] VaR represents the probable amount (or percentage) of downside risk of investment at any given point in time. Here, to assess the riskiness of KSE returns, 100 days rolling Historical and Normal VaR along with stressed VaR (SVaR), at 95 percent confidence level, have been computed.

downside risks to the market returns have remained contained during CY18 **(Chart 2.24).** The actual returns of KSE-100 index have breached the VaR measure with lower frequency (17 times in CY18 vs. 20 times in CY17). Moreover, unlike CY17, the returns have not dipped below the stressed VaR[111] during CY18.

Chart 2.24: Downside risks to equity market returns remain muted



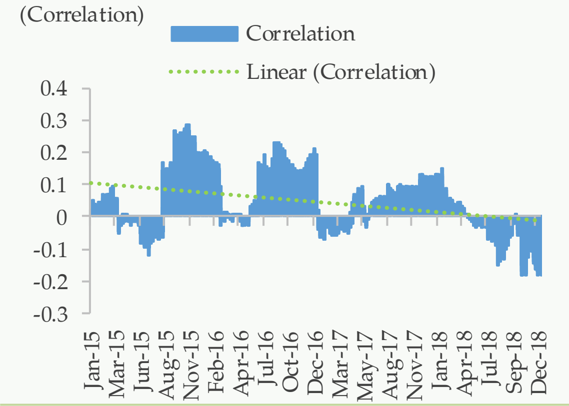
Source: SBP

The equity market returns are in-sync with MSCI Emerging Market Index …

The synchronized behavior of KSE-100 index with MSCI EM index during CY18 suggests that the idiosyncratic vulnerabilities experienced by the EMDEs as a group have been aggravated by the external environment. [112]

Moreover, the correlation between domestic equity market and S&P 500 index has not only weakened over-time but it has also turned negative in H2CY18 (**Chart 2.25**). This recent decoupling suggests the growing chasm between the business cycles of the US and domestic economy, the "flight to safety" motive of global investors, and weakening of spillover effect through trade channel in view of the protectionist stance in the US.

Chart 2.25: Correlation between KSE-100 index and S&P 500 has weakened overtime



Source: SBP

Going forward, the stability in financial markets hinges on several factors…

Domestic financial markets—particularly forex and equity markets—in CY18 have remained volatile primarily due to external account pressures, higher fiscal deficit, rising inflationary pressures, and elevated uncertainty among market participants. In addition, the dearth of US dollar liquidity has been important aspect of financial markets behavior and connectivity during CY18 **(see Box 3).**

Going forward, improved stability in the financial markets—particularly forex and equity markets—largely depends on (i) how effectively the dearth of forex market liquidity is addressed; (ii) the realization of anticipated outcomes of corrective policy measures; (iii) the direction of investors' sentiments; and (iv) the successful implementation of the IMF program.

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[111] Stressed VaR refers to minimum 100-days rolling value during the entire sample period (January 2001-December 2018).

[112] The correlation coefficient turns out 0.78 between MSCI EM and KSE-100 index during CY18. Moreover, the returns (on average) of MSCI EM (-.06 percent) and KSE-100 index (-.05 percent) have been almost the same.

Box 3: US Dollar Liquidity Remains an Important Aspect of Inter-Connectedness and Financial Markets Behavior during CY18

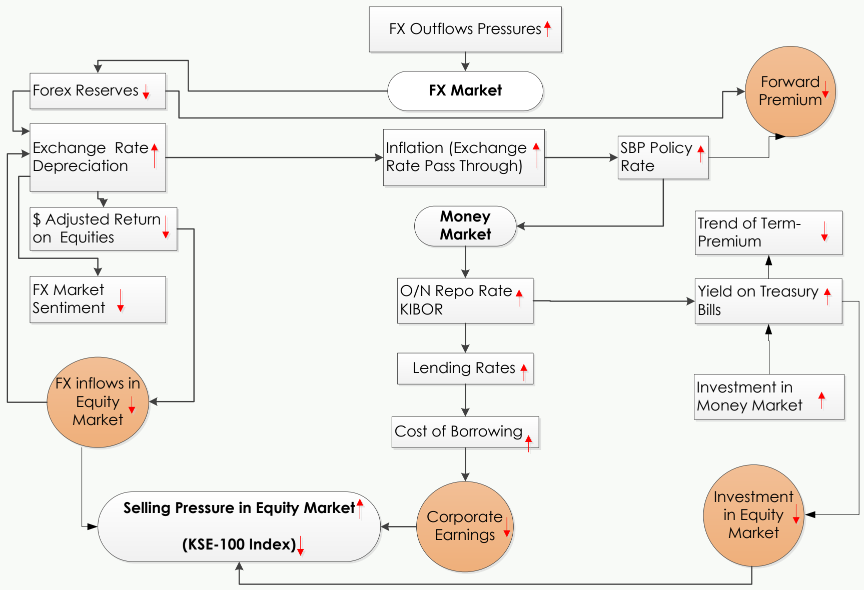
In CY18, US dollar liquidity has remained one of the important aspects of connectivity in domestic financial markets. Forex market developments have affected equity market through lower dollar adjusted returns[113] on foreign investment and rising inflation (exchange rate pass-through impact). Lower dollar adjusted returns have resulted in net outflow of foreign portfolio investment exerting pressure on equity market and exchange rate (**Chart A1**).[114] With rising inflation, SBP increased its policy rate, which in turn translated into higher lending rates thereby increasing cost of borrowing for the corporate sector. Resultantly, increased financial expenses undermined corporate earnings and added to selling pressure in the equity market.

Also, rising yield in money market instruments (treasury bills) concomitant with falling stocks prices have triggered investment flows towards money market funds from the equity market.

The link between forex and money market is also reflected through forward premium. Rising interest rates in the domestic market –relative to the interest rates in foreign markets—should make up higher forward premium in forex swap transactions. However, despite notably higher interest rate spread, forward premium during H2CY18 has remained squeezed due to the dearth of dollar liquidity coupled with expectations of PKR depreciation in the domestic market.

To conclude, US dollar liquidity has played vital role in explaining the behavior and inter-connectedness of financial markets during CY18.

Chart A.1: Financial Markets Inter-linkages during CY18



Note: Colored boxes represent market stress.

[113]Exchange rate depreciation results into lower dollar adjusted returns as foreign investment return on equity is measured in PKR. Therefore, returns deliver back less dollars in case of domestic currency depreciation.

[114]During CY18, except the month of January, equity market has observed consistent net foreign investment outflow.

Section A: Banking Sector

3.1 Performance and Risk Analysis of the Banking Sector

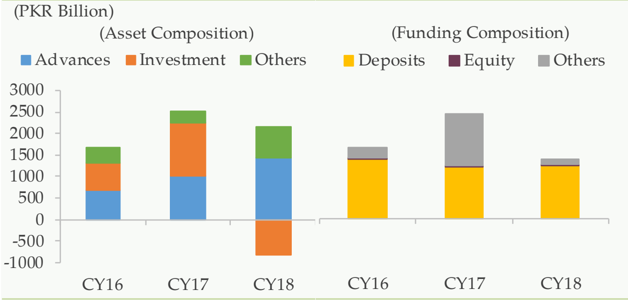
The banking sector has remained resilient during 2018 despite challenging macrofinancial conditions. The solvency has further improved, the fund-based liquidity has remained at a comfortable level and the interconnectedness within the banking sector has stayed unchanged. The financing growth has surged and the Non-Performing Loan ratios has touched its lowest level since CY08, though quantum of Non-Performing Loans has increased. Deposits, despite some deceleration, have remained the mainstay on the funding side. The pace of decline in profitability has receded and the reliance on interest income has increased. Going forward, credit, market and other emerging risks (such as AML/CFT and Cybersecurity) may pose significant challenges for the banking sector, though. The banks may also encounter funding constraints if the deceleration in deposit growth prolongs.

Banking sector responds well to the tighter macrofinancial conditions…

During CY18, the banking sector has weathered the macrofinancial headwinds with limited impact on performance and soundness.

The asset growth of the banking sector has decelerated mainly due to net-maturity of long-term government bonds. The liquidity thus generated, in addition to support from growth in deposits, has not only enabled banks to meet higher cost-push financing demand but also lowered their borrowings **(Chart 3.1.1)**. Encouragingly, advances disbursements have been broad-based to multiple economic sectors leading to uptick in "advances to deposit" ratio. The asset quality has observed a mixed trend with Non-Performing Loans (NPLs) ratio continuing to decline, albeit, with increase in quantum of NPLs.

Chart 3.1.1: Asset and liability composition of the banking sector (flows)



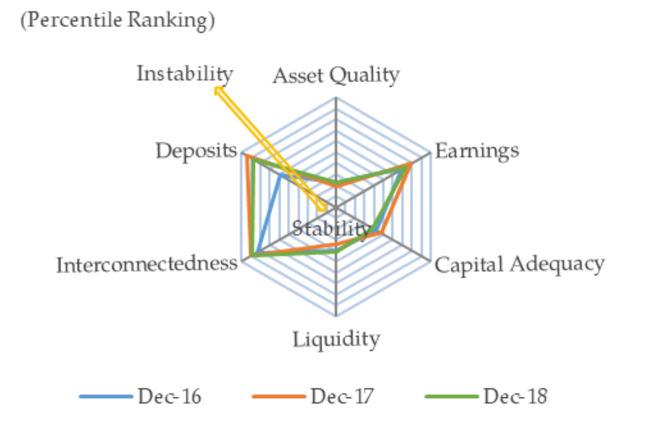
Source: SBP

The profitability of the banking sector has continued to moderate during the year. However, the pace of decline has receded due to rising volume of interest income coming from healthy growth in advances and increase in interest rates.

The level of interconnectedness remains similar to last year with decline in volume of unsecured borrowing and lending. The solvency has further strengthened with CAR inching up to 16.2 percent, which is well above both the global and local minimum benchmarks. However, few small banks are facing challenges on liquidity and solvency fronts.

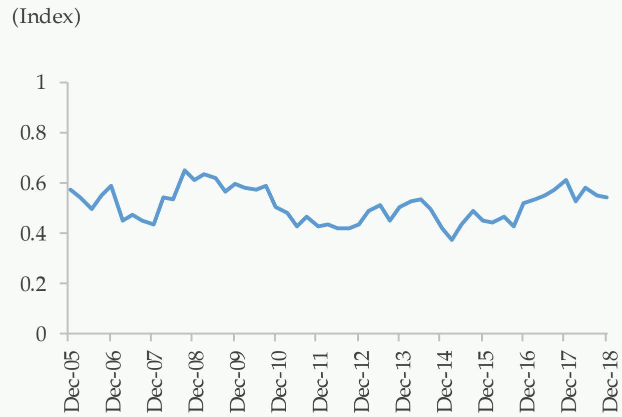
The consolidated picture of key risk dimensions of the banking sector has improved which is evident from the Banking Sector Stability Map (BSSM) and Banking Sector Vulnerability Index (BSVI) **(Chart 3.1.2 and 3.1.3)**.

Chart 3.1.2: Banking Sector Stability Map



Source: SBP

Chart 3.1.3: Banking sector vulnerability index



Source: SBP

1. Asset Quality

Credit risk of the banking sector in Pakistan mostly emerges from loans, as the banks have limited exposure in private sector debt instruments (e.g. Term Finance Certificates, Sukuk, debentures etc.). In addition, the significant holding of domestic government securities carries only market risk, as it attracts zero credit risk weight under Basel III capital adequacy rules.

The NPLs of banking sector advances rises…

NPLs, which had been hovering around PKR 600 billion during CY11-17, have escalated by 14.7 percent to reach PKR 680 billion by end of CY18, both, due to addition of fresh NPLs and lower cash recoveries.

Most of the fresh domestic NPLs have emerged in sugar, agriculture, and production and transmission of energy sectors along with individuals. The low market price of sugar and ongoing legal proceedings against one of the corporate groups, with large exposure in sugar, has resulted in classification of loans in this sector. Also, the delayed purchase and crushing of sugarcane by the sugar mills restrained farmers from fulfilling their financing obligations to banks on time. The rise in agriculture sector NPLs results from low yields owing to water shortage and drought conditions, late procurement of wheat by public procurement agencies, default in government declared "calamity affected area", and rise in input prices (such as seed, fertilizers, pesticides, electricity and POL) due to PKR depreciation.

Besides domestic defaults, foreign operations of banking sector have contributed 39.02 percent in the flow of NPLs during CY18. This mostly relates to few banks' exposure in GCC countries. These bad loans, mostly, pertain to electronics appliances and automobiles sectors as well as individuals. In addition, PKR amount of foreign operations' NPLs has, partially, escalated due to depreciation of domestic currency.

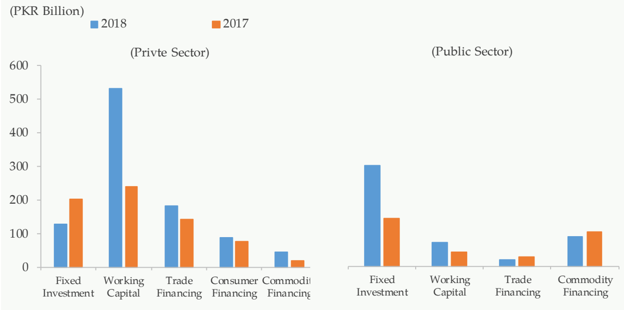
…but, the advances growth accelerates…

The growth momentum in advances has accelerated in CY18. The gross advances have risen by 21.27 percent in CY18 compared to 16.90 percent in CY17. The key thrust has come from domestic advances (both private and public). Resultantly, advances to deposit ratio has inched up to 55.81 percent; the highest level since Q4CY11.

The domestic private sector has observed an active buildup of financing flows of 20.0 percent across the corporates, SMEs, consumers and commodity operations. There has been strong growth in working capital financing followed by trade finance **(Chart 3.1.4).** Sector-wise, the major private borrowing pertains to textile, food and beverages, cement, production and transmission of energy, chemicals, real estate sectors etc.

The public sector advances, up by 28.47 percent, has major contribution from fixed investment loans due to settlement of circular debt through state owned Power Holding Private Limited (PHPL), project expansion and Balancing, Modernization, and Replacement (**BMR**) **(Chart 3.1.4)**.

Chart 3.1.4: Private and public sector financing (flows)



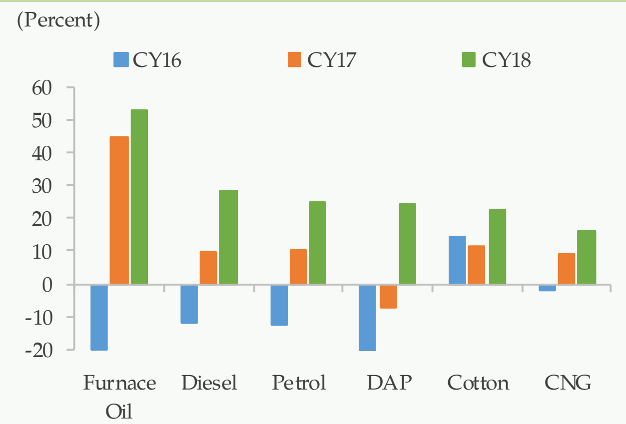
Source: SBP

However, rise in financing urges caution…

The following factors suggest that advances growth may be viewed with caution:

(a) The rise in working capital flows is mainly due to higher input/raw material prices owing to PKR depreciation **(Chart 3.1.5).** This is evident from the slow real economic activity in the manufacturing sector. The large-scale manufacturing (LSM) index has observed a growth of only 1.40 percent in CY18.

Chart 3.1.5: Growth in key input prices (year average)



Source: PBS

(b) After growing persistently during the last few years, the private sector fixed investment financing growth has decelerated to 8.25 percent, in CY18 compared to 14.97 percent in CY17. A broad based deceleration has occurred in various sectors including textile, construction, transport, storage and communication, chemicals and chemical products. This contraction in demand is likely due to (i) tightening of macro-financial conditions (ii) completion of ancillary projects (mostly infrastructure and power) related to CPEC and (iii) downbeat investor sentiments.[115]

(c) The liquidity glut has induced banks to not only offer loans at lower margins but increase the average loan size also. [116,117] Due to high competition in extending loans, banks have offered financing even at KIBOR, which means that banks have assumed credit risk on their corporate clients at par with their interbank exposures (underpricing of risk).[118] Moreover, though the number of private business loan applications have reduced from 1.33 million in CY17 to 0.76 million in CY18, the average loan size has more than doubled (from PKR 3,389 in CY17 to PKR 6,887 in CY18).

(d) The reviewed year has witnessed higher financing demand in production and transmission of energy sector. However, a significant portion of public sector financing has been utilized for the settlement of circular debt

[115] The 16th and 17th waves of Business Confidence Index Survey (BSI) conducted by Overseas Investor Chamber of Commerce (OCCI) in May and December 2018, respectively, showed a significant decline in the overall business confidence Score (BCS) in both waves of the surveys. Similarly, SBP Business Confidence Survey also indicates the deterioration in business confidence during Aug-18 (i.e. first published survey) and April-19.

[116 116] Due to excess liquidity, (a) the average deviation between ONR and SBP policy rate has been only 0.003 bps in CY18 compared to 6.36 bps in CY17, (b) weekly data shows higher average (1.22 trillion) outstanding stock of cash and banks' balance with other banks (including treasury bank) in CY18 compared to CY17 (1.09 trillion).

[117] The average monthly spread between weighted average lending rates (excluding zero markup and interbank) on fresh advances and weighted average deposit rates (including zero markup and excluding interbank) on fresh deposit has reduced from 4.13 percent in CY17 to 4.08 percent in CY18 (http://www.sbp.org.pk/ecodata/Lendingdepositrates.pdf).

[118] Source: The State of the Pakistan's Economy: First Quarterly Report FY19 (http://www.sbp.org.pk/reports/quarterly/fy19/First/Chap-3.pdf)

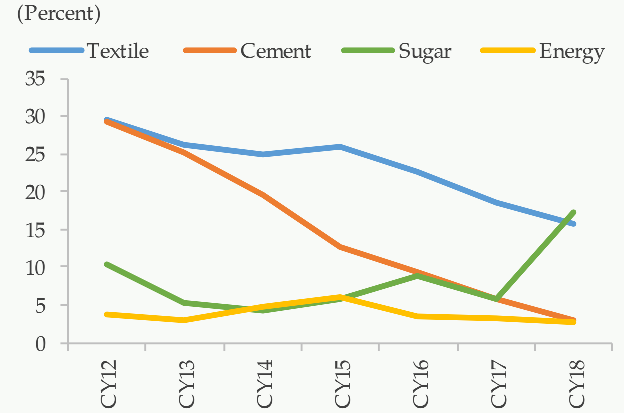
and hydel payments by federal government to the provincial government using one of the PSEs as a vehicle for routing funds.

(e) Consumer financing has increased by 19.74 percent, primarily, due to pick-up in personal loans category. The growth in auto loan, a key contributor in consumer financing since the last few years, has decelerated due to bar placed on non-filers from purchasing/ registering vehicles.

As the financing growth outpaces NPLs buildup, the infection ratio slides…

Due to higher proportionate growth in advances than NPLs, the overall NPLs ratio has reduced to 7.97 percent by end CY18 compared to 8.43 percent in CY17. The fall is obvious in most of the key sectors, except sugar **(Figure 3.1.6)**. Textile sector, which is the largest borrower of the banking sector, has witnessed a dip in the infection ratio as well as in absolute value of NPLs.

Chart 3.1.6:Sector-wise infection ratio



Source: SBP

…though net credit risk rises for specialized and local private banks…

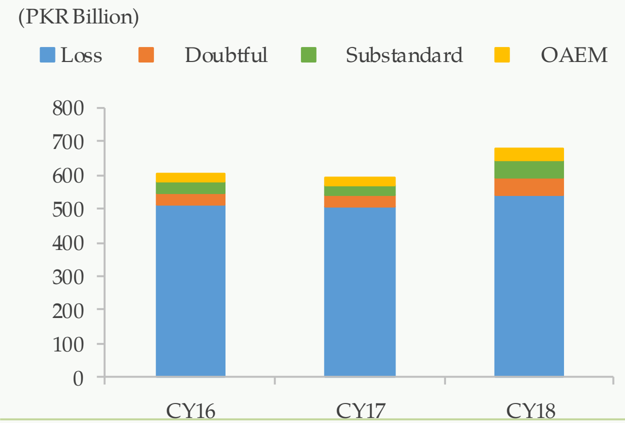
The provision coverage ratio has come down from 87.24 percent in CY17 to 83.80 percent in CY18. This decline has largely resulted from increase in NPLs in Agriculture and sugar sector especially in case of Specialized and local private banks **(Table 3.1.1)**. Consequently, the net-NPLs to net-loans ratio has risen to 1.38 percent as of end CY18 compared to 1.16 percent as of end CY17. Though the coverage still seems adequate, 20.40 percent of outstanding NPLs are still held in Other Asset Especially Mentioned (OAEM), subordinate and doubtful categories. Any further downgrading, going forward, may lead banks to bear additional provisioning expense **(Figure 3.1.7)**.

Table 3.1.1: Asset quality by bank-wise category (percent)

	CY16		CY17		CY18	
	Infection Ratio	Provision Coverage Ratio	Infection Ratio	Provision Coverage Ratio	Infection Ratio	Provision Coverage Ratio
	Percent					
PSCBs	15.90	81.43	13.40	87.03	12.75	88.21
LPBs	8.14	90.11	6.77	90.99	6.17	87.44
FBs	8.33	100.25	6.65	103.14	3.84	108.40
CBs	**9.72**	**87.28**	**8.09**	**89.75**	**7.47**	**87.80**
SBs	21.82	50.09	22.00	50.66	32.89	38.87
All Banks	**10.06**	**85.05**	**8.43**	**87.24**	**7.97**	**83.80**

Source: SBP

Chart 3.1.7: Composition of Non-Performing Loans (NPLs)



Source: SBP

While some small sized banks have become more vulnerable to credit risk…

During CY18, small sized banks (asset share: 8.04 percent) and very small size banks (asset share: 1.68 percent) have become more prone to credit risk with the rise in infection ratio as well as decline in the provisioning coverage ratio **(Table 3.1.2).** These are the banks, which contain major share in the flows of NPLs during the reviewed year. On the other hand, large and medium size banks have improved both in terms of infection ratio as well as provisioning coverage.

Table 3.1.2: Size-wise asset quality of the banking sector

	CY16		CY17		CY18	
	Infection Ratio	Provision Coverage Ratio	Infection Ratio	Provision Coverage Ratio	Infection Ratio	Provision Coverage Ratio
	Percent					
Large	8.16	92.66	7.46	94.77	6.76	95.77
Medium	13.81	79.19	9.78	83.68	7.63	90.42
Small	11.53	67.06	10.10	62.10	12.19	43.10
Very Small	18.68	92.05	14.07	93.96	26.73	64.11
All Banks	**10.06**	**85.05**	**8.43**	**87.24**	**7.97**	**83.80**

Source: SBP

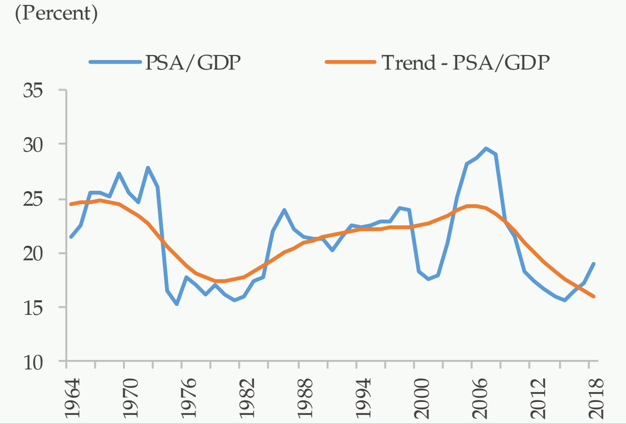
…and the lag impact of monetary tightening may impact asset quality…

Though banks' fresh loans are disbursed at a higher rate in response to monetary tightening, there still exists a significant portion of outstanding loans, which may be repriced with some lag due to contractual bindings. The fact that major rise in policy rate has occurred towards the end of CY18 and beyond, the borrowers may face further hike in interest expense later on. This coupled with the lower corporate profitability may deteriorate the repayment capacity of borrowers and increase NPLs. Generally, a lag of four to six quarters exists between the rise in interest rates and the subsequent buildup of NPLs.[119]

Pro-cyclical systemic risk remains subdued, despite continuous growth in advances…

The growth momentum in advances since last few years and recent economic slowdown warrants an assessment of pro-cyclical systemic risk in the banking sector of Pakistan.[120,121] The Advances to GDP ratio against its long-term trend, one of the commonly used indicators to assess pro-cyclical systemic risk, reveals that the gap has turned positive and is on the rise **(Chart 3.1.8)**.

Chart 3.1.8: Private Sector Advances (PSA) to GDP ratio

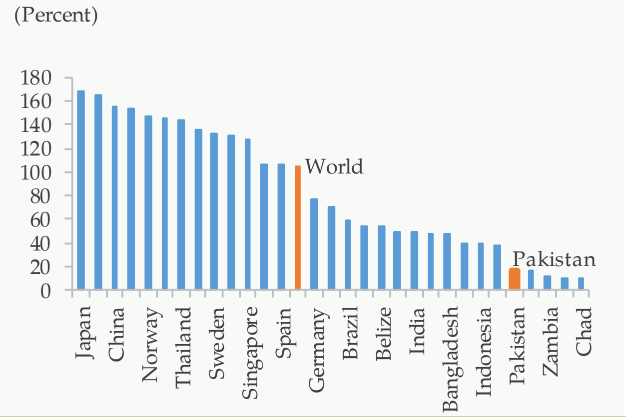


Source: SBP

However, credit-overheating possibilities are remote because:

(a) The magnitude of advances to GDP ratio in Pakistan is, in itself, not that high compared to even the peer counterparts **(Chart 3.1.9)**. The ratio in Pakistan has been hovering around 15-20 percent historically and peaked at 29.66 percent in 2007. It currently stands at 17.24 percent only.

Chart 3.1.9: Country-wise credit to GDP ratio



Source: World Bank

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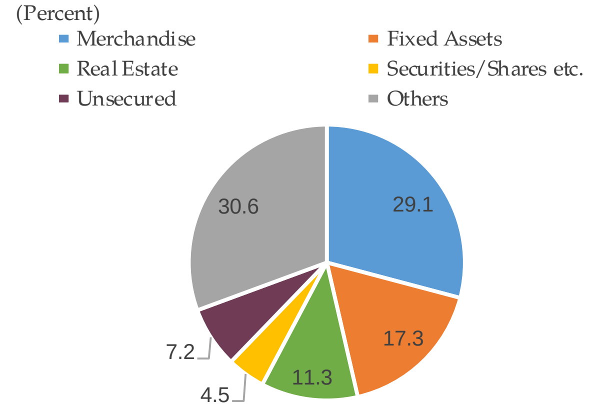
[119] SBP estimates based on Vector Autoregressive (VAR) models.

[120] Systemic risk refers to a widespread disruption to the provision of financial services due to partial or full impairment of the system that might have serious negative implications for the real economy. It has two major component; (a) pro-cyclical systemic risk: the vulnerabilities built up over time and (b) structural systemic risk: vulnerabilities arising from interconnectedness and distribution of risk within the financial system at a point in time.

[121] As per IMF-BIS-FSB, if banks are significant providers of credit to the economy, systemic risk typically surround the banking system. https://www.imf.org/external/np/pp/eng/2014/110614b.pdf

(b) The dominant channel of systemic risk where real estate collateral prices and credit expansion reinforces each other (e.g. Global Financial Crisis 2006-7) is weaker in Pakistan. The mortgage financing stands only at 0.25 percent of GDP and has a meager share of 1.07 percent in domestic lending portfolio. Further, residential real estate collateral secures only 11.35 percent of the banking exposure **(Chart 3.1.10)**.[122]

Chart 3.1.10: Classfication of advances by securities pledged



Source: SBP

(c) The limited cross-border exposure (both lending and borrowing) prevent the domestic financial system from external spillover effects of abrupt capital flows. .

(d) The regulatory structure is quite extensive. SBP, in its regulatory domain, has implemented the international best practices for enhancing the soundness of the banking sector, in particular, and financial system, in general[123]. Moreover, SBP as part of its strategic goal "Strengthening of the Financial Stability Regime" is working on putting in place an effective Macro Prudential Policy Framework. **(See Box 1.1 on "SBP initiatives to strengthen financial stability").**

2. Deposits

The structural risk also remains muted as deposits continue to be the mainstay of funds leading …

The steady growth in deposits is pivotal for the banks as it is the major source of funding. Deposits constitute 77.99 percent of total liabilities and 72.42 percent of total assets, as of end CY18. The deposits have contributed 92.68 percent in the asset expansion during CY18.

During CY18, deposits have risen by 9.55 percent (Y-o-Y) versus 10.29 percent in CY17; the lowest since CY08 **(Chart 3.1.11).** This slowdown may be attributed to a mix of factors including (a) cost cutting strategy of some banks to limit the growth of domestic remunerative deposits, (b) scaling back of operations by few banks in overseas market, (c) probable dampening effect of withholding tax on banking transactions, (d) depositors concern regarding enhanced KYC requirements to contain AML/CFT risks, and (e) additional liquidity available as a result of net-maturity of investment.

In terms of category, deceleration in saving and fixed deposits have overshadowed the rise in current deposits **(Chart 3.1.11)**. The saving deposits have become costly due to Minimum Saving Rate (MSR) policy in vogue.[124] Moreover, the fixed deposits could not attract the attention of banks due to maturity re-profiling of their assets, both, in investments (from PIBs to MTBs) and advances (from fixed term loans to short-term working capital financing).

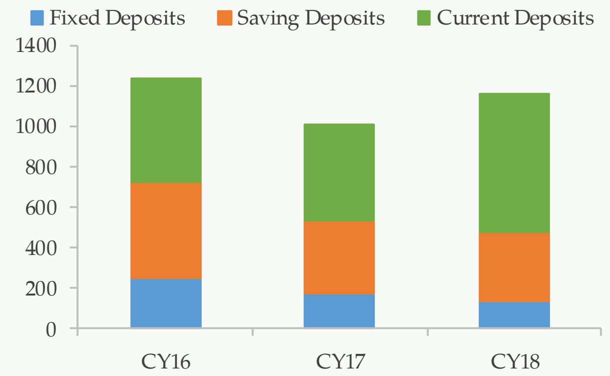
[122] Table 3.11, "Classification of Scheduled Banks' Advances by Securities Pledged", SBP Statistical Bulletin, February 2019 (http://www.sbp.org.pk/reports/stat_reviews/Bulletin/2019/Feb/BankingSystem.pdf)

[123] For example, Basel III capital and liquidity standards.

[124] The minimum rate on saving deposits is directly linked to SBP repo rate (i.e. floor of the SBP interest rate corridor). As the monetary policy tightens, the MSR rises.

Chart 3.1.11: Composition of deposit flows during CY18

(PKR Billion)

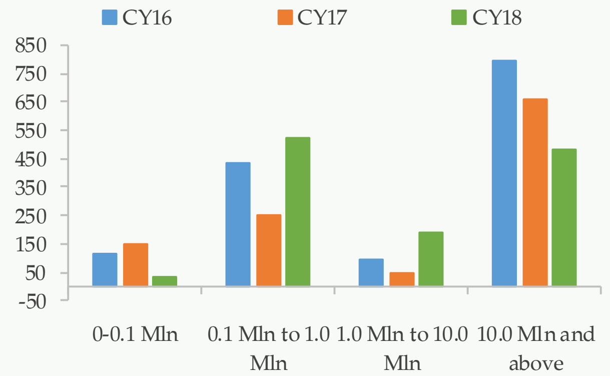


Source: SBP

The size-wise distribution of deposits is also important from the stability perspective. Generally, retail (small) deposits are more stable and have longer retention periods than the large size institutional deposits. Encouragingly, the reviewed year has witnessed growth in small sized retail deposits up to PKR 1.0 million. On the other hand, growth in deposits over PKR 10.0 million have been trending downwards **(Chart 3.1.12).**[125] This is due to declining flows of institutional deposits (NBFIs, PSEs etc.) as well as private business deposits, particularly, the manufacturing sector.

Chart 3.1.12: Size-wise composition of deposits

(PKR Billion)



Source: SBP

3. Interconnectedness[126]

The level of overall integration in the banking sector has almost stayed at the level as seen a year earlier. However, there is a compositional shift. While volume of call (unsecured) lending and borrowings during CY18 has reduced, the other interbank liability and assets have increased.

The lack of complexity in the financial sector, within itself, provides an inbuilt stabilizer against the cross-sectional systemic risk. The interbank exposure has low share in assets of the banking sector, as deposits are the key source of funding. Further, the interbank repo borrowings are, mostly, collateralized against highly liquid and credit risk free government securities. In addition, absence of exotic instruments and shallow capital market with limited debt instruments, keep the cross institutional exposure and, resultantly, the likelihood of cross-sectional systemic risk low.

The presence of large sized institutions may enhance the likelihood and impact of systemic risk, though. Within the context of cross-institutional exposure, the weighted average probability of defaults (based on Merton model) of 5 largest banks has increased recently from 0.129 percent by end of CY17 to 0.188 percent by end of CY18 **(Chart 3.1.13).**[127] However, this narrowing distance to default seems to have emerged due to higher volatility in the equity market during CY18, instead of weakness in the fundamentals of these financial institutions as suggested by the BSSM **(see Chapter 2).**

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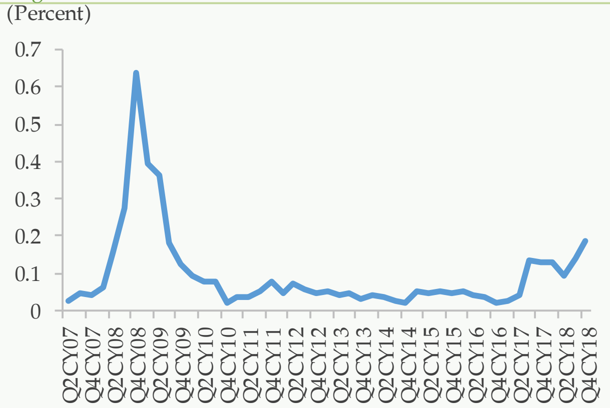
[125] About 41.6 percent of the deposits are of very large size (PKR 10 million and above).

[126] The interconnectedness is measured by two major indicators i.e. (1) interbank call borrowing plus call lending and (2) Other interbank financial liabilities plus assets: total borrowings and interbank lending plus total deposits (financial institution) minus call borrowings minus repo borrowings from SBP minus call lending.

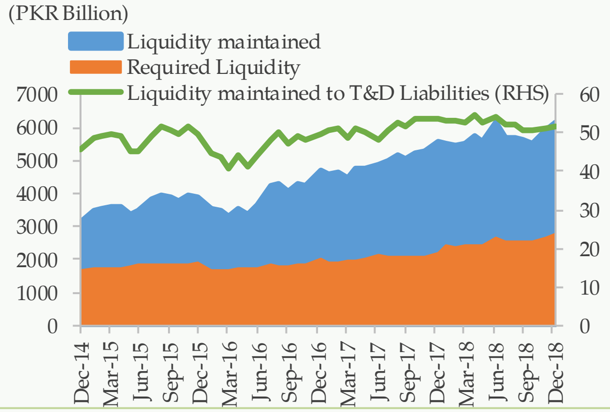
[127] Source: Bloomberg

Chart 3.1.13: Weighted average 1-year probability of default of 5 largest banks in Pakistan



Source: Bloomberg and SBP

Chart 3.1.14: Liquidity position of the banking sector



Source: SBP

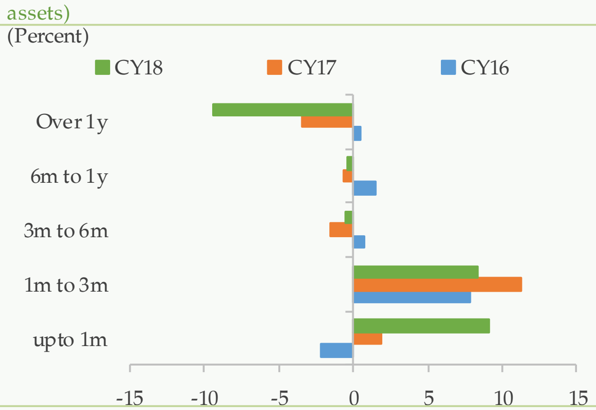
4. Liquidity

The fund-based liquidity of the banking sector is mostly contributed by holding of government papers. During CY18, the liquidity has slid down slightly due to net-maturity in banks' holding of long-term PIBs. However, the overall liquidity, with liquid assets maintained at 48.69 percent of total assets and 94.85 percent of short-term liabilities, is still adequate to meet any contingent need of banks.[128] Similarly, eligible liquid assets against demand and time liabilities stand at 51.82 percent; well above the required level of 24 percent for CRR and SLR purpose **(Chart 3.1.14)**. In terms of Basel III liquidity standards, banks have maintained liquidity coverage ratio (LCR) at 182.72 percent and net stable funding ratio (NSFR) at 156.13 percent (both, well above the minimum required ratios of 100 percent).

…as the banks' ability, to meet short-term obligations improve…

The banks renewed interest in MTBs has reshaped the asset-liability maturity profile of the banking sector in CY18 **(Chart 3.1.15)**. The asset-liability gaps reveal that banks' ability to meet short-term commitments has improved. On the other hand, the negative gap for maturity over one year has further widened in CY18 due to net-maturity of PIBs. However, once the interest rates stabilize, banks' interest in PIBs may restore leading to a reduction in this gap.

Chart 3.1.15: Maturity-wise asset and liabilities gap (as percent of assets)



Source: SBP

[128] Liquid assets are consist of (a) cash and due from treasury banks, (b) balance with other banks, (c) call money lending, (d) reverse repos lending and (e) all government securities.

However, smaller banks ability to meet obligations has receded…

The liquidity profile of the bottom two quartiles of banks (smaller banks) has been weakening during the last few years **(Table 3.1.3)**. There has been quite a steep fall in liquidity ratio of both small and very-small banks in CY18. This is because some of these banks have utilized their liquid assets to fund their operations.

Table 3.1.3: Liquid assets to total assets by bank size (percent)

	CY14	CY15	CY16	CY17	CY18
			Percent		
Large	51.47	55.38	54.22	54.93	50.17
Medium	42.55	51.82	55.87	56.06	50.60
Small	45.86	45.74	42.70	40.06	33.49
Very Small	48.55	54.10	63.90	60.09	36.14
All Banks	**49.15**	**53.81**	**53.73**	**53.97**	**48.69**

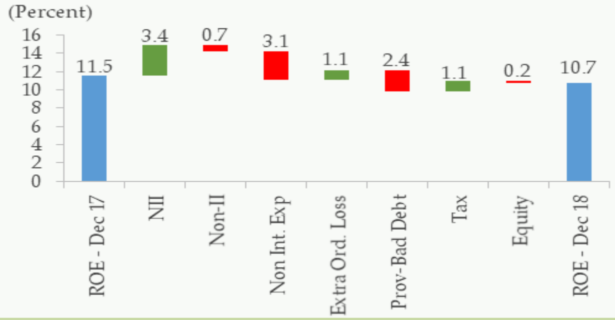
Source: SBP

5. Profitability

The profitability of the banking sector has moderated for yet another year. Profit (after tax) at PKR 149 billion is down by 5.36 percent in CY18. This decline has resulted from (a) higher provisioning expense on bad debts and diminution in the value of investments; (b) decline in net gain on sale of securities; (c) reduced dividend income; and (d) rise in administrative cost including some extra ordinary expense borne by a couple of large banks (e.g. higher legal and professional charges and expense on defined benefit pension plan etc.).[129]

Accordingly, all profitability indicators have shown slight deterioration. The after-tax ROA and ROE have dropped to 0.81 percent and 10.71 percent in CY18, respectively, from 0.92 percent and 11.53 percent, respectively, in CY17 **(Chart 3.1.16)**. The cost to income ratio has slightly inched up to 60.21 percent in CY18 compared to 57.14 percent in CY17. In addition, the bank-wise distribution of after tax profit shows that the number of loss making banks has increased to 7 in CY18 from 5 in CY17. However, on aggregate, these banks have 3.70 percent share in the asset base of the banking sector and most of these are under the restructuring process.

Chart 3.1.16: The drivers behind change in ROE during CY18



Note: Green bar indicates the increase while Red bar indicates decrease
Source: SBP

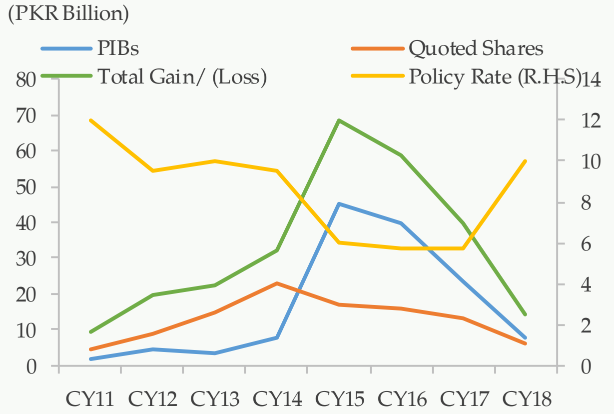
…but earnings flow seems to have stabilized…

Despite moderation in profitability the Net Interest Margin (NIM), has improved from 3.34 percent in CY17 to 3.40 percent in CY18. In addition to healthy growth in advances, the policy rate hikes from second quarter of CY18 onwards, has increased the lending rates. This has bolstered the interest earnings of the banks as Net Interest Income (NII) has increased by 9.27 percent during CY18 from 2.90 percent in CY17. Moreover, lagged impact of increase in rates on repricing of existing outstanding loans is expected to further push the NIM upwards.

Further, with the sizeable maturity of long-term government bonds, the expected volume of losses on the sale of lower valued remaining securities, in the current rising interest rate scenario, may be limited. **(Chart 3.1.17)**.

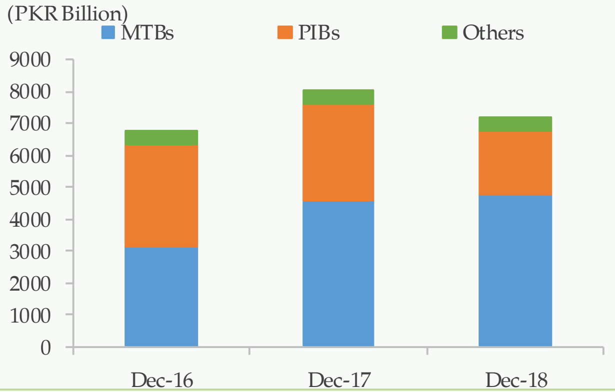
[129] Though, extra ordinary items expenses in CY18 (PKR 9.0 billion) are less than CY17 (PKR 23.7 billion), they are still significantly higher than their historical trend.

Chart 3.1.17: Gain on sale of securities



Source: SBP

Chart 3.1.19: Classification of banks' investment in government securities (outstanding)

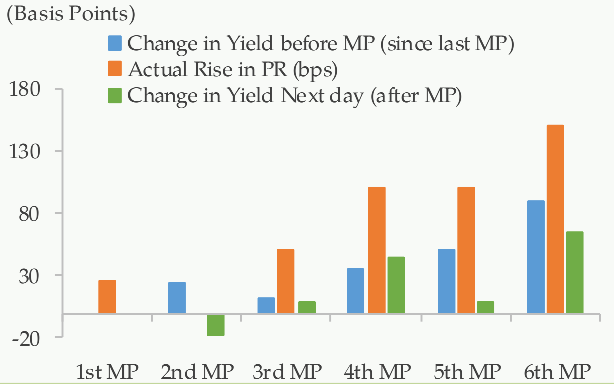


Source: SBP

With the monetary tightening, banks adopted profit optimization strategies…

The mark-to-market yields on government papers rose significantly before five out of six SBP monetary policy announcements during CY18 **(Chart 3.1.18)**. This advocates that banks had a strong rate rise expectation before the announcement of each monetary policy.

Chart 3.1.18: Yield to maturity on 3-Months MTBs and policy rate in each Monetary Policy (MP) during CY18



Source: SBP

In this scenario, banks have mostly preferred to invest in short-term instruments (3 month MTBs) and divest long-term instruments (PIBs) to limit deficit on revaluations **(Chart 3.1.19).** This behavior has also exhibited in primary auctions, where banks demanded higher average yields on PIBs (than offered coupon rates) to compensate for the expected revaluation of PIBs.

However, the realization of credit risk remains a key concern for profitability…

A sizable amount of provisioning charges has squeezed the bottom line of the banks. After accounting for the provisioning charges against NPLs and diminution in the value of investments, the growth in NII slides to 2.8 percent, which is lower than 3.3 percent in CY17.

…along with rising operational cost…

In addition to provisions charge, surge in administrative expenses has also affected the overall profitability. The administrative expense of the banking sector has exhibited a growth of 10.96 percent against 3-years (CY15-17) average of 8.40 percent **(Table 3.1.4)**. Besides costs associated with normal operations such as branch expansion costs, the one-off costs (e.g. legal charges, postretirement benefit expenses) have also increased. As a result, both the fixed and variable components of administrative expenses have witnessed a surge.

Table 3.1.4: Break up of administrative cost (fixed Vs. variable)

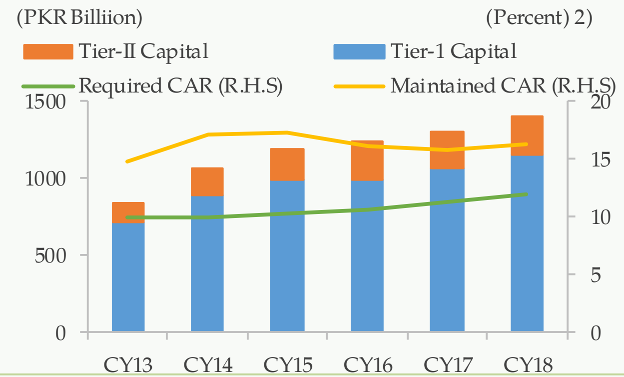
	CY16	CY17	CY18	Growth CY18	Average Growth (CY15-17)
	PKR Billion			Percent	
A. Fixed Administrative Expense	**103**	**114**	**132**	**15.17**	**8.80**
Rent, taxes, insurance, electricity, etc	45	48	56	16.18	6.82
Depreciation	24	27	28	2.74	11.52
Repairs and maintenance	17	19	23	21.71	12.39
Charge for defined benefit plan	8	11	15	37.23	8.96
Others	8	9	10	7.42	6.62
B. Variable Administrative Expense	**253**	**274**	**299**	**9.20**	**8.24**
Salaries, allowances, etc	164	177	189	6.51	7.62
Legal and professional charges	7	9	18	97.72	25.51
Communications	11	12	12	-0.19	10.91
Others	71	75	80	6.04	7.83
Total Adminstrative Expense (A+B)	**356**	**388**	**430**	**10.96**	**8.40**

Source: SBP

6. Solvency

Despite emerging risks during CY18, the banking sector has remained resilient. The Capital Adequacy Ratio (CAR) of the banks has inched up to 16.19 percent as of end CY18 from 15.76 percent in CY17; well above the minimum local requirement of 11.9 percent and international benchmark of 10.50 percent. The tier 1 CAR has stood at 13.24 percent by end CY18 **(Chart 3.1.20)**. The leverage ratio (LR) of the banking sector at 4.80 percent as of end CY18 is well above the minimum required level of 3.0 percent.

Chart 3.1.20: Eligible capital and Capital Adequacy Ratio (CAR) of the banking sector



Source: SBP

…as banks continue to take measures to enhance capital

As per phased implementation of Basel III, banks were required to raise their CAR to the minimum level of 11.9 percent (including capital conservation buffer of 1.9 percent) by end of CY18. [130] To comply with this requirement, several banks have enhanced additional Tier I capital through issuance of Basel III qualifying instruments (such as TFCs, Sukuk etc.) to the tune of PKR 37 billion in CY18 (PKR 8 billion in CY17). The tier II capital has slightly moved up due to revaluation of fixed assets and foreign exchange revaluation reserves.[131] The rise in retained earnings have also contributed to the overall increase in eligible capital of the banking sector, which has by 7.69 percent against 4.82 percent increase in total risk weighted assets leading to a higher CAR.

The bank-wise distribution of CAR reveals a strong solvency position as most of the banks have maintained CAR above 15 percent **(Table 3.1.5)**. Further, the banks with higher CAR are mostly large and medium sized banks maintaining the bulk of the banking assets.

[130] Banks are required to raise their CAR at 12.5 percent by end CY19. BPRD Circular No.6 of 2013 (http://www.sbp.org.pk/bprd/2013/C6.htm)

[131] However, yearly flows of overall revaluation reserves turned into negative due to revelation deficit on AFS securities.

Table 3.1.5: Distribution of banks by CAR

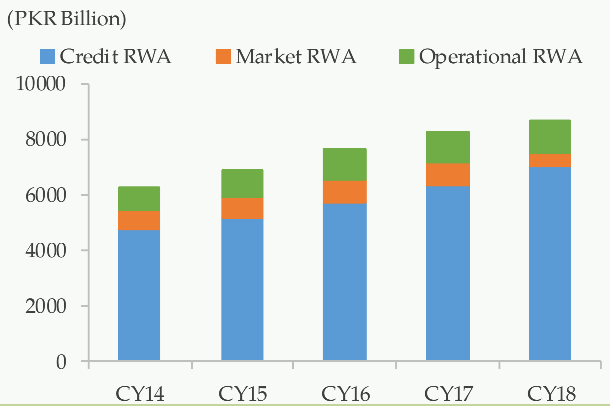
	CY14	CY15	CY16	CY17	CY18
	Number of Banks				
> 15 percent	22	19	17	18	18
Required<CAR<15percent	12	13	13	11	10
CAR<Required	3	3	4	4	6
Total	**37**	**35**	**34**	**34**	**34**

Source: SBP

Also, bank's respond to tighter macrofinancial conditions by limiting the growth of Risk Weighted Assets (RWAs)…

Despite robust growth in lending activity (21.27 percent), the credit risk weighted assets have expanded at a slower pace of 10.67 percent **(Chart 3.1.21)**.

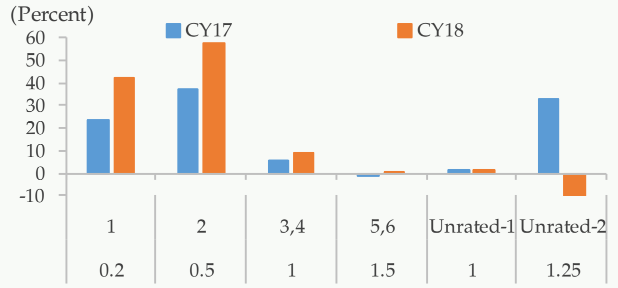
Chart 3.1.21: Composition of Risk Weighted Assets (RWA)



Source: SBP

This is because, banks have shifted lending portfolio from unrated exposures (attracting 100 percent or 125 percent risk weight) to rated categories with lower risk weights (20 percent and 50 percent) **(Chart 3.1.22)**. Shifting exposures towards better rating categories is a welcome development from the risk management perspective as it indicates lower probability of default of corporate clients of the banks.

Chart 3.1.22: Share of outstanding banks' lendng to corporate sector against SBP's mapped supervisory rating grades*

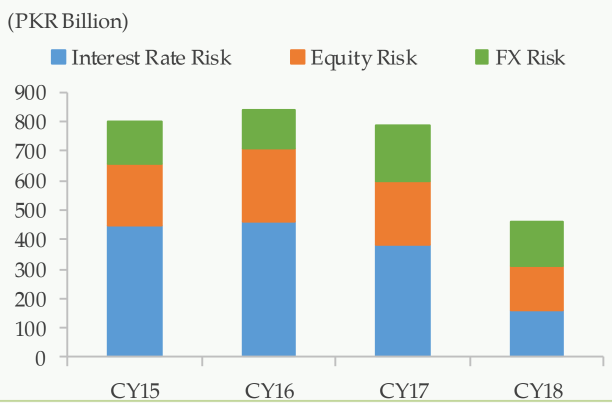


*Banks are required to map the assigned rating of exposures with SBP supervisory rating grades ranging from 1 to 6 (e.g AAA maps with SBP rating grade 1)

Source: SBP

A considerable reduction in market risk weighted assets has further subdued the overall growth in RWA. The larger reduction in market risk weighted exposure has taken place against interest rate risk due to maturity of PIBs during the year.[132] Some erosion of banks' exposure on equity investment has also reduced the market risk under this specific segment **(Chart 3.1.23)**.

Chart 3.1.23: Market risk weighted assets of the banking sector



Source: SBP

The operational risk weighted assets (ORWA) have shown steady growth, however. Since most of the banks are using Basic Indicator Approach (BIA), the annualized audited average gross income (of last three years) forms the basis for estimation of ORWAs. As such, this segment has remained the least volatile over time.

[132] The instrument of longer maturity attract higher market risk weight under Basel instructions for capital adequacy calculation.

SBP has designated three large banks as D-SIBs…

To address the risks emerging from the cross sectional dimension of the systemic risk, SBP has issued a framework for Domestic Systemically Important Banks (D-SIBs) in April 2018.[133] Accordingly, SBP has designated three large banks as D-SIBs. These banks are required to meet enhanced supervisory and regulatory requirements, including the Higher Loss Absorbency Capital surcharge in the form of additional common equity tier-1 capital (CET1). Besides the designated D-SIBs, the branches of Global-Systemically Important Banks (G-SIBs) operating in Pakistan will hold additional CET1 capital against their risk-weighted assets in Pakistan at par with what is applicable on their respective G-SIBs.[134]

The banking sector of Pakistan has reasonable global standing in terms of financial soundness …

The cross-country data of financial soundness indicators reveals that Pakistan stands at a comfortable level in terms of solvency, liquidity and earnings **(Table 3.1.6)**. However, despite consistently declining over time, its NPL ratio remains high compared to some of the AEs and EMDEs. However, new laws have been introduced in the last few years, which are expected to improve the debt recovery regime. [135] Further, net-NPLs to net-advances ratio stands at only 1.4 percent, indicating, low probability further equity erosion on account of credit risk.

Table 3.1.6: Country-wise financial soundness indicators (percent)

Countries	CAR	Infection Ratio	ROA - after tax	ROE - after tax	Liquid Asset Ratio
Pakistan	**16.10**	**7.99**	**0.82**	**10.69**	**48.70**
Bangladesh	10.93	9.95	0.84	12.32	15.76
Brazil	17.66	3.19	1.68	15.44	14.75
China	13.60	1.86	1.03	13.70	22.69
India	15.90	10.34	(0.12)	(1.60)	7.93
Indonesia	22.89	2.29	2.51	16.73	21.86
Malaysia	17.37	1.46	1.42	12.59	23.41
Singapore	16.53	1.33	1.38	15.55	68.26
Turkey	18.09	3.05	1.87	17.97	50.63
Canada	15.25	0.41	1.15	22.10	10.61
Denmark	21.28	4.11	0.73	12.44	11.68
France	18.44	2.94	0.43	6.84	13.49
Germany	18.90	1.50	0.37	6.31	12.69
Japan	17.00	1.07	0.30	7.30	29.27
Norway	22.33	0.75	1.35	11.95	8.21
UK	20.38	1.18	0.52	8.07	23.95
United States	14.74	0.95	0.43	3.72	12.87

Source: IMF

Banking infrastructure is steadily expanding…

The banking infrastructure and its growth pattern is a useful indication of the current as well as future growth prospects of the banks. The reviewed year has witnessed a broad-based and steady growth in the banking infrastructure i.e. brick and mortar based banks' branches, ATMs, and electronic cards **(Table 3.1.7)**. The increasing share of online branches overtime is also a welcome development, as it will improve banking efficiency.

[133] The framework follows two steps approach; in first step, a sample of banks based on quantitative and qualitative criteria is identified. In the second step, among these sample banks, D-SIBs are designated based on Size, Interconnectedness, Substitutability and Complexity.

[134] http://www.sbp.org.pk/press/2018/Pr-14-Jun-18.pdf

[135] For example, Financial Institutions (Recovery of Finances) (Amendment) Act 2016, Corporate Restructuring Companies Act 2016, Financial Institutions Secured Transaction Act 2016 and Corporate Rehabilitation Act 2018.

Table 3.1.7: Banking sector infrastructure

	Dec-16	Dec-17	Dec-18	Growth CY17 Percent	Growth CY18 Percent
Total Bank Branches	13,384	13,837	14,322	3.38	3.51
Online Branch Network	13,107	13,716	14,174	4.65	3.34
ATMs	12,253	13,262	14,143	8.23	6.64
POS Machines	50,839	51,886	49,082	2.06	-5.40
ATM Cards	3,685,228	4,038,377	4,453,766	9.58	10.29
Credit Cards	1,208,763	1,374,073	1,522,366	13.68	10.79
Debit Card	17,239,545	19,205,793	22,254,919	11.41	15.88
Social Welfare Cards	7,846,220	8,494,698	7,231,142	8.26	-14.87
Employees	189,360	202,015	203,952	6.68	0.96

Source: SBP

Future outlook

The banking outlook depends a lot on the future economic prospects and the corresponding policy responses. The monetary tightening towards the end of CY18 and first half of CY19 may lead to repricing of loans. This may improve the net interest income and, thus, profitability and solvency of the banking sector. On the other hand, it may dent the repayment capacity of the borrowers, thus, escalating the credit risk. Further, considering the contraction in LSM during July-March FY19 reflecting the dwindling performance of non-financial corporate sector, suggest that the odds of defaults are increasing. Further, any downgrade of a sizeable portion of NPLs parked under "doubtful" and "substandard" categories could raise the provisioning expense for the banks. Thus, the credit risk remains paramount, going forward.

Besides implications arising from the realization of credit risk, the profitability of the banking sector depends upon the costs associated with mitigating the emerging operational risks and the interest rate dynamics. The mitigating measures against various risks such as compliance with AML/CFT related laws and regulations, fortifying systems against cyber-attacks, enhanced due diligence to ward-off fake/benami accounts, seeking legal remedies to manage challenges in overseas operations, etc. are all costly. The banks investment behavior in government securities and the interest earned there against are largely dependent on interest rate dynamics. Moreover, fiscal measures (such as super tax) has implications for the bank's after-tax returns and solvency.

In order to meet the growing financing demand of public and private sector, banks need to renew their focus on deposit mobilization. The sizeable rise in MSR may help in restoring the deposit growth, though.

Like CY18, the enhanced CAR requirement (from current 11.9 percent to 12.5 percent) by the end of CY19, given slowdown in profitability, may compel banks may have to focus on raising capital through issuance of Basel III qualifying instruments. Banks, particularly small sized ones, will need to formulate concrete and time bound capital enhancement plans to meet their capital requirements. The strong NSFR and LCR of banks suggest that they will remain compliant with the Basel III liquidity requirements.

SBP, in cognizance of various emerging risks, has taken a number of regulatory and supervisory measures to mitigate their impact (**See Box 2**).

Box 4: FATF and AML/CFT Regime in Pakistan

Background

The Financial Action Task Force (FATF) is an inter-governmental policy-making body that was established in 1989 to help protect the integrity of the international financial system against misuses for money laundering and terrorist financing. The FATF has developed key recommendations to guide the countries on the development and implementation of effective Anti-Money Laundering and Combating the Financing of Terrorism (AML/CFT) regimes in their jurisdictions. It also assesses the compliance of different jurisdictions with these recommendations and assesses the effectiveness of AML/CFT frameworks to identify any weaknesses. If a jurisdiction is identified as having strategic deficiencies in its AML/CFT regime, other jurisdictions and entities (which recognize the FATF's Recommendations as the international standards) may enhance scrutiny and restrict trade and financial transactions with such identified jurisdiction. This move encourages the identified jurisdiction to plug the gaps and enhance compliance with the AML/CFT standards. Furthermore, FATF calls on its members to apply counter-measures against natural and legal persons from jurisdictions identified on FATF's public statement as posing substantial ML/TF Risks to the global financial system.

The FATF is supported by a network of FATF-Style Regional Bodies (FSRBs) in implementing and enforcing its Recommendations. The Asia/Pacific Group on Money Laundering (APG) is one such FSRB, which is an autonomous inter-governmental organization, consisting of 41 member jurisdictions, which ensures the effective implementation of these international standards. While Pakistan as such is not a member of the FATF, the country is associated with it through membership of the APG, since 2000. [136, 137]

Placement on Grey-List

In June 2018, Pakistan was identified as a jurisdiction with strategic AML/ CFT deficiencies.[138] Pakistan has made a high-level political commitment to work with FATF and APG to implement an action plan to strengthen its AML/ CFT regime and address the strategic counter-terrorist financing-related deficiencies by demonstrating that: [139]

- terrorism financing (TF) risks are properly identified and assessed, coordination on TF risks is improving, and law enforcement agencies (LEAs) are investigating the widest range of TF activity
- TF prosecutions result in effective, proportionate and dissuasive sanctions, and that the capacity and support for prosecutors and the judiciary has been enhanced;
- remedial actions and sanctions are applied in cases of AML/ CFT violations;
- enforcement action is being taken against illegal money or value transfer services (MVTS);
- authorities are identifying cash couriers and enforcing controls on illicit movement of currency;
- targeted financial sanctions are being effectively implemented (including enforcement actions against violations); and

[136] http://www.apgml.org/about-us/page.aspx?p=91ce25ec-db8a-424c-9018-8bd1f6869162

[137] http://www.fatf-gafi.org/pages/asiapacificgrouponmoneylaunderingapg.html

[138] http://www.fatf-gafi.org/countries/d-i/iraq/documents/fatf-compliance-june-2018.html

[139] https://www.fatf-gafi.org/publications/high-riskandnon-cooperativejurisdictions/documents/fatf-compliance-june-2018.html

- facilities and services owned or controlled by designated persons are deprived of their resources and the usage of the resources.

Pakistan is working to implement the action plan by September 2019 to negotiate an exit from the "grey-list'. In the interim, the FATF's International Cooperation Review Group (ICRG) and APG have been holding a series of meetings with Pakistani representatives to monitor Pakistan's progress vis-à-vis the action plan.

Pakistan's AML/CFT Regime

Pakistani authorities give high importance to the effectiveness of AML/CFT regime. In this regard, SBP is taking initiatives, on regular basis, for strengthening the overall AML/CFT regime. SBP introduced AML/ CFT Policy Framework for its regulated institutions in 1990s and over the years, it has been strengthened in the light of emerging best practices.

The AML law in the country was promulgated in 2007, which defines the legal obligations in respect of money laundering and terrorist financing, and enjoins the roles and powers of different stakeholders and law enforcement agencies. To facilitate implementation of the law, a full-fledged Financial Monitoring Unit (a financial intelligence unit) receives suspicious transactions reports (STRs) and currency transactions reports (CTR) from different reporting entities and (after due analysis) refers the potential cases of money laundering and terrorist financing to the respective investigation agencies in the form financial intelligence for further examination/ investigation and prosecution.

While Pakistan's legal and regulatory framework is quite comprehensive, the country is currently working on further enhancing the effectiveness of the AML/ CFT regime. The country has recently taken a number of significant measures and initiatives to further strengthen the AML/ CFT framework. In this regard, SBP has issued or strengthened the following set of guidelines and instructions to its regulatees:

- To align AML/CFT Regulations with the Financial Action Task Force (FATF) Recommendations, various provisions of the regulations have been amended to provide further clarity on requirements relating to customer due diligence (CDD), correspondent banking, wire transfers/ funds transfers and minimum documents required for opening accounts by customers.[140]

- For strict compliance of Statutory Regulatory Orders (SROs) and Notifications issued by the Government of Pakistan under the United Nations (Security Council) Act, 1948 and Anti-Terrorism Act (ATA), 1997, detailed guidelines for ECs have been issued on Targeted Financial Sanctions (TFS) for prevention of Terrorism Financing and Proliferation Financing under UNSC Act, 1948 and ATA, 1997.[141]

- Banks have been advised that sponsor shareholders/beneficial owners, directors, Presidents and key executives (persons subject to FPT) will become disqualified if they are designated/proscribed or associated directly or indirectly with designated/proscribed entities/persons under United Nations Security Council Resolution or Anti-Terrorism Act 1997.[142]

- Enhanced the scope of Know Your Customer (KYC) standards and documentation requirements for ECs.[143]

SECP and other bodies have issued the following set of instructions and guidelines for strengthening

[140] BPRD Circular Letter No. 16 of 2018

[141] FE Circular No. 09 of 2018

[142] BPRD Circular No. 09 of 2018

[143] EPD Circular Letter No. 08 of 2018

AML/CFT for entities in the non-bank financial sector and other corporate entities:

- Associations with Charitable and Not for Profit Objects Regulations, 2018 have been issued to specify procedures to grant licenses to associations with charitable and not for profit objectives, incorporation of association as a public limited company, fit and proper criteria, provision for revocation of license and winding up, and monthly reporting requirements.

- AML/CFT Regulations, 2018 have been issued to provide a consolidated set of regulations for financial institutions under the ambit of the SECP including Modarabas, Insurers, Non-Bank Financial Companies (NBFCs), etc. to harmonize the AML/ CFT regime. The Regulations have adopted a risk-based approach towards combating ML/TF, and are focused on high risk areas including politically exposed persons, legal persons, legal arrangements with complex ownership structures, etc. –

- Anti Money Laundering and Countering Financing of Terrorism Regulations, 2018 have been amended to bring further clarity on various aspects including beneficial ownership, legal persons, Counter-measures against high risk countries, etc.

- AML & CFT Guidelines for Real Estate Agents 2018 have issued to bring the real estate agent into the regulatory ambit of AML/ CFT regime. The guidelines recommend complying with AML laws/ regulations while reporting Suspicious Transactions and Cash Transactions, implementing CDD measures, keeping proper records, etc.

Pakistan Post, being a saving bank and money transfer services provider to the general public, has issued AML/CFT Regulations in October 2018 to deter the risks of money laundering and financing of terrorism. Similarly, the designated non-financial business and professions (DNFBPs) such as real estate agents, charities, jewelers, etc. have been brought under the ambit of AML/CFT regime.

From the implementation perspective, regulatory bodies and other government entities are taking measures for effective enforcement of the AML/CFT related regulation. SBP is strictly enforcing its regulations and instructions and is taking penal actions against such regulated institutions, which have been found delinquent during the supervisory process. These institutions have also taken disciplinary actions against concerned employees including issuing reprimands, incremental stoppage, etc.

Similarly, the Federal Board of Revenue (FBR) has taken extensive measures to counter illicit movement of currency[144]. These measures include launch of an extensive risk mitigation strategy to curb cash smuggling, increased currency seizures, implementation of Currency Declaration Systems (CDS) at international entry/ exit points, etc.

Overall, Pakistan's AML/ CFT regime has further improved during the period under review. Presently, adequate legal and technical infrastructure is in place and the government is highly committed to address any remaining deficiencies in the AML/CFT regime. It is hoped that these enabling factors coupled with ongoing efforts to enhance the capacities of relevant agencies as well as strengthen inter-agency cooperation will help to deliver on the action plan and address those strategic deficiencies.

[144] https://fbr.gov.pk/pr/effective-steps-taken-by-fbr-customs-operatio/132037

3.2 Performance and Risk Analysis of the Islamic Banking Industry

While global banking sector has seen deceleration, Islamic Banking Institutions (IBIs) in Pakistan have shown healthy growth of 17 percent. In the domestic context, the growth in assets of IBIs has outpaced those of the conventional banks, mainly due to surge in financing. IBIs have improved the diversity in Shariah modes of financing, particularly in Profit and loss sharing modes. Most of the increase in financing is funded by strong growth in deposits. Improved asset quality and rise in profitability have enhanced the soundness and stability of IBIs. Liquidity deployment in the short term remains the key challenge faced by the IBIs, while need remains for improving the suit of products for increasing financing to SME and agriculture sector.

The global Islamic Financial Services Industry (IFSI) is decelerating…

On the Global landscape, Islamic Financial Services Industry's (IFSI) assets crossed the landmark of USD 2 trillion and reached USD 2.19 trillion at the end of June, 2018 compared to USD 1.89 trillion at the end of June, 2017.[145] The growth has been recorded in all the three sectors i.e. Islamic Capital Markets, Takaful and Islamic Banking. However, the pace of overall growth in dollar value of IFSIs has slowed down (6.9 percent during Jul, 17-Jun, 18 versus 8.5 percent during Jul,16-Jun,17) mainly because of exchange rate depreciation in various jurisdictions. The IFSI has remained sound and stable, despite emergence of various risks including continued trade tensions, inflation and foreign exchange exposures.

Among the IFSIs, the global Islamic banking assets hold around 70 percent share. However, the growth in the assets of Islamic banks has decelerated to 4.16 percent during CY18 compared to 10.03 percent increase in CY17 **(Table 3.2.1)**.[146]

Table 3.2.1: Global islamic banking statistics

	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
	USD billion				
Total assets	1,281	1,332	1,531	1,684	1,754
Total Sharia compliant financing	809	854	936	1,020	1,052
Total liabilities	1,181	1,239	1,475	1,626	1,748
	Number				
Islamic banks	170	174	181	188	189
Islamic banking windows	85	85	83	83	81
Islamic banks branches	28,787	29,855	29,901	29,713	29,652

Source: PSIFIs countrywise data.

In tandem with assets deceleration, growth in Shariah compliant financing has also slowed down to 3.09 percent in CY18 as compared to 8.95 percent in CY17. The asset quality of global Islamic banks, on an aggregate level, has somewhat strengthened

The profitability of the global Islamic banking industry seen marginal decline over the year. The ROA marginally declined to 1.86 percent during CY18 from 1.92 percent in CY17, while ROE has declined by 124 bps to 15.62 percent in CY18.[147] Further, the CAR of Islamic banking industry has remained strong at 12.3 percent, which is well above the international benchmark of 10.5 percent. Similarly, Islamic banking sector of most of the jurisdictions have robust capital positions.

Islamic Financial Services Board (IFSB), 2019. Islamic Financial Services Industry Stability Report 2019. Available at: https://www.ifsb.org/download.php?id=5231&lang=English &pg=/sec03.php

[146] Islamic Financial Services Board (2018). Islamic Financial Services Industry Stability Report 2018. [online] Kuala Lumpur: Islamic Financial Services Board. Available at: https://www.ifsb.org/download.php?id=4811&lang=English &pg=/sec03.php [Accessed 27 Feb. 2019].

[147] IFSB Key Exhibits available at: https://www.ifsb.org/psifi_02.php?selfolder=

Despite tightening of domestic macrofinancial conditions, IBIs have outpaced conventional banks in their asset expansion…

The assets of domestic IBIs have continued to grow in CY18, relatively faster than their conventional counterparts, but at a slower pace than the last year owing to growing macroeconomic challenges **(Table 3.2.2)**. The assets of IBIs have increased by 17.02 percent during CY18 (22.60 percent in CY17), as opposed to the growth in assets of conventional banks of 5.94 percent. This has mainly been due to significant increase in financing.

Table 3.2.2: Performance of Islamic banking in Pakistan

	IBIs			Conv. Banks		
	CY16	CY17	CY18	CY16	CY17	CY18
	PKR Billion					
Total Assets	1,853	2,272	2,658	13,978	16,070	17,024
Investments (net)	490	534	515	7,019	8,195	7,399
Financing (net)	821	1,207	1,511	4,678	5,306	6,444
Deposits	1,573	1,885	2,203	10,225	11,127	12,051
	Percent Change					
Total Assets	15.09	22.60	17.02	11.53	14.96	5.94
Investments (net)	13.45	9.03	(3.59)	8.84	16.75	(9.71)
Financing (net)	27.21	47.01	25.20	12.17	13.42	21.46
Deposits	14.44	19.81	16.87	13.42	8.82	8.31

Source: SBP

As a result, the share of Shariah compliant banking assets in the total banking assets has increased to 13.51 percent in CY18 compared to 12.39 percent in CY17.

Financing has increased rapidly …

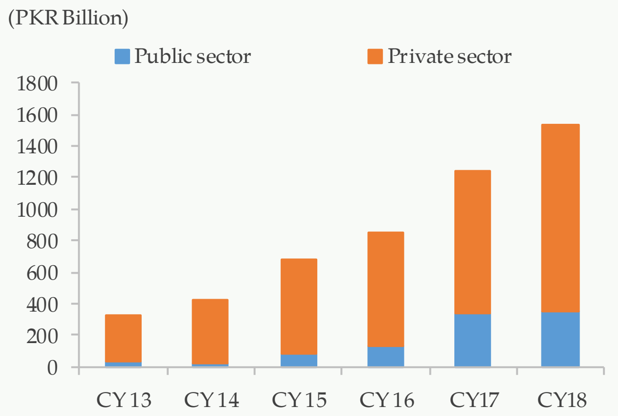
As opposed to 21.46 percent growth in advances of conventional banks, the IBIs' financing has increased by 25.20 percent during CY18. Resultantly, the share of Shariah compliant financing in total advances has increased to 18.99 percent in CY18 (18.53 percent in CY17 and 9.19 percent in CY14). This expansion has contributed to around 80 percent in the growth of total assets of the IBIs.

The relatively better financial intermediation by IBIs could be due to higher preference of customers for Shariah-compliant products, availability of low cost funding, and a better credit risk assessment. Besides, lack of Shariah compliant investment opportunities is encouraging IBIs to focus more on their core financing activities. As a result, there is high growth in financing backed by the reasonable increase in deposits. The financing to deposit ratio of IBIs have increased to 68.58 percent in CY18 from 64.02 percent in CY17.

…for both the private and public sector …

Private sector financing has maintained healthy growth over the years with another 32.27 percent rise in CY18 in comparison to 24.93 percent in CY17 **(Chart 3.2.1)**. In tandem with the private sector, the share of public sector financing has also been increasing mainly because of commodity operations. The major portion i.e. 98.69 percent is outstanding against wheat financing. However, the financing entails no credit risk as the repayment is guaranteed by the government department(s).

Chart 3.2.1: Public and private sector Islamic financing



Source: SBP

… while diversity in financing continues to grow …

IBIs are extending financing under three broader modes i.e. Trade based, Lease based, and Profit and Loss sharing based. There are various Shariah compliant products within each mode to cater for the diverse credit needs of the individuals and institutional borrowers. Over the years, the profit and loss sharing modes of financing have observed increased share in the overall financing. The share of Musharaka and Diminishing Musharaka has increased from 43.6 percent in CY14 to 53 percent in CY18.

Within the various modes of financing, Diminishing Musharaka represents 1/3rd of the total financing during CY18 **(Table 3.2.3)**. While the share remains high, the concentration in this particular mode is not alarming as it offers diverse range of financing product backed by tangible assets including machinery, construction of storage facility/ sheds/commercial or residential buildings etc.

Table 3.2.3: Islamic modes of financing

	CY15		CY16		CY17		CY18	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share
	amount in PKR billion, share in percent							
Murabaha	161.6	23.87	136.7	16.07	162.8	13.16	212.9	13.81
Salam	35.1	5.19	37.1	4.36	34.6	2.80	36.4	2.36
Istisna	56.8	8.39	75.0	8.82	101.0	8.16	140.0	9.08
Musharaka	92.1	13.60	133.4	15.68	272.1	21.99	306.0	19.85
Ijara	43.3	6.40	58.2	6.84	78.8	6.37	95.5	6.19
Car Ijara	27.5	4.06	37.5	4.41	46.6	3.76	61.2	3.97
Plant and machinery Ijara	9.2	1.36	11.1	1.31	13.8	1.12	19.6	1.27
Equipment	0.6	0.08	1.1	0.13	3.1	0.25	2.7	0.18
Others Ijara	6.1	0.90	8.6	1.01	15.4	1.25	12.1	0.78
Diminishing Musharaka	208.7	30.83	293.7	34.53	380.2	30.73	513.1	33.28
Other Islamic modes of finance	79.1	11.69	116.2	13.67	206.8	16.72	237.1	15.38
Mudarabah	0.2	0.03	0.1	0.01	-	-	-	-
Qard/Qard-e-Hasan	0.04	0.01	0.20	0.02	0.68	0.06	0.68	0.04
Total	677.0	100	850.6	100	1,237.0	100	1,541.7	100

Source: SBP

Corporate sector remains major borrower…

In terms of segment-wise financing, the IBIs have served the corporates more than any other segment (88.96 percent of net financing in CY18). This is despite some deceleration in corporate financing (31.02 percent growth in CY18 versus 32.64 percent in CY17) **(Table 3.2.4)**.

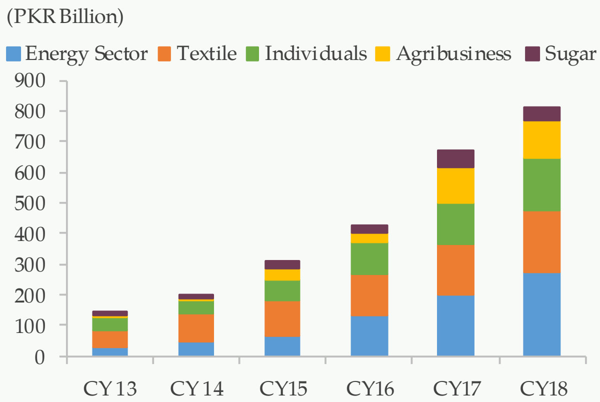
Table 3.2.4: Segment-wise Islamic financing

	IBIs			Conv. Banks		
	CY16	CY17	CY18	CY16	CY17	CY18
	PKR Billion					
Corporate Sector:	658.8	873.8	1,144.8	3,397.9	3,955.8	4,885.8
Fixed Investment	339.5	425.5	541.2	1,571.7	1,817.8	2,112.6
Working Capital	260.4	360.5	497.4	1,111.3	1,275.5	1,730.3
Trade Finance	58.8	87.7	106.2	715.0	862.5	1,042.9
SMEs:	29.0	40.6	57.2	375.6	411.8	447.8
Fixed Investment	7.4	12.3	23.1	80.9	86.1	95.3
Working Capital	20.3	26.5	31.5	250.6	284.2	305.4
Trade Finance	1.4	1.9	2.5	44.2	41.5	47.1
Agriculture	6.8	5.6	5.0	287.5	310.6	319.3
Consumer Finance	89.7	122.1	155.5	282.1	326.4	379.9
Commodity Financing	47.4	172.0	161.5	571.9	563.4	702.4
Staff Loans	10.0	11.8	14.6	94.1	103.7	112.4
Others	8.8	11.1	3.0	153.4	120.9	135.6
Total	850.6	1,237.0	1,541.7	5,162.5	5,792.4	6,983.1

Source: SBP

However, sectoral analysis reveals that the financing is well diversified. The largest user of the Islamic financing is the energy sector with the share of 17.70 percent in total financing in CY18 followed by textile (12.97 percent) and individuals[148] (11.42 percent) **(Chart 3.2.2)**. During CY18, the highest growth of 34.84 percent has been registered in energy sector followed by individuals (29.27 percent) and textile (23.91 percent).

Chart 3.2.2: Sector-wise Islamic financing



Source: SBP

Despite marginal slowdown in Islamic corporate financing, the share of the same in total corporate financing has risen to 18.98 percent in CY18 from 18.09 percent in CY17.

[148] Individual includes financing to consumer, sole proprietorships, and any business owned by single individual, irrespective of the size of its operations.

…while share of financing to SMEs and agriculture remains low…

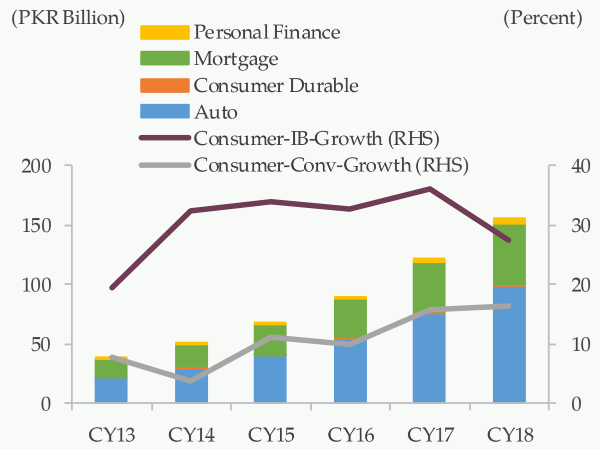
The financing to SMEs has witnessed exponential growth over the last few years. SME financing has increased by 40.64 percent in CY18 (39.96 percent in CY17). The rise in SME financing can be attributed, among others, to indicative financing targets advised by SBP.[149] The outstanding SME Islamic financing has increased from PKR 29 billion in CY16 to PKR 57 billion in CY18. Accordingly, the share of IBIs in overall SME financing has increased to 11.32 percent in CY18 from 7.18 percent in CY16. However, the share of SME financing in total Islamic finance portfolio remain low at 3.71 percent.

Agriculture is the key contributor to the GDP of Pakistan. However, Agri-finance have less than 0.5 percent share in IBIs financing and is lagging behind 5 percent share in conventional banks' lending. Even the share of Islamic agriculture financing in overall agriculture financing has declined to 1.55 percent to CY18 from 1.77 percent a year earlier. While SBP has issued detailed guidelines on Islamic financing for agriculture, IBIs are still to utilize the available regulatory framework for venturing into and enhancing agricultural financing.

Healthy growth improved the share of Islamic Consumer Finance…

On the other hand, the share of Islamic consumer financing in total financing has risen to 29.05 percent in CY18 from 27.23 percent in CY17. The overall growth in consumer financing has been 19.40 percent in CY18 compared to 20.62 percent in CY17 **(Chart 3.2.3)**. Despite this deceleration, Islamic consumer financing contributes to 38.43 percent in overall growth of consumer financing. Within this particular segment, IBIs encompass 47.15 percent and 54.56 percent share in overall auto and house financing, respectively. This growth has mainly resulted from these modes being asset backed (Ijara for Auto finance and Diminishing Musharaka for housing finance) and consumer preference for the Islamic mode of consumer financing over the conventional financing.

Chart 3.2.3: Islamic consumer finance

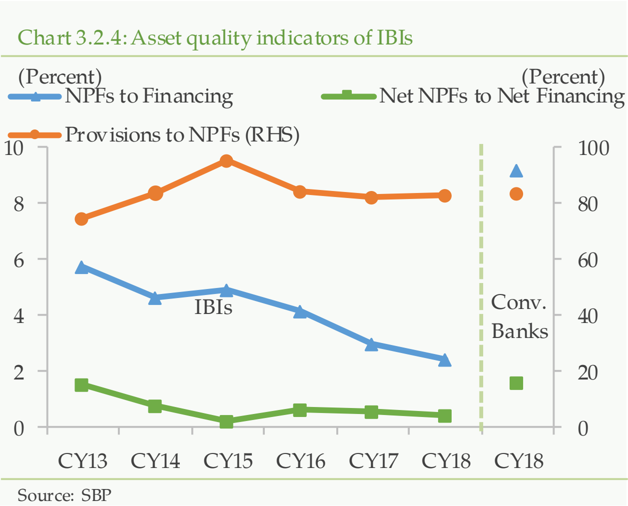


Source: SBP

The asset quality of IBIs has improved, suggesting lower credit risk…

The asset quality indicators of IBIs remains strong. The Non Performing Financing (NPF) to gross financing ratio has decreased from 2.97 percent in CY17 to 2.41 percent in CY18 **(Chart 3.2.4)**. The provision coverage is at a comfortable level as it has increased to 83.20 percent in CY18 from 82.51 percent a year earlier. The improvement in the asset quality indicators despite the increase in policy rate and macro-economic vulnerabilities indicates, to some extent, better credit quality management at IBIs.

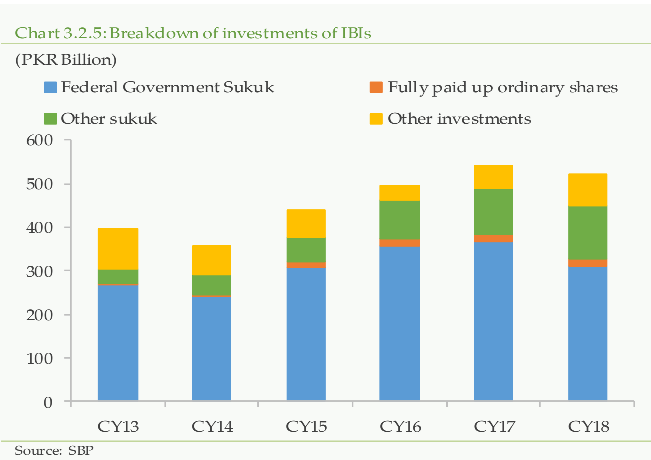
[149] As per "Policy for promotion of SME Finance", SBP assigned SME financing targets to banks and DFIs for the first time in 2016 in order to enhance access to credit to this sector. SBP is targeting SME financing to reach 17 percent of total private sector credit by the end of 2020. Currently, SME financing is at 6.2 percent of the total private sector credit. Therefore, SME credit is expected to grow significantly in the years ahead.



The dearth of Sharia compliant investment opportunities routes IBIs focus towards financing…

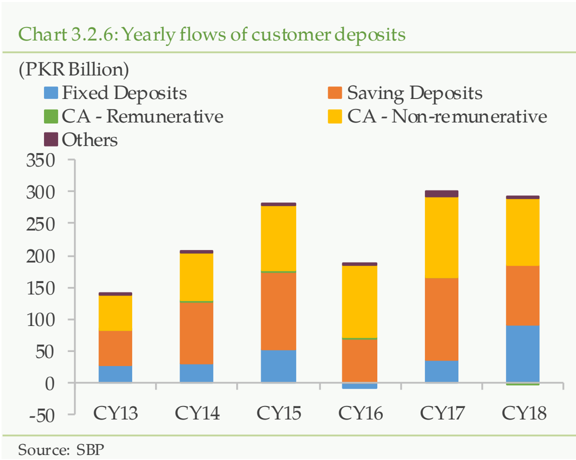
Due to dearth of Sharia compliant investment opportunities, investment portfolio of IBIs has decreased by 3.35 percent in CY18 in contrast to an increase of 9.14 percent in CY17. The share of investments in total assets of IBIs is 19.37 percent, which is 43.46 percent in conventional banks. This has nudged IBIs to expand their intermediation function through higher financing leading to more profitability.

Further, analysis reveals that GoP Sukuk dominates the investment portfolio of IBIs with 59.71 percent share **(Chart 3.2.5)**. Due to net maturity of GoP Sukuk, the share of corporate Sukuk in total



investment portfolio has risen to 23.04 percent in CY18 from 19.58 percent in CY17. *Deposits have provided needed funding for asset expansion…*

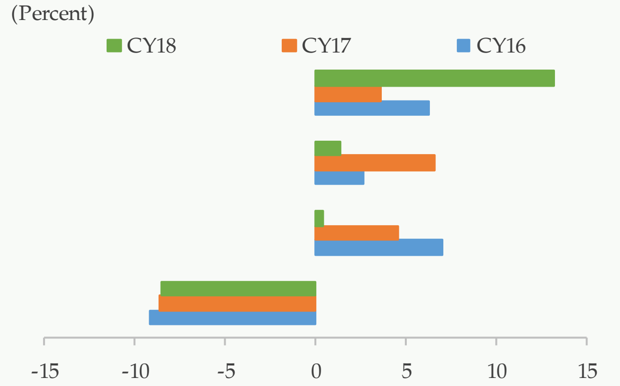
Deposits are the mainstay of funding for the IBIs. Though deposit growth has decelerated to 16.87 percent in CY18 compared to 19.81 percent in CY17, they have funded 82.21 percent growth of total assets during CY18. Both the savings and current deposits, have witnessed deceleration in growth. Fixed deposits, on the other hand, have surged by 24.09 percent in CY18 compared to 10.41 percent in CY17 (**Chart 3.2.6**).



The growth in fixed deposits is quite substantial as it accounts for 67.44 percent addition in total fixed deposits of all banks. It seems that with growing financing to deposit ratio IBIs have a) increased mobilization of fixed deposit, in an increasing interest rate environment and at a relatively lower cost than the conventional banks[150]; and b)opted to mobilizing long-term deposits to improve their maturity profile; IBIs have mostly mobilized deposits with maturity above 3 years. The latter aspects has helped IBIs in improving the overall maturity gap due to improvement in financing flow and compositional change in the deposit profile. (**Chart 3.2.7**).

[150] SBP has issued Minimum Saving Rate (MSR) Policy for banks in terms of which are required to remunerate the saving deposits at least at 50bps below the floor of the interest rate corridor. However, keeping in view the Sharia Laws, SBP exempted IBIs to observe the Minimum Saving Rate on deposits vide BPRD Circular No. 7 of 2008..

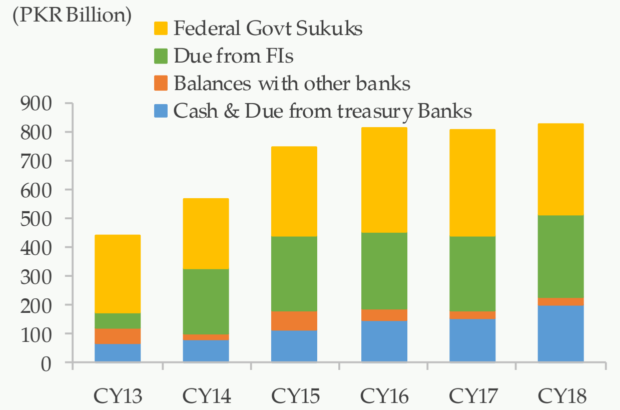
Chart 3.2.7: Maturity GAP (assets-liabilities) as percent of total assets



Source: SBP

The scarcity of short-term investment instruments for deployment of funds has remained a key issue for IBIs. Due to net maturities of GoP sukuk during CY18, liquid assets have declined by 2.98 percent to PKR 596 billion. As a result, liquid assets to total assets has seen considerable decline to 22.41 percent over a year. Further, IBIs have kept 27.83 percent of their liquid assets in the form of "cash, balances with other banks and lending to financial institutions" compared to 16.59 percent in case of conventional banks (**Chart 3.2.8**). However, IBIs liquidity remain in a comfortable zone as the Statutory Liquidity Requirement (SLR) for IBIs stands at 14 percent against the requirement of 19 percent for the conventional banks.

Chart 3.2.8: Composition of liquid assets of IBIs



Source: SBP

Low borrowings entail limited funding risk…

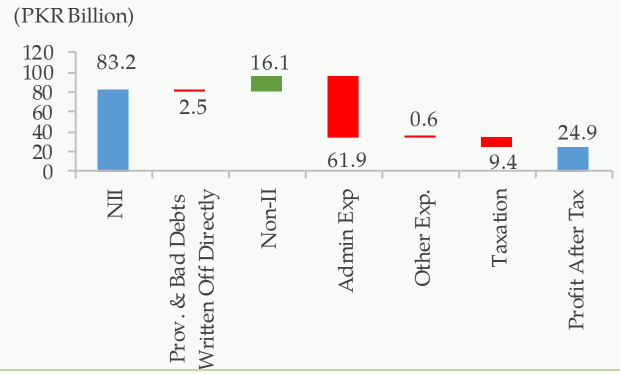
Contrary to conventional banks reliance on borrowings (12.73 percent), IBIs have funded 6.23 percent of their total assets through borrowing on average.[151] Lack of Shariah compliant instruments in interbank market also restricts the borrowing of IBIs which may lead to funding risk in short-term. As such, IBIs are more dependent on deposits to finance their assets.

Within the secured borrowing, Islamic export refinance is 44.32 percent of the total borrowings. With the introduction of three different Islamic financing facilities, for Modernization of SMEs, Storage of Agricultural produce, Renewable energy, and financing facility for low cost housing for special segments, it is expected that these secured borrowing facilities from SBP might increase Islamic financing in above focused areas in the future.

IBI's profitability increases …

The profitability of the IBIs has improved significantly over the year. The profit (after tax) at PKR 24.88 billion has registered an increase of 51.31 percent in during CY18. (**Chart 3.2.9**). Resultantly, the after-tax Return on Assets (ROA) has improved to 1.02 percent in CY18 from 0.81 percent in CY17.

Chart 3.2.9: Net profit for CY18



Note: Green bar indicates the increase while red bar indicates decrease
Source: SBP

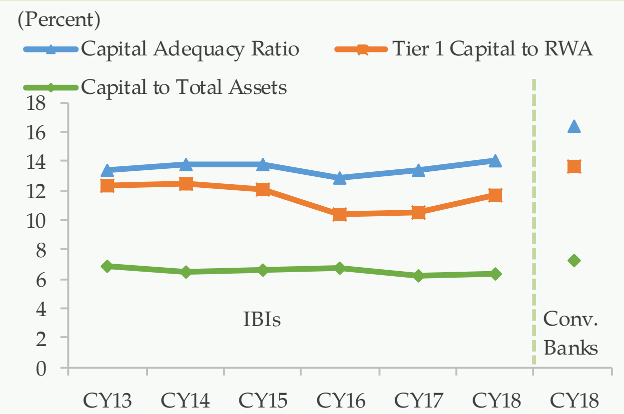
151 IBIs have funded, on an average, 6.23 percent of their assets through borrowings in CY 18 compared to 5.35 percent of their assets in CY17.

Improvement in earning has, mainly, resulted from 29.95 percent increase in net markup income during CY18. Analysis of the components shows that most of this growth in net markup income has been contributed by 44.42 percent rise in markup income from financing activity, while mark-up expense increased by 35 percent.

…which strengthens the solvency profile of IBIs

Driven by high profitability, the solvency of the IBIs has strengthened. CAR has improved to 14.04 percent in CY18 from 13.06 percent inCY17 (**Chart 3.2.10**), which is well above the regulatory requirement. The improvement can be attributed to increase in the unremitted profit by PKR 17 billion (44.00 percent) in CY18 and dilution of CRWAs due to increase in public sector financing. Despite some improvement, the CAR of IBIs has remained below the conventional banks, primarily, due to high share of financing in total assets.

Chart 3.2.10: Solvency ratios



Source: SBP

In addition to the risk confronted by the conventional banks, IBIs are exposed to Shariah non-compliance risk arising from their failure to comply with the Shariah standards. SBP, cognizant of this risk, has put in place a detailed Sharia Governance Framework for IBIs. [152] In addition, it has advised IBIs to undertake enhanced measures for training and capacity building of their staff.[153]

The Islamic banking industry has continued its impressive growth in CY18. Besides IBIs own efforts, the conducive operating environment provided by SBP has also been an important factor. SBP's efforts in promoting Islamic Banking in Pakistan have been recognized internationally. It has been presented with a global award as the best Central Bank in promoting Islamic finance for the year 2018. The award is conferred by the Islamic Finance News (IFN), an arm of RED money Group, Malaysia.

The IBIs have showed interest in SME financing, which will give impetus to economic growth due to its strong economic interlinkages of SMEs. However, at the same time, it may increase the credit risk of IBIs if credit risk management is compromised. For further product diversification and enhancing contribution in the economic growth, IBIs needs to explore new business opportunities in the low cost housing and enhance financing to agriculture segment.

[152] IBD Circular No. 01 of 2018 available at: http://www.sbp.org.pk/ibd/2018/C1.htm

[153] IBD Circular No. 02 of 2018 available at: http://www.sbp.org.pk/ibd/2018/C2.htm

3.3 Resilience of the Banking Sector under Stress Scenarios

The stress scenario is not a forecast of macroeconomic and financial conditions. It is a hypothetical but coherent tail-risk setting designed specifically to assess the resilience of the banking sector to potential deterioration in macroeconomic conditions. This year's stress testing exercise assesses the extent to which the banking sector is able to withstand hypothetically designed domestic and global shocks in the medium term, besides considering the business as usual conditions in the baseline. Given the existing vulnerabilities, under the baseline scenario, the sector's current level of solvency may deteriorate moderately yet it will remains well above the domestic regulatory benchmark. Under the hypothetical shock scenarios, however, the banking sector can withstand for three years the severe and protracted downturn induced by adverse global macroeconomic conditions. In terms of size, all categories of banks can withstand the stress conditions as well. Reassuringly, the large size banks with potential to cause systemic disruptions carry sufficiently higher capital buffers and are able to sustain the impact of hypothesized shocks for around four years. The resilience of medium sized banks, however, may come under stress after three years, while small size banks continue to meet solvency criteria during the projection horizon of five years. Encouragingly, the banking system with adequate capital buffers can cater to the credit needs of the economy even during stress periods, albeit at a slower pace.

3.3.1 Background and Developments

The feedback effects between the real and financial sectors, where vulnerabilities in one sector spillover to the other, have been most prominently highlighted by the onset of global financial crises (GFC) of 2007-08. Since then, the regulators and supervisors have enhanced the level of financial sector oversight, thereby emphasizing on its resilience to withstand shocks transmitting from the rest of the economy. At the same time, stress-testing framework is also being extensively used by the domestic authorities as well as multilateral agencies to assess the resilience of the banking sector to certain hypothetically designed adverse yet plausible event(s). The results of stress-tests, therefore, depict the *projected* behavior of macro-financial variables and health of the banking sector under the assumed scenarios.

The SBP has been conducting this exercise internally on a quarterly basis since 2005 while for the external stakeholders, the stress-testing results are being published in the FSRs since 2007-08. The stress-testing framework, while still in its evolutionary phase, is continuously being revamped and strengthened over the recent years.

The current year's stress testing exercise includes *three* separate scenarios, designed to assess the health of the banking sector over the medium term, i.e. five years from Q1CY19 to Q4CY23.

The *baseline scenario* traces the path of macro-financial variables under the current dynamics of the domestic macro-economy, i.e., business as usual. The other two scenarios, *domestic* and *global,* on the other hand, assume crystallization of idiosyncratic and systemic shocks, such as natural disasters and disruptions in global economy, and project their impact on the resilience of the banking sector. Of the latter two stress scenarios, *global* has been designed to be severer.[154]

[154] Usually three types of shocks are considered in stress testing based on the length of the shock events i.e. V-shaped, L-shaped and U-shaped. The shapes are envisaged in terms of recovery. V-shaped assumes quick recovery; L-shape assumes protracted downturn while U-shaped assumes recovery towards the end of projection horizon. Under this

The methodology used to evaluate the resilience of banking sector in all the three scenarios is similar but differs in terms of paths being followed by the macroeconomic variables. Given the interaction between various sectors of the economy, a number of variants of vector autoregressive (VAR) models have been employed.[155,156] In addition, the cross-sectional heterogeneity has been captured by including segments of banking industry in terms of size (i.e., small, medium, large).

3.3.2 Scenario Design Overview

The *baseline scenario* assumes business as usual environment, both globally and domestically, and is based on recent macroeconomic developments. The *domestic scenario* has been constructed to assess vulnerability of the banking sector to risks emanating from agrarian nature of domestic economy. These risks include catastrophic events generally attributed to climate change and, disruption in river flows due to rising geopolitical tensions. The *global scenario* focuses upon implications of slowdown in key trading partner economies, down grading by Financial Action Task Force (FATF), volatile oil prices and stabilization measures taken post-anticipated IMF program.

The implications of changes in macroeconomic indicators; such as output, inflation, exchange rate, interest rate and exports, on the health of the banking sector have been captured via non-performing loans, profitability and solvency. Specifically, the economic downturns can negatively influence the income levels of borrowers and affect their debt servicing capacity, thereby amplifying the credit risk for banks. This in turn would put adverse pressures on the profitability of banks, thus negatively affecting their solvency.

Given the feedbacks, the solvency issues in banking sector could spill over to the real economy as the banks would be reluctant to provide credit to even potentially profitable investment opportunities, amplifying the downturn. The sharp deceleration in credit flows by the banks during the downturns, could further slowdown the pace of economic growth.

Stress test models, designed to test banking industry's resilience against adverse shocks, capture these inter-linkages among the various sectors of the macro economy. The monetary authority's feedback reactions, in response to the shocks, are assumed to reflect in the interest rate adjustments.

In terms of risk coverage, the resilience of the banking sector has been assessed against credit, market (interest rate and exchange rate) and operational risks.

Baseline Scenario

The baseline scenario, *Scenario 0*, assumes absence of any idiosyncratic or systemic shocks over the simulation period. However, in 2018, domestic economy has experienced rise in inflation and downward adjustment in value of currency;[157] primarily owing to challenges on fiscal and external accounts. Policy makers have countered this situation by contractionary monetary and fiscal policies.[158] Owing to these stabilization measures, uncertainties surround the short run growth

terminology, domestic scenario is assumed to be V-shaped, while global as U-shaped. The recovery under the domestic shock takes place earlier while economy takes a little longer to recover under global shock.

[155] For details, please see 'Box 4.1 Technical Details' of Chapter 4: Resilience of the Banking Sector, Financial Stability Review 2016, SBP.

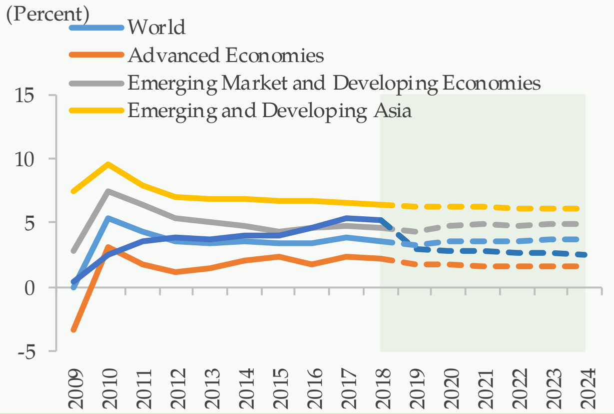
[156] As per BIS study, one fifth of the authorities use VARs. [Bank for International Settlements. Supervisory and Bank Stress Testing: A Range of Practices. December 2017].

[157] CPI and PKR-USD exchange rate increased by 6.5 and 26 percent during CY 2018, respectively.

[158] Policy rate was raised by4.25 percent in CY2018 while development expenditures were cut by 37.2 percent during 2nd half of CY2018.

prospects. Considering these developments, international observers, e.g., IMF, are also expecting lower growth trajectory (**Chart 3.3.1**).[159]

Chart 3.3.1: IMF annual real GDP growth forecast



Source: IMF World Economic Outlook April 2019

In the medium run, adoption of contractionary monetary and fiscal policies is expected to tame inflationary pressure; albeit at the cost of economic activity. On the other hand, adjustment in exchange rate is expected to support current account deficit by rationalizing imports demand and boosting exports. So far as the oil prices are concerned, *Scenario 0,* assumes prices to remain in the range of USD 55-60 per barrel; which is consistent with medium term projections based on oil futures.[160]

Domestic Scenario

The agriculture sector remains one of the important component of domestic economy. Though its share is slowly declining, the sector's output accounts for around one-fifth of the total GDP. Further, its interlinkages with industry and services sectors make it an important driver of the economic growth. Naturally, the sector remains prone to climate change and natural calamities such as periodic floods and droughts. Such shocks, in the past, have led to periods of low growth, surging inflation and reduced productive capacity in the economy.

Global warming and the consequent climate change have been postulated to lead to extreme weather conditions causing droughts, floods, famine and cyclones. According to Long-Term Climate Risk Index (CRI) 2019, during last two decades, Pakistan experienced 145 climate related events and remains 8th most affected country in terms of human and output losses.

The domestic stress scenario, *Scenario 1*, of the current exercise is largely similar to the previous year's design, as discussed earlier. However, some adjustments have been made so that the scenario remains relevant and plausible. It considers the effects of climate change, particularly water shortage, on the agriculture sector, overall economy and ultimately the banking sector. The less availability of water is assumed to mainly stem from reduced rainfall, lower river flows,[161] less snowfall and depletion of glaciers due to extreme temperatures. Additionally, the scenario is also motivated by the recently escalated geopolitical tensions and potential threats of water blockage. Such climate change and geopolitical risks may raise concerns about water conditions and its availability in the medium term.

In this context, the basis of shock design stands on the footprints of 1999-2001 drought, one of the longest and worst episodes of droughts (**Chart 3.3.2**).[162] A substantial fall in agriculture output, mainly due to crops failure, is therefore assumed and the domestic economic growth contracts to 2 percent for initial two years and recovers to around 3 percent by the end of the scenario.

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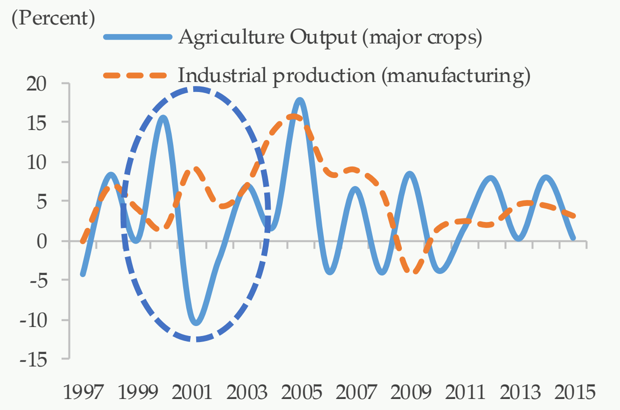
[159] IMF World Economic Outlook, April 2019

[160] IMF World Economic Outlook, April 2019

[161] River flows constitute, on average, 75 percent of total water supply in the country. SBP Annual Report on State of Pakistan's Economy, 2016-17.

[162] Pakistan Meteorological Department (2018). Drought Bulletin of Pakistan, October-December.

Chart 3.3.2: Drought period (1999-2002)



Source: S&DWH (SBP)

The assumed crop failure may prompt the government to provide post-disaster relief packages, pushing current expenditure up and worsening the fiscal position.

With a drop in agriculture output, it is assumed that agri-exports, which constitute around 17 percent of total exports in December 2018, would fall.[163] Non-agriculture exports, which use agriculture produce as raw materials, would also be hampered. Overall, the exports would decline before rising back by the end of scenario. The imports of raw materials and food could also rise, which in turn would further aggravate country's current account balance.

The PKR/USD parity may also weaken, leading to cost-push inflationary pressures. Given low domestic savings - lowest among peer countries - the severity of the shock may amplify. [164]

The expected water shortages could also weigh significantly on the hydropower generation, which, during Jul-Feb FY18, constituted around 27 percent of total electricity generation.[165] The stressed energy conditions may depress the industrial production and domestic investments, causing a drop in overall output. The supply shock may further intensify the price pressures as well.

To meet the shortfall, among other alternatives, thermal sources of power generation is expected to be pushed further. However, such a remedy may lead to higher import of oil and coal, thus amplifying the already high import bill. Besides pressures on the external account, the situation would result in higher prices, mainly via pass-through to consumer goods. Headline inflation is, thus expected to reach as high as 14 percent before falling back to 8 percent during the projection horizon. In response to these vulnerabilities, appropriate adjustments in interest rates is also presumed to check inflationary expectations.

On the upside, the much-anticipated IMF bailout package and other aid/inflows from multilateral and bilateral sources are assumed to materialize over the simulation period. Given the severity of shock and its spillovers, a gradual rather than a quicker recovery is assumed.

The growth paths considered in this scenario for various macro-financial variables are projected through the same feedback models used in *Scenario 0*.

Global Scenario

This years' global scenario incorporates four key global risks. These risks include the decline in world economic growth, escalations of trade tensions among major economies, volatile oil prices and potential downgrading of Pakistan from grey-list by FATF. The scenario (*Scenario 2*), designed to assess the capability of the domestic banking sector to withstand simultaneous materialization of the above

[163] Statistics and Data Warehouse Department, SBP.

[164] Gross Domestic Savings (as percent of GDP in 2017): Pakistan (6.8 percent), Bangladesh (25.3 percent), India (29.8 percent), Bhutan (25.2 percent), Vietnam (25.5 percent), Malaysia (32.5 percent) and Iran (44.3 percent). Source: World Bank.

[165] Pakistan Economic Survey 2017-18, Ministry of Finance

mentioned downside risks, portrays a considerably extreme but plausible set of events.

The IMF, in its latest issue of WEO April 2019, estimates Pakistan economy to grow by 2.9, 2.8 and 2.5 percent in 2019, 2020 and 2021, respectively. While, it estimates the world GDP growth for 2018 to slightly taper and tick in at 3.6 percent.[166] Moreover, forecasts of world GDP growth for 2019 and 2020 are revised downward by 40 and 10 basis points to 3.3 and 3.6 percent, respectively. One of the key factors behind slowdown of global growth is US-China trade tensions. *Scenario 2* assumes intensification of these trade tensions, which may detract ongoing recovery of global financial markets.

Apart from general recessionary impact of trade tensions, downsides include uncertainty regarding no-deal Brexit in UK, geopolitical tensions in Middle East and larger than anticipated slowdown in these economies. If materialized, these risks may negatively affect exports and remittances related flows to Pakistan economy.[167]

International observers are foreseeing oil prices to stay around USD 55 per barrel in the medium run.[168] Despite this stable and low outlook for oil prices, risk of resurgence in prices exists and explains the recent rise in oil prices.[169] For instance, OPEC member countries and Russia have been trying to cut oil production in response to prolonged low oil prices, which are not viable for most of the oil producing countries.[170] Further, the effective materialization of US imposed sanctions on oil exports from Iran might beget the rise in oil prices at a higher pace.[171] Accordingly, *Scenario 2* assumes oil prices to reach USD 80 per barrel before stabilizing at USD 75 per barrel during the last year of projection period.

The global scenario also assumes adverse migration of Pakistan from grey-list by Financial Action Task Force (FATF). This can affect external position of Pakistan in several ways: an increase in sovereign risk premium, de-risking by portfolio investors, slowdown in remittances and increase in transaction costs. It is assumed that remitting and trading procedures through banking channels, like transfer of funds via correspondent banking, opening of trade LCs etc., would become restricted and costly. These disruptions in trade and investment inflows may lead to further pressures on external account balance and exchange rate. This may also impact the non-interest income of banks, particularly, fee income and commissions etc.

Under *Scenario 2,* the above global risk factors will accentuate the domestic economic vulnerabilities, especially the twin deficits. Keeping in view the above facts, our global scenario also assumes that the fiscal and BoP vulnerabilities would necessitate support from IMF. However, IMF programs typically accompany macroeconomic consolidation measures, including a floor on net foreign assets (NFA) and a ceiling on net domestic assets (NDA). As a result, exchange rate depreciation and upward adjustment in utility prices may be anticipated. Further, with a ceiling on NDA in place, the government generally turns towards scheduled banks to finance budget

[166] IMF World Economic Outlook, April 2019.

[167] UK and China are 2nd and 3rd major export destinations for Pakistan. For FY2018, remittances from Middle East economies constitute 57 percent of total remittances in Pakistan.

[168] World Economic Outlook, April 2019, IMF.

[169] A rise of USD 12 per barrel is observed in Dubai crude oil price during Jan-Apr 2019.

[170] https://www.bloomberg.com/graphics/opec-production-targets/

[171] Eight countries; including China, India, Italy, Greece, Japan, South Korea, Taiwan and Turkey; were granted exemptions expiring May 2, 2019.
https://www.state.gov/secretary/remarks/2018/11/287132.htm
https://www.reuters.com/article/us-usa-iran-sanctions-waivers/us-grants-temporary-iran-oil-waivers-to-eight-countries-including-china-pompeo-idUSKCN1NA1OS

deficit, which may crowd out private sector investment during initial phase of macroeconomic consolidation. However, as the consolidation efforts bear fruits and economy stabilizes, fundamentals are likely to improve, albeit gradually, during the second half of our projection period.

Amid these anticipated developments and recovery, this scenario design assumes a U-shaped trajectory, with a sharp initial deterioration, followed by gradual recovery towards end of the projection period.

In line with global dynamics, *Scenario 2* assumes that real GDP growth may decline to below one percent; leading to significant slowdown in exports and remittances. Resulting pressure on external account is expected to weaken PKR/USD parity; causing imports to be more expensive and resulting in buildup of significant domestic price pressures.

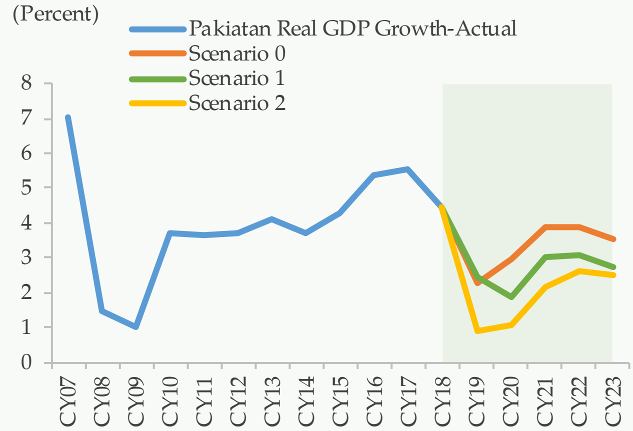
In view of the assumed inflationary and exchange rate pressures, an appropriate policy response may be required. Particularly monetary authority may appropriately adjust the benchmark interest rates. Therefore, the assumed external sector pressures, a slowdown of aggregate demand and tighter monetary conditions, would translate into elevated levels of credit risk, leading to higher infections and some brake on bank lending. The slowdown in lending activity may also hurt the interest income of banks. This, coupled with higher provisioning expenses, could possibly impair banking industry's profitability and ultimately the capital adequacy.

3.3.3 Stress Testing Results: System Level

(a) Impact on Credit Riskiness

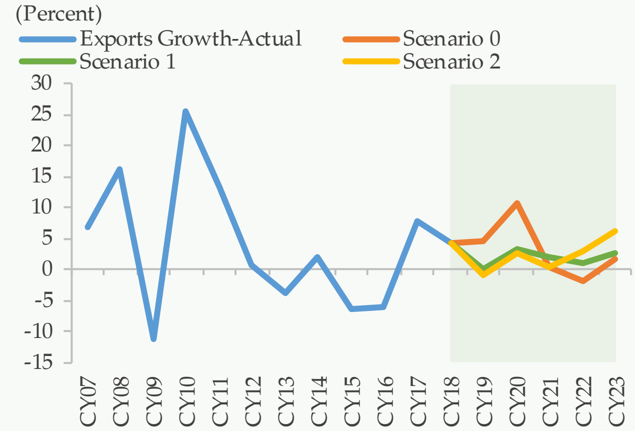
The results of stress test exercise indicate that gross non-performing loans ratio (GNPLR), under *Scenario 0*, is likely to remain somewhat elevated over the five year projection horizon, given the domestic and external pressures (**Chart 3.3.6**). Over the initial two years of projection horizon, GNPLR may rise to 11.54 percent and would settle at the level of 13.07 percent by the end of projection period, which is 5.16 percentage points higher than 7.91 percent as of end 2018. This is mainly in line with our assessment of the domestic economy, where existing macro-economic vulnerabilities may cause a moderate level surge in NPLs of the banking sector.

Chart 3.3.3: Projected real GDP under various scenarios



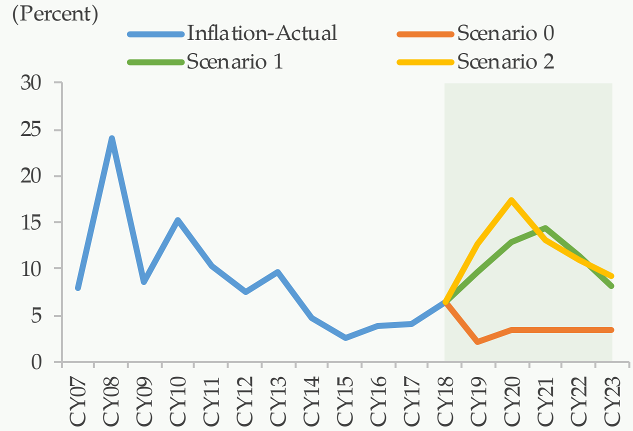
Source: Staff Calculations

Chart 3.3.4: Projected exports under various scenarios



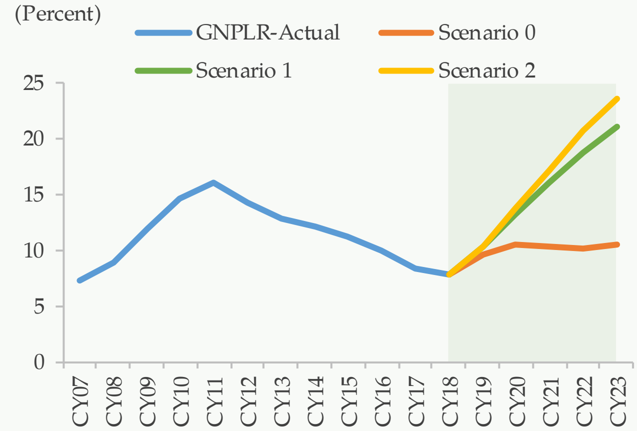
Source: Staff Calculations

Chart 3.3.5: Projected inflation under various scenarios



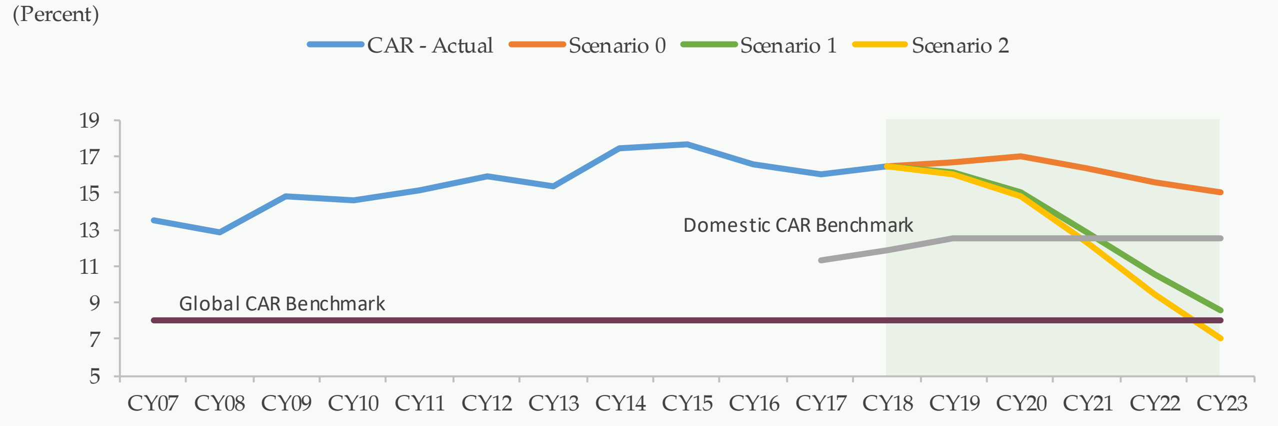
Source: Staff Calculations

Chart 3.3.6: Projected system-level GNPLR under various scenarios



Source: Staff Calculations

Chart 3.3.7: Projected system-level Capital Adequacy Ratio (CAR) under various scenarios



Source: Staff Calculations

The GNPLR, under hypothetical scenarios, rises faster than in the baseline because of the assumed deterioration in macroeconomic conditions. Banking industry shows less resilience towards global shocks (*Scenario 2*) as delinquency rate touches 23.64 percent by the end of projection horizon. In response to domestic shocks (*Scenario 1*), on the other hand, delinquency reaches to 21.10 percent. Credit risk under both stress scenarios are higher than the GNPLR levels observed during last 15 years. The assumed crisis under global shocks might pose stability concerns to the banking system.

Likewise, domestic led vulnerabilities also threaten banking sector stability but to a slightly lesser extent. The assumed faster recovery under domestic scenario by the end of projection period could be the reason behind lesser severity of GNPLR levels under *Scenario 1* compared with *Scenario 2.*

(a) Impact on Solvency

The impact on solvency is measured via Capital Adequacy Ratio (CAR) of the banking system. As expounded in the scenario design, besides the *credit risk*, other risks viz., the *market risk*, realized via movements in interest and exchange rates, as well as the *operational risk* are likely to have impact on solvency. These risks, therefore, have been factored in while analyzing the impact of each scenario on eligible capital as well as risk weighted assets. Under the business as usual environment, the CAR of the banking system moderately deteriorates by 0.86 percentage points by the end of projection period. This is mainly on the back of existing macroeconomic risks discussed earlier. The CAR, under scenario 1 and 2, falls to 10.45 percent and 8.94 percent, respectively.

More specifically, under *Scenario 1* (Domestic Shock), the banking industry breaches domestic regulatory benchmark in fourth year while it falls below the international regulatory benchmark (10.5 percent) in the last year of the projection horizon. (**Chart 3.3.7**).[172] The banking sector's CAR significantly declines in the event of a global shock. In this case, the industry breaches domestic and international CAR benchmarks, respectively, in the third and fourth years of projections horizon. It is important to highlight that the domestic CAR requirements are set at levels higher than the global standards.

3.3.4 Stress Testing Results – Segment Level

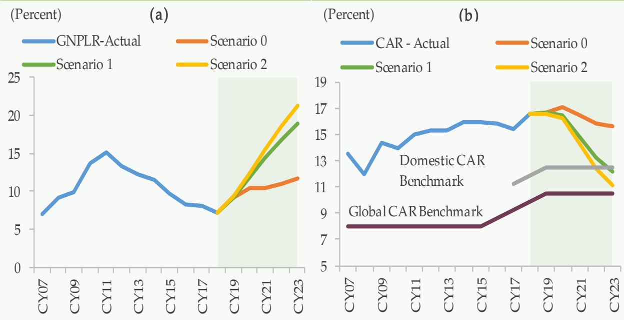
In line with the system-level default analysis, segment level (small, medium, large) infection ratio has also been projected. This aspect of banking industry is included to assess how the cross-sectional heterogeneity affects the resilience of banks against various macroeconomic risks.

For GNPLR, system-level projections of NPLs and gross loans are distributed proportionately based on the contribution of each segment in the loan portfolio of entire banking system as of end 2018. Similarly, capital is also distributed proportionately to compute segment level CAR.

Large Banks

By the end of simulation horizon, large banks witness a rise of 4.63, 11.83 and 14.11 percentage points in GNPLR and a fall of 0.94, 4.45 and 5.45 percentage points in CAR, under scenarios 0, 1 and 2, respectively. *Scenario 2* turns out to be the most severe and deteriorates profitability of large banks the most (**Chart 3.3.8 (a & b)**).

Chart 3.3.8: Projected GNPLR and CAR of Large Banks



Source: Staff Calculations

The local CAR standard of 12.5 percent gets breached for this category of banks by CY22 in case of *Scenario 2* and CY23 in case of *Scenario 1* (**Chart 3.3.8 (b)**). This implies that the large banks can generally withstand the stress for three years. Reassuringly, the minimum global benchmark, however, would not be violated in any stress scenario over the projection

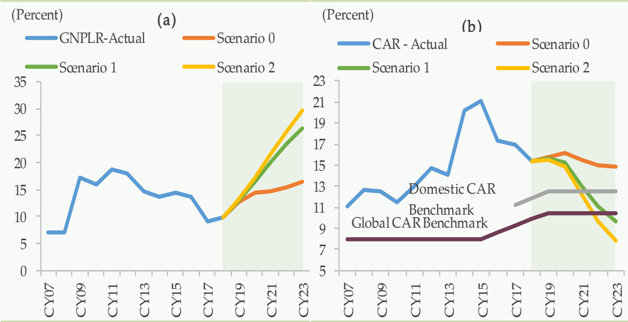
[172] The domestic CAR benchmarks are 11.90 percent (December 2018) and 12.5 percent (December 2019 onwards).

period. Sufficiently higher capital buffers available with larger banks would help them withstand even the severe shocks. More importantly, the systemically important banks remain well capitalized and resilient to support real economic growth even in times of stress, although some deceleration in the extension of loans could be observed.

Medium Banks

By the end of projection period, GNPLR of medium-size banks rises in scenarios *0*, *1* and *2* by 6.47, 16.52 and 19.70 percentage points, respectively, while the CAR falls by 0.46, 5.61 and 7.47 percentage points. Again, the adverse impact of shocks emanating under global scenario outweighs the consequences of domestic scenario in terms of severity (**Chart 3.3.9(a & b)**).

Chart 3.3.9: Projected GNPLR and CAR of Medium Banks



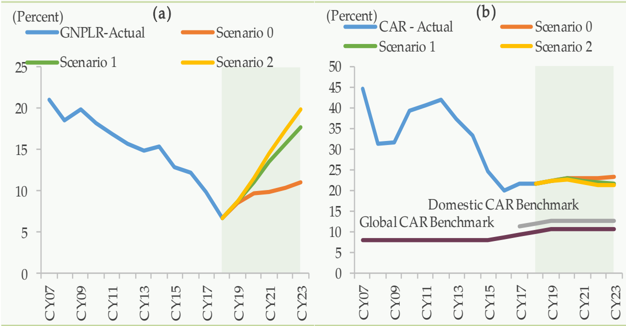
Source: Staff Calculatioons

In case of domestic shocks, *Scenario 1*, this segment of industry breaches local and global CAR standards in CY22 and CY23, respectively. In case of global shocks, *Scenario 2*, medium sized banks breach local and global CAR standards in CY21 and CY22, respectively. (**Chart 3.3.9(b)**). Comparatively higher levels of delinquency ratios and lower level of pre-shock capital buffers possibly make medium banks more vulnerable to shocks.

Small Banks

Small banks are found to be the most resilient against domestic and global shocks. Although, their CAR does fall like large and medium size banks yet, it remains well above both the local and global minimum capital requirements (**Chart 3.3.10 (a & b)**).

Chart 3.3.10: Projected GNPLR and CAR of Small Banks



Source: Staff Calculations

The loan delinquency rate of small banks rises by 4.36, 11.13 and 13.27 percentage points under scenario *0*, *1* and *2*, by the end of five-year horizon (**Chart 3.3.10 (b)**), which happens to be the lowest among all three categories. Given the lower exposure, comparatively, in terms of loans, the CAR of small banks rises by 1.16 percentage points in *Scenario 0* and by 0.03 percentage points in *Scenario 1*; however, it falls 0.50 percentage points in *Scenario 2*. Nonetheless, due to a comfortable pre-shock capital position, small banks demonstrate enough resilience to maintain compliance with domestic and global minimum capital requirements despite credit losses.

Overall, under the baseline scenario, the solvency of banking sector could experience some moderation; however, it remains well above the domestic regulatory capital benchmark. Under hypothetical shock scenarios, nonetheless, the banking sector can withstand some severe and protracted downturn induced by adverse global macroeconomic conditions for three years. In terms of size, all segments of banks including the small, medium and large, can withstand the stress conditions as well. Reassuringly, the large size banks with potential to cause systemic disruptions carry sufficiently higher capital buffers and are thus able to sustain the impact of hypothesized shocks for around four years. The resilience of medium sized banks, however, starts waning after three years, while small size banks never breach the solvency criteria during the projection horizon of five years

Section B: Non-Banking Financial Sector

4.1 Performance & Risk Analysis of Development Finance Institutions (DFIs)

The participation in long-term project financing, the core function of DFIs, has remained limited during CY18. Lack of availability of affordable long-term liquidity remains one of the key hurdles for DFIs. Encouragingly, DFIs, have renewed their interest in SME financing, which is beneficial for the economic and financial development of the country. To play their due role, DFIs need to make concerted efforts for resource mobilization and explore the possibilities of arranging funds through other sources, necessary enhancing suit of their asset product and effectively contributing in the economic development of the country.

DFIs, in the 60s, have contributed significantly in channelizing funds to the private sector **(See Box-4: Brief history of DFIs in Pakistan)**. However, during the past few decades, the performance of DFIs has remained sub-par and their importance in the financial sector has diminished.

The share of DFIs in total assets of the banking sector is minimal...

The total assets of DFIs amounting to PKR 238 billion represent only 0.92 percent of financial sector assets (1.21 percent of the total banking sector's assets) **(Table 4.1.1)**.[173] The expansion of asset base of DFIs by 4.60 percent during CY18 is less than the growth of 7.31 percent achieved by the banks. This low growth is despite the fact that a new DFI has commenced operations, which contributed to the expansion in assets by 1.61 percent.[174] Thus, DFIs, due to their small size, pose limited systemic risk concerns.

Table 4.1.1: Key variables & financial soundness indicators of DFIs

	CY13	CY14	CY15	CY16	CY17	CY18
	PKR billion					
Investments	79.5	108.3	115.3	108.9	122.1	122.3
Advances	45.3	48.6	56.8	68.6	76.7	82.3
Total Assets	149.4	176.1	190.5	208.8	228.0	238.5
Borrowings	67.3	74.4	86.5	98.4	100.5	111.4
Deposits	8.9	15.0	12.0	10.9	17.1	11.6
Equity	62.3	76.4	79.3	82.2	99.5	106.2
NPLs	17.1	15.1	15.0	13.9	15.0	14.7
	Percent					
CAR	50.33	44.85	43.62	40.78	47.04	46.95
NPLs to Advances	30.04	25.27	21.98	17.48	17.15	15.83
Net NPLs to Net Advances	12.41	7.93	6.21	4.51	5.52	5.29
ROA (After Tax)	3.05	4.48	3.36	3.56	2.36	2.25
ROE (After Tax)	7.00	10.64	7.92	8.66	5.77	4.89
Cost to Income Ratio	40.25	30.96	32.59	38.78	37.28	40.08
Liquid Assets to Short-term Liabilities	84.77	84.80	86.31	90.23	90.90	86.95
Advances to Deposits	506.85	323.92	471.61	627.65	447.93	707.08

Source: SBP

DFIs show signs of risk taking…

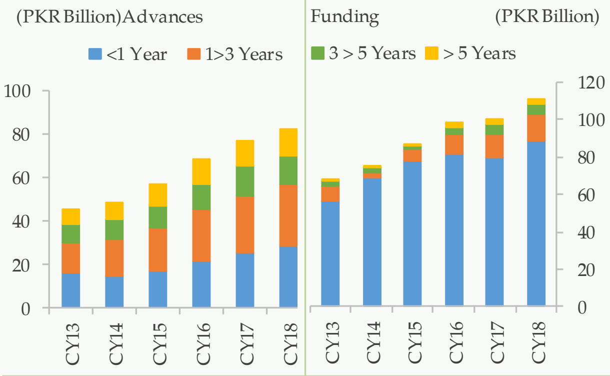
The asset composition of DFIs, still, remains tilted toward investments. Total assets of the DFIs constitute 51.27 percent investments and 34.53 percent advances indicating risk averse behavior. However, there are indications that the DFIs might be taking more risk. During CY18, the DFIs have increased their lending to SMEs, invested in commercial paper and reduced their stock of government bonds. However, the risk taking ability of DFIs is constrained by the non-availability of long-term funds. The DFIs are mainly dependent on short-term borrowing from the interbank market to finance

[173] Assets of financial sector includes the assets of banking sectors, NBFIs, Insurance and CDNS, while banking sector assets include the assets of Banks, DFIs and MFBs only.

[174] Pakistan Mortgage Refinance Company Limited (PMRC).

their asset growth **(Chart 4.1.1)**. Funding constraint is also limiting their ability to extend long-term project financing—their core business.

Chart 4.1.1: Maturity profile of advances and funding



Source: SBP

The maturity profile of advances remains short-term oriented…

Although, the advances have grown at 7.39 percent in CY18 (11.71 percent in CY17), most of the increase has been in advances having maturity of less than 3-years. Further analysis reveals that more than 68.80 percent are maturing in less than 3 years, while only 14.84 percent have maturity over five years. The size of long-term advances further reduces to 10.50 percent if a DFI with a mandate to provide long-term housing finance are excluded. This state of affairs is contrary to the objective of DFIs to provide long-term project financing.

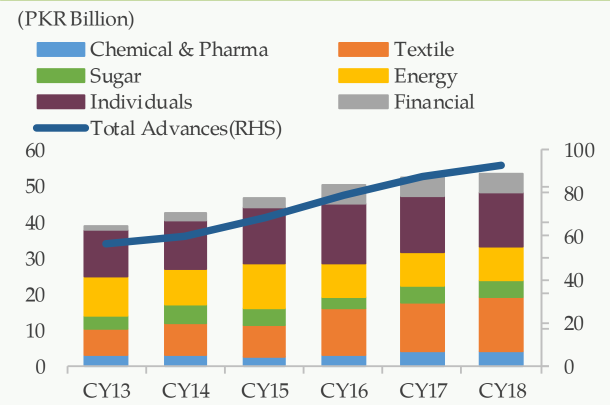
Corporate segment is the biggest borrower though SME financing has increased …

The share of corporate loans in total loans has come down to 78.04 percent in CY18 from 79.22 percent in CY17. It has been made possible due to deceleration in corporate financing and rise in SME financing. Corporate loans have decelerated to 4.39 percent on YoY basis as compared to 15.18 percent growth in CY17. The SME financing has increased by 59.16 percent on YoY basis as compared to 26.82 percent growth in the previous calendar year. The rise in SME financing, apart from other factors, could be the result of indicative targets for banks & DFIs set by SBP.

Flow of advances has increased to Textile sector…

In terms of segment wise advances, the flow of loans is tilted towards textiles followed by cement and electronics and electrical appliances **(Chart 4.1.2)**. As loan portfolio is well diversified among various sectors, it pose no concentration risk.

Chart 4.1.2: Sectorwise breakdown of advances

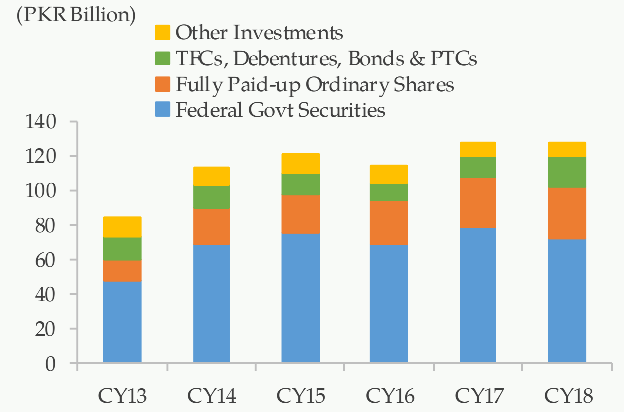


Source: SBP

"Search for yield" motive dominates investment decisions…

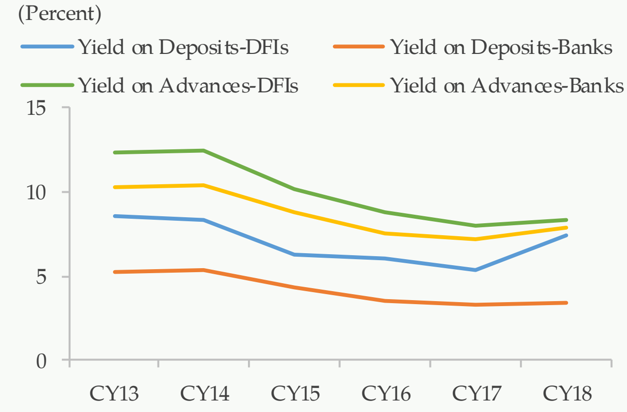
A compositional change has occurred in the investment portfolio of DFIs. The amount divested from government securities has been placed in TFCs of private listed companies, likely, in search of higher yield **(Chart 4.1.3)**. Moreover, considering the rising interest rate scenario, the DFIs have off-loaded T-Bills in the first quarter and then made re-investments in PIBs in the third quarter **(Table 4.1.2)**. Moreover, in order to remain liquid, the DFIs have mostly kept their investments in the Held-For-Trading (HFT) (18.09 percent) and Available-For-Sale (AFS) (65.32 percent) categories.

Chart 4.1.3: Investment portfolio of DFIs



Source: SBP

Chart 4.1.4: Costly source of funds restrict asset expansion



Source: SBP

Table 4.1.2: DFIs' investments in federal government securities

(PKR Billion)	Dec-17	Mar-18	Jun-18	Sep-18	Dec-18
T-Bills	71	39	39	36	39
PIBs	7	8	18	34	33

Source: SBP

Share of deposits in funding has declined …

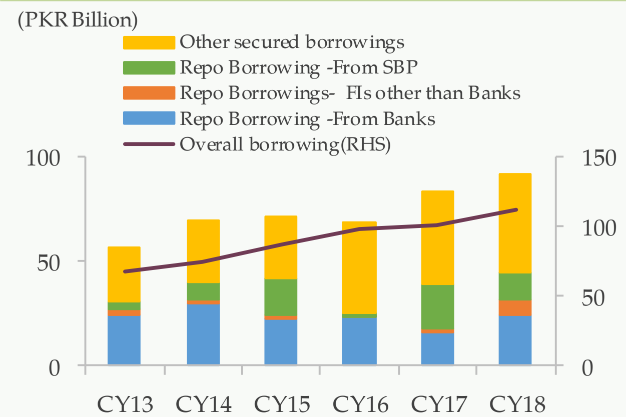
Deposits have funded 4.88 percent of total assets of DFIs during CY18 compared 7.51 percent in CY17. They have reduced by 31.97 percent during CY18 compared to an increase of 56.52 percent in CY17. The decline has mainly resulted from shift in deposits to banks in search of higher yield.

DFIs have limited avenue for mobilizing deposits. Particularly, they raise relatively costly deposits from institutional investors **(Chart 4.1.4)**.[175] Moreover, the limited branch network further restricts their ability to attract cost effective deposits. The DFIs need to work on expanding outreach to mobilize additional funding necessary for enhancing the suit of asset products, which will also be helpful in pursuing their renewed commitment to SME financing.

High cost of funding restricts DFIs to play their intermediary role effectively…

Besides issues in mobilizing deposits, the DFIs have limited access to bond market because of underdeveloped capital markets. Resultantly, they resort to inter-bank borrowings to fund their asset base. Inter bank borrowing is actually major funding source as DFIs have funded 46.74 percent of the total asset during CY18. They rely on short term secured borrowings to fund their assets **(Chart 4.1.5)**. This coupled with higher cost of funding make the borrowing expensive thus making it quite challenging for the DFIs to expand their asset base on sustainable basis.

Chart 4.1.5: Breakdown of secured borrowings



Source:

[175] DFIs can only raise deposits through issuance of Certificates of Investments (COIs) minimum up to maturity of 30 days. Due to limited applicability of BCO, 1962, DFIs are not deposit taking institutions. Hence, they cannot raise the low cost CASA deposits, which raises their cost of funds.

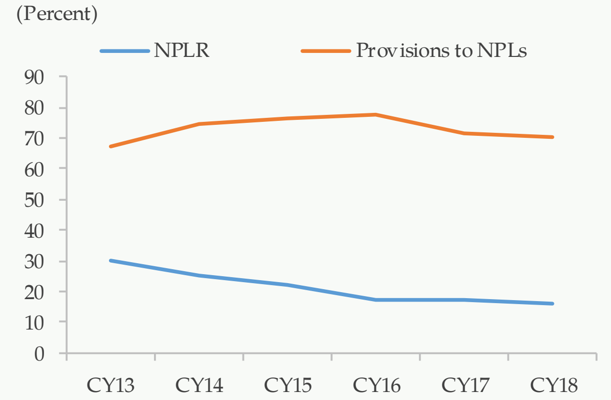
Shareholders' equity is the prime source of long-term funding…

The shareholders equity is the prime source of financing long-term assets. It is funding 44.42 percent of the total asset base. The shareholders equity increased by 8.66 percent during CY18 primarily due to addition of a new DFI.

Asset quality of DFIs is improving…

The infection ratio of DFIs has declined to 15.83 percent during CY18 (17.15 percent in CY17) **(Figure 4.1.6)**. The decline in infection ratio is attributed to reduction in NPLs stock and increase in advances. Most of the NPLs i.e. 75.17 percent are parked in the loss category. The overall provision coverage ratio is 70.28 percent at the end of CY18. With the expansion in SME financing portfolio, DFIs need to be proactive in managing their credit risk.

Chart 4.1.6: Asset quality indicators

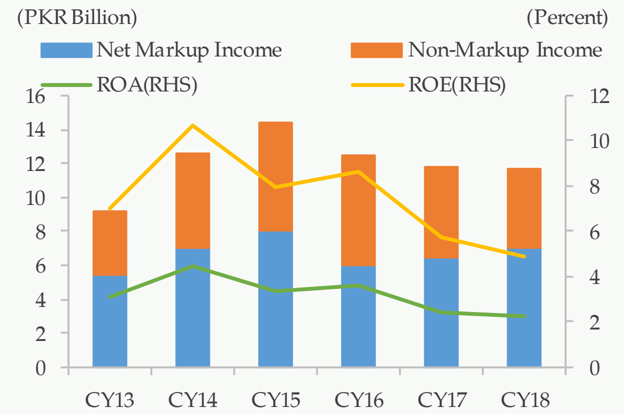


Source: SBP

Interest income from advances has contributed significantly in net interest income…

Though the profitability of the DFIs has marginally declined during CY18, the net markup/interest income has registered a rise of PKR 574 million.[176,177] However, decline in non-markup/interest income has declined by PKR 735 million **(Chart 4.1.7)**. Further, rise in non-markup/interest expense by PKR 266 million has also reduced the net profits. Resultantly, the DFIs have posted an after-tax profit of PKR 5.0 billion in CY18 as compared to PKR 5.4 billion in CY17. Accordingly, the ROA and ROE have also declined on YoY basis.[178]

Chart 4.1.7: Profitability of DFIs



Source: SBP

CAR remains significantly higher than regulatory requirement...

DFIs have high CAR, indicating both underutilized capital and capacity to enhance their financing portfolio. The CAR has marginally declined to 46.95 percent in CY18 from 47.04 in CY17. This downward adjustment has resulted from increase in loans due to renewed interest of DFIs in SME financing and reduction of investments in government securities.

Need remains for enhancing the role of DFIs for contributing in economic activity…

Financial depth is the key to a resilient financial sector, which is also one of the priorities of SBP. Enabling the DFIs to revert to their primary role of

[176]The gross outstanding advances are PKR 90 billion in CY18 as compared to PKR 85 billion in CY17. The increase in interest rates has further increased the interest income on advances.

[177] The average outstanding amount of investments in government securities during CY18 has been PKR 61 billion as compared to PKR 89 billion in CY17. Therefore, the markup/interest earned on investments has declined by 10.57 percent during the year.

[178] The sharp decline in ROE during CY18 is due to increase in equity by PKR 8 billion due to entry of a new DFI.

providing long-term project financing can help achieve this objective. The main impediment in this regard appears to be the dearth of long-term affordable funding for DFIs. This can be arranged through long-term cheaper credit lines to DFIs from government or multilaterals, as in the past. The World Bank has already provided a credit line to a DFI to refinance the existing mortgages. Besides, DFIs may explore the possibility of securitizing their loan portfolio and issuing bonds/TFCs in the secondary market to tap liquidity. Only then, can the DFIs be able to focus on long-term project financing.

Box 5: Brief History of DFIs in Pakistan

In developing economies, the DFIs have played a beneficial role by boosting the industrialization process in the early stages of their economic development.[179] Besides, DFIs also bring international experience in the domestic market, which adds to the diversity of the existing range of financial services. Over the period, the DFIs have stepped into financing activities like corporate financing, leasing, trade financing, refinancing, SME financing and house financing directly competing with banks. Instead of being a driver for economic development, the performance of DFIs in Pakistan has remained on lower side.

History of DFIs…

DFIs, around the globe, were established in 50s and 60s, as an initiative of the World Bank Group.[180] The purpose of the DFIs was to support the developing countries in industrialization process by making available long-term funding through public sector entities. In Pakistan, pre-nationalization, DFIs had played pioneering role in establishing the industrial base. Few of them are PICIC, PIDC and PIFC. However, post nationalization, the DFIs incurred losses due to their financing to loss-making public sector enterprises.

The shift in philosophy of World Bank, globally, from project based lending to program based lending pared down the credit lines, which further worsened the financial health of DFIs.

The reasons for the failure of DFIs have also been identified as strong public sector orientation, political interference, compromised credit standards, non-performing loans and inability to raise funds from the market.[181] The DFIs, in the region, which survived were those who had adjusted to market dynamics, diversified their financial activities to strengthen their income stream, implemented corporate governance framework and raised their own long term funding through secondary market.

Post reforms…

The experiment of nationalization was unsuccessful to obtain the desired results of ensuring flow of financial services to the grass root level (ibid). The government opted for financial reforms, structural adjustment, and privatization. During reforms, few DFIs were closed down and few suffered heavy losses and were on the brink of shut down but rescued by government through considerable financial support. However, post privatization, private sector banks were incorporated with universal banking model that contributed positively in the enhancement of financial services. At the same time, DFIs kept struggling with their financial losses and in the absence of long-term credit lines, could not keep up with the pace of growing banking sector.

Structure of DFIs, at present…

There are 9 DFIs, out of which 7 DFIs have been established in cooperation with bilateral, one DFI is wholly owned by the Government and one DFI is established as a private-public partnership. The purpose for their establishment was to support economic development through financing the industrial sector, extend project financing and facilitate the trade between bilateral. However, their participation in the desired areas is limited due to various reasons including funding constrain

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179 Yaseen Anwar, 2011, "Role of Financial Institutions and Capital markets in Pakistan's Economy", Speech, PAF Air War College, Karachi, delivered on 21 December 2011.

180 MARTÍNEZ, J. (2017). The role of development financial institutions in the new millennium. [Blog] World Bank Group. Available at: http://blogs.worldbank.org/eastasiapacific/the-role-of-development-financial-institutions-in-the-new-millennium [Accessed 5 Mar. 2019].

181 Faruqi, S. (2015). The Role of DFIs in Industrial Growth and Transformation: Why the East Asian Countries Succeeded and Pakistan Did Not. The Lahore Journal of Economics, (20), pp.13-33.

4.2 Performance & Risk Analysis of Non-Bank Financial Institutions

CY18 witnessed an increase in market risk due to volatility in stock market, political uncertainty, rising interest rates and exchange rate depreciation. Though, the slowdown in growth of NBFI sector has been recorded, the availability of various investment options and addition of new firms helped to maintain the asset size of the sector besides adding diversity. Mutual funds, during CY18, have observed net outflow and compositional change. Investors, to safeguard their capital, have switched their investments from equity funds to money market funds. They have also appeared cautious as they took investment decisions by opting non-discretionary portfolio. On the other hand, the companies having financing mandate experienced growth in their assets, except the leasing sector. The assets of investment finance companies have increased on account of addition of two new companies. Further, two new modarabas, after a long time, have been registered and floated in the stock exchange. An increase in assets of NBMFCs has positively contributed to total assets of NBFI sector. In addition, the increasing share of IFCs, REITs, NBMFCs and modarabas may reduce the dependence of NBFI sector on performance of stock market.

Addition of new institutions add to diversity, though the tighter macrofinancial conditions have led to a slowdown in NBFIs asset growth …

The NBFI sector is continuously adding depth to the existing financial sector by catering to the diverse needs of the end users. The recent additions of REITs funds, Pakistan Microfinance investment Company and Private Equity Firms further expand the scope of NBFIs. This diversity helps minimize the adverse impact of any potential risk.

The total assets of the NBFIs, after witnessing healthy growth in previous years (18.17 percent on an average from FY14 to FY17 **(Table 4.2.1)**, have slowed down during FY18.[182] The overall expansion in NBFIs' assets reflected an increase of only 3.41 percent in FY18 as compared to growth of 31.48 percent in FY17.[183]

Table 4.2.1: Asset profile of NBFIs

	FY14	FY15	FY16	FY17	CY17	FY-18	CY18
	PKR billion						
AMCs/IAs	30	32	37	41	37	39	36
Mutual Funds	452	492	546	710	654	679	642
Pension Funds	8	14	19	26	24	27	27
Portfolios	72	97	139	141	139	153	188
Total AUMs	532	603	705	877	817	859	857
RMCs	0	2	1	2	5	5	6
REITS	-	23	27	41	41	42	46
PE & VC Firms	-	-	-	-	0.2	0.2	0.2
PE Funds	-	-	-	-	1	5	6
Modarabas	30	31	37	44	48	53	54
Leasing Companies	36	40	42	43	45	10	10
IFCs	11	10	10	21	25	58	58
NBMFCs	-	-	-	61	70	97	110
Total Assets	639	741	859	1,130	1,089	1,169	1,184

Source: SECP

The slowdown is more visible in NBFIs pegged with equity market…

The overall slowdown in NBFIs assets can, primarily, be attributed to deteriorating economic conditions resulting in volatility in the equity market. The assets

182 Financial Year (FY) for NBFIs ends in June, but for the purpose of complete analysis of CY18 and to give due coverage to the changes experienced in the AMC segment, the Six months period from Jul-Dec, 2018 (or H2CY18) has also been added, wherever possible.

183 Though the net assets of NBFIs have expanded by 1.35 percent in H2CY18 against 3.61 percent in H2CY17, the growth is still on the lower side.

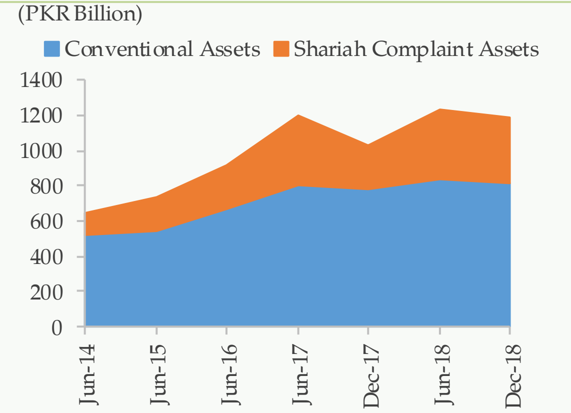
of Mutual Funds have decreased by 4.39 percent in FY18 compared to 29.99 percent increase in FY17. Accordingly, their share in total assets of NBFIs has dropped to 58.10 percent in FY18 compared to 62.84 percent in FY17. The assets of AUMs have also decreased by 2.09 percent in FY18 compared to an increase of 24.43 percent in FY17.

On the other hand, the assets of modarabas and NBMFCs have expanded by 20.10 percent and 58 percent, respectively, during FY18. The asset base of IFCs have also increased but mainly due to a conversion of one large leasing company into an investment finance company.

As is the case in banking, the Shariah compliant structures are gaining popularity in the NBF sector…

The Shariah compliant structures, which include Shariah compliant mutual funds, Shariah compliant pension funds, Shariah compliant modarabas and the only REIT in operation are attracting investors. The asset size of these structures in total NBFIs assets has increased from 17.86 percent in FY14 to 31.81 percent in FY18 **(Chart 4.2.1)**.

Chart 4.2.1: Breakup of conventional & Shariah compliant assets



Source: SECP

Asset valuation of mutual funds decline in the aftermath of rising macroeconomic vulnerabilities…

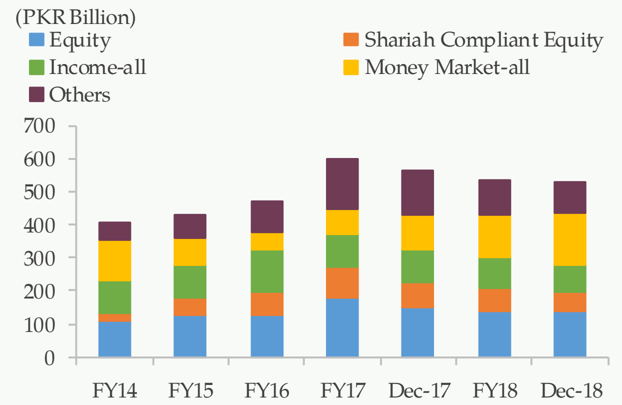
The value of mutual funds' assets has declined by 4.39 percent in FY18 compared to an increase of 29.99 percent in FY17. The assets have lost another 1.91 percent value by end December 2018. The net assets of both the conventional and Islamic equity funds have declined; by 23.49 percent and 19.07 percent, respectively. The bearish stock market sentiments arising out of tighter macrofinancial conditions, political transition and uncertainty about the future economic prospects have been instrumental in the performance of mutual funds and the behavior of their investors.

During CY18, the foreigners, banks and brokers have been net sellers of mutual funds, while insurance, individuals and companies have absorbed all the selling. The continuous risk aversion of mutual fund investors may lead to further asset devaluation.

…and the "flight to safety" motive prevails…

Investors, anticipating further volatility due to rising interest rate risk, have quickly switched from the equity funds to money market funds.[184] There has been a decline of 21.97 percent in FY18 in the equity mutual funds. Resultantly, the share of equity mutual funds in net assets of the mutual funds has dropped to 39.38 percent in FY18 from 45.34 percent in FY17 **(Chart 4.2.2).**

Chart 4.2.2: Composition of mutual funds



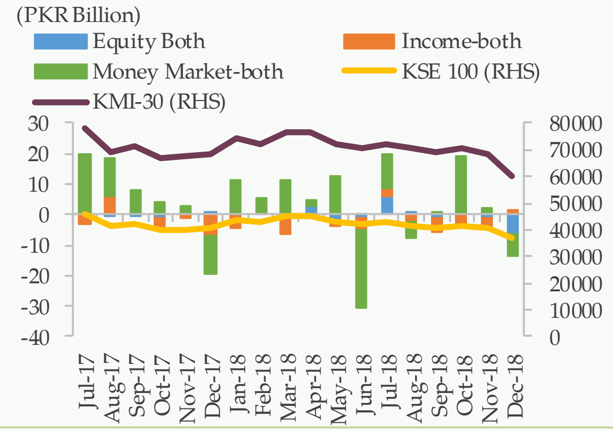
Source: MUFAP

[184] Equity fund has witnessed net outflow of PKR 7 billion in CY18, while net inflow in money market fund stands at PKR 39 billion. The income funds have also observed net outflow of PKR 26 billion.

On the other hand, the value of net assets of money market funds has increased by 67.34 percent in FY18 as compared to 40.14 percent in FY17 (47.18 percent in CY18) (**Chart 4.2.3**). Accordingly, the share of money market funds in the net assets of mutual funds has increased from 13.04 percent in FY17 to 24.30 percent in FY18 (29.86 percent at the end of CY18).

The increasing share of money market funds, in the prevailing macroeconomic environment, indicates low risk appetite of the investors and inclination towards capital preservation.

Chart 4.2.3: Net sales of top three mutual funds categories

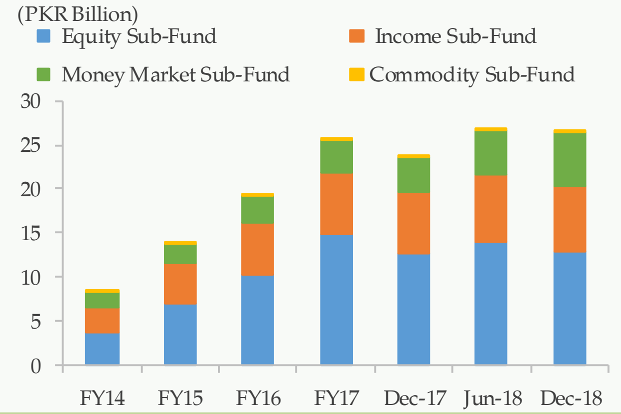


Source:MUFAP & PSX

Pension funds too have been affected by market volatility…

As was the case with mutual funds, risk aversion also prevails in pension funds **(Chart 4.2.4)**. They have not only receded from the equity market, they have also divested away from government exposure. In terms of asset allocation, the pension funds have made placements in equity securities (44.97 percent in CY18 vs. 48.62 percent in CY17), government securities (9.05 percent in CY18 vs. 15.59 percent in CY17) and bank balances (34.61 percent in CY18 vs. 19.43 percent in CY17). As a result, the net asset value of pension funds could only increase by 4.11 percent in FY18 as compared to a growth of 33.41 percent in FY17.

Chart 4.2.4: Composition of pension fund assets



Source: SECP

The performance of the pension funds is dependent on the performance of sub-funds. The overall return of the pension fund has remained on the lower side (**Table 4.2.2**). The returns on the equity sub fund have been negative in FY18. However, during the same period, the money market sub fund and debt sub fund have seen positive returns. Despite the strong management regulatory framework for Voluntary Pension Scheme, high volatility in the stock market may expose the sector to the low returns, which may create socio-economic disturbance.

Table 4.2.2: NAV growth in islamic and conventional pension sub-funds

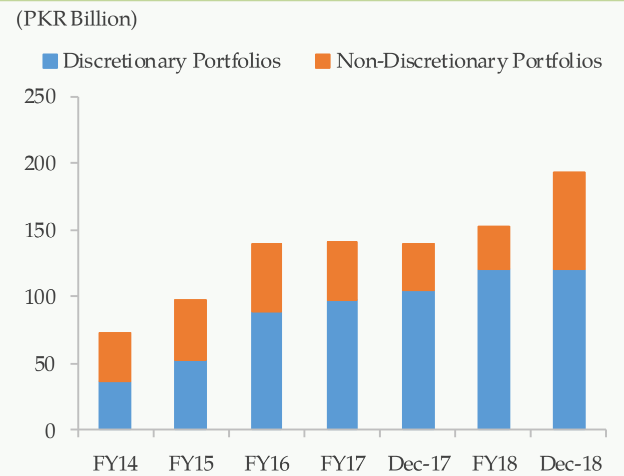
	NAV Growth (%)							
	FY16		FY17		FY18		H1FY19	
	Min	Max	Min	Max	Min	Max	Min	Max
Equity Sub Funds	1.22	20.33	-6.16	41.25	-16.26	-2.97	-14.66	-8.78
Debt Sub Funds	3.90	12.29	3.74	5.24	3.60	4.96	5.22	8.35
Money Market Funds	3.87	5.74	3.85	5.53	3.65	5.36	5.27	7.24
Commodity Sub Funds	10.05	13.77	-1.70	-1.70	1.17	4.88	1.08	1.98
Islamic Equity Sub Funds	4.13	19.05	-2.75	38.01	-20.95	-9.54	-15.70	-8.00
Islamic Debt Sub Funds	3.06	4.50	3.56	5.39	1.26	3.58	3.71	6.25
Islamic Money Market Funds	2.24	4.21	2.89	4.88	1.68	4.02	3.53	6.48
Islamic Commodity Sub Funds	-		-9.40	-9.40	12.10	12.10	11.80	11.80

Source: SECP

…and so is the case with high-networth individual Investors

Under the prevailing uncertainty in the market, high-networth individual investors appeared cautious about their investment strategy. They preferred non-discretionary portfolios[185] for investment during CY18. In the first half of the year, they relied on fund managers to manage their investment, while in the second half they took decision making into their own hands **(Chart 4.2.5)**. This suggests a general lack of confidence shown by the high-networth individual investors in the ability of the fund-managers to make investment decisions in a volatile market. However, this emerging trend may increase "trading noise" in the market, as large investors are more prone to panic sales that may shorten investment-holding period. They may also be more "risk averse" investing in blue chip stocks, which may limit the flow of funds to the emerging sectors.

Chart 4.2.5: Portfolios classified by investment decision-making



Source: SECP

The survival of leasing companies is at stake…

The individual business of leasing is on the decline since last few years. As opposed to forty companies in the year 2000, only seven remain at the end of 2018. The entrance of commercial banks in the leasing business in early 2000s and tighter liquidity conditions, made the operating environment difficult.

Moreover, the adverse global financial shock of 2008, which resulted in a steep rise in domestic interest rate, led to an upsurge in borrowing costs and further shortage of liquidity. Resultantly, the companies had to utilize their rental recoveries to pay off their borrowings, restricting new business operations. There was an upsurge in NPLs, which forced the leasing companies to concentrate on managing their infected portfolio rather than expanding their business. As a result, the leasing companies either had to windup or explore other avenues for survival.

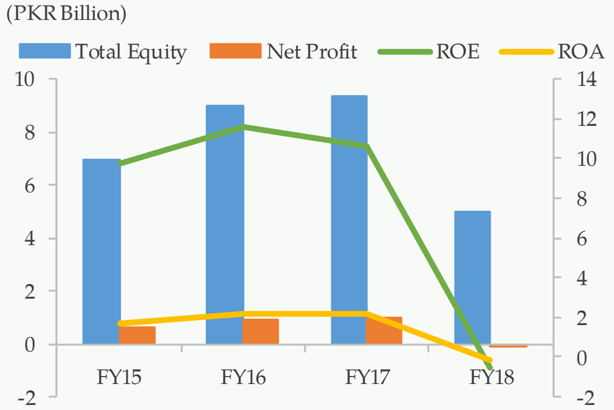
In CY18, the largest and profitable leasing company has broaden its scope by converting itself into an Investment Finance Company.[186] Resultantly, the assets of the leasing sector have reduced by 76.80 percent from PKR 45 billion in CY17 to PKR 10 billion in CY18. Its share in total NBFI sector assets has also dropped to 0.84 percent at the end of CY18.

Further, the sector is facing poor asset quality. The infection ratio is 73.22 percent and only 76.19 percent of the bad loans have been provided for. Moreover, the sector is no longer profitable; the after tax ROA and ROE stands at negative 0.53 percent and negative 0.13 percent, respectively (**Chart 4.2.6**).

[185] Portfolios are investments of eligible investors (person offering a minimum of PKR 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 made as per the written instructions of the clients.

[186] The company comprised 80.83 percent of total assets, 92.40 percent of deposits and 64.39 percent of the total equity of the leasing sector.

Chart 4.2.6: Profitability of leasing sector



Source: Accounts of respective leasing company

The NBMFCs are adding depth to the NBFI sector…

The non-bank microfinance companies (NBMFCs) gained momentum during the year and registered an increase of 56.71 percent, which contributed 43.41 percent in overall growth of NBFIs. The rapid growth in NBMFCs is primarily due to availability of market based liquidity from Pakistan Microfinance Investment Company (PMIC). [187] The purpose of PMIC is to mobilize funding from both donors and commercial lenders i.e. development agencies, financiers, commercial banks and capital markets and lend it further to NBMFCs.[188] Keeping in view the critical role being played by PMIC in the growth of NBMF sector, the health of PMIC becomes paramount. The PMIC may increase the interconnectedness between the banks and the NBF sector, as it has started channelizing liquidity. As the microfinance borrowers are deemed more risky, any asset quality concerns of NBMFCs may have repercussions for the banking sector.

…and so are the modarabas

The growth momentum in the assets of modarabas have continued during FY18. The assets have increased by 20.10 percent as compared to 20.63 percent in FY17. The two new modarabas, after a long time, having the equity of PKR 1.05 billion were floated and listed on the stock exchange. With this addition, the number of modarabas has reached to 27.

Despite this expansion, the concentration in the sector remains high. The top 4 modarabas constitute 73.91 percent of the total assets of the sector. Moreover, there is still room to improve the performance of the modaraba companies. Their potential can be achieved by creating the awareness about the universal applicability of the concept for undertaking multiple activities like financing, manufacturing and trading, some of which may not be handled by Islamic banks.

Assets of REITs have also increased due to revaluation of the underlying property…

There are four REIT management companies, registered with SECP, having accumulated asset value of PKR 5.67 billion at the end of CY18. However, there is only one REIT scheme (the rental REIT) with a fund size of PKR 22 billion and asset size of PKR 46 billion (**Table 4.2.3**). The expansion in assets of PKR 4 billion during CY18, is backed by unrealized valuation gains from the underlying property.

Table 4.2.3: Impact of change in fairvalue of underlying property on assets expansion

	Jun-16	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18
	PKR Billion					
Total Assets	40.89	40.86	42.40	41.73	43.00	45.90
Chane in fair value of property	15.42	1.03	0.15	1.13	1.15	2.87

Source: Financial statements of REIT

Currently, the rental REIT has an occupancy level of 97.00 percent, which reduces the opportunity cost for the company (rental losses due to vacancy).[189]

[187] Pakistan Poverty Alleviation Fund, Karandaaz Pakistan (KRN) and KfW development Bank together created PMIC.

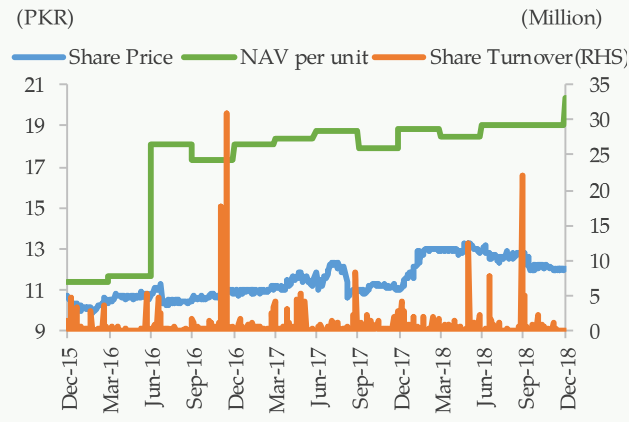
[188] As of December 2017, the PMIC had made loans of PKR 11.49 billion to 26 companies. This has increased to 16.67 billion (36 companies) in June 2018.

[189] Source: Un-audited half yearly report of a REIT

Despite higher occupancy levels, the contribution to income from rentals has declined to 37.14 percent in CY18 from 60.15 percent in CY17. The major portion of income has contributed by net profit because of increase in unrealized valuation gains from the underlying property. Being the rental REIT, the income from rent should be the major source of income.

Moreover, it appears that the investors, in line with the acceptable valuation procedures, have given more weightage to the actual gains from operations rather than unrealized gain from property valuation. The REIT unit has traded at an average discount of 33 percent from its NAV **(Chart 4.2.7)**.[190]

Chart 4.2.7: REIT share's closing price, turnover & NAV per unit



Source: Accounts of REIT & PSX

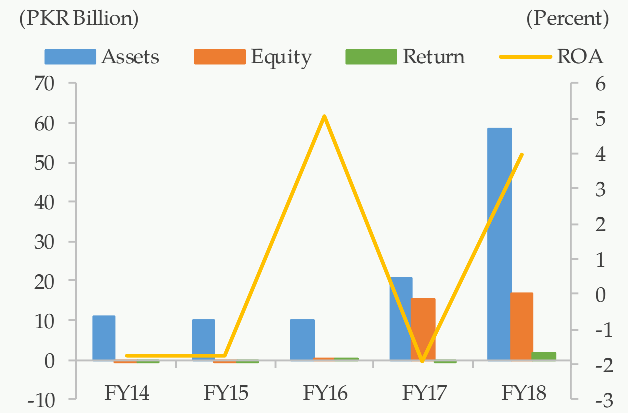
Going forward, the business of REIT is expected to improve due to the favorable regulatory changes, introduced by SECP in December 2018, such as allowing REITs to borrow.[191] This will provide impetus for the growth and enhance REIT's attractiveness.

Moreover, the government is also taking measures to promote investment in REIT. The rate of tax on dividend received by corporate unitholders of a REIT has been reduced to 15 percent from 25 percent, vide Finance Act, 2018. The tax rate applicable to dividend received by an individual unit holder from a rental REIT has also been reduced to 7.5 percent. Moreover, in case of developmental REITs the tax on dividend received by a unitholder has also been reduced. The steps taken to promote developmental REITs would also help the government agenda to eliminate the shortage of housing units in the country.

The addition of two new companies change the dynamics of the IFC sector…

The number of investment companies remained same during the year. However, one company ceased to exist due to its merger with a brokerage house and one leasing company has been converted into an investment finance company. Therefore, the assets of IFCs have increased by 181.69 percent during FY18 **(Chart 4.2.8)**. Moreover, two companies contain 83 percent share in total assets of IFC as of December 2018. Both the companies are recent addition to the IFC sector.

Chart 4.2.8: Asset profile and profitability of IFCs



Source: Annual financial statements of IFCs

Further, with the inception of new company in CY17, the advances of IFCs have increased by 11 times from PKR 1 billion in CY16 to PKR 13 billion in CY17. Further, the conversion of a leasing company

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[190] REIT unit has traded at an average price of PKR 12.51, with a maximum of PKR 13.70 and a minimum of PKR 10.86. While, the average NAV has been around PKR 18.83, with a maximum of PKR 20.32 and minimum of PKR 18.44.

[191] SECP SRO1473(I)/2018-Notification for REIT's Amendments dated 5/12/2018 available at: https://www.secp.gov.pk/laws/notifications/

into investment finance company, the leasing assets of the IFCs have increased by more than 12 times from PKR 1.3 billion in CY17 to PKR 18 billion during CY18. Moreover, the advances and leasing assets of IFC sector have increased by more than 16 times from CY16 to CY18.

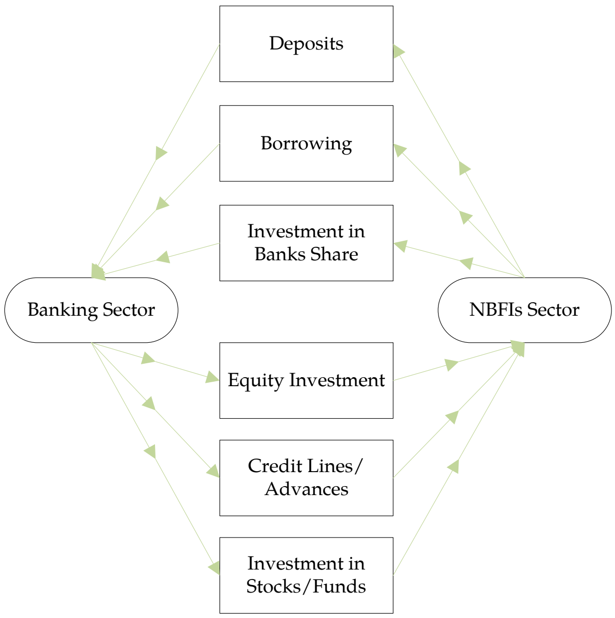
As of December 2018, the non-performing assets to total assets have declined to 8.20 percent in CY18 compared to 18.28 percent in CY17 (62.24 percent in CY16). Further, excluding the recently added IFCs, the infection ratio of the remaining companies stands at 34.32 percent out of which 64.78 percent has been provided for.

The new companies also had a beneficial impact on the profitability of the sector. They have pulled out the sector from losses. The after tax losses of PKR 294 million in FY17 have been converted into a profit of PKR 1.6 billion in FY18. Accordingly, the after tax ROA and ROE has increased from negative 1.9 percent and negative 3.8 percent in FY17 to 4.0 percent and 19.8 percent in CY18, respectively.[192]

The risks rising from interconnectedness of the bank and non-bank sectors remain low…

There are various channels of interconnectedness between the banking and NBFI sectors. Both the sectors are mainly connected through equity investments, borrowing/lending, investments and deposits **(Chart 4.2.9).**

Chart 4.2.9: Channels of interconnectedness



Currently, 22 AMCs and IAs are operative out of which 11 are owned by Banks/DFIs. These 11 AMCs have floated 215 funds, which constitute around 85 percent of the total funds. Further, banks owned AMCs have a share of 75.41 percent in the overall assets of the segment (73.07 percent in CY17) **(Table 4.2.4)**. Banks have increased their direct investment in mutual funds. However, the exposure of banks in Mutual funds is not significant.

On the other hand, the exposure of mutual funds on the banking sector has increased through investments in deposits, COD/TDR/COI and money at call/Placement with the banks **(Table 4.2.4).**

[192] In FY16, the ROA of IFCs improved noticeably due to recognition of additional tax asset of PKR 480.8 million in respect of unabsorbed tax depreciation and carry forward unused tax losses.

Table 4.2.4. :NBFIs flow of funds & exposure to the banking sector

	Total Value (i)	Banks share (ii)	Banks share in Total* (iii= ii/i)	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)
	Jun-17			Dec-17			Dec-18		
	PKR billion		Percent	PKR billion		Percent	PKR billion		Percent
1. Equity of AMCs/ IAs	24.0	12.0	50.00	23.7	11.9	50.22	23.7	12.9	54.42
2. Assets Under Management of AMCs/ IAs	876.9	637.9	72.74	817.3	597.3	73.07	856.6	645.9	75.41
3. Mutual Funds size	710.2	32.4	4.56	654.2	30.0	4.58	641.7	47.1	7.34
4. Mutual Fund exposure in Financial Institutions	229.5	221.5	96.51	254.2	230.6	90.70	277.8	257.1	92.54
5. Mutual Funds exposure in top 20 equity securities	122.9	3.8	3.08	91.8	3.8	4.18	84.7	6.2	7.27
6. Mutual Funds exposure in top 10 debt securities	11.7	7.9	67.91	15.0	9.0	59.74	16.7	8.0	47.55
7. Top 20 holders of mutual fund units	68.9	21.1	30.58	68.7	13.1	19.10	68.8	11.2	16.25

Source: SECP

*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

However, the slowdown in the NBFI sector has also affected their credit needs. Accordingly, the exposure of banks on NBFI sector in terms of credit lines has reduced during CY18 **(Table 4.2.5)**. Another reason for decline in credit lines from banks is the withdrawal of liquidity requirements for mutual funds. SECP, to support mutual funds, has withdrawn the requirement for asset management companies to arrange credit lines from banks/DFIs equivalent to 10 percent of net assets of each fund.[193]

Table 4.2.5: Lending to AMCs by banking sector

	PKR Million	
	Fund Limit	Outstanding
Dec-17	5,993	1,362
Jun-18	5,712	1,491
Dec-18	1,153	1,000

Source: SBP

Keeping in view the relative size of deposits, investments and borrowing by NBFIs from banking sector, NBFIs do not pose any systemic risk to banking as well as financial system. However, they carry high reputational risk to overall financial system.

Going forward, the development of financial markets may enhance the complexity of the financial system and so will the interconnectedness among financial institutions. SBP and SECP cognizant of their responsibilities to ensure the stability of the overall financial system and safeguard the interest of customer has taken several measures. One of them is the formation of Council of Regulators, which periodically reviews the performance of the financial system and assesses the risks arising thereof. Moreover, work is underway to establish the National Financial Stability Council (NFSC), which besides the two regulators also includes the concerned ministry.

[193] Direction no. 37 of 2017 dated December 29, 2017 available at: https://www.secp.gov.pk/document/circular-no-37-2017-withdrawal-of-liquidity-requirements-for-mutual-funds/?wpdmdl=30212

4.3 Insurance Sector Performance and Risk Analysis

Despite volatility in the domestic financial markets, which has affected investment income from equity securities, the insurance sector has performed well in CY18. The sector has registered an increase in gross premiums of 9.45 percent mainly due to healthy growth in renewal premiums in the life insurance sector. Further potential for growth exists as the insurance penetration level in the country is less than 1 percent of GDP, which is well below the global average of 6.3 percent recorded in 2016. However, in the current macrofinancial environment, it is expected that the growth trajectory may decelerate in CY19. In addition, the sector is exposed to concentration, market and geo-political risks; while limited domestic avenues for re-insurance can lead to exchange rate risk.

Global insurance premiums are expected to continue to grow in 2019[194]…

In the global non-life sector, premium rates have slightly improved in 2018 (3.3 percent) on the back of strong growth in Agriculture Insurance in China and India. Premiums are expected to continue to grow at 3 percent for both life and non-life in 2019-20 driven, in part, by the EMDEs. (**Table 4.3.1**)

Table 4.3.1: Global insurance market outlook 2019/20

	World			North America			Emerging Markets		
	Percent								
	Past Trend	Current	Outlook	Past Trend	Current	Outlook	Past Trend	Current	Outlook
Non-life									
Premium Growth (CAGR)	3.1	3.3	3.0	2.2	2.8	2.0	8.1	7.8	8.0
Profitability (ROE)	7.4	6.5	7.0	7.7	6.7	8.0			
Life									
Premium Growth (CAGR)	2.3	1.6	3.0	(1.0)	1.7	1.0	10.0	1.3	9.0
Total									
Profitability (ROE)	10.2	8.9		10.4	9.8				

Source: Swiss Re Institute
CAGR = Compound average growth rate
Past Trend = 2013-17; Current = 2018; Outlook = 2019-20

However, underwriting performance needs to be strengthened in order to improve profitability in an environment of increasing claims in the non-life insurance sector. The marine segment is expected to be affected by a potential trade slowdown, which will lead to an overall decline in premiums for non-life. However, pricing has improved in the motor segment. Overall, pricing and underwriting results in non-life are expected to remain stable in 2019.

In 2018, global life insurance premiums have grown by 1.6 percent (which is lower than the average annual growth rates of the last five years) mainly on the back of premium growth slowdown to 1.3 percent in emerging markets (including China). China is estimated to have had a substantial contraction (-1.8 percent) in life premiums due to introduction of tighter regulation of wealth-management-product (WMP)[195] types. However, the life premiums for emerging markets are expected to accelerate to 9 percent in the coming two years with China accounting for the WMP shock. While profitability has improved in life insurance sector, the general low interest rate environment remains a concern. Since interest rates are expected to remain stable at current levels (with only marginal increases), life insurers are looking for high equity valuations and diversifying their assets to maintain adequate returns and curb their exposures to market downturn.

Overall, global insurance premiums are expected to grow at around 3 percent in 2019-20 due to above potential global economic growth with emerging markets (especially China) again being the main drivers of premium growth.

In premium-equivalent terms, the global mortality and property protection gap has been estimated at

[194] Swiss Re – Global economic and insurance outlook 2020

[195] A wealth management product is an uninsured financial product (generally offering high rates of return) sold in China by banks and other financial institutions. They are considered to have financial stability implications.

USD 500 billion in 2018, which is about 70 percent of the respective insurance markets. The gap highlights the enormous potential for insurers and if they are able to increase coverage, they can help strengthen the resilience of the global economy.

The EMDEs are expected to continue to spearhead demand for insurance in the coming years. The low insurance penetration in these economies, coupled with increasing wealth, indicate potential for growth.

In Pakistan, insurance sector has continued its upward growth trajectory…

Low insurance penetration (0.83 percent of GDP) indicates that there is room for growth in the Pakistani insurance sector (Global insurance penetration = 6.3 percent in 2016[196]).

The asset base for the insurance sector[197] has been estimated to have grown by 10.88 percent to PKR 1,435 billion as of December 31, 2018 mainly due to an increase in the Life Insurance business. Investments and properties have registered an increase of 12.11 percent to PKR 1,128 billion as of December 31, 2018. (**Table 4.3.2**)

Equity for the industry has increased by 5.87 percent to PKR 119 billion in CY18 as insurers try to comply with the enhanced regulatory paid-up capital requirements.

Table 4.3.2: Overview of insurance industry for CY18 (PKR million)

	Life	Family Takaful	Non-Life	General Takaful	Aggregate 2018	Aggregate 2017
Assets	1,206,856	29,359	196,087	2,917	1,435,219	1,294,381
Investments	997,251	23,237	106,438	681	1,127,607	1,005,847
Equity	21,887	1,474	94,505	1,004	118,870	112,277
Gross Premium	202,977	12,399	79,138	1,756	296,271	270,687
Net Premium	200,408	2,589	44,621	554	248,172	226,944
Net Claims	87,833	1,718	23,468	616	113,635	99,733

Source: Unaudited/Audited published financial statements of insurers and Takaful companies

Growth in the life sector has been driven by an increase in its core business…

The assets for the Life Insurance sector grew by 11.92 percent to PKR 1,207 billion for CY18 as life insurers increased their Total Investments by 13.52 percent to PKR 997 billion; investments now constitute 82.63 percent of Total Assets.

Life insurers are considered among the large institutional investors for capital and debt markets. Given the volatility in the financial markets, life insurers have decreased their share of investment in equities from 20.32 percent in CY17 to 18.10 percent in CY18 while increasing their share of investment in fixed income and term deposits from 1.93 percent in CY17 to 5.38 percent in CY18. Life insurers continue to have a significant portion (76.14 percent in CY18) of their investments in government securities.

In addition, the dominant public life insurer has increased its investments in properties by 14.82 percent to PKR 3.7 billion; overall, investment in properties constitutes 0.37 percent of total investments in CY18.

Growth rate comparison of real GDP and real gross premiums for the life sector shows a positive correlation indicating that an increase in economic activity may lead to an increase in gross premiums for Pakistan. (**Chart 4.3.1**)

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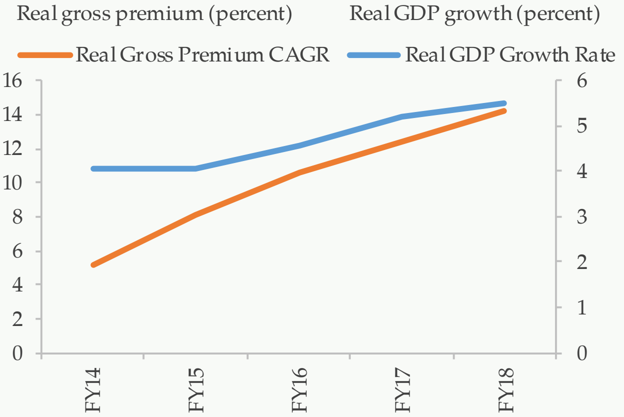
196 Swiss Re Institute

197 The analysis is based on the data of 5 life insurers and 28 non-life insurers covering approximately 97 percent and 78 percent of the life and non-life insurance sectors' assets, respectively. The analysis covers data up to period ending December 31 2018. Data has been estimated, where necessary. The financial close for insurers is December of the corresponding year. All growth ratios are on year-on-year basis.

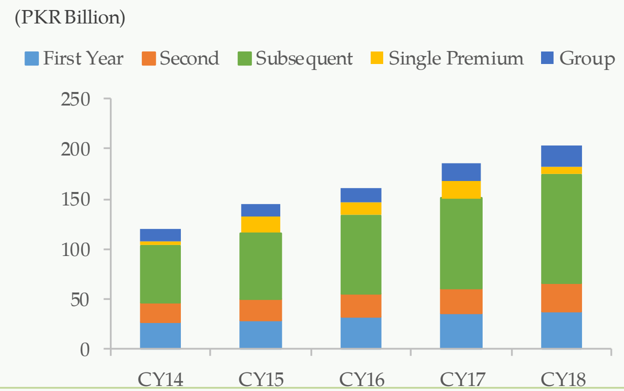
Chart 4.3.1: GDP growth versus premium growth



Source:SBP and financial statements of life insurers

Total gross premium for Life insurance sector has increased to PKR 203 billion in CY18 from PKR 185 billion in CY17. The increase of 19.46 percent in Subsequent Year Premium to PKR 109 billion, coupled with the 12.55 percent YOY increase in Second Year Premium, signifies that the sector has been able to retain its business. Moreover, the First-Year Premium to Gross Premium sustained its growth of 9.40 percent in CY18 indicating that the sector sustained issuance of new insurance policies. The increasing interest rate environment may have led policyholders to look for better rates, which may have led to redemption of policies; this is supported by the spike in Surrender Claims[198] in CY18. (**Chart 4.3.2**)

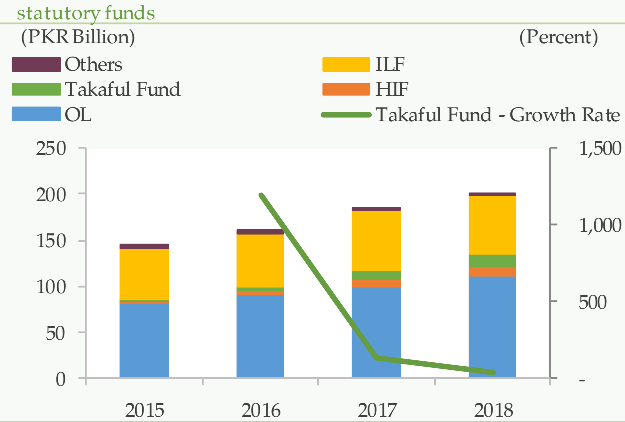
Chart 4.3.2: Gross premium flows for life insurers



Source: SECP and financial statements of life insurers

However, there has been a substantial decline in Single Premium from PKR 16 billion in CY17 to PKR 7 billion in CY18 as a private life insurer registered a significant decrease in this category over the last year. This policy (along with other life insurance policies) is used to claim tax rebate. The reduction in tax rates in 2018 along with the prevailing inflationary pressures (which reduces the net future value of the upfront single premium) may have lowered the demand for this product, as they may no longer form an attractive tax saving option.

Chart 4.3.3 Gross premium flows and rates of life insurance - statutory funds



Source: SECP Data

OL = Ordinary Life; HIL = Health Insurance Fund; ILF = Investment-Linked Fund

Life insurers are required to maintain statutory funds in respect of each class of life insurance business; statutory finds are separate from shareholders' fund, which contains only those assets and liabilities that are solely attributable to the life insurer. Analysis of statutory funds[199] indicates that Family Takaful Fund has shown extraordinary growth for Gross Premiums in CY16 and CY17 of 1190.61 percent and 136.58 percent, respectively. While this illustrates the widespread demand for an Islamic alternative to conventional insurance, the growth rate of Gross Premiums for Takaful Fund is extraordinary because of the small base in 2015. This is demonstrated by the lower (albeit still impressive) growth rate of 34.61

[198] Please see next page for discussion on Surrender Claims

[199] There is overlap between the statutory funds, as certain funds in Pakistan have features of two or more different funds.

percent to PKR 14 billion in Gross Premiums for Takaful Fund in CY18. Ordinary Life, which includes individual and group insurance, still forms the largest statutory funds; its Gross Premiums have increased from PKR 100 billion in CY17 to PKR 112 billion in CY18. (**Chart 4.3.3**)

Due to the initiatives of one of the provincial government to increase health coverage for its population, the gross premium for the public life insurer's Health Investment Fund has increased by 38.83 percent to PKR 5 billion in CY18. It is expected that there will be further growth in this Fund as the federal government has re-launched a national-wide health insurance program.

Claims under individual policies increased from PKR 63 billion in CY17 to PKR 72 billion in CY18. This was mainly due to increases of PKR 4 billion and PKR 3 billion to PKR 44 billion and PKR 16 billion in Surrender Claims and Maturity Claims, respectively. Surrender Claims, forming 49.24 percent of Gross Claims for CY18, have registered a 19.05 percent YOY increase, indicating that significant number of policyholders are exiting from their insurance policies before maturity; this development may lead to maturity mismatches for the sector. Several factors have led to an increase in Surrender Claims including the prevailing financial market conditions, which has reduced the value of unit-linked policies (with significant investments in equities); this, coupled with the increasing interest rates, may possibly lead policyholders to surrender their policies in search of higher yields. In addition, in order to meet their sales targets, agents may encourage recycling of policies, which increases Surrender Claims.

While the Life Insurance sector is relatively stable, some of its indicators have started to deteriorate slightly. Return on Assets has decreased from 0.79 percent in CY17 to 0.69 percent in CY18, as there was only a marginal increase in profitability compared to a significant increase in the asset base for the sector. Profitability was affected due to an increase in management and marketing expenses as some insurers invested in their branch network, salesforce, IT software, etc. for higher future returns. (**Table 4.3.3**)

Table 4.3.3: Soundness of life insurance

	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18*
	Percent				
Capital to Assets	1.74	1.69	1.61	1.42	1.81
Claims Ratio	37.26	38.10	43.27	41.91	43.83
Return on Assets (ROA)	0.78	0.85	0.89	0.79	0.69
Return on Investments (ROI)	13.70	12.82	13.73	7.10	8.08

Source: Unaudited/Audited published financial statements of life insurance companies.
*Estimated Figures

In addition, the Claims Ratio has increased from 41.91 percent in CY17 to 43.83 percent in CY18, which is still quite comfortable. In addition, the Return on Investments has increased from 7.10 percent in CY17 to 8.08 in CY18 due, in part, to a tightening of monetary policy in CY18 as the sector maintains a significant portion of investments (76.14 percent) in government securities.

Window Takaful Operators (WTOs) are expected to drive growth in the Family Takaful segment …

The asset base for the Family Takaful segment[200] [Full-Fledged and Window Takaful Operators (WTOs)] has expanded to PKR 42,564 million as of December 31, 2018. (**Table 4.3.4**).

[200] This is the first year where separate financials became available for Window Takaful Operators (WTOs) operating in the Family Takaful segment. This section covers both WTOs and full-fledged Family Takaful companies. In the rest of the chapter, WTOs operating in the Family Takaful segment are included in the consolidated financials of the conventional insurers.

Table 4.3.4: Family takaful overview for CY18*

	Window Takaful Operators	Full-Fledged Takaful Companies	Total
	PKR Million		
First Year Contribution	6,312	2,315	8,626
Renewal Contribution	4,245	6,674	10,919
Single Contribution	2,884	853	3,737
Group Life Contribution	668	1,945	2,612
Net Claims	1,604	1,447	3,050
Total Assets	13,205	29,359	42,564

Source: Insurance Association of Pakistan and unaudited financial statements of Family Takaful companies and WTOs.
*Estimated Figures

WTOs have accounted for 73.17 percent share in First Year Contribution for Family Takaful, which supports the premise that growth in this sector in the future will be driven by WTOs. In addition, WTOs' viability can be ascertained by their significant Renewal Contribution (which indicates their ability to retain customers).

Since these are the initial years of operations, it is expected that the Claims ratio will rise for WTOs (11.37 percent in CY18) as policies become payable in line with that for Full-Fledged Family Takaful companies (45.01 percent in CY18).The growth rate for the WTOs will eventually slowdown as they reach maturity.

The Surplus before Tax for WTOs is PKR 239 million for CY18. While most WTOs have posted losses for CY18, one WTO has posted a Surplus before Tax of PKR 313 million as it has recorded substantial Net Written Contribution in its Individual Family Takaful business for CY18 while Net Claims will only begin to increase as policies become payable.

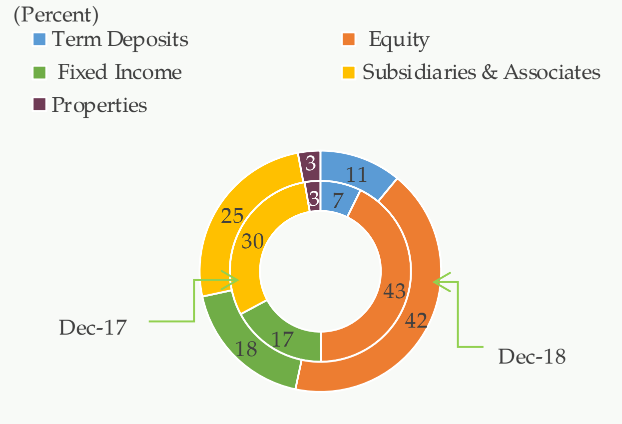
In addition, Family Takaful companies have posted a Profit before tax of PKR 243 million in CY18.

Non-life sector has witnessed an increase in profitability in CY18…

The asset base for the non-life sector grew from PKR 191 billion in CY17 to PKR 196 billion in CY18 mainly due to an increase of 46.81 percent in investments in term deposits to PKR 12 billion in CY18.

The non-life sector has reduced its overall investments portfolio from PKR 109 billion in CY17 to PKR 106 billion in CY18 as it has divested investments of about PKR 6 billion from subsidiaries and associates (to PKR 27 billion as of CY18). The sector still maintains a significant portion of investments in equity securities (42.34 percent of Total investments and properties portfolio in CY18). (**Chart 4.3.4**).

Chart 4.3.4: Non-life investments & properties

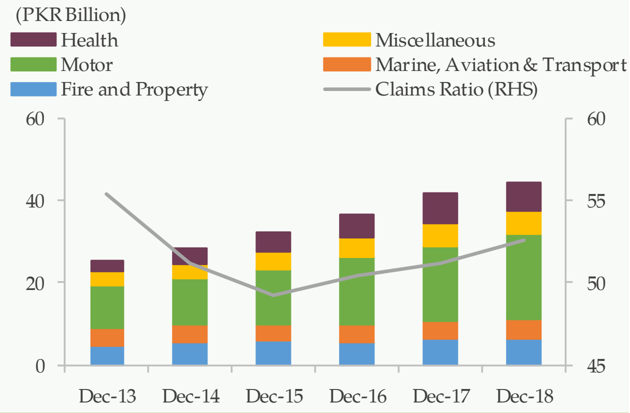


Source: Unaudited/audited financial statements of non-life insurers

The sector witnessed a 6.45 percent increase in Gross Premiums to PKR 79 billion in CY18 with Fire & Property Damage and Motor segments being the main contributors of growth.

Net Claims for the Non-life sector grew by 10.06 percent to PKR 23 billion in CY18 mainly due to an increase in Claims against the Motor segment of less than PKR 1 billion. However, the Claims ratio for the Motor segment has declined from 55.06 percent in CY17 to 52.67 percent in CY18, indicating that the absolute increase in motor segment claims is due to an increase in underwriting business for the Motor segment. (**Chart 4.3.5**)

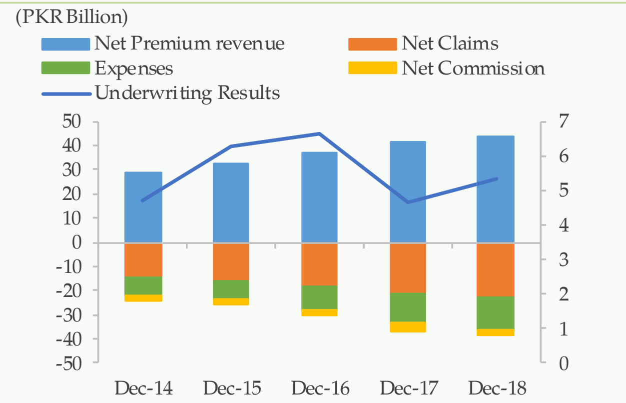
Chart 4.3.5: Non-life net premiums flows and claims ratio



Source: Unaudited/audited financial statements of non-life insurers

Overall, the Non-Life sector has witnessed a slight increase in Profitability to PKR 12 billion for the year ended December 31, 2018 (an increase of 0.84 percent over last year) as the underwriting performance for the sector has improved by 13.52 percent to PKR 5 billion in CY18. The improvement in its core business profitability is due to a 42.90 percent reduction in commission expense to PKR 2 billion. However, investment income has slightly decreased by 3.48 percent to PKR 6 billion in CY18 as the non-life sector maintains 42.34 percent share of its investment portfolio in equities, which has been affected by the volatility in the financial markets. (**Chart 4.3.6**)

Chart 4.3.6: Underwriting results for the non-life sector



Source: Unaudited/audited financial statements of non-life insurers.

Accordingly, the Return on Investment (ROI) has decreased. The Claims ratio for the non-life sector has slightly increased due to a relative increase in Net Claims. Overall, the Non-life sector is stable based on its financial soundness indicators. (**Table 4.3.5**)

Table 4.3.5 Soundness of non-life insurance

	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18*
			Percent			
Capital to Assets	12.63	13.33	12.98	12.48	12.14	12.24
Claims Ratio	55.34	51.22	49.24	50.45	51.19	52.59
Combined Ratio	88.48	83.61	80.57	82.08	88.90	87.30
Premium Retention	50.72	50.40	51.79	55.07	56.03	56.38
Return on Investment	12.56	11.04	12.63	13.51	6.90	6.43
Return on Assets	7.55	8.03	11.29	10.10	6.55	6.19

Source: Unaudited/Audited published financial statements of non-life insurance companies.
*Estimated Figures

The claims ratio for general takaful segment has declined in CY18…

Window Takaful Operators (WTOs) have led to a 31.96 percent jump in the asset base of the General Takaful segment[201] to PKR 11,476 million as of December 31, 2018. (**Table 4.3.6**)

The Gross Premiums for the segment have increased from PKR 6,430 million in CY17 to PKR 7,872 million in CY18. Net Claims for the sector have increased by PKR 769 million to PKR 3,008 million in CY18. The 34.31 percent YOY increase in Net Claims is still less than the 87.26 percent increase in Net Premiums, which bodes well for the segment.

This has led to a decline in the Claims Ratio for the overall General Takaful segment; it has declined from 86.83 percent in CY17 to 62.28 percent in CY18. The Claims ratio is expected to decline to the levels witnessed by the non-life sector (52.59 percent in CY18) as the segment is expected to continue its impressive growth trajectory for the next year which will help spread risks over more customers (thus, reducing the claims ratio).

[201] This section covers both WTOs and full-fledged General Takaful companies. In the rest of the chapter, WTOs operating in the General Takaful segment are included in the consolidated financials of the conventional insurers.

Table 4.3.6: Overview of general takaful segment

	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18*
	PKR Million				
Assets	2,960	3,746	6,353	8,697	11,476
Investment	368	509	1,158	1,552	2,428
Equity	1,445	1,094	1,648	1,836	2,205
Gross Premium	2,145	2,960	4,774	6,430	7,872
Net Premium	918	1,306	2,264	2,580	4,831
Net Claims	1,016	1,128	1,653	2,240	3,008
Profitability	(221)	393	(13)	224	422
	Percent				
Claims Ratio	110.68	86.33	73.02	86.83	62.28

Source: Unaudited/Audited published financial statements of General Takaful companies.
*Estimated Figures

Profitability for the General Takaful segment has improved from PKR 224 million in CY17 to PKR 422 million in CY18 mainly due to a 108.60 percent increase in Net Contribution for WTOs to PKR 4,277 million.

In addition, the WTOs have been able to reduce their Claims ratio from 81.21 percent in CY17 to 55.95 percent in CY18, as WTOs have been able to exploit economies of scope of their conventional companies, which has helped them increase their gross premiums. Consequently, the share of WTOs in the General takaful segment profitability has increased from 40.01 percent in CY17 to 69.72 percent in CY18.

The reinsurance company has posted healthy underwriting results in CY18…

Section 41 of the Insurance Ordinance, 2000 requires insurers to maintain reinsurance arrangements for insurance risk management as mentioned in the Ordinance.

The Pakistani insurance industry has only one public reinsurer, which caters to the non-life sector. To meet their reinsurance needs, the Pakistani insurance industry has reinsurance arrangement with leading international reinsurers such as Hanover Re, Swiss Re, Munich Re, etc.

The public reinsurer has increased its asset base from PKR 24,342 million in CY17 to PKR 24,831 million in CY18. Gross Premium has increased from PKR 8,036 million in CY17 to PKR 10,734 million in CY18 as all segments (including Treaty business and Facultative business) were profitable. Gross Premium for treaty business, which forms 41.57 percent of the total portfolio, increased by 32.44 percent to PKR 4,462 million in CY18. (**Table 4.3.7**)

The Claims Ratio for the reinsurer has decreased from 74.71 percent in CY17 to 54.76 percent in CY18 due to a 9.15 percent increase in Net Premiums and a 20 percent decrease in Net Claims over CY18, which is a PKR 748 million decline in overall Net Claims. Net Claims for the Engineering segment was the main contributor to the decline as it fell from PKR 500 million in CY17 to PKR 60 million in CY18.

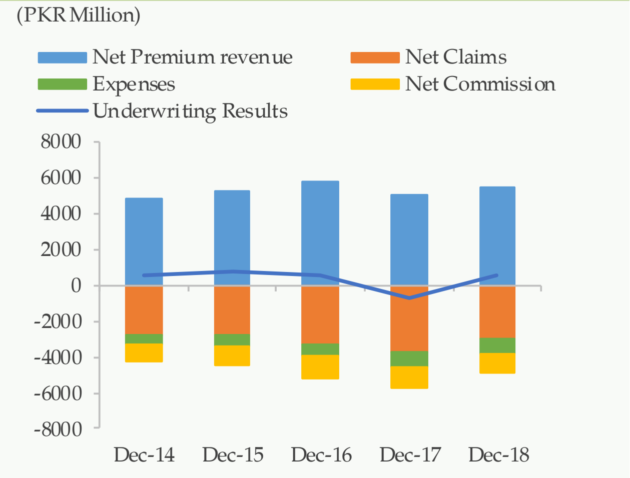
Table 4.3.7: Snapshot of reinsurance company

	CY13	CY14	CY15	CY16	CY17	CY18
	PKR Million					
Equity	6,571	6,981	6,938	12,316	10,506	9,871
Investment	6,513	6,650	6,318	13,375	9,223	8,634
Total Assets	16,306	17,621	17,388	25,983	24,341	24,831
Gross Premium	8,659	8,661	8,135	8,807	8,036	10,734
Net Premium	4,724	4,784	5,219	5,802	5,006	5,464
Net Claims	2,831	2,793	2,775	3,336	3,740	2,992
Underwriting Results	453	515	722	545	(677)	581
Profit Before Tax	1,706	1,565	1,772	1,427	2,876	1,740
	Percent					
Claims Ratio	59.9	58.4	53.2	57.5	74.7	54.8

Source: Unaudited/Audited published financial statements of reinsurance company.

The underwriting results for the reinsurer have registered a profit of PKR 581 million in CY18 after registering a loss of PKR 677 million in CY17. Despite an improved underwriting performance, the reinsurer's overall profitability registered a decrease to PKR 1,740 million in CY18 compared to PKR 2,876 million in CY17. This was due to a one-off Gain on sale of NIT units worth PKR 2,791 million in CY17, which inflated the profits for that year. (**Chart 4.3.7**)

Chart 4.3.7: Underwriting results for the reinsurance company



Source: Unaudited/audited published financial statements of reinsurer.

Overall, the non-life sector has ceded reinsurance worth PKR 35,540 million in CY18 (PKR 32,014 million in CY17). The ratio of Reinsurance Expense to Net Premium for the non-life sector has remained stable around 74.73 percent in CY18 (74.7 percent in CY17).

Life insurers have ceded reinsurance worth PKR 2,570 million in CY18, which is up from PKR 2,167 million in CY17. The Premium Retention ratio of 98.73 percent indicates that the life insurance sector cedes little reinsurance premium to reinsurers. The associated reinsurance risk may be mitigated as most life insurers maintain adequate capital and Statutory Fund balances to absorb losses from a rise in claims or contingencies. In addition, many private life insurers are part of large corporate groups, which can help mitigate the risks from unexpected losses. However, some life insurers still need to improve their underwriting performance.

The public sector insurer still dominates the life insurance sector…

There are significant public insurers in the life, non-life and reinsurance sectors of the economy. One public life insurer still has more than 60 percent share in the asset base of the total insurance sector while the public non-life insurer (along with a few private non-life insurers) are significant players in the non-life sector. In order to mitigate systemic risk, these firms may need to undergo enhanced supervision and regulation.

Pakistan has witnessed rising volatility in the domestic financial markets in CY18; this has led to increased market risks for insurers. This has resulted in insurers increasing their investments in relatively risk-free categories i.e. government and fixed income securities. However, the increasing interest rate environment leads to a lower revaluation of fixed income securities (interest rate risk). Despite this risk, life insurers tend to invest in long-term government bonds to match the duration of their policyholder's liabilities (to mitigate maturity mismatches).

The economic and geopolitical risk is high which leads to adverse business conditions, which might impede the growth for the sector. In addition, the economy is expected to grow at a slower pace in CY19; this, coupled with the India–Pakistan border skirmishes in early 2019 indicates that the economic and political risk will remain high in CY19. The insurance sector is expected to adopt a cautious approach, cut costs, and improve underwriting performance to mitigate such risks.

In addition, while all life insurers are solvent, at least five[202] non-life insurers do not meet the solvency requirements. One of these insurers has recently undergone a change in management and may be able to turn around its position, while another insurer is in the process of merging its operations with another firm. A few other insolvent insurers need to prepare and implement viable recovery plans (including improving their profitability, capital adequacy and solvency margins) or consider consolidation with other insurers, as they may also not be able to

[202] There may be additional non-life insurers, which are insolvent. However, nothing concrete can be said about their health, as these insurers have not shared their financial information.

comply with enhanced regulatory capital requirements.

The insurance regulator has strengthened the industry's regulatory framework…

The Securities and Exchange Commission of Pakistan (SECP), the insurance regulator, took the following major initiatives[203] in CY18 to strengthen the regulatory regime after the issuance of the Insurance Rules in CY17:

- Notification of the Credit and Suretyship (Conduct of Business) Rules, 2018 w.r.t. insurance guarantees
- Amendments to the Insurance Rules, 2017
- Issuance of Circular on dollar-denominated insurance policies
- Initiatives taken under the National Financial Inclusion Strategy (NFIS) e.g. reducing the verification services' cost for micro insurance policies

All of these efforts are expected to provide insurers a conducive environment for growth in the future.

Gross Premiums are expected to grow at a slightly lower rate in CY19…

Going forward, the main drivers of growth include the increasing purchasing power of the middle class, the use of bancassurance, Window Takaful Operations, government's health insurance expansion initiatives, launch of micro-insurance products, etc. Accordingly, the insurance industry's asset base is expected to expand further in CY19.

As Insurance Premiums and economic growth have a positive correlation[204], it is expected that Gross Premium will increase at a decelerating pace in CY19.

The insurance regulator's capital requirements may lead to consolidation in the insurance industry with some insurers expected to merge or acquire smaller insurers. This is expected to contribute to the stability of the industry.

The Health segment premiums are expected to receive a boost as the government plans to expand its National Health Insurance Program. The Program is also expected to increase the share of dominant public life insurer in the Health segment as the government will provide national-level health coverage through the public life insurer; the government has previously used the public life insurer to launch a similar program in KPK. In addition, it is expected that overall claims for the public life insurer (and, in turn, for the life insurance sector) will rise as new business is underwritten for the Health Insurance Fund, which has a claims ratio of 83.78 percent in CY18.

[203] SECP Annual Report 2018

[204] Rudolf (2000), "The S-Curve Relation between per-capita income and Insurance"

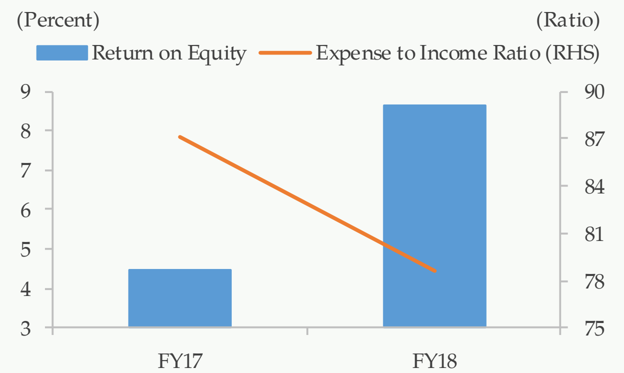
4.4 Performance and Risk Analysis of Exchange Companies

The performance of the Exchange Companies (ECs)—on the back of healthy expansion in asset and improved income—has remained encouraging during FY18. The growing demand for US dollars and rising kerb premium has resulted in an uptrend in foreign currencies exports. The role of ECs remains limited in facilitating inward remittances. SBP is strengthening the AML/CFT regime of Exchange Companies to mitigate the associated risks. Besides, major challenges faced by ECs relate to operational constraints emanating from uninsured cash and limited adoption of technology-based business applications. However, owing to their small size and limited interconnectedness with the banking sector, the ECs do not represent a possible source of systemic risk, though reputational risk remains.

There is synchronized upturn in assets and income during FY18…

The asset base of the Exchange Companies (ECs) has risen by 17.56 percent during FY18—up from 10.70 percent in FY17, primarily on account of rising fixed assets (branch expansion) and appreciation of USD, supported by 7.73 percent increase in paid-up capital.[205] In addition, the Return on Equity (RoE) has almost doubled to 8.65 percent during FY18 from 4.48 percent a year earlier.[206] Resultantly, the expenses to income ratio has declined, indicating improved operational viability (**Chart 4.4.1**).

Chart 4.4.1: RoE has risen with notable decline in expense to income ratio



Source: SBP

Income of ECs rises as dealings in FCY surges…

Selling foreign currencies (FCY)—that are in high demand—in the domestic market is a major source of income for ECs. Since US dollar commands highest demand in the domestic market, ECs profit through its sale-purchase transactions. They also benefit from export of FCYs that have low domestic demand.[207]

In FY18, ECs have exported USD 2,479.0 million worth of foreign currencies—up from USD 1,897.0 million in FY17. They have exported another USD 1,316 million worth of FCYs during H2CY18. These exports increase the supply of US dollar with the ECs, allowing them to do more sale-purchase transactions.

The rising external account vulnerabilities—in the backdrop of falling SBP forex reserves—have led to an increased volatility in the open market exchange rate and higher kerb premium (the difference between open market and inter-bank exchange rates). Rising kerb premium seems to be one of the reasons behind increased purchases from individuals

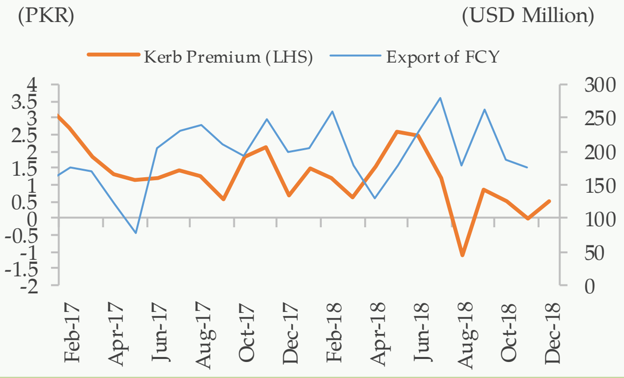
[205] The ECs assets comprise of Cash, fixed assets and intangible assets. The balance sheet data is available up to June 2018 (FY18).

[206] Total income has risen by 38.55 percent in FY18 against 17.89 percent in FY17.

[207] Exchange Companies (only A category) are permitted to export foreign currencies—except for the US dollar—that are domestically not in demand and bring in equivalent US dollar in form of cash and through their FCAs maintained with banks in Pakistan. However, ECs are directed to sale at least 10 percent of the proceeds from export of FCYs in interbank market on an ongoing basis.

of foreign currencies other than US dollars[208], which, in turn, have pushed up their exports. (**Chart 4.4.2**)

Chart4.4.2: The positive association between FCYs exports and Kerb premium

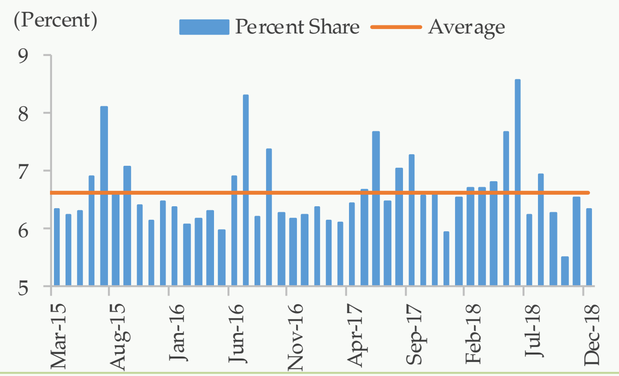


Source: SBP

The inward remittances rise while the outward remittances contract…

In CY18, inward remittances received through ECs have accelerated by 8.35 percent (USD 1,328 million)—up from 1.50 percent (USD 1,225 million) in the previous year. Moreover, in CY18, the inward remittances through ECs has accounted for 6.98 percent (on average) of the total inward remittances—slightly up from 6.73 percent in CY17. The ECs have channeled 7 percent of the total inward remittances in the last 4 years (Chart 4.4.3). Increased remittances inflow is due to additional bilateral arrangements of ECs with overseas tie-ups. Positively, it might have helped ease some dollar liquidity pressures witnessed during the reviewed year.

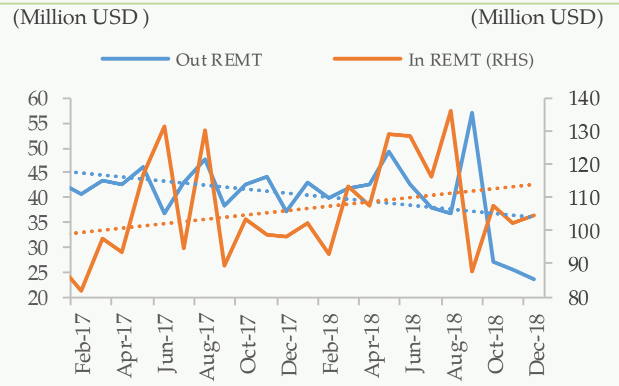
Chart 4.4.3: Stagnant share of inward remittances (through ECs) in total remittances



Source: SBP

On the contrary, outward remittances show contraction of 7.74 percent in CY18 against growth of 2.53 percent in CY17. It seems that PKR depreciation has dampened the outflow of foreign currencies and served to provide some relief to the forex market. Moreover, the trends of inward and outward remittances have been diverging (**Chart 4.4.4**).

Chart 4.4.4: Diverging trends of inward and outward remittances



Source: SBP

SBP's regulatory regime relating to ECs addresses the risks of money laundering and financing of terrorism …

SBP, in order to mitigate the ML/FT risk, has put in place a comprehensive regulatory and supervisory

[208] Rising kerb premium incentivizes non-resident Pakistanis to bring home foreign currencies and convert them into PKR at a better exchange rate.

framework, which is collected in the form of an ECs Manual.[209]

SBP has introduced various new measures during CY18. To enhance the documentation of transactions, exchange companies have been directed to retain copies of identification documents for all foreign currency transactions equivalent to USD 500/- or above.[210] In order to further strengthen the regulatory AML/CFT requirements, exchange companies have been required to record the inland movement of foreign currencies within their authorized branch network.[211]

Also, instructions have been issued under UNSC resolutions and Anti-Terrorism Act, 1997 to ensure proper screening of proscribed entities and individuals.[212] Moreover, regular on-site inspections are also conducted by SBP to warrant its enforcement.

Uninsured cash and limited adoption of tech-based business applications may raise operational risk…

Cash constitutes a sizeable portion of exchange companies' assets. Being a risky asset, prone to theft or destruction, uninsured cash poses a key operational risk. Owing to their small size and inherently high risk of dealing in cash, the cost of insurance becomes unfeasible leaving them vulnerable to asset losses.

With a view to improving the operational risk management, the mechanism for monitoring through Close Circuit Television (CCTV) cameras installed at company outlets has been standardized by SBP. Resultantly, the improved surveillance will not only minimize the operational risk but will also strengthen supervisory oversight of SBP.[213]

Furthermore, the level of adoption and sophistication of technology-based solutions remains low, due to inadequate investment in related technology infrastructure and human resources.

…however, systemic risk remains contained…

In aggregate, the exchange companies sector is characterized by small balance sheet size and limited inter-connectedness with the banking sector. The overall share of ECs in the total assets of the financial sector stands at 0.06 percent as of end June-2018. Similarly, only two ECs are operated by banks as their subsidiaries, which manifests limited exposure of the banking sector, though reputational risk remains. All-in-all, the risk from ECs may not be systemic in nature.

Minimizing operational risk and improving governance are key priority areas for ECs…

Going forward, the focus of the exchange companies must be on limiting operational risk. Improvement in operations will not only expand their customer base but will also aid in achieving a stabilized exchange rate, through efficient management of supply of foreign exchange. Moreover, employment of technology-based governance applications will also support them in mitigating the risk of non-compliance with relevant regulations and laws.

[209] ECs Manual 2018 lays out a robust set of guidelines covering areas such as documentation of transactions, Know Your Customer/ Customer Due Diligence (KYC/CDD) measures, identification of beneficial ownership, reporting of suspicious transactions/currency transaction reports, record-keeping and capacity building of human resource etc.
[210] EPD Circular Letter No. 08 of 2018; http://www.sbp.org.pk/epd/2018/FECL8.htm
[211] FE Circular No. 05 of 2018; http://www.sbp.org.pk/epd/2018/FEC5.htm
[212] FE Circular No. 09 of 2018; http://www.sbp.org.pk/epd/2018/FEC9.htm
[213] FE Circular No. 15 of 2018; http://www.sbp.org.pk/epd/2018/FEC15.htm

Section C: Non-Financial Sector

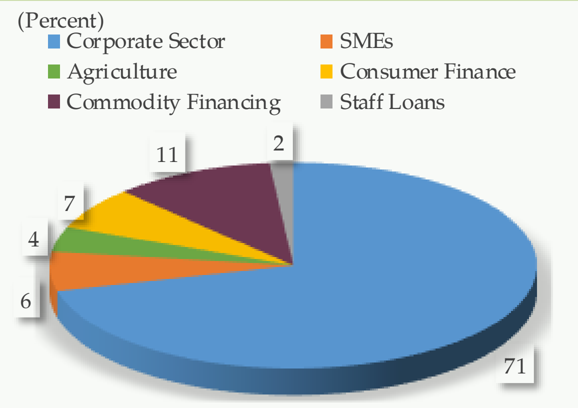
5 Performance and Risk Analysis of the Corporate Sector

The tighter macro-financial conditions and uncertainty about future economic prospects has dampened the performance of the corporate sector. The asset base shows growth, while sales growth decelerates and the profitability, liquidity and operational efficiency indicators trend downwards. Disaggregated analysis highlights that operational efficiency indicators of cement and power sectors face major contraction. The investors' perception about the corporate sector has also weakened as illustrated by the decline in equity market and leading market indicators. However, the key financial and performance indicators remain in a comfortable range. The concerted efforts of the policy makers, however, may further improve the environment related to ease of doing business.

The interconnectedness remains strong between the corporates and the banking sector…

In Pakistan, financial institutions (banks and DFIs) are the key source of financing for the corporate sector, as the capital market depth remains limited. Lending to corporations constitutes 71 percent of banks and DFIs' domestic advances portfolio as of end CY18 **(Chart 5.1, Chapter 3.1 and Chapter 4.1)**. As such, strong interconnectedness exists between the two sectors, thus, a shock in any one of them can adversely affect the operating performance and solvency of the other.

Chart 5.1: Segment-wise outstanding banks & DFIs advances, as on 31 December 2018



Source: SBP

Corporate sector's performance dipped in CY18 in the wake of challenging macroeconomic environment…

The increase in the interest rate from 5.75 percent in CY17 to 10 percent by end CY18 has jacked up the financial cost for the corporates across the board contributing to the fall in profitability **(Chapter 1)**. Exchange rate depreciation, on the other hand, has had mixed impact on the performance of the firms. It has caused a hike in the cost of production of corporations that rely on imported components, while export-oriented firms may have benefited in terms of price competiveness in the international markets.

Overall, the assessment indicates signs of slackening in the operating performance and financial strength of corporates **(Table 5.1)**. [214] The pro-forma financial statements (covering 84.17 percent of total assets of listed companies) indicate that the gearing and leverage of the corporates have inched up. [215] Whereas, the liquidity indicators, along with debt repayment capacity and profitability, have depicted a slight decline.

[214] The corporate sector performance has been assessed using financial statements of 303 companies listed on Pakistan Stock Exchange (PSX). As such, the analysis entails generalization for the entire corporate sector.

[215] For 2018, the detailed financial position and performance have been interpolated based on the key summary statistics (i.e. Total Assets, Shareholder's Equity, Sales and Profit) which had been reported by these companies at the time of this assessment exercise.

Table 5.1: Financial statements of PSX listed companies and ratio analysis

	CY14	CY15	CY16	CY17	CY18*	Growth (Percent) CY18
	PKR Billion					
Balance Sheet						
Non-Current Assets	**2,608**	**2,851**	**3,047**	**3,194**	**3,865**	**21.03**
Net Operating Fixed Assets	1,809	1,952	2,073	2,213	2,660	20.16
Long-term Investments	429	473	488	401	596	48.50
Current Assets	**2,229**	**2,295**	**2,474**	**3,116**	**3,468**	**11.30**
Inventories	480	436	450	582	671	15.38
Trade Receivables	871	901	839	1,070	1,271	18.79
Short-term Investments	181	147	180	273	265	-3.05
Total Assets	**4,837**	**5,146**	**5,521**	**6,310**	**7,333**	**16.22**
Shareholders' Equity	**2,219**	**2,427**	**2,658**	**2,950**	**3,234**	**9.63**
Non-Current Liabilities	**810**	**883**	**947**	**1,045**	**1,286**	**23.06**
Long-term Secured Borrowings	399	424	460	519	629	21.01
Debentures/TFCs	15	50	44	42	51	23.74
Current Liabilities	**1,808**	**1,836**	**1,915**	**2,315**	**2,813**	21.53
Trade & Account Payables	1,020	1,058	1,129	1,370	1,633	19.23
Short-term Secured Borrowings	473	456	463	582	705	21.26
Total Equity & Liabilities	**4,837**	**5,146**	**5,521**	**6,310**	**7,333**	**16.22**
Income Statement						0.00
Sales	**5,931**	**5,414**	**4,851**	**5,739**	**6,507**	**13.39**
Cost of sales	5,060	4,556	4,001	4,757	5,447	14.49
Gross profit / (loss)	**871**	**859**	**851**	**982**	**1,060**	**8.02**
General, administration and other expenses	315	340	394	419	439	4.97
Other income / (loss)	127	162	161	171	135	-21.31
EBIT	682	681	618	734	756	2.91
Financial expenses	119	117	93	93	111	19.88
Profit / (loss) before tax	563	563	526	642	644	0.46
Tax expenses	160	152	145	170	150	-11.42
Profit / (loss) after tax	**403**	**411**	**381**	**472**	**494**	**4.74**
Financial Ratios (Percent)						
Gross Profit Margin	14.68	15.86	17.54	17.11	16.30	
Net Profit Margin	6.79	7.59	7.85	8.22	7.59	
Return on Assets	8.33	7.99	6.90	7.47	6.74	
Return on Equity	18.16	16.94	14.32	15.99	15.27	
Asset Turnover Ratio	1.23	1.05	0.88	0.91	0.89	
Current Ratio	1.23	1.25	1.29	1.35	1.23	
Debt to Equity Ratio	1.18	1.12	1.08	1.14	1.27	
Capital to Asset Ratio	0.46	0.47	0.48	0.47	0.44	
Liabilities to Asset Ratio	0.54	0.53	0.52	0.53	0.56	
Interest Coverage Ratio	5.73	5.81	6.67	7.92	6.80	

Source: SBP, PSX and Bloomberg

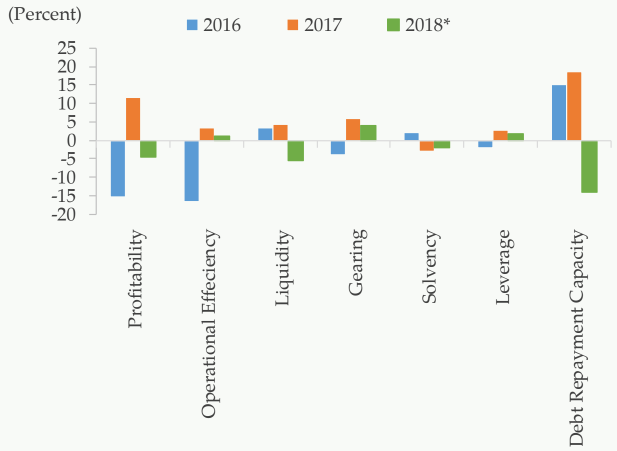
*CY18 represents proforma balance sheet with provisional reported figures of Total Assets, Shareholder's Equity, Sales and Profit. The sub-categories in Balance Sheet are calculated as a percentage of Total Assets based on average share of preceeding 4 years. The sub-categories in Income Statement are calculated as a percentage of Sales based on average share of preceeding 4 years.

Corporate sector's reliance on borrowings for growth and liquidity rises…

The asset base of the corporate sector has observed 16.22 percent growth in CY18 at the expense of increased leverage. The growth has largely been contributed by operating fixed assets, which have been growing in line with the capacity enhancement in a number of sectors. Long-term lending by financial institutions, comprising 45.21 percent of total lending to the corporate sector, experienced a growth of 18.16 percent in CY18. Consequently, the corporate entities have witnessed increase in their gearing and leverage. A 23.06 percent growth in non-current liabilities has been recorded in CY18, which is greater than preceding three years' average growth of 8.86 percent

Moreover, the key liquidity indicator i.e. current ratio has contracted from 1.35 in CY17 to 1.23 in CY18. The current liabilities, mainly because of short-term borrowings, have witnessed faster growth compared to current assets **(Chart 5.2)**. The accelerated 38.76 percent YoY growth (19.77 percent in CY17) in financial institutions' lending for working capital further substantiates this phenomenon.

Chart 5.2: Percentage change in key financial indicators



Source: SBP, PSX

…and the sales growth decelerates…

During the year under review, the sales growth decelerates to 13.39 percent (18.29 percent in CY17), as rising inflation and a challenging economic outlook affected both the purchasing power as well as the spending activities in the economy. Simultaneously, the cost of sales has also risen. Cumulatively, they have had a major impact on the profitability of the corporates as reflected by a subdued growth in operating profit that stands at 2.91 percent in CY18, against 18.75 percent in CY17.

Despite some drop, the debt repayment capacity remains comfortable…

The debt repayment capacity of the corporate sector has somewhat softened in CY18 as the interest rate has spiked and sector's leverage has further risen. Besides the inch up in the debt to equity ratio, the interest coverage ratio has deteriorated from 7.92 in CY17 to 6.80 in CY18. However, these indicators still seem better than what they used to be a few years back.

Financial leverage has supported the profitability, however, it entails risks…

Among the profitability indicators, the base line indicator ROE has decreased from 15.99 percent in CY17 to 15.27 percent in CY18 **(Chart 5.3)**. The Extended DuPont analysis reveals that ROE has declined in CY18 due to increase in interest burden. Besides, decline in operating profit margin and asset usage efficiency further contributes towards the contraction in ROE **(Table 5.2)**.

Table 5.2: Extended DuPont analysis

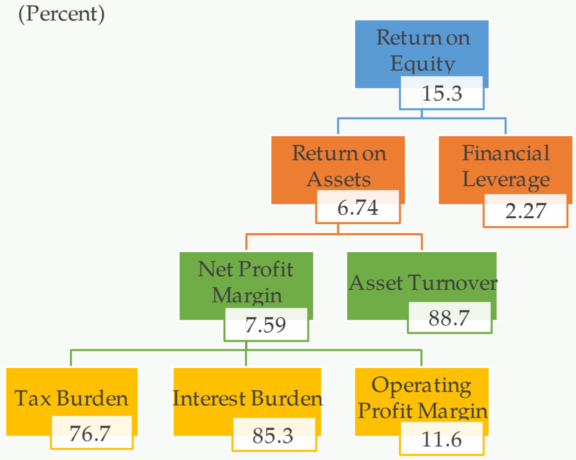
	CY16	CY17	CY18
Tax Burden (A)	0.72	0.74	0.77
Interest Burden (B)	0.85	0.87	0.85
Operating Profit Margin	0.13	0.13	0.12
Asset Use Effeciency (D)	0.88	0.91	0.89
Financial Leverage (E)	2.08	2.14	2.27
Return on Equity (ROE) (Percent) (AxBxCxDxE)	**14.32**	**15.99**	**15.27**

Source:SBP,PSX

On the contrary, drop in the corporate tax rate from 31 percent (CY17) to 30 percent in CY18 has reduced the tax burden of corporates. [216] Similarly, increase in the financial leverage supported the ROE as it has absorbed a part of the dampening impact coming from weakening operating performance and rising interest rate burden.[217] The use of borrowing to support the declining liquidity and profitability is not sustainable. This is because after surpassing a certain threshold, the interest burden will supersede the benefits from the financial leverage. Thus, the increased financial leverage will entail risks in terms of solvency, gearing and debt repayment capacity.

Chart 5.3: Extended DuPont analysis as on December 2018

(Percent)



Source: SBP, PSX

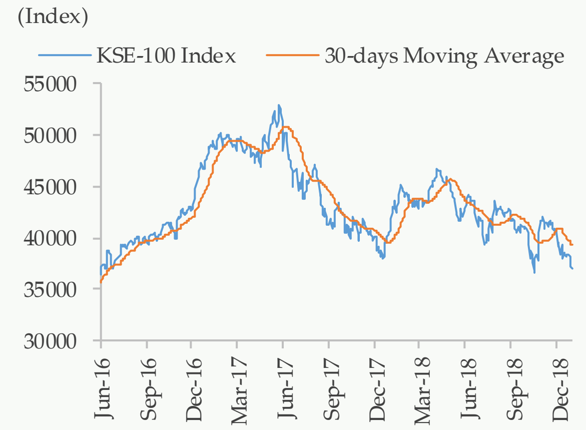
KSE-100 index reflects the weakened market perception regarding the corporate sector…

The slacking operating performance of the corporates is also reflected in the downward movement as well as high volatility of the KSE-100 Index in CY18 **(Chart 5.4)**. During CY18, the KSE-100 index after touching a reviewed year's peak of 46,580 points in April 2018 has declined to 37,067 points that translates to a dip of 20.4 percent. During the same period, the P/E ratio has dipped to 8.9 from 10.8, illustrating a decline of 17.59 percent. The reduced valuation reflects a general decline in investors' confidence about the operating performance and future prospects of the corporates **(See Chapter 2)**.

[216] http://www.finance.gov.pk/budget/budget_speech_english_2018_19.pdf

[217] Keeping the Financial Leverage constant for the CY18 at 2.14, the ROE will fall to 14.4 percent. Thus, the increase in financial leverage has provided cushion to the declining ROE.

Chart 5.4: KSE-100 Index Price Movement



Source: Bloomberg

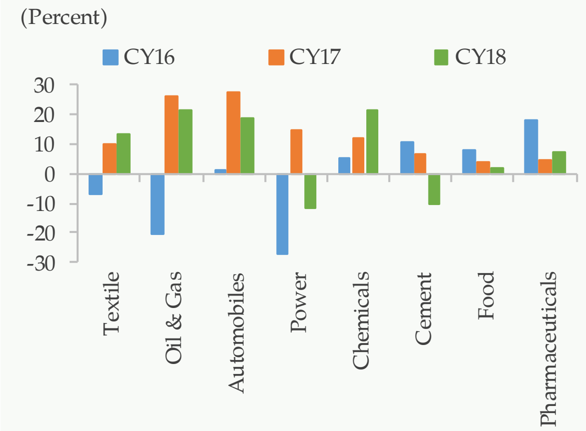
The sector-wise analysis reveals mixed performance…

Macroeconomic stress has directly affected the sales performance of corporate entities in various sectors. The cement and power sectors experienced negative sales growth. Whereas, the oil & gas sector, along with textiles and automobiles have enjoyed the positive sales growth **(Chart 5.5)**. Cumulatively, these three sector comprise of 66.9 percent of the aggregate corporate sector sales in CY18. Comparatively, last year all sectors experienced a positive sales growth. Power, food and textile sectors turned out to be the most leveraged sectors in comparison to other sectors and they lag in liquidity and operating performance indicators.

Rising input costs and lower demand pulls down the cement sector…

Cement sector's financial and operational performance has declined in CY18, mainly due to, rising input costs (rise in coal and fuel prices) and reduction in demand (as fiscal constraints have led to a reduction in Public Sector Development Program (PSDP)). As a result, the revenues of the cement sector have declined by 10.26 percent. The positive aspect for the sector is the growth in exports, which have increased by 36 percent.[218] The exchange rate adjustment has supported the competitiveness of the sector; however, exports at present are only a nominal part of the aggregate cement sales. The outlook for the cement sector is positive in the context of material developments regarding Mohmand and Diamer-Bhasha dams and an expected pick-up in construction and housing activities.

Chart 5.5: Sales growth in different sectors



Source: SBP, PSX

Power sector is burdened with the circular debt…

Power sector's performance has slowed down during this year. The sales have decreased by 11.49 percent on year-on-year basis, mainly due to lower power generation during the year.[219] Primary risk faced by the power sector is the accumulation of circular debt mainly due to incomplete recovery of electricity bills and increasing transmission and distribution losses. However, the government is taking measures to curb the levels of circular debt by banning furnace oil imports, increasing the energy prices and moving towards coal and RLNG power generation.

Oil & Gas, the leading sector, performs better in CY18…

Oil & Gas is the leading sector in terms of both market capitalization as well as the quantum of

[218] JS Global (2019). Pakistan Equity Strategy 2019. Karachi, January.

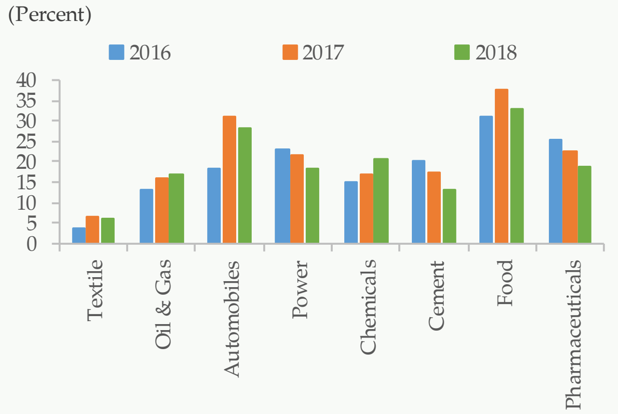
[219] HUBCO and KAPCO (market share approximately 64 percent) revealed that they generated 11469 GWh in CY18 (13986 GWh in CY17).

borrowings from the banking sector. In CY18, its profitability has improved primarily due to the rise in sales by 21.39 percent. However, it has faced higher financial charges due to magnitude of its borrowings coupled with monetary policy tightening during the year under review. Moreover, most of the refineries are in an expansion phase and require funding to keep the work flowing. During the year under review, this sub-sector effectively weathered some pressures i.e. devaluation of the currency, exchange rate losses and slowdown in economic activity. Going forward, the performance of this sub-sector will largely depend on the demand and prices of automobile fuel. Moreover, the general abolishment of the Super Tax will have positive impact on the sector. [220]

Textile sector stands at the bottom in terms of profitability and liquidity…

The textile sector has recorded the lowest profitability amongst all sectors, though it has improved in CY18 **(Chart 5.6)**. Although, devaluation of the currency has made textile exports competitive and the government's incentive to provide uniform gas prices has helped profitability, the dependency on imported cotton, imported machinery and aggressive competition in value-added segment from Bangladesh and Vietnam confines the textile sector's revenues and margins.

Chart 5.6: Sector-wise profitability



Source: SBP, PSX

The outlook may improve if the government targets higher cotton production as the currency devaluation has made imported cotton less competitive in the local market. Nevertheless, some challenges need to be addressed that include improvement in product quality and research and development.

Automobiles sector's high performance is expected to attract capacity enhancement in coming years…

Automobile sector has the highest operational efficiency in the corporate sector. It has, however, faced a contraction in the gross profit margin in CY18, as the bar on non-filers against purchase of new car affected the demand and the devaluation of the currency put pressure on production costs and profit margins. Resultantly, local assemblers increased their prices to sustain profitability. The outlook is positive in terms of enhanced production capacity as Kia, Hyundai and Renault are expected to enter the market in the coming years. Further, the enhancement of federal excise duty (FED) on imported vehicles could increase the demand for locally assembled vehicles. However, because of increase in FED on the imported parts, automobile

[220]Government introduced the Super Tax on individuals, association of persons (AOPs) and companies earning income above PKR 500 million in tax year 2015 at rate of 4 percent of income of banking companies and 3 percent on other categories for rehabilitation of temporarily displaced persons through Finance Bill (2015-16). http://www.finance.gov.pk/budget/budget_speech_english_2018_19.pdf

assemblers, who mostly rely on imported components, might be negatively affected. [221]

Altman Z-Score highlights the growing credit risk in some of the key sectors…

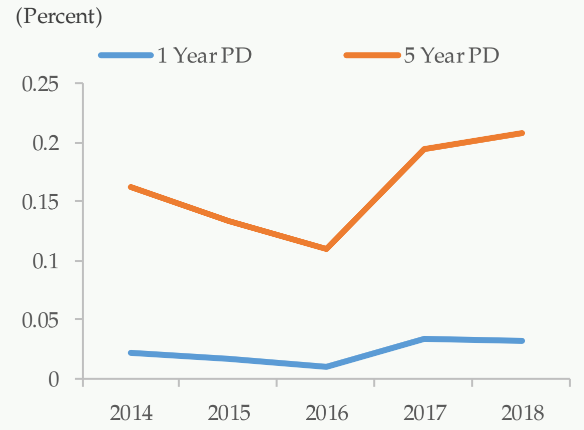
The slowdown in economic activity and the challenging macroeconomic environment have dented the business operations and performance of corporate entities. The increased volatility and a general decline in stock prices negatively affected the fair market value of firms and weakened their financial position in terms of the solvency cushion. These developments also reflect a general decline in these firms' weighted average Altman Z-score that is used to assess the firm's financial health and likelihood of failure.

In CY18, the sub-sectors including textiles, cement and power faced the greatest decrease in the market value. Thus, they are ranked lowest on the Altman's z-score model. The credit worthiness of the other sub-sectors also decreased as their Z-score contracted; however, they are still within the safe range. (For details please refer to **Box 5** which discusses the overview of Altman Z-Score model and detailed assessment of Pakistan's corporate sector on this model.)

Probability of default (PD) has observed some increase for most of the sectors…

The weighted average PD of corporate sector, from CY16 to CY18, depicts an increasing trend, for both 1 year and 5 year horizon **(Chart 5.7)**.[222] In CY18, weighted average PD of the corporate sector stands at 0.03 percent and 0.21 percent for 1 year and 5 year respectively. The disaggregated assessment indicates that textile sector has the highest PD, in CY18, for both 1 year and 5 year, 0.98 percent and 4.31 percent, respectively. Given the adverse economic and political factors, the trend of 1 year PD has increased for all the sectors, except chemicals and oil & gas sectors **(Chart 5.8)**. Similar trend also appears in the 5 year PD.

Chart 5.7: Weighted average PD of corporate sector



Source: Bloomberg

The trend of PD supports the findings of the Altman's Z-score as both models estimate increasing PD due to the weakening and increased volatility in firms' market value. The softening of financial and operating profit indicators have somewhat contracted the solvency cushion and contributed indirectly to the volatility of the market value of the firms. Therefore, the lower market valuation, besides sentiments of the investors, is also being driven by weaker fundamentals.

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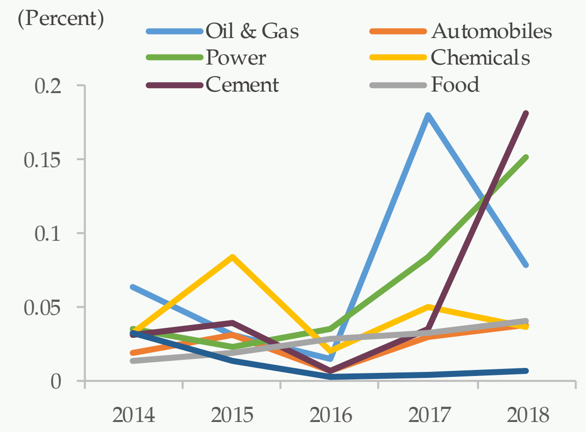
[221] FED on imported vehicles amended from 20 percent on vehicles above 1800cc to 25 percent for vehicles between 1800cc and 3000cc, and 30 percent for 3000cc or above.

[222] The short-term PD (1 Year PD) is mainly driven by the quality of firm's liquidity management and ability to honor short-term obligations, while long-term PD (5 Year PD) is mainly influenced by solvency position and overall financial soundness of the firm.

Chart 5.8: Bloomberg's 1 year PD sector-wise



Source: Bloomberg

Credit risk ratings culture, though not wide spread, shows improvement…

Besides financial health, the ability of the entities to honor their financial obligations can be gauged by their credit risk ratings. However, the rating culture in Pakistan is not wide spread, as a major portion of entities remain unrated. Out of the selected sample of listed entities, only 31.68 percent of them were rated in CY18. However, the rating culture showed improvement as in CY17 only 18.15 percent of the sampled entities were rated **(See Chapter 3.1)**.

It is generally the case that well performing corporate entities get themselves rated and mediocre performing entities avoid being rated. The inherent nature of bank-dominated finance and costs associated with the ratings discourages the companies to get themselves rated.[223] However, going forward, considering the dynamics of international and domestic regulatory environment, ratings could gain more traction.

Table 5.3: Number of rated companies, December 2018

Long-term		Short-term	
Ratings	Percent	Ratings	Percent
AAA	2.08	A1+	19.79
AA+	3.13	A1	41.67
AA	10.42	A2	29.17
AA-	10.42	A3	2.08
A+	20.83	Others	7.29
A	13.54		
A-	21.88		
BBB+	7.29		
BBB	2.08		
BBB-	1.04		
Others	7.29		

Source: PACRA, JCR-VIS

Out of rated entities, major chunk of the companies lie in high credit quality cluster in terms of long-term ratings, which includes ratings of A+,A and A- **(Table 5.3)**. Whereas, in terms of short-term ratings, majority of the companies are rated as A1 that is strong capacity for timely repayment.[224]

Ease of Doing Business ranking has improved…

An enabling business environment stimulates the growth of entrepreneurship in a country. The ease of doing business index, issued by World Bank, measures the extent to which the policy and regulatory frameworks support the ease of doing business. According to the World Bank's latest report, Pakistan has improved its ranking from 147 to 136 out of 190 countries in 2019.[225]. Noticeably, the improvement in the ranking has come on the back of score improvement in different indicators of the doing business index. The major three indicators, which have witnessed significant improvement in scores included, resolving insolvency (from 45.8 to

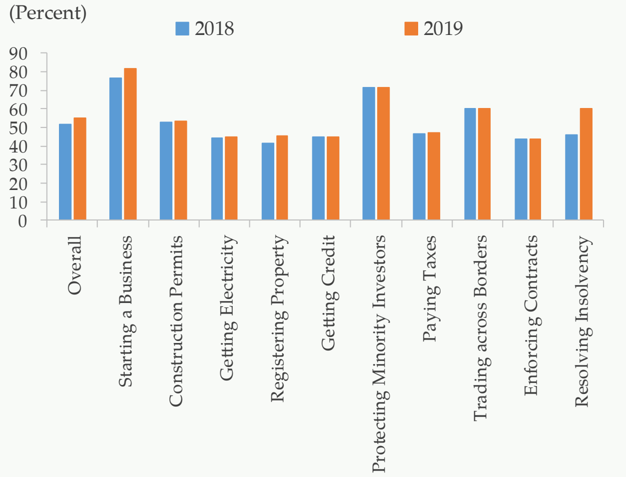
[223] State Bank of Pakistan is following a strategy to promote the rating culture through indirect measures. In this regard, SBP requires banks and DFIs to hold higher capital against large exposures to unrated firms.

[224] PACRA. (2019). Rating Scale. Pakistan, March. http://www.pacra.com.pk/uploads/doc_report/PACRA_Rating%20Scale_Corporate_FY18.pdf

[225] World Bank. (2019). Doing Business 2019: Training for Reform, Economy Profile Pakistan. Pakistan, March http://www.doingbusiness.org/content/dam/doingBusiness/country/p/pakistan/PAK.pdf

59.9), starting a business (from 76.6 to 81.9), and registering a property (from 41.3 to 45.6) and **(Chart 5.9)**. Some other areas where the score has improved are dealing with construction permits, getting electricity and paying taxes.

Chart 5.9: Ease of doing business score



Source: World Bank

The resolving insolvency score has improved due to the introduction of reorganization procedures and improvement in continuation of the debtor's business during insolvency proceedings.[226] Likewise, enhancement of online one-stop registration system by Government of Pakistan has aided the starting a business segment. Fundamentally, several forms for incorporation of a business have been replaced with a single application and information sharing between registry and tax authorities have been introduced.

Although the ease of doing business score, which forms the basis of the ranking, has improved to 55.31, it is still below the South Asian regional average score of 56.71. In order to improve the score and, therefore, the rankings, substantial reforms, under various indicators, at both the provincial and federal levels need to be accelerated. For instance, development of a new container terminal and enhancing the customs platform i.e. National Single Window for electronic document submission will help in improving our score in the trading across borders indicator. [227]

Outlook for the corporate sector is positive…

The performance of the corporate sector in the coming year is dependent upon various factors.

Improvement in the macroeconomic conditions, especially the current and fiscal account deficits are necessary for economic stability. The government is enthusiastically endeavoring to overcome these economic challenges. It is expected that further positive developments and the conclusion of the agreement on IMF program could subside these challenges and pave the way for strong growth in the future.

In the short run, the IMF Program might accelerate inflation and subside the growth in the economy; however, in the long-run, it may stabilize the growth in the economy and restore investor's confidence in the equity and forex markets.

Furthermore, the abolishment of the Super Tax on the non-banking companies and reduction of corporate tax rate in the coming years can augment the performance of the corporate sector. However, imposition of any additional taxes could impede the performance of the corporate sector.

Additionally, under the umbrella of CPEC, some initiatives have been taken to develop special economic zones to promote the collaboration of Chinese and local industries. The development of the Gwadar port with the aim of transforming it into a trade hub could also open up business opportunities. These developments can potentially contribute positively to the economy and the corporate sector of Pakistan.

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[226] Pakistan Doing Business Reforms http://boi.gov.pk/ViewNews.aspx?NID=3089

[227] It is a digital central trade hub for clearance of cross-border consignments https://www.thenews.com.pk/print/408956-pakistan-customs-green-signaled-to-implement-national-single-window

Box 6: Altman Z-score – Measure of distress

The Altman Z-score is a statistically driven empirical model that is, generally used to assess the health of firms. Particularly, it measures the liquidity conditions as well as predicts the probability of insolvency and financial distress.

The Altman Z-score is derived from several key ratios that measure different key aspects of a corporate entity's financial health and performance. The score consists of five variables:

X1 = Working Capital / Total Assets
X2 = Retained Earnings / Total Assets
X3 = EBIT / Total Assets
X4 = Market Value of Equity / Total Liabilities
X5 = Net Sales / Total Assets

The Z-score is calculated by the following formula[228,229]:

$$Z = 1.2*X1 + 1.4*X2 + 3.3*X3 + 0.6*X4 + 0.999*X5$$

Table 1.1: Altman Z score of different sectors of corporate sector

	Textile			Oil & Gas			Automobiles		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Working Capital/ Total Assets	-0.02	0.00	0.01	0.14	0.21	0.15	0.32	0.30	0.23
Retained Earnings/ Total Assets	0.02	0.03	0.03	0.06	0.08	0.07	0.10	0.15	0.13
EBIT/Total Assets	0.05	0.06	0.05	0.10	0.11	0.11	0.18	0.22	0.19
Mkt. Value of Equity/ Total Liabilities	0.92	0.64	0.60	1.83	1.50	1.04	5.89	3.28	1.77
Sales/Total Assets	0.77	0.76	0.78	1.03	1.10	1.17	1.76	1.64	1.69
Altman Z score	**1.48**	**1.37**	**1.36**	**2.70**	**2.73**	**2.44**	**6.43**	**4.91**	**3.85**

	Power			Chemicals			Cement		
	2016	2017	2018	2016	2017	2018	2016	2017	2018
Working Capital/ Total Assets	0.14	0.14	0.13	0.11	0.13	0.08	0.16	0.13	0.06
Retained Earnings/ Total Assets	0.09	0.08	0.06	0.07	0.08	0.10	0.13	0.11	0.07
EBIT/Total Assets	0.13	0.12	0.10	0.12	0.13	0.15	0.19	0.16	0.08
Mkt. Value of Equity/ Total Liabilities	1.22	0.81	0.61	3.76	3.51	3.09	4.84	2.37	0.94
Sales/Total Assets	0.65	0.68	0.52	1.16	1.17	1.20	0.58	0.53	0.33
Altman Z score	**2.10**	**1.84**	**1.46**	**4.06**	**3.99**	**3.77**	**4.48**	**2.79**	**1.32**

	Food			Pharmaceuticals		
	2016	2017	2018	2016	2017	2018
Working Capital/Total Assets	0.05	-0.02	0.02	0.36	0.36	0.33
Retained Earnings/Total Assets	0.14	0.13	0.12	0.18	0.16	0.12
EBIT/Total Assets	0.22	0.21	0.22	0.25	0.23	0.18
Mkt. Values of Equity/Total Liabilities	9.10	6.85	5.32	15.65	9.18	6.19
Sales/Total Assets	1.62	1.51	1.44	1.29	1.26	1.27
Altman Z score	**8.07**	**6.47**	**5.53**	**12.18**	**8.16**	**6.16**

Source: SBP, PSX

To apply the model on the corporate sector of Pakistan, 303 listed companies are selected as a sample. These corporations are categorized into eight sectors, namely, textile, oil & gas, chemicals, power, cement, automobiles, foods, and pharmaceuticals. Based on the individual scores of these selected firms, the aggregate weighted-average scores of all sectors have been calculated for the last three years **(Table 1.1)**.

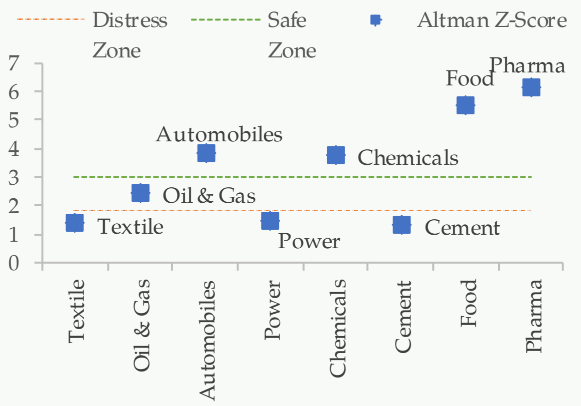
In line with slowdown in economic activity and contracting market value of corporate entities that prevailed during the year under review, the weighted average Z-score of all the sectors declined in CY18 as compared with the previous year's assessment. Noteworthy sectors highlighted by the Z-score are textile, power and cement. The scores of these sectors fall in the lower ranges, which as per

[228] Eidleman, G. J. (1995). Z scores-A Guide to failure prediction. The CPA Journal, 65(2), 52.

[229] The parameters of the model as identified in the original paper have been used to signal distress status of the firms and have not been calibrated to the local conditions. As such, the model may under/overestimate the distress factor. However, the current model provides a useful benchmark.

the original Z-score model are considered distress zone. This urges rigorous measures for improving the financial position of firms. All the remaining sectors are placed in the safe zone except for the oil & gas sector, who fell in the grey zone and skewed towards the safe zone **(Chart 1.1).**

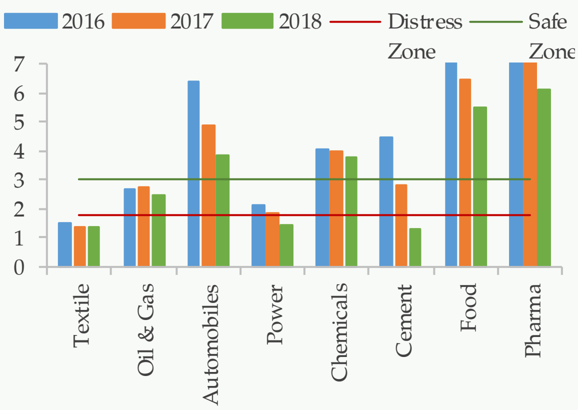
Chart 1.1: Altman's Z-score, December 2018



Source: SBP, PSX

Taking into account the Z-score of the preceding years, the textile sector continually stays in the distress zone and oil & gas sector stays in the grey zone. Whereas, the power sector that is on the borderline of distress zone for the last two years, demoted into the distress zone in CY18. Following similar footsteps, the cement sector started to decline from the safe zone in CY16 into the distress zone in CY18 **(Chart 1.2)**.

Chart 1.2: Altman's Z-score

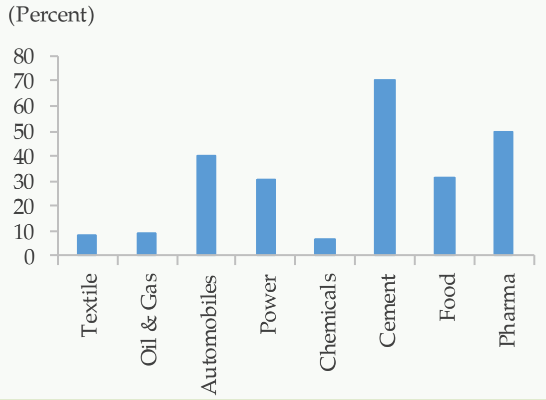


Source: SBP, PSX

According to the applied model, textile sector constantly falls under distress zone due to the poor working capital management as compared with the other sectors that has lead them to earn lowest ROE. Moreover, the market value of equity as the ratio of book value of debt also remains quite low constantly.

Cement sector faces the most drastic decrease (70.5percent from CY16 to CY18) in the Altman Z-score. Primarily, the higher rate of growth of debt levels as compared with the growth of asset base lead to decline in the score. Simultaneously, the weakening of working capital affected the liquidity position of the sector. Over the years, the market value of equity of the cement sector also deteriorated as a reflection of poor performance. Thus, in CY18, the Z-score stands at 1.32.

Chart 1.3: Percentage decrease in Altman's Z-score from 2016-2018



Source: SBP, PSX

The Altman Z-score of the remaining sectors also decreased during the CY18, given the slowdown of economic activity **(Chart 1.3)**. Besides cement sector, the pharmaceutical and automobile sector faced severe decrease in the Z-score. Nevertheless, their score remains quite above the safe zone.

6 Performance and Soundness of Financial Market Infrastructures

The country's Financial Market Infrastructures (FMIs) remained efficient and resilient during CY18. Pakistan Real-Time Interbank Settlement Mechanism (PRISM) continued to handle larger volume and values of transactions, with an increasing share of third party fund transfers. On the retail segment front, consumers showed a growing preference for digital modes of transactions owing to the convenience it offers. Automated Teller Machine (ATM) downtime has continued to decrease, signaling lower operational risk in retail segment. Keeping in view the risks related to unregulated use of virtual currencies, SBP prohibited banks to deal in them. Further, comprehensive guidelines were issued during the year to ensure that the retail payments segment of the country remains resilient to cyber-attacks. Moreover, the securities clearing and settlement institutions of the country continued to enhance their risk management regime to ensure that financial markets continue to function in an efficient manner.

Financial Markets Infrastructures (FMIs) are critical components of financial system of a country. They comprise of important institutions, instruments and channels, which facilitate the process of financial intermediation by processing and recording the flow of funds and securities. Hence, the overall stability of the financial system is critically dependent upon their efficiency and resilience.

FMIs broadly cover the Payment Systems, Central Securities Depositories (CSD), Securities Settlement Systems (SSS), Central Counter Parties (CCPs) and trade repositories.[230] Pakistan's major FMIs include large value payment system (LVPS) i.e. Pakistan Real-Time Interbank Settlement Mechanism (PRISM); one inter-bank switch (1-Link); one clearing house of paper-based instruments (NIFT); one corporate securities settlement company (NCCPL); and one corporate securities depository (CDC). The capital market infrastructures is regulated by SECP.

6.1 Payment Systems[231]

Payment Systems Landscape and Performance

Under its Vision 2020, SBP has set the "Development of Modern and Robust Payment Systems" as one of its key strategic objectives. Hence, it is continuously working towards the modernization of country's payment systems and simultaneously enhancing its regulatory and supervisory regime to ensure their efficiency and resilience.

Based on the quantum of values transacted, the country's payment system is divided into *Large Value Payment Systems (LVPS)* and *Retail Value Payment Systems (RVPS)*. Pakistan's LVPS, i.e. PRISM is used for wholesale transactions of both funds and government securities among its participants. Moreover, it is now increasingly being used for third party fund transfers. On the other hand, RVPS is composed of various paper-based and electronic channels used for retail transactions. Both PRISM and RVPS have shown a consistent increase in volume and value (**Table 6.1**).

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[230] An FMI is defined as a multilateral system among participating institutions, including the operator of the system, used for the purposes of clearing, settling, or recording payments, securities, derivatives, or other financial transactions. Committee on Payment and Settlement Systems of BIS, (2012), "Principles for Financial Market Infrastructures".

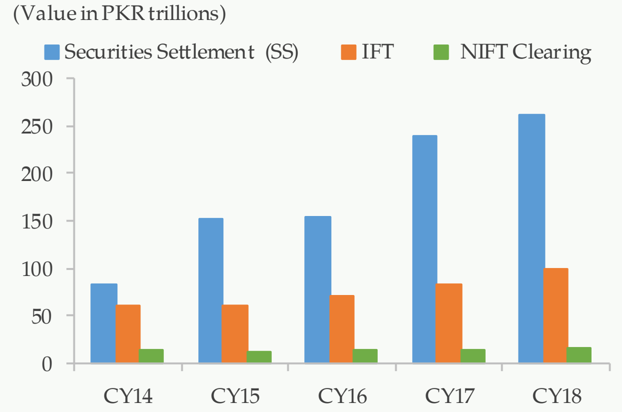
[231] By virtue of the powers entrusted to it, SBP plays the role of regulator, operator and facilitator of Pakistan's payment systems. Article 3 of the Payment Systems and Electronic Funds Transfer Act (PSEFT), 2007, endows upon SBP the power to regulate the country's payment systems to ensure their soundness, possible emergence of systemic risk and interests of the general public.

Table 6.1: Profile of payment system mechanisms

Mechanism	CY14	CY15	CY16	CY17	CY18
(Volume in thousands and Value in PKR trillion)					
PRISM					
Volume	681.4	852.9	985.4	1,384.9	2,210.1
Value	156.6	224.5	238.1	336.9	375.1
Retail Payments					
Volume	800,426.8	857,383.3	962,610.7	1,161,655.1	1,281,618.5
Value	158.2	165.5	170.8	192.6	198.7
Paper based					
Volume	365,371.2	349,882.1	392,499.5	463,602.6	464,839.8
Value	123.2	129.2	134.1	152.0	145.0
E-Banking					
Volume	435,055.6	507,501.3	570,111.2	698,052.5	816,778.7
Value	35.0	36.4	36.8	40.6	53.7

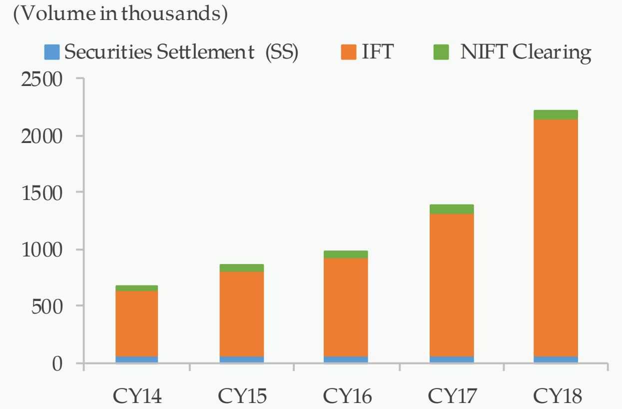
Source: SBP

Chart 6.1: Value of PRISM transactions



Source: SBP

Chart 6.2: Volume of PRISM transactions



Source: SBP

PRISM remains efficient and resilient…

In line with the trend of CY17, PRISM has witnessed consistent growth in both volume and values. In aggregate, during the reviewed period, it has settled 65.37 percent of the total value of all payments, amounting to around 11 times of GDP.

The daily average volume of settled transactions has shown significant growth over the past year to reach 9,209 (CY17: 5,770), while daily average value has increased to PKR 1,563 billion (CY17: PKR 1,404 billion).

Overall, during CY18, volume and value of transactions settled through it grew by 59.58 percent and 11.34 percent, respectively. Encouragingly, the lion's share of growth in volume and value came from Inter-bank Funds Transfers (IFT). It registered a growth of 65.68 percent in volume and 19.33 percent in value **(Chart 6.1 and 6.2)**.

Within IFT, bulk of the growth has come from third party customer transfers. The trend of IFT is in line with the previous two years and is a result of continued efforts by SBP to popularize the use of RTGS system by banking consumers. In this regard, SBP has implemented straight-through processing via PRISM in 2016, whereby the core banking system of banks and PRISM system have been integrated to improve efficiency and minimize errors in payment processing.[232] Furthermore, SBP has allowed banks to use PRISM free-of-charge for same-day settlement of domestic transfers of home remittances to their beneficiaries. Consequently, use of PRISM for home remittances have seen a 63.56 percent rise in volume and 61.84 percent in value during CY18. This has

[232] PSD Circular No. 2 of 2016; http://www.sbp.org.pk/psd/2016/C2.htm

garnered the trust of the banks and the banking consumers in the country's RTGS system.

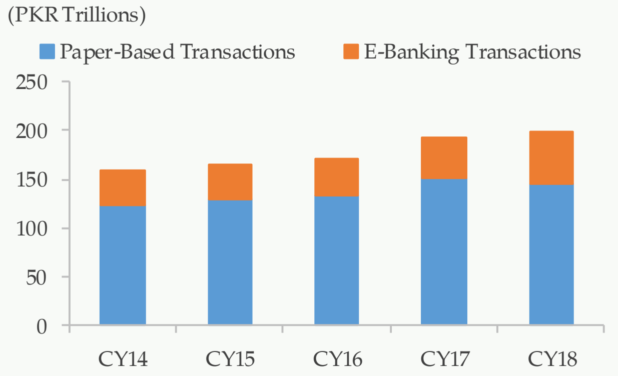
Over the past decade, PRISM has undergone significant developments with respect to its operations. New features such as 3rd party fund transfers, straight through processing, interbank fund transfer of home remittances, membership of clearinghouses, CDNS, NCCPL etc. have been added to its functionality. Moreover, PRISM system was upgraded in CY17, which included enhancement in its features such as revised criteria for intra-day liquidity facility, improvement in reconciliation process and increased efficiency in managing funds and securities balance. To cater to these developments, SBP has issued new PRISM operating rules in March 2018, which incorporated these changes. Apart from this, the new rules have been aligned with Principles for Financial Market Infrastructures (PFMIs) issued by Bank for International Settlements, incorporating participation access criteria, settlement and finality, efficiency and effectiveness etc.[233]

Keeping in view the increasing risk of cyber-attacks, SBP has taken adequate measures to ensure that PRISM remains resilient. PRISM participants access the system through a private network, which is further safeguarded through dynamic multipoint network level encryption and a certification authorization system for generation of digital signatures and identity verification to cater to the risk of unauthorized access. Moreover, next generation firewalls for application and network filtering, robust malware protection and intrusion detection and prevention systems are implemented to mitigate the risk of cyber breaches. Further, to ensure that the PRISM system remains resilient to any system disruptions, SBP has maintained separate, well-functioning business continuity and disaster recovery sites which are tested frequently.

Retail Value Payment Systems post continued growth...

Comprising of paper-based and electronic modes of transactions, the retail payment systems of the country has also posted robust growth in volume and value of electronic transactions. The overall volume of transactions has surged by 10.33 percent whereas the value of transactions has increased by 3.17 percent (**Chart 6.3**).

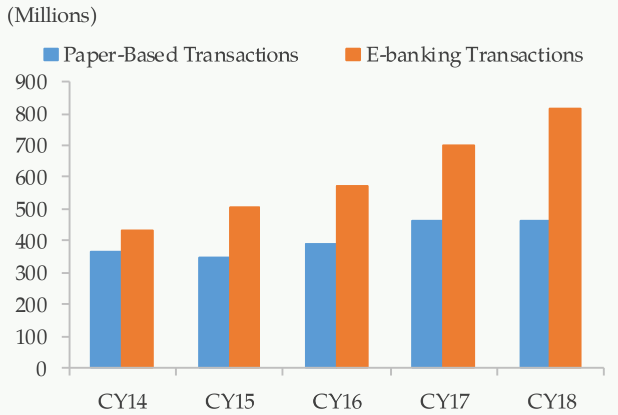
Chart 6.3: Value profile of retail payments



Source: SBP

Within retail payments, the volume-wise share of paper-based transactions declined from 39.92 percent to 36.27 percent, which reflects the growing trend of e-banking transactions (**Chart6.4**). In terms of value transacted, paper-based modes still hold a major share in retail payments, accounting for 72.99 percent of value transacted.

Chart 6.4: Volume profile of retail payments



Source: SBP

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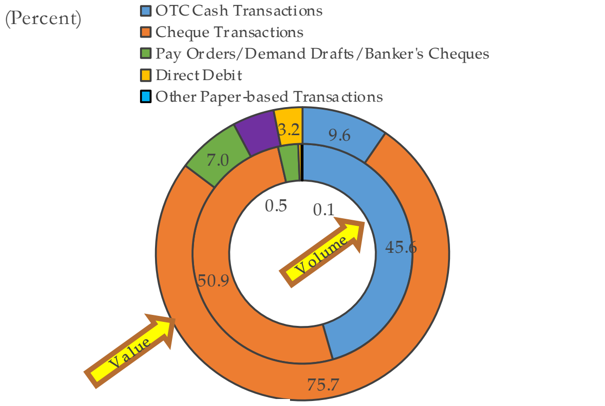
Within the paper based transactions, Cheques remain the most popular instrument as they accounted for 50.85 percent of total volume and 75.70 percent of total value transacted (**Chart 6.5**).

Chart 6.5: Volume and value wise share of paper-based retail transactions during CY18



Source: PSD, SBP

Within cheque based transactions, major share of volume pertained to cash withdrawals amounting to 50.56 percent of total cheque transactions. However, the share of value remained low at 10.71 percent (**Table 6.2**). This points out to the possibility that banking consumers are using cheques for withdrawals of smaller amounts to avoid the cost of withholding tax on banking transactions, particularly by non-filers.

Table 6.2: Chequing transactions in CY18

Type	Number	Amount	Volume share	Value Share
	(Million)	(PKR billion)	(Percent)	
Cash Withdrawals	168.0	15,700.0	50.6	10.7
Transfers	112.8	102,515.7	33.9	69.9
Clearing	51.5	28,349.0	15.5	19.3

Source: SBP

Non-cheque based transactions remain low in value

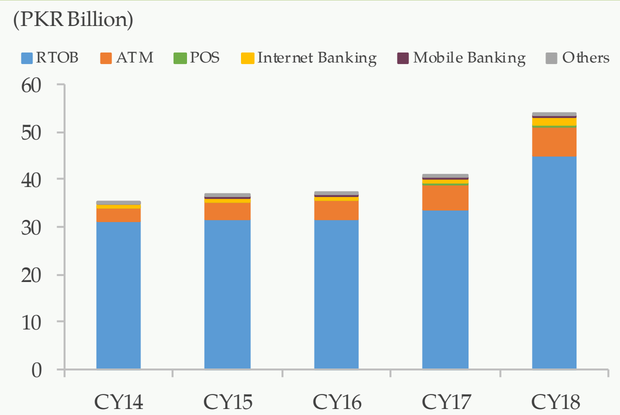
Non-cheque based transactions, which primarily reflect over-the-counter (OTC) cash transactions accounted for only 9.58 percent of the total paper-based value transacted. As banks offer ease of services such as utility bill payments and interbank funds transfers through their digital platforms, consumers are increasingly using these electronic channels against OTC transactions.

Electronic modes of transaction show healthy growth...

Electronic modes of transaction have been a major contributor to growth in retail payments during CY18. In line with the development in previous year, e-banking channels have shown robust growth in both volume and amount transacted. Overall, the volume of e-banking transactions has registered a growth of 17.01 percent, whereas the value of these transactions has increased by 32.33 percent to reach at PKR 53.67 trillion. The share of electronic transactions, within retail transactions, has increased to 27.01 percent in CY18 compared to 21.04 percent in CY17. This is a manifestation of the shifting trend towards these digital modes that offer greater convenience and efficiency of payments to consumers.

Among e-banking transactions, Real Time Online Banking Transactions accounted for 84.20 percent of the value transacted followed by ATM transactions, which amounted to 11.29 percent (**Chart 6.6**). With respect to volume of transactions, ATM transactions account for a major share (61.94 percent) (**Chart 6.7**).

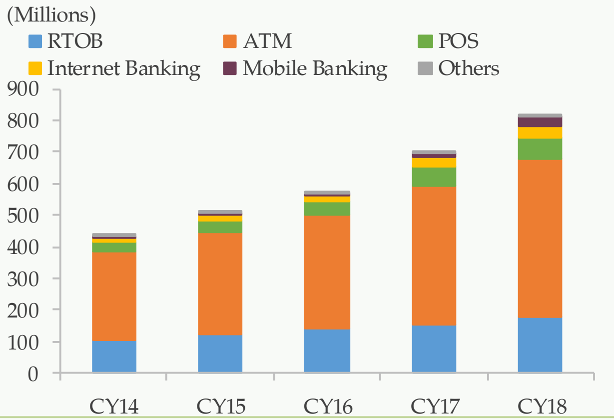
Chart 6.6: Value profile of E-banking transactoins



Source: SBP

Encouragingly, the share of alternate delivery channels (ADCs), particularly mobile and internet banking has been growing, albeit gradually. In terms of growth, internet banking posted a healthy growth of 33.23 percent in volume and 39.25 percent in value. In aggregate, PKR 2.1 trillion were transacted through internet banking, mobile banking and point-of-sale (POS) channels during CY18 as compared to PKR 1.6 trillion last year. This is reflective of the growing trust of banking consumers on alternate delivery channels offered by the banks.

Chart 6.7: Volume profile of E-banking transactions



Source: SBP

Increasing investment in e-banking infrastructure…

Cognizant of the increasing adoption of e-banking channels, commercial and microfinance banks are increasing their investments in ADCs to tap into the growth potential as seen by an increase in online branches and ATMs. Furthermore, similar increase is visible in the number of credit and debit cards issued by banks (Table 6.3).

Table 6.3: E-banking infrastructure

Description	CY14	CY15	CY16	CY17	CY18
			Number		
Online Branches	11,149	12,442	13,926	14,610	15,346
ATMs	9,018	10,736	12,352	13,409	14,361
POS	34,945	50,072	52,062	52,506	49,621
			Number in Thousands ('000)		
Total Payment Cards	25,994	32,744	36,202	39,361	41,708
of which:					
Credit Cards	1,332	1,394	1,209	1,374	1,522
Debit Cards*	23,727	26,489	17,470	19,848	23,303
ATM Only Cards	935	4,861	6,806	8,385	8,805
Social Welfare Cards	-	-	10,358	9,501	7,848
Pre-paid Cards	-	-	359	253	230

Source: SBP
*Prior to CY16, Debit cards also included social welfare and pre-paid cards.

Paypak adoption continues in CY18…

In pursuance of SBP Vision 2020 and National Financial Inclusion Strategy (NFIS), 1-Link, with the approval of SBP, has launched the country's first domestic payment scheme in 2016, with the aim to provide a low-cost, efficient and secure payment solution.[234] Since its launch, Paypak has made significant inroads in the payments landscape of the country, which is evident by its increasing adoption. A total of 18 banks (14 commercial banks and 4 microfinance banks) have issued around 1.12 million cards as of December, 2018 as compared to 0.75 million cards at the end of CY17.

SBP has issued comprehensive guidelines for retail payments in the wake of rising cyber-attacks…

Rise in threats of cyber-attacks is a global phenomenon. World Economic Forum's Global Risks Report, 2019 also mentions cyber-attacks as one of the top 10 risks in terms of both likelihood and impact. As more and more customers start adopting electronic modes, electronic channels have become a target for cyber-criminals. Results of the 3rd wave of the SBP's Systemic Risk Survey also points out that the respondents have rated cyber security risk as one of the top 10 risks for the financial sector (**See Box 1**).

In the wake of increasing threats of cyber-attacks, SBP has issued a comprehensive circular on security of digital payments to safeguard banks and their customers from potential losses. The circular includes measures such as extensive vulnerability assessment and penetration testing of banks' technological infrastructure to identify potential weaknesses in their ADCs and payment systems. Furthermore, it has been made mandatory for banks to provide free of cost SMS and email alerts with respect to both domestic and international digital transactions to their customers, serving as a detective control in case of a cyber-attack or fraud. Further, the

[234] The scheme is operated by 1-Link.

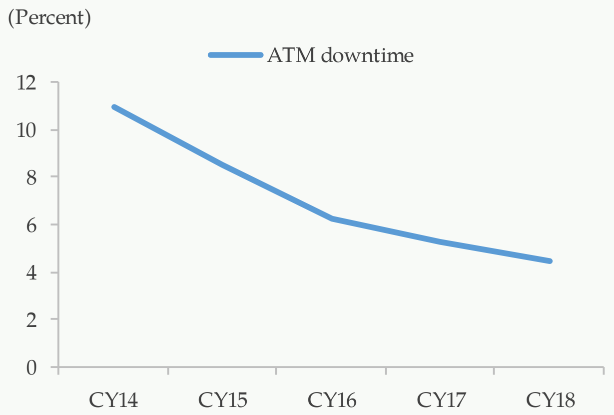
circular entails deployment of real-time fraud monitoring tools and alert mechanisms by banks for the detection of fraudulent activities and dissemination of education to customers regarding types of online banking frauds.[235]

In order to mitigate the risk of payment-card related frauds such as skimming, SBP has already instructed the banks to issue secure cards which are compliant with Europay, Mastercard and Visa (EMV) Standard and replace all the existing cards with chip-and-PIN payment cards by December, 2019.[236]

ATM downtime reduces further…

ATMs possess the highest share in volume of e-banking transactions and is a medium, which is designed to be available round the clock. Hence, they are critically important infrastructures and any disruption in their working due to banks' system failure, poor connectivity, power outages and inadequate cash replenishment may lead to operational as well as reputational risk for the banks. Owing to improved surveillance and concerted efforts of SBP, the downtime of ATMs has reduced further during CY18, indicating improved efficiency (**Chart 6.8**).

Chart 6.8: ATM downtime



Source: SBP

Settlement and liquidity risks in retail payments are managed effectively…

Since Pakistan's retail payment segment works on Deferred Net Settlement (DNS) basis i.e. T+1 basis, it entails creation of overnight credit risk before a transaction is settled the next day. Various safeguards are in place both by banks and SBP. Banks have imposed per day transfer limits for both retail and corporate customers. On the other hand, SBP has imposed cash reserve and statutory liquidity requirements on banks to ensure that sufficient liquidity is available in their accounts with SBP BSC to cover the settlement amount. Moreover, since the transactions are settled in PRISM, the availability of intra-day liquidity facility (ILF) assuages the liquidity risk as well.

Branchless Banking, shows continued growth…

Branchless banking is another key element of the retail payments landscape of Pakistan. It serves as a catalyst for financial inclusion and has tremendous potential to expand the outreach of financial services to the financially excluded populace. Continuing its growth trend, number of branchless banking accounts, deposits and number of transactions have registered robust growth during CY18 (**Table 6.4**). To cater to customer due diligence (CDD) risk related to branchless banking transactions, SBP has put in place extensive requirements such as verification of customer particulars from NADRA, biometric verification, transaction and maximum balance limits.[237]

[235] PSD Circular No. 9 of 2018; http://www.sbp.org.pk/psd/2018/C9.htm

[236] PSD Circular No. 5 of 2016; https://www.sbp.org.pk/psd/2016/C5.htm

[237] BPRD circular No. 9 of 2016; https://www.sbp.org.pk/bprd/2016/C9.htm

Table 6.4: Key Highlights of branchless banking

Description	CY17	CY18	Growth (percent)
No. of Agents	405,671.0	425,199.0	4.8
No. of Accounts (thousands)	37,260.2	47,164.8	26.6
Deposits as on period end (PKR million)	21,139.0	23,678.0	12.0
No. of Transactions during the period (millions)	647.6	955.0	47.5
Average No. of Transactions per Day (thousands)	1,877.9	2,652.9	41.3
Value of Transactions during period (PKR billion)	2,804.0	3,659.1	30.5
Average Size of Transactions (PKR)	4,317.3	3,831.3	(11.3)

Source: SBP

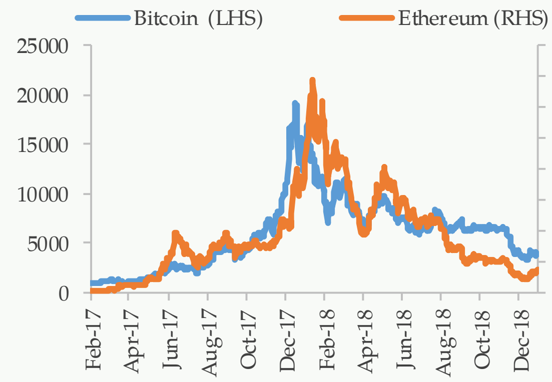
SBP continues to promote innovations while managing risks…

SBP is encouraging Payment System Operators (PSOs) / Payment System Providers (PSPs) such as payment aggregators, electronic wallets and e-commerce gateways, which will add value to the payments landscape of the country. Such non-banking technology-based firms provide various services such as clearing, routing, switch services and electronic facilitation of payments, thus providing efficiency and convenience to customers. In this regard, SBP has issued detailed Rules for Payment System Operators and Payment Service providers.[238] These regulations are aimed at encouraging their growth, managing risks, and bringing them into the regulatory ambit.

CY18 has also witnessed a growing interest in virtual currencies around the globe and in Pakistan, followed by regulatory actions in various jurisdictions. These virtual currencies saw huge bouts of volatility in their value during the reviewed period. Keeping in view the growing regulatory concerns, escalating price volatility and supervisory actions around the globe, SBP has advised all Banks/MFBs/DFIs/PSO/PSPs against dealing in them.[239] It is pertinent to mention that SBP has been proactive in monitoring and managing the risks associated with the use of virtual currencies as evident from the fact that SBP and SECP had also previously issued a joint Public Warning, in September, 2016, cautioning the public about using Bitcoin and other virtual currencies.

Some of the risks that virtual currencies may pose include: a) significant price volatility associated with speculative activity, which may prove to be harmful for the uninformed investors; (**Chart 6.9**) b) failure/closure of virtual currency exchanges/businesses due to any reason including action by law enforcement agencies; and c) hacking/security compromises of crypto currency exchanges and wallet businesses as a number of instances were recorded around the world where huge amount of funds have been lost due to the exchange/wallet operations being hacked/compromised. However, SBP remains open to technological innovations (including distributed ledger technology) which can enhance the efficiency of financial services. It continues to explore possible uses of technologies while keeping in view integrity, stability and consumer protection concerns of the financial sector.

Chart 6.9: Virtual currencies- daily data (USD)



Source: Investing.com

[238] PSD Circular No. 3 of 2014; http://www.sbp.org.pk/psd/2014/C3.htm

[239] BPRD Circular No. 3 of 2018; http://www.sbp.org.pk/bprd/2018/C3.htm

Managing Systemically Important Payment Systems (SIPS)…

Payment systems are at the core of a financial system. Owing to their importance, any disruption in processes or flaw in their design can result in emergence of systemic risk. In view of this, SBP has already improved the oversight of some of the payment systems such as NIFT and 1-Link. Under the Payment Systems Designation Framework issued by SBP, it is finalizing the designation, which will allow it to perform closer supervision of SIPS.[240]

6.2 FMIs other than Payment Systems

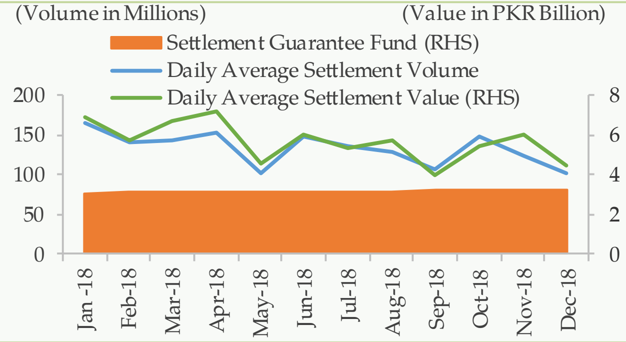
NCCPL aligns its risk management regime with its role as CCP…

NCCPL has become a systemically important FMI, keeping in view its assumption of the role of Central Counter Party (CCP) in May 2016. Dealing with the settlement of trades in the capital markets, it took various measures to enhance the efficacy of its operations and strengthen its risk management regime.

It became a special participant of PRISM in January 2018 enabling the efficient settlement of NCSS transactions. Instead of settlement through multiple settlement banks, the transactions are now settled via PRISM in the form of multilateral net settlement batches (MNSBs), thus reducing the operational risk. Furthermore, multilateral netting also mitigates the liquidity risk posed to the broker clearing members (BCMs).

In order to placate the settlement risk arising due to potential default of any member, NCCPL maintains a Settlement Guarantee Fund (SGF). The fund was valued at PKR 2.75 billion at its inception and witnessed a gradual accretion of 6.0 percent over the current year to reach at PKR 3.28 billion in December, 2018. However, the daily average settlement value for the year stood at PKR 5.7 billion, which is greater than the value of fund (**Chart 6.10**). Although the margins provided by clearing members are the first line of defense against default risk, SGF provides a buffer against emergence of systemic issues in the capital market.

Chart 6.10: Comparison of settlement guarantee fund with daily avaerage of settlement value



Source: NCCPL

In view of its role as a CCP, NCCPL has augmented its risk management regime during CY18. Initially, the risk management system of PSX was employed by NCCPL. Effective from 30th July, 2018, NCCPL has implemented its own in-house risk management system. Besides having similar features, the new system would enable NCCPL to efficiently supervise the risk profile of clearing members and employ adequate safeguards against the emergence of settlement risk, if any.

Custodial risk remains low…

CDC is another key FMI, which acts as the central securities depository (CSD) of the country. It manages and operates the Central Depository System (CDS), which is an electronic book-entry system used to record and maintain securities and register their transfers. Hence, it performs a two-pronged function i.e. the facilitation of trade in securities and management of the custodial risk associated with it.

[240] PSD Circular No. 2 of 2017; https://www.sbp.org.pk/psd/2017/C2.htm

CDC continues to hold the trust of the general public as evident by the increasing number of investor accounts, which stood at 53,896 at the end of CY18. The CDS handled a total of 138 billion shares with a market capitalization of PKR 4.7 trillion at the end of the reviewed period.[241]

In terms of facilitating the market, CDC has undertaken numerous measures, which include establishment of the Centralized e-IPO system, MAccess-CDC Access Mobile Application-that offers the investors convenience of managing their accounts through mobile phones and an eDividend repository in line with provisions of Companies Act, 2017.[242]

Being an electronic book-entry system makes CDS vulnerable to IT security risk. To ensure the safety of investor's assets, CDC has put in place sufficient safeguards. This is evinced by the fact that it is an ISO 27001 certified company, ensuring that it has adequate controls in place to ensure information security. Moreover, it has also obtained ISO 22301 and ISAE 3402 certifications, which deal with business continuity management and internal controls. Further, CDC has partnered with 1Link to add the feature of IBAN validation and title fetching mechanism in CDS to ensure synchronization of account titles, thus reducing the operational risk.

Increasing interconnectedness and cybersecurity issues needs joint supervisory attention...

With each year the country's FMIs depict a growing level of interconnectedness. On the one hand it results in efficiency gains in terms of their usage and increasing expediency to consumers, whereas on the other hand, it can potentially pose a higher level of systemic risk. Coupled with this, the global emergence of cyber-security risk may pose a challenge to the smooth and efficient working of these FMIs. Going forward, managing these risks will require further strengthening of entity-level risk management regimes along with regulatory coordination between SBP and SECP. In this regard, Council of Regulators (CoR), a forum for regulatory collaboration, is already actively working.

[241] CDC Newsletter, Oct-Dec, 2018

[242] CDC Newsletters, Jan-Dec, 2017

7 Financial Inclusion and Financial Stability

Pakistan has come a long way in financial inclusion as today branchless banking and m-wallet accounts have expanded the access to far-flung areas of the country. The Microfinance banking sector, the key actor in financial inclusion landscape, continues to perform exceedingly well even in the face of general slowdown in the economy in CY18. MFBs asset base, deposits, advances have shown promising growth and the CAR has improved. From the financial stability perspective, growing financial inclusion poses limited concerns.

Pakistan re-launched the National Financial Inclusion Strategy with renewed commitment during 2018…

Pakistan is one of the pioneers in providing an enabling and conductive policy and regulatory framework for financial inclusion. Considering the benefits associated with enhanced financial inclusion **(See Box 6)**, its longstanding commitment to inclusive finance was stepped up into a comprehensive National Financial Inclusion Strategy (NFIS) in 2015.

NFIS is based on four drivers: (i) promoting digital transaction accounts and reaching scale through bulk payments, (ii) expanding and diversifying access points, (iii) improving capacity of financial service providers, and (iv) increasing levels of financial awareness and capability. Under each category, a set of targets have been identified that are to be achieved by the year 2020. With the renewed commitment of the new government, the magnitude of various targets of NFIS have been revised during 2018, under the 100-days agenda, and the deadline has been extended to 2023 (**See Exhibit**)

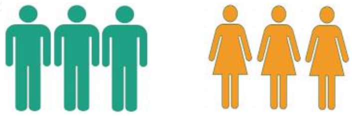
Exhibit: Revised Targets under NFIS

Enhance Usage of Digital Payments

65 million active accounts

Active Digital Transaction Accounts

45 million 20 million



Enhance Deposit to GDP ratio

55 percent

Increase share of Islamic Banking

25 percent of banking industry

Increase share of Islamic Banking Branches

30 percent of banking industry

Promote SME Finance

Financing 700,000 SMEs

Increase share of SME financing

17 percent of Total Private Sector Credit

Promoting Agri Finance through Digitalized Solutions

Serving 6 million farmers

Enhance Annual Disbursement

NFIS envisages utilizing all possible channels…

A common misconception is that only Microfinance institutions are responsible for banking the unbanked. However, all financial institutions including banks and non-banks have their role to play in enhancing financial depth and breadth. This is the reason that NFIS has envisaged utilization of all possible channels for increasing access.

Commercial banks facilitating in Financial Inclusion agenda, though at a slower pace …

To achieve the targets set under NFIS, the banks are also aiding by expanding the branch network, deposit base and financing to SME, Housing and Agriculture sectors. During CY18, banks have increased their branch network by 5 percent to 15,346.[243] Under SME financing, the number of borrowers have increased by 8.7 percent to 177,796 while financing has grown by 12.39 percent.

Housing finance, however, has decelerated recording a growth of 21.62 percent in CY18 compared to an increase of 31.85 percent in the previous year. Among others, the challenging economic environment seems to be having an impact on housing finance. Nevertheless, the number of borrowers have inched up by 9 percent to reach 16,320 in CY18. Agriculture financing, on the other hand, has reduced by 2.44 percent in CY18 **(See Chapter 3.1)**.

SBP, cognizant of the need to keep up the pace of NFIS, has taken several measures to promote priority sector financing. It has provided indicative targets to the banks & DFIs to achieve the goal of SME financing equivalent to 17 percent of total private sector credit by 2023. In case of low cost housing, SBP has announced "Financing Facility for Low Cost Housing for Special Segments" at concessional rate.[244] Further to its efforts, a National Financial Literacy Program (NFLP) has been launched.

The Microfinance sector is the biggest player of financial inclusion landscape in Pakistan…

Microfinance Banks (MFBs) remains a pivotal player in the financial inclusion landscape in Pakistan. MFBs constitute almost 70 percent of the total loan portfolio of the microfinance sector followed by Microfinance Institutions (MFIs) with 20 percent share. [245]

The assets of MFBs have increased by 32.7 percent during the CY18 compared to a 7 percent increase in assets of commercial banks **(Table 7.1 & Chart 7.1)**. Accordingly, share of MFBs' assets in the total banking sector assets has reached to 1.62 percent in CY18 from 1.31 percent in CY17 (0.57 percent in CY14).

Table 7.1: Financial Soundness Indicators

	CY14	CY15	CY16	CY17	CY18
	Key variables (PKR Billion)				
Total Assets	70	97	170	247	328
Investments (net)	15	13	33	49	55
Advances (net)	37	55	88	134	185
Deposits	43	63	120	186	239
Borrowings from FIs	9	11	14	14	21
Lending to FIs	1	3	2	5	11
Equity	15	18	24	33	49
Profit Before Tax	2	3	4	8	8
Profit After Tax	1	2	3	5	5
NPLs	0	1	2	2	5
NPLs (Net of Provsions)	0	0	0	(1)	0
	Key FSIs (Percent)				
NPLs to Loans (Gross)	1.16	1.32	2.45	1.50	2.52
Net NPLs to Net Loans	0.13	0.16	0.34	(0.38)	0.20
Net NPLs to Capital	0.34	0.47	1.20	(1.49)	0.74
Provision to NPL	88.72	88.26	86.36	124.60	92.06
ROA (After Tax)	1.74	2.45	2.08	2.60	1.40
ROE (After Tax)	7.97	11.99	12.51	18.81	9.42
CAR	37.70	29.12	23.71	21.44	22.65
Advances to Deposit Ratio	85.4	86.7	73.0	72.0	77.69

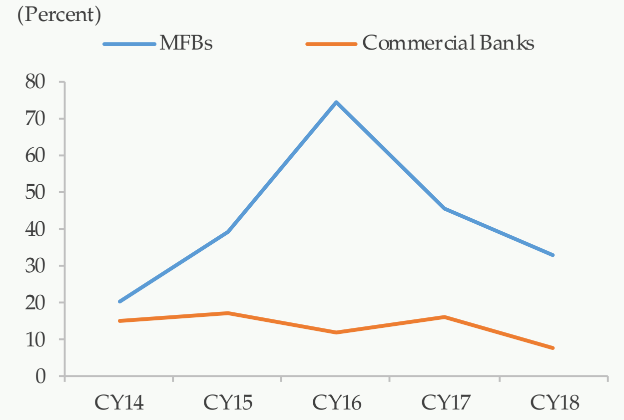
Source:SBP

[243] As per SBP branch licensing policy, the required composition of the branches is 49 percent in Big Cities, 29 percent in other than big cities, 17 percent in rural and underserved areas and 5 percent in un-banked areas. BPRD Circular No. 04 of 2016 available at : http://www.sbp.org.pk/bprd/2016/C4.htm

[244]IH&SMEFD Circular No. 5 of 2019 available at:: http://www.sbp.org.pk/smefd/circulars/2019/C5.htm

[245] Microfinance connect quarterly review 2018

Chart 7.1: Growth in MFBs versus commercial banks' assets



Source: SBP

Advances of MFBs have recorded a healthy growth of 38.6 percent during CY18, while number of loans have increased by 40 percent to 2 million. As a result, the share of MFB loans has increased to 2.25 percent of banking sector loans in CY18 as compared to 1.99 percent in CY17.

MFBs are effectively playing the intermediary role as the ADR improved by 5.7 percentage points to 77.7 percent in CY18. This improvement, among other factors, has come on the back of 20 percent growth in the number of MFBs clients, which have increased to 3,169,785 in CY18.

The microfinance banking sector is maturing…

The MFBs started their business with group lending model. Over the years, the financing model has shifted from the solidarity groups to individual lending. At the end of CY18, the share of individual financing in total financing has reached to 71.76 percent from 65.14 percent in CY17. This increase is attributed to maturity attained by microfinance industry and the development of effective borrower assessment criteria. The adoption of technology by MFBs and increase in financial literacy among the lower income strata is also helping MFBs to focus on individual lending rather than group lending.

The deposit growth momentum accelerates helping MFBs attain self-sufficiency in funding…

The deposit base of MFBs has been expanding helping them achieve self-sufficiency in their funding requirements **(Table 7.1)**. During CY18, the deposits have increased by 28.37 percent in comparison to 54 percent in CY17. Encouragingly, the composition of deposits is tilting towards individuals who now have 58 percent share in total deposits, while the institutions account for about 36 percent. The increase in deposits from individuals has recorded another increase of 23 percent during CY18. This high growth trend has facilitated in providing a more stable and steady funding to MFBs.

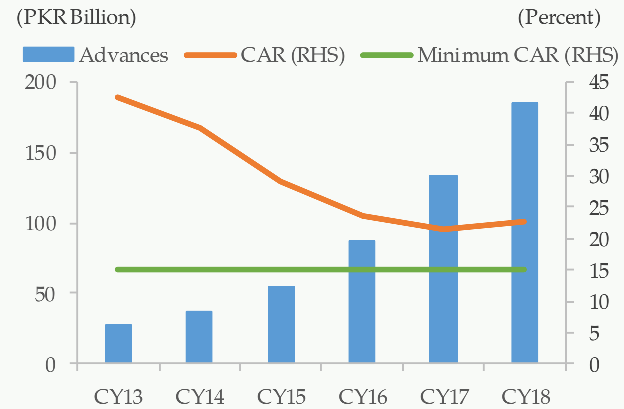
…though concentration in deposits is still relatively high

The healthy growth in deposits as well as the change in its composition is encouraging because it is supporting the asset growth. However, the concentration in deposits of MFBs remains relatively high as the top 25 depositors constitute around 35 percent of the total deposits.

Despite some dip in profitability, capital adequacy of MFBs has improved ….

The profitability of the MFBs has observed some decrease during CY18 despite rise in earning assets. This is mainly due to increase in provision expense resulting from high defaults in MFBs' exposure to sugar sector. As a result, the profitability indicators have dipped during CY18 (Table 7.1). The CAR of MFBs has, however, improved by about 1 percentage point to 22.65 percent in CY18. Injection of fresh capital and rise in retained earnings and reserves contributed to the improved CAR. **(Chart 7.2)**.

Chart 7.2: Growth in advances and reduction in CAR



Source: SBP

Expansion in Digital Financial Services (DFS) is changing the financial landscape…

With the advancements of new technologies, the scale of disruption in the banking industry is unprecedented across markets, distribution channels and product lines. Significant penetration of digital channels like mobile phone, smart cards, internet, and other technologies are resulting in new innovative business models that deliver financial services at lower prices, efficiently and with broader customer reach.

SBP has taken various initiatives in recent past for promotion of digital payment channels in the country. Some of the measures include: development of a strong legal and regulatory framework; robust payment systems infrastructure; Real Time Gross Settlement (RTGS) system; fully interoperable ATM switches; fast growing internet, mobile and branchless banking services along with plastic cards (ATM only, Debit, Credit and Pre-Paid cards). All these initiatives are opening new areas of possibilities in the Business-to-Business (B2B), Business-to-Customer (B2C), Government-to-Person (G2P) payments and Person-to-Government (P2G) payments. Because of these efforts, the share of digital payments is trending upward in Pakistan. **(See Chapter 6)**. Currently, the share of e-Banking channels i.e. real time online branches (RTOB), ATMs, e-Commerce, Internet, Mobile Phone and Call Centers/ IVR Banking in total transactions processed is around 8 percent.

In order to foster innovation in the payments industry and promote financial inclusion, SBP has issued the regulations for 'Electronic Money Institutions'.[246] Under these regulations, SBP has decided to license non-banking entities as E-Money Institutions (EMIs). Likewise, an "Innovation Challenge Facility" has been launched in May 2019 to facilitate stakeholders to develop innovative digital solutions[247].

Branchless Banking, the core of DFS, is continuing its growth momentum…

With the advent of Branchless Banking (BB) and M-wallet accounts, MFBs have gradually leveraged the potential of reaching to masses without physical outreach through brick and mortar branches. Rapid outreach and lower operational costs have accelerated the growth of branchless banking. Especially, the launch of the Asaan Mobile Account (AMA) Scheme will further enable account opening and usage of financial services through an interoperable platform for the low income demographic.[248] A look at the performance of BB during the CY18 reveals that the positive momentum of growth in the number of accounts has continued recording 26.58 percent growth and reaching to 47 million during the year. Similarly, the BB deposits have grown by 12 percent during the year **(Table 7.2)**.

[246] PSD Circular No. 01 of 2019 available at:: http://www.sbp.org.pk/psd/2019/C1.htm

[247] ACMFD Guidelines of 2019 available at: http://www.sbp.org.pk/Guidelines/ACMFD/2018/DFS-Guidelines.pdf

[248] ACMFD Guidelines of 2019 available at: http://www.sbp.org.pk/Guidelines/ACMFD/2018/DFS-Guidelines.pdf

Table 7.2: Branchless Banking Indicators

	CY17	CY18	YoY Growth (Percent)
Number of Agents	405,673	425,199	4.81
Number of Accounts	37,260,215	47,164,779	26.58
Deposits (Rupees in Million)	21,139	23,678	12.01
Number of transactions (No. in 000's)	647,615	955,044	47.47
Value of transactions (Rupees in million)	2,804,008	3,659,075	30.49
Average number of transactions per day	1,798,929	2,652,902	47.47

Source: SBP

On the usage front, the number of transactions during the period and the average number of transactions per day have shown growth of 47 percent and 41 percent, respectively, during CY18.

SBP cognizant of its responsibilities has put in place a robust risk-based customer due diligence approach to ensure that the integrity of the branchless banking channels. Based on the category of account, the Customer Due Diligence (CDD) requirements include verification of customer particulars from NADRA, biometric verification, transaction limits and maximum balance limits.[249]

There is still untapped potential for the BB players….

Despite the sustained growth in BB sector there is still a plenty of untapped potential to expand further the BB services in the country. Creation of an interoperable digital ecosystem, enhanced financial literacy, promotion of products and registration of new users, expanding the value added services in the product offerings are some of the challenges that BB players need to overcome to maximize true positive impact of digital financial services.

The expanding financial inclusion poses limited financial stability concerns…

There is growing evidence in the literature that financial inclusion can have mixed effects on the financial stability of the system. Some of the positive effects include broadening of banking industry's assets, diversifying its depositor base and better transmission of monetary impulses etc.[250] On the contrary, risk level may rise from rapid credit growth associated with new financial inclusion institutions and instruments, and from inadequate or lack of regulations especially in view of rapid acceleration in digital financial services.

Since in Pakistan, the strategy for financial inclusion is supported by a well-defined regulatory and supervisory architecture and the risk-based customer due diligence (CDD) the negative externalities arising from the increase in depth and breadth of financial services are limited.

Way forward…

The revised NFIS targets, including the gender balance, set under the 100-day agenda of the current government require concerted efforts of all stakeholders. Therefore, there is a need to remain engaged with them to achieve the common goals.

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[249] BPRD Circular No. 9 of 2016; http://www.sbp.org.pk/bprd/2016/C9.htm

[250] Mehrotra, Aaron, and James Yetman. "Financial Inclusion - Issues for Central Banks." The Bank for International Settlements, 18 Mar. 2015, www.bis.org/publ/qtrpdf/r_qt1503h.htm.

Box 7: Financial Inclusion

Financial inclusion has been established as a universal mean to deliver a suite of useful, cost effective and quality financial services to unbanked individuals and businesses in order to meet their needs of transactions, savings, payments, credit and insurance etc. The concept of financial inclusion has evolved over the time. It goes beyond the simple concept of opening new banking accounts to having access to a full suite of quality financial services.

Enhancing the breadth and depth of financial services can significantly contribute in poverty alleviation, uplifting living standards, reduce income inequality and provide resilience to absorb financial shocks. Despite the integral part of financial inclusion in grass root development, majority of people have either no or limited access to quality financial services especially in developing countries.

In order to reap the aforementioned benefits, policy makers focus on increasing access, usage and quality of financial services by providing enabling prudential and legal framework to the practitioners.

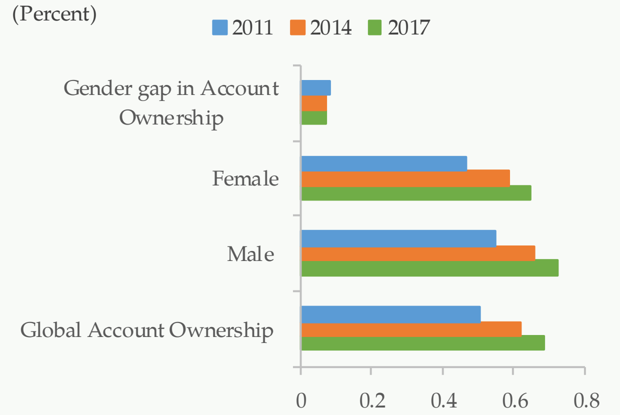
Policymakers to enhance financial inclusion broadly focus on three key areas i.e. Access, Usage and Quality.

Access….

According to Findex database 2017, 1.2 billion people have gotten formal access to a financial account since 2011. Of this more than half a billion people have gained access in the last three years.

Though there are tangible gains in financial inclusion over the last few years **(Chart 1)**, however, almost one–third of the global adult population i.e. 1.7 billion adults, still do not have a formal bank account.[251] The identified reasons for low financial inclusion includes mistrust of people on financial institutions, capacity and ambition of financial services provider to reach large scale.[252]

Chart 1: Global account ownership



Source: Findex data, 2017

Access to a basic transaction account is considered a gateway to broader financial inclusion since it allows people to come in contact with financial services like sending, receiving and storing of money. It is more likely that people will use other financial services like insurance and credit once they become accountholders.

Technology and rapid innovation in digital financial services have been great drivers of access and inclusion. GSMA calculates that around 1.3 billion dollars' worth transactions are processed through mobile phones in 90 countries every day.[253] The extensive use and capabilities of mobile phones and access points have transformed the concept from requiring people to physically accessing financial

[251] "Global Financial Inclusion (Global Findex) Database." | Data Catalog, 19 Apr. 2018, datacatalog.worldbank.org/dataset/global-financial-inclusion-global-findex-database.

[252] "Pakistan Enigma: Why Is Financial Inclusion Happening So Slowly?" CGAP, www.cgap.org/blog/pakistan-enigma-why-financial-inclusion-happening-so-slowly.

[253] "State of the Industry Report - Mobile for Development." Mobile for Development, www.gsma.com/r/state-of-the-industry-report/.

institution into brining financial access to their doorsteps.

Usage…

A head start on access to financial services is a good step in the first place, however, it is not enough to contribute positively to the financial capability of the poor. Using a financial account is different from only having it. Findex, 2017 data shows that globally around one-fifth of the accounts remained inactive, no deposit or withdrawal were made, during the past 12 months. Countries like China, Thailand and Kenya have expanded their financial access to more than 80 percent. However, with increased focus on the financial access an even greater focus is needed on the usage of these accounts.

The introduction and usage of digital technologies has increased financial inclusion as it lowered the costs of initiating and maintaining financial relationships for both institutions and consumers. Overcoming challenges such as digitizing the government to person transfers and wages can help in improving the access and usage of the accounts.

Quality…

Customization and development of financial products and services to cater to the needs of the poor and the first time users is another important dimension integral, for improvement in financial inclusion. Targeting segments like women and poor living in the rural areas with quality and tailored financial products can augment the access and usage of the financial inclusion.

Financial capability is the knowing and understanding of how to use the available financial service that plays an important role in building a wholesome financial inclusion experience. Products based on technology ideally should be simple, convenient, reliable, and friendly. Coupling the provision of quality and customized products with increasing the financial capability of the customer can lead to better financial inclusion impacts.

Appendix A

Revision in 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. The index has been initially developed on yearly basis; however, the frequency was increased to quarterly basis in FSR 2017. For the current year, few more modifications have been made in the FSVI in terms of coverage, indicators and methodology.

In addition to the four areas of risk initially covered in FSR 2016, the scope of FSVI for 2018 has been enhanced by incorporating three more sectors. These include Development Finance Institutions (DFIs), Non-Banking Financial Institutions (NBFIs) and Insurance sector. In addition, some indicators have been added/removed, to avoid duplication and to improve risk coverage. See Table 1 below for details.

While the new FSVI continues to be largely based on the methodology described in Aikman et. al. (2015)[254], few alterations have been made in the aggregation procedure of the index. Previously, z-scores at aggregate level were scaled between 0 and 1 using the empirical cumulative distribution function (ECDF). This meant that the highest point, at the aggregate level, were bound to be ranked 1 (highest risk). As a result, the financial vulnerability could have been overestimated. To correct this deficiency, the revised methodology carries out the scaling at indicator level rather than at aggregate level. The consolidated index is derived by taking simple averages of all the scaled indicators. The revised methodology ensures that the highest rank of 1 is assigned only if all of the underlying indicators, simultaneously, perform at their worst levels.

Moreover, the revised methodology makes the results of FSVI consistent with other composite indicators, such as the Banking Sector Stability Map (BSSM), used in the FSR.

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254 https://www.federalreserve.gov/econresdata/feds/2015/files/2015059pap.pdf

Table 1: FSVI and FSHM: Risk Areas, Risk Dimensions and Indicators				
Sr. No.	Risk Area	Risk Dimension	Risk Indicator(s)	Impact on Financial Stability
1	Banking	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 = *Loss to NPLs*	Negative Negative Negative
		Earnings (E) $\mathrm{E} = \frac{1}{\mathrm{n}}\sum_{i=1}^{n} e_i,$ $n = 6$	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*	Positive Positive Positive Positive Negative 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 = *Liquid Assets/Short term liabilities*	Positive Positive Positive
		Deposits (D) $D = \frac{1}{n}\sum_{i=1}^{n} d_i,$ $n = 2$	d_1 = *Deposits to Assets* d_2 = *Deposit growth (YoY)*	Positive Positive
		Interconnectedness (I) $I = \frac{1}{n}\sum_{i=1}^{n} i_i,$ $n = 2$	i_1 = *Call lending and borrowing/Total Assets* i_2 = *Financial Liabilities (SBP exclusive)*	Negative Negative
2	Corporate	Corporate Debt	*Debt Burden (average of asset/equity and debt/equity)*	Negative
3	Financial Markets	Foreign Exchange	*Mid-Weight Interbank Exponential Moving Weighted Average (EMWA) Volatility*	Negative
		Money Market	*Overnight Repo Rate Exponential Moving Weighted Average (EMWA) Volatility*	Negative
		Capital Market	*KSE-100 Index Exponential Moving Weighted Average (EMWA) Volatility*	Negative
4	Macro economy	External Sector (Ex) $Ex = \frac{1}{n}\sum_{i=1}^{n} ex_i,$ $n = 3$	ex_1 = *Total Liquid Foreign Reserve Position (with SBP)* ex_2 = *Current Account Balance as Percentage of GDP* ex_3 = *Balance of Trade as Percentage of GDP*	Positive Positive Positive
		Real Sector	*Real GDP Growth*	Positive
		Fiscal Sector	Fiscal Deficit as Percentage of GDP	Negative
		Inflation	CPI inflation	Negative

Table 1: FSVI and FSHM: Risk Areas, Risk Dimensions and Indicators				
Sr. No.	Risk Area	Risk Dimension	Risk Indicator(s)	Impact on Financial Stability
5	DFIs	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	NBFIs	Assets	*Asset Growth (YoY)*	Positive
		Earnings	*Net Sales*	Positive
7	Insurance	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

Acronyms

AEs	Advances Economies
A/E	Asset-Equity Ratio
AC&MFD	Agricultural Credit & Microfinance Department
ADD	Authorized Derivative Dealer
ADR	Advances to Deposit Ratio
AEs	Advanced Economies
AFS	Available-For-Sale
AMA	Asaan Mobile Account
AMCs	Asset Management Companies
AML	Anti Money Laundering
APG	Asia-Pacific Group on Money Laundering
ATM	Automated Teller Machines
AUMs	Assets Under Management
Av.	Average
B2B	Business-to-Business
B2C	Business-to-Customer
BB	Branchless Banking
BC&CPD	Banking Conduct & Consumer Protection Department
BCBS	Basel Committee on Banking Supervision
BCO, 1962	Banking Companies Ordinance, 1962
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
BISP	Benazir Income Support Program
BoD	Board of Directors
BoE	Bank of England
BOP	Balance of Payment
BPRD	Banking Policy and Regulations Department
bps	Basis Points
BSSM	Banking Sector Stability Map
BTF	Balance Transfer Facility
CAELS	Capital Adequacy, Asset Quality, Earnings, Liquidity, Sensitivity
CAGR	Compound average growth rate
CAPTCHA	Completely Automated Public Turing test to tell Computers and Humans Apart
CAR	Capital Adequacy Ratio
CASA	Current Account Savings Account
CBCG	Correspondent Banking Coordination Group
CBCM	Cross Border Currency Movement
CCP	Central Counter Party
CCS	Cross Currency Swaps
CDC	Central Depository Company
CDD	Customer Due Diligence
CDNS	Central Directorate of National Savings
CDS	Central Depository System
CDS	Currency Declaration Systems
CE	Capital Employed
CES	Centralized e-IPO System
CF	Consumer Finance
CFT	Combating the Financing of Terrorism
CGHM	Consumer Grievances Handling Mechanism
CME	Chicago Mercantile Exchange
CNP	Card-not-Present
CNY	Chinese Yuan
CoDs	Certificate of Deposits
COIs	Certificate of Investments
CoR	Council of Regulators
CPEC	China-Pakistan Economic Corridor
CPI	Consumer Price Index
CPMI	Committee for Payments and Market Infrastructure
CRI	Climate Risk Index
CRR	Cash Reserve Requirement
CRWAs	Credit Risk Weighted Assets
CS	Consolidated Supervision
CSD	Central Securities Depository
CSPs	Card Service Providers
CTAR	Capital to Total Assets Ratio
CTR	Currency Transactions Reports
CY	Calendar Year
DB	Defined Benefit
DC	Defined Contribution
DFIs	Development Finance Institutions

DMMD	Domestic Markets & Monetary Management Department
DNFBPs	Designated non-financial business and professions
DNS	Deferred Net Settlement
DPC	Deposit Protection Corporation
D-SIBs	Domestic Systemically Important Banks
DTRS	Derivative Transactions Reporting System
e-banking	Electronic Banking
EBIT	Earnings before interest and taxes
ebitta	Earnings Before Interest and Taxes to Total Assets
EC	Exchange Company
ECA	Full-fledged Exchange Company
ECAIS	External Credit Assessment Institutions
ECB	B Category Exchange Company
ECDF	Empirical Cumulative Distribution Function
e-CIB	Electronic Credit Information Bureau
EFT	Electronic Fund Transfer
EM	Executive Management
EMDEs	Emerging Market and Developing Economies
EMEs	Emerging Market Economies
EMI	E-Money Institution
EMV	Europay, Mastercard and Visa
EMWA	Exponential Moving Weighted Average
EOBI	Employees Oldage Benefit Institute
EPD	Exchange Policy Department
EPU	Economic Policy Uncertainty Index
eqtyta	Equity to Total Assets
ER	Exchange Rate
EU	European Union
EWIs	Early Warning Indicators
EWMA	Exponential Moving Weighted Average
FATF	Financial Action Task Force
FBR	Federal Board of Revenue
FCY	Foreign Currency

FDBR	Financial Derivative Business Regulations
FDI	Foreign Direct Investment
FEM	Fixed Effect Model
FERA	Foreign Exchange Regulations Act , 1947
FFSAP	Financing Facility for Storage of Agriculture Produce
FIRA, 2016	Financial Institutions (Recovery of Finances) Amendment Act, 2016
FIs	Financial Institutions
FMI	Financial Market Infrastructure
FMU	Financial Monitoring Unit
FoF	Fund of Funds
FRA	Forward Rate Agreement
FSB	Financial Stability Board
FSD	Financial Stability Department
FSEC	Financial Stability Executive Committee
FSHM	Financial Sector Heat Map
FSI	Financial Soundness Indicators
FSR	Financial Stability Review
FSRB	FATF-Style Regional Body
FSVI	Financial Sector Vulnerability Index
FX	Foreign Exchange
FY	Financial Year
FY	Fiscal Year
G2P	Government-to-Person
GARP	Global Association of Risk Professionals
GBP	Great British Pound
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GEPU	Global Economic Policy Uncertainty
GFC	Global Financial Crisis
GIFR	Global Islamic Finance Report
GNPLR	Gross Non-Performing Loans Ratio
GoP	Government of Pakistan
GP	General Partner
GPR	Geopolitical Risk Index
G-SIBs	Global Systemically Important Banks
H2	Second Half of Calendar Year

HFT	Held-For-Trading
HHI	Herfindahl-Hirschman Index
HIF	Health Insurance Fund
HP Filter	Hodrick-Prescott Filter
HRA	Home Remittance Account
I&I Inland Revenue	Intelligence and Investigation - Inland Revenue
IAs	Investment Advisors
IB	Islamic Bank
IBAN	International Bank Account Number
IBD	Islamic Banking Department
IBFT	Inter Bank Fund Transfer
IBIs	Islamic Banking Institutions
ICE	Inter Continental Exchange
ICO	Initial Coin Offering
ICR	Interest Coverage Ratio
ICRG	FATF's International Cooperation Review Group
IFCs	Investment Finance Companies
IFIs	Islamic financial institutions
IFSB	Islamic Financial Services Board
IFSI	Islamic Financial Services Industry
IFT	Interbank Fund Transfers
IGC	International Growth Centre
IH&SMEFD	Infrastructure, Housing & SME Finance Department
ILF	Investment-Linked Fund
ILF	Intra-Day Liquidity Facility
ILTFF	Islamic Long Term Financing Facility
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IPO	Initial Public Offering
IRR	Internal Rate of Return
IRR	Interest Rate Risk
IRS	Interest Rates Swaps
IRSA	Indus River Systems Authority
IT	Information Technology
JTF	Joint Task Force
KIBOR	Karachi Inter-Bank Offered Rate
KMI	Karachi Meezan Index
KPK	Khyber Pakhtunkhwa
KSE	Karachi Stock Exchange
KYC	Know Your Customer
LBO	Leveraged Buyout
LEAs	Law Enforcement Agencies
LHS	Left Hand Side
LOU	Letter of Understanding
LP	Limited Partner
LSM	Large Scale Manufacturing
LTA	Look-Through Approach
LTFF	Long Term Financing Facility
LTL	Long-Term Liability
LVPS	Large Value Payment Systems
M&A	Merger and Acquisition
MCR	Minimum Capital Requirement
MENA	Middle East and North Africa
MENAP	Middle-East, North Africa, Afghanistan and Pakistan
MER	Mutual Evaluation Report
MFBs	Microfinance Banks
MFS	Margin Financing Scheme
ML/TF	Money Laundering/Terrorist Financing
MMCs	Modaraba Management Companies
MMFs	Money Market Funds
MNSBs	Multilateral Net Settlement Batches
MoF	Ministry of Finance
MOU	Memorandum of Understanding
MPS	Micro-Prudential Supervision
MRWA	Market Risk Weighted Assets
MSCI	Morgan Stanley Capital International
MSCI EM	Morgan Stanley Capital International Emerging Markets
MTBs	Market Treasury Bills
MTM	Mark to Market
MTO	Money Transfer Operator
MTS	Margin Trading Scheme
MUFAP	Mutual Funds Association of Pakistan
MVTS	Money or Value Transfer Services
M-wallet	Mobile Wallet
NA	Not Applicable
NADRA	National Database and Registration Authority

NAFTA	North American Free Trade Agreement
NAV	Net Asset Value
NBFCs	Non-Banking Finance Companies
NBFIs	Non-Bank Financial Institutions
NBMFCs	Non-bank Microfinance Companies
NCCPL	National Clearing Company of Pakistan Limited
NCDF	Normal Cumulative Distribution Function
NCSS	National Clearing and Settlement System
NFA	Net Foreign Assets
NFAS	Non-Financial Advisory Services
NFCI	National Financial Conditions Index
NFF	Non-Financial Firms
NFIS	National Financial Inclusion Strategy
NFLP	National Financial Literacy Program
NFSC	National Financial Stability Council
NGOs	Non-Governmental Organization
NI	Net Income
NIFT	National Institutional Facilitation Technologies (Pvt.) Limited
NII	Net Interest Income
NIM	Net Interest Margin
NMI	Non Market Maker Financial Institutions
NPF	Non-performing Financing
NPLR	Non-Performing Loan Ratio
NPLs	Non-Performing Loans
NR3C	National Response Center for Cyber Crime
NRA	National Risk Assessment
NSS	National Savings Schemes
O/N	Overnight Rate
OBOR	One Belt One Road
OD	Overdue
OECD	Organization for Economic Co-operation and Development
OL	Ordinary Life
OMOs	Open Market Operations
OPEC	Organization of the Petroleum Exporting Countries
ORWAs	Operational Risks Weighted Assets
OTC	Over The Counter
P/E	Price-Earning Ratio
P2G	Person-to-Government
PAMA	Pakistan Automotive Manufacturers Association
PBA	Pakistan Banks Association
PBIT	Profit Before Interest and Taxes
PBT	Profit Before Tax
PD	Product Development
PDs	Probabilities of Default
PE	Private Equity
PE&VC	Private Equity and Venture Capital
PFMI	Principles for Financial Market Infrastructures
PIBs	Pakistan Investment Bonds
PIPE	Private Investment in Public Companies
PKR	Pakistani Rupee
PMEX	Pakistan Mercantile Exchange Limited
PMIC	Pakistan Microfinance Investment Companies
PMRC	Pakistan Mortgage Refinance Company
PO	Pecking Order Theory
PORs	PRISM Operating Rules
POS	Point Of Sale
PPAP	Pakistan Poverty Alleviation Fund
PRI	Pakistan Remittance Initiative
PRISM	Pakistan Real-Time Interbank Settlement
PRs	Prudential Regulations
PSA	Private Sector Advances
PSD	Payment Systems Department
PSDP	Public Sector Development Programme
PSEFT	Payment Systems And Electronic Fund Transfer
PSEs	Public Sector Entities
PSO	Payment System Operator
PSP	Payment Service Provider

PSX	Pakistan Stock Exchange
QE	Quantitative Easing
REER	Real Effective Exchange Rate
REIT	Real Estate Investment Trust
retta	Retained Earnings to Total Assets
RHS	Right Hand Side
RMCs	REIT Management Companies
RO	Representative Offices
ROA	Return on Assets
ROI	Return on Investment
RSPs	Rural Support Programs
RTF	Remittance Task Force
RTGS	Real Time Gross Settlement
RTOB	Real Time Online Branches
RTOB	Real Time Online Banking
RVPS	Retail Value Payment Systems
S&A	Subsidiaries and Associated Undertakings
S&DWH	Statistics & Data Warehouse Department
S&P	Standard & Poor's
S&P GSCI	Standard and Poor Goldman Sachs Commodity Index
SAARC	The South Asian Association for Regional Cooperation
salesta	Sales to Total Assets
SB	Shari'ah Board
SBP	State Bank of Pakistan
SCD	Shari'ah Compliance Department
SCRA	Special Convertible Rupee Account
SEANZA	South East Asia, New Zealand, Australia Forum
SECP	Securities and Exchange Commission of Pakistan
SECP	Securities & Exchange Commission of Pakistan
SGF	Settlement Guarantee Fund
SIPs	Systemically Important Payment Systems
SLB	Securities Lending and Borrowing
SLR	Statutory Liquidity Requirement
SMEs	Small & Medium Enterprises
SRS	Systemic Risk Survey
SSS	Securities Settlement System
STRs	Suspicious Transactions Report
sVaR	Stressed Value at Risk
SWIFT	Society For Worldwide Interbank Financial Telecommunication
TA	Technical Assistance
T-Bill	Treasury Bills
TDR	Term Deposit Receipt
TF	Terrorism Financing
TFC	Term Finance Certificate
TFS	Targeted Financial Sanctions
TO	Trade-Off Theory
TRWAs	Total Risk Weighted Assets
UAE	United Arab Emirates
UK	United Kingdom
UNSC	United Nations Security Council
US	Unites States
USD	US Dollar
VaR	Value at Risk
VC	Venture Capital
VPS	Voluntary Pension Scheme
WADR	Weighted Average Deposit Rate
WALR	Weighted Average Lending Rate
wcta	Working Capital to Total Assets
WEO	World Economic Outlook
WHRF	Warehouse Receipt Financing
WMP	wealth-management-product
WTOs	Window Takaful Operators
WWF	Workers Welfare Fund
YoY	Year on Year
YTD	Year To Date

Annexures

Annexure I - Balance Sheet and Profit & Loss Statement of Banks

PKR million

BALANCE SHEET	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
ASSETS					
Cash & Balances With Treasury Banks	723,664	909,429	1,184,521	1,303,914	1,574,551
Balances With Other Banks	149,631	198,395	168,394	156,332	147,829
Lending To Financial Institutions	429,380	360,772	551,695	604,990	909,754
Investments - Net	5,309,630	6,880,765	7,509,164	8,729,019	7,913,923
Advances - Net	4,447,300	4,815,827	5,498,813	6,512,485	7,955,195
Operating Fixed Assets	277,030	310,102	336,376	395,246	437,235
Deferred Tax Assets	67,077	65,644	64,681	72,354	81,082
Other Assets	702,550	602,301	517,412	567,205	662,485
TOTAL ASSETS	**12,106,261**	**14,143,234**	**15,831,058**	**18,341,545**	**19,682,054**
LIABILITIES	-	-	-	-	-
Bills Payable	137,651	145,089	182,858	218,588	243,237
Borrowings From Financial Institution	1,001,447	1,766,145	1,942,458	3,125,432	3,001,186
Deposits And Other Accounts	9,229,773	10,389,260	11,797,867	13,011,778	14,254,210
Sub-ordinated Loans	44,329	51,366	59,330	64,703	111,713
Liabilities Against Assets Subject To Finance Lease	33	50	41	21	7
Deferred Tax Liabilities	37,149	47,622	61,109	44,684	34,557
Other Liabilities	448,432	420,935	434,598	495,549	631,529
TOTAL LIABILITIES	**10,898,816**	**12,820,468**	**14,478,261**	**16,960,755**	**18,276,439**
NET ASSETS	**1,207,445**	**1,322,767**	**1,352,797**	**1,380,790**	**1,405,615**
NET ASSETS REPRESENTED BY:			-	-	
Share Capital	587,053	619,862	579,882	516,013	541,040
Reserves	189,242	192,039	205,314	271,448	315,570
Unappropriated Profit	227,151	290,908	344,615	410,371	433,205
Share Holders' Equity	**1,003,446**	**1,102,809**	**1,129,812**	**1,197,832**	**1,289,816**
Surplus/Deficit On Revaluation Of Assets	203,999	219,958	222,985	182,958	115,799
TOTAL	**1,207,445**	**1,322,767**	**1,352,797**	**1,380,790**	**1,405,615**
PROFIT AND LOSS STATEMENT	**Dec-14**	**Dec-15**	**Dec-16**	**Dec-17**	**Dec-18**
Mark-Up/ Return/Interest Earned	919,821	981,760	938,026	998,671	1,153,383
Mark-Up/ Return/Interest Expenses	504,990	485,575	453,232	499,819	608,309
Net Mark-Up /Interest Income	**414,830**	**496,185**	**484,793**	**498,851**	**545,074**
Provisions & Bad Debts Written Off Directly/(Reversals)	25,323	38,874	5,305	3,706	36,201
Net Mark-Up /Interest Income After Provision	**389,507**	**457,311**	**479,489**	**495,146**	**508,873**
Fees, Commission & Brokerage Income	70,421	82,640	90,266	102,898	112,852
Dividend Income	14,098	16,910	17,187	17,875	13,589
Income From Dealing In Foreign Currencies	28,396	22,824	14,015	14,308	25,981
Other Income	54,434	86,369	74,260	52,565	25,698
Total Non - Markup /Interest Income	**167,349**	**208,743**	**195,728**	**187,646**	**178,121**
	556,856	666,053	675,217	682,791	686,993
Administrative Expenses	304,588	330,006	356,183	387,878	430,375
Other Expenses	5,726	7,231	5,003	4,417	5,068
Total Non-Markup/Interest Expenses	**310,313**	**337,237**	**361,186**	**392,295**	**435,444**
Profit before Tax and Extra ordinary Items	246,543	328,817	314,031	290,496	251,550
Extra ordinary/unusual Items - Gain/(Loss)	3.79	0.51	0.27	23,717.35	9,015.91
PROFIT/(LOSS) BEFORE TAXATION	**246,539**	**328,816**	**314,030**	**266,779**	**242,534**
Less: Taxation	83,171	129,811	124,117	108,987	93,194
PROFIT/(LOSS) AFTER TAX	**163,368**	**199,006**	**189,914**	**157,792**	**149,340**

Annexure II - Financial Soundness Indicators of the Banking Sector

percent

Indicators	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
CAPITAL ADEQUACY					
Risk Weighted CAR^	17.08	17.34	16.17	15.83	16.19
Tier 1 Capital to RWA	14.27	14.39	13.02	12.94	13.24
Capital to Total Assets	9.97	8.42	7.80	7.15	7.14
ASSET QUALITY					
NPLs to Total Loans	12.27	11.36	10.06	8.43	7.97
Provision to NPLs	79.82	84.95	85.05	87.24	83.80
Net NPLs to Net Loans	2.74	1.89	1.64	1.16	1.38
Net NPLs to Capital^^	10.11	7.66	7.32	5.77	7.83
EARNINGS					
Return on Assets (Before Tax)	2.22	2.51	2.10	1.56	1.31
Return on Assets (After Tax)	1.47	1.52	1.27	0.93	0.81
ROE (Avg. Equity& Surplus) (Before Tax)	24.29	25.83	23.86	19.51	17.39
ROE (Avg. Equity &Surplus) (After Tax)	16.10	15.63	14.43	11.55	10.71
NII/Gross Income	71.29	70.39	71.24	72.67	75.37
Cost / Income Ratio	53.32	47.84	53.07	57.14	60.21
LIQUIDITY					
Liquid Assets/Total Assets	49.15	53.81	53.73	53.97	48.69
Liquid Assets/Total Deposits	64.47	73.25	72.10	76.08	67.23
Advances/Deposits	48.18	46.35	46.61	50.05	55.81

^ 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.

Annexure III - List of Banks

Dec-17	Dec-18
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 Summit Bank Ltd
20 United Bank Ltd.	20 United Bank Ltd.
C. Foreign Banks (5)	**C. Foreign Banks (5)**
1 Bank of Tokyo - Mitsubishi UFJ, Ltd.	1 Bank of Tokyo - Mitsubishi UFJ, Ltd.
2 Citibank N.A.	2 Citibank N.A.
3 Deutsche Bank AG	3 Deutsche Bank AG
4 Industrial and Commercial Bank of China	4 Industrial and Commercial Bank of China
5 Bank of China Limited	5 Bank of China Limited
D. Specialized Banks (4)	**D. Specialized Banks (4)**
1 Industrial Development Bank Ltd.	1 Industrial Development Bank Ltd.
2 Punjab Provincial Co-operative Bank Ltd.	2 Punjab Provincial Co-operative Bank Ltd.
3 SME Bank Ltd.	3 SME Bank Ltd.
4 Zarai Taraqiati Bank Ltd.	4 Zarai Taraqiati Bank Ltd.
All Commercial Banks (30)	**All Commercial Banks (30)**
Include A + B + C	Include A + B + C
All Banks (34)	**All Banks (34)**
Include A + B + C + D	Include A + B + C + D

Annexure IV - Composition of Islamic Banking Institutions

Dec-17		Dec-18	
	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	MCB Islamic Bank Ltd.
5	Meezan Bank Ltd	5	Meezan Bank Ltd
	Conventional Banks having Islamic Banking Branches		**Conventional Banks having Islamic Banking Branches**
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	Faysal Bank Ltd.
6	Habib Bank Ltd	6	Habib Bank Ltd
7	Habib Metropolitan Bank	7	Habib Metropolitan Bank
8	National Bank of Pakistan	8	National Bank of Pakistan
9	Silk Bank Ltd	9	Silk Bank Ltd
10	Sindh Bank Ltd	10	Sindh Bank Ltd
11	Soneri Bank Ltd	11	Soneri Bank Ltd
12	Standard Chartered Bank	12	Standard Chartered Bank
13	Summit Bank Ltd.	13	Summit Bank Ltd.
14	The Bank of Khyber	14	The Bank of Khyber
15	The Bank of Punjab	15	The Bank of Punjab
16	United Bank Ltd.	16	United Bank Ltd.
	Grand Total 21 (5+16)		**Grand Total 21 (5+16)**

Annexure V - List of Development Finance Institutions (DFIs)

Dec-17	Dec-18
1 House Building Finance Company Limited	1 House Building Finance Company Limited
2 PAIR Investment Company Limited	2 PAIR Investment Company Limited
3 Pak Brunei investment Company Limited	3 Pak Brunei investment Company Limited
4 Pak Libya Holding Company Limited	4 Pak Libya Holding Company Limited
5 Pak Oman Investment Company Limited	5 Pak Oman Investment Company Limited
6 Pak-China Investment Company Limited	6 Pak-China Investment Company Limited
7 Pakistan Kuwait Investment Company (Private) Limited	7 Pakistan Kuwait Investment Company (Private) Limited
8 Saudi Pak Industrial & Agricultural Investment Company Limited	8 Pakistan Mortgage Refinance Company Limited
	9 Saudi Pak Industrial & Agricultural Investment Company Limited

Annexure VI - List of Microfinance Banks (MFBs)

Dec-17		Dec-18	
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	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	The First Micro Finance Bank Limited
11	U Microfinance Bank Limited	11	U Microfinance Bank Limited

Annexure VII - List of Exchange Companies

Full-fledged Exchange Companies	List of Exchange Companies-B^
1 AA Exchange Company (Pvt.) Limited	1 Al Khalij Exchange Company-B (Pvt.) Limited
2 Al-Hameed Int'l Money Exchange (Pvt.) Limited	2 Al-Pine International Exchange Company-B (Pvt.) Limited
3 Al-Rahim Exchange Company (Pvt.) Limited	3 Best Way Exchange Company-B (Pvt.)
4 Al-Saharah Exchange Company (Pvt.)	4 Capital Exchange Company-B (Pvt.) Limited
5 D.D Exchange Company (Pvt.) Limited	5 Chanda Exchange Company-B (Pvt.) Limited
6 Dollar East Exchange Company (Pvt.)	6 Easy Exchange Company-B (Pvt.) Limited. (Formerly Aftab Exchange Company-B (Pvt.) Limited)
7 Fairdeal Exchange Company (Pvt.) Limited	7 Gohar Exchange Company-B (Pvt.) Limited
8 Glaxy Exchange Company (Pvt.) Limited	8 Great Union Exchange Company-B (Pvt.) Limited
9 H&H Exchange Company (Pvt.) Limited	9 International Exchange Company-B (Pvt.) Limited
10 Habib Qatar International Exchange Pakistan (Pvt.) Limited	10 Islamabad Exchange Company-B (Pvt.) Limited
11 HBL Currency Exchange (Pvt.) Limited	11 Karwan Exchange Company-B (Pvt.) Limited
12 Link International Exchange Company (Pvt.) Limited	12 Madina Exchange Company-B (Pvt.) Limited
13 Money Link Exchange Company (Pvt.) Limited	13 Mega Currency Exchange Company-B (Pvt.) Limited
14 Muhammadi Exchange Company (Pvt.) Limited	14 Money Masters Currency Exchange Company-B (Pvt.) Limited
15 NBP Exchange Company Limited	15 Orient Exchange Company-B (Pvt.) Limited
16 Noble Exchange International (Pvt.) Limited	16 Premier Exchange Company-B (Pvt.) Limited
17 Pakistan Currency Exchange Company (Pvt.) Limited	17 Rajgan Exchange Company-B (Pvt.) Limited
18 Paracha International Exchange (Pvt.)	18 Swiss International Exchange Company-B (Pvt.) Limited
19 Paragon Exchange Company (Pvt.) Limited	19 Time Exchange Company-B (Pvt.) Limited
20 PBS Exchange Company (Pvt.) Limited	20 Union Exchange Company-B (Pvt.) Limited
21 Ravi Exchange Company (Pvt.) Limited	21 United Exchange Company-B (Pvt.) Limited
22 Riaz Exchange Company (Pvt.) Limited	22 Universal Exchange Company-B (Pvt.) Limited
23 Royal International Exchange Company (Pvt.) Limited	23 Usman International Exchange Company-B (Pvt.) Limited
24 Sadiq Exchange Company (Pvt.) Limited	24 World Exchange Company-B (Pvt.) Limited
25 Sky Exchange Company (Pvt.) Limited	25 Worldwide Exchange Company-B (Pvt.) Limited
26 Wall Street Exchange Company (Pvt.) Limited	
27 ZeeQue Exchange Company (Pvt.) Limited	

^Scope of business restricted for sale/purchase of foreign currencies)

Annexure VIII - List of Non-Banking Financial Institutions

Asset Management Companies(AMCs)/ Investment Advisors(IAs)

1 786 Investments Limited
2 ABL Asset Management Company Limited
3 AKD Investment Management Limited
4 Alfalah Ghp Investment Management Limited
5 Alliance Investment Management Limited
6 Al-Meezan Investment Management Limited
7 Atlas Asset Management Limited
8 AWT Investment Management Limited
9 BMA Asset Management Company Limited
10 Faysal Asset Management Limited
11 First Capital Investments Limited
12 Habib Asset Management Limited.
13 HBL Asset Management Limited
14 JS Investments Limited
15 Lakson Investments Limited
16 Magnus Investment Advisors Limited
17 MCB-Arif Habib Savings And Investments Limited
18 National Investment Trust Limited
19 NBP Fund Management Limited
20 Pak Oman Asset Management Company Limited
21 Sarmuz Investments Limited
22 UBL Fund Managers Limited

Private Equity & Venture Capital Firms(PE&VC)

1 PNO Capital Limited
2 Ijarah Capital Partners Limited
3 Lakson Investments Limited

REIT Management Companies(RMCs)

1 Arif Habib Dolmen REIT Management Limited
2 AKD REIT Management Company Limited
3 Orange REIT Management Company Limited
4 ISE Towers REIT Management Limited

Leasing Companies

1 Grays Leasing Limited
2 Pak Gulf Leasing Company Limited
3 Primus Leasing Limited
4 Saudi Pak Leasing Company Limited
5 Security Leasing Corporation Limited.
6 Sindh Leasing Company Limited
7 SME Leasing Limited

Investment Finance Companies(IFCs)

1 Escorts Investment Bank Limited
2 First Credit Investment Bank Limited
3 First Dawood Investment Bank Limited
4 Invest Capital Investment Bank Limited
5 LSE Financial Services Limited
6 Pakistan Microfinance Investment Co. Ltd
7 Orix Leasing Pakistan Limited
8 Security Investment Bank Limited

Non-Bank Microfinance Companies (NBMFCs)

1 Agahe Pakistan
2 Akhuwat Islamic Microfinance
3 Amrdo Foundation
4 Balochistan Rural Support Programme
5 Brac Pakistan
6 CSC Empowerment & Inclusion Programme
7 Damen Support Programme
8 FFO Support Program
9 Ghazi Barotha Taraqiati Idara
10 JWS Pakistan
11 Kashf Foundation
12 Micro Options Support Program
13 Mojaz Support Program
14 NRSP
15 Organization For Poverty Reduction And Community Training Program
16 Punjab Rural Support Programme
17 RCDP
18 Saath Microfinance Foundation Pakistan
19 Safco Support Foundation
20 Sarhad Rural Support Programme (Srsp)
21 Sayya Microfinance Company
22 Sindh Rural Support Organization
23 Soon Valley Development Program
24 Thardeep Microfinance Foundation

Modaraba Management Companies(MMCs)

1 Allied Rental Modaraba
2 Awwal Modaraba
3 B.F. Modaraba
4 B.R.R. Guardian Modaraba
5 Elite Capital Modaraba
6 Equity Modaraba
7 First Al-Noor Modaraba
8 First Fidelity Leasing Modaraba
9 First Ibl Modaraba
10 First Imrooz Modaraba
11 First Paramount Modaraba
12 First Punjab Modaraba
13 First Treet Manufacturing Modaraba
14 Habib Metro Modaraba
15 Habib Modaraba
16 KASB Modaraba
17 Modaraba Al-Mali
18 National Bank Modaraba
19 Orient Rental Modaraba
20 Orix Modaraba
21 Pak Modaraba
22 Popular Islamic Modaraba
23 Prudential Modaraba
24 Sindh Modaraba
25 Trust Modaraba
26 UDL Modaraba
27 Unicap Modaraba

Annexure IX - List of Insurance Companies*

Non-Life Insurance Companies

1	Adamjee Insurance Company Limited
2	Alfalah Insurance Company Limited
3	Allianz EFU Health Insurance Limited
4	Alpha Insurance Company Limited
5	Asia Insurance Company Limited
6	Askari General Insurance Company Limited
7	Atlas Insurance Limited
8	Century Insurance Company Limited
9	Chubb Insurance Pakistan Limited
10	Continental Insurance Co. Ltd
11	Crescent Star Insurance Limited
12	East West Insurance Company Limited
13	EFU General Insurance Limited
14	Excel Insurance Company Limited
15	Habib Insurance Company Limited
16	IGI Holdings Limited (formerly IGI Insurance Limited)
17	Jubilee General Insurance Company Limited
18	National Insurance Company Limited
19	New Hampshire Insurance Company - Pakistan Branch
20	PICIC Insurance Limited
21	Premier Insurance Limited
22	Progressive Insurance Company Limited
23	Reliance Insurance Company Limited
24	Security General Insurance Company Limited
25	Shaheen Insurance Company Limited
26	Silver Star Insurance Company Limited
27	Sindh Insurance Limited
28	SPI Insurance Company Limited
29	The Asian Mutual Insurance Company (Guarantee) Limited
30	The Cooperative Insurance Society of Pakistan Limited
31	The Pakistan General Insurance Company Limited
32	The Pakistan Mutual Insurance Company (Gte) Limited
33	The United Insurance Company of Pakistan Limited
34	The Universal Insurance Company Limited
35	TPL Insurance Limited
36	Trafco Insurance Company Limited (Formerly The Credit Insurance Company Limited)
37	UBL Insurers Limited

General Takaful Companies

1	Pak-Kuwait Takaful Company Limited
2	Pak Qatar General Takaful Limited
3	Takaful Pakistan Limited

Life Insurance Companies

1	Adamjee Life Assurance Company Limited
2	Askari Life Assurance Company Ltd. (East West Life Assurance Company Ltd.)
3	EFU Life Assurance Limited
4	IGI Life Insurance Limited
5	Jubilee Life Insurance Company Ltd.
6	State Life Insurance Corporation of Pakistan
7	TPL Life Insurance Limited (Asia Care Health & Life Insurance. Company Ltd.)
8	Postal Life Insurance

Family Takaful Companies

1	Dawood Family Takaful Limited
2	Pak Qatar Family Takaful Limited

Reinsurance Companies

1	Pakistan Reinsurance Company Limited

** This list contains all insurance companies in the insurance sector. In total, there are 37 non-life insurance companies (including National Insurance Company Limited) and 8 life insurance companies (including Postal Life Insurance) besides the aforementioned 3 General Takaful companies and 2 Family Takaful companies.*