FINANCIAL STABILITY REVIEW-2019

State Bank of Pakistan

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Governor's Message

This edition of the Financial Stability Review (**FSR**) is being released at a time when the COVID-19 pandemic has triggered global health and economic crises at a scale unmatched in recent history. All over the world, authorities are battling to save lives and protect the economic well-being of their population. Pakistan's case is no exception.

Prior to the pandemic, CY19 ended with green shoots of economic recovery becoming visible. The stabilization measures adopted helped rein in Pakistan's external and fiscal imbalances and lowered uncertainty among the market participants. As a result, the exchange rate stabilized, foreign exchange reserves surged, the fiscal deficit improved, and economic activity, especially Large Scale Manufacturing, revived. Both local and foreign investors confidently took positions in the equity and bond markets.

The stability of the financial sector improved over the year. The banking sector observed a healthy rise in profitability that further improved its solvency and resilience to shocks. Deposit growth recovered, enabling banks to expand their earning asset base. The non-bank financial sector also demonstrated a reasonable performance, with mutual funds witnessing net inflows. Likewise, the non-financial corporate sector—despite a dip in domestic sales and higher financial charges—preserved its profitability by improving operational efficiency. Thus, not only the economy but also the financial sector was in a much better position by the end of CY19.

The COVID-19 outbreak, however, changed the scenario altogether. In order to contain the pandemic, the world moved towards a Great Lockdown, bringing large segments of the global economy to a halt. According to the IMF, the world output is likely to contract by 3 percent in 2020, making this economic downturn the worst since the Great Depression. As in other countries, the impact of COVID-19 on Pakistan is still unfolding. The country initially moved towards a partial lockdown, amid rising levels of infection. As a result, economic activity experienced slowdown. However, recent easing of restrictions could provide some respite.

In order to limit risks and facilitate stakeholders, State Bank of Pakistan has taken a host of policy measures. Among others, these include substantial monetary easing, offering concessionary financing to save jobs, as well as for health care, SMEs and the export industry, deferring debt servicing, releasing macroprudential buffers, and reducing payment system related costs. A complete list of the measures taken is available on SBP's website.

Going forward, the recovery in the domestic economy will depend upon the severity and duration of the pandemic at home and abroad, as well as the efficacy of containment and revival measures adopted. In such fluid times, it gives us some comfort that capital buffers built over the years have enhanced the resilience of the banking sector, such that stress test results suggest the sector is relatively well-placed to absorb the adverse shocks that could emanate from COVID-19. Nevertheless, there remains considerable uncertainty about the future trajectory of the pandemic and its spillover effects on the economy and financial systems worldwide. As a result, SBP is keeping a close watch on developments and stands ready to take all policy actions necessary to safeguard the economy and financial stability.

Dr. Reza Baqir

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Data Convention and Coverage

The FSR 2019 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 period ending September 30, 2019.

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

The Overview

COVID-19: An unprecedented Global Health Crisis

The year 2020 has begun with a Global Health Crisis (**GHC**) triggered by the coronavirus (**COVID-19**) pandemic. It is causing human fatalities at an unprecedented scale and is threatening to damage the world economy like no other crisis in recent history. Until May 29, 2020, the disease has spread to 216 countries, infecting 5,724,342 persons and causing 359,151 deaths worldwide.[1] The necessary quarantines and social distancing practices adopted across the globe to contain the pandemic have resulted in a Great Lockdown, bringing large segments of the global economy to a complete halt. Consequently, the magnitude and speed of the collapse in global economic activity has been staggering **(see Box 1).**

For instance, oil prices—in response to a contraction in global demand—have sharply declined by 30.07 percent.[2] According to estimates of UNCTAD, the economic shock of COVID-19 has wiped out USD 50 billion of global exports in Feb-2020 alone.[3] The pandemic has injected substantial anxiety into the global financial markets. Equity prices—in several large and small economies—have moved down by 30 percent or more. Credit spreads have surged, particularly for lower rated firms and major short-term funding markets have experienced elevated stress.[4]

According to the IMF, the hybrid demand-supply-financial shock from the GHC is likely to contract global output by 3 percent during 2020; a downward revision of 6.3 percentage points from its Jan-2020 forecast.[5] World trade—amid wider disruptions in global supply chains and precipitous declines in demand—is likely to fall by 13 to 32 percent in 2020.[6] Further, intensification of the economic crisis resulting from the GHC may cause more damage to the global financial stability. According to the IMF, this is the worst economic downturn since the Great Depression.

In order to contain downside risks emanating from COVID-19, several countries—besides international financial institutions—have deployed extraordinary policy measures. These include fiscal stimulus worth about USD 8 trillion and liquidity injections by central banks amounting to over USD 6 trillion.[7]

In Pakistan's case, the impact of COVID-19 is still unfolding. Until May 29, 2020 the virus has infected 66,457 individuals and has caused 1,395 deaths.[8] Being a developing country, already dealing with external and internal imbalances that were beginning to be addressed over the last year, policy space is relatively limited compared to advanced economies. Moreover, due to widespread poverty, weak institutional infrastructure, insufficient health facilities, and low levels of literacy and awareness amongst the public, the implementation of complete lockdowns for an extended period, though important, are practically challenging. Therefore, the country is striving to strike a balance between health and economic concerns.

Having said that, because of a rising level of infection, the country initially imposed partial lockdowns, leading to a near halt in economic activities. Non-essential businesses were closed and domestic supply chains were disrupted. Consequently, the largest sub-sectors of the services sector (like, wholesale, retail trade,

[1] World Health Organization
[2] Brent crude oil prices fell from USD 50.52 per barrel on February 28, 2020 to USD 35.33per barrel on May 29, 2020. West Taxes Intermediate (WTI) oil prices fell from USD 44.83 per barrel on February 28, 2020 to USD 35.32 per barrel on May 29, 2020.
[3] Source: https://news.un.org/en/story/2020/03/1058601
[4] IMF (2020).Global Financial Stability Report, *April.*
[5] IMF (2020). World Economic Outlook. *April*
[6]https://www.wto.org/english/news_e/pres20_e/pr855_e.htm
[7] https://www.imf.org/en/News/Articles/2020/04/15/sp041520-exceptional-times-exceptional-action
[8] http://covid.gov.pk/stats/pakistan

transport, storage, and communication) were severely affected. However, recently the country has moved towards easing of restrictions and opening-up of the targeted sectors of the economy. This could help provide support to the economic activity. Nevertheless, the situation remains uncertain and volatile.

As in other Emerging and Developing Economies (**EMDEs**), the changing risk sentiment of global investors has resulted in net outflows of foreign portfolio investment of around USD 2.8 billion from end February to May 21, 2020.[9] Exchange rate volatility has also increased considerably. The local currency depreciated by 8.19 percent against the greenback during a short span of 6 weeks since end Feb-2020, though it partially recovered afterwards and is now down by 5.90 percent.[10] The KSE-100 index touched the level of 27,228 on March 25, 2020, lowest in the last 5-years, before making a comeback and recovering to the level of 33,931 by May 29, 2020 due to various policy stimuli and participation of investors to take benefit of low valuations. Overall, the impact on the domestic markets has been in line with that observed on average across comparable emerging markets. This suggests that the effects have largely been exogenously driven, with Pakistan's improved fiscal and external fundamentals over the last year helping to contain the fall-out.

Against this backdrop, the federal government, the provincial governments and the State Bank of Pakistan (**SBP**) have taken broad-based and intensive policy measures. The federal government has announced fiscal support equivalent to USD 7 billion.[11] Also, the government has availed financing of USD 1.4 billion under IMF Rapid Financing Instrument (**RFI**).[12] SBP has used a wide variety of the tools at its disposal including monetary easing, release of macroprudential buffers, microprudential regulatory relaxations, facilitation and cost reduction in debt servicing to provide relief to the economy at this difficult time.

The policy rate has been cut by 525 basis points (**bps**), the Capital Conservation Buffer (**CCB**) has been reduced by 100 bps, debt deferral and rescheduling/restructuring has been announced, concessional financing has been made available including for healthcare and avoiding layoffs, and payments system related costs have been reduced. (**See Box 1 for details**). Within its domain, SBP has endeavored to ensure availability of uninterrupted financial services to the public.

Further, in order to assess the implications of the COVID-19 pandemic for financial institutions and to firm up policy response, SBP conducted two surveys in the month of March and April 2020.[13] Besides highlighting the risk of deterioration in the financial health of their clients and its spillover effects, banks estimated around 28.52 percent (PKR 2.51 trillion) of their advances as being at risk. Based on the first survey results, SBP issued an advisory circular to ensure the availability and continuity of financial services (**see Box 1**).

Going forward, the speed and extent of global and domestic economic revival are inextricably tied to the recovery from the breadth and depth of the disease's spread. As such, there is much uncertainty about the severity and duration of the pandemic as well as about the effectiveness of the adopted measures to contain it. Since the pandemic is still unfolding, a longer and more challenging recovery path could be on the cards.

With the continuing challenges posed by the COVID-19 outbreak, the outlook for the domestic

[9] SBP (http://www.sbp.org.pk/ecodata/SCRA_Arch.xls)
[10] The mid weighted exchange rate stood at PKR 154.21 per USD on February 28, 2020, PKR 166.68 per USD on April 17, 2020 and PKR 163.31 per USD on May 29, 2020
[11] World Bank (2020). South Asia Economic Focus. *April*
[12] https://www.imf.org/en/Publications/CR/Issues/2020/04/16/Pakistan-Request-for-Purchase-Under-the-Rapid-Financing-Instrument-Press-Release-Staff-49342
[13] The respondents included banks, Development Financial Institutions (DFIs), and Microfinance Banks (MFBs).

economy has trended downwards. The external account is likely to face some pressures, as around 30 percent of Pakistan's exports are concentrated in countries severely hit by the GHC.[14] At the same time, remittances might also decelerate or even fall.[15] However, weak import demand and lower oil prices are the mitigating factors. The fiscal account is likely to experience elevated pressures due to the rise in relief related expenditures and anticipated decline in revenues due to slowdown in economic activity. Against this backdrop of anticipated marked deterioration in domestic and external macroeconomic environment, Pakistan economy faces weak near-term prospects, with output projected to contract by 1.5 percent in FY20 according to the IMF. [16]

From the financial sector perspective, the impact of COVID-19 could be multifaceted. On the one hand, it would demand the industry to focus on managing the risks associated with the outbreak including health and safety of the employees. On the other hand, it offers opportunities to enhance the digitalization of financial services, such as IT based solutions for provision of credit. In the wake of social distancing practices, the increasing reliance on tech-based solutions also pose cyber security concerns, which the banks and other financial institutions need to manage.

As for the banking sector, if the COVID-19 outbreak prolongs, Non-Performing Loans (**NPLs**) could accelerate, profitability could reduce and solvency could potentially come under pressure. In order to quantify these impacts, stress tests were conducted. The results indicate that under the baseline scenario[17], the solvency of the banking sector could experience some moderation over the simulation horizon of 5-years; however, it is expected to remain well above the domestic regulatory capital benchmark. Under an adverse scenario[18], the banking sector can withstand some severe and protracted downturn induced by adverse global and domestic macroeconomic conditions, including the COVID-19 pandemic. However, the resilience of the small sized banks starts waning towards the end of the simulation period (**see Chapter 4**).

Besides the banking sector, non-bank financial institutions could also face challenging conditions. For instance, the insurance sector could experience stress due to a rise in claims related to life and health segments. Moreover, the disruptions in supply and demand, caused by the pandemic, are likely to dent the cash flows of the corporate sector, which may lead to lower repayment capacity and put pressure on financial stability.

State of financial stability prior to COVID-19

Prior to the COVID-19 outbreak i.e. in CY19, the global economy expanded by 2.9 percent—down from 3.6 percent in 2018. Both, Advanced Economies (**AEs**) as well as EMDEs experienced economic slowdowns. Increased trade tensions, uncertainty of a no deal Brexit, slowdown in China, and idiosyncratic issues in several EMDEs constrained the pace of economic activity across the globe.

The emergence of fading economic prospects in the early months of 2019 prompted major central banks to initiate another rate cutting cycle that was quite synchronized across the world.[19] While it helped limit downside risks to global growth, the resultant easing in financial conditions fueled further build-up of financial vulnerabilities in the form of stretched equity prices, increased financial

[14] World Bank (2020). South Asia Economic Focus. *April*
[15] According to World Bank estimates, remittances could decline by 22.1 percent in South Asia during 2020. https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history
[16] http://www.sbp.org.pk/m_policy/2020/MPS-Apr-2020-Eng.pdf
[17] It assumes that the spread of COVID-19 will be relatively contained and short-lived; mainly limited to the first half of CY20.
[18] The Adverse scenario assumes a protracted and wider spread of COVID-19 in CY20 and well into CY21.
[19] There were 71 interest rate cuts by 49 central banks across the globe during the year 2019.

risk taking, and rise in non-financial sector debt (**see Chapter 1**).

In the domestic context, as a result of stabilization measures (e.g. monetary tightening, realignment of exchange rate with the market fundamentals, fiscal consolidation measures including rationalization of subsidies, rise in taxes and duties etc.) adopted to contain rising macroeconomic vulnerabilities, the pace of economic activity weakened during FY19 (3.29 percent vs. 5.53 percent in FY18). However, signs of economic recovery emerged towards the end of CY19 as manifested, among other indicators, by the revival in the Large Scale Manufacturing (**LSM**) sector.[20] Also, Business Confidence Index (**BCI**) demonstrated gradual but consistent improvement in the second half of CY19.[21] This was a manifestation of healthy improvement in some key macroeconomic indicators such as current account balance, forex reserves, exchange rate, and fiscal balance.[22] Despite sluggish economic conditions, however, inflationary pressures persisted during CY19 owing to supply side issues (**see Chapter 1**).

Contrary to the weak economic activity during CY19, the **Financial sector** performed reasonably well. The consolidated assets of the financial sector expanded by 11.74 percent—up from 7.46 percent recorded in the previous year. However, financial depth (financial assets to GDP) slightly moderated because of higher inflationary pressures during the reviewed year **(see Table 1**).

Table 1: Assets Composition of the Financial Sector

	CY15	CY16	CY17	CY18	CY19
Assets (PKR Billion)	19,416	21,853	24,734	26,579	29,699
Growth rate (Percent)	15.46	12.55	13.18	7.46	11.74
YoY Asset Growth (Percent)					
MFBs	39.13	74.65	45.21	32.65	15.88
DFIs	8.14	9.63	9.18	4.60	58.12
NBFIs	11.10	15.77	-1.11	8.74	13.03
Insurance	17.76	31.81	8.21	9.95	8.09
CDNS	10.11	6.66	5.58	5.30	9.42
Banks	16.83	11.93	15.86	7.31	11.73
Percentage Share in Total Assets					
MFBs	0.50	0.78	1.00	1.23	1.28
DFIs	0.98	0.96	0.92	0.90	1.27
NBFIs	4.90	5.04	4.40	4.46	4.51
Insurance	4.90	5.74	5.49	5.62	5.43
CDNS	15.87	15.04	14.03	13.75	13.46
Banks	72.84	72.44	74.16	74.05	74.05
Assets as a Percentage of GDP*					
MFBs	0.34	0.56	0.74	0.90	0.92
DFIs	0.67	0.68	0.69	0.65	0.91
NBFIs	3.37	3.61	3.27	3.24	3.24
Insurance	3.37	4.11	4.08	4.08	3.91
CDNS	10.90	10.78	10.43	9.99	9.68
Banks	50.05	51.91	55.13	53.79	53.27
Overall Assets	68.71	71.65	74.34	72.64	71.94

Note: Data of Insurace sector for 2019 is as of September, 2019
*GDP at market prices,
Source: SBP, SECP, CDNS & PBS

After remaining volatile in the first half of the year, the **Financial Markets** observed stability in the second half due to softening macroeconomic vulnerabilities and lower uncertainty among market participants The operation of the forex market smoothed post transition to a market based exchange rate system. Moreover, the change in interest rate expectations pushed financial institutions towards longer-tenor government securities, which helped reduce the rollover risk for the government. The equity market also rebounded towards the end of CY19, though it remained quite volatile during the year (**see Chapter 2**).

Banking sector—with the highest share in financial sector assets—managed to improve resilience and profitability, despite the challenging environment. Though demand for financing softened—amid stabilization measures —banks' assets expanded by 11.73 percent in CY19 due to a surge in investments, mostly in government securities. Encouragingly, with a rise of 11.92

[20] LSM stopped contracting in Q2FY20 (0 percent growth against -5.7 percent in Q1FY20).
[21] http://www.sbp.org.pk/research/BCS-r.asp
[22] Current account deficit contracted by 75.0 percent during H2CY19. SBP forex reserves improved to USD 11.3 billion by end Dec-19 from USD 7.3 billion at end June-19. Fiscal deficit reduced to 2.3 percent (as percentage of GDP) in H1FY20 from 2.7 percent in H1FY19.

percent, deposits exhibited marked recovery. Also, banking sector's profitability rebounded to 14.34 percent during the reviewed year, after declining for the last few years. The Capital Adequacy Ratio (**CAR**) also inched up by 90bps to 17.0 percent well above the minimum regulatory requirements of 12.5 percent. However, the rise in NPLs for another year remained a concern (**see Chapter 3.1**).

The performance of **Islamic Banking Institutions** (**IBIs**) was remarkable as their assets—despite deceleration in financing—increased by 23.52 percent during CY19. The strong profitability of IBIs made a notable contribution to the overall earnings of the banking sector. Moreover, IBIs recorded healthy inflow of deposits. However, liquidity management challenges continued to prevail owing to the dearth of short-term investment avenues (**see Chapter 3.2**).

Likewise, the performance of the **Non-Bank Financial Sector** also remained satisfactory during CY19. The **Development Finance Institutions** (**DFIs**) observed strong expansion in assets, driven by investments in government securities. Consequently, interest income drove up DFIs' profitability. However, financing of asset growth through short-term borrowings is not an appropriate modus operandi in the long-run. DFIs continued to face challenges in expanding advances portfolio, owing to restrained access to longer tenor affordable funding. Aligning DFIs' operations with their mandate of project financing, housing, and SMEs finance remained a policy concern (**see Chapter 5.1**).

The **Non-Bank Financial Institutions** (**NBFIs**) experienced stress in the first half of CY19 due to challenging economic conditions. However, their performance rebounded during H2CY19 as assets expanded by 13.0 percent in CY19 (8.7 percent in CY18). The turnaround in NBFIs' performance was because of a recovery in the equity market, which in turn triggered growth of mutual funds (principal component of NBFIs). However, entities involved in the financing business faced a broad-based slowdown in assets growth owing to monetary tightening. Encouragingly, the risks emanating from interconnectedness between the banks and NBFIs remained muted during CY19 (**see Chapter 5.2**).

The **Insurance** and takaful industry observed a modest rise in the asset base during CY19.[23] After tax profit declined by 8.81 percent, owing to a substantial increase in net claims of the life sector and reduced investment income in the wake of weak equity market performance. However, a rise in investment income from government securities helped mitigate the decline in profitability (**see Chapter 5.3**).

The non-financial **corporate sector** experienced a dip in sales and higher financial cost during CY19 due to monetary tightening and unfavorable economic conditions. However, corporates were able to improve profitability by minimizing their administrative expenditures and costs associated with sales. This consequently helped improve their debt repayment capacity. In terms of sectors, the automobile and cement sectors observed marked deterioration in sales performance. Positively, the probability of defaults, despite a minor increase, remained on the lower side (**see Chapter 6**).

The **Financial Market Infrastructures (FMIs**) remained effective and resilient. Pakistan Real-Time Interbank Settlement Mechanism (**PRISM**) handled a larger volume and value of transactions during CY19. Launching the National Payment System Strategy (**NPSS**)—in order to bring greater efficiency and accessibility—was a notable achievement. Encouragingly, operational risk remained lower as Automated Teller Machine (**ATM**) downtime reduced further. Moreover, regulations were issued for the promotion of

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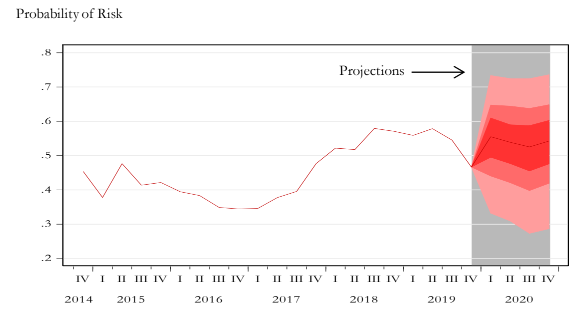
[23] The data was available up to Sep-2019.

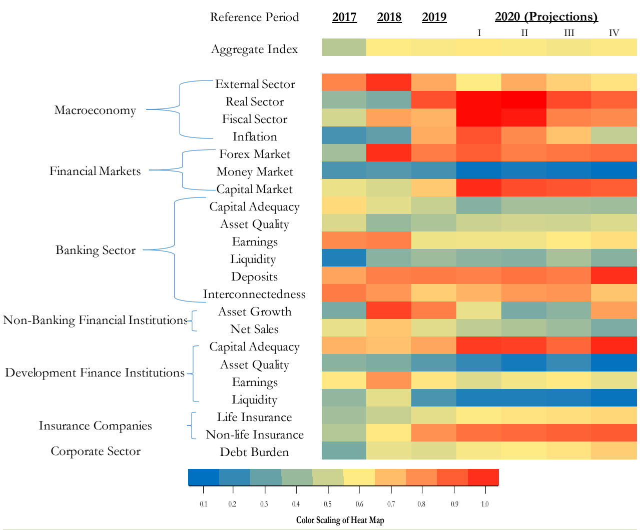
Electronic Money Institutions (**EMIs**) to ensure the availability of innovative payment options to the retail payments segment of the country (**see Chapter 7**).

Chart 1(a): Financial stability after easing in CY19 could come under stress in CY20



Source: SBP Staff estimates

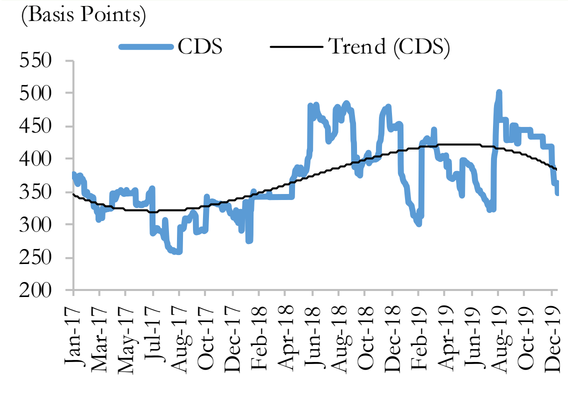
Chart 1(b): Macrofinancial indicators could exhibit higher stress in CY20



Source: SBP

Overall, financial system vulnerabilities increased during the first half of CY19, owing to sustained macroeconomic imbalances in the external and fiscal sectors and elevated uncertainty among market participants about the future economic direction. However, in the second half of CY19, the confidence of the financial market participants returned and uncertainty faded as the stabilization measures agreed under the IMF program started taking effect. Moreover, during CY19, SBP had taken a number of policy measures, which also contributed towards strengthening the state of financial stability in the country **(See Box 3).** As a result, the state of financial stability presented a reasonably better picture (**Chart 1a & 1b**). This was also evident by the declining Credit Default Swap (**CDS**) premium towards the end of CY19, reflecting reduced sovereign risk perceptions (**Chart 2**).

Chart 2: Pakistan's Risk Premium declined towards the end of CY19



Source: Bloomberg

Moreover, the 5th wave of **SBP Systemic Risk Survey** (conducted in Jan-2020 prior to COVID-19), revealed that domestic macroeconomic (increase in inflation, slowdown in growth and deterioration in household saving and income) and global risks would likely be the key concerns for the stability of the financial system for the next six months (**see Box 2**).

Nevertheless, given weak near-term growth prospects and uncertainties associated with COVID-19, financial sector vulnerabilities could rise going forward. Stress-tests suggest that the banking system should remain resilient overall, but smaller-sized institutions could face greater pressures over long-term in an adverse scenario. The stress-test results are, however, subject to a significant uncertainty due to unpredictability surrounding the severity, duration and path of the COVID-19 pandemic, both, globally and domestically. SBP is closely monitoring the emerging developments and is responding appropriately to limit the risks.

Box 1: COVID-19 Pandemic and the Policy Response

(a) Global Perspective

The Coronavirus (**COVID-19**) outbreak that began in Wuhan, China at the end of 2019, spread across the globe within months. Given its alarming level of infection and severity, World Health Organization (**WHO**) declared it as a pandemic on Mar 11, 2020.[24] Until May 29, 2020, it has penetrated into more than 200 countries, infecting 5,724,342 persons and causing 359,151 deaths worldwide.[25] USA, Brazil, Russia, and U.K. have remained the most affected countries in terms of infection, while USA has experienced the biggest death toll so far.[26]

The speed of infection and the non-availability of a cure has resulted in rising numbers of fatalities across the globe and has instilled fear among the 7.8 billion inhabitants of the world. Consequently, from social norms and movement of people to consumer preferences and availability of goods and services, COVID-19 has affected all aspects of human life. To contain the outbreak, on the recommendations of WHO, authorities have introduced strict social distancing rules and various degrees of restrictions on mobility. The necessary quarantines and social distancing practices to contain the pandemic across the globe have resulted in a Great Lockdown, bringing large segments of the global economy to a complete halt and putting basic societal functions on hold.

In this environment of anxiety and uncertainty, industry after industry is facing dim prospects. With the sharp decline in passenger traffic and cancellation of flights, the travel industry is under severe stress. Similarly, the suspension of mass gatherings and events (such as sports, religious, academic, and entertainment) is adversely affecting not only the relevant industries but all its horizontal and vertical linkages as well. Academia has moved from physical classroom based learning to virtual classes. According to the United Nations Educational, Scientific and Cultural Organization (**UNESCO**), over 156 countries have implemented nationwide closures, affecting over 70 percent of the world's student population.[27] This may result in loss of human capital and diminished economic opportunities.[28] With the rising intensity of the disease, offices and factories were initially shuttered, though restriction are being eased more recently.

The global health crisis (**GHC**) due to COVID-19 outbreak is thus influencing the world economy through supply, demand, and financial channels. On the one hand, aggregate supply has shrunk as the containment efforts (such as restricted mobility and plant closures) intensified, resulting in severe disruptions in supply chains and international trade. On the other hand, aggregate demand has also waned as firms' investment stutter and consumer spending decline because of increased precautionary behavior and restricted mobility.[29] This combination of supply and demand disruptions, caused by the GHC, is likely to dent the cash flows of the corporate sector, which may lead to higher NPLs and pose financial stability concerns.

The available data illustrates the adverse impact of COVID-19 on the Chinese economy. Industrial production in China declined by 13 percent in the first two months of 2020—the largest contraction

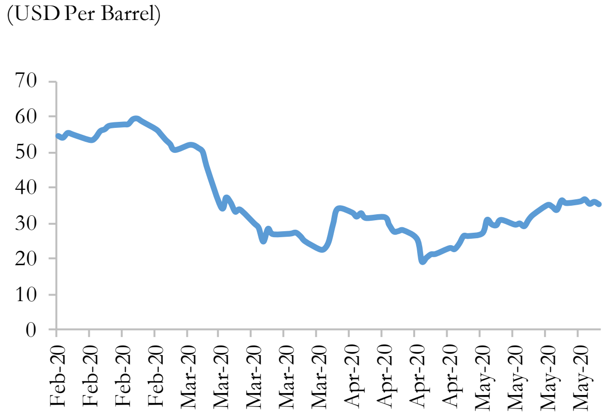
[24] https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020
[25] World Health Organization
[26] Ibid
[27] As of May 18, 2020 Source:https://en.unesco.org/themes/education-emergencies/coronavirus-school-closures
[28] https://blogs.worldbank.org/education/managing-impact-covid-19-education-systems-around-world-how-countries-are-preparing
[29] Consumer contact industries are most likely to be affected such as Traveling and Tourism.

on record.[30] The services sector contracted by 13.5 percent during the same period. Marked slowdown in retail sales and automobiles sales of 20.5 percent and 80 percent, respectively, is a candid manifestation of ebbing demand. Moreover, exports were down by 17.2 percent during Jan-Feb 2020, reflecting disruption in supply chains as well as abating external demand.

In the USA, jobless claims have exceeded 6.6 million in the final week of Mar-2020 as compared to 280,000 two weeks earlier. Also, a survey of purchasing managers indexes reveal that the USA, euro area and Japan have experienced a major dip in economic activity during Mar-2020.[31]

As the infection spread, economic activity in China and the rest of the world slackened, and travelling and transportation slowed down, the demand for oil fell that has brought the oil prices down by 30.07 percent[32] (**Chart B1.1**) and turned the oil futures into negative territory. Also, from mid Jan to end Mar-2020, base metal and natural gas prices have fallen by 15 percent and 38 percent, respectively. According to International Air Transport Association (IATA), global air carriers could suffer 55 percent decline in revenue in 2020.

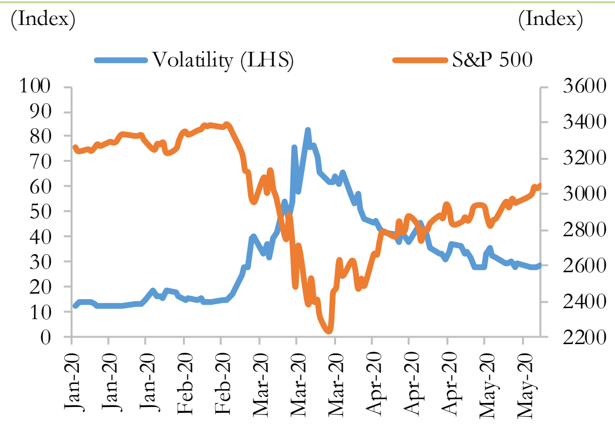
Chart B1.1: Brent Crude Oil Prices



Source: Bloomberg; oilprice.com

In response to the GHC, global financial markets have experienced notable anxiety. Amid diminished risk appetite and flight to safety, global investors have retreated and massive sell-offs have been witnessed in financial markets worldwide. S&P 500 index, for example, fell by 28.66 percent since end Dec-2019 to Mar 20, 2020 and its volatility increased significantly. However, it recovered later on (**Chart B1.2**). As a result of investors' rush to safe assets[33] amid intensifying virus fears, government bond yields of safe haven countries have moved downward. Concurrently, massive capital outflows of USD 100 billion from emerging markets since the start of the GHC is another evidence of the shifting risk sentiment of investors.[34]

Chart B1.2: S&P 500 equity index and its volatility



Source: Fedral Reserve Bank of St.Louis

Looking ahead, global economic activity in 2020 is likely to contract. The IMF predicts a contraction of 3 percent for the global economy in 2020 – the worst economic downturn since the Great

[30] Financial Times (Mar 21, 2020). Chinese economy suffers record blow from coronavirus.
[31] IMF(2020). World Economic Outlook. April
[32] From end February to May 29, 2020
[33] In times of crisis, investors tend to pile into government bonds for their apparent safety.
[34] IMF (2020). Global Financial Stability Report. *April*

Depression.[35] Further, UN's trade and development agency (**UNCTAD**) suggests that the spike in uncertainty owing to the outbreak is likely to cost USD 1 trillion to the global economy in 2020.[36] The costly impact of COVID-19 is also evident from the fact that it has wiped out USD 50 billion of global exports in Feb-2020 alone.[37] The impact of lost tourism revenues, falling remittances and travel and other restrictions linked to the coronavirus pandemic are expected to leave about 130 million more people hungry in CY20, in addition to 135 million already in that category.[38]

The heightened downside risks to economic growth emanating from this hybrid demand-supply-financial shock has prompted international institutions to enact aggressive policy measures in order to shield the global economy from the COVID-19 outbreak. The IMF announced financing of USD 50 billion for EMDEs. Of this, USD 10 billion is available at zero interest for the poorest members through the Rapid Credit Facility.[39] Moreover, the IMF has approved debt service relief for 25 low-income countries through a reformed Catastrophe Containment and Relief Trust (**CCRT**), and has established a new instrument – the Short-Term Liquidity Line – to provide quick-disbursing financing to strengthen buffers and help in managing liquidity pressures for countries with strong economic policies.[40]

Similarly, the World Bank has made USD 14 billion fast track financing available to its members to respond to the global coronavirus. Moreover, the World Bank will deploy up to USD 160 billion over 15 months to protect the poor and vulnerable, support businesses, and bolster economic recovery. The initial response to COVID-19 pandemic from ADB amounts to USD 6.5 billion[41], with an additional USD 13.5 billion to respond to COVID-19 outbreak.[42] Moreover, the Basel Committee on Banking Supervision (**BCBS**)—on Mar 20, 2020—suspended consultation on all policy initiatives and postponed all outstanding jurisdictional assessments planned in 2020 under its Regulatory Consistency Assessment Program.[43] To give further support to the global financial system, BCBS has taken a number of policy measures including amendment in regulatory capital treatment of Expected Credit Loss (**ECL**) accounting, deferment of the final two implementation phases of the framework for margin requirements by one year, and postponement of the implementation of the revised G-SIB framework by one year.[44]

Besides the multilateral responses to the crisis, central banks and the governments across the globe have also taken various potent policy measures. These include cutting interest rates, providing liquidity to the market, supporting SMEs and relaxing macroprudential policy levers etc. (**Annexure A**). An analysis of 54 countries indicates that most of them have enacted macroprudential polices to fight the repercussions of COVID-19 outbreak, while quite a few deployed policies directly targeting households

[35] https://blogs.imf.org/2020/04/14/the-great-lockdown-worst-economic-downturn-since-the-great-depression/
[36] https://news.un.org/en/story/2020/03/1059011
[37] Source: United Nations
[38] http://www.fightfoodcrises.net/fileadmin/user_upload/fightfoodcrises/doc/Global_Network_Flyer_EN.pdf
[39] https://www.imf.org/en/News/Articles/2020/03/04/sp030420-imf-makes-available-50-billion-to-help-address-coronavirus
[40] https://www.imf.org/en/News/Articles/2020/04/21/pr20177-imf-managing-director-heads-rfa-readiness-cooperate-mitigate-impact-covid-19-global-economy
[41] https://www.adb.org/news/adb-announces-6-5-billion-initial-response-covid-19-pandemic
[42] https://www.adb.org/news/videos/adb-president-masatsugu-asakawa-announces-covid-19-response-package-triple-20-billion
[43] https://www.bis.org/press/p200320.htm
[44] https://www.bis.org/press/p200403.htm

(**Chart B1.3**).

Chart B1.3: Number of countries that have developed various policies to contain Covid-19 risks

Source: Yale University

Among the central banks, the Federal Reserve has not only cut its federal funds rate by 150 basis points[45] but has also introduced a number of liquidity measures including the purchase of Treasury Bills (worth USD 500 billion) and mortgage backed securities (worth USD 200 billion) over the coming months. Moreover, the Federal Reserve—in order to ensure sufficient US dollar liquidity around the world—has announced swap line arrangements with the central banks in Europe, Japan, U.K, and Canada.

Other central banks such as the Bank of England and Hong Kong Monetary Authority –besides reducing interest rates—have relaxed countercyclical buffers. The People's Bank of China has taken several policy measures to support the economy including interest rate cuts, injecting 400 billion yuan into the banking system, lowering reserve ratios, and approving delayed repayments to qualified SMEs. The ECB has moved to contain the risks from COVID-19 by introducing a combination of liquidity and macroprudential policy measures. For instance, it has provided liquidity to the euro area financial system via additional long-term refinancing operations (**LTROs**) along with allowing banks to operate temporarily below the level of capital defined by the Pillar 2 Guidance (**P2G**), the capital conservation buffer (**CCB**) and the liquidity coverage ratio (**LCR**).

Besides aiding the financial system, various countries have taken a number of policy measures to ease SME finance and liquidity constraints. These include

- Temporary tax relief such as deferral of tax payments (e.g. Australia, Belgium, France), tax cuts, and tax credits (Italy).
- Opening up the Disaster Relief Loan Program (US).
- Direct financial support to SMEs, such as new credits granted by public investment banks (France).
- Zero-interest loans with no collateral (Japan).
- Sectoral support, especially for the tourism industry (e.g. Australia, Chile, Italy).
- New public guarantees (Austria, Japan, Korea),
- Account receivable insurance (Korea)

(b) Domestic Perspective

In Pakistan, Covid-19 has infected 66,457 persons, causing 1,395 deaths as of May 29, 2020.[46] Heightened global risk aversion has led to portfolio investment outflows of USD 2.8 billion since end February 2020, causing a depreciation of 5.90 percent in the PKR.[47] Also, the equity market is down by 10.67 percent since end February-2020.[48] Going forward, the partial lockdown in the country and intensification in health care issues are likely to drive down domestic economic activity.

Survey on "Impact of Corona Virus on the Banking Industry" (March 2020)

SBP conducted an "Impact of Corona Virus on Banking Industry" survey in March 2020 to gauge

[45]by end Feb 2020 to April 29,2020
[46] http://covid.gov.pk/stats/pakistan
[47] Until May 29, 2020.
[48] Until May 29,2020

the perceptions and views about the risk arising for the banking industry in the virus hit environment. The target respondents for this survey included 52 financial institutions.[49] The responses were received from 49 financial institutions.

The survey captured the respondent's general views about the implications of the outbreak of COVID-19 for the banking sector and the economy, as well as possible preventive measures to safeguard against adverse financial implications. The detailed responses involved information about the banking sector exposure, implications for profitability, and their views about key economic sectors most likely to be affected by the spread of Covid-19. Further, assuming the worst-case scenario, respondents were asked about their Business Continuity Plans (**BCP**) including availability of alternative delivery channels. The survey results showed that:

1. Most respondents were concerned about the adverse implications of the corona virus outbreak for the economy and the banking sector of Pakistan. **(Chart B1.4)**
2. The key economic sectors most likely to be affected by the pandemic include electronics, textile and travel-tourism & transport (**Chart B1.5**).
3. Most of the banks foresaw a limited impact on profitability in H1CY20 but a stronger impact for the whole year in case the episode prolongs.
4. Majority of the banks have put in place effective plans to counter any contingencies, to ensure uninterrupted provision of financial services.

Chart B1.4: Extent of concern that Corona Virus may adversely impact the:

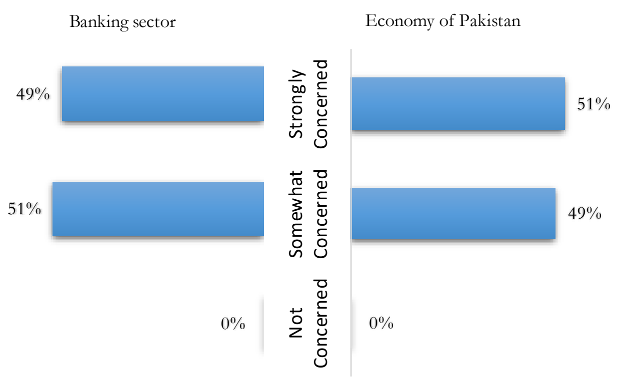
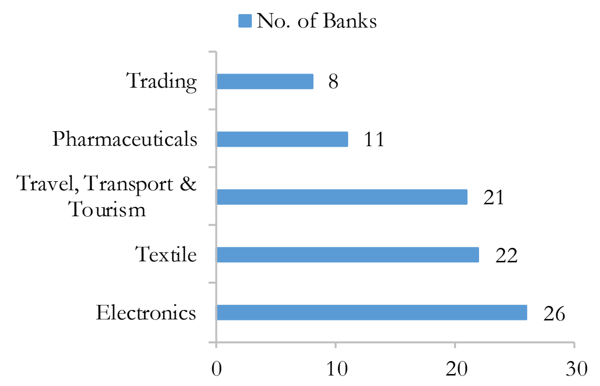


Chart B1.5: Affected Sectors Ranked by Bank



SBP's policy response to counter COVID-19

In response, the SBP has adopted the following comprehensive set of policy measures to limit the risks of the COVID-19 outbreak:

a) Monetary Easing

SBP reduced policy rate by 75 basis points to 12.50 percent on Mar 17, 2020.[50] In the wake of increased risk to growth and anticipated sharp slowdown in domestic demand amid COVID-19 outbreak in Pakistan, SBP moved to reduce policy rate by another 150 basis points to 11 percent on Mar 24, 2020.[51] The policy rate was further reduced by 200 basis points and 100 basis points on April 16, 2020 and May 15, 2020, respectively.

[49] Including 32 commercial banks, 9 Development Finance institutions (**DFIs**) and 11 Micro Finance Banks (**MFBs**).
[50] http://www.sbp.org.pk/m_policy/2020/MPS-Mar-2020-Eng.pdf
[51] http://www.sbp.org.pk/m_policy/2020/MPS-Mar-24--03-2020-Eng.pdf

In aggregate, SBP has cut the policy rate by a cumulative 525 bps within a span of two months.

b) Macroprudential Policy Measures

To allow the banking sector to supply additional loans to businesses and households, SBP has reduced the Capital Conservation Buffer (**CCB**) from its existing level of 2.50% to 1.50%. This will enable banks to lend an additional amount of around PKR 800 billion, an amount equivalent to about 10% of their current outstanding loans.[52]

Further the existing regulatory retail portfolio limit of PKR. 125 million for treatment as SME under the Basel capital requirements has been enhanced to PKR 180 million.[53]

Also, the SBP has relaxed the margin requirement [from 30 percent to 20 percent] and margin calls [from 30 percent to 10 percent] for exposure against shares of listed companies due to prevailing volatility on the Pakistan Stock Exchange. Moreover, SBP has relaxed the criteria for classification of Trade Bills by six months.[54]

In addition, SBP has instructed banks/DFIs to defer the repayment of principal loan amount for households and businesses (microfinance, SMEs, corporates, commercial, retail, and agriculture) upon written request by borrower(s) by one year.[55,56,57,58,59] Also, SBP has relaxed the regulatory criteria for restructuring/rescheduling of loans for borrowers whose financial conditions require relief beyond extension of principal repayment for one year. For consumer financing, SBP has also relaxed the Debt Burden Ratio (**DBR**) for consumer loans from 50% to 60%.[60]

In terms of data received from banks up till May 29, 2020, various segments of borrowers have availed deferment relief to the tune of PKR 495 billion and rescheduling/ restructuring of PKR 71 billion.

c) Support for the Health Sector

SBP has announced cheap loans for hospitals and medical centers through "Refinance Facility for Combating COVID-19" (**RFCC**). Under this policy, the SBP will refinance banks to provide financing of up to PKR 500 million at a maximum end-user rate of 3 percent for 5 years for the purchase of equipment to detect, contain and treat the Coronavirus.[61] [62] Further, banks are allowed to use RFCC to finance up to 100 percent of the cost of entire civil works for setting up of isolation wards.[63] Also, SBP has allowed all federal and provincial government departments, hospitals in public and private sectors, charitable organizations, manufacturers and commercial importers to make Advance Payment and import on Open Account, without any limit, for the import of medical equipment, medicines and other ancillary items for the treatment of COVID-19.[64]

Till May 21, 2020 banks have approved PKR 5 billion for 24 hospitals, while requests from 17 hospitals for PKR 2 billion are under process.

d) Refinance Scheme to Support Employment and Prevent Layoff of Workers

SBP has announced refinance scheme to prevent layoffs through financing of wages and salaries of all types of workers and employees like the permanent, contractual, daily wagers as well as outsourced workers. Financing under the scheme will be available to those borrowers, who

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[52] http://www.sbp.org.pk/bprd/2020/CL12.htm
[53] http://www.sbp.org.pk/bprd/2020/CL12.htm
[54] http://www.sbp.org.pk/bprd/2020/CL13.htm
[55] http://www.sbp.org.pk/bprd/2020/CL13.htm
[56] http://www.sbp.org.pk/bprd/2020/CL14.htm
[57] http://www.sbp.org.pk/acd/2020/CL2.htm
[58] http://www.sbp.org.pk/acd/2020/CL1.htm
[59] http://www.sbp.org.pk/smefd/circulars/2020/CL3.htm
[60] http://www.sbp.org.pk/bprd/2020/CL14.htm
[61] 1. http://www.sbp.org.pk/smefd/circulars/2020/C3.htm
2. http://www.sbp.org.pk/smefd/circulars/2020/C4.htm
[62] http://www.sbp.org.pk/smefd/circulars/2020/CL8.htm
[63] http://www.sbp.org.pk/smefd/circulars/2020/CL6.htm
[64] http://www.sbp.org.pk/epd/2020/FECL9.htm

undertake not to lay off their employees at least for the next three months. Loans under the scheme will be available to finance 3 months of wages, i.e., April to June 2020.[65] Various categories of business can avail maximum financing of up to PKR 1000 million.[66] The end user rate of up to 3% will be charged from the borrowers on active taxpayers list, while others will be charged up to 5%. Repayment of the loan under the scheme will start from January 2021 after a grace period of 6 months and will be payable with within 2 years. Under the scheme, Banks have also been encouraged to provide loans without any collateral i.e. take a clean exposure of up to PKR 5 million.[67] To facilitate employees for receiving wages under the scheme directly in their accounts, banks have been allowed to open accounts on information & documents provided by the employers. Banks will ensure NADRA verifies before activation of accounts, which will solely be used for salary disbursement and withdrawal.

To incentivize banks to extend loans to collateral deficient SMEs and small corporates with sales turnover of up to PKR 2 billion under the SBP refinance scheme, Federal Government has introduced a credit risk sharing facility. For the purpose, PKR 30 billion has been allocated for the risk sharing for banks spread over the four years to share the burden of any future loan losses from SMEs and small corporates.[68]

To facilitate financing to SMEs under the scheme, SBP has prescribed a simplified loan application form. Also, banks' exposure under the scheme has been exempted from per-party exposure limits, to allow banks to lend to borrowers that have exhausted their exposure limits.

Since the launch of the scheme till May 29, 2020, around PKR 93 billion have been approved for 1,172 companies having 864,637 employees. Applications of 837 companies having 384,490 employees for PKR 36 billion are under process.

e) Ensure Availability and Continuity of Financial Services

SBP has advised Banks to adopt practices necessary to fight the spread of COVID-19 and ensure availability of uninterrupted financial services. This includes enhanced usage of cash counting machines, encouraging customers to use Alternate Delivery Channels (**ADCs**), reassessing Business Continuity Plans, and carrying out an impact analysis to assess the consequences on business and operations and enhance the monitoring frequency of key risk areas like credit, capital market and foreign exchange exposures etc. SBP has also instructed banks to keep bare minimum staff for ensuring the continuity of essential banking services.[69]

Moreover, in a bid to limit person-to-person interactions and to provide ease of services to the customers, SBP has advised banks to provide Direct Cheque Deposit Facility.[70] In addition, in view of the possible rise in cyber security concerns owing to teleworking/work from home, SBP has issued specific instructions to bank to exercise due diligence and implement stronger and robust cybersecurity measures to counter cyber risks associated with remote access functionality.[71]

f) Promote Digital Payments

To contain the spread of COVID-19 by limiting the physical interaction of citizens at bank branches, SBP has instructed banks to waive all charges on fund transfers through online banking channels such as Inter Bank Fund Transfer (**IBFT**).

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[65] http://www.sbp.org.pk/smefd/circulars/2020/C6.htm
[66] The refinancing limit has been further extended up to PKR 1 billion: (http://www.sbp.org.pk/smefd/circulars/2020/CL10.htm)
[67] http://www.sbp.org.pk/smefd/circulars/2020/CL7.htm
[68] http://www.sbp.org.pk/smefd/circulars/2020/C9.htm
[69]
1. http://www.sbp.org.pk/bprd/2020/CL6.htm
2. http://www.sbp.org.pk/bprd/2020/CL8.htm

[70] http://www.sbp.org.pk/psd/2020/C4.htm
[71] http://www.sbp.org.pk/psd/2020/C3.htm

Annexure A: Policy Measures across the Globe to Contain Covid-19 Outbreak Risks (Updated Until April 25, 2020)

Countries	Interest Rate Cut	Emergency Liquidity	SMEs Policy Measures	Credit Guarantees	Export/Other Industry	Macroprudential Policy Measures	Asset Purchase	Swap Lines with other Central Banks	Policy for Households
Argentina						✓			
Australia	✓	✓				✓	✓	✓	
Belgium						✓	✓		
Brazil	✓	✓	✓	✓				✓	
Canada	✓	✓	✓		✓	✓	✓	✓	
Chile		✓	✓	✓		✓	✓		✓
Colombia		✓	✓	✓		✓	✓		
China	✓	✓	✓	✓		✓			
Denmark	✓	✓	✓	✓	✓			✓	
Egypt	✓					✓			
Estonia			✓	✓	✓				
European Union		✓	✓	✓		✓	✓	✓	
Finland				✓		✓	✓		
France			✓	✓		✓			
Germany			✓	✓	✓	✓			
Greece				✓		✓			
Hong Kong	✓	✓	✓	✓	✓	✓			
Hungry			✓		✓	✓			✓
Iceland	✓	✓	✓	✓	✓	✓	✓		
India	✓	✓	✓	✓	✓	✓	✓		
Indonesia	✓					✓			
Ireland						✓			
Israel	✓	✓	✓	✓	✓	✓	✓		
Italy			✓	✓		✓			✓
Japan		✓	✓			✓		✓	
Kenya	✓					✓			
Malaysia	✓		✓		✓	✓			
Mexico	✓	✓				✓		✓	

Countries	Interest Rate Cut	Emergency Liquidity	SMEs Policy Measures	Credit Guarantees	Export/Other Industry	Macroprudential Policy Measures	Asset Purchase	Swap Lines with other Central Banks	Policy for Households
Netherlands			✓	✓		✓			
New Zealand	✓	✓	✓	✓		✓	✓	✓	
Nigeria	✓		✓	✓	✓	✓			✓
Norway	✓	✓	✓	✓		✓	✓	✓	
Oman	✓					✓			
Pakistan	✓		✓		✓	✓			
Peru		✓		✓		✓			
Philippines	✓	✓		✓		✓	✓		
Romania						✓			
Republic of Korea	✓	✓	✓	✓	✓	✓	✓		
Russia		✓	✓			✓			
Saudi Arabia	✓		✓	✓		✓			
Singapore	✓		✓	✓	✓	✓		✓	
South Africa	✓	✓				✓	✓		
Spain			✓	✓		✓			
Sri Lanka	✓					✓			
Sweden	✓	✓	✓	✓	✓	✓	✓		
Switzerland		✓				✓		✓	
Taiwan	✓		✓						
Thailand	✓		✓					✓	
Turkey	✓	✓				✓	✓		
Ukraine	✓		✓			✓	✓		
UAE	✓	✓			✓	✓			
U.K	✓	✓	✓	✓		✓	✓	✓	
USA	✓	✓	✓	✓		✓	✓	✓	
Vietnam	✓			✓					

Source: Yale University

Box 2: SBP's Systemic Risk Survey-5th Wave (January 2020)

SBP launched the 5th wave of its biannual Systemic Risk Survey in January 2020 to capture the risk perception 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, private sector, and academia.[72]

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 results presented here are based on responses to the survey and do not necessarily reflect the SBP's views on risks to the financial system. 152 participants took part in the fifth wave of SRS, representing a 47% response rate.

Summary of Results:

1. At present, the perception of sources of risks at the aggregate level ranks macroeconomic risk as critical followed by global, financial market, general and institutional risk. **(Chart B2.1)**
2. In the next six months, the critical sources identified by respondents is macroeconomic risk followed by general and global risk. **(Chart B2.2)**
3. Overall, among the top ten risks identified, the highest cited risks are increase in general inflation, slowdown in economic growth and volatility in commodity prices. In the next six months, respondent's perception of sources of risks remains the same. **(Chart B2.3)**
4. The respondents are more confident about the stability of the financial and banking system compared to the previous wave of the survey. **(Chart B2.4)**

Comparison of results among the last three surveys shows that the risk perception of the respondents relating to domestic inflation, geopolitical risks, and slowdown in global growth has increased, whereas risk perception for foreign exchange rate and equity price has diminished. **(Chart B2.5).**

[72] 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.

Chart B2.1: Perception on sources of systemic risk- presentss

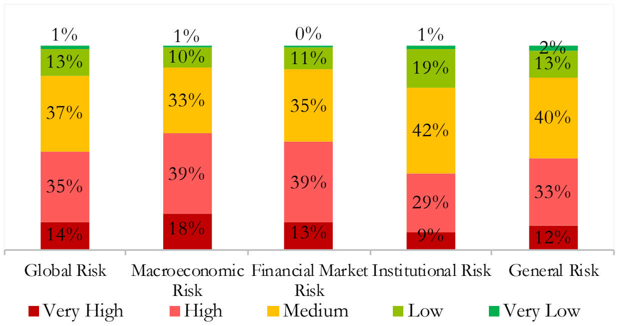

Chart B2.2: Perception on sources of systemic risk- next 6 months

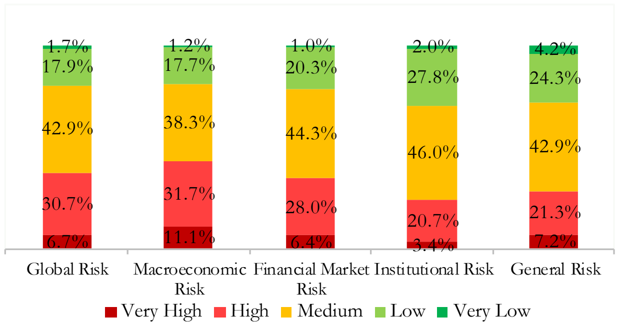

Chart B2.3: Top 10 risks identified

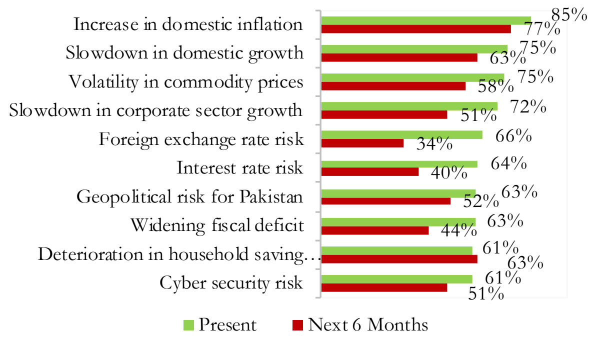

Chart B2.4: Confidence in financial stability

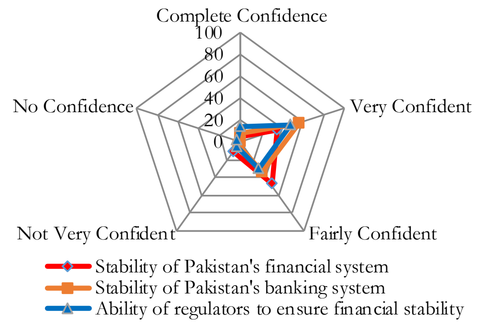

Chart B2.5: Comparison of Results (3rd, 4th and 5th waves)

	3rd Wave (Jan-19) Present (Average)	4th Wave (July-19) Present (Average)	5th Wave (Jan-20) Present (Average)		3rd Wave (Jan-19) Present (Average)	4th Wave (July-19) Present (Average)	5th Wave (Jan-20) Present (Average)
Slowdown in global growth	2.85	2.83	2.65	Interest rate risk	2.40	2.17	2.32
Sovereign default risk	3.29	3.13	2.99	Liquidity risk	2.67	2.65	2.66
Lack of funding from abroad	2.34	2.32	2.43	Regulatory risk	2.55	2.56	2.62
Volatility in commodity prices	2.28	2.05	2.07	Legal risk	2.94	2.83	2.85
Slowdown in domestic growth	2.27	2.08	2.10	Asset quality deterioration	2.55	2.38	2.41
Increase in domestic inflation	2.16	1.96	1.79	Shortfall in capital requirement	2.77	2.63	2.57
Widening fiscal deficit	1.84	2.04	2.24	Access to funding (deposit mobilization & borrowings)	2.87	2.59	2.72
Deterioration of BoP	1.71	2.12	2.43	Excessive private sector credit	3.11	2.93	3.03
Sovereign rating downgrade	2.29	2.48	2.68	Concentration risk in private	2.95	2.83	2.97
Slowdown in corporate sector growth	2.47	2.23	2.21	Concentration risk in mutual fund	3.35	3.20	3.28
Slowdown in infrastructure development	2.88	2.87	2.56	Operational risk	2.78	2.79	2.78
Deterioration in household savings	2.60	2.37	2.26	Cyber security risk	2.23	2.35	2.28
Volatility in real estate prices	3.01	2.82	2.96	Disruption in financial market	2.92	2.68	2.78
Energy crisis	2.36	2.68	2.50	Terrorism	2.78	2.74	2.67
Political uncertainty	2.41	2.47	2.29	Geopolitical risk for Pakistan	2.63	2.41	2.25
Foreign exchange rate risk	1.80	1.71	2.19	Natural disasters/ Increasing threat of climate change	3.09	2.88	2.68
Equity price risk	2.44	2.37	2.67	Social unrest	3.07	2.92	2.82

1 3 5

Very High Medium Very Low

Box 3: SBP's Initiatives to Strengthen Stability of the Financial Sector

SBP plays a pivotal role in ensuring stability of the financial sector. As such, "Strengthening the Financial Stability Regime"- remains a key priority for the SBP under its strategic plan "SBP Vision 2020". In this regard, it has been endeavoring to implement a comprehensive Macroprudential Policy Framework **(MPPF)**.

The widespread adverse outcomes of the Global Financial Crises (**GFC**) of 2008 necessitated devising and implementing a preventive framework (i.e. a MPPF) capable of responding to any threats to the financial stability. The aim was to increase the resilience of the financial system to withstand systemic risk.[73] The MPPF focuses on inhibiting excessive risk taking by financial agents, simplifying obscure and complex financial transactions and their markets, improving bank resolution regimes and bringing Non-Bank Financial Institutions (**NBFIs**) under enhanced scrutiny. In a nutshell, the focus is tilted towards macroprudential policies along with maintaining effective microprudential supervisory regimes for the financial sector.[74]

During the year 2019, SBP – within its regulatory domain – took various measures to ensure smooth functioning of the financial sector.

Financial Stability- A Macro Perspective

As mentioned earlier, to ensure the system wide stability of the financial sector, SBP has been formulating and implementing a comprehensive and well-structured MPPF in Pakistan. Since the institutional setup with well-defined objectives, legal mandate and accountability mechanism is one of the key pillars of a formal MPPF, SBP is in the final stages of operationalizing the overarching National Financial Stability Council (**NFSC**).[75]

SBP further strengthened its systemic risk assessment capabilities by improving macro stress-testing processes. SBP communicated the risk assessment of the financial system and its interlinkages with the real economy through its flagship Financial Stability Review and other publications.[76]

The financial system has been at a high risk of major operational disruptions due to wide-spread natural disasters and man-made threats. Financial authorities and financial industry participants have a shared interest in promoting the resilience of the financial system to such disruptions. International standard setting bodies encourage banks to have an effective Business Continuity Regime.[77] Bank for International Settlement (**BIS**) also encourages financial authorities and key financial industry participants to run industry-wide tests to assess the level of resilience across markets and the compatibility of the recovery strategies of individual participants.

Against this backdrop, SBP conducted the first joint industry-wide Business Continuity Planning (**BCP**) drill under a carefully designed scenario.[78] This was a mock exercise that generated a host of data and information regarding readiness of BCP/Disaster Recovery (**DR**) sites and

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[73] Generally, it is perceived to be the likelihood of any event, which, if occurs, could cause system-wide disruptions (e.g. large-scale credit squeeze) and could lead to adverse implications for the entire economy (e.g. sharp and prolong fall in real GDP growth, higher unemployment etc.).

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

[75] The NFSC will be a joint forum of SBP, Securities & Exchange Commission of Pakistan (SECP) and Ministry of Finance (MoF) to address financial stability related concerns.

[76] Mid-Year Performance Review of the Banking Sector, Quarterly Compendium: Statistics of the Banking System

[77] Please see "Guidance on Arrangements to Support Operational Continuity in Resolution", FSB, August 2016

[78] The scenario envisaged that the primary site of all banks and SBP become inaccessible at some point in time during the day due to some disaster situation. SBP RTGS system and 1-Link secure portal has been accessible from their respective DR sites. The third parties trading platforms whose access is based on subscription have remained operational as usual. The banks however, accessed above systems and platforms from their BCP or DR sites.

effectiveness of BCP and highlighted the overall effectiveness of the communication strategy adopted for performing the drill.[79]

To safeguard small and financially unsophisticated depositors in the unlikely event of a bank failure, the Deposit Protection Corporation (**DPC**) further strengthened its framework. It introduced following measures; (a) advised all member banks to appropriately install or update their systems, including software(s)/ database(s), for maintaining a comprehensive depositor-wise database,[80,81] and (b) issued standardized reporting formats along with explanatory notes to achieve banking industry-wide standardization of Single Depositor View (**SDV**) report.[82,83]

Moreover, to keep abreast with the international developments and collaborate with other deposit insures, DPC acquired the membership of International Association for Deposit Insurers (**IADI**), which is the main global standard-setting body for deposit insurance.[84]

Financial Stability- A Micro Perspective

As per BIS-FSB-IMF (2016), microprudential regulation and supervision complements the macro prudential framework. SBP being progressive regulator of the banking sector continuously work for bringing about refinement in its prudential standards in line with market dynamics and international best practices. The regulatory & supervisory regime is adequately compliant with international best principles & practices (e.g. Basel Core Principles of Effective Banking Supervision, FATF recommendations on AML/CFT, OECD's principles of Corporate Governance etc.).

During the reviewed year, SBP took multiple initiatives to address risks and challenges facing the financial sector. The key measures included:

Foreign Exchange Policy and Operations: To promote ease of doing business in Pakistan, the registration of foreign borrowings/loans and the acquisition of services from abroad by the residents, have been delegated to Authorized Dealers subject to applicable rules and regulations.[85]The procedure for repatriation of foreign assets held in the form of shares of a company incorporated in Pakistan, under Assets Declaration (procedure & conditions) Rules, 2019 was issued.[86]

In order to facilitate the manufacturing sector and importers cum exporters, Authorized Dealers were allowed to affect advance payment up to USD 10,000, or equivalent thereof, per invoice on behalf of manufacturing concerns and importers cum exporters for import of for their own use only.[87]Further to encourage home remittances through formal channels, incentive scheme was re-launched to promote marketing of product and services related to home remittances.[88] Moreover, to facilitate freelancers and pensioners, SBP enhanced the limits for Business to Customer (**B2C**) and Customer to Business (**C2B**) transactions through home remittance channel.

AML/CFT: To further align AML/CFT Regulations/Guidelines with requirements embodied in Financial Action Task Force (**FATF**) recommendations and observations highlighted in

[79] The BCP/DR drill was successfully conducted on Saturday December 07, 2019 as per designed scenario, engaging 600 plus staff members from all over Pakistan.
[80] The database must have the ability to provide Single Depositor View (SDV) i.e. to identify using a unique identifier, on any given date, all the accounts of any single depositor and calculate the total liability of a bank towards that depositor (including any interest/ profit accrued on his/ her deposits).
[81] DPC Circular No. 01 dated March 15, 2019
[82] DPC Circular Letter No. 01 dated December 05, 2019
[83] This uniform database across the industry is critically important, and it will facilitate swift payout to protected depositors in case of reimbursement.
[84] The key objective of the IADI is to contribute to the stability of financial systems by promoting international cooperation in the field of deposit insurance and providing guidance for establishing new, and enhancing existing, deposit insurance systems.
[85] F.E Circular No. 6 of 2019
[86] F.E Circular No. 5 of 2019
[87] Please see EPD Circular Letter No. 1 & 12 of 2019
[88] EPD Circular Letter No. 15 of 2019

Pakistan's Mutual Evaluation Report 2018, SBP amended various provisions of these instructions. These amendments will provide further clarity on implementation of AML/CFT requirements by banks/ DFIs, including customer due diligence (**CDD**), correspondent banking, wire transfers/ funds transfers, reporting of Currency Transaction Report (**CTR**)/Suspicious Transaction Reports (**STR**) and internal controls, policies, compliance, audit and training areas. Further, SBP updated the guidelines on compliance of Government of Pakistan's notifications issued under United Nations Security Council (**UNSC**) Resolutions.[89,90]

To further augment SBP efforts to strengthen overall AML/CFT regime, SBP introduced "Framework for Managing Risks of Trade Based Money Laundering and Terrorist Financing". Pakistan is among leading countries that have issued Trade Based Money Laundering (**TBML**) and Terrorist Financing". Pakistan is among leading countries that have issued TBML framework since it is an emerging phenomenon and is important from control of FX leakages perspective.[91] SBP also strengthened the AML/CFT for Exchange Companies (**ECs**) through various measures such as

- AML/CFT instructions for ECs/ECs of 'B' Category were comprehensively revised and aligned with FATF Recommendations.
- Comprehensive Fit & Proper Criteria for Shareholders, Directors, CEO and Key Executives of ECs/ECs of 'B' Category was introduced.
- Guidelines on Risk Based Approach (**RBA**) for ECs Sector were issued.
- Revised guidelines for ECs Sector on Compliance of Government of Pakistan's Notifications issued under United Nations Security Council (**UNSC**) Resolutions was issued.

Corporate Governance: SBP required banks to formulate a comprehensive and transparent remuneration policy for the Chairman and other Directors. Further, along with other features, maximum limits were introduced on Directors' remunerations.

SBP advised the Banks/DFIs that their Board/Chairman would not appoint an 'Advisor' in any capacity. The objective of this requirement was to ensure that banks/DFIs should have appropriate skill mix of their Board of Directors keeping in view the overall risk profile of the institution.

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Dynamic Provisioning (Implementation of IFRS-9): SBP advised the banking industry to carry out a gap assessment of their process and systems in order to devise a strategy to implement the IFRS-9 standard. In view of the assessments, SBP advised the banking industry to conduct a parallel run of IFRS-9 standard in 2020 financials and to implement this standard from Jan 1, 2020 onwards[92]. SBP prescribed timelines for various milestones towards the smooth implementation of IFRS-9 including formation of Board and Project Steering Committee, preparation of IRFS-9 compatible pro-forma, parallel run of IFRS-9 and its Director Review Report etc. This measure will help the banking industry to achieve the best international practices of impairment recognition.

Outsourcing Arrangements by Financial Institutions: Financial Institutions (**FIs**) are increasingly

[89] SBP had updated the subject guidelines to further enhance the understanding of Targeted Financial Sanctions regimes for Terrorism Financing and Proliferation Financing, under United Nations Security Council (UNSC) Resolutions, and to further align said regimes with the requirements embodied in FATF Recommendations and observations highlighted in Mutual Evaluation Report 2018.

[90] BPRD Circular No. 09 of 2019.

[91] EPD Circular Letter No. 13 of 2019

[92] BPRD Circular No. 4 of 2019: Keeping in view the prevalent COVID-19 (Corona Virus Disease 2019) pandemic situation, SBP has extended timeline for the preparation of IFRS compatible pro forma financial statements till end August 2020 and parallel run for IFRS till July 1, 2020 (BPRD Circular Letter No. 15 of 2020).

using third party service providers including group companies to carry out various activities, functions and processes, thus, increasing their risk profiles. SBP issued revised Framework for Risk Management in Outsourcing Arrangements by FIs to address operational risk by updating the sections pertaining to Group Outsourcing, IT Outsourcing and governance of customers' confidential information. This will enable FIs to effectively manage their IT outsourcing activities and other outsourced services with group companies[93].

Supervisory Oversight: The initiatives, from the supervisory perspective, included disclosure of significant enforcement actions on SBP website, biometric verification of more than 90 percent account holders, industry assessment on compliance with AML/CFT requirements by seeking quarterly information. Moreover, banks were effectively engaged through written/ verbal follow-ups and supervisory meetings to ensure remedial actions had been taken to address the supervisory concerns.

Banking Conduct and Consumer Protection: Wide-scoped and timely information dissemination is essential for the prudent credit risk management. In this vein, SBP granted license to two private bureaus, M/s Aequitas Information Services Limited (**AISL**) and Data Check Limited under Credit Bureaus Act, 2015, which inter alia required the credit institutions to become member of at least one credit bureau. It is expected that these Bureaus would offer value added services and products in various dimensions including credit scoring, anti-fraud tools-fraud detection, portfolio monitoring, debt collection, marketing etc.

Financial Market: SBP, in coordination with Ministry of Finance, introduced a mechanism for re-opening auctions of existing issues of Floating Rate PIBs (**FPIBs**).[94,95] Further, SBP also abolished SLR eligibility limit on these securities.[96]Positively, those measures improved market participation in the auction of FPIBs and secondary market liquidity.

In addition, Federal Board of Revenue (**FBR**) simplified the tax regime for nonresident companies investing in debt instruments and Government securities. The aim was to deepen our capital markets, support availability of long term rupee financing sources, encourage competition in the local currency debt market, and diversify the source of funding for the government.[97]

Financial Market Infrastructures: In order to foster innovation in the payment industry and promote financial inclusion in the country, SBP decided to license non-banking entities as E-Money Institutions (**EMIs**). It is expected that EMIs shall offer convenient, cost effective, interoperable and

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93 BPRD Circular No. 06 of 2019

94 Previously due to absence of re-openings, each issue of FPIBs was a separate security which resulted in market fragmentation and low liquidity.

95 DMMD Circular No. 22 of 2019

96 Earlier, FPIBs to the extent of 15% and 5% of Total Liabilities (subject to SLR) could be counted towards SLR for banks and DFIs respectively.

97 http://www.sbp.org.pk/press/2020/Pr-02-Jan-20.pdf

secure digital payment products and services to end users in the country.[98,99]

Moreover, in order to facilitate the growth of digital payment acceptance points in the country, SBP issued Rules for Digital On-boarding of Merchants for EMIs. These Rules layout the minimum requirements for simplified due diligence process of on-boarding individual and self-employed persons as merchants, services to be offered by these merchants, transaction limits, maximum account balance limits, security measures, dispute resolution mechanism and regulatory reporting to SBP.

Financial Stability- Financial Inclusion Perspective

The role of financial inclusion in promoting financial stability, besides supporting poverty reduction and economic growth, is well established in wide-ranging literature.[100]

SBP is actively pursuing a financial inclusion agenda through its different work streams including Agriculture finance, Microfinance, Islamic Banking, SME finance, and Infrastructure and Housing finance. The key developments, during the reviewed year, in these areas were as below:

Agriculture Finance: In order to encourage banks/ DFIs to enhance financing for development loans in crop and non-crop sectors, the maximum repayment tenure of development loans was increased from 5 years to 10 years.[101]

SBP continued to provide an enabling regulatory framework for channelizing financing to develop an efficient and standardized infrastructure for the storage of commodities. To this end SBP introduced necessary amendments in Prudential Regulations of Agriculture. Financing, SME Financing, and Corporate & Commercial Banking. These initiatives will facilitate banks in financing against Electronic Warehouse Receipt (**EWR**).[102]

Microfinance Besides banks, SBP also strengthened regulations for AML CFT for Micro Finance Banks (MFBs) through following measures:

- MFBs were allowed to use Proof of Registration (**POR**) Card held by Afghan Refugees as a Valid Identity Document for Account Opening.[103]
- Amendments were made to align AML/CFT Regulations for MFBs with the Financial Action Task Force (**FATF**) Recommendations.[104]
- MFBs were reiterated to ensure the strict observance of all applicable instructions on AML/CFT, already issued by SECP and SBP, including identification and verification of customers and their beneficial owner(s) and obtain information on the purpose and intended nature of business relationship. Moreover, MFBs were also advised to ensure optimal utilization of biometric technology and carryout the biometric verification of existing customers.[105]

Additional guidance on Fit & Proper Test (Criteria) for MFBs was issued to ensure that persons subject to FPT shall become disqualified if they are designated/proscribed or associated directly/indirectly with designated/proscribed entities/persons under United Nations Security Council Resolution or Anti-Terrorism Act 1997.[106]

Islamic Banking: SBP notified adoption of six Shariah Standards of Accounting and Auditing Organization for Islamic Financial Institutions (**AAOIFI**) including No. 2 (Debit Card, Charge Card and Credit Card), No. 5 (Guarantees), No.14

[98] PSD Circular No. 1 of 2019
[99] As of March 30, 2020, five (5) companies have been issued In-principle approvals for various innovative digital payments solutions.
[100] See FSR 2018, Box-2
[101] AC&MFD Circular Letter No. 02 of 2019
[102] AC&MFD Circular Letter No. 03 of 2019
[103] AC&MFD Circular Letter No. 01 of 2019
[104] AC&MFD Circular No. 03 of 2019
[105] AC&MFD Circular No. 04 of 2019
[106] AC&MFD Circular Letter No. 04 of 2019

(Documentary Credit), No.18 (Possession), No.24 (Syndicated Financing) and No. 38 (Online Financial Dealings).[107] Adoption of these Shariah standards marks a major milestone towards the standardization of Shariah products and practices in Islamic banking industry of Pakistan with internationally recognized standards.

In order to provide Shariah compliant alternatives of conventional financing facilities to meet demand of faith sensitive clients, SBP enhanced the scoped of Islamic financing/re-financing through various facilities.[108] Further, in order to facilitate availability of long-term affordable funding to low income segments, SBP launched 'Islamic Financing Facility for Low Cost Housing for Special Segments' on the basis of Mudarabah.

Considering the scheduled maturities of GoP Ijara Sukuk and limited issuance of sovereign Shariah compliant securities vis-à-vis increasing demand for investment opportunities by Islamic Banking Institutions, SBP supported the eligibility of Pakistan Energy Sukuk issued by Power Holding Private Limited (PHPL) as approved security for maintenance of SLR.[109] SBP also supported the declaration of obligations of SBP arising from Bai-Muajjal transactions as approved security for maintenance of SLR.

SME Financing: SBP launched "Small Enterprise (SE) Financing and Credit Guarantee Scheme for Special Persons" in line with the Government of Pakistan's priority to improve socio-economic life of the special persons in the country. Under the scheme, Banks and DFIs are required to provide financing facilities to special persons to meet credit needs for setting up of new business enterprises or for expansion of existing ones[110]. The end user rate is up to 5% which will be retained by banks. Moreover, 60% risk coverage is also available to the participating institutions.

Infrastructure and Housing Finance: SBP is working for promotion of green banking & finance in the country, which broadly includes concepts like renewable energy, resource efficiency & sustainable development.

SBP updated and issued SBP Financing Scheme for Renewable Energy in July 2019. The major change in the Scheme was extension of its availability period by another three years i.e. till June 30, 2022.

With the intention to promote environment friendly alternatives, SBP introduced financing facility for establishment of zig-zag technology based brick kilns as well as upgradation/ modernization of existing conventional brick kilns to modern zig-zag technology. The motivation behind expansion in the scheme is to help reduce emissions of carbon and other particulate matter from conventional brick kilns by adoption of new zigzag technology.[111]

To further facilitate export-oriented industries for purchase of imported or locally manufactured machinery, SBP extended the scope of Long term financing facility (**LTFFF/ILTFF**) to all sectors besides increasing maximum financing limit for a single project from PKR 1.5 billion to PKR 5.0 billion.

The housing finance has negligible share in Pakistan. In order to promote housing finance especially low cost housing, SBP has launched low cost housing finance policy on March 11, 2019[112]. The policy introduced following key initiatives:

- The regulatory relaxations allowed in the area of low cost housing finance included removal of

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[107] IBD Circular No. 01 dated March 01, 2019
[108] These facilities included Islamic Financing Facility for Renewable Energy (IFRE)', 'Islamic Financing Facility for Storage of Agricultural Produce (IFFSAP)', 'Islamic Refinance Facility for Modernization of SMEs (IRFMS)', 'Islamic Refinance Scheme for Working Capital Financing of Small Enterprises and Low-End Medium Enterprises'.
[109] DMMD Circular No. 07 of 2019
[110] IH&SMEFD Circular No. 07 of 2019
[111] IH&SMEFD Circular No. 09 of 2019
[112] Please see, IH&SMEFD Circular No. 4, 5 & 6 of 2019

general reserve requirement, increase in loan to value ratio, lowering of risk weights, exemption from exposure limit on real estate etc.

- In order to facilitate availability of long-term affordable funding for housing to special segments of society e.g. Widows, Transgender, special persons, SBP shall provide refinance against subsidized low cost housing financing by banks/DFIs (conventional and Islamic).
- SBP assigned targets for overall housing finance portfolio to banks and targets for low cost housing for special segments to both banks and HBFCL.

1. Global and Domestic Macrofinancial Environment

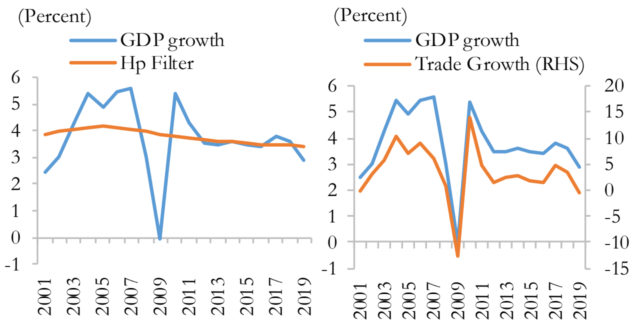
Global economic growth continued to trend downwards in 2019 amid trade tensions, fears of a no-deal Brexit, slowdown in China, and idiosyncratic issues in several EMDEs. While monetary policy easing in AEs supported economic activity, it created easy financial conditions, thereby, raising financial vulnerabilities further. However, resilience of the global banking system remained intact. The domestic economy—after remaining under stress till first half of CY19—started experiencing signs of economic recovery towards the end of CY19. The economic uncertainty prevailing in the first half receded during the second half owing to stabilization measures adopted under the IMF program, with visible improvement in the external and fiscal accounts. However, COVID-19 threatens to temporarily disrupt the recovery of the domestic economy.

Global Developments

Global economic momentum remained feeble during CY19…

Global economic activity further decelerated in 2019 to 2.9 percent (3.6 percent in 2018 and 3.8 percent in CY17).[113] Global growth rates even dipped below their long-term trend. A notable slowdown in trade growth amid rising trade policy uncertainty, geo-political tensions, a partly policy-induced slowdown in China, concerns related to a no-deal Brexit and downturn in automobile industry were key drivers of softening global economic expansion (**Chart 1.1**). Country specific issues in certain EMDEs also adversely affected the global economy during 2019.[114] However, the accommodative monetary policy adopted by several countries, somewhat, helped cushion downward growth pressures.

Chart 1.1: Deceleration in world trade dragged global growth level below its normal trend



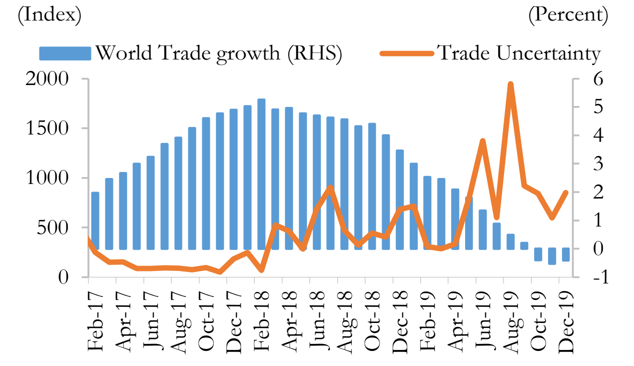
Source: IMF World Economic Outlook (Oct, 2019) and CPB Netherlands Bureau of Policy Analysis

as the gravity of trade war increased…

Trade and technology disputes between USA and China intensified until August-2019.[115] These further weakened business confidence across the globe, causing manufacturing firms to slow down the purchase of machinery and equipment. As a result, world trade growth turned negative for the first time since 2010 (**Chart 1.2**).

113 IMF made downward revisions in its global economic growth estimates for CY19 in Apr-19, Oct-19 and then Jan-20.
114 The referred EMDEs primarily include India, Russia, Turkey and GCC countries.
115 In WEO-Apr, 2019, IMF projected average USA tariffs on imports from China at around 12.25 percent, whereas, average China tariffs on imports from USA to about 16.5 percent by December, 2019. However, after tariff announcements in the month of May and August 2019, the IMF in WEO-Oct, 2019 revised tariff estimates at around 24 percent and 26 percent by December 2019, respectively.

Chart 1.2: Rising trade uncertainty weakening trade growth



Source: CPB Netherlands Bureau for Policy Analysis and Federal Reserve of St. Louis

AEs and EMDEs continued to observe a moderation in economic activity….

Growth in AEs continued to decelerate (**Table 1.1**). Moderation in the USA was mainly due to sluggish growth in investment and the fading impact of tax cuts made during 2018. The softening activity in the Euro Area was primarily driven by weakening of automobile exports, as the car industry—particularly in Germany—remained in the process of complying with new emission standards. Moreover, fall in demand for automobiles, especially from China, also affected the exports of automobiles.

While manufacturing sector observed a broad based slowdown, the services sector remained resilient and provided some respite to growth in several advanced economies.[116]

EMDEs also witnessed a moderation in growth, which was more pronounced than AEs. In China, economic growth slackened partially as a result of rising trade tariffs on Chinese products imposed by the USA, which considerably constrained its exports. In addition, slowing domestic demand in response to regulatory measures to curb rising non-financial sector debt contributed to the slowing growth momentum.[117]

In line with China, economic activity in India, Russia, Turkey, GCC countries and others also remained subdued. In India, growth moderated due to a sharp slowdown in gross fixed capital formation and private consumption, along with a steep slowdown in exports.[118] For Russia, external factors such as geopolitical risks and mounting trade conflict between US and EU translated into a growth slowdown.[119] In Turkey, a sharp decline in domestic demand restrained economic activity (**Table 1.1**).

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

	2017	2018	2019	2020*
World	3.90	3.60	2.90	-3.00
Advanced Economies	2.50	2.20	1.70	-6.10
EMDEs	4.80	4.50	3.70	-1.00
EMDEs - Asia	6.70	6.30	5.50	1.00
MENAP	2.10	1.50	0.70	-3.10
USA	2.40	2.90	2.30	-5.90
Euro Area	2.50	1.90	1.20	-7.50
U.K	1.90	1.30	1.40	-6.50
Japan	2.20	0.30	0.70	-5.20
Argentina	2.70	-2.50	-2.20	-5.70
China	6.90	6.70	6.10	1.20
Turkey	7.50	2.80	0.90	-5.00
India	7.00	6.10	4.20	1.90
Russia	1.80	2.50	1.30	-5.50
Saudi Arabia	-0.70	2.40	0.30	-2.30
United Arab Emirates	0.50	1.70	1.30	-3.50
Pakistan	5.22	5.53	3.29	-1.50

Source: World Economic Outlook, IMF, April 2020
* IMF-Projections

….. as did in GCC economies ….

Growth in GCC countries during 2019 was notably lower compared to 2018 (**Table 1.2**). The fall in oil prices by 10.2 percent during 2019 was one of the primarily factors weighing on activity. Softening global demand and the ongoing compliance of emission standards largely explained ebbing oil prices. The impact of these developments had been significant enough to outweigh the upward pressure on oil prices arising from oil production cuts by GCC countries, US sanctions on Iran and political tensions in other

116 World Economic Outlook – Oct, 2019
117 World Economic Outlook – Oct, 2019
118 Reserve bank of India "Financial Stability Review – Dec, 2019"
119 Bank of Russia, Financial Stability Review – Q2-Q3 2019"

major oil exporting countries such as Libya and Venezuela.[120]

Table 1.2: Gulf Cooperation Council (GCC) Macroeconomic Performance

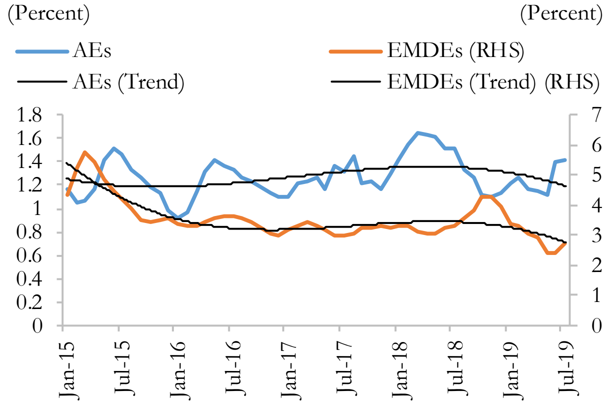
	2016	2017	2018	2019	2020*
Percent of GDP otherwise mentioned					
GDP (annual change, percent)	2.3	-0.4	2.0	0.6	-2.7
Current Account Balance	-2.8	2.8	8.6	5.6	-3.1
Fiscal Balance	-10.7	-5.7	-1.6	-2.1	-10.4
Average Oil Price (US$ per barrel)**	42.8	52.8	68.3	61.4	35.6
Inflation (year avg - percent)	2.1	0.2	2.1	-1.0	0.3

Source: Regional Economic Outlook, Middle East and Central Asia, IMF (Apr-2020)
* Projections
** Simple average of prices of UK Brent, Dubai Fateh and West Texas intermediate crud

Inflationary pressures further weakened in 2019

Inflationary pressures further weakened during 2019 across AEs and EMDEs, reflecting weak economic conditions. While core inflation across AEs dropped below target levels, in EMDEs it slid slightly below their historical average level (**Chart 1.3**).[121]

Chart 1.3: Core inflation softened across AEs and EMDEs



Source: IMF World Economic Outlook - Oct, 2019

In AEs, consumer price inflation further dropped to 1.4 percent in 2019 from 2.0 percent in 2018. Despite higher import tariffs and a modest rise in wages, particularly in the USA, inflationary pressures remained muted in 2019. Besides weak transmission of cost pressures to general price levels partly because of sluggish growth, declining international oil prices also kept inflation at a lower level.[122]

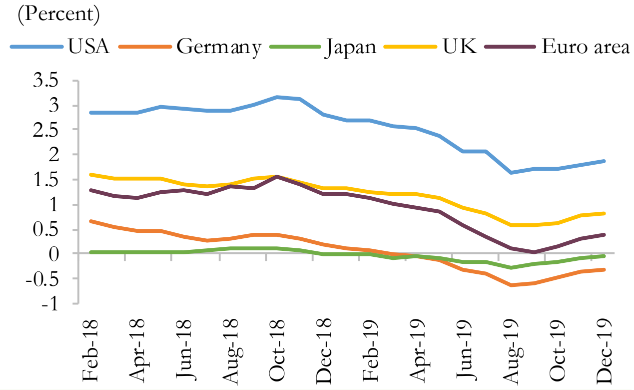
In EMDEs, inflation also remained contained (5.0 percent in 2019 vs. 4.8 percent in 2018). However, variations existed across countries. Middle Eastern and Central Asian countries contributed to easing in prices while other regional groups observed some rise in inflation owing to depreciation in their respective local currencies against the US dollar.[123]

Reversal in the monetary policy stance kept financial conditions supportive in AEs…

Major central banks in AEs moved towards a rate cutting cycle during 2019, owing to weakening economic prospects. The Federal Reserve cumulatively reduced the Federal Funds Rate by 75 bps. Also, the European Central Bank (**ECB**) relaxed monetary levers by reducing its deposit rate during 2019. There were 71 interest rate cuts by 49 central banks across the globe during the year 2019, indicating a synchronized easing of monetary policy.[124] As a result, sovereign bond yields declined, leading to easy financial conditions during the second half of CY19 (**Chart 1.4 and 1.5**). In Japan and Germany, yield on 10-year government bonds turned negative.

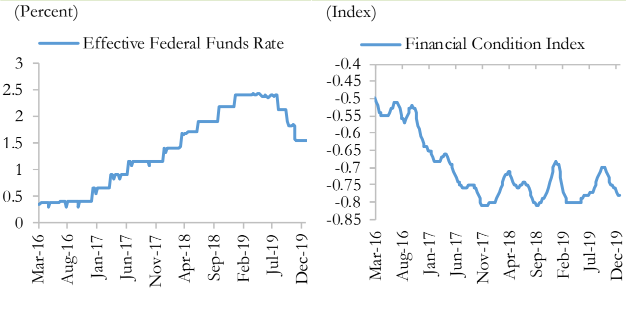
120 World Economic Outlook – Oct, 2019
121 World Economic Outlook – Oct, 2019
122 Weak transmission to inflation was possibly due to decline in profit margin of the corporate sector.
123 Argentina, Venezuela, Turkey, Pakistan are among the key economies where currency depreciation had fed higher inflation.
124 According to IMF, the broad based monetary easing is estimated to have lifted the 2019 GDP growth by 0.5 percentage point https://www.imf.org/en/News/Articles/2020/01/21/sp01202020-md-opening-remarks-at-weo-press-conference

Chart 1.4: Yield spread on 10 year government bonds dipped during 2019, turning negative in some AEs



Source: Federal Reserve Bank of St. Louis

Chart 1.5: Accommodative monetary policy eased financial condition

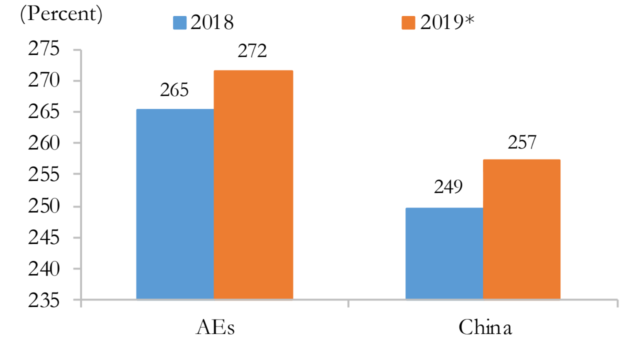


Source: Federal Reserve Bank of St. Louis

...whereas, corporate valuations in China marginally tightened financial conditions

In China, non-financial sector debt rose to 258.7 percent of GDP during 2019 from 249.6 percent in 2018. This debt level was higher than other EMDEs and many AEs. First of all, the acceleration in debt levels was supported by implicit guarantees by banks and state owned enterprises. This tends to indicate lending on compromised lending standards (**Chart 1.6**).

Chart 1.6: Non-financial sector debt elevated in key economies



*Data for 2019 is as off Sep, 2019
Source: BIS

Secondly, a large chunk of corporate lending was financed through lightly regulated NBFIs. It appears that much of this lending by NBFIs might have been sourced by banks, implying significant amount of risk at their end.[125] Chinese regulatory bodies made attempts to reduce vulnerabilities through various reform measures. As financing from NBFIs was restricted, it resulted in a tightening of availability of credit in China. Consequently, it acted as an additional factor slowing down economic activity in the country.

Banking sector in AEs remained resilient during 2019

The resilience of the banking sector in AEs (excluding Euro Area) remained intact during 2019, owing to strong compliance with regulatory requirements.[126] In particular, the global systemically important banks (**GSIBs**) exhibited more resilience than a decade earlier. The asset quality of the banking sector improved on account of strengthening of borrower's repayment capacity. As a result, loan loss expenses declined substantially, reaching their lowest level across several AEs (USA, UK, Japan, and Canada), which augmented the overall profitability of the banking sector.

125 Banks facilitated the NBFIs in lending to corporate sector through repurchase agreements and by the purchase of investment products issued by NBFIs.
126 The minimum Total Loss Absorbency Capital (TLAC) requirement, comprising of both regulatory capital and eligible debt, phased in for G-SIBs headquartered in advanced economies effective from 1st Jan., 2019. The required level of TLAC starts at 16 percent of risk weighted assets and 6 percent of the Basel III leverage ratio denominator. By 2022, the required level raises to 18 percent and 6.75 percent respectively.

However, financial vulnerabilities increased in AEs

While the fresh episode of interest rate cuts helped mitigate risks to growth, it also stimulated asset prices and encouraged further financial risk taking during 2019. Equity prices in the USA continued to rise above the economic fundamentals, along with lower volatility, suggesting higher vulnerabilities (**Chart 1.7**). [127]

Chart 1.7a: Sharp increase in equity prices in the USA

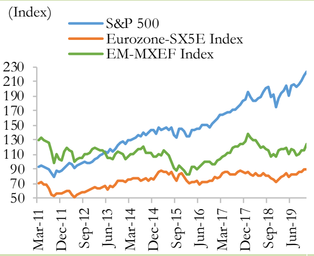
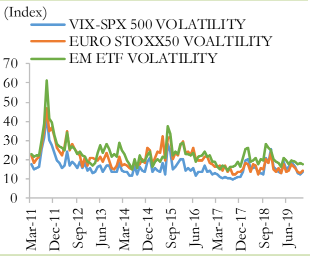


Chart 1.7b: Benign movement in market volatility



Source: Bloomberg

In addition to stretched equity prices, corporate leverage had also been increasing over the past few years (**Chart 1.6**). In some economies, including USA, France and Canada, it reached historic highs during 2019.[128,129] Besides, the increasing concentration of debt among risky borrowers was more worrying from a systemic risk perspective. This could trigger two adverse implications. First, in case of a negative shock to income, interest rates or funding, borrowers' capacity to service a higher debt level could become challenging.[130] Second, high concentration among riskier borrowers could constrain the ability of investors to sell their assets in times of rising stress in the financial system.[131]

In China, elevated non-financial sector debt remains a key source of vulnerability. The prevailing economic slowdown, owing to idiosyncratic and policy induced factors, could restrict the ability of firms to remain liquid and service their debts. Therefore, materialization of liquidity or credit shock could instill stress on the financial sector on a wider scale, given complex interconnectedness between the Chinese financial institutions.

The global economy is heading towards a recession because of Covid-19…

As per the IMF's latest WEO report, global growth was previously projected to recover to 3.3 percent in 2020 from 2.9 percent in 2019. However, the outbreak of the COVID-19 in late 2019 has significantly dented growth expectations for 2020. With several major economies in lockdown, the IMF has declared that 2020 will be a year of recession for the global economy, stating that it could be "*at least as bad as during the global financial crisis or worse*". [132]

While the degree of negative growth will largely depend on the longevity of the virus, local regulatory bodies across numerous jurisdictions are playing a critical role in mitigating its adverse impact on their respective economies. In addition, several international policymakers/organizations are also engaged in relief efforts to mitigate the expected global economic downturn (**see Box 1**).

Domestic Developments

In case of domestic macrofinancial environment, the year 2019 could be bifurcated into two halves. In the first, macroeconomic imbalances and uncertainties continued to surge, while in the second, in response to stabilization measures, the signs of improvement became visible in the

[127] Lower volatility suggests that equity market investors have been expecting favorable monetary policy stance by the Federal Reserve whenever risk to growth arise. In this backdrop, equity investors were increasing their exposure in the US equity market, thereby, pushing up the equity prices beyond what the economic fundamental suggests. In this way, lower stocks volatility was driven financial risk taking, hence, fueling financial vulnerability.
[128] By the end of 2019, corporate debt as percentage of GDP in USA, France and Canada was recorded at 254.2 percent, 327.4 percent and 300.8 percent, respectively.
[129] https://www.bis.org/statistics/totcredit/totcredit.xlsx
[130] Global Financial Stability Report, April 2019
[131] Global Financial Stability Report, October 2019
[132]https://www.imf.org/en/News/Articles/2020/03/23/pr2098-imf-managing-director-statement-following-a-g20-ministerial-call-on-the-coronavirus-emergency

external and fiscal accounts that gradually lifted the business confidence.

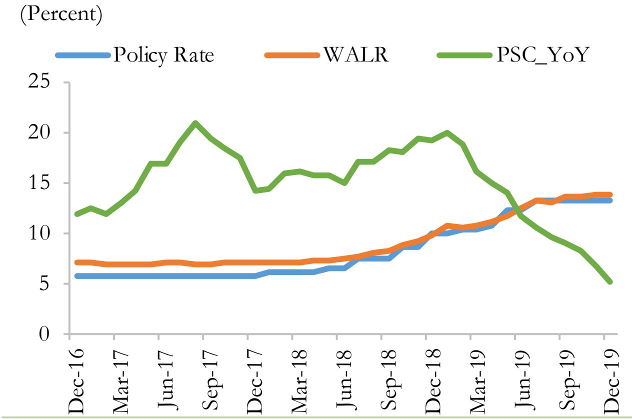
During FY19, the pace of economic activity and private sector credit receded amid stabilization measures…

Like the slowdown in pace of global economic activity, the domestic economy also observed slackness during FY19. GDP growth fell from 5.53 percent in FY18 to 3.29 percent in FY19 because of contraction in large-scale manufacturing and substantial slowdown in agriculture.[133]

To tame the growing macroeconomic imbalances in the external and internal accounts, stabilization measures, initiated during last fiscal year, continued this year. Besides fiscal consolidation, these measures included monetary tightening, exchange rate depreciation, and steps to curb imports.[134] These policy adjustments, along with bilateral inflows from friendly countries, helped address external account challenges. On the fiscal side, the government slashed development spending by 25.61 percent during FY19 to restrain the budget deficit. However, the macroeconomic imbalances continued to pose challenges, which were further addressed early on in FY20 i.e. in the second half of CY20.

Understandably, the private sector credit growth also decelerated during the period (**Chart 1.8**). It fell from 14.92 percent in FY18 to 11.61 percent in FY19. This growth further slowed down to 3.23[135] percent during second half of CY20.

Chart 1.8: Interest Rate and Deceleration in Private Credit

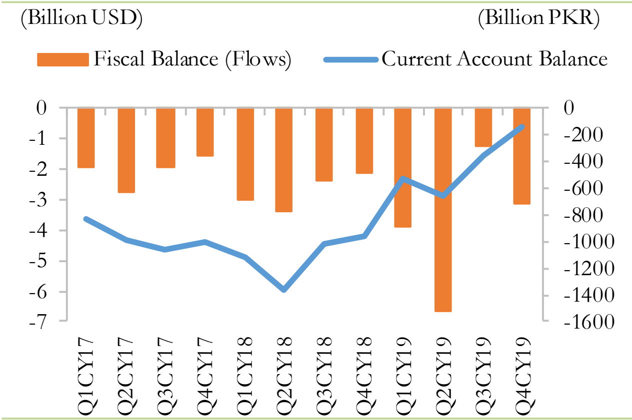


Source: SBP

However, the domestic economy witnessed notable improvements during the second half of 2019…

A widening fiscal deficit until the first half of CY19 and unabated pressure on the external account prompted Pakistan to secure IMF support via an Extended Fund Facility in July 2019.

Chart 1.9: Declining twin deficits



Source: SBP and MoF

The reassuring signals due to the IMF program and implementation of the associated stabilization measures helped to lower uncertainty among market participants about the future economic outlook, along with an improvement in the foreign exchange reserves during H2CY19. The stabilization measures included a monetary policy stance strong enough to ensure positive real interest rates, introduction of market based

133 LSM contracted by 2.1 percent while agriculture expanded by only 0.8 percent in FY19.

134 Policy rate increased by 575 basis points while the average exchange rate depreciated by 30.71 percent during FY19.

135 Jul-Dec 2019 growth in private sector credit.

exchange rate system, enhancement of documentation and, removal of exemptions and preferential treatment with respect to tax collection.[136] With a view to avoid fiscal pressures from power sector inefficiencies, administered prices of electricity and gas were also adjusted upwards.[137]

…and macroeconomic vulnerabilities receded

Further, policy measures helped to significantly contain the twin deficits (**Chart 1.9**). The current account deficit shrank by 62.62 percent by end CY19, primarily on account of a compression in imports (17.26 percent decline in CY19 vs. 5.41 percent rise in CY18) as well as a stable inflow of workers' remittances (5.75 percent in CY19 vs. 7.19 percent in CY18) (**Table 1.3**). Though exports improved in terms of volume, stiff competition in global markets amid USA-China trade tensions lowered unit values, such that the dollar value of exports remained stagnant.

Table 1.3: Key Economic Indicators of Pakistan*

	2016	2017	2018	2019
Real Sector	(Percent)			
Real GDP Growth (FY)	4.56	5.22	5.53	3.29
LSM Growth (Average YoY)	3.08	7.02	2.03	(3.52)
Inflation (Average YoY)	3.92	5.04	5.32	9.35
External Sector	(USD Billion)			
SBP Reserves (End-of-Period)	18.27	14.11	7.20	11.33
Current Account Balance	(6.74)	(17.68)	(19.65)	(7.34)
Exports (Goods)	26.81	28.89	30.08	30.20
Imports (Goods)	51.91	64.48	67.97	56.24
Trade Balance	(25.10)	(35.59)	(37.89)	(26.03)
Remittances	19.68	19.59	21.00	22.21
PKR/USD Rate (Year Average)	104.76	105.45	121.73	150.04
Fiscal Sector	(Percent)			
Fiscal Deficit (as % of GDP, FY)	(4.64)	(5.84)	(6.53)	(8.93)
Revenue Growth (YoY)	5.87	20.26	(3.01)	12.28
Expenditure Growth (YoY)	7.59	17.00	6.05	18.90
Monetary Sector	(Percent and PKR Trillion)			
Credit to Private Sector (YoY Growth)	11.90	14.21	19.10	5.18
Government Budgetary Borrowing	8.54	9.59	11.12	13.12
Borrowing from Schedule Banks	5.87	6.99	6.01	6.70
Borrowing from SBP	2.66	2.60	5.10	6.42

*All data are on Calendar Year unleas stated otherwise.
Source: MoF, PBS and SBP

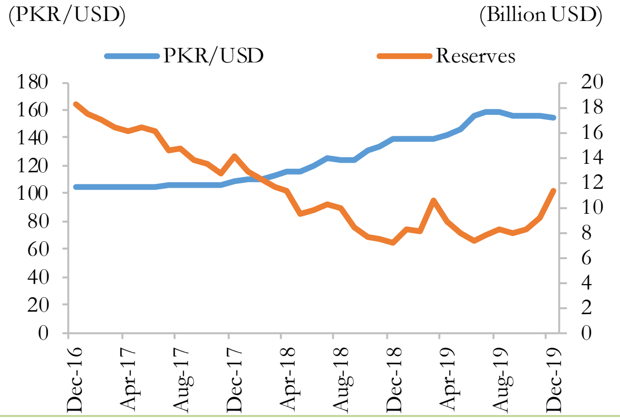
Consistent improvement in the current account deficit allowed SBP to accumulate FX reserves and retire its short-term liabilities of USD 3.82 billion during the second half of CY19.[138] These positive developments, together with the confidence instilled by the IMF program, helped to stabilize the exchange rate (**Chart 1.10**).

136 Fiscal reforms included elimination of preferential tax treatment (sugar, steal and edible oil industries); end of zero-rated sales tax for export-oriented industries (textile, leather, carpets, sports and surgical instruments), focus on documentation and simplification of tax administration through introduction of technology-based solutions.

137 CNG, motor fuel and electricity prices increased by 24.4, 22.5 and 4.2 percent, respectively, during FY19. SBP 2019, Annual Report on State of Pakistan's Economy.

138 Monetary Policy Statement, January 2020, State Bank of Pakistan.

Chart 1.10: Stabilizing Exchange Rate and Reserves



Source: SBP

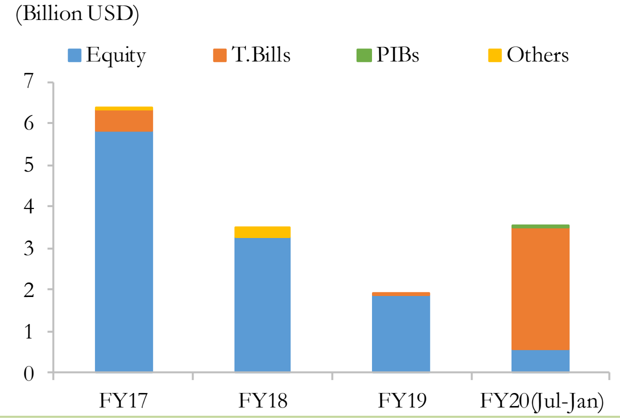
Besides narrowing of the current account deficit, the fiscal accounts also witnessed notable improvements owing to policy measures taken as part of the FY20 budget. During Jul-Dec 2019, the fiscal deficit reduced to 2.3 percent (of GDP) as compared to 2.7 percent in the comparable period of the previous year, whereas the primary balance turned into a surplus[139] for the first time in almost half a decade.

As a result, business confidence improved and foreign portfolio investment increased…

Since June 2019, the Business Confidence Index (**BCI**) gradually improved till December 2019. With business sentiments gaining some traction, the large-scale manufacturing activity increased in December 2019.[140]

Moreover, this improvement in sentiments and greater confidence in the direction of economic policies attracted foreign portfolio investment in treasury bills. During Jul-Jan FY20, the country received inflows of USD 2.91 billion in treasury bills **(Chart 1.11**). These inflows supported FX reserves and provided the government an alternate source of budgetary financing; thereby enabling banks to cater for private sector credit needs.

Chart 1.11: Foreign Portfolio Inflows in Govt. Securities

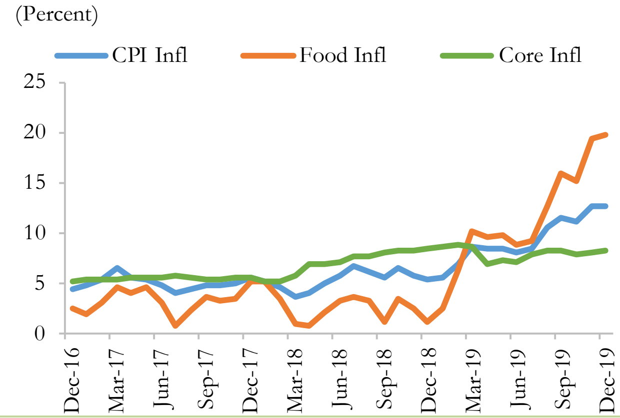


Source: SBP

Nevertheless, despite weak aggregate demand, the inflationary pressures remained elevated due to supply side factors…

Despite weak economic momentum, average inflation during CY19 was 9.35 percent—higher than 5.32 percent observed in CY18 (**Table 1.3**). Pressure on price levels further intensified during H2CY19 as inflation rose to 11.10 percent and even higher beyond the review period.

Chart 1.12: Inflation on Rise owing to Supply Side Factors



Source: PBS

As reflected in broadly stable core inflation, demand-pull factors remained somewhat contained because of stabilization measures.

However, supply-side factors pushed up food and energy inflation throughout CY19 (**Chart 1.12**).

[139] Ministry of Finance, Government of Pakistan

[140] LSM recorded 9.94 percent (YoY) growth rate in December 2019 after showing negative growth almost all months of 2019.

First, PKR/USD exchange rate depreciated by 27.16 and 11.69 percent during CY18 and CY19, respectively. Recurring bouts of depreciation and the subsequent second-round effects led to strong inflationary pressures during CY19. Second, fiscal policy measures taken in the budget for FY20 to minimize subsidies and eliminate tax distortions pushed up prices.[141] Third, upward revision of natural gas and electricity prices to control subsidies and the accumulation of circular debt, led to increase in energy prices. Finally, bottlenecks in regional trade and administrative issues regarding supply chain of a few essential items like wheat and sugar also pushed up the food prices.142

The onset of COVID-19 threatens to temporarily disrupt the recovery prospects of the domestic economy…

The outbreak of COVID-19 across the globe has led to unprecedented levels of uncertainty and economic distress, of the kind not observed in decades. In Pakistan, too, high levels of uncertainty and disruptions caused by much needed lockdown administered to control the contagion are likely to lead to a sharp slowdown in near-term growth. Ongoing expenditures to upgrade healthcare and social safety nets and, a fall in revenue are likely to lead to a temporary rise in the fiscal deficit and public debt. Further, the external sector could face some pressures, though weak import demand and lower oil prices are the mitigating factors. Under these circumstances, inflation is likely to recede faster than anticipated earlier.

Overall, given the improvement in Pakistan's fundamentals pre-COVID-19, the government and SBP's prudent and proactive response, the sound position of the financial system, and the continued support of international financial institutions, Pakistan's economy should be well-placed to resume along the path of reform and recovery once the pandemic subsides. (**For a detailed discussion of potential impact of COVID-19 and corresponding measures taken by SBP, please see Box 1 in Overview).**

[141] These fiscal policy measures include increase in Federal Excise Duty on cigarettes and edible oil, increase in sales tax rate for sugar and elimination of zero-rating for export-oriented industries. *Annual Report on State of Pakistan's Economy 2018-19*.
[142] Annual Report on State of Pakistan's Economy 2018-19.

2. Financial Markets' Behavior

The stability in the forex market, in the later part of CY19, reduced the stress in the financial markets. The softening of macroeconomic vulnerabilities and higher certainty among the market participants about the future economic direction were the key drivers for this stability. In response to favorable macroeconomic conditions, foreign portfolio investment flowed into government securities. Moreover, changing interest rate expectations pushed the banks towards longer-tenor securities, which helped reduce the roll over risk for the government. The equity market also rebounded towards the end of CY19, though it remained quite volatile during the year. In the wake of COVID-19 outbreak and the associated emerging risks to the domestic economy, finical markets have remained volatile since Mar-2020.

Easy financial conditions cascaded into growing vulnerabilities in the global financial system during CY19

Trade tensions between the US and China and the resultant policy actions by the Federal Reserve remained the key drivers for the global financial markets' behavior during CY19 .[143] Particularly, equity markets oscillated back and forth in tandem with trade related news. As the economic prospects weakened and downside risks increased, the central banks across the globe relaxed the monetary policy.[144, 145] Resultantly, yields on long-term government bonds in advanced economies (**AEs**) trended downwards turning even negative in a range of countries.[146] However, favorable news on US-China trade negotiations and certainty regarding Brexit in the final quarter of the year induced positive sentiments leading to an uptick in the yields.[147]

On the one hand, the easy financial conditions in AEs during CY19—driven by the dovish stance of major central banks—helped contain downside risks to near-term economic outlook. On the other hand, they stimulated financial risk taking resulting in further build-up of financial vulnerabilities, stretched equity prices (especially, in the USA and Japan) and growing investment into risky assets. Lower yields compelled institutional investors—in order to generate targeted returns—to invest in riskier and less liquid securities. Consequently, these investors became a –key source of funding for the nonfinancial firms, which, in turn, facilitated a rise in corporate debt burdens.[148]

In emerging markets economies (**EMEs**), financial conditions continued to ease with the rate cutting cycle in AEs. External borrowing costs declined and debt portfolio inflows increased encouraging debt build-up. Worryingly, median external debt of EMEs (sovereign as well as private) advanced to 160 percent of exports in 2019 from 100 percent in 2008.

Stress receded in the domestic financial markets in second half…

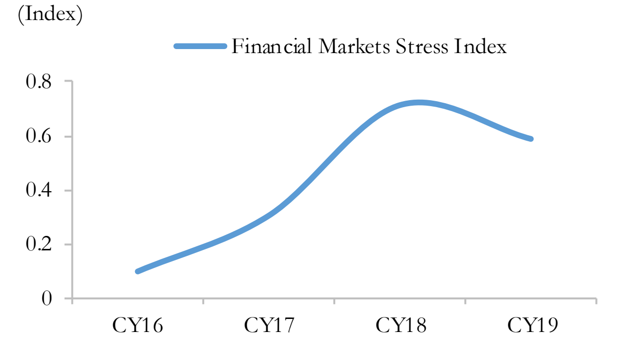
The elevated level of stress observed in the domestic financial markets in the previous year subsided during second half of CY19 (**Chart 2.1**). Scaling up of the corrective policy measures and consequent improvement in certain macroeconomic indicators brought higher certainty among market participants about the future economic outlook of the country. As the

143 IMF (2020). World Economic Outlook Update. *January*
144 IMF. (2019). Global Financial Stability Report. Washington, October
145 There were 71 interest rate cuts by 49 central banks in CY19.
146 Austria, Belgium, Denmark, Finland, France, Germany, Japan, the Netherlands, Sweden, and Switzerland.
147 IMF. (2020). World Economic Outlook Update. Washington, January.

148 According to IMF (Global Financial Stability Report, Oct-2019), corporate debt at risk could rise to 40 percent (USD 19 trillion) of the total corporate debt in major economies in a material economic slowdown scenario. Also, vulnerabilities among nonbank financial institutions are now elevated in 80 percent of economies with systemically important financial sectors (by GDP).

sentiments improved, calmness returned to the financial markets.

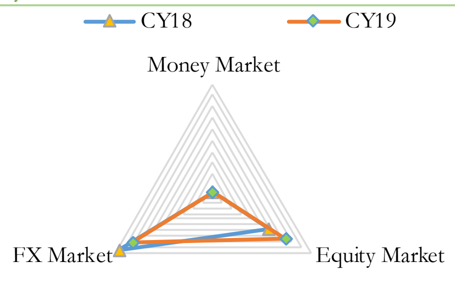
Chart 2.1: Vulnerabilities in financial markets softened during CY19



Note: This chart presents quarterly average of the index.
Source: SBP

Particularly, despite higher average exchange rate depreciation during CY19 (23.12 percent against 15.48 percent in CY18), the volatility in the forex market remained contained. It was primarily due to the narrowing current account deficit, introduction of market based exchange rate system and securing of Extended Fund Facility under IMF program (**Chart 2.2**).

Chart 2.2: Volatility subsided in FX market while increased in Equity market



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

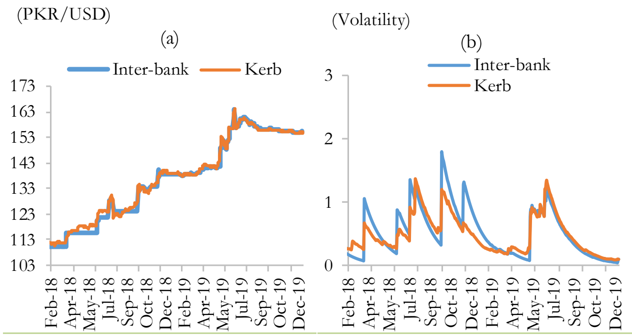
Money market continued to operate smoothly during CY19 on account of interest rate corridor mechanism, SBP's prudent management of market liquidity, and consistent pattern of government borrowings from the banking system. Equity market, however, experienced higher volatility during CY19 as KSE-100 index —on average— was down by 14.47 percent (7.67 percent decline in CY18).

FX Market

Forex market volatility reduced …

Forex market observed higher volatility for a brief period in H1CY19 and subsided afterwards **(Chart 2.3a & 2.3b)**. The exchange rate depreciated against USD by 15.36 percent between May 15, 2019 to June 28, 2019. A number of factors explain the improved stability in the forex market during H2CY19. These include realignment of exchange rate with market fundamentals which helped anchor exchange rate expectations of the market participants hence addressed speculative behavior effectively, softening pressure on current account, and securing IMF Extended Fund Facility in July-2019.

Chart 2.3: Introduction of market based exchange rate system helped contain volatility

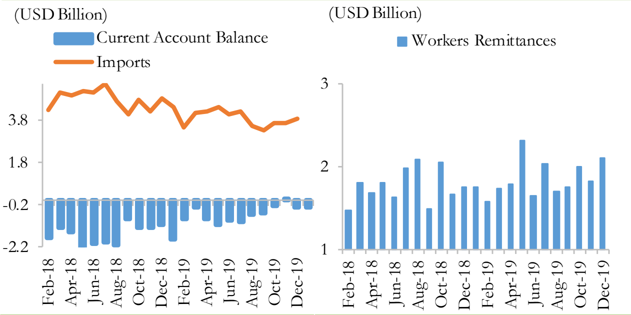


Source: SBP

Current account pressures softened owing to compression in imports and healthy inflow of remittances….

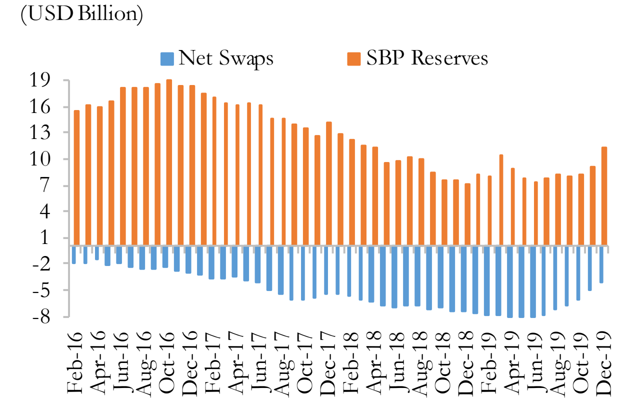
Besides other measures, the adoption of market based exchange rate system played critical role in bringing improvement in current account balance. Current account deficit that surged to USD 19 billion in CY18 reduced to USD 7 billion in the reviewed year showing impressive improvement of 62.0 percent. Compression in imports—in response to the stabilization measures—and healthy inflow of workers' remittances helped contain current account vulnerabilities (**Chart 2.4**).

Chart 2.4: Current account pressures receded during H2CY19



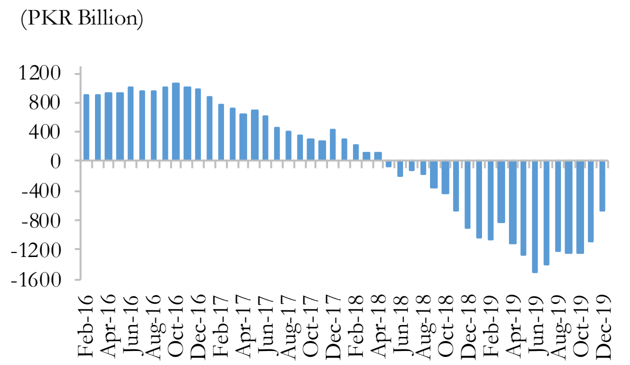
Source: SBP

Chart 2.5: SBP FCY swap liabilities declined in H2CY19



Source: SBP

Chart 2.6: NFA of the banking system improved (stocks)



Source: SBP

…and SBP forex reserves began to build-up

Receding current account pressures, securing IMF program and foreign portfolio investment flows into government securities (mostly in T-bills amounting to USD 1.9 billion) helped bring consistent improvement in SBP forex reserves in the second half of CY19.[149] The reserves rose to USD 11.3 billion by end December-2019 from USD 7.2 billion in June-2019. Resultantly, SBP moved to reduce its foreign currency swaps/forward liabilities with the banking sector during the same period (**Chart 2.5**). Gradual improvement in Net Foreign Assets (NFA)[150] of the banking system during the same period also witnessed emerging healthy conditions in forex market (**Chart 2.6**). In this context, PKR appreciated against USD by 5.02 percent during H2CY19.

Decompression in forward premium and growing foreign currency loans signaled upbeat sentiment …

In CY18, forex market observed compressed forward premium[151] as well as decline in foreign currency loans owing to the dearth of US dollar liquidity and the associated uncertainty about the exchange rate dynamics. However, in CY19, abating vulnerabilities on external account and the improved forex reserves allowed decompression in

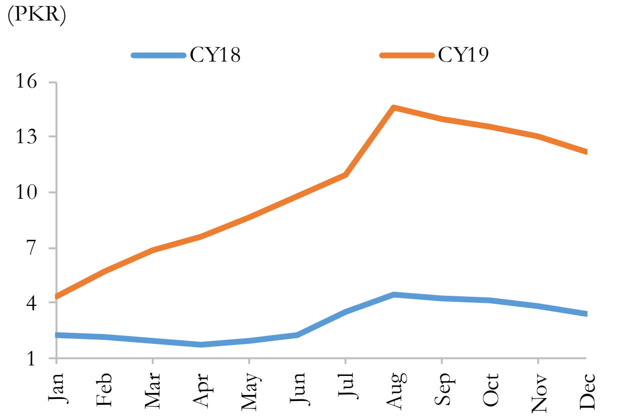
149 One of the reasons behind build-up of SBP forex reserves in early months of CY19 was materialization of bilateral official inflows from friendly countries.

150 Improvement in NFA was mainly driven by SBP forex position. SBP NFA improved on account of rise in international reserves and decline in liabilities relating to IMF and deposits of foreign central banks.

151 FX swap is a short-term contract and forward premium associated with FX swap is based on interest rate differential prevailing between the two currencies in a pair. It implies that the difference of interest rates earned on the two currencies would be adjusted in the exchange rate. For instance, if domestic interest rates are higher than USD-LIBOR, then in such conditions, a swap between USD and PKR means the one who is receiving PKR would earn higher interest income. This interest rate difference would be adjusted in the exchange rate in order to make compensation for the PKR lender because USD would earn lower interest rate if invested at USD-LIBOR. Such transaction presumes easy liquidity conditions of both currencies. However, if USD liquidity is tight in the domestic market then despite higher interest rates on PKR, the compensation (premium) offered to PKR lender would be less than the interest rate differential because of the higher demand for US dollar. Therefore, forward premium/swap points compress/decompress according to the interest rate differentials and liquidity conditions of both the currencies.

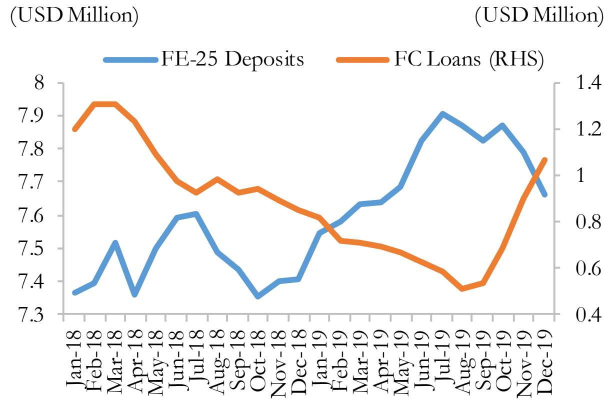
forward premium reflecting adjustment of interest rates spread (**Chart 2.7**).[152] Also, trade related foreign currency loans began to increase in the second half of CY19, while FE-25 deposits receded showing stability in the exchange rate expectations (**Chart 2.8**). Moreover, partial restoration of the facility by SBP—withdrawn earlier in July-2018—of import advance payment up to 50 percent of the value of letter of credit during December-2019 manifested reduced pressures on forex reserves.[153,154] In addition, the average spread between the kerb market and the inter-bank market prices turned negative (PKR -0.19 in CY19 vs. PKR 1.0 in CY18).

Chart 2.7: Decompression in forward premium



Source: SBP

Chart 2.8: Rising FCY loans in H2CY19



Source: SBP

It deserves emphasis that despite improved sentiment in forex market, cross currency swaps (CSS)[155] (longer-term derivative instrument) deals were higher in CY19 as compared to CY18.[156] This could be due to the notable exchange rate uncertainty prevailing in the first half of CY19 which might have driven up CSS deals.

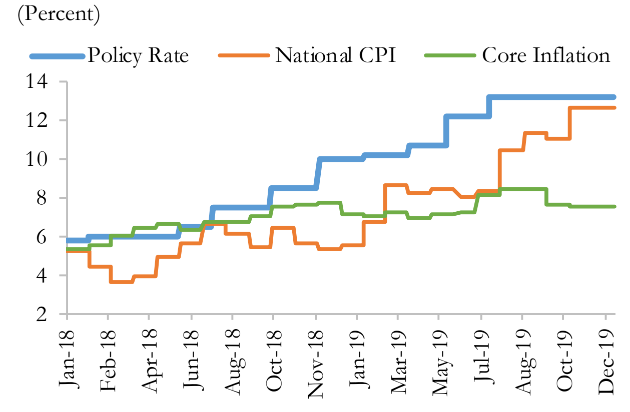
Money Market

Monetary policy further tightened during CY19…

The contractionary monetary policy stance that began in CY18 continued in CY19. On top of 425 bps rise in CY18, the policy rate was further increased by 325 bps to reach 13.25 percent in July 2019. This continuation was due to inflationary pressures and macroeconomic vulnerabilities associated with current and fiscal accounts (**Chart 2.9**). However, the policy rate remained unchanged afterwards until end CY19, as the inflation dynamics did not warrant any further increase.

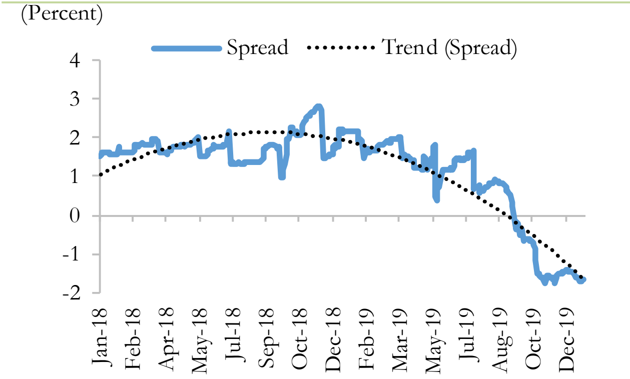
152 Interest rate spread refers to 3M KIBOR minus 3M LIBOR. The spread further increased during CY19.
153 EPD Circular Letter No. 18 of 2018: http://www.sbp.org.pk/epd/2019/FECL18.htm
154 This facility was fully restored up to 100 percent in January-2020 as per EPD Circular Letter No. 01 of 2020: http://www.sbp.org.pk/epd/2020/FECL1.htm
155 In CSS deals, counterparties exchange two different currencies at the spot rate at the inception of the contract. Both parties receive interest rates on lending currency and pay on borrowed currency. The currencies are exchanged at the end of the contract with pre-determined exchange rate
156 The originated deals of CSS during CY19 amounted to PKR 21 billion—up from 11 billion in CY18. Out of the total CSS deals, PKR 15 billion originated during H1CY19.

Chart 2.9: Monetary policy further tightened in CY19



Source: SBP

Chart 2.11: The spread between policy rate and 3Y PKRV turned negative in H2CY19

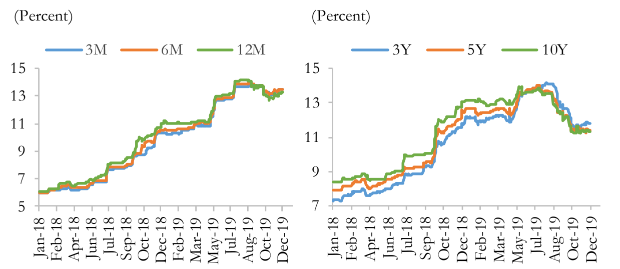


Source: SBP

...while the yield curve eventually inverted...

The yield curve of government securities moved in tandem with monetary policy tightening during H1CY19. However, it inverted—particularly at the longer end—during H2CY19 indicating that market expectations of interest rate decline were on the rise **(Chart 2.10)**. As a result, the term spread (3Y PKRV minus policy rate) turned negative in the second half of CY19 (**Chart 2.11**).

Chart 2.10: Changing interest rate expectations in the secondary market during H2CY19



Source: MUFAP

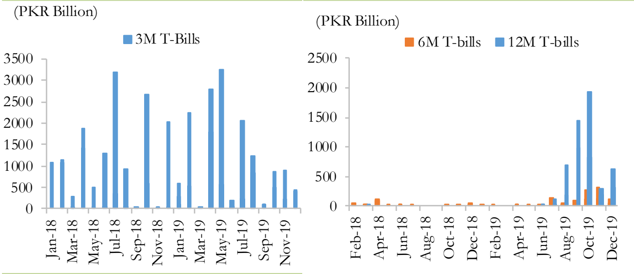
A number of factors might explain the yield curve inversion, including (i) re-profiling of the government debt to long-term maturity from SBP[157] and resultant market expectations of lower PIBs issuance (ii) market inference of a possible peak in interest rates from monetary policy statement of July-2019 and (iii) foreign portfolio investment inflows into treasury bills. The inversion of yield curve was a result of market dynamics rather than an early manifestation of recessionary tendencies in the economy.

...driving banks' interest in longer-tenor securities ...

During H2CY19, the banks began to show keen interest in locking funds in the longer-tenor government securities owing to the expectations of possible monetary easing in the future.[158] The analysis of the primary market reveals that the banks' interest in 3M T-bills declined[159], while it substantially rose for 12M T-bills and PIBs in the second half of H2CY19 **(Chart 2.12 & 2.13)**.[160, 161] Particularly for PIBs**,** banks had been showing interest since the inception of CY19[162] but their appetite substantially increased in the second half of the reviewed year.

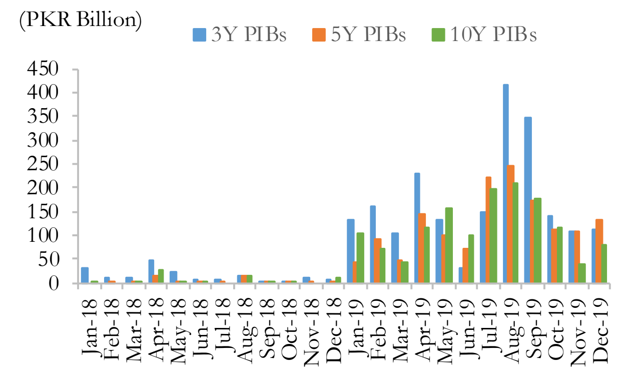
157 There was a re-profiling of government debt from SBP at the end of June-2019. The short-term debt (MRTBs) of about PKR 7 trillion was converted into longer-term debt (PIBs). This improved government's bargaining power with the banks in PIBs auctions.
158 In falling interest rate scenario, banks move to invest in long-term fixed income securities in order to generate a steady stream of higher returns going forward. On the contrary, in rising interest rate scenario, banks tend to invest in shorter tenor securities in order to eschew revaluation losses.
159 In H2CY19, banks offered PKR 8 trillion in 3M treasury bills auctions – lower than PKR 12 trillion in H1CY19.
160 Banks offered PKR 8 trillion in 12M T-bills auctions during H2CY19 as compared to just PKR 18 billion in H1CY19.
161 In H2CY19, banks offered PKR 3 trillion in PIBs auctions as compared to PKR 1.9 trillion in H1CY19.
162 Banks' interest in PIBs during H1CY19 was due to attractive returns offered on PIBs and banks' expectation of a peak in interest rates during Q1CY19.

Chart 2.12: Fading banks' interest in 3M treasury bills



Source: SBP

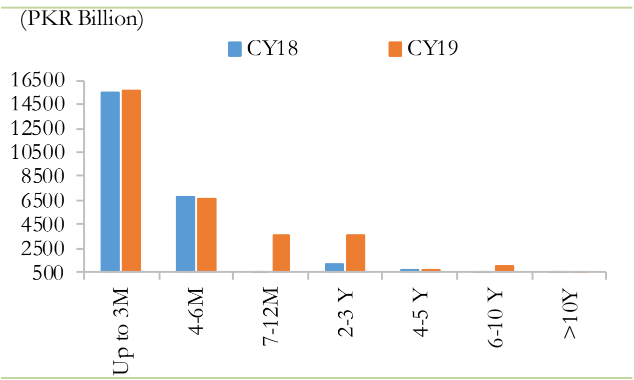
Chart 2.13: Banks' appetite in PIBs increased substantially during CY19



Source: SBP

Unlike previous year, trading activity in government securities also increased in relatively longer- maturities during CY19 **(Chart 2.14).** The rise in trading of longer maturities showed their growing demand and was significant for their effective price discovery. Moreover, the total volume of the secondary market trading also expanded by 25.82 percent in CY19 (PKR 31 trillion vs. PKR 25 trillion in CY18), which was encouraging for market efficiency and depth.

Chart 2.14: Rising trading activity in longer-dated maturities

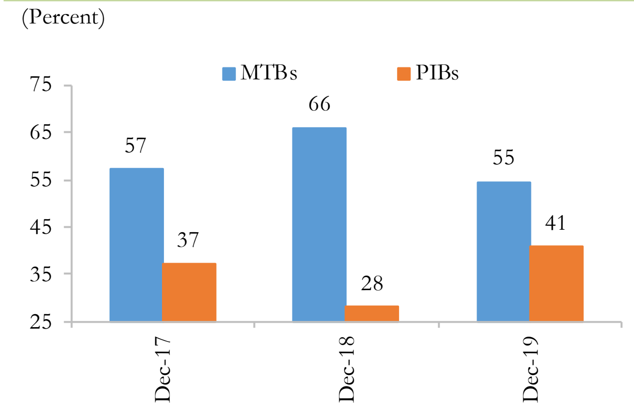


Source: SBP

The rollover risk for the government declined…

The composition of the government debt from the banking sector changed to a meaningful extent (**Chart 2.15**). The share of MTBs (short-term debt) in total government debt declined to 55 percent by end December-2019 while PIBs share increased to 41 percent. Such improvement in the debt maturity profile of the government was a healthy development from the rollover risk point of view.

Chart 2.15: Government rollover risk abated during CY19



Source: SBP

The government securities also became attractive for foreign investors…

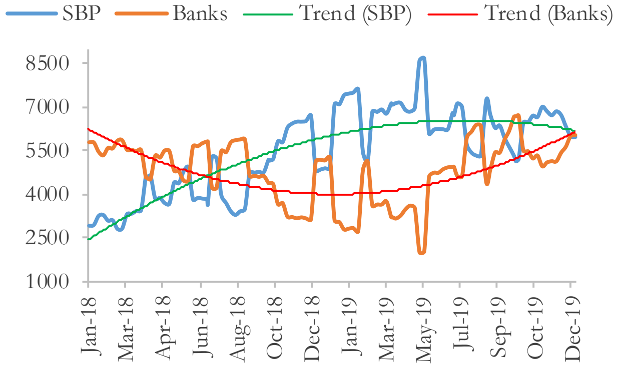
Higher domestic interest rates and stability in the exchange rate attracted foreign portfolio investment inflows of USD 1.9 billion in the government securities (almost entire in MTBs) in H2CY19. Although these inflows helped improve forex reserves and had a healthy impact on exchange rate, the persistency in these inflows could impact the monetary policy and external sector dynamics going forward.

Volatility in the money market remained at a lower level…

In contrast to H1CY19, government borrowed exclusively from the banking sector during H2CY19 owing to the IMF condition of zero Govt. budgetary borrowing from SBP (**Chart 2.16**). To ensure appropriate level of liquidity, SBP's injections in the inter-bank market increased to PKR 574 billion (on average) during H2CY19 as compared to PKR 477 billion during H1CY19 (**Chart 2.17**).[163, 164] This exerted consistent downward pressure on the overnight repo rate (ONR). As a result, the gap between ONR and the policy rate turned increasingly negative during the second half (**Chart 2.18)**.

Chart 2.16: Government budgetary borrowing from the banks increased in H2CY19

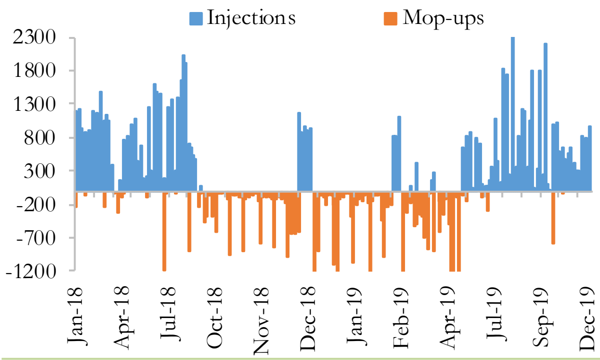
(PKR Billion)



Source: SBP

Chart 2.17: SBP OMOs injections increased in H2CY19

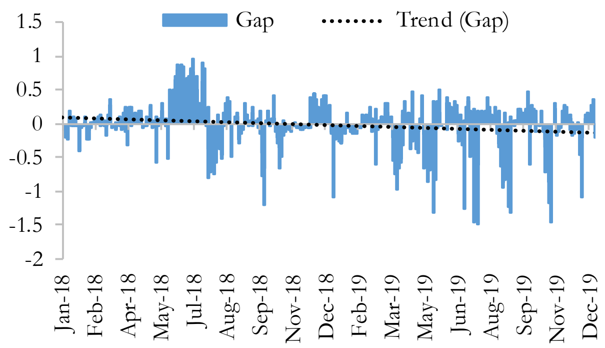
(PKR Billion)



Source: SBP

Chart 2.18: The gap between O/N repo rate and policy rate increased during H2CY19

(Percent)



Source: SBP

Moreover, the higher volume and increased frequency of OMO injections kept the volatility of the overnight repo rate at a lower level during CY19.

Equity Market

KSE-100 index rebounded towards the end of CY19…

In CY19, KSE-100 index averaged at 36,034 (42,142 in CY18) showing contraction of 14.49 percent from the previous year. The analysis reveals that the equity market experienced two divergent phases during the reviewed year. It trended downwards until August 2019, while rebounded afterwards (**Chart 2.19a**). The consistent stress in the equity market kept the

163 In H2CY19, SBP OMOs injection frequency stood at 55 as compared to 18 in H1CY19.

164 In H2CY19, there were only two mop-up operations amounting to PKR 824 billion.

trend in volatility upwards (**Chart 2.19b**).

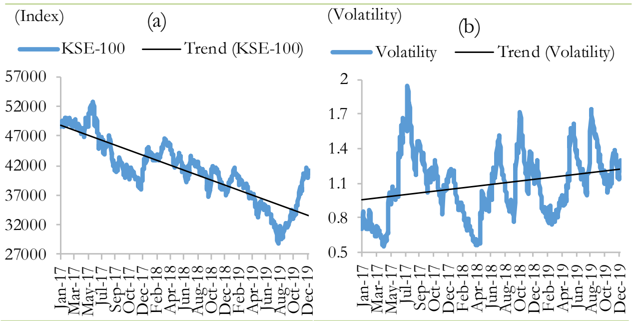
Table 2.1: Progress of capital market in Pakistan

	Dec-17	Dec-18	Dec-19
Million PKR except companies, index and bond data			
Total No. of Listed Companies- EoP	559	546	534
Total Listed Capital - PKR - EoP	1,276,801	1,322,748	1,386,599
Total Market Capitalization - PKR- EoP	8,570,926	7,692,787	7,811,812
KSE-100™ Index -EoP	40,471	37,067	40,735
Growth (KSE-100 Index)	-15.3%	-8.41%	9.9%
KSE-30™ Index - EoP	20,215	17,174	18,656
KSE Meezan Index (KMI-30) -EoP	68,611	61,174	66,032
KSE All Share Index - EoP	29,774	28,043	29,012
New Companies Listed during the year	7	3	1
Listed Capital of New Companies - PKR	12,549	5,432	8,694
New Debt Instruments Listed during the year	1	6	7
Listed Capital of New Debt Instruments - PKR	10,500	28,820	240,624
Average Daily Turnover - Shares in million	249	194	164
Average value of daily turnover - PKR	12,099	7,871	5,909
Average Daily Turnover (Future™)	60	68	74
Average Value of Daily Turnover	4,307	3,022	2,862

Source: PSX

EoP = End of Period

Chart 2.19: KSE-100 index remained under pressure until August 2019



Source: SBP

The pessimistic sentiments in the equity market during the first eight months of CY19[165] were primarily driven by weak macroeconomic fundamentals such as current account deficit concerns, exchange rate dynamics, and the viability of associated stabilization measures. Besides, the political uncertainty as well as uncertainty associated with the IMF program added stress into equity market. Also rise in geopolitical tensions jittered investors' sentiment.

However, upbeat sentiments began to emerge in the equity market in early October-2019. KSE-100 index surged by 37.67 percent (from end August to end December). The strong rebound in the equity market was on account of softening macroeconomic vulnerabilities in the wake of stabilization measures adopted as well as the successful completion of IMF first review. Also, Moody's upgraded Pakistan's outlook to stable from negative in Dec-19. These developments together injected confidence among the equity market participants.

Exchange rate stability and favorable interest rate dynamics were pivotal for investor confidence…

A negative association[166] prevailed between exchange rate depreciation and equity market performance (**Chart 2.20**).[167] As the PKR-USD parity improved to PKR 155 per USD in December-2019 from PKR163 per USD in June-2019, the investor confidence recovered. In addition, the inversion of the yield curve—suggesting market expectations of ebbing interest rates—induced further positive vibes into the market (**Chart 2.21**). This also triggered an anticipation of improved corporate earnings going forward. The improved returns in equity market as well as falling yield on long-term fixed income securities moved mutual funds to prefer equities over money market funds towards the end of

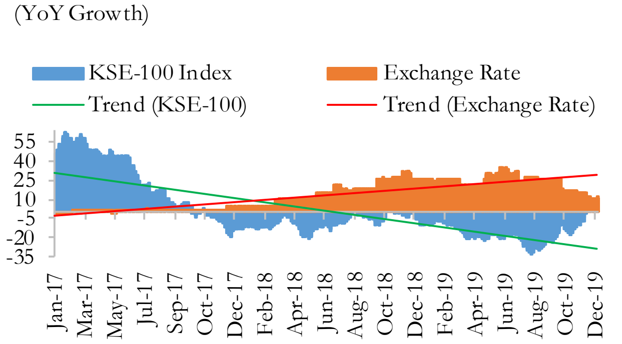
165 KSE-100 index declined by 19.95 percent in the first eight months of CY19.

166 The correlation coefficient turned -0.65 for the period CY17-CY19. This is based on the YoY growth of KSE-100 index and PKR/USD interbank exchange rate.

167 Exchange rate depreciation dampen investors' sentiment by reducing dollar adjusted returns (for foreign investors) and undermine corporate earnings prospects (by inducing input cost and inflationary pressures).

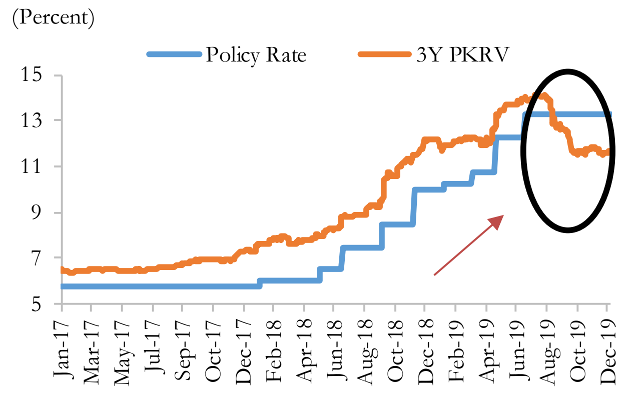
CY19 (**Chart 2.22**).[168]

Chart 2.20: KSE-100 index performance and exchange rate depreciation bears inverse association



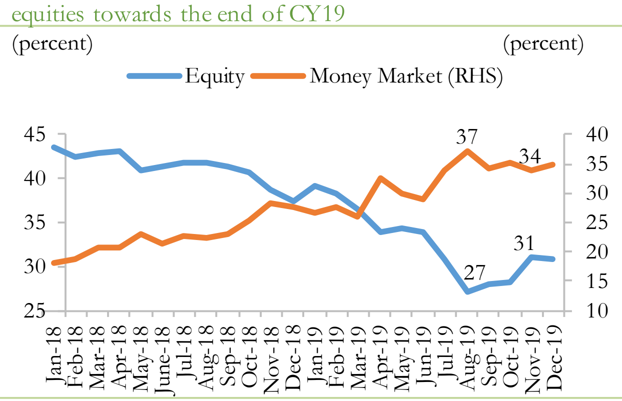
Source: SBP
Note: Positive growth in exchange rate represents depreciation

Chart 2.21: Yield on long-term securities declined



Source: SBP

Chart 2.22: Increasing investments of mutual funds into equities towards the end of CY19



Note: This chart presents share in total assets of mutual funds
Source: PSEC

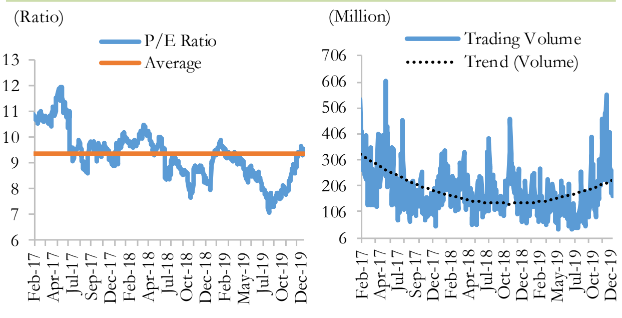
The documentation drive might have influenced recovery in equity market…

Another possible contribution in the notable recovery of KSE-100 might have come from the withdrawal of PKR 40,000/- denominated bearer national prize bonds from circulation in June-2019.[169] Resultantly, PKR 179 billion worth of such prize bonds were encashed during H2CY19. A fraction of this might have been invested into the equities. Besides documentation drive, the tentative sign of economic recovery towards the end of CY19 boosted investors' confidence as reflected by consistent improvement in Business Confidence Index (**BCI**) in the second half of CY19.

Equity valuations as well as trading activity trended upwards in H2CY19…

The average Price to Earnings ratio reduced to 8.67 during CY19 from 9.23 in CY18. The average trading volume declined to 164 million shares in CY19 from 194 million shares in the previous year. However, the equity valuations and trading activity recovered towards the end of CY19 as the investor regained confidence (**Chart 2.23**).

Chart 2.23: Equity valuation and trading activity increased towards the end of CY19



Source: Bloomberg; PSX

…and the foreign investors turned net buyers during CY19

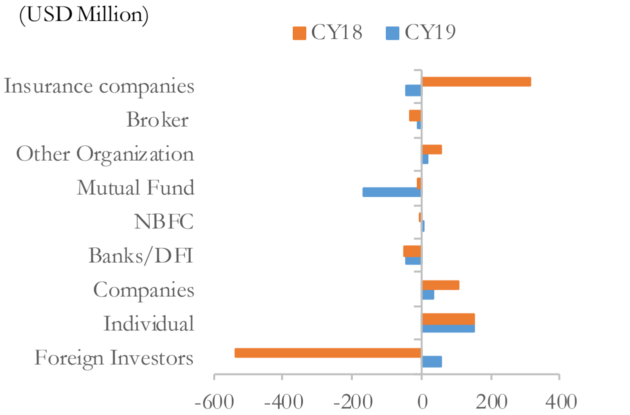
In CY18, local investors were the net buyers of equities while foreign investment kept flowing out of the equity market. However, this trend reversed in CY19. Foreign investors turned net buyers amid

[168] The data shows that the mutual funds invested 46.53 percent of the rise in assets into equities during September, 2019 to December, 2019.

[169] http://www.sbp.org.pk/sbp_bsc/BSC/CMD/Circulars/2019/C1.pdf

improving macroeconomic fundamentals particularly the stability in the exchange rate. The local investors became net sellers, though their volume of net selling was substantially lower than those of the foreign investors in the previous year (USD 56 million in CY19 as compared to USD 537 million in CY18). Further, within local investors, mutual funds were the largest net sellers, while individuals absorbed most of the selling pressure (**Chart 2.24**).

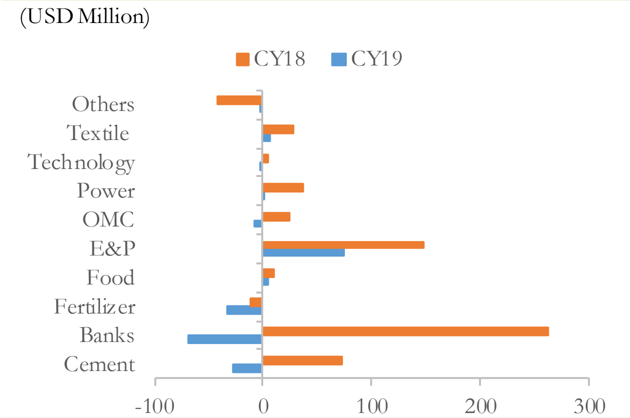
Chart 2.24: Foreign investors turned net buyers in CY19



Source: NCCPL

The sector-wise flow of investment in equities by local investors indicate that the outflow was mostly related to banking, followed by cement and fertilizer sectors (**Chart 2.25**). The outflow from the banking sector stocks was possibly due to investors' concern over banks' asset quality and earnings, because of the stabilization measures adopted and retrospective imposition of super tax[170] on banks' profits. The selling pressure in cement stocks probably stemmed from the pessimistic earning prospects of the industry. There was downward pressure on cement prices, mostly driven by feeble demand conditions, leading to lower capacity utilization. As for fertilizer sector , persistent high inventory levels and risk of higher gas prices were the likely factors behind dismal sentiments toward this sector.

Chart 2.25: Sector-wise investment flows by local investors

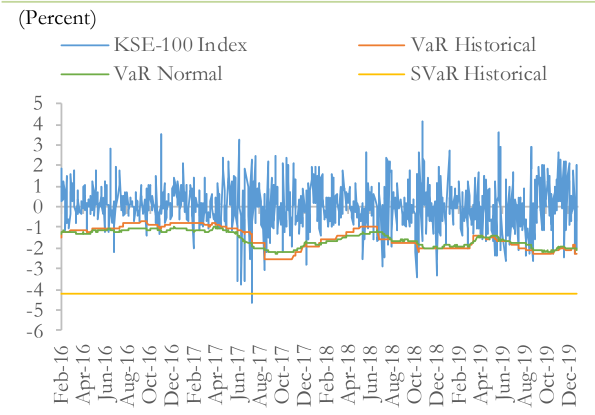


Source: NCCPL

The risks in the equity market remained muted…

Despite contraction in KSE-100 index by 14.49 percent (on average) during CY19, downside risks to the equity market remained muted. Though actual returns of the KSE-100 index breached the Value at Risk (**VaR**)[171] measure with slightly higher frequency (18 times in CY19 vs. 17 times in CY18), the extent of the breaches were narrower in CY19. Moreover, the returns did not dip below the stressed VaR (**SVaR**)[172] during the reviewed year (**Chart 2.26**).

Chart 2.26: Downward risks to equity market remained muted in CY19



Source: SBP

[170] The Finance Supplementary (Second Amendment) Bill, 2019 prescribed a revision of super tax from 0 percent in tax year 2018 to a flat 4 percent for 2017 and 2018. As a result, banks had to bear an additional tax charge during the accounting year 2019.

[171] Value-at-Risk (VaR) represents the probable amount (or percentage) of downside risk of investment at any given point in time. To assess the riskiness of PSX returns, 100 days rolling Historical and Normal VaR along with stressed VaR (SVaR), at 95 percent confidence level, were computed.

[172] Stressed VaR refers to the lowest 100-days rolling value during the entire sample period (January 2001-December 2019). The SVaR was last breached on July 11, 2017.

Section A: Performance and Risk Analysis of Banking Sector

3.1. The Banking Sector

*The banking sector remained resilient with robust solvency backed by healthy profitability. The Capital Adequacy Ratio (**CAR**) remained well above the minimum regulatory requirements. Strong liquidity indicators further strengthened. However, asset quality emerged as the key concern when the cost-push factors undermined borrowers' payback capacity and some industry specific factors led to a rise in the level of NPLs. While the financing demand decelerated, banks also opted for investment in risk free government papers. The deposit growth revived as the attractiveness of saving and fixed deposits increased. The on-going COVID-19 pandemic presents a multidimensional challenge for the banking sector as their business continuity, profitability, and solvency could experience stress, going forward.*

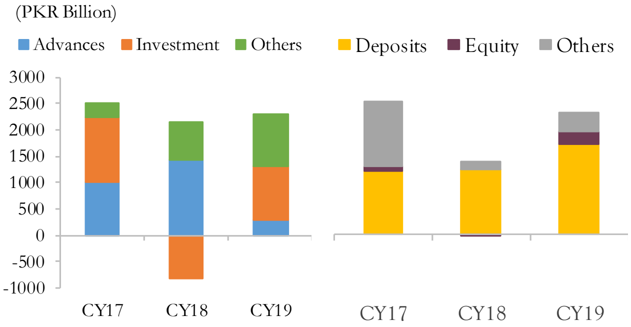
Banks remained cautious throughout the CY19…

Economic uncertainty prevalent in the first half of CY19, and the subsequent stabilization measures adopted to rein in the macroeconomic imbalances made the banking sector risk averse. It rebalanced the earning assets portfolio from risky advances towards safer investments. As a result, the asset base of the banking sector expanded by 11.73 percent in CY19 compared to 7.31 percent growth in CY18 (**Chart 3.1.1**).[173]

The slackness in economic activity setting in, the healthy returns on offer, and the termination of higher denominated bearer prize bonds, encouraged the banking sector savers.[174] There was a marked recovery in growth of saving and fixed deposits, though current deposits decelerated. Still there was some shortfall in funding to support the asset growth, a portion of which the banks met by borrowing from SBP.

As the interest rates spiked and the size of investments grew, the net interest income soared. lifting the overall profitability and, eventually, the equity base of the banks.

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



Source:SBP

…and kept the soundness largely intact, though asset quality emerged as a possible vulnerability…

The vast majority of indicators of financial soundness related to liquidity, profitability, and solvency remained in a comfortable range. Banks had ample liquidity to meet both short and long term obligations. They also exceeded the Basel III liquidity requirements of Liquidity Coverage Ratio and Net Stable Funding Ratio by a significant margin. The CAR along with the leverage ratio stayed well above the prescribed minimum benchmarks. The interbank exposure remained range bound leading to lower interconnectedness and cross-sectional systemic risk. However, increase in the infection ratio due to build-up of NPLs indicated some deterioration in asset quality.

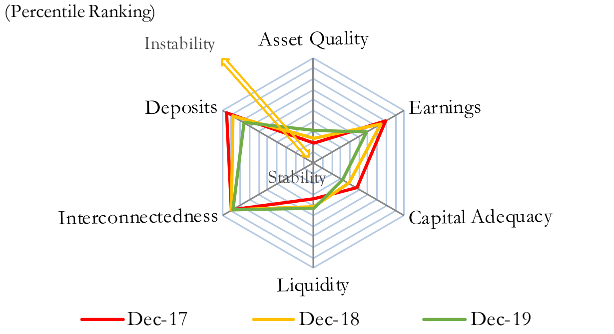
Overall, the banking sector moved towards a better state of stability as indicated by the Banking System Stability Map (**BSSM**) (movement towards

173 As per BPRD circular No.2 of 2018, the balance sheet as of end CY19 includes 'acceptances' as part of 'other assets' which, till previous year, was being treated as off-balance sheet item. (http://www.sbp.org.pk/bprd/2018/C2.htm).

174 There was a negative 20.73 percent growth in outstanding amount of prize bonds during CY19 compared to 17.14 percent in CY18 and 3-years' average of 16.58 percent during CY16-18.

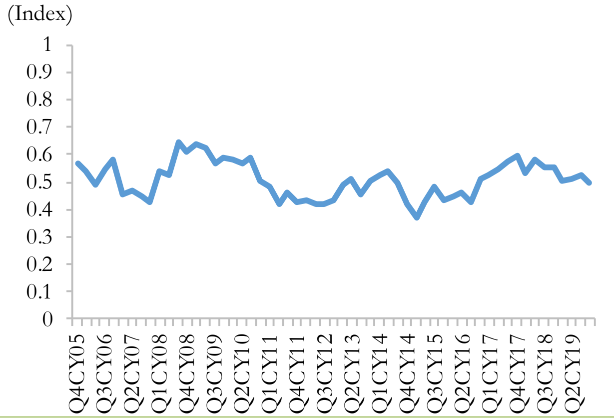
the origin) and Banking Sector Vulnerability Index (downward movement in the index) (**Chart 3.1.2 and 3.1.3**).

Chart 3.1.2: Banking Sector Stability Map



Source: SBP

Chart 3.1.3: Banking Sector Vulnerability Index



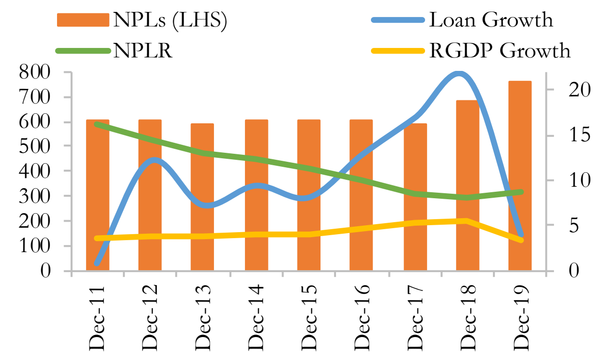
Source:SBP

Amid economic headwinds, the asset quality came under stress …

The tighter financial conditions stretched the debt repayment capacity of the borrowers, yet for another year. The financing cost kept escalating due to monetary tightening. The input prices increased owing to both the depreciation of domestic currency as well as the additional fiscal measures adopted. Moreover, economic slackness, particularly for the large-scale manufacturers, meant build-up of inventories leading to scaling down of business activities. These non-conducive business conditions translated into squeezed margins, slowdown in sales and accumulation of receivables causing cash flow problems for the borrowers.

Resultantly, the NPLs of the banking sector observed 11.97 percent (PKR 81.37 billion) addition during CY19, compared to 14.72 percent (PKR 87.20 billion) in CY18 (**Chart 3.1.4**). About 84 percent of the NPLs pertained to the domestic portfolio.

Chart 3.1.4: NPLs trend of the banking sector



Source: SBP

…with some deterioration in asset quality indicators…

With a rise in NPLs, the asset quality indicators of the banking sector deteriorated in CY19. The 'NPLs to gross advances' ratio increased to 8.58 percent by end Dec-19 from 7.97 percent by end Dec-18. The provision coverage, though still high, reduced to 81.43 percent in CY19 from 83.80 percent a year back.[175,176] Consequently, the 'net NPLs to net advances' ratio rose to 1.71 percent in CY19 from 1.38 percent a year ago. The credit risk coverage of the capital also reduced with the rise in 'net NPLs to capital' ratio to 8.91 percent in CY19 from 7.83 percent in CY18. The overall increase of credit risk in banking books was consistent with

[175] As per the existing provision requirements, only loss category of NPLs is provided for 100 percent while other categories i.e. substandard and doubtful attract 25 percent and 50 percent provisioning, respectively. Thus, the rise in NPLs reduces the provisioning coverage unless NPLs are downgraded to loss category.

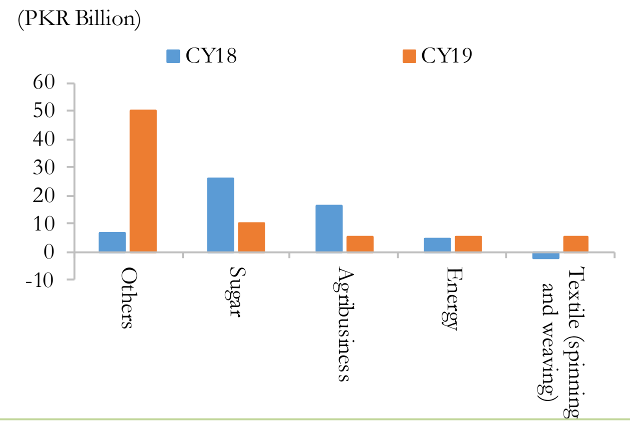
[176] Further, SBP granted several relaxations to banks to combat COVID-19 in March 2020 including Restructuring/Rescheduling of Financing Facility (R-8 of Prudential Regulations). This will limit the impact of further downgrading of loans (if any) parked in other categories of NPLs (e.g. subordinated, doubtful) as well as the additional provisioning expense. (See BPRD Circular Letter No. 13 of 2020)

the observations related to corporate borrowers who observed downgraded credit risk ratings and rise in default probability **(See Chapter 5.1)**.

…mainly due to a number of idiosyncratic factors …

Additional domestic classification occurred in the agriculture, sugar, energy, textile (spinning) sectors (**Chart 3.1.5**). Besides, a sizeable portion of infected loans arose in the 'others' category, which primarily pertained to real estate sector. It also included defaults by shipbreaking companies caused by a fire incident and some delinquencies in the metal industry.

Chart 3.1.5: Sector-wise flows of NPLs



Source:SBP

Sugar sector borrowers, comprising individual farmers, defaulted due to cash flow problems caused by late start of purchasing and crushing of sugarcane and delayed/non-payment by sugar mills. Similarly, delinquencies in the agriculture sector occurred due to lower procurement by the public sector procurement agencies forcing farmers to sell their produce at lower market price (than support price). Moreover, willful default in calamity declared areas, utilization of wheat sale proceeds for the sowing of cotton crops (instead of repaying to banks), higher input cost (e.g. fertilizer, pesticides, seeds etc.) also resulted in additional NPLs.

Though the overall NPLs in the textile sector declined, the spinning and weaving sub-sectors observed a rise due to low international prices (of exports) and higher input cost, particularly, imported yarn.[177] The energy sector defaults arose owing to losses incurred due to unfavorable movement in the exchange rate (i.e. exchange losses) and lower demand of oil products.[178]' Further, the stuck-up receivables also undermined the payback capacity. The energy sector continued to face problem of circular debt. Thus, the accumulated receivables on the books of these companies could not be adequately converted into cash, which caused liquidity problems leading to defaults on banks loans (**please see Special Box on 3.1 for detail**).

While a portion of foreign portfolio also corroded…

The foreign operations of the banking sector also witnessed rise in NPLs of 12.06 percent (PKR 13.5 billion) during CY19. Most of these NPLs were concentrated in Gulf Cooperation Council (**GCC**) states, which faced economic slowdown due to repressed international oil prices.[179] The NPLs, mostly, belonged to electronic/electrical equipment, real estate, and telecommunication sectors. In addition, PKR equivalent amount of foreign operations' NPLs has, partially, escalated due to depreciation of domestic currency.

It may be recalled that an episode of surge in NPLs was also observed during Mar-08 till Jun-12. However, increase in NPLs during the last couple of years was significantly different from the previous episode. For example, previously, NPLs continued to rise for 15 quarters while in the

[177] During CY19, the overall volume of textile exports remained almost stagnant as low international commodity prices significantly diluted the competitive edge the industry gained due to depreciation of local currency during the reviewed year.

[178] One private sector company defaulted due to 'acceptance overdue'. However, the loans were regularized later.

[179] As per the WB estimates, regional GDP growth of GCC countries dropped to 0.8 percent in CY19 from 2.0 percent in CY18.
Source: World Bank (http://documents.worldbank.org/curated/en/886531574883246643/pdf/Economic-Diversification-for-a-Sustainable-and-Resilient-GCC.pdf)

recent episode the increase in NPLs was short-lived. Moreover, the pace of NPLs' growth (particularly during CY08-10) was quite higher.[180] The asset quality indicators such as infection ratio, provisioning coverage ratio, and net NPLs to advances ratio showed a marked deterioration in the previous episode compared to marginal weakening during this episode (**Table 3.1.1**)

Table 3.1.1: Comparative Statistics - Two episodes of NPLs Rise

Recent Episode	Previous Episode
Length and Financial Soundness Indicators	
Period of rise: Mar-18 to Jun-19	Period of rise: Mar-08 to Jun-12
Aggregate NPLs increas: PKR 167 billion	Aggregage NPLs increase: PKR 437 billion
GNPLR rose to 8.8% from 8.3%	GNPLR rose to 16.7% from 7.7%
Provision to NPLs ratio fell to 78% from 89%	Provision to NPLs fell to 66% from 84%
Net NPLs to Advances ratio increased to 6.4% from 2.5%	Net NPLs to Advacnes ratio increased to 2.0% from 1.4%
Sector-wise Distribution	
76% share of Private sector	95% share of Private sector
30% share of Energy sector	33% share of Textile sector
19% share of Agribusiness	5% share of Agribusiness
17% share of Sugar sector	5% share of Electorics sector
Segment-wise NPLs	
78% share of Corporate sector	76% share of Corporate sector
19% share of Agriculture	14% share of SME 7% share of Consumers
Key Reasons	
Indutry specici issues Energy (cash flow problems due ot circular debt issue) Agribuisness (Low commodity prices, water shortages, etc.) Sugar Sector (legal issues, delayed mill operations, liquidity issues etc)	Macroeconomic High Policy Rate Economic slowdown Weak global economy Energy crises Law and order concerns

Source: SBP

The intensity of credit risk varied across banks…

The credit risk surged across all banking segments, except for the foreign banks (**Table 3.1.2**). The specialized banks, with already the highest infection ratio, observed a further deterioration. Notably, the slender provisioning coverage of this segment posed the risk to their equity base. Local private banks, having approximately 75 percent share in total asset base, had the second lowest infection ratio of 6.87 percent with provisions coverage of around 82.47 percent. Thus, despite rise in asset quality concerns, the actual risk remained somewhat muted.

Table 3.1.2: Asset Quality by Bank-wise Category (percent)

	CY18		CY19	
	Infection Ratio	Provision Coverage	Infection Ratio	Provision Coverage Ratio
	Percent			
PSCBs	12.75	88.21	13.16	88.72
LPBs	6.17	87.44	6.87	82.47
FBs	3.84	108.40	2.94	110.92
CBs	**7.47**	**87.80**	**8.11**	**84.65**
SBs	32.89	38.87	34.11	39.50
All Banks	**7.97**	**83.80**	**8.58**	**81.43**

Source: SBP

PSCBs: Public Sector Commercial Banks, LPBs: Local Private Banks

FBs: Foreign Banks, CBs: Commercial Banks, SBs: Specialized Banks

Along with the fall in demand for loans, the curtailment in supply also led to a substantial slowdown in advances…

On the supply side, banks became risk averse due to heightened credit risk. They refrained from extending fresh loans to borrowers. In addition, lucrative returns on offer on government papers pushed them towards safer avenues. Resultantly, the overall advances (net) off-take slowed down to 3.69 percent during CY19 compared to 22.15 percent in CY18 and 18.43 percent in CY17.

…across segments and sectors…

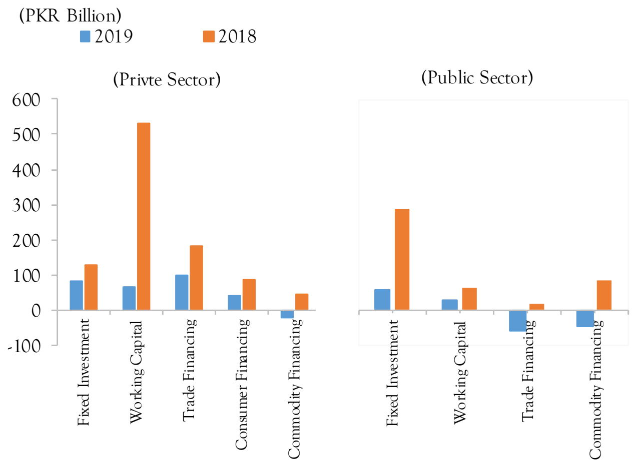
The domestic private sector advances decelerated across all segments, especially in case of working capital and trade financing (**Chart 3.1.6**). There was steep decline in the large-scale manufacturing index and a broad-based fall in imports during CY19.[181] Firms scaled down their businesses and enhanced their reliance on internal financing. SBP took some measures to facilitate exports and export led imports, but the slowdown in advances remained substantial.[182]

180 During CY08-10 (3-years), the average yearly growth in NPLs was 37.0 percent.

181 LSM index dipped by 3.80 percent in CY19 compared to 2.38 percent growth the last year. Similarly, imports of the country declined by 18.71 percent during CY19 compared to 7.43 increase in CY18.

182 SBP kept the export finance rate unchanged at 3 percent throughout its monetary tightening regime. Also, in November 2019, SBP relaxed the advance payment of US 10, 000 from export led imports of raw material and spare parts (only) to general imports for manufacturing concerns (EPD Circular Letter 12 of 2019)

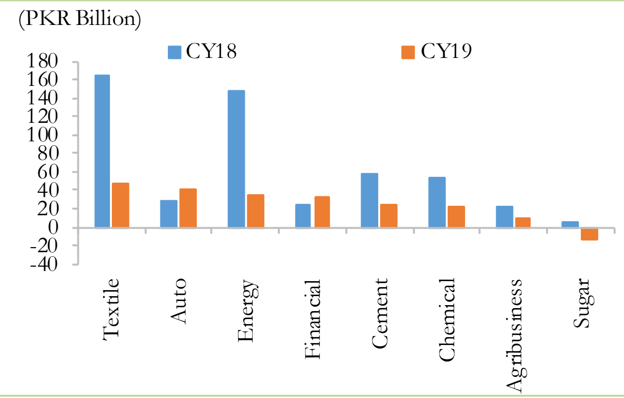
Chart 3.1.6: Private and public sector financing (flows)



Source: SBP

Sectoral distribution of private sector domestic advances flows also revealed a broad-based decline including textile, energy, cement, chemical, and agribusiness, sectors. Moreover, like the last year, sugar sector continued to observe deleveraging in CY19. This was due to higher sales[183] at higher market prices enabling borrows to off-load their liabilities (**Chart 3.1.7**).[184,185]

Chart 3.1.7: Sector-wise flows in private sector domestic advances



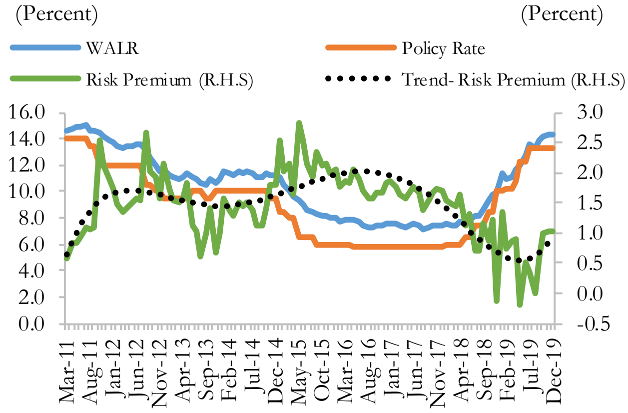
Source:SBP

Public sector made net retirement of 0.72 percent in sharp contrast to 22.16 percent growth last year. The decline in the stock of commodity financing and sharp deceleration in disbursements to energy sector resulted in overall deleveraging by the public sector during CY19.

Banks priced-in the emerging risks…

With the spectrum of risks rising for the banks, the upsurge in interest rate spread was expected. The spread between weighted average lending rate (**WALR**) (on fresh advances) and weighted average deposit rate (**WADR**) (on fresh deposits) increased to 3.12 percent (on monthly average basis) during CY19 (2.83 percent during CY18).[186,187] The rise in spread indicates that anticipating further monetary tightening, banks were able to price-in the anticipated fall in interest margins. Similarly, the risk premium estimated by WALR minus the Policy Rate (risk free rate), was quite volatile during CY19 and started trending upwards as the policy rate increased sharply (**Chart 3.1.8**.

Chart 3.1.8: Risk Premium Trend



Source:SBP

Interest rates had a strong bearing on asset quality…

During the high interest rate environment and non-conducive business conditions, banks' asset quality, generally, comes under pressure due to weakening of borrowers' repayment capacity. A synchronized pattern of movement between the

183 The selected sample of listed companies revealed 89.05 percent rise in sales during CY19 (**See chapter 6**)

184 Please see 1st and 2nd Quarterly Reports of 2019-20 on 'The State of Pakistan's Economy'.

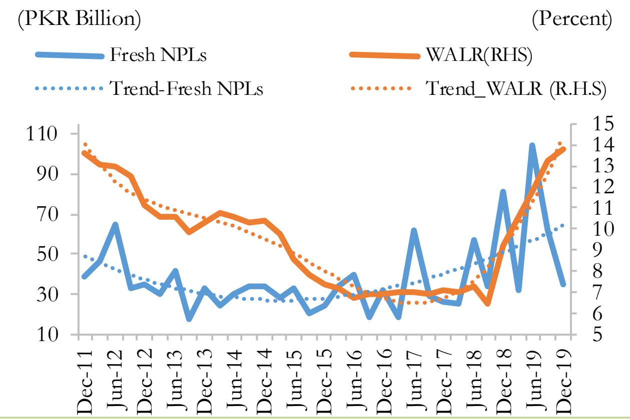
185 CY19 observed surge in the prices of refined sugar by 28.53 percent (3.00 percent in CY18) and sugar crop by 25.21 percent (5.01 percent in CY18).

186 Both WALR and WADR exclude zero markup as well as interbank transactions.

187 Generally, banks face interest rate risk in rate rising scenario as lending rate responds to policy rate with some lag (due to contractual nature of loans) compared to deposit rates, which appreciate automatically due to the Minimum Saving Rate (MSR) policy.

WALR and fresh NPLs was quite apparent (**Chart 3.1.9**).

Chart 3.1.9: Fresh NPLs and WALR

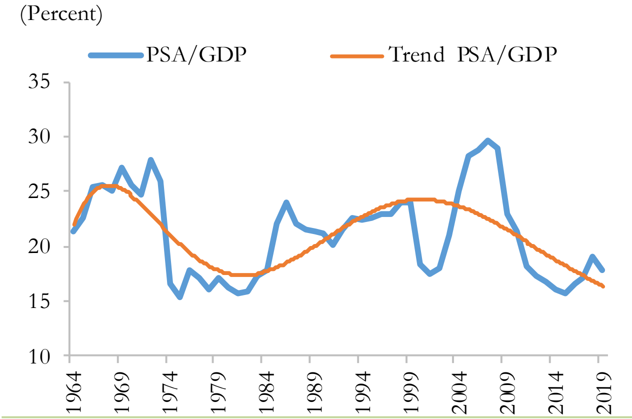


Source:SBP

Amidst low financing growth and asset price stagnation, the specter of pro-cyclical systemic risk did not arise…

Owing to monetary tightening, the "private sector advances to GDP' ratio followed a declining trajectory during CY19 (**Chart 3.1.10**). The ratio, a widely acceptable early warning indicator of pro-cyclical systemic risk, indicated containment of credit risk. Another sign of moderation in the systemic risk was that the gap between the ratio and its long-term trend was not only small but was also declining. Moreover, the link between the credit and asset prices remained weak. Most of the lending was collateralized by operating fixed assets (e.g. plans, machinery), which was not that prone to asset price booms like the residential real estate.[188]

Chart 3.1.10: Private Sector Advances (PSA) to GDP Ratio

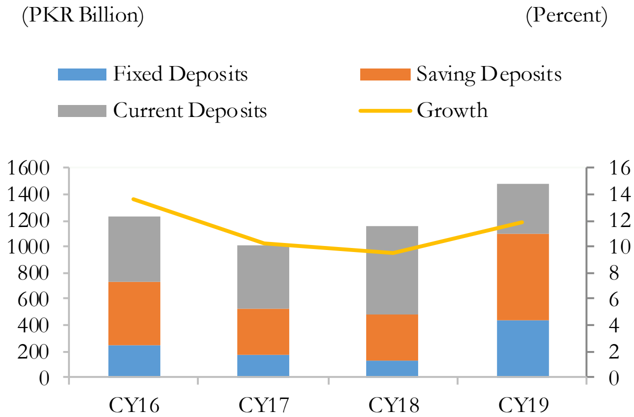


Source: SBP

Deposit growth revived as return on savings increased…

The overall deposit growth, after experiencing a deceleration over the last few years, revived to 11.92 percent in CY19 from 9.55 percent in CY18. The major thrust came from fixed and saving deposits while current deposits growth decelerated notably (**Chart 3.1.11**).

Chart 3.1.11: Category-wise deposit flows



Source: SBP

The minimum saving rate (**MSR**) on saving deposits, as prescribed by SBP, increased by 325 bps due to monetary tightening during the year. Similarly, the fixed term deposits also grew as their returns increased. In addition to improved deposit rate, this increase resulted from banks efforts to optimize their asset-liability maturities mismatches.

[188] Further, the monthly Y-o-Y growth in house rent index (a proxy for the real estate prices which holds 19.26 percent weight in CPI index) revealed that it remained lower in CY19 (than CY18) from April-19 onwards (except for the month of Oct-19) (See monthly issues of (SBP's) Inflation Monitor).

Banks' increased investments in longer tenor PIBs (mostly in ten years' bucket) and, to raise corresponding funding sources, enhanced the mobilization of longer tenor deposits as well.

However, some de-risking occurred in the current deposits…

A number of regulatory initiatives to mitigate the concerns of Financial Action Task Force (FATF) along with tax-authorities drive to access the non-filers' deposit accounts created a non-conducive atmosphere. Some savers opted to keep their savings in cash as indicated by higher currency to deposit ratio.[189] Further, financial transaction tax on cash withdrawal remained in effect for the non-filers.[190] In addition, the banks themselves became risk averse and resorted to discontinuation of risky relationships.

…and borrowings from SBP filled the remaining funding gap leading to low level of interconnectedness

As the fiscal reliance on the banking sector grew, the banks' borrowing from SBP also increased. SBP's sizeable liquidity injections through its frequent OMOs kept the money market calm and the overnight repo rate within the target range (**See Chapter 2.1**). Resultantly, both the collateralized and clean interbank borrowings/lending remained low, though interbank fund placements were a bit higher.[191] Moreover, increase in deposits further downplayed the interbank transactions. With the restrained level of interbank transactions, the magnitude of interconnectedness within the banking sector remained low during CY19.

Banks continued to maintain more than adequate liquidity…

Banks' investment in Government papers further augmented their liquidity profile during the reviewed year, which further improved liquidity indicators. In terms of Basel III liquidity standards, banks maintained Liquidity Coverage Ratio (**LCR**) and Net Stable Funding Ratio (**NSFR**) at 180 percent and 159 percent, respectively, against the required level of 100 percent. The 'liquid asset to total assets' inched up to 49.65 percent by the end of CY19 (48.69 percent in CY18) and 'liquid assets to short-term liabilities' increased to 99.4 percent (94.9 percent in CY18). Similarly, Banks maintained liquid assets of 51.82 percent against their demand and time liabilities, which were well above the required 24 percent. Notably, the liquidity cushion improved across a broad spectrum of the banks (**Table 3.1.3**).

Table 3.1.3: Liquid Assets to Total assets by Bank Size

	CY15	CY16	CY17	CY18	CY19
			Percent		
Large	55.38	54.22	54.93	50.17	51.00
Medium	51.82	55.87	56.06	50.60	51.88
Small	45.74	42.70	40.06	33.49	43.67
Very Small	54.10	63.90	60.09	36.14	39.87
All Banks	**53.81**	**53.73**	**53.97**	**48.69**	**49.65**

Source: SBP

Interest rate expectations influenced banks investment decisions…

Within the six monetary policies announced during the reviewed year, SBP raised its policy rate in the first four. After observing the consistent monetary tightening during CY18, market anticipated a rise in the policy rate in each of those monetary policy announcement. These expectations were reflected in an increase in the average yield to maturity (**YTM**) on government papers with 3-months of

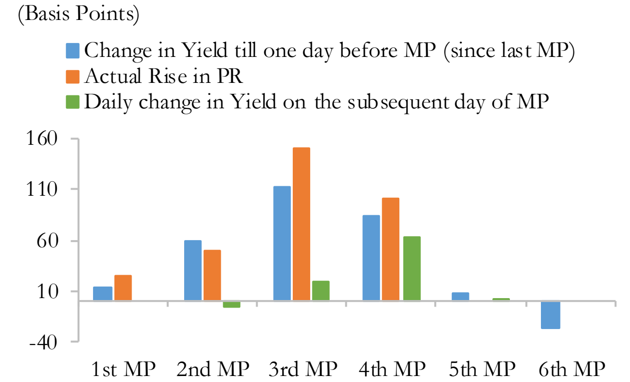
189 Currency to Deposit Ratio increased to 41.1 percent in CY19 (monthly average) compared to 38.5 percent in CY18.

190 The advance tax rates on withdrawal of deposits were revised vide Finance Supplementary (Second Amendment) Bill 2019. While the Bill exempted advance tax on cash withdrawal for filers, it maintained the tax rate of 0.6 percent on cash withdrawal and banking transactions for non-filers.

191 Interbank fund placements also enhance the interconnectedness within the financial intermediaries.

residual maturity before the announcement of monetary policy (**Chart 3.1.12**).[192]

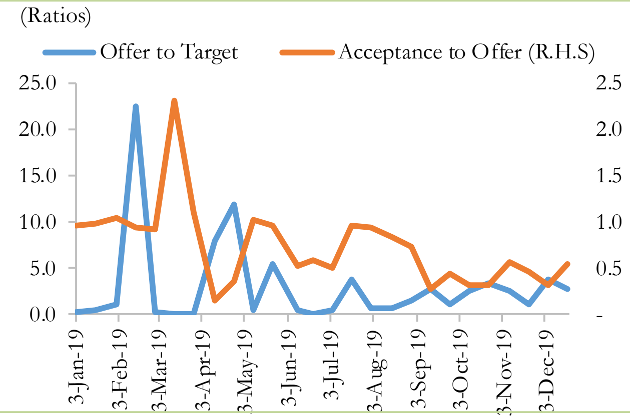
Chart 3.1.12: YTM on government securities (3-Months) - before and after Monetary Policy (MP) announcements



Source:SBP

Primarily influenced by their expectations, banks participation in auctions of MTBs remained passive near the announcements of monetary policy during the first half of CY19. In fact, the offer to target rate sometimes touched zero in the auctions (**Chart 3.1.13**). On the contrary, banks aggressively participated in MTBs auctions subsequent to the announcements of monetary policies. However, owing to the high bid rates demanded by the banks, acceptances remained far less.

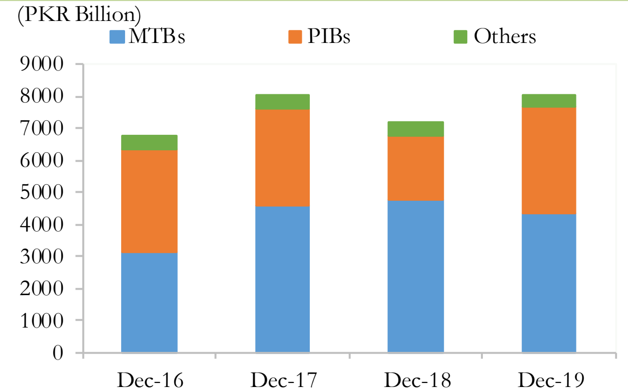
Chart 3.1.13: Target, offer and acceptance in MTBs auctions



Source:SBP

Nonetheless, banks changed their strategy during the second half of the year with a change in their interest rate expectations. Banks decreased offers for short-term MTBs, while took aggressive interest in long-term bonds that piled up stock of PIBs on their books by the year-end (**Chart 3.1.14**).[193]

Chart 3.1.14: Classification of banks' investment in government securities (outstanding)



Source: SBP

Increase in net interest income surged profitability…

Profitability of the banking sector rebounded with the rise in after tax profit by 14.34 percent in CY19 after experiencing moderation in the last few years. The key thrust came from interest earnings, both, on advances and investments. The interest rate impact dominated the volume of earning

[192] The average YTM on government papers (traded in the secondary market) is also termed as Pakistan Revaluation (PKRV) rate.

[193] Banks offered PKR 2.2 trillion in PIBs primary auctions during the first half of CY19, of which, PKR 0.77 trillion was accepted. In contrast, banks offered PKR 3.5 trillion in PIBs, of which, PKR 1.24 trillion was accepted.

assets impact **(Chart 3.1.15)**.

Chart 3.1.15(a): Earnings on advances - Rate vs. Volume Impact

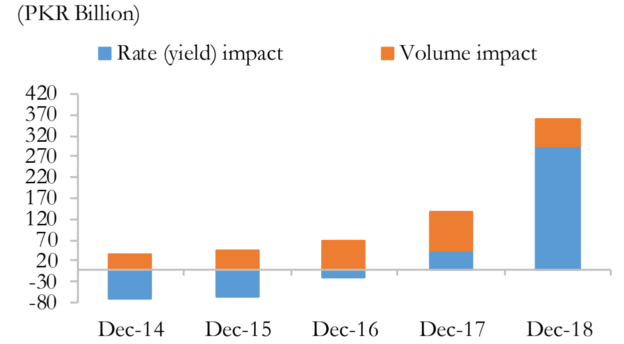
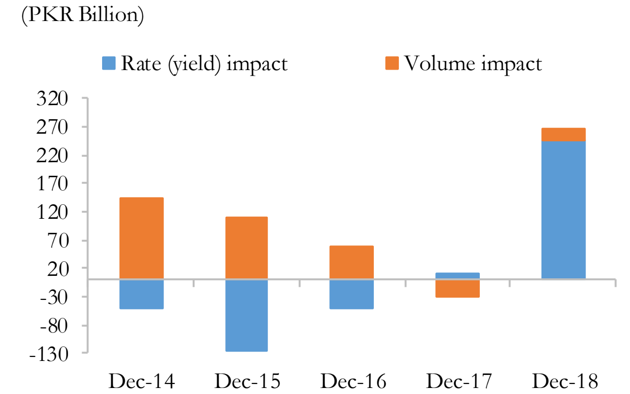


Chart 3.1.15(b): Earnings on investments - Rate vs. Volume Impact

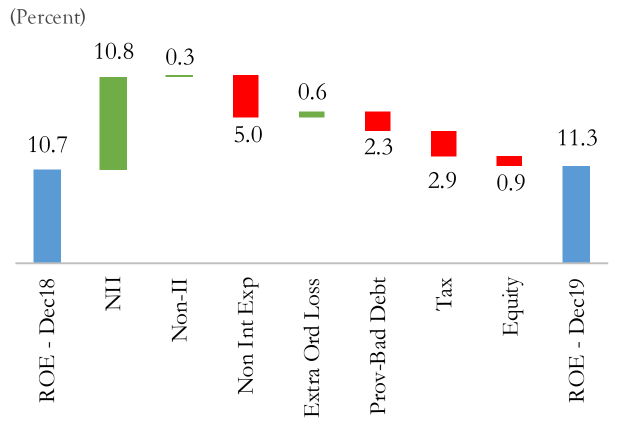


Source:SBP

Though there was some rise in interest expense as well, the Net Interest Income (**NII**) of the banking sector surged by 27.64 percent (23.38 percent after adjusting for the provisioning expense) during the reviewed period compared to 9.27 percent increase last year.

Consequently, all profitability indicators improved during CY19. The Net Interest Margin (**NIM**) stacked up to 4.00 percent by end CY19 compared to 3.40 percent a year earlier; Return on Asset increased to 0.83 percent from 0.81 percent , while Return on Equity (ROE) improved to 11.30 percent from 10.71 percent .[194] NII was the major factor which lifted the ROE during CY19 (**Chart 3.1.16**).

Chart 3.1.16: Factors impacting After-tax ROE during CY19



Source: SBP

Better earnings masked the underlying increase in cost …

The non-interest expenses of the banking sector increased by 16.10 percent in CY19 compared to 11.00 percent in CY18 due to the following factors:

- To comply with the requirements of the Financial Action Task Force (**FATF**), banks had to upgrade their systems and deploy additional human resources to mitigate ML/FT risks that entailed further costs. Similarly, the rising cyber security risk required banks to make additional investment in technology for the improvement of their systems and controls.[195]
- A reasonable growth in banks' physical and payment infrastructure increased the non-interest expenses of banks (**See Chapter 7 for detail please)**.
- Banks also had to confront higher salary and allowance expenses possibly due to higher inflation during the year.
- Banks booked 'right-of-use asset' expense on their leased assets (e.g. leased branches) in compliance with IFRS 16 w.e.f. January 1, 2019.[196]

194 The after tax ROA saw the yearly increase in CY19, first time, after CY15.
195 Banks amortization cost rose by 80.37 percent in CY19.
196 'Right-of-use asset' is depreciated over lease term and is classified as depreciation expense. The banks have lease contracts in the capacity of lessees for various properties used by their branches.

Therefore, banks depreciation expenses increased by 74.8 percent during the year.[197]

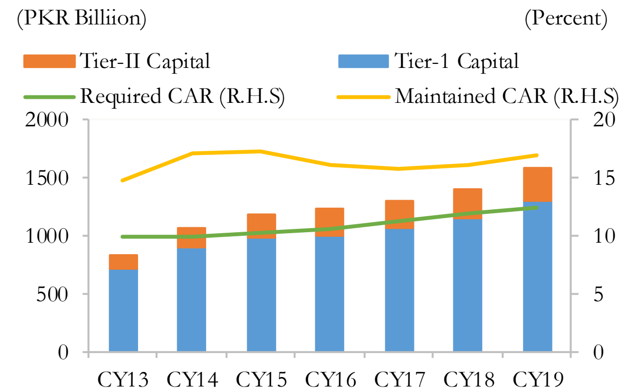
…as well as the higher tax burden.

The profitability increased during the year despite higher taxes on banks' profits. The tax expense increased as the phase-wise reduction in super tax was reversed vide Finance Supplementary (Second Amendment) Act, 2019 and was fixed, retrospectively, at 4 percent from the tax year 2018 till 2021. Moreover, the income generated from investing in additional government securities attracted another 2.5 percent tax. As a result, the tax contributions of the banks increased by 43 percent over the year, while tax as a percentage of profit before tax increased by 5.6 percent to 44 percent over the year.

Solvency improved due to improved profitability …

The banking sector resilience improved over the years manifested in robust solvency indicators. The Capital Adequacy Ratio (**CAR**) further strengthened to 17.0 percent in CY19; well above the minimum required level of 12.5 percent and international benchmark of 10.5 percent (**Chart 3.1.17**).[198,199]

Chart 3.1.17: Eligible capital and CAR of the banking sector



Source: SBP

The Tier I capital contributed the major part in the overall increase in CAR. The Tier I CAR inched up to 14.0 percent in CY19 from 13.2 percent in CY18; well above the minimum required level of 7.5 percent. Besides, one of the designated D-SIBs raised its additional Tier I capital by way of issuing Term Finance Certificate (TFCs) to meet additional loss absorbency and CAR requirements.

Moreover, the surplus on revaluation of assets created room for few banks to book additional Tier II capital. It enabled them to further augment their own as well as industry's CAR. Banks also maintained Leverage Ratio (**LR**) of 4.8 percent, higher than the required level of 3.0 percent.

The bank-wise CAR distribution exhibited a skewed picture as the majority of banks maintained healthy CAR i.e. above 15 percent (**Table 3.1.4**). The number of CAR non-compliant banks reduced to three from six last year. The meager asset share (1.47 percent) of the non-compliant banks in the industry poses negligible solvency risk for the banking sector.

Table 3.1.4: CAR Distribution of Banks

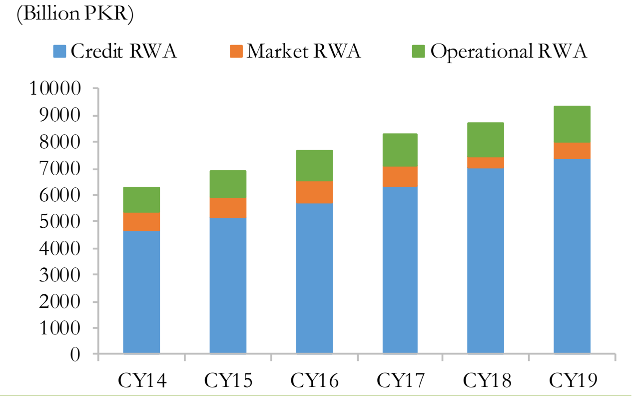
	CY16	CY17	CY18	CY19
	Number of Banks			
> 15 percent	17	18	18	21
Required<CAR<15percent	13	11	10	9
CAR<Required	4	4	6	3
Total	**34**	**34**	**34**	**33**

Source: SBP

Risk-weighted assets, the denominator of the CAR, grew by 7.46 percent during CY19 compared to 4.82 percent in CY18. Banks re-positioned their risk profile with containment in credit risk weighted assets (**CRWA**) growth, while taking on more of the market risk assets (**Chart 3.1.18**).

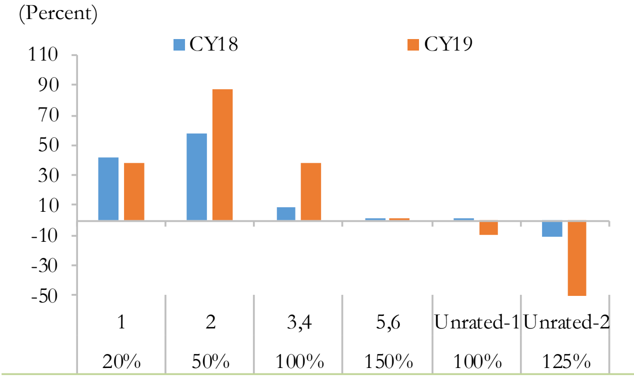
[197] Though the depreciation expense substituted the rent expense, the rise in depreciation was significantly higher than the decline in rent expenses.
[198] Both, domestic and international CAR requirements included 2.5 percent of Capital Conservation Buffer (CCB) by end CY19.
[199] As per the phased CAR enhancement, the minimum required CAR was increased to 12.5 percent as of end December 2019 from previous minimum of 11.9 percent.

Chart 3.1.18: Composition of Risk Weighted Assets (RWA)



Source:SBP

Chart 3.1.19: Share of banks' lending flows to corporate sector and SBP's supervisory rating grades



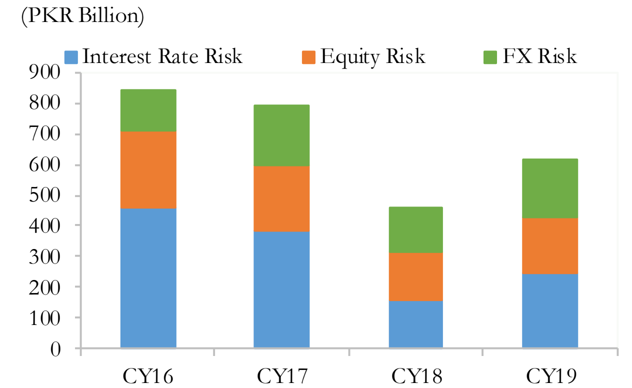
Source:SBP

Rating culture improved during CY19…

The CRWA decelerated, primarily, due to subdued financing activity and banks' reshuffling of portfolio towards credit risk free Government securities. Besides, a sizable portion of on-balance sheet corporate portfolio shifted from unrated (attracting 125 percent risk weight) to rated portfolio (mostly 20 and 50 percent risk weights) (**Chart 3.1.19**). That also helped in containing the overall CRWA. Flourishing the rating culture in the country is a positive sign from the perspective of credit risk assessment and its prudent management. However, generally, external ratings assigned by the rating agencies do not proactively react to changing business cycles. Therefore, banks should also use other credit risk models, especially, for their large corporate borrowers.

Market risk weighted assets (**MRWA**) accelerated by 33.70 percent during CY19 compared to contraction of 41.66 percent last year (**Chart 3.1.20**). The major part of growth was contributed by banks' sizable investments in PIBs, a longer-term instrument attracting higher capital charge as well as risk weights. Similarly, banks' higher FX and equity exposures lifted their MRWA against FX and equity price risks.

Chart 3.1.20: Market Risk Weighted Assets of the banking sector



Source: SBP

Operational risk weighted assets (**ORWA**) of the banks surged by 10.9 percent in CY19 compared to 4.5 percent in CY18. This was due to upswing in their gross (interest) income, which forms the basis of ORWA calculation under Basic Indicator Approach of Basel rules.[200]

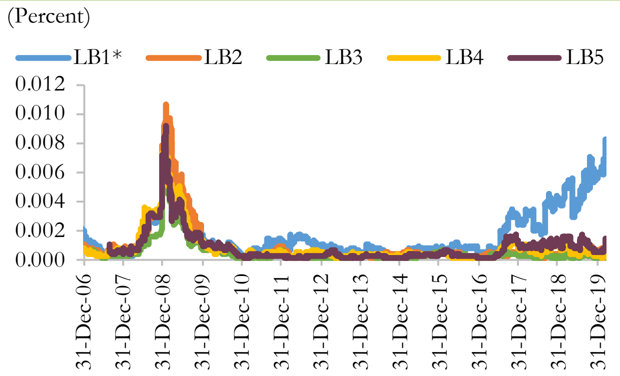
[200] As per BIA, the gross income of the bank for each of the past three financial years as per annual audited accounts is used in determining the operational risk charge (See Q91: http://www.sbp.org.pk/bprd/Basel/FAQs-Basel-II-MCR.pdf).

The risk of failure of domestic systemically important institutions remained low…

SBP continued to keep a close watch on its three designated Domestic Systemically Important Banks (**DSIBs**). These banks are required to maintain higher loss absorbency requirements in the form of Common Equity Tier 1 (**CET1**). Further, all DSIBs in Pakistan are subject to additional supervisory requirements, which include preparing a comprehensive risk appetite framework, conducting macro stress tests/scenario analysis, formulating recovery plans etc.

Moreover, the probability of default of the five largest banks remained low during CY19 (**Chart 3.1.21**). Though one of the banks observed rise in PD compared to last year, its absolute magnitude remained reasonably low. Further, the rise in the PD was due to escalated volatility in the equity market driven by transitory pessimistic sentiments of investors, instead of deterioration in bank's fundamentals (**see Chapter 2.1**). Overall, the financial health of the five largest institutions remained robust and their credit risk ratings stood high (AAA or triple A). This advocates that these institutions were well positioned to meet their short and long-term liabilities and do not pose systemic risk to the system.

Chart 3.1.21: Probability of Defaullts of five largest Banks



Source: Bloomberg
*LB1 stands for Largest Bank-1 (of five largest banks)

Banking sector of Pakistan maintained a decent global standing in terms of FSIs…

Pakistan's relative positioning, in terms of financial soundness, seems satisfactory as suggested by various FSIs (**Table 3.1.5**). The solvency, both CAR and Tier I CAR, of the banking sector of the country stands at a level higher than many other EDMEs and advanced economies. Similarly, the liquidity indicators are also robust with liquid assets comprising a high portion of balance sheet assets. Only a few countries, such as Myanmar, Turkey, Singapore etc., are maintaining relatively strong level of liquidity amongst the selected sample of countries. The profitability indicators, though improved compared to last year, are relatively lower than the peer and advanced economies.

The infection ratio, however, falls on the higher side. This is because the NPLs in Pakistan consist of legacy portfolio, and banks face issues in clearing their balance sheets due to the challenges in implementation of foreclosure standards and a large amount of infected portfolio in litigation pending adjudication. However, most of these loans are fully provided for. As such, the net NPLs to net advances ratio is quite low and comparable with other countries. Further, Pakistan has introduced various laws to strengthen the debt recovery regime in the country.

Table 3.1.5: Country-Wise Financial Soundness Indicators

	CAR	Tier I CAR	Infection Ratio	ROA - after tax	ROE - after tax	Non Interest Income to Gross	Liquid Asset Ratio	Liquid Assets to Short Term Liabilities
Pakistan	**17.1**	**14.2**	**8.8**	**0.8**	**10.7**	**57.4**	**45.4**	**87.3**
China	14.5	11.8	1.9	1.0	12.3	28.6	23.9	57.0
Indonesia	23.3	21.8	2.4	2.5	16.0	46.3	20.9	30.8
Malaysia	18.3	14.8	1.5	1.5	12.9	42.4	23.0	158.8
Myanmar	10.9	10.8		(0.0)	(0.3)	103.3	46.9	59.8
Philippines	15.3	14.1	2.1	1.5	13.8	57.6	32.3	49.6
Thailand	18.0	15.1	3.1	1.4	10.1	48.1	18.8	31.5
Bangladesh	11.7	8.0	11.5	0.8	12.7	55.5	15.8	37.8
India	15.2	14.5	8.8	0.1	1.0	54.3	7.9	24.2
Saudi Arabia	19.4	18.1	1.9	1.9	18.8	34.9	24.3	39.6
Turkey	18.4	15.3	4.7	1.4	12.7	42.6	49.8	65.1
Argentina	17.5	15.5	5.6	6.1	53.2	43.6	43.1	65.5
Brazil	17.7	14.8	3.0	1.8	16.5	48.2	14.5	238.1
Chile	12.9	10.2	1.9	1.3	16.5	47.0	13.6	20.7
Peru	14.9	11.7	3.4	2.2	17.8	45.0	21.5	36.4
Singapore	17.0	15.3	1.3	1.3	14.1	44.3	66.9	73.8
Russian Fede	12.5	9.4	10.0	2.0	16.7	83.1	24.5	204.8
Finland	20.2	18.0	1.4	0.6	8.4	65.1	17.1	38.4
Norway	22.4	19.8	0.8	1.6	15.1	41.7	13.8	26.7
Sweden	21.4	19.0	0.5	0.6	11.8	48.0	19.0	28.6
United Kingd	21.4	17.9	1.1	0.5	7.5	75.1	25.1	40.7
Canada	15.3	13.2	0.4	1.1	20.4	61.6	9.8	43.5
United States	14.7	13.8	0.9	0.4	3.5	57.3	11.7	80.6

Source: IMF

Box 3.1: Implications of Public Sector Exposure (PuSE) for Banks

Introduction

A government can interact with the banks in many different ways.[201] It could be a borrower, a depositor, a user of financial services, an owner/major shareholder (in case of public owned banks), an insurer (providing explicit or implicit guarantee to banks), and a competitor (government's bonds and other saving products compete with the banks' deposits). Government, depending on the legal framework and its effective implementation, can, directly or indirectly, influence banks' operations via regulatory authority (e.g. controlling/guiding the banks' operations), supervisory authority (in-charge of micro and macro prudential supervision), allocative authority (directed lending), and fiscal authority (levying taxes on banking operations and profits). However, as seen in the GFC of 2008, governments also come to the rescue of the banks when the need arises. Thus, viability and smooth functioning of the banking system is inextricable linked to the government and the economy.

When governments heavily rely on banks' financing to bridge the fiscal gap, banks are distracted away from the private sector lending towards 'lazy banking'.[202] Emran and Farazi (2009) observed that—in case of developing countries—an additional dollar borrowed by the government from banks reduces the private sector credit by 1.4 dollars (i.e. crowding out effect).

Similarly, public sector borrowing from banks could harm financial deepening. Both the variety of financial services and their access could become restricted. Gray, Karam and Turk (2014) suggest that government and central bank actions could drive the demand for and supply of credit, which are traditionally dependent on the behavior of banks, non-financial corporations and households only.[203] Moreover, banks—in the wake of increased lending to the public sector—tend to be more profitable but less efficient (Hauner, 2006). On the other hand, some also argue that higher exposure to risk free government securities could potentially allow banks to take on more risk and thus increase their lending to private sector (Emran and Farazi 2009). However, continuous fiscal dominance could spoil the risk appetite of the banks.

As such, it is important to analyze the nexus between financial sector and the government. This becomes even more important in case of Pakistan, as around 47.29 percent of the banks' balance sheet is directly exposed to the public sector, in addition to indirect exposures resulting from government guarantees. Being the backbone of the financial sector[204], the focus of the section revolves around the banking system; though, other parts of the financial sector, like DFIs, NBFIs and insurance also have exposure to the public sector **(Chapter 5)**.

Following analysis provides insights into banks' exposure to public sector, the key issues concerning the growing PuSE and the possible implications for financial stability.

The analysis reveals that PuSE benefits banks in many ways (e.g. low capital requirements and higher ability to leverage, earnings, liquidity, lax regulations etc.), yet it also poses risks (e.g.

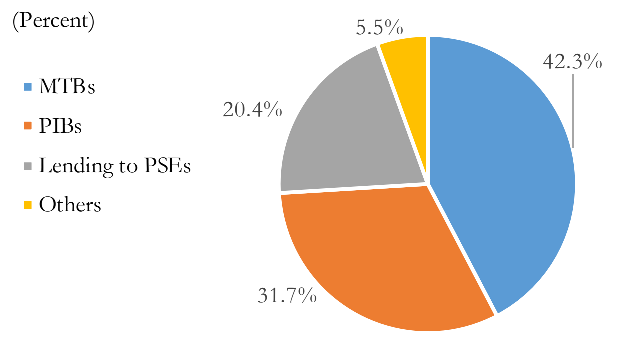
[201] See Bruni, Monti, and Angelo Porta."Bank Lending to the Public Sector: Determinants, Implications and Outlook." (1980)
[202] The kind of banking where banks avoid lending (the core function) and, instead, prefer to park money in risk free govt. securities is termed as 'lazy banking'.
[203] The study employed 'Loan to Deposit' ratio as an indicator for the credit using sample of Middle East and North Africa (MENA) countries from 2007-12.
[204] There are established financial intermediaries in Pakistan including banks, Development Finance Institutions (DFIs), Non-Bank Financial Institutions (NBFIs), Microfinance Banks (MFBs), Insurance etc. Besides, capital market institutions (e.g. mutual funds, stock exchange etc.) play their own role in financial intermediation. Moreover, government collects a sizeable amount through National Saving Scheme (NSS). However, banking sector plays the major role in the process of financial intermediation in the country.

financial disintermediation, higher profit volatility, stuck-up loans etc.). Historically high and downward rigid fiscal deficit, bar on monetary financing under IMF programs, high yields on government papers, and absence of Treasury Single Account (**TSA**) were the key drivers which boosted the PuSE. A major chunk of the direct lending to PSEs was stuck up due to the circular debt issue and was rolled-over after getting government's explicit guarantees. The stress tests, after applying some hypothetical shocks, revealed a significant deterioration in profitability indicators of the banks, though, solvency remained quite robust.

PuSE of banks witnessed rising trend…

In Pakistan, banks have an outstanding on-balance sheet (on-BS) exposure to public sector in the form of (a) investment in government securities (e.g. MTBs, PIBs, Sukuks, etc.), (b) direct lending to PSEs, (c) lending to federal and provincial governments' food departments for commodity operations, and (d) investment in share/bonds/TFCs issued by PSEs **(Chart B3.1.1)**. Besides, banks also have exposure arising from government guarantees issued in favor of banks.[205]

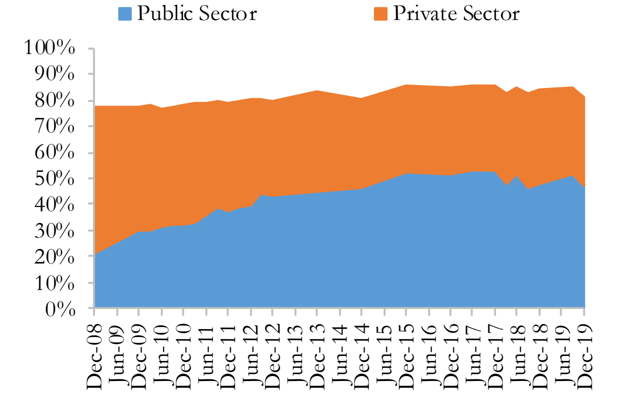
Chart B3.1.1: On-Balance Sheet Exposure of Banks on Public Sector as of end December, 2019



Source:SBP

Over time, the PuSE had been on an upward trajectory, both, in terms of the outstanding amount as well as its share in the overall assets of the banking sector **(Chart B3.1.2)**. The major portion of the exposure comprised of banks' investment in government securities. The direct lending to PSEs also constituted a sizeable share despite the fact that its major portion was self-liquidating in nature.

Chart B3.1.2: Banks' Credit Share in Total Assets



Source: SBP

PuSE is beneficial for banks despite carrying few risks…

PuSE provides a number of benefits to banks. These include:

i. Banks' sovereign exposure in local currency is considered as credit risk free. It does not require any capital charge for computing the CAR, as per Basel III framework. Thus, banks could, potentially, increase leverage.
ii. The high credit risk free yield on government papers augment banks' profitability, particularly, during economic slowdown when heightened credit risk makes banks reluctant to extend credit to the private sector (i.e. flight to safety).
iii. In case the yield curve is downward sloping, the long-term PIBs lock the invested amount at higher yield and for longer tenor. Hence, it reduces the reinvestment risk for the banks. On the contrary, in the rate rising scenario, short-term MTBs limit the interest rate risk.
iv. The revaluation gains on government securities, in a favorable interest rate scenario, might benefit the banks in two possible ways.

[205] These off-balance sheet exposure are 'contingent liabilities' at government's end.

It might augment the equity base, if such securities are parked in 'available for sale' (**AFS**) category, or it might strengthen the earnings, if gains on AFS securities are materialized through sales or securities are placed in 'held for trading' (**HFT**) category.

v. All government securities are highly-liquid and eligible for Statutory Liquidity Requirement (**SLR**). These securities are vastly acceptable as collateral in all forms of collateralized borrowing (e.g. repo borrowings).

vi. The Sharia compliant securities, such as government Ijarah Sukuk, enable Islamic Financial Institutions to deploy their surplus liquidity at lucrative returns. These securities also help in generating short-term liquidity through Bai' Muajjal agreements.[206]

vii. Investment in government papers is cheaper than lending. Such investments only require treasury desks and do not require banks to bear various lending related costs, such as pre-disbursement project appraisal, continuous monitoring, comprehensive documentation, collateral management, post default recovery etc.

viii. An explicit government guarantee against direct loans to PSEs provide an additional comfort to the banks. Particularly, a classified loan, if government guaranteed, is not subject to provisioning requirement.[207]

ix. A large chunk of public sector credit returns to banking sector in the form of government deposits.[208] As of end December 2019, government and PSEs' deposits, together, constituted 21.20 percent share in the total deposits of the banking sector.[209] These low cost deposits help banks earn returns and augment profitability.

However, there are several downsides for banks of taking excessive PuSE:

i. The large scale lending to government drags banks away from their core activity of financial intermediation and compromise the risk management capacities.

ii. Under some circumstances, it may crowd out the growth oriented private sector credit. In case of Pakistan, the data reveals a negative and statistically significant correlation between the Y-o-Y growth of private and public sector exposures.[210]

iii. The pile of government securities, particularly PIBs, faces revaluation risk when the interest rates rise.[211] If the risk is materialized (e.g. through selling of securities), the profitability of banks become more volatile and exposed to external factors, which are beyond the control of the banks. Further, if most banks follow the similar strategy while taking PuSE, these common exposures trigger system-wide downside risk invoking systemic risk concerns.[212]

iv. To meet high credit demand of government, banks stretch their funding sources by opting short-term borrowings from the central bank. The maturity mismatch is bridged through frequent roll-overs. However, this is not a sustainable strategy in a rate rising scenario, particularly, when the frequency of monetary policy announcement is shorter than the tenor of government papers' maturity (**See Chapter 3.1**).

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[206] Bai' Muajjal Agreement is a way of liquidity management by the SBP. For example, SBP purchases Government Ijarah Sukuk (**GIS**) from an IBI (say party A) on deferred payment basis. Then SBP can sell the same GIS to another IBI (say party B) sitting with the ample liquidity on ready payment basis. On the date of settlement of transaction with the first IBI (party A), SBP makes the cash payment to party A for the GIS purchased.

[207] PR No 8 (Annexure V), Prudential Regulations for Corporate /commercial Banking

[208] Total Government Deposits include deposits of federal government, provincial governments, local bodies and Non-Financial PSEs.

[209] However, these institutional deposits are larger in size and more volatile in nature than retail deposits.

[210] During Dec-10 to Dec-19, the correlation between the two exposures was negative 0.64 with t-statistics of negative 4.86.

[211] During CY15-17, banks maintained surplus on revaluation of securities around PKR 200 billion which eventually reduced later (as interest rate stabilize and banks materialized the gains) and then the surplus converted into deficit during the first three quarters of CY19 owing to monetary tightening.

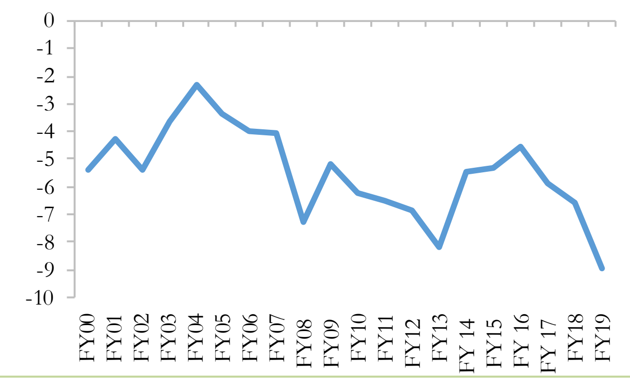
[212] The structural systemic risk may emerge through large interconnectedness within the financial institutions as well as common exposure on their balance sheets. Common Exposure includes similar business models, common accounting practices across financial institutions, fire sales and informational contagion that might be as important as direct exposures.

v. The tied-up funding to cash strapped PSEs may cause cash flow problems for banks. The prime reason is that the delayed release of subsidies from the government (e.g. for commodity financing) to PSEs causes delay in servicing of interest and principle payments by these PSEs to banks (this has been further explained in the later part of this section).

Why does government borrow from banks in Pakistan?

a) Fiscal Deficit: The history of perennial fiscal deficit, unpredictable and limited external sector financing and underdeveloped domestic capital market are the key drivers of government's heavy reliance on the banking sector.[213] Particularly, the fiscal deficit has persistently endured and has remained downward rigid **(Chart B3.1.3)**.

Chart B3.1.3: Fiscal balance to GDP Ratio

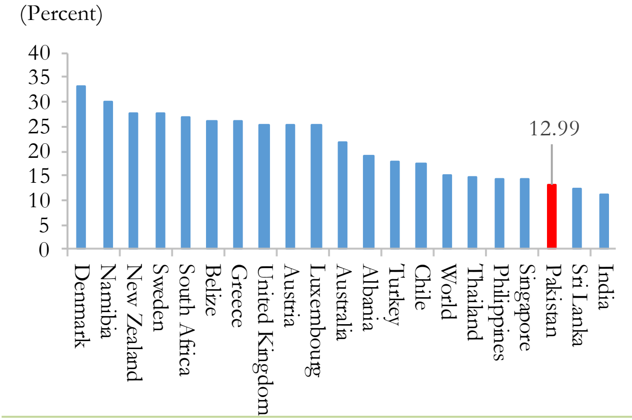


Source: MoF

The chronic issues such as narrow tax base, tax evasion and a substantially large undocumented economy restrain revenue collection. This coupled with non-discretionary expenditures (such as interest, defense, security, and subsidies related payments), keep the fiscal space narrow. Particularly, sizable interest payments due to large public debt—accumulated over time—drains the significant portion of government's revenue.[214]

Pakistan's 'tax to GDP' ratio stood at 12.99 percent in 2017, which was ranked at 98th (from highest to lowest) amongst 129 countries.[215] The ratio was lower than the world average of 15.13 percent as well as below many of its peer countries (**Chart B3.1.4**).

Chart B3.1.4: Tax to GDP Ratio



Source:World Bank

b) Limits on monetary financing under IMF programs: Pakistan has remained part of a number of IMF programs to address the balance of payments vulnerabilities and macroeconomic stabilization concerns **(Table B3.1.1)**.

Table B3.1.1: Pakistan's History of Financing Arrangements with IMF

Thousand SDRs

Facility	Date of Arrangement	Expiration Date	Amount Agreed	Amount Drawn
Extended Fund Facility	Jul 03, 2019		4,268,000	On going
Extended Fund Facility	Sep 04, 2013	Sep 30, 2016	4,393,000	4,320,000
Standby Arrangement	Nov 24, 2008	Sep 30, 2011	7,235,900	4,936,035
Extended Credit Facility	Dec 06, 2001	Dec 05, 2004	1,033,700	861,420
Standby Arrangement	Nov 29, 2000	Sep 30, 2001	465,000	465,000
Extended Credit Facility	Oct 20, 1997	Oct 19, 2000	682,380	265,370
Extended Fund Facility	Oct 20, 1997	Oct 19, 2000	454,920	113,740
Standby Arrangement	Dec 13, 1995	Sep 30, 1997	562,590	294,690
Extended Credit Facility	Feb 22, 1994	Dec 13, 1995	606,600	172,200
Extended Fund Facility	Feb 22, 1994	Dec 04, 1995	379,100	123,200
Standby Arrangement	Sep 16, 1993	Feb 22, 1994	265,400	88,000
Structural Adjustment Facility Commitment	Dec 28, 1988	Dec 27, 1991	382,410	382,410
Standby Arrangement	Dec 28, 1988	Nov 30, 1990	273,150	194,480
Extended Fund Facility	Dec 02, 1981	Nov 23, 1983	919,000	730,000
Extended Fund Facility	Nov 24, 1980	Dec 01, 1981	1,268,000	349,000
Standby Arrangement	Mar 09, 1977	Mar 08, 1978	80,000	80,000
Standby Arrangement	Nov 11, 1974	Nov 10, 1975	75,000	75,000
Standby Arrangement	Aug 11, 1973	Aug 10, 1974	75,000	75,000
Standby Arrangement	May 18, 1972	May 17, 1973	100,000	84,000
Standby Arrangement	Oct 17, 1968	Oct 16, 1969	75,000	75,000
Standby Arrangement	Mar 16, 1965	Mar 15, 1966	37,500	37,500
Standby Arrangement	Dec 08, 1958	Sep 22, 1959	25,000	0
		Total	**19,388,650**	**13,722,045**

Source: IMF

Besides emphasizing on the structural measures (e.g. building forex reserves, rationalizing

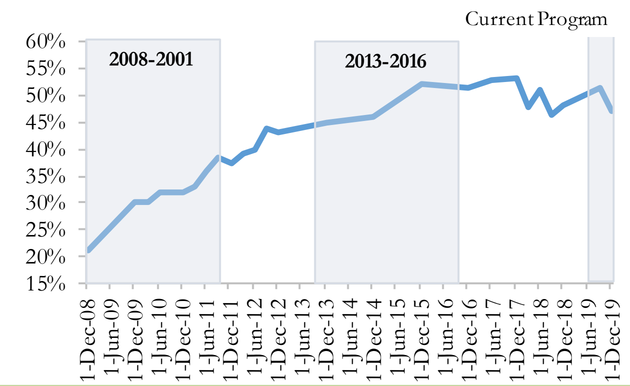
213 Generally, the banking sector refers to SBP and schedule banks. However, banking sector is referred as 'schedule banks' only for this specific analysis.

214 Pakistan Total Debt and Liability (TDL) as percentage of GDP stand at 104.32 percent compared to 66.26 percent in FY09.

215 Source: World Bank

subsidies, aligning exchange rate with the market dynamics etc.), IMF programs generally bar government's borrowing from the central bank. Resultantly, with the limited alternative financing avenues (such as developed and a deep capital market), the government, generally, finances its fiscal gap through borrowing from the scheduled banks. For example, during the last two IMF programs i.e. Standby Agreement (**SBA**) during Nov-08 to Sep-11 and Extended Fund Facility (**EFF**) during Sep13-Sep16, the share of banks' PuSE in assets increased compared to the period when the country was out of the IMF program (**Chart B3.1.5**). Particularly, post 2013-16 program revealed an overall dip in the share of exposure as government switched its borrowing from the schedule banks to the central bank.

Chart B3.1.5: IMF Programs and banks' exposure on public sector as % of their assets



Source:SBP

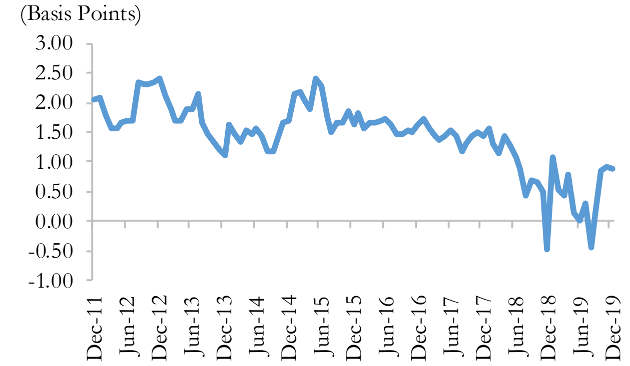
c) High yield on government securities (supply side

For lending, banks have to take into account a wide spectrum of risks, of which, credit risk is the predominant one. Since lending is, generally, not marketable, the liquidity risk is also high. On the other hand, PuSE (in local currency) entails no credit risk and investments in government paper are highly liquid. Therefore, the spread between the two exposures should be adequate to price-in all the risks pertaining to the lending activity.

However, the data exhibits that the spread between weighted average lending rate (fresh disbursements) and market yield on government papers with 3 months of residual maturity was not only small in magnitude but it also narrowed down over time **(Chart B3.1. 6).** The decline in the spread was more pronounced in CY18 and CY19. The CY18 observed a stiff competition amongst banks for lending (due to excess liquidity as government shifted its borrowing to SBP), while CY19 observed a broad based decline in the financing demand (due to economic slowdown).The spread turned even negative on a couple of occasions (Dec-18 and Aug-19) due to time lag in loan repricing.[216] This dis-incentivized banks to extend financing to the private sector.

Chart B3.1.6: Spread between Weighted Average Lending Rate (fresh loans) and Instruments with 3-months of Maturity

(Basis Points)



Source:SBP

d) Absence of Treasury Single Account[217]

The Treasury Single Account (**TSA**) is an account with the central bank through which the government transacts all of its receipts and payments and gets a consolidated view of its cash flow position at the end of each day. An effective TSA enables the government in preparing reliable cash flow forecasts, minimizing the cost of government operations (including borrowings),

[216] The negative gap on these occasion was likely due to the time lag between loan repricing and yield adjustment after monetary policy tightening in Dec-18 and Jul-19 when policy rate was increased by 150 bps and 100 bps, respectively. Yields on debt instruments are adjusted quickly while loan repricing takes some time.

[217] Source: 'Cash Management & Treasury Single Account Policy 2019-29", Ministry of Finance, Government of Pakistan

earning returns on idle cash, facilitating efficient collection and payment mechanism, improving bank reconciliation etc.

In the absence of TSA, cash is kept in multiple bank accounts without consolidation. Resultantly, unknown to actual cash position, the cash managers of the government are forced to meet the cash requirements through additional borrowings. Further, lacking the oversight of accurate cash position, it becomes challenging to prioritize and control expenditure disbursement.

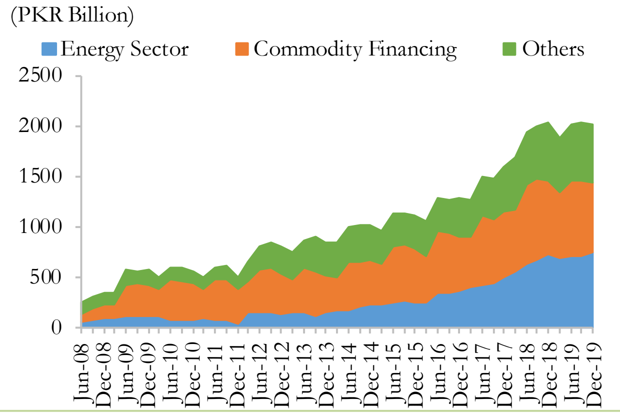
The government, in consultation with SBP, is in the process of establishing TSA.[218] However, keeping in view the fact that banks have hefty amount of funds in the form of government deposits, it may be a challenging prospect. The heavy withdrawals may affect banks' liquidity, profitability, solvency and other financial soundness indicators.

Most of the loans to PSEs pertained to liquidity strapped commodity and energy sectors…

Bank financing to PSEs had been rising persistently, with most of these disbursements flowing to the commodity and energy sectors **(Chart B3.1.7).** Both of these sectors had been struggling to pay back their loans due to cash flow problems. PSEs involved in commodity trading did not receive subsidies in time, while those in the energy sector were embroiled in circular debt trap.

These issues have been highlighted in detail below.

Chart B3.1.7: Key Sectors of Public Sector Borrowings



Source:SBP

Commodity Financing: The commodity financing is the government guaranteed running finance availed by, both, provincial food departments[219] and PSEs[220] for the procurement of basic food items (e.g. wheat, sugar etc.).[221] Major portion of the financing is availed for procurement of wheat at government's announced support prices.[222] The purpose of the commodity procurement is to maintain adequate reserve of food stock to ensure food security and stable market prices. Generally, the cost associated with the procurement, storage and distribution of commodity (e.g. support price, storage cost, transportation, and mark-up payable to banks) is more than the market prices. The differential, if any, is to be paid by the government in the form of subsidy to payoff banks' outstanding dues. So, principally, the commodity financing is self-liquidating in nature. However, due to the absence of or delayed release of subsidies, the banks' payables are settled through rollover of borrowings on a quarterly basis. Therefore, the

[218] Cash Management and Treasury Single Account Policy 2019-29 was approved by the Federal Cabinet on 03-06-2019 and was consequently made part of the Public Finance Management Act, 2019.

[219] For example, Punjab Food Department, Sind Food Department, Baluchistan Food Department

[220] For example, Trading Corporation of Pakistan (**TCP**), Pakistan Agriculture Storage and Services Corporation (**PASSCO**)

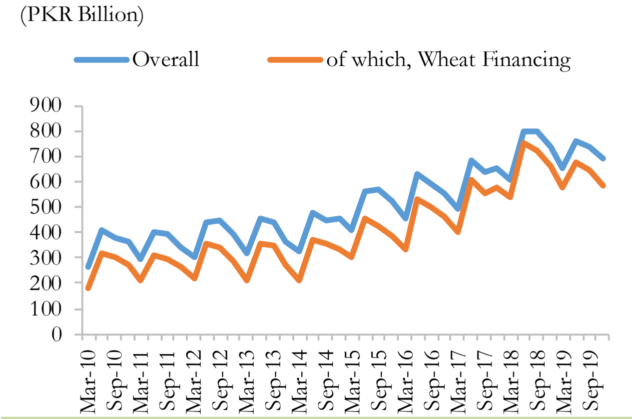
[221] Commodity financing is a consortium financing where previous loans is paid back through generating new facilities. The govt. asks for the bids and entertain the banks with the lowest asking rates.

[222] It may be relevant to highlight here that during mid-80s, sugar, wheat and rice were de-rationed. Later, government decided to continue procuring wheat at support price and supply to the flour mills at subsidized rates. The subsidy could not be withdrawn since then the quantum of which continued to vary with the quantity of imported wheat consumed, rates of transportation, prices of jute bags, and mark up rate charged by the banks on the loans obtained (Source: Punjab Food Department https://food.punjab.gov.pk/overview)

unpaid subsidy keeps cumulating on the financials of procurement agencies.[223]

On aggregate, the commodity financing observed a rising trend and reached PKR 690.2 billion as of end December 2019 with average 5-years' growth of 9.02 percent during CY15-19 (**Chart B3.1.8**).

Chart B3.1.8: Commodity Finance (Outstanding Amount)

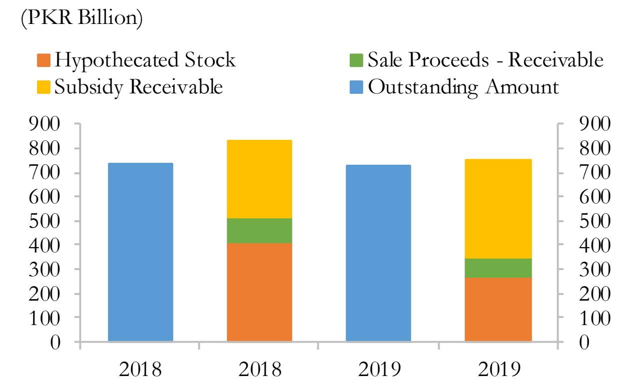


Source: SBP

In order to be able to payback their outstanding dues, the robust financial performance of PSEs and other procurement agencies is imperative. However, based on the financials of PSEs and stock reports issued by the provincial food departments, several issues were observed, of which, few are listed below:

1. Because of narrow fiscal space, there was frequent rollover of borrowings for commodity procurement operations. However, this practice is not sustainable in the long run, as it entails steady build-up of government liabilities and could turn out to be an issue as complicated as the circular debt. In past, such loans were settled through issuance of government papers.[224]
2. The financing was mainly backed by letter of guarantee issued by the government, as the value of hypothecated stocks could not sufficiently cover the entire amount of outstanding loans (**Chart B3.1.9**). Further, due to diversified location of warehouses, it was difficult for banks to properly monitor and assess the value and quality of the collateral.

Chart B3.1.9: Commodity Finace: Outstanding Amount, Hypothecated Stock and Subsidy Receivable



Source:SBP

3. Commodity related PSEs were facing financial difficulties. The assets of one PSEs largely comprised of trade debts and receivables from government of Pakistan (which had accumulated since 2017). Similarly, another PSE had accumulated significant trade receivables in the category of past dues over three years. The major portion of such dues were payable by another PSE, which was facing consistent losses and its external auditor gave a 'qualified opinion' and raised concerns about its ability to operate as a 'going concern'.
4. Delays in interest payment is costly for the banks as it tie up the liquidity. As such, anticipating the delays in repayment, banks tend to charge higher markup, which adds to fiscal burden of already cash-strapped government.

Lending to Energy Sector: A major chunk of energy related loans was disbursed to Power Holding (Pvt.) Limited (**PHPL**), which is backed by continuing government guarantee. PHPL is a wholly owned government company, which was established in June 2009 to absorb financial

[223] As of 31-12-2019, the total amount receivables of provincial food departments, Trading Corporation of Pakistan (TCP) and Pakistan Agriculture Storage and Services Corporation (PASSCO) stood as PKR 404.3 billion.

[224] Please see Financial Stability Review – 1st Half - 2013

liabilities of other power sector companies (e.g. NTDCL, WAPDA, and other IPPs).[225]Therefore, the major portion of PHPLs' assets comprised of receivables from other power related PSEs and the government of Pakistan. While the major liability was payable to banks, which had extended multiple financing facilities to PHPL (mostly syndicated in nature). As is already known, the power sector related PSEs are facing liquidity shortfall owing to defaults, line losses, high generation cost, theft etc.[226] As a consequence, the PHPL receivables remained unpaid, which hampered its ability to repay loans and led to periodic roll-overs.

The PHPL also issued privately placed Sukuk of 10 years' maturity of PKR 200 billion, which, were initially subscribed by banks but, later, were listed on the PSX in October 2019.[227] The rise in power sector arears and increasing cost of financing, both due to rate and quantum of borrowing, pose qusai-fiscal risk.

Besides PHPL, banks had also extended financing facility to other energy related PSEs. A financial analysis based on the consolidated data of key PSEs provides useful insights. (**Table B3.1.2**).[228]

The assets of PSEs had expanded in the last couple of years, primarily, backed by current assets. However, growing receivables (from other PSEs) and trade debts were the major drivers, with both the short-term and long-term liabilities were rising, indicating growing leverage. Though the profitability indicators improved in CY19, the accumulated receivables hinted that sales were not adequately converted into cash which undermined the quality of the profitability. This would also be pivotal to resolve the chronic liquidity issues of these PSEs.

Noticeably, the debt repayment capacity of these PSE adversely impacted in the last couple of years. The interest coverage ratio (i.e. gross profit to finance cost) deteriorated to 1.7—almost half the level observed in CY17- as financing cost of PSEs escalated due to monetary tightening since CY18.

Table B3.1.2:Consolidated Financials of Energy Sector PSEs*

Million PKR

	2017	2018	2019
Non-Current Assets	**1,732,721**	**1,861,963**	**1,926,843**
Current Assets	**780,801**	**1,090,064**	**1,332,176**
Current Receivables	*105,456*	*239,018*	*298,089*
Trade Debts	*355,833*	*498,288*	*638,571*
Others	*319,512*	*352,757*	*395,515*
Total Assets	**2,513,522**	**2,952,027**	**3,259,019**
Non-Current Liabilities	**591,849**	**794,572**	**811,382**
of which, Long-term Finance	*368,078*	*541,523*	*538,414*
Current Liabilities	**585,151**	**799,446**	**1,007,536**
Current portion of Long-term Financing	*28,545*	*45,216*	*42,965*
markup accrued	*42,835*	*62,102*	*66,140*
Short-term Borrowing	*137,170*	*138,072*	*212,329*
Trade and other paybles	*365,138*	*541,154*	*658,950*
Total Liabilities	**1,177,000**	**1,594,018**	**1,818,918**
Equity	**1,336,522**	**1,358,009**	**1,440,101**
P&L Account			
Revenue/Sales	1,321,016	1,704,277	2,213,307
COGS	1,209,567	1,581,781	2,045,371
Gross Profit	**111,449**	**122,495**	**167,936**
Finance cost	34,427.1	58,955	99,212
Profit Before Tax	76,997	61,443	86,560
Profit After Tax	**57,378**	**44,129**	**72,119**
Financial Ratios			
Debt/Equity	0.43	0.58	0.60
Leverage Ratio (A/E)	1.88	2.17	2.26
Interest Coverage	3.24	2.08	1.69
Current Assets/Current Liabilities	1.33	1.36	1.32
Receivables plus Trade Debt/Asset	0.18	0.25	0.29
Net Profit Margin (NPM)	4.34%	2.59%	3.26%
Gross Profit Margin (GPM)	8.44%	7.19%	7.59%
Retrun on Assets (ROA)		1.61%	2.32%
Retrun on Equity (ROE)		3.28%	5.15%

Source: Audited/Unaudited Financials of PSEs.

225 By virtue of its business, PHPL does not intend to earn profit or undertake any other business but it only facilitates other PSEs (e.g. power distribution companies) by providing them funding support.

226 As highlighted in NEPRA Annual Report 2018-19, DISCOs and K-Electric contributed losses of around Rs.45 billion due to inefficiency and transmission and distribution (T & D) losses and Rs.78 billion due to less recovery of bills. https://www.nepra.org.pk/publications/Annual%20Reports/Annual%20Report%202018-19.pdf

227 https://www.psx.com.pk/psx/events-psx/pakistan-stock-exchange-lists-rs-200-bn-energy-sukuk-i

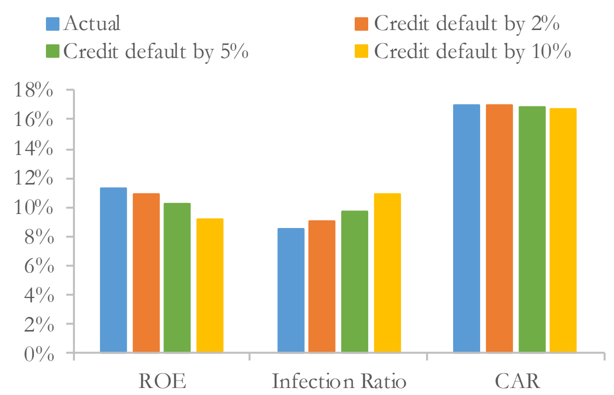
228 These PSEs contribute around 71 percent share in the asset base of energy related PSEs

Public Sector Exposure may feed Systemic Risk[229]…

The fact that PuSE constitutes approximately half of the banking sector assets and spreads across a wide spectrum of banks, it has the potential to create stress for the banking sector. Though credit risk is assumed minimal, the market risk on the investment portfolio is sizeable. In order to gauge the impact of adverse movement in credit and interest rate risks, a sensitivity analysis was performed.

For the credit risk, various hypothetical default rates were applied on the consolidated outstanding amount of PuSE. For example, a 2 percent default could reduce ROE of banks from 11.30 percent (actual) to 10.86 percent, CAR from 17.00 percent to 16.95 percent and increase the infection ratio from 8.58 percent to 9.04 percent. A more severe level of credit risk, say 5 percent or 10 percent, could deteriorate the financial soundness indicators further **(Chart B3.1.10)**.

Chart B3.1.10: Sensitivity Analysis - Credit Risk



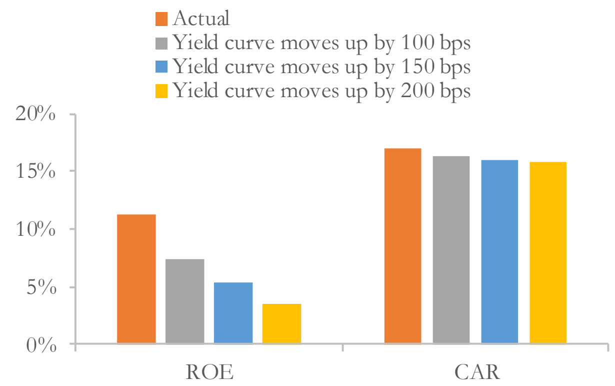
Source:SBP

Similarly, the market risk is applied on the existing portfolio of fixed income securities (e.g. PIBs and Sukuks) and discount bonds (e.g. MTBs) by assuming hypothetical rise in the interest rate. After tax impact of additional loss assuming dip in the value of investment portfolio was estimated and, subsequently, subtracted from profit (after tax) and eligible capital of the banking sector.

A hypothetical 100 bps rise in interest rate will reduce the ROE from 11.30 percent (actual) to 7.35 percent and CAR from 17.00 percent (actual) to 16.36 percent (**Chart B3.1.11**). A 150 bps rise in interest rate will reduce ROE to 3.59 percent and CAR to 15.75 percent.[230]

Chart B3.1.11: Sensitivity Analysis - Market Risk

(Percent)



Source:SBP

The stakeholders need to work together to devise a workable solution for reduction in PuSE…

In the nutshell, owing to the high fiscal deficit, limited availability of alternate funding sources (particularly of the capital market) and other issues, government is compelled to borrow from the scheduled banks. The establishment and effective implementation of TSA would help the government to consolidate and monitor its cash flows and rationalize its borrowing from the banking sector.

Banks are reaping benefits from PuSE (liquidity, profitability, regulatory relaxation etc.), they are also exposing themselves to risks. Most importantly, high public sector exposure drags banks away from their core financial intermediary function.

229 Systemic risks may arise if a large number of small market participants are exposed to similar risk or risks that are closely correlated with each other. The impact of systemic risk may be cataclysmic for the system as a whole and its implications may adversely impact the real economy.

230 The hypothesis ignores reinvestment of released funds or received coupons. It only estimates one-off shock due to rate rise and its impact on the indicators observed as of end Dec-19.

Banks' reliance on SBP's funds (through roll-over) to fund investment is not a sustainable strategy. Banks should put concerted efforts in mobilizing deposits. Moreover, revaluation of long-term investments due to adverse interest rate movement may affect the bank's profitability and capital adequacy that may not desirable from the financial stability point of view

The banks' exposure to PSEs is rising over time. It is important for the government to devise a time-bound workable action plan to resolve the circular debt issue in energy sector and manage rising amounts of commodity finance. This would allow banks to contain the public sector exposure and create financing space to enhance private sector credit.

3.2. Islamic Banking

*The Islamic Banking Institutions (**IBIs**) continued to outpace the conventional banking in terms of expansion of assets and deposits in CY19. Financing witnessed some deceleration due to prevailing macroeconomic conditions and in line with industry trend. Issuance of energy Sukuk provided an investment opportunity to IBIs, but the scarcity of avenues to appropriately deploy liquidity continued to pose for the IBIs. Strong growth in deposits allowed adequate availability of resources and limited reliance on borrowings to meet the financing needs. With a significant increase in profitability, IBIs were the major driver for increase in overall profitability of the banking sector. Despite increase in NPFs, IBIs remained resilient and solvent.*

Islamic Banking continued to observe strong growth momentum…

The assets of the IBIs[231] witnessed a remarkable expansion during CY19 compared with their conventional counterparts (**Table 3.2.1**). Besides the rise in investments and financing by 15.89 percent and 7.39 percent, respectively, the growth in assets was primarily driven by IBIs 'Lending to other Financial Institutions' that grew by 59.21 percent (or 1.5 times the rise in financing) during CY19. The asset growth was well supported by deposits that increased by 20.39 percent. These developments suggest availability of excess funds with the IBIs during CY19.

Table 3.2.2: Performance of Islamic Banking

	IBIs				Conv. Banks			
	CY16	CY17	CY18	CY19	CY16	CY17	CY18	CY19
	PKR Billion							
Total Assets	1,853	2,272	2,658	3,284	13,978	16,070	17,024	18,708
Investments (net)	490	534	515	597	7,019	8,195	7,399	8,343
Financing (net)	821	1,207	1,511	1,623	4,678	5,306	6,444	6,626
Deposits	1,573	1,885	2,203	2,652	10,225	11,127	12,051	13,301
	Percent Change							
Total Assets	15.09	22.60	17.02	23.52	11.53	14.96	5.94	9.89
Investments (net)	13.45	9.03	(3.59)	15.89	8.84	16.75	(9.71)	12.75
Financing (net)	27.21	47.01	25.20	7.39	12.17	13.42	21.46	2.83
Deposits	14.44	19.81	16.87	20.39	13.42	8.82	8.31	10.37

Source: SBP

Profit and loss sharing based financing products continued to enhance share…

With IBIs' business model gaining further maturity and rising awareness among the stakeholders, the. Musharaka based products continued to gain popularity compared to other Islamic modes.[232] Accordingly, the combined share of Musharakah (Running Musharakah and Diminishing Musharakah) increased to 53.84 percent in overall Islamic financing. These products cater to the varying needs of different segments, thus pose no concentration risk.

Table 3.2.2: Islamic modes of financing

	CY16		CY17		CY18		CY19	
	Amount	Share	Amount	Share	Amount	Share	Amount	Share
	amount in PKR billion, share in percent							
Murabaha	137	16.07	163	13.16	213	13.81	214.9	12.94
Salam	37	4.36	35	2.80	36	2.36	43.8	2.64
Istisna	75	8.82	101	8.16	140	9.08	158.5	9.55
Musharaka	133	15.68	272	21.99	306	19.85	329.3	19.83
Ijara	58	6.84	79	6.37	95	6.19	95.5	5.75
Car Ijara	37	4.41	47	3.76	61	3.97	58.3	3.51
Plant and machinery Ijara	11	1.31	14	1.12	20	1.27	25.0	1.51
Equipment Ijara	1	0.13	3	0.25	3	0.18	2.5	0.15
Others Ijara	9	1.01	15	1.25	12	0.78	9.6	0.58
Diminishing Musharaka	294	34.53	380	30.73	513	33.28	564.9	34.01
Other Islamic modes of finance	116	13.67	207	16.72	237	15.38	253.2	15.25
Mudarabah	0	0.01	-	-	-	-	-	-
Qard/Qard-e-Hasan	0	0.02	1	0.06	1	0.04	0.7	0.04
Total	851	100	1,237	100	1,542	100	1,661	100

Source: SBP

Amid challenging macrofinancial conditions, the financing observed slowdown…

The IBI's financing, owing to challenging macrofinancial conditions, decelerated during CY19. The financing growth at 7.39 percent was substantially lower than 25.19 percent expansion witnessed in the previous year- lowest since CY11. However, despite substantial deceleration, the pace of IBIs financing activity remained higher than the expansion of 2.83 percent in case of conventional banks.

…across public and private sectors…

Slowdown in flow of financing was visible both in the public and private sectors **(Chart 3.2.1).** However**,** the private sector financing (**PSF**) decelerated more sharply as the demand subsided.

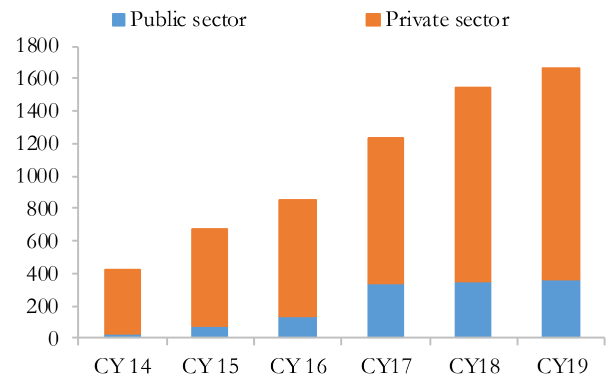
231 IBIs include both full-fledged Islamic Banks and Islamic banking branches of conventional banks.

232 IBIs extended financing under three wider modes i.e. Trade based, Leased based and Profit and Loss sharing modes. Within each mode, there were various products to cater to the need of diverse customer base. Also, profit and loss sharing modes include, Musharaka, Diminishing Musharaka and Mudaraba.

The PSF increased by 9.43 percent in CY19 compared with 32.27 percent in CY18, while public sector financing grew by 1.94 percent lower than the 4.31 percent rise in CY18. As a result, there was a meager change in share of financing to public sector, which stood at 21.64 percent in CY19 (22.86 percent in CY18). It is pertinent to mention that most of the financing to the public sector was availed for commodity financing operations and energy sector needs which entails limited credit risk.

Chart 3.2.1: Public and Private sector Islamic financing

(PKR Billion)



Source:

Regarding PSF, IBIs, recognizing the possibility of increased credit risk amid challenging economic conditions, took a cautious approach that caused a slowdown in financing.

…and across various segments, except agriculture.

The financing flow to corporate segment decelerated to 8.57 percent in CY19 from a high growth of 31.01 percent in CY18; a consequence of the prevalent macroeconomic conditions **(Table 3.2.3)**. Despite slowdown, the share of Islamic financing in overall corporate financing had marginally increased to 20.79 percent in CY19 from 20.16 percent in CY18.

Table 3.2.3: Segment-wise Islamic financing

	IBIs				Conv. Banks			
	CY16	CY17	CY18	CY19	CY16	CY17	CY18	CY19
	PKR Billion							
Corporate Sector:	659	874	1,145	1,243	3,117	3,643	4,533	4,736
Fixed Investment	340	426	541	587	1,475	1,719	2,000	2,106
Working Capital	260	361	497	521	960	1,099	1,533	1,612
Trade Finance	59	88	106	135	683	825	1,000	1,018
SMEs:	29	41	57	58	365	401	439	414
Fixed Investment	7	12	23	26	80	85	95	79
Working Capital	20	27	31	29	243	277	299	296
Trade Finance	1	2	3	3	42	38	45	39
Agriculture	7	6	5	7	286	308	317	335
Consumer Finance	90	122	156	165	272	316	368	398
Commodity Financing	47	172	162	168	572	563	702	631
Staff Loans	10	12	15	19	94	103	112	132
Others	9	11	3	1	7	5	1	3
Total	851	1,237	1,542	1,661	4,713	5,339	6,473	6,651

Source: SBP

The financing to SMEs also decelerated to 0.66 percent during CY19—down from 40.64 percent in the previous year. Besides the impact of monetary tightening, IBIs themselves scaled down their consumer financing targets, as reported in their annual financial statements. Consequently, IBIs' share in overall consumer financing portfolio marginally declined to 29.31 percent in CY19 from 29.68 percent in CY18.

On the contrary, financing to agriculture surged by 38.85 percent in CY19 (10.10 percent decline in CY18). Such marked rise in financing to agriculture could be the result of enhanced efforts by SBP and notification of Collateral Management Companies (**CMC**) regulations by SECP which aims to promote warehouse receipt financing.[233]

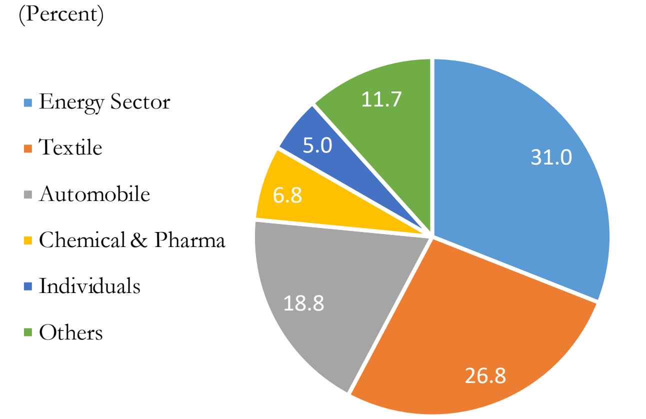
Flow of financing remained diversified…

The sector-wise analysis reveals that although the Islamic financing remained diversified during CY19, energy and textile sectors availed a sizeable proportion of financing **(Chart 3.2.2)**. It is noteworthy that— contrary to previous years—automobile was the biggest sector (after energy and textile) to avail Islamic financing during the reviewed year. An upward revision in the prices of cars' prices due to PKR depreciation and an

[233] Warehouse Receipt Financing (WHRF) is a mechanism whereby farmers, traders and processors may avail financing facility from banks while collateralizing their produce and agricultural commodities as a security stored in accredited warehouses.

increased cost of financing dented demand for new cars. As a result, unsold stocks piled up and cash flows declined. In addition, the car assemblers kept their plants operational, though with reduced intensity. This led to an increase in borrowing by the auto sector. In normal course of business, car assemblers finance their working capital needs from customer prepayments. However owing to reduced demand, they had to avail financing from banks.

Chart 3.2.2: Sector-wise flow of financing

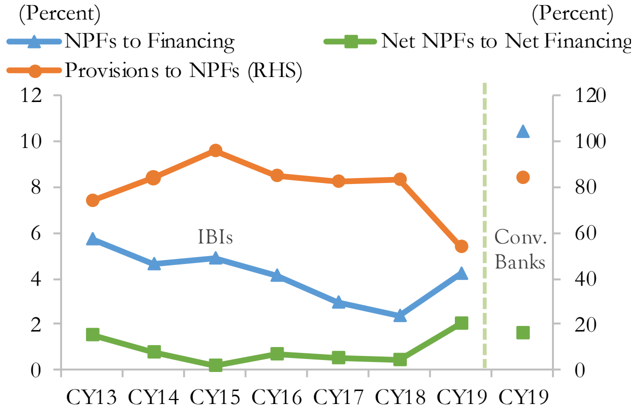


Source: SBP

Asset quality emerged as a critical concern …

The IBIs asset quality deteriorated during CY19. The Non-Performing Financing (**NPFs**) increased by 90.49 percent in CY19 from PKR 37.1 billion in CY18 to reach PKR 70.7 billion. Accordingly, the Non-Performing Financing Ratio (NPFR) of IBIs almost doubled to 4.26 percent during CY19 from 2.41 percent in CY18; however, it remained lower than the similar measure for conventional banks which stood at 10.42 percent (**Chart 3.2.3**). The asset quality issues for IBIs were not broad based and primarily emerged from the real estate sector.

Chart 3.2.3: Asset quality indicators of IBIs



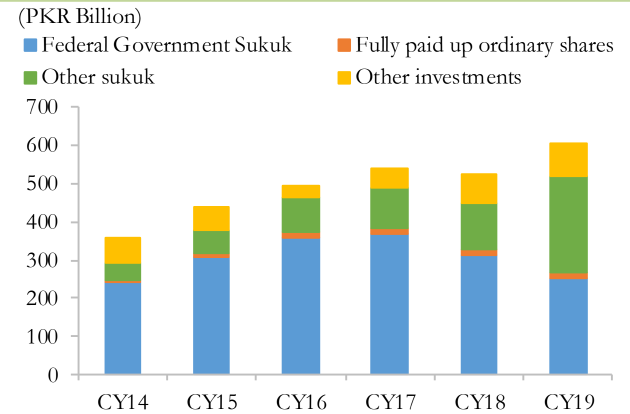
Source: SBP

A hefty, 63.35 percent of the NPFs occurred in the last quarter of CY19, therefore, the provisions coverage ratio dropped sharply to 53.96 percent in CY19 from 83.20 percent in CY18.

Issuance of energy Sukuk led to a rise in investments…

The IBIs' investments surged by 15.89 percent in CY19 as compared to a 3.59 percent decline in CY18. The issuance of PKR 200 billion—first ever energy Sukuk by Power Holding (Private) Limited— during the reviewed year provided an opportunity to IBIs to diversify their asset base. Accordingly, the share of investment in privately placed Sukuk in total investment portfolio increased to 41.42 percent in CY19 from 23.41 percent in CY18 **(Chart 3.2.4)**.

Chart 3.2.4: Breakdown of investments of IBIs



Source: SBP

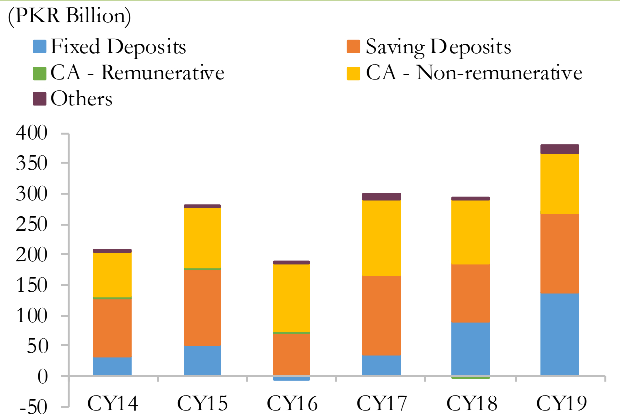
Though the issuance of energy Sukuk a provided long-term investment avenue, the Sharia compliant short-term investment instruments remained scarce for the Islamic banks. Resultantly, IBIs placed their excess liquidity in cash or channeled it to other financial institutions for some earnings primarily under the contract of Bai Muajjal, Musharakah and Commodity Murabaha.

Deposits remained the mainstay of funding…

The IBIs' deposits accelerated by 20.39 percent during CY19—higher than the growth of 16.87 percent in previous year – well above the growth of 10.37 percent achieve by the conventional banks. This was due to offering of competitive products to depositors and extensive marketing efforts. Another reason was the increase in overall branch network from 2,851 branches at the end of CY18 to 3,226 branches as of Dec, 19. As a result of this robust growth, share of IBIs deposits in overall banking sector's deposits rose to 16.62 percent in CY19 (15.45 percent in CY18).

The rise in deposits was broad-based. Fixed and Savings deposits, with 29.41 percent and 15.76 percent growth, respectively contributed the most in the overall growth **(Chart 3.2.5)**. Moreover, current account-non-remunerative category expanded by 13.30 percent in CY19.

Chart 3.2.5: Yearly flows of customer deposits



Source: SBP

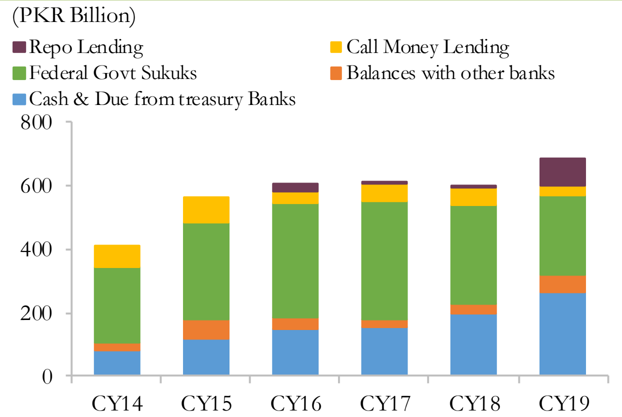
Resultantly, IBIs' dependence on borrowings remained limited…

The IBIs largely financed their funding needs through deposit mobilization, hence remained less dependent on borrowings to expand the asset base. Unlike conventional banks that financed 14.74 percent of their assets from borrowings, IBIs funded only 5.30 percent.

IBIs maintained adequate liquidity, though non-availability of short-term Sharia compliant investment instruments remained a constraint…

Deployment of funds in the short-term Sharia compliant investment instruments continued to be a challenge for IBIs due to lack of availability of such vehicles. To meet liquidity needs, IBIs keep a sizeable portion as idol cash or near cash alternatives. In CY19, IBIs increased their liquid assets by 14.78 percent to meet liquidity requirements. Out of the total liquid assets, 46.53 percent were kept in 'cash' and 'balances with other banks', as compared to 18.42 percent in case of conventional banks **(Chart 3.2.6)**.

Chart 3.2.6: Composition of liquid assets of IBIs



Source: SBP

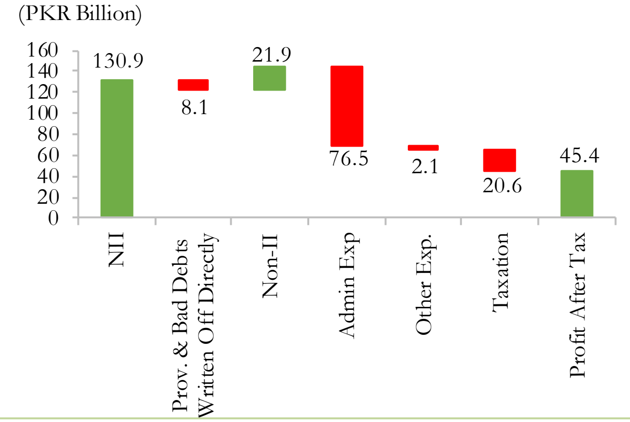
The liquid assets to total assets ratio declined to 20.82 percent in CY19 (22.41 percent in CY18). This was owing to a substantial rise in 'lending to financial institutions' that do not constitute as a liquid asset. The liquidity position of IBIs, however, remained well above the Statutory

Liquidity Requirement (**SLR**) of 14 percent.[234] Further, the financing to deposit ratio (**FDR**) declined to 61.18 percent as of Dec, 19 compared to 68.58 percent in as of Dec, 18. Apart from the decline in demand for financing, issuance of energy Sukuk also diverted the flow of deposits to investments from financing. Despite decrease in FDR of IBIs, it remained higher than the comparable ratio of conventional banks, which was recorded at 49.81 percent at the end of CY19.

And the profitability increased significantly…

The IBIs earnings increased by 82.59 percent (PKR 45.4 billion) in CY19 compared to 51.31 percent in CY18 **(Chart 3.2.7)**. Resultantly, Return on Assets (**ROA**) and Return on Equity (**ROE**) increased to 2.24 percent and 34.45 percent, respectively (after tax ROA was 1.02 percent and after tax ROE was 16.16 percent as of Dec-18).

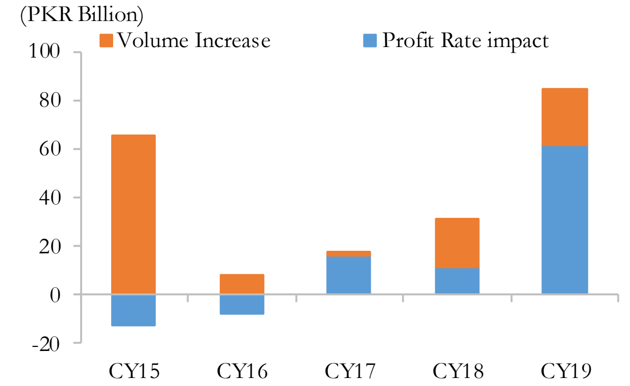
Chart 3.2.7: Net profit for CY19



Source: SBP

The increase in income on financing contributed more than 65 percent in total markup income. The surge in income earned on financing was mainly a result of increase in profit rate though rise in volume of financing also contributed **(Chart 3.2.8)**.

Chart 3.2.8: Impact of rate and volume on income from advances

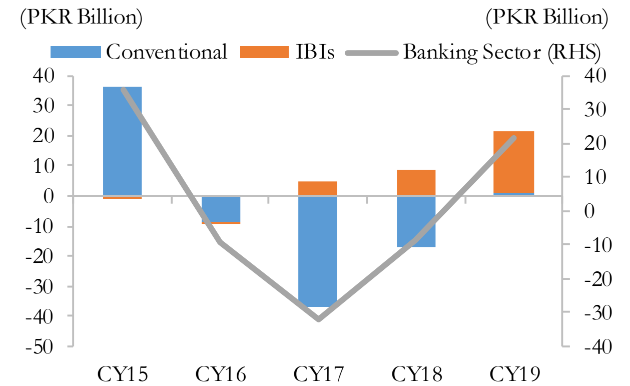


Source: SBP

…which improved the overall profitability of the banking sector…

The profitability of the banking sector increased by 14.34 percent in CY19. IBIs were the major driver behind this increase as they contributed around 96 percent of the rise **(Chart 3.2.9)**.

Chart 3.2.9: Contribution of conventional and Islamic banking in increase/decrease of banking sector profitability



Source: SBP

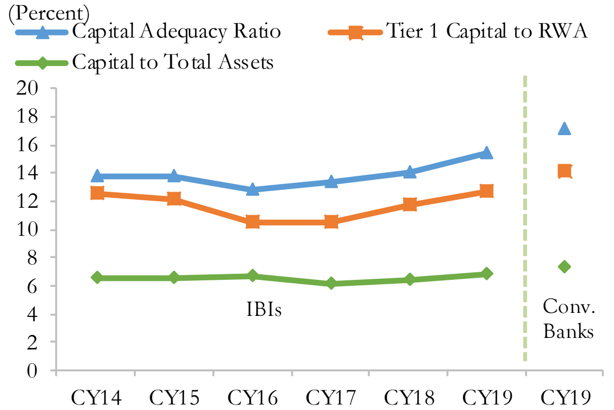
…leading to improved solvency

The Capital Adequacy Ratio (**CAR**) improved to 15.36 percent in CY19 (14.04 percent in CY18), which was well above the regulatory requirement of 12.5 percent **(Chart 3.2.10)**. The improvement resulted from growth in eligible capital as IBIs observed a higher profit retention in CY19. The

[234] The IBIs were required to maintain the liquid assets (excluding statutory Cash Reserve maintained under section 36(1) of the SBP Act, 1956) at 14 percent of their total demand and time deposits with tenor of less than one year in Pakistan. The same SLR requirement was 19 percent for the conventional banks.

CAR of IBIs remained, however, below that of commercial banks due to a high share of financing in total assets.

Chart 3.2.10: Solvency ratios



Source: SBP

Failure to comply with Sharia standards remained a risk…

The IBIs remained exposed to additional risks such as the Sharia non-compliance risk arising from their failure to comply with Sharia requirements and risks arising from additional documentation of the asset-based Islamic financing products. The SBP, continuing its efforts to harmonize the Sharia practices and strengthen the Sharia compliance framework, adapted the five AAOIFI Shariah Standards pertaining to Debit Card, Charge Card and Credit Card; Guarantees; Documentary Credit; Possession (Qabd);Syndicated Financing and Online Financial Dealings during the year under review.[235]

…coupled with lack of trained human resource

In addition, IBIs were facing the challenge of trained human resource scarcity. The banking industry is dominated by conventional banks, thus available experienced resources are well versed with the business model of conventional banking. However, they lack understanding of Sharia laws. One of the reasons behind dearth of desired human resources is the gap between academia and practitioners. There is a need for concerted efforts to bridge the gap between academia and practitioners and introduce a balanced curriculum, covering both sets of competencies.

[235] IBD Circular no. 1 of 2019 available at: http://www.sbp.org.pk/ibd/2019/C1.htm

4. Resilience of the Banking Sector under Adverse Conditions

The stress scenario is not a forecast of macroeconomic and financial conditions. It is a hypothetical, coherent tail-risk setting designed specifically to assess the resilience of the banking sector to a potential deterioration in macroeconomic conditions. This year's stress testing exercise assesses the extent to which the banking sector is able to withstand the potential impact of COVID-19 under the baseline and a hypothetical stress scenario. Under the baseline scenario, the sector's current level of solvency moderately deteriorates, but remains well above domestic regulatory benchmarks. Under a more severe scenario as well, the banking sector should be able to withstand a protracted downturn induced by adverse macroeconomic conditions associated with a more virulent and longer lasting pandemic. In terms of size, the small, medium and large banks as segments are all able to withstand the stress conditions. Reassuringly, the large size banks with potential to cause systemic disruptions carry sufficiently higher capital buffers and are expected to sustain the impact of the shock over a five year horizon. Similarly, the medium sized banks never breach the solvency criteria during the projection horizon. However, the resilience of small size banks starts waning by the end of the five-year simulation period, though their CAR remains above the regulatory benchmark otherwise. Although projected credit decelerates under both baseline and stress scenarios, the banking system, with adequate capital buffers amid the on-going regulatory measures to contain the economic fallout from COVID-19, is expected to continue catering to the credit needs of the economy. That said, the exact severity, duration and path of the COVID-19 pandemic globally and domestically remain unknown. As a result, the stress-test results are also subject to significant uncertainty. Nonetheless, the SBP continues to watch events closely and remains ready to take whatever actions necessary to safeguard financial stability.

4.1 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 the global financial crisis (**GFC**) of 2007-08. Since then, regulators and supervisors have enhanced the level of oversight of the financial sector, buttressing the resilience of the sector to withstand shocks transmitting from the rest of the economy. At the same time, stress-testing frameworks are also being extensively used by domestic regulatory and supervisory authorities as well as multilateral agencies to assess the resilience of the banking sector to certain hypothetical adverse yet plausible event(s). The results of these stress tests 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. For external stakeholders, stress-testing results are published annually in the FSRs since 2007-08. The stress-testing framework at SBP is being continuously revamped and strengthened.

The current year's stress testing exercise mainly focuses upon an impact assessment of the Global Health Crisis (**GHC**) for the domestic banking sector over medium term i.e. five years from Q1CY20 to Q4C24. The stress testing exercise is based on two scenarios, which differ in terms of assumptions regarding the spread and duration of COVID-19 at home and across the globe.

The baseline scenario traces the path of macro-financial variables under the current dynamics of the domestic macroeconomy, while assuming that the spread of COVID-19 will be relatively contained and short-lived; mainly limited to the first half of CY20. On the other hand, the stress scenario assumes a protracted and wider spread of COVID-19 in CY20 and well into CY21.[236]

[236] 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

The methodology used to evaluate the resilience of the banking sector in the two scenarios is similar. Given the interaction between various sectors of the economy, a number of variants of vector autoregressive (**VAR**) and Bayesian VAR models have been employed.[237] [238]

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

4.2 Scenario Design Overview

Since the outbreak of COVID-19, the global economy has been hit by exceptional levels of uncertainty and unprecedented demand and supply shocks. Lockdowns and social distancing measures necessary to contain the spread of the contagion have caused extreme economic disruption both at home and across the world. It is important to note that the domestic economy was just beginning to recover from a crisis induced by twin deficits, which necessitated IMF support in the form of an Extended Fund Facility secured in July 2019.[239]

Considering the severity of the slowdown that could be caused by the necessary prevention and mitigation measures for COVID-19, the focus of policy makers has changed, temporarily, from stabilization to insulation of the domestic economy from the pandemic induced crisis. Several adjustments have been made in the areas of monetary, fiscal and macro-prudential policies to bolster the capacity of the healthcare system, combat the contagion, flatten the recession curve, strengthen social safety nets and safeguard financial stability. Fresh multilateral support, in the form of the IMF's Rapid Financing Instrument (**RFI**) has also been secured in a timely manner.

Against the backdrop of economic challenges posed by COVID-19, the baseline and stress scenarios analyze macro-financial stability in the medium run, incorporating, as far as possible, the policy responses to the situation.

The implication 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 downturn can negatively influence the income levels of borrowers, affecting their debt servicing capacity and 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 the banking sector could spill over to the real economy as the banks would be reluctant to provide credit for even potentially profitable investment opportunities, thus amplifying the downturn. The expected sharp deceleration in credit flows by the banks during the downturn could further slow the pace of economic growth.

Stress test models, which are designed to test the banking industry's resilience against adverse shocks, capture these inter-linkages among the various sectors of the macro economy. 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, is built on the basis of observed dynamics of the domestic and global outbreak of COVID-19 and the associated policy response to the crisis. The global economy

projection horizon. Under this terminology, baseline and stressed scenarios are assumed to be V-shaped. However, owing to high level of severity in the stressed scenario, recovery takes a longer time compared with the baseline scenario.

[237] For details, please see 'Box 4.1 Technical Details' of Chapter 4: Resilience of the Banking Sector, Financial Stability Review 2016, SBP. In all we use 12 variants of VAR models, and an equal number of Bayesian VAR models. The models contain variants of macro-financial variables.

[238] One fifth of the authorities use VARs for macro stress testing. Bank for International Settlements (BIS) 2017. *Supervisory and Bank Stress Testing: A Range of Practices,* (December).

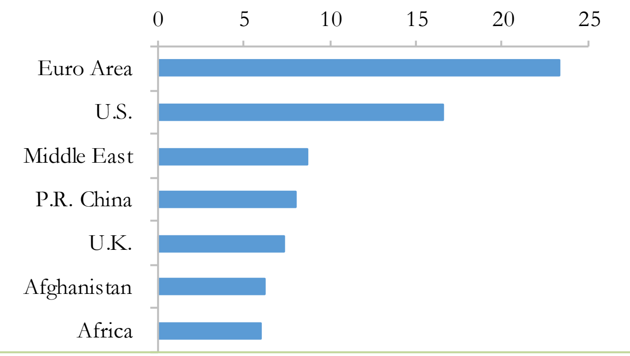
[239] For detailed discussion of key issues relevant to global and domestic economic environment, please see Chapter 2.

was facing rising uncertainty and declining sentiment amid global supply chain disruptions owing to lockdown in China since January 2020. Since the detection of initial cases at the end of February 2020 in Pakistan, different strategies are being adopted to mitigate the spread of disease. These include closures of educational institutions, halt on public transportation services, ban on mass gatherings and imposition of economic lockdowns except for essential sectors such as food, medical services and financial services. Lockdowns, across different provinces, started in the second half of March and continue to be in effect at the time of finalization of this report (end of April 2020). These lockdowns and unprecedented level of uncertainty have led to mutually re-enforcing aggregate supply and demand shocks to economy. On supply side, the services sector in general (61.21% of GDP) and subsectors of wholesale & retail trade (18.9% of GDP) and, transport, storage & communication (12.9% of GDP) in particular are hit by the shock. The services sector is likely to be hard-hit by the crisis as its value addition is highly time-specific and cannot be reclaimed once disrupted due to lockdowns. Large scale manufacturing (10.19% of GDP) is also expected to be badly hit by the lockdowns. Value addition of agriculture (18.53% of GDP) may also decline due to low demand amid bans on mass gatherings and closure of restaurants. Apart from these supply disruptions, domestic private consumption and investment demand conditions are also very weak owing to heightened level of uncertainty.[240]

In addition, external demand is also expected to be on the lower side. Prior to the start of the GHC, Pakistani exports had started to signal revival in volume terms.[241] However, in the post-GHC environment, Pakistan's major export destinations are severely affected by COVID-19 and therefore, export demand is likely to be weak **(Chart 4.1 and 4.2)**.

Chart 4.1: Key Export Destinations of Pakistan

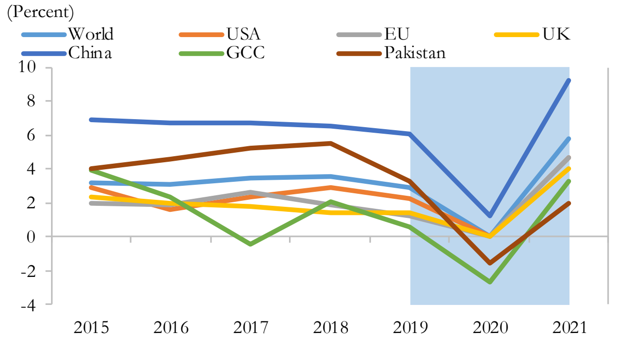
(5-Years Average of Percent Share in Total Pakistan Exports)



Source: IMF Direction of Trade Annual Statistics

Accordingly, in sync with international observers,[242] Scenario 0 assumes that the GDP growth rate will decline to -1.5 percent for FY20 before gradually recovering to 2 percent in FY21 and ultimately reaching 5 percent in the medium term by 2024.

Chart 4.2: GDP Growth Rates in Key Economies



Source: IMF

Along with the exports, workers' remittances constitute a key source of foreign exchange inflows for Pakistan. However, owing to weak demand in the EU, USA, and China, oil prices are at historically low levels. This situation implies that remittances from the western hemisphere as well as from Middle East may observe substantial moderation **(Chart 4.3)**. However, on a positive note, low oil prices and weak domestic demand are likely to cause a substantial reduction in the import

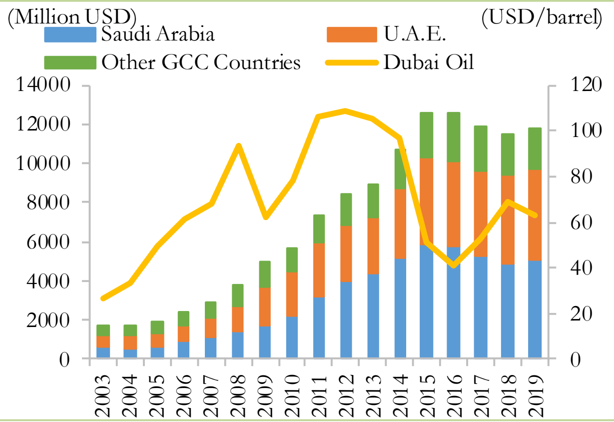
240 All GDP shares are based on FY19 data.

241 SBP (2020), Monetary Policy Statement, January

242 IMF (2020) forecasts Pakistan GDP growth for FY20 to -1.5 percent. World Economic Outlook, April. World Bank (2020) also forecasts Pakistan GDP growth in the range of -1.3 to -2.2 percent with significant downside risks. World Bank South Asia Economic Focus, April.

bill.[243] Further, IMF funding under its Rapid Financing Instrument and other facilities/relief expected through multilateral and bilateral support will help meet immediate balance of payment (**BoP**) needs arising in the context of imports to control pandemic amid tapering inflows due to weak exports and remittances. Based on these developments, the current account deficit is expected to broadly maintain the trajectory that it recently achieved under IMF stabilization program. As a result, volatility in exchange rate should remain contained.

Chart 4.3: Remittances from Middle East and Oil Prices



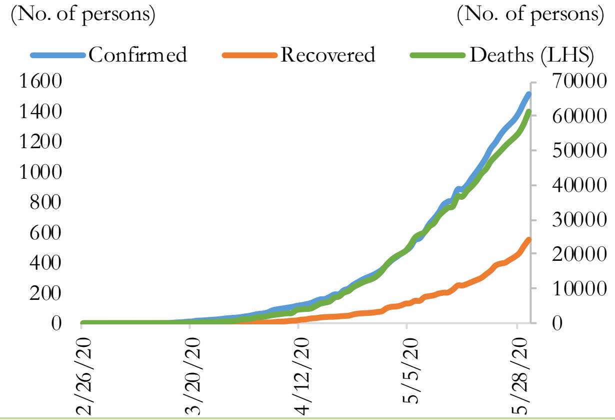
Source: SBP and World Bank Commodity Prices

On the back of weak demand, lower oil prices and a stable exchange rate, the baseline scenario assumes that inflation will come down to 11-12 percent during FY20, 7-9 percent during FY21 and 5-7 percent over medium term by 2024. In accordance with weak demand and decelerating inflation, the interest rate is also assumed to follow a declining trajectory.

Stress Scenario

The hypothetical stress scenario, Scenario 1, has been built around a more severe scenario regarding the spread and duration of COVID-19 in Pakistan and across the globe. So far, despite a persistent rise in the number of confirmed patients, the number of deaths and critical patients have been quite limited in Pakistan **(Chart 4.4).**

Chart 4.4: Domestic Spread of COVID-19



Source: Data Hub

However, in the absence of any concrete developments regarding the discovery of a vaccine/cure for the pandemic so far, the risk of a widespread and prolonged contagion—both at home and across the world—remains elevated. The risk of a sharp domestic outbreak is also exacerbated owing to population density, inter-provincial migrant workers, urban slums and the limited capacity of the health infrastructure to handle a mass-level outbreak. Apart from a more prolonged duration of the current contagion, risk of its reemergence in coming years after initial success of containment efforts also cannot be ruled out. Consequently, the economic environment is expected to be clouded by an unprecedented level of uncertainty.

Against this backdrop, Scenario 1, assumes a protracted and widespread outbreak of COVID-19 at home and in rest of the world. The scenario also assumes a reemergence of the disease in CY21.[244] If this scenario materializes, it is likely to substantially curb domestic economic activity and employment by necessitating stringent social distancing measures e.g. prolonged lockdowns to contain the spread of the contagion. The stress scenario assumes that GDP registers a negative

243 Payments for imports of petroleum products accounted for 26.40 percent of total imports bill in FY19.

244 In terms of the global spread and duration of COVID-19, Scenario 1 follows the assumptions under the most severe downside scenario from the latest IMF World Economic Outlook. IMF (2020), World Economic Outlook, April.

growth of 1.5 percent in FY20 with a further slide to negative 5.0 percent during FY21.[245] GDP growth is assumed to gradually recover to 3 percent by FY24.

The scenario assumes that reductions in aggregate supply will dominate slack in aggregate demand; thereby leading to an upward pressure on prices. In the recent past, food inflation has been presenting a challenge for domestic policy makers **(see Chapter 1)**. Against a backdrop of more severe domestic supply chain disruptions, greater bottlenecks in regional trade and elevated demand due to potential panic buying amid continued lockdowns, food inflation could push up headline inflation. To be precise, the scenario assumes that average inflation may rise to 15 percent[246] during FY21 before gradually returning to 9 percent by FY24. This situation may necessitate an appropriate monetary policy response to check inflationary expectations.

Since the scenario assumes that supply losses will dominate the slack in demand, import demand, especially for essential items, may also rise. Considering the weak demand for exports and low remittances, this high demand for imports could translate into pressures on the current account balance and exchange rate.

4.3 Stress Testing Results: System Level

(a) Impact on Credit Riskiness

The results of the stress test exercise indicate that the gross non-performing loans ratio (**GNPLR**), under Scenario 0, is likely to remain somewhat elevated over the five-year projection horizon, given weak domestic demand, supply disruptions and external sector pressures **(Chart 4.7)**. The denominator effects due to contracted lending portfolio may also be responsible for the relatively elevated delinquency rate. Over the first half of the projection horizon, the GNPLR peaks at 11.80 percent before settling at the level of 10.35 percent by the end of projection period, which is 1.77 percentage points higher than current level of 8.58 percent (as of end CY19). This is mainly in line with our assessment of the domestic economy, where certain existing macroeconomic vulnerabilities may cause a moderate rise in non-performing loans of the banking sector.

The GNPLR, under hypothetical Scenario 1, on the other hand, rises faster than the baseline because of the assumed greater and more prolonged deterioration in macroeconomic conditions. The banking industry shows less resilience towards the assumed shocks (Scenario 1) as the delinquency rate peaks at 14.65 percent before settling at 13.62 percent by the end of projection horizon. The latter level is 5.04 and 3.26 percentage points higher than the current level and the level under the baseline scenario, respectively.

Credit risk under the stress scenario matches the vulnerabilities observed during the 2008 crisis period. The growth of the lending portfolio, which decelerates for one year under the baseline, slackens for two years in Scenario 1. The stress scenario, therefore, could pose moderate stability concerns to the banking system of Pakistan.

(a) Impact on Solvency

The impact on solvency is measured via the Capital Adequacy Ratio (**CAR**) of the banking system. As explained in the scenario design, besides credit risk, two other risks are likely to have an impact on solvency: market risk, realized via movements in interest and exchange rates, as well as operational risk. These three risks, therefore, have also been factored in while analyzing the impact of each scenario on capital as well as risk-weighted assets. Under the baseline environment, the CAR of the banking system moderately deteriorates by 1.12 percentage points by the end of the projection period. In Scenario 1,

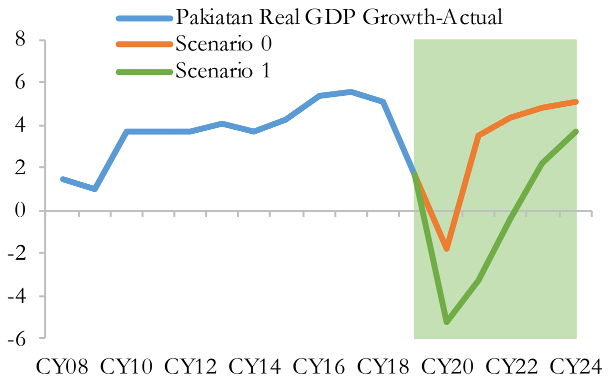
[245] At peak level during FY21, the stress scenario assumes 7 percent less GDP growth relative to baseline.

[246] At peak level during FY21, the stress scenario assumes 7 percent higher inflation relative to baseline.

however, it settles at 14.48 percent, which is 2.53 and 1.41 percentage points lower than the current level and baseline scenario, respectively.

Chart 4.5: Projected Real GDP Growth under various Scenarios

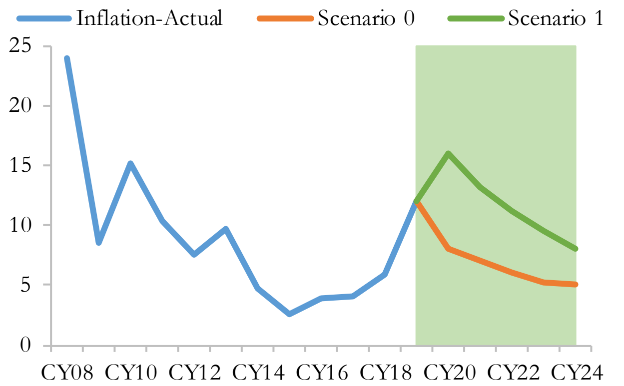
(Percent)



Source: SBP Calculations

Chart 4.6: Projected Inflation under various Scenarios

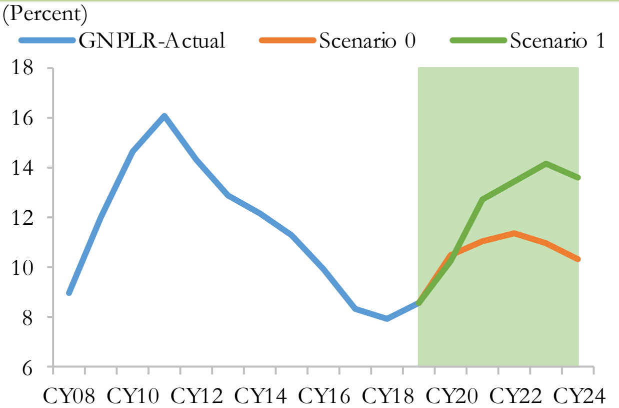
(Percent)



Source: SBP Calculations

Chart 4.7: Projected System-Level GNPLR under various Scenarios

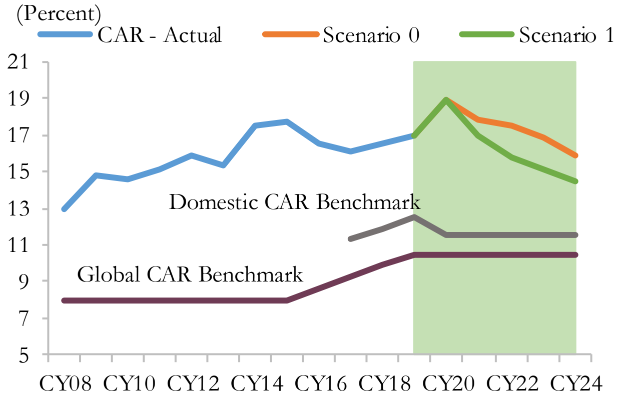
(Percent)



Source: SBP Calculations

Chart 4.8: Projected System-Level Capital Adequacy Ratio under various Scenarios

(Percent)



Source: SBP Calculations

However, under either scenario, the banking industry does not breach any of the regulatory benchmarks, be it domestic (11.5 percent) or international (10.5 percent), over the projection horizon **(Chart 4.8)**.[247]

The resilience of the banking sector, despite unprecedented level of assumed turmoil in real economy, can be justified based on three facts. First, the COVID-19 shock has hit the economy at a time when domestic banks have an ample amount of capital buffers. Specifically, at 17 percent, the CAR is substantially higher than global and domestic benchmarks. Second, the banking sector's risk averse behavior during contractions, whereby banks undertakes aggressive portfolio re-balancing by shifting from riskier private sector loans to risk-free treasury investments, keeps the sector from falling below the regulatory CAR standards. Going forward, the budget deficit is expected to widen due to relief measures for the ongoing COVID-19 pandemic.

[247] The domestic CAR benchmarks are 12.5 percent for December 2019, however, reduced to 11.5 percent owing to mitigation measures for COVID-19. (BPRD Circular Letter No. 12 of 2020)

At same time, economic slack is expected to result in tax collections below par. The demand for budgetary borrowing is accordingly expected to be higher. Finally, if history is any guide, the banking sector has shown resilience during the balance of payment crisis that coincided with global financial crisis in 2008; and more recently, withstood the twin deficit crisis that started in 2018 and led to a substantial fall in GDP growth and a rise in inflation.

7.4 Stress Testing Results – Segment Level Analysis

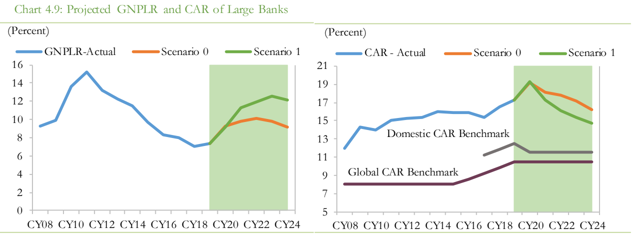
In line with the system-level default analysis, segment level (small, medium, large) infection ratio has also been projected. This aspect of the banking industry is included to assess how cross-sectional heterogeneity affects the resilience of banks against various macroeconomic risks.

For GNPLR, system-level projections of non-performing loans and gross advances are distributed proportionately based on the contribution of each segment to the loan portfolio of the entire banking system as of December 2019. Similarly, capital is also distributed proportionately to compute segment level CARs.

Large Banks

Under the baseline and hypothetical scenarios, the large banks segment—comprising 70.89 percent of the banking system—witnesses a rise of, respectively, 1.82 and 4.73 percentage points in GNPLR and a fall of 1.09 and 2.52 percentage points in CAR, by the end of the projection horizon **(Chart 4.9 (a & b))**. The CAR remains 4.68 and 3.24 percentage points above the minimum requirement under the two scenarios.

Chart 4.9: Projected GNPLR and CAR of Large Banks



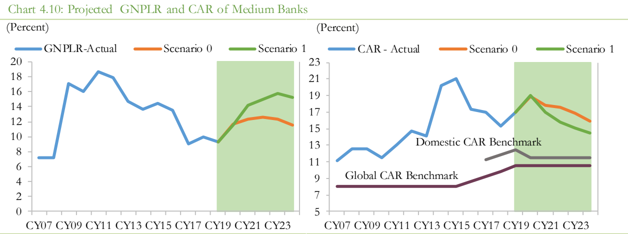
Source: SBP Calculations

None of the regulatory CAR standard is breached for this category of banks, which implies that the large banks are generally well-placed to withstand stress over the simulation horizon **(Chart 4.9 (b))**. Sufficiently higher capital buffers available with larger banks are a likely factor behind this resilience. More importantly, the systemically important banks remain well-capitalized and resilient to prevent contagion and support real economic growth even in times of stress.

Medium-sized Banks

By the end of the projection period, the GNPLR of medium-sized banks rises by 2.29 in in Scenario 0 and 5.94 percentage points in Scenario 1. The CAR, correspondingly, falls by 1.07 and 2.48 percentage points under the two scenarios. The medium-sized banks remain compliant to the regulatory CAR standards, even under the stress scenario **(Chart 4.10 (a & b))**.

Chart 4.10: Projected GNPLR and CAR of Medium Banks



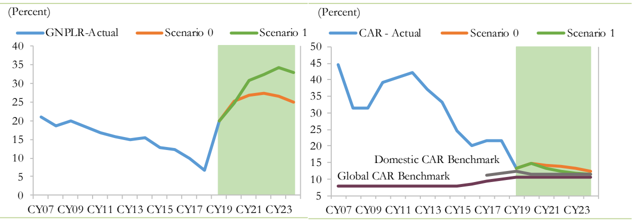
Source: SBP Calculations

Their level of CAR remains 4.44 and 3.02 percentage points above the minimum requirement in scenario 0 and 1, respectively. That said, their relatively higher levels of delinquency ratios and lower level of pre-shock capital buffers, possibly make medium banks relatively more vulnerable to shocks than large ones.

Small Banks

Small banks—comprising 4.31 percent of the banking system—are found to be the least resilient against both scenarios. The loan delinquency rate of small banks rises by 4.95 and 12.85 percentage points under scenario 0 and 1, by the end of five-year horizon **(Chart 4.11 (b))**, which is the highest among all three categories.

Chart 4.11: Projected GNPLR and CAR of Small Banks



Source: SBP Calculations

Given their lower exposure, comparatively, in terms of loans, the CAR of small banks falls by 0.84 percentage points in scenario 0 and 1.95 percentage points in scenario 1 **(Chart 4.11 (a))**.

The small sized banks, while maintaining resilience under the baseline, breach the domestic regulatory CAR standard towards the end of projection horizon under severe stress only. This is mainly due to their having the lowest level of pre-shock CAR among all categories, with a capital buffer of just 0.84 percentage points. Small banks thus demonstrate the least resilience to maintaining compliance with minimum capital requirements with respect to credit losses. Reassuringly, the minimum global benchmark, however, would not be violated in any scenario over the projection period.

Overall, under the baseline scenario, the solvency of the banking sector could experience some moderation; however, it remains above the domestic regulatory capital benchmark. Under the hypothetical stress scenario as well, the banking sector should be able to withstand some severe and protracted downturn induced by adverse global and domestic macroeconomic conditions, including the COVID-19 pandemic. 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 the potential to cause systemic disruptions, carry sufficiently higher capital buffers and are thus able to sustain the impact of hypothesized shocks for five years horizon. Also, the medium-sized banks never breach the solvency criteria during the projection horizon of five years. The resilience of small-sized banks, however, starts waning towards the end of simulation period.

That said, the exact severity, duration and path of the COVID-19 pandemic globally and domestically remain unknown. As a result, the stress-test results are also subject to significant uncertainty. Consequently, the SBP continues to watch events closely and remains ready to take whatever actions necessary to safeguard financial stability.

Section B: Performance and Risk Analysis of Non-Banking Financial Sector

5.1. Development Finance Institutions (DFIs)

The performance of DFIs, considering their risk averse behavior and a challenging environment, remained steady during CY19. There was strong asset expansion primarily driven by investments in government securities, which had positive impact on their earnings. However, the strategy of funding assets through short-term borrowing may not be sustainable in the long-term. Lack of longer tenor affordable funding remained a major challenge for DFIs in expanding their advances portfolio. Conversely, the availability of refinancing for housing finance made it possible for DFI(s) to increase their housing finance portfolio. There is a need to align the DFIs operations with their mandates of financing projects, housing, SMEs etc., in order to make them economically viable.

Investments drive expansion in assets…

Despite tight macrofinancial conditions, DFIs' assets observed strong expansion of 58.12 percent during CY19, mainly driven by 96.47 percent expansion in investments, **(Table 5.1.1)**. Accordingly, share of investments in total assets increased to 63.71 percent in CY19 (51.27 percent in CY18).

Table 5.1.1: Key Variables & Financial Soundness Indicators of DFIs

	CY15	CY16	CY17	CY18	CY19
			PKR billion		
Investments (net)	115.3	108.9	122.1	122.3	240.2
Advances (net)	56.8	68.6	76.7	82.3	91.9
Total Assets	190.5	208.8	228.0	238.5	377.1
Borrowings	86.5	98.4	100.5	111.4	229.0
Deposits	12.0	10.9	17.1	11.6	12.0
Equity	79.3	82.2	99.5	106.2	117.0
NPLs	15.0	13.9	15.0	14.7	15.0
			Percent		
CAR	43.62	40.78	47.04	46.95	44.95
NPLs to Advances	21.98	17.48	17.15	15.83	14.53
Net NPLs to Net Advances	6.21	4.51	5.52	5.29	4.17
ROA (After Tax)	3.36	3.56	2.36	2.25	2.68
ROE (After Tax)	7.92	8.66	5.77	4.89	7.16
Cost to Income Ratio	32.59	38.78	37.28	40.08	32.38
Liquid Assets to Short-term Liabilities	86.31	90.23	90.90	86.95	97.60
Advances to Deposits	471.61	627.65	447.93	707.08	763.81

Source: SBP

Although investment driven growth in DFIs improved soundness and profitability, it was mostly funded through short-term borrowings from banks and was misaligned with their economic model of providing long-term project financing. Further, financing assets through short-term borrowing may not be a sustainable proposition in the long run.

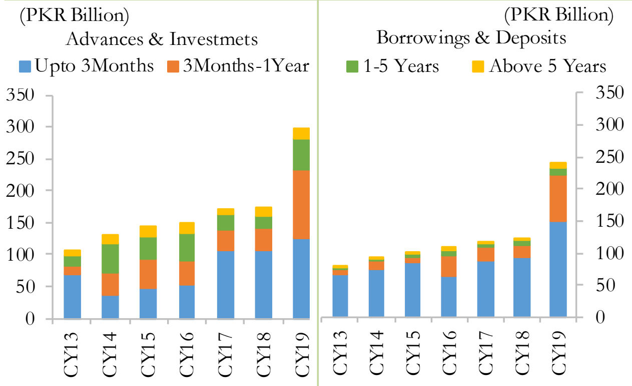
…though advances also accelerate but as a consequence of refinancing of existing portfolio

Advances growth accelerated to 11.63 percent during CY19 against 7.39 percent in CY18. However, share of advances in total assets declined mainly due to substantial increase in investments. Moreover, the growth was not broad-based as one DFI—involved in refinancing of existing housing finance portfolio—contributed 68.18 percent in the advances growth, as it extended refinance facilities to other DFIs and banks. This refinancing enabled the primary mortgage lenders to fix their end user rates for at least the next 3 years.

Reliance on short-term funding dictated DFIs behavior towards short-term investment and advances…

Contrary to the objective of providing long-term financing and building long-term assets, more than 78.35 percent of DFIs advances and investments had maturity up to 1 year and only 6.02 percent of the total advances and investments had maturity above 5 years as of end Decemeber-2019 **(Chart 5.1.1)**. Further, 92.39 percent of the funding had maturity of less than a year. Such a sizable reliance on short-term funding to support asset growth create maturity mismatches. The size of liabilities, for instance, maturing in three months was around 1.5 times of the assets maturing in the same period.

Chart 5.1.1: DFIs' reliance on short-term funding created maturity mismatch

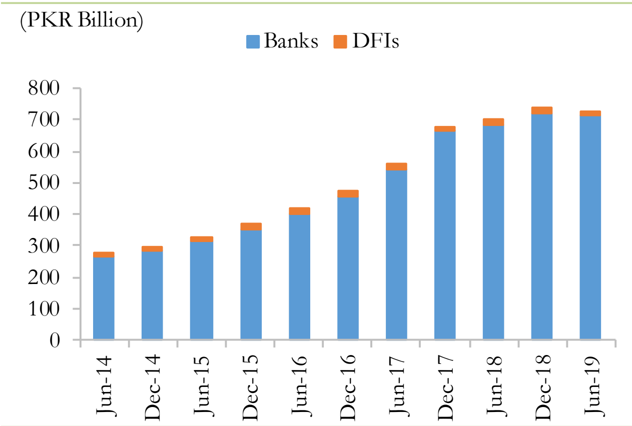


Source: SBP

Worryingly, DFIs' share in Infrastructure Project Financing remained negligible…

In a competitive environment where DFIs' share in Infrastructure Project Financing (**IPF**) was already low, their share further reduced to 1.90 percent in FY19 from 4.89 percent in FY14 **(Chart 5.1.2)**. As of June 2019, the highest participation of DFIs financing was in 'social, cultural & commercial infrastructure' (6.12 percent) followed by 'Renewable Energy (**RE**) Power' (3.01 percent) and 'Telecommunication'[248] projects (3.01 percent).

Chart 5.1.2: Banks continue to dominate IPF

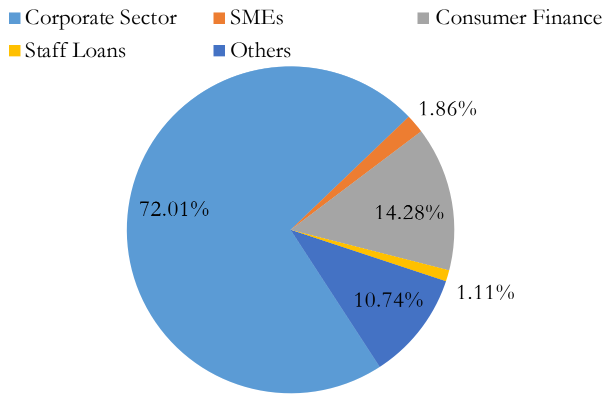


Source: SBP

Corporate sector remained the dominant borrower, despite some deceleration in financing…

The advances to the corporates decelerated to 2.63 percent in CY19 compared to 4.39 percent growth in CY18. Consequently, corporate sector's share in total DFIs advances reduced by 6.03 percentage points to 72.01 percent during CY19 **(Chart 5.1.3)**. Within the corporate sector, around 80 percent of the financing was for long-term purposes[249].

Chart 5.1.3: Corporate sector remained the largest borrower



Source: SBP

SMEs financing decelerated, while housing finance portfolio expanded during CY19…

SMEs financing also decelerated to 7.95 percent in CY19 against robust growth of 59.16 percent in the previous year. The reasons behind marked slowdown in SMEs financing included feeble demand conditions, impact of PKR depreciation and rise in duties on import of raw material, monetary tightening as well as DFIs risk averse lending behavior. On the contrary, the housing finance portfolio increased by 2.65 percent in CY19 as compared to 1.14 percent decline in CY18. The prime reason for increase in house financing was availability of credit line on fixed

[248] As per Prudential Regulations for Infrastructure Project Financing (**IPF**), Telecommunication projects are defined as 'A Telecommunication Local Services, Long Distance and Towers'

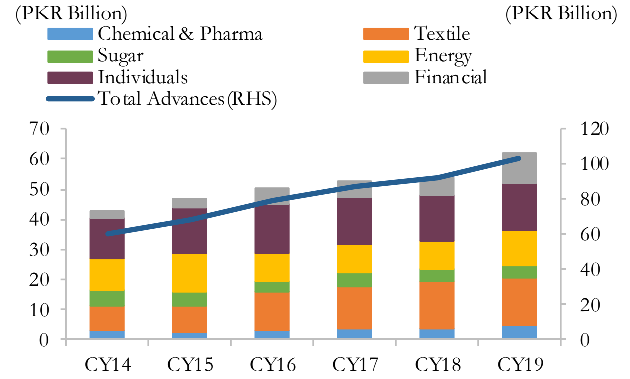
[249] DFIs collateralized these advances through hypothecation of plant and machinery, which provided the due comfort to them to repossess the collateral in case of default of a borrower.

rate for three years from a DFI with a mandate of mortgage refinancing.

Concentration risk in advances remained low…

The advances to financial sector, other than interbank lending, surged by 79.11 percent in the wake of refinancing for housing finance provided by a DFI to other banks and DFIs. On the other hand, there was some deceleration in textile sector loans (4.62 percent in CY19 vs 10.05 percent in CY18), while advances to sugar sector declined by 11.64 percent (4.99 percent decline in CY18). Despite deceleration in textile related advances, it remained the largest borrower with 15.54 percent share in total advances followed by individuals (15.26 percent share) and then energy sector (11.30 percent share) **(Chart 5.1.4)**. Thus, advances portfolio of DFIs remained well diversified with limited signs of concentration.

Chart 5.1.4: DFIs show no signs of concentration in advances

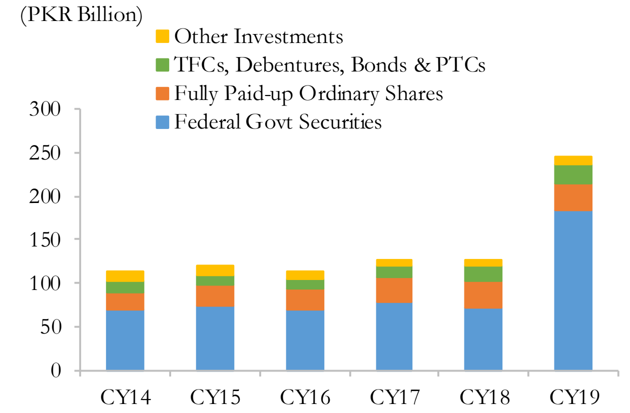


Source: SBP

Risk free investments remained a priority…

In the wake of increased policy rate, investments in government securities remained lucrative for DFIs. Overall investments boosted by 96.47 percent in CY19 compared to negligible rise in CY18 **(Chart 5.1.5)**. More than 90 percent rise was contributed by investment in federal government securities. Further, to reap the maximum benefit from interest rate dynamics, more than 82 percent of the securities were placed in available for sale category.

Chart 5.1.5: Govt. Securities continue to dominate Investment portfolio



Source: SBP

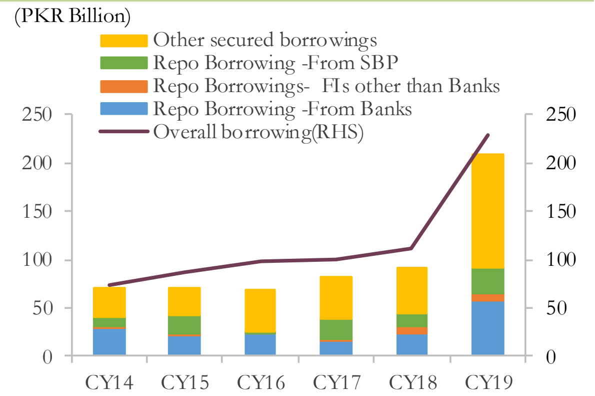
Review of existing regulatory framework could redefine the DFIs role…

Most DFIs invested in their subsidiaries/ associates operating in sectors including commercial banks, microfinance banks, asset management companies, leasing, investment banks, real estate, modarabas, insurance and power generation through equity participation. Due to regulatory limits, these investments, however, remained small part of the DFIs portfolio. A little tweaking in existing regulatory framework could allow DFIs to effectively invest through equity participation in the economically viable projects and support the enterprises operating at infancy stage.

On the liability side, borrowings remained the key source of funding besides equity…

Borrowings funded more than 60 percent of the assets in CY19. Borrowings increased by 105 percent, which financed 99.66 percent rise in investments (net). It manifested that DFIs capitalized upon the opportunity of earning higher yields on government paper by relying on short-term borrowings. However, this modus operandi of expanding assets through short-term borrowings may not be a sustainable strategy in the long-term **(Chart 5.1.6)**.

Chart 5.1.6: DFIs borrowing surged in CY19



Source: SBP

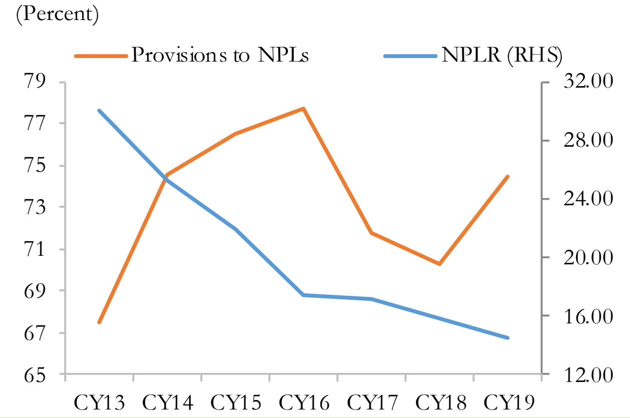
Equity remained the only source of long-term financing…

Over the years, the DFIs have been unable to raise long-term liquidity due to either lack of efforts or strategy. Further, shallow capital markets, make it expensive to raise funds by issuing bonds or TFCs. Therefore, DFIs mainly resorted to short-term borrowings to fulfill their liquidity needs during CY19. In this scenario, Equity remained the major source of long-term financing. Total equity of the DFIs observed a rise of 10.16 percent during CY19 reaching at PKR 117 billion. Increase in share capital and revaluation surplus largely facilitated this growth.

Asset quality continued to improve…

DFIs infection ratio declined to 14.53 percent in CY19 from 15.83 percent in CY18 **(Chart 5.1.7)**, largely because of reasonable growth in gross advances (11.24 percent), even though NPLs stock increased (2.07 percent) in CY19. Further, strict monitoring of the borrowers made DFIs able to identify problem loans timely and undertake remedial measures. Most of the delinquent loans i.e. 74.41 percent were provided for at the end of CY19. DFIs, with their cautious lending approach and strict credit standards, were successful in containing their credit risk, despite substantial rise in interest rates.

Chart 5.1.7: Asset quality improved

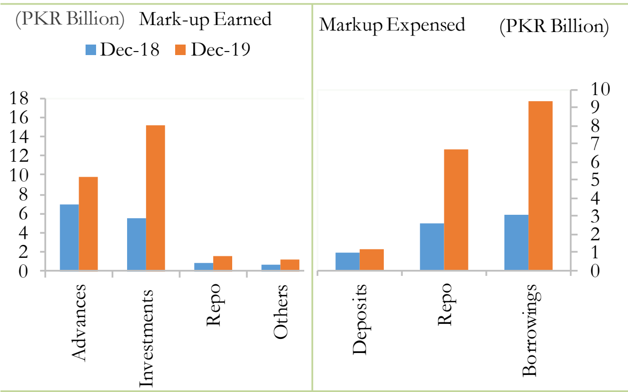


Source: SBP

Profitability surged owing to increase in income on investments…

DFIs earnings jumped by over 50 percent in CY19 primarily at the back of sharp rise in interest income on investments. Income on advances also improved due to favorable interest rate dynamics **(Chart 5.1.8)**. Besides the surge in net mark-up income, increased dividend income and relatively lower administrative expenses were also among the drivers of profitability. The Return on Asset improved to 2.68 percent in CY19 (2.05 percent in CY18) and Return on Equity to 7.16 percent in CY19 (4.44 percent in CY18).

Chart 5.1.8: Investment and borrowing remained major drivers of profitability

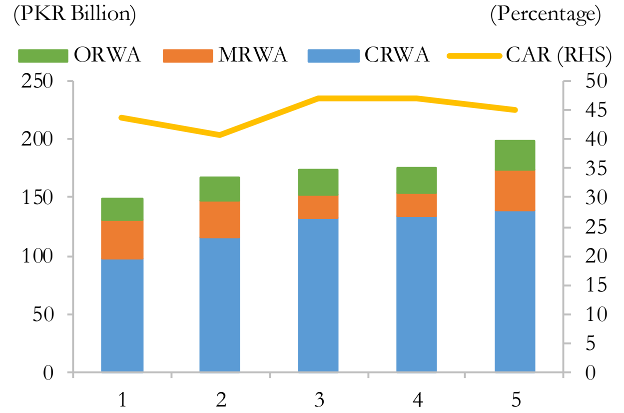


Source: SBP

DFIs remained solvent…

The DFIs remained resilient with the Capital Adequacy Ratio (**CAR**) at 44.95 percent in CY19—higher than the minimum capital requirement of 12.50 percent (**Chart 5.1.9**). CAR did observe marginal decline over CY18, due to increase in general market risk emanating from huge investments in government securities that exposed the DFIs to interest rate risks.

Chart 5.1.9: Solvency profile of DFIs



Source: SBP

DFIs role need to be reconsidered…

DFIs are vital to channelize the cross-country banking experiences and boost bilateral trade between Pakistan and sponsoring countries. In order to improve the participation of DFIs in the financial arena, the stakeholders need to revisit their role and strive to align their organizational as well as financial structure to suite their stated objectives. Some regulatory leeway may be awarded to DFIs to achieve their goal of investing in troubled yet profitable ventures and emerging businesses through equity participation. DFIs may also take initiatives to find ways to a) finance government's public sector development programs (**PSDP**) except through investment in government securities and b) become a sort of hub for financing public private partnership (**PPP**) based projects. Moreover, all the stakeholders need to work towards providing an enabling environment for DFIs to raise long-term funding through secondary as well as primary markets, and actively participate in long term projects, particularly, IPF.

5.2. Non-Bank Financial Institutions

Despite tight operating conditions, NBFIs performed reasonably well during CY19. Their asset growth slowed down in H1CY19 but rebounded in H2CY19, as the conditions improved. Mutual funds witnessed net-inflows during the year. However, the investments remained tilted towards capital preservation and investors avoided excessive risk taking. On the other hand, entities involved in financing business faced broad-based slowdown in asset growth, as demand contracted in the wake of rising financing cost. Going forward, the on-going COVID-19 pandemic could increase vulnerabilities for the NBFI's sector.

NBFIs asset growth followed the economic cycle during CY19…

Despite the challenges faced by Non-Bank Financial Institutions (**NBFIs**) in CY19, their asset base expanded at an accelerated pace of 13.03 percent compared to 8.74 percent growth recorded in CY18 (**Table 5.2.1**). Most of this increase occurred in the second half of CY19, however.

Table 5.2.1: Asset Profile of NBFIs

	FY16	FY17	CY17	FY18	CY18	FY19	CY19
				PKR billion			
AMCs/IAs	**37.3**	**40.9**	**37.3**	**39.0**	**36.5**	**36.6**	**40.2**
AUMs *(of which)*							
Mutual Funds	546.2	710.0	654.2	678.9	641.7	577.6	724.1
Pension Funds	19.3	25.8	24.1	26.8	26.5	26.5	30.2
Portfolios	139.2	141.1	139.0	152.9	188.3	197.6	225.6
RMCs	1.5	1.5	5.0	5.1	5.7	5.7	6.0
REITS	27.2	40.9	40.6	41.8	45.9	46.1	49.5
PE & VC Firms			0.2	0.2	0.2	0.2	0.1
PE Funds	-	-	0.6	5.0	6.5	6.6	6.7
Modarabas	36.5	44.1	48.1	52.9	54.3	53.5	53.7
Leasing Companies	42.3	43.3	44.6	10.4	10.5	10.2	10.7
IFCs	9.9	20.7	25.1	58.3	58.1	63.2	65.9
NBMFCs		61.5	70.3	97.2	110.2	116.7	125.9
Total Assets	**859.4**	**1,129.9**	**1,089.1**	**1,168.5**	**1,184.3**	**1,140.4**	**1,338.6**

Source: SECP

As economic uncertainty prevailed during the first half of the year, the stock market remained quite volatile during this period **(See Chapter 2)**. There was a contraction in NBFIs assets during H1CY19. However, as the policy uncertainty subsided, and the fundamentals of the economy started showing signs of improvement **(See Chapter 1)**, there was a turnaround in the performance of NBFIs with an increase of 17.38 percent in their assets during H2CY19.

The rebound in equity market was the key factor…

As the equity market rallied in H2CY19, the NBFIs, being pegged with the market regained their growth momentum. For example, there was a growth of 25.35 percent in mutual funds' assets during H2CY19, while an overall growth of 12.83 percent during CY19. Thus, it was the mutual funds, followed by portfolios, which lifted the growth in overall assets. Together they contributed around 78 percent in the expansion of assets.

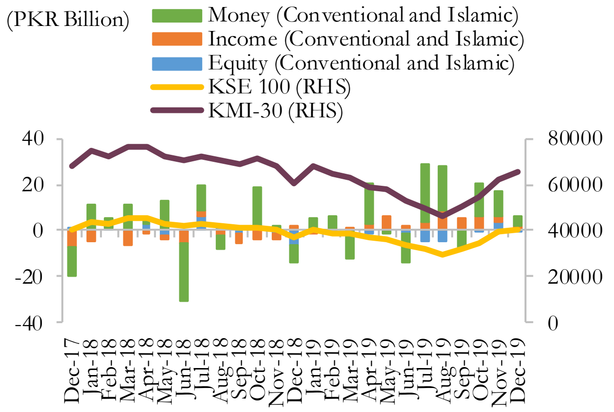
On the other hand, the NBFIs involved in financing based business faced difficulties in sustaining growth as the demand plummeted due to monetary tightening.

…while flight to safety remained the prime motive…

During H1CY19, the investors, anticipating increased interest rates, market volatility and economic uncertainty, offloaded their positions in equity funds, which declined by 15.8 percent (**Chart 5.2.1**). At the same time, they increased their investment in Income and Money Market funds by 19.87 percent and 1.78 percent, respectively. As the stabilization measures brought some certainty and boosted the investors' confidence in H2CY19, investments poured into all types of funds.

Nevertheless, flight to safety remained paramount during CY19 as the income and money market funds expanded by 74.75 percent (decline of 19.86 percent in CY18) and 45.60 percent (expansion of 47.18 percent in CY18), respectively. Whereas the equity funds declined by 3.48 percent in CY19 compared to a decline of 11.21 percent in CY18. The increasing investments in income and money market funds depicted the risk averse behavior of the investors.

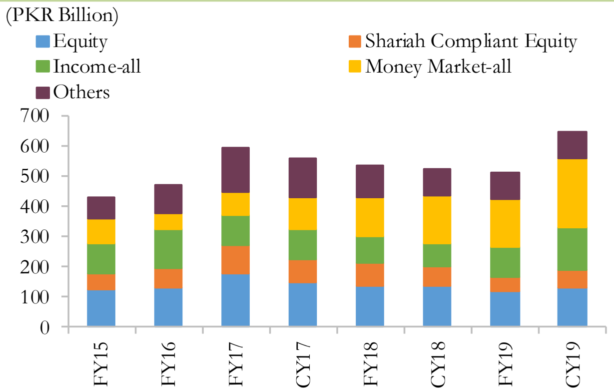
Chart 5.2.1: Net sales of top three mutual funds categories



Source: MUFAP & SECP

Due to inclination of the investors towards capital preservation and reaping maximum benefit from higher interest rates, the share of money market and income funds increased to 35.22 percent (29.86 percent in CY18) and 21.60 percent in CY19 (15.26 percent in CY18), respectively (**Chart 5.2.2**). Accordingly, the share of equity funds reduced to 29.62 percent in CY19 compared to 37.87 percent in CY18.

Chart 5.2.2: Composition of Mutual Funds

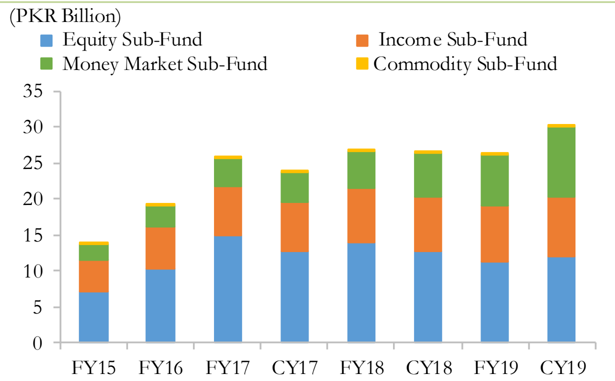


Source: MUFAP

Pension funds, too, rebalanced their portfolio…

As was the case with mutual funds, the pension funds also rebalanced their portfolio from risky stocks to safer instruments. There was a decline of 5.38 percent in equity sub-funds of pension funds in CY19 (0.99 percent in CY18) and a simultaneous increase of 57.97 percent in the money market sub-funds (48.12 percent in CY18) (**Chart 5.2.3**). As a result, the share of equity sub-funds reduced to 40.10 percent in CY19 (48.33 percent in CY18), whereas the share of money market sub-funds increased to 31.94 percent in CY19 (23.06 percent in CY18). Within the money market sub-funds, pension funds made more placements in bank balances rather than government securities (PKR 6.84 billion or 70.89 percent vs PKR 0.93 billion or 9.66 percent). Despite this rebalancing, the overall expansion in pension fund was quite robust (14.04 percent in CY19 compared to 9.84 percent in CY18.)

Chart 5.2.3: Composition of pension fund assets



Source: SECP

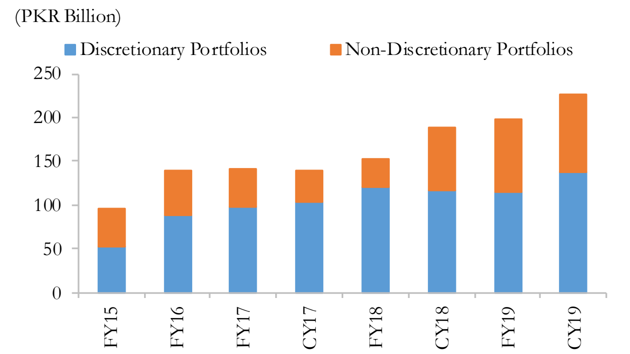
High net-worth individuals were also cautious…

The overall portfolio investments made by high net-worth individuals decelerated to 19.78 percent in CY19 compared to increase of 35.51 percent in CY18. In an uncertain environment i.e. during H1CY19, the overall growth in portfolio investments decelerated to 4.94 percent compared to the growth of 10.04 percent in H1CY18. [250] During the same period, the high net worth individuals appeared cautious and kept decision by making investment under non-discretionary portfolio. Accordingly, the non-discretionary portfolio increased by 15.94 percent in H1CY19 as compared to contraction of 6.69 percent in H1CY18. Whereas, the investments under discretionary portfolio contracted by 1.80 percent

[250] 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.

in H1CY19 compared to growth of 15.61 percent during the corresponding period of previous year. Therefore, the share of non-discretionary portfolio in total portfolio investments increased to 42.01 percent at the end of Jun, 19 compared to share of 21.14 percent as of Jun, 18 (Chart 5.2.4).

Chart 5.2.4: Portfolios classified by investment decision making



Source: SECP

However, during the second half of CY19, as the economic uncertainty subsided, the investors preferences changed under portfolio investments. High net-worth individuals relied on fund managers to take investment decisions. Accordingly, the investments under discretionary portfolio increased by 19.91 percent. During the same period, the investments under non-discretionary category period decelerated to 6.18 percent compared to an increase of 121.5 percent in H2CY18. The share of discretionary and non-discretionary portfolios, at the end of CY19, was recorded as 60.92 percent (61.97 percent at the end of CY18) and 39.08 percent (38.03 percent at the end of CY18), respectively.

The switching towards discretionary portfolio, during H2CY19, was a positive development for the sector as high net worth investments are sometimes more prone to panic sales. The high net worth individuals are likely to offload investments at early signs of trouble. Placing investments in the hands of professional may reduce panic sell-outs under the episodes of political/economic uncertainties. This may also increase the investment holding period.

Investors appeared to be doubtful of the revaluation gains reported by REITs…

By the end of CY19, there were six REIT Management Companies (**RMC**) with the accumulated assets of PKR 6.0 billion and only one rental REIT scheme having asset size of PKR 49.5 billion (PKR 46.0 billion at the end of CY18). Despite high occupancy level of more than 95 percent, 93 percent of the expansion in the assets of rental REIT was due to unrealized gain from revaluation of the property (**Table 5.2.2**). Being the rental REIT, the rent income should be the major source of increase in total assets.

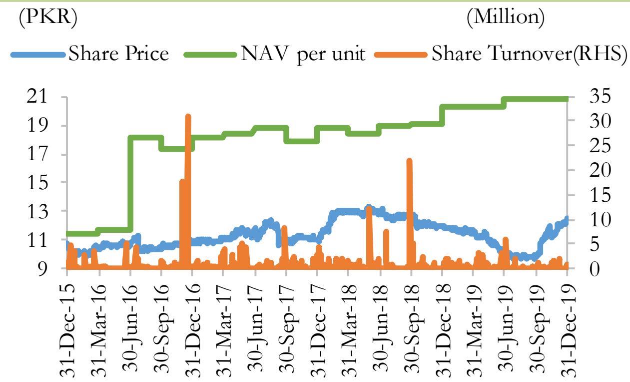
Table 5.2.2: Impact of change in fairvalue of underlying property on assets expansion

	Dec-16	Jun-17	Dec-17	Jun-18	Dec-18	Jun-19	Dec-19
	PKR Billion						
Total Assets	40.86	42.40	41.73	43.00	45.90	46.05	49.53
Change in Total Assets	-0.02	1.54	-0.67	1.27	2.91	0.15	3.48
Change in fair value of property	1.03	0.15	1.13	1.15	2.87	0.96	2.42

Source: Financial Statements of REIT

However, from the stock performance of REIT, it appeared that investors weighed real returns more than the unrealized gains. Resultantly, the unit of a REIT traded at discount of 43.02 percent to its NAV on December 31, 2019 as compared to discount of 40.99 on December 31, 2018 (**Chart 5.2.5**).

Chart 5.2.5: REIT share's closing price, turnover & NAV per unit



Source: Accounts of REIT & PSX

In future, the principal risks to business of rental REIT are significant supply of offices, which may undercut property prices and provide better alternate to existing occupants. Another risk is the default of tenants.

For the flourishment of REITs, it is pertinent that the legal framework and taxation regime remain supportive and consistent in the longer term. However, the recent increase in tax rates on dividends distributed by a REITs Scheme from 15 percent to 25 percent and uncertainty regarding continued availability of profits/capital gains on sale of immovable property to REIT Scheme have made the REIT sector less attractive from both a sponsor and investor standpoint.

The tighter financial conditions affected the NBMFCs, IFCs and modarbas…

The difficult operating environment had an impact on Non-bank Microfinance Companies (**NBMFCs**). The slowdown in economic activity had a negative impact on demand for microfinance., As a result, their asset decelerated to 14.25 percent in CY19 compared to 56.71 percent in CY18. In addition, the credit risk increased due to shrinking repayment capacity of the microfinance borrowers. Resultantly, the portfolio at risk increased to 4.80 percent as of Dec-19 compared to 2.20 percent at the end of Dec-18.[251]

The Investment Finance Companies (**IFCs**) fared no better than other NBFIs. Not only did their asset growth slowed down, but also increased their credit risk (**Table 5.2.3**). There was a small rise of 2.91 percent in the leasing and advances portfolio of IFCs (217 percent in CY18[252]), which led to an increase of 13.53 percent in their asset base. Though the infection ratio of IFCs moderated to 8.04 percent at the end of CY19 from 8.06 at the end of CY18, their residual risk increased. The provision coverage ratio reduced to 55.53 percent as of Dec-19 from 65.52 percent at the end of Dec-18. Another concern in case of IFCs was the concentration risk because more than 85 percent of the assets belonged to two large investment banks only.

Table 5.2.3: Key statistics of IFC sector

	FY17	CY17	FY18	CY18	FY19	CY19
			PKR Billion			
Total Assets	20.7	25.1	58.3	58.1	63.2	65.9
Advances & Leases	6.9	14.0	41.7	44.3	46.0	45.6
Asset Classified	6.2	4.6	5.7	4.7	5.2	5.3
Provisions	4.0	2.7	3.8	3.1	2.8	2.9

Source: SECP

The modarabas were equally strained under the prevalent conditions. Their assets witnessed a decline of 1.02 percent in CY19 compared to 12.90 percent growth in CY18. The infection ratio improved to 5.89 percent as of end Dec-19 from 7.19 percent a year earlier, while the provision coverage ratio reduced to 53.93 percent in CY19 from 62.02 percent in CY18. The concentration risk in Modaraba Management Companies (MMCs) also remained high as the top 4 modarabas accounted for more than 73.91 percent share in the assets of the sector as of end CY19 (73.9 percent at the end of CY18).

However, despite slowdown in business, a new modaraba was registered and a no objection certificate was issued to it to form and register as a modaraba management company. It showed that modaraba model was becoming a preferred financing mode.

The business of leasing companies remained on the brink…

The number of leasing companies remained the same unchanged over the year. The assets of the sector increased by 2.19 percent in CY19 compared to a decline of 76.53 percent in CY18 (**Table 5.2.4**). This slowdown resulted from decline in advances and leases by 2.22 percent, though growth receivables kept the overall assets growth in positive territory. The fierce competition from banks and non-availability of long-term funding on affordable rate hindered the growth of leasing companies. Moreover, the asset quality remained a concern as infection ratio remained high at 18.33 percent as of end CY19 (18.11 percent in CY18), though the provision coverage

[251] Portfolio at Risk are the portion of advances whose payment is overdue by more than 30 days.

[252] The inception of new company and conversion of largest leasing company into IFC during CY18 increased the asset base of IFCs.

ratio improved to 77.32 percent in CY19 from 75.73 percent in CY18.

Table 5.2.4: Key statistics of Leasing sector

	FY17	CY17	FY18	CY18	FY19	CY19
	PKR Billion					
Total Assets	43.3	44.6	10.4	10.5	10.2	10.7
Advances & Leases	35.3	36.7	7.6	7.9	8.2	7.7
Asset Classified	3.5	3.4	1.9	1.9	1.7	2.0
Provisions	2.6	2.6	1.5	1.4	1.4	1.5

Source: SECP

Risks from interconnectedness between banks and NBFIs remained muted…

As end of December 2019, there were 22 operative AMCs and IAs out of which 10 were owned by banks. These 10 AMCs floated 229 funds, which constituted 79.10 percent of the total mutual fund assets. Further, in total AUMs the share of bank owned AMCs increased to 77.73 percent in CY19 from 75.41 percent in CY18 (**Table 5.2.5**). However, banks reduced their direct investment in mutual funds during the year as the risk-free investment opportunities with relatively higher return became abundant. Accordingly, the banks share in direct investment in mutual funds reduced to 1.79 percent in CY19 from 2.59 percent in CY18. The share of investment in mutual funds in banks' overall investment reduced to 0.14 percent as of Dec-19 as compared to 0.21 percent in CY18.

On the other hand, the exposure of mutual funds on banking sector through investments in deposits, COD/TDR/COI and money at call/placements with the banks increased to 49.38 percent of total assets in CY19 as compared to 43.30 percent in CY18.

Further, the exposure of the banking sector on NBFIs in terms of lending has increased by 15.0 percent in CY19 compared to growth of 36.0 percent in CY18. This deceleration was due to withdrawal of requirement to arrange credit lines from banks/DFIs equivalent to 10 percent of net assets of each fund.[253] However, issuance of credit lines to a company operating to support non-bank microfinance sector led to some off-take of credit.

Keeping in view the extent of the cross exposure of banks and NBFIs on each other, the NBFI sector poses limited systemic risk concern to the banking as well as the financial system. However, these cross-linkages may pose reputational risk for the whole financial system, in case a bank dominated NBFI faces any financial challenges.

Table 5.2.5. :NBFIs flow of funds & exposure to the banking sector

	Total Value (i)	Banks share (ii)	Banks share in Total* (iii= ii/i)	Total Value (iv)	Banks share (v)	Banks share in Total* (vi= v/iv)	Total Value (vii)	Banks share (viii)	Banks share in Total* (ix= viii/vii)
	Dec-17			Dec-18			Dec-19		
	PKR billion		Percent	PKR billion		Percent	PKR billion		Percent
1. Equity of AMCs/ IAs	23.7	11.9	50.22	23.7	12.9	54.42	28.5	14.4	50.46
2. Assets Under Management of AMCs/ IAs	817.3	597.3	73.07	856.6	645.9	75.41	979.9	761.6	77.73
3. Mutual Funds size	654.2	21.0	3.22	641.7	16.6	2.59	724.1	12.9	1.79
4. Mutual Fund exposure in Financial Institutions	254.2	230.6	90.70	277.8	257.1	92.54	357.6	342.5	95.79
5. Mutual Funds exposure in top 20 equity securities	91.8	3.8	4.18	84.7	6.2	7.27	81.3	6.4	7.91
6. Mutual Funds exposure in top 10 debt securities	15.0	9.0	59.74	16.7	8.0	47.55	17.3	5.6	32.24
7. Top 20 holders of mutual fund units	68.7	13.1	19.10	68.8	11.2	16.25	97.4	6.0	6.16

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

[253] 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

5.3. Insurance and Takaful Companies

*Insurance industry's asset growth remained modest as of September 30 2019. Profitability witnessed a decline owing to an increase in claims and net fair value losses (on financial assets) in case of life sector and a fall in net investment income for the non-life sector. Though the claims ratio for the life sector inched up, yet it remained within reasonable bounds. The Takaful segment's growth was quite significant with Window Takaful Operators (**WTOs**) becoming significant players in the segment. Due to COVID-19 pandemic, the industry might experience challenges in writing new business and could witness further rise in claims and a decline in net investment income, going forward.*

Profitability in the Pakistan insurance industry has declined in September 2019 …

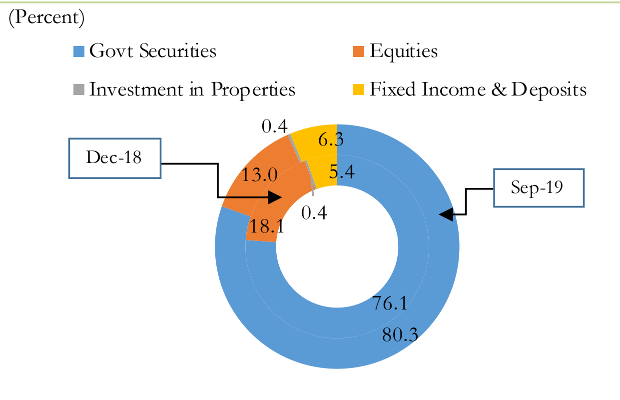
Overall, the industry witnessed a decline in profitability (Profit before Tax) from PKR 15.9 billion for the period ended September 30, 2018 to PKR 14.5 billion for the period ended September 30, 2019[254]. This was due to a substantial increase in net claims and net fair value losses (for the life sector) for the period indicating a slight weakening in its core business. In addition, the decline in net investment income for the non-life sector, contributed to the decrease in profitability.

Life Sector

Asset base of Life Insurance Sector increased…

The life insurance sector's asset base increased by 4.9 percent to PKR 1,266 billion as of September 30, 2019 from PKR 1,207 billion as of December 31, 2018. Investments by the sector increased by 5.2 percent in 2019 from PKR 994 billion as of December 31, 2018. There was a significant rise in equity of the sector, which increased from PKR 21.9 billion as of December 31, 2018 to PKR 25.3 billion as of September 30, 2019, mainly driven by a surge in unappropriated profits of the dominant public life insurer **(Chart 5.3.1).**

Chart 5.3.1: Life Sector Investments & Properties



Source: Audited/ Unaudited financial statements

Net Claims for the Life Insurance sector climbed substantially…

The growth in Net Claims in life sector during the period under review outpaced the growth in Net Premiums. While Net Premium for the sector grew by 3.4 percent to PKR 120.9 billion for the period ended September 30, 2019, the Net Claims increased by 21.4 percent to PKR 72.4 billion for the same period.

With the rise in Net Claims, the Claims ratio edged up to 59.9 percent in September 2019, as compared to 51.0 percent in September 2018. However, the "Expense Ratio" declined from 27.9 percent to 26.1 percent over the corresponding period, mainly due to a decrease in commission to agents on first year premiums by the public life insurer. In addition, "Return on Investments" increased, in part, due to rise in interest rates

[254] The analysis is based on the data of 5 life insurers and 28 non-life insurers covering approximately 97 percent and 83 percent of the life and non-life insurance sectors' assets, respectively. The analysis covers data up to period ending September 30, 2019. Data has been estimated, where necessary. The financial close for insurers is December of the corresponding year. All growth ratios for flow items are on year-on-year basis.

during the period. **(Table 5.3.1)**

Table 5.3.1: Soundness of Life Insurance

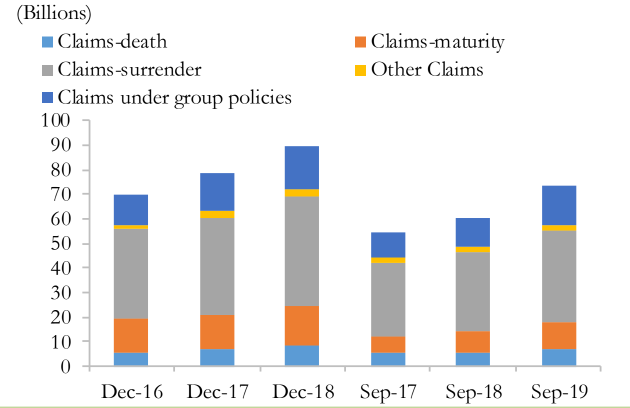
	Dec-17	Dec-18	Sep-17*	Sep-18*	Sep-19*
			Percent		
Claims Ratio	41.9	43.8	48.9	51.0	59.9
Capital to Assets	1.4	1.8	1.6	1.6	2.0
Return on Investment	8.4	8.0	8.6	8.3	9.3
Return on Equity	70.1	45.8	64.7	41.5	30.6

Source: Unaudited/Audited published financial statements of life insurance companies and IAP data.
*Annualized Figures

The increase in Net Premiums was subdued (3.4 percent) as there was a decline in First Year Premiums under Individual Life policies. It was a strategic restructuring of the business segment by the public insurer to restrict entry into new contracts so as to curtail the renewal expense in the future. However, it was mitigated by an increase in Group Premiums. The operationalization of the Prime Minister's National Health Program also led to a substantial increase (70 percent increase) in Gross Premiums for the Health segment (to PKR 6.5 billion) of the public life insurer.

The main contributors to the increase in Net Claims were Surrender Claims and Group Claims. During the period under review, there was an increase in interest rates, which might have encouraged policyholders to seek better rates by surrendering their existing policies (before maturity), thus leading to an increase in Surrender Claims. In addition, the volatile financial market conditions could have led to a reduction in value of unit-linked policies (with significant investments in equities) prompting the policyholders to surrender their policies and seek other higher-yielding policies or investment avenues. **(Chart 5.3.2)**

Chart 5.3.2: Gross Claims for Life Sector



Source: Audited/ Unaudited financial statements

The retention ratio for the life sector - at 98.5 percent for the period ended September 30, 2019 - is comfortable compared to the retention ratios of life insurance sectors in Brazil, India, Russia, and South Africa, which range from 94.6 percent to 99.5 percent in recent years[255].

Overall, while the increase in Claims ratio is slightly worrisome, the sector possesses sufficient cushion to register profits in its core business activities.

Investment income provided support to overall profitability …

The overall profitability (i.e. Profit before Tax) of the sector registered a slight increase of 0.7 percent reaching to PKR 5.8 billion for the period ending September 30, 2019. It was mainly because of rise in investment income, which increased by PKR 14.6 billion to reach the level of PKR 72.6 billion by end September 30, 2019. However, in terms of components, the return on investment was quite diverse.

In case of equities investment, while dividend income increased by 5.4 percent (from PKR 6.5 billion for September 2018 to PKR 6.8 billion for September 2019), the Net realized losses (mainly from sale of financial assets) and Net fair value losses (on financial assets) registered yearly increases of PKR 8.3 billion and PKR 23.9 billion,

[255] OECD Stats

respectively. The cushion, however, was provided by the fixed income segment, as investment income from government and fixed income securities increased from PKR 51 billion as of September 2018 to PKR 64.4 billion as of September 2019 – a 26.1 percent YoY increase. This rise was attributable to the higher interest rates prevailing during the period.

Non-Life Sector

… while drop in investment income declined the profitability of the non-life sector …

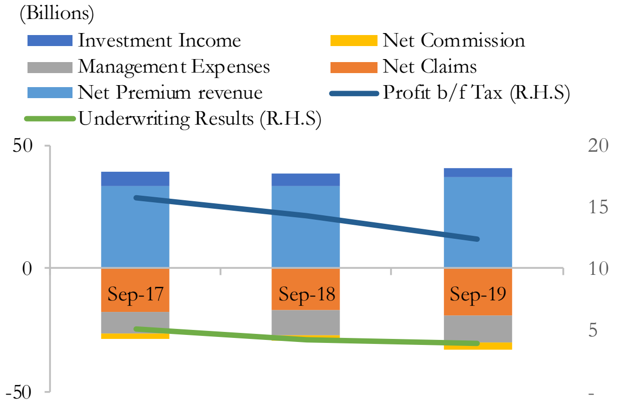
The asset base of the non-life sector increased to PKR 208.8 billion as of September 30, 2019 from PKR 197.2 billion as of December 31, 2018. However, the sector registered a (YoY) decline in profitability of 14.3 percent to PKR 8.6 billion for the period ended September 30, 2019. This was mainly due to a decrease in Investment Income from PKR 5.3 billion in September 2018 to 4.1 billion in September 2019 largely due to the volatile domestic financial markets.

Further, the non-life sector divested 1.2 percent of its investments bringing the level down to PKR 96.6 billion as of September 30, 2019 from PKR 97.7 billion as of December 31, 2018. In addition, there was a structural change in the sector's investment portfolio as the sector divested 13.2 percent (PKR 7 billion) of its investment in equities and increased its investment in fixed income securities (PKR 4.9 billion) and deposits (PKR 0.4 billion). In wake of the rising interest rates during 2018-19, fixed income securities and deposits were offering higher returns. The non-life sector might have been motivated to make their portfolio more risk-averse since these securities offered attractive (and relatively less volatile) returns.

…and increase in expenses lowered the underwriting performance…

Further, expenses (Net Claims, Management Expense, and Commission Expense) grew at a faster rate than Net Premiums, resulting in a decline of 8.6 percent (to PKR 3.9 billion) in underwriting performance for the period ended September 30, 2019. **(Chart 5.3.3)**

Chart 5.3.3: Profit and Loss Items for Non-Life Sector

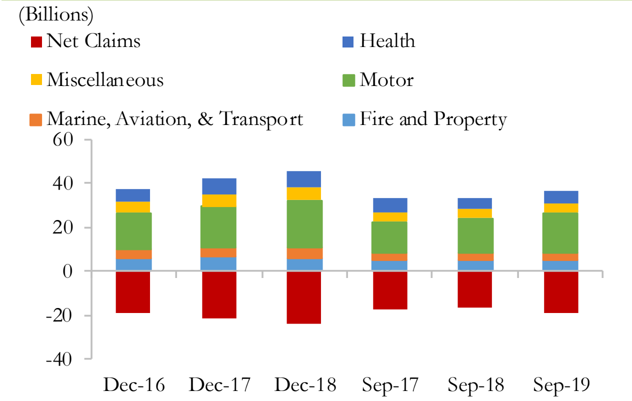


Source: Audited/ Unaudited financial statements and IAP data

…lower net premiums and higher claims increased the combined ratio…

Non-life Premiums positively correlate with economic activity. Consequently, the weakened economic growth led to a subdued increase in Premiums. The Motor and Health segments, primarily, drove the rise in Net Premiums. On the other hand, the increase in Net Claims was mainly driven by the Health segment, which increased by 45.5 percent over the year to PKR 4.4 billion for the period ended September 30, 2019. Health Claims increased, in part, due to medical expense inflation. **(Chart 5.3.4)**

Chart 5.3.4: Net Premiums and Claims for Non-Life Sector



Source: Audited/ Unaudited financial statements and IAP data

The Premium Retention ratio for the non-life sector (at 51.2 percent) is lower than the retention ratios of non-life insurance sectors in Brazil, India, Russia, and South Africa which range from 66.8 percent to 89.2 percent in recent years[256]. This may be, in part, due to the lower capacity of the domestic insurance industry to cover local risks.

Overall, the Combined ratio increased from 87.4 percent in 2018 to 89.5 percent in 2019. This is slightly concerning as the ratio has been consistently increasing over the past few years, resulting in a deteriorating underwriting performance. In addition, the annualized ROA for the sector declined to 5.6 percent for the period ended September 30, 2019. **(Table 5.3.2)**

Table 5.3.2: Soundness of Non-Life Insurance

	Dec-16	Dec-17	Dec-18	Sep-17*	Sep-18*	Sep-19*
				Percent		
Paid-up Capital to Asset	12.9	13.3	13.3	12.3	13.0	12.6
Claims Ratio	50.5	51.0	51.9	52.8	50.2	51.3
Combined Ratio	81.9	89.0	88.9	85.1	87.4	89.5
Premium Retention	51.6	55.2	54.3	53.2	52.0	51.2
Return on Assets	10.0	6.8	6.3	7.4	6.5	5.6

Source: Unaudited/Audited published financial statements of non-life insurance companies and IAP data.
*Annualized, Estimated Figures

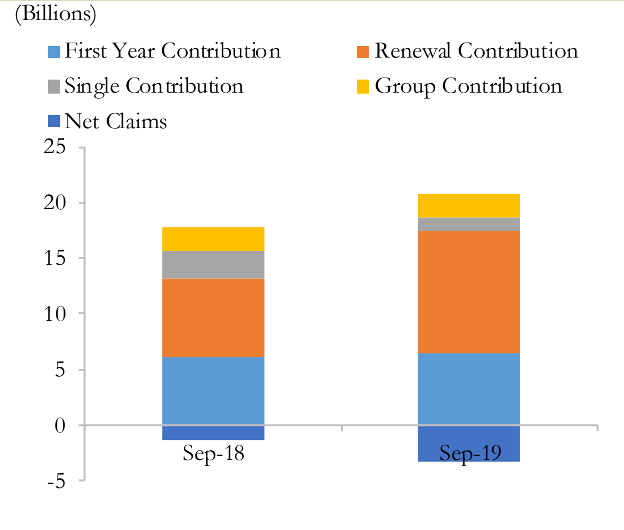
Family Takaful Segment

*Growth in Family Takaful (**FT**) segment has been spurred by Window Takaful Operators (**WTOs**)[257]…*

The FT segment's asset base has increased to PKR 53.0 billion as of September 30, 2019 with Window Takaful Operators (**WTOs**) accounting for almost half of all the assets for the segment. This is in contrast to the previous year where WTOs accounted for about one-third of all assets for the segment.

Net Contributions for the FT segment increased by 16.2 percent (YoY) to PKR 14.4 billion for the period ended September 30, 2019. In terms of Net Contributions, WTOs constitute 84.5 percent of the market share. **(Chart 5.3.5)**

Chart 5.3.5: Gross Contributions & Claims for Family Takaful Segment



Source: Audited/ Unaudited financial statements and IAP data

The overall Claims ratio for the segment was 23 percent for September 2019. The low Claims ratio was due to the new operators, which were yet to experience claims due to long-term nature of FT product life cycle. As they mature, it is expected that more claims could be exercised over the coming years. In contrast, full-fledged Takaful companies registered a Claims ratio of 47.6 percent for the same period.

General Takaful Segment

The General Takaful segment witnessed significant growth in Contributions …

The asset base of the General Takaful (**GT**) segment stands at PKR 7.2 billion (including WTO's assets of PKR 4.5 billion) as of September 30, 2019. [258]

The GT segment received Gross Contribution worth PKR 8.9 billion for the period ended September 30, 2019, which was 28.4 percent

[256] OECD Stats
[257] This section covers both WTOs and full-fledged Takaful companies. In the rest of the chapter, WTOs operating in the Family Takaful segment are included in the consolidated financials of the associated conventional insurers.
[258] This section covers both WTOs and full-fledged Takaful companies. In the rest of the chapter, WTOs operating in the General Takaful segment are included in the consolidated financials of the associated conventional insurers.
Due to unavailability of data, one full-fledged General Takaful company has been excluded from the analysis.

higher than last year. The market share of WTOs, based on Gross Contribution, slightly decreased to 85.3 percent in September 2019 from 89.1 percent in September 2018, mainly due to extraordinary growth in Gross Written Contributions by one full-fledged Takaful Company. However, there was room for substantial growth as the segment had a small base and the general populace could be more receptive to Takaful products **(Table 5.3.3)**

Table 5.3.3: Overview of General Takaful Segment*

	Sep-18	Sep-19	YoY Change
	PKR billions		*Percent*
Gross Contribution Revenue			
Window Takaful Operators	6.2	7.6	23.0
Full-Fledged Takaful Companie	0.8	1.3	73.1
Total	7.0	8.9	28.4
Net Contribution Revenue			
Window Takaful Operators	3.9	4.9	25.1
Full-Fledged Takaful Companie	0.2	0.6	181.4
Total	4.2	5.5	32.7
Net Claims			
Window Takaful Operators	2.1	3.0	44.5
Full-Fledged Takaful Companie	0.2	0.4	102.7
Total	2.3	3.4	49.8
Profit before tax			
Window Takaful Operators	0.5	0.7	
Full-Fledged Takaful Companie	(0.0)	(0.2)	
Total	0.4	0.5	

Source: IAP data and unaudited financial statements of General Takaful companies and WTOs.
*Estimated Figures

The pace of growth of Net Contributions for the GT segment was slightly higher than the gross contributions. They increased by 32.7 percent (YoY) to PKR 5.5 billion as of September 30, 2019.

…as well as in net Claims

The Net Claims increased by PKR 1.1 billion (increase of 49.8 percent) to PKR 3.4 billion for the period ended September 30, 2019. This resulted in an increase in Claims Ratio for the GT segment to 62.5 percent in September 2019 from 55.3 percent in September 2018. Substantial increase in claims (YoY increase of PKR 0.2 billion or 330.9 percent) registered by one full-fledged Takaful company was partly responsible for this. The claims mainly emanated from the Motor and Health segments.

Nevertheless, the GT segment's profitability improved …

Overall, the GT segment registered a profit before tax of PKR 0.5 billion for the period ended September 30, 2019, up from PKR 0.4 billion for the period ended September 30, 2018.

Reinsurance Sector

The public reinsurer displayed a strong performance …

Pakistan's reinsurance sector constitutes one full-fledged non-life reinsurer. Despite witnessing a YoY decline of 25 percent in Investment Income for the period ended September 30, 2019, the reinsurer registered a sturdy underwriting performance. This indicates the resilience of the company's core business. Profitability for the reinsurer improved to PKR 2.3 billion for the period ended September 30, 2019 from PKR 1.3 billion during the corresponding period last year. **(Table 5.3.4)**

Table 5.3.4: Snapshot of reinsurance company

	Dec-16	Dec-17	Dec-18	Sep-18	Sep-19	growth
			PKR billions			
Equity	12.3	10.5	9.9	10.8	10.2	-5.8%
Investment	13.4	9.2	8.6	8.8	7.6	-13.4%
Total Assets	26.0	24.3	24.8	25.4	32.4	27.4%
Gross Premium	8.8	8.0	10.7	7.3	12.6	71.9%
Net Premium	5.8	5.0	5.5	4.0	6.6	62.1%
Net Claims	3.3	3.7	3.0	2.2	3.6	67.4%
Underwriting Result	0.5	(0.7)	0.6	0.6	1.2	97.6%
Profit Before Tax	1.4	2.9	1.7	1.3	2.3	67.1%
			Percent			
Claims Ratio	**57.50**	**74.71**	**54.76**	**53.25**	**55.01**	

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

The asset base of the company expanded to PKR 32.4 billion as of September 30, 2019 from PKR 25.4 billion as of September 30, 2018, mainly due to rise in insurance/reinsurance receivables. The reinsurer decreased its investments by 13.4 percent as of September 30, 2019.

The Claims ratio for the company slightly increased from 54.8 percent in 2018 to 55 percent in 2019, which was still at a comfortable level.

Conclusion

Increasing public awareness could improve the low penetration levels…

The low insurance penetration in the country (less than 1.0 percent of GDP) emerges from lack of awareness and education regarding the benefits and importance of the insurance as well as the religious concerns of the populace. In contrast, insurance penetration in India, Russia, Brazil, and South Africa is 3.6 percent, 1.4 percent, 3.1 percent, and 13.9 percent, respectively, in recent years.[259] Accordingly, public awareness campaigns are necessary to educate the masses regarding the importance of savings and insurance to increase our insurance penetration.

…interconnectedness between the capital markets and insurance industry remained significant…

The performance of the stock market has a direct bearing on the profitability of the insurance sector. As mentioned earlier, the weak stock performance for the period ended September 30, 2019 resulted in decline in some components of the overall investment income for the life and non-life sectors. However, to mitigate investment risk, the insurers try to diversify their investment portfolios and continuously monitor developments in the financial markets.

…and so does the concentration risk…

The insurance industry in Pakistan was exposed to concentration risk. In terms of asset size, although the dominant public life insurer's market share had gone down, it constituted more than 60 percent of the industry. The top five life insurers—in terms of asset size—comprised more than 99 percent of total assets and total Gross Premiums of life sector, respectively. In case of non-life sector, the top five insurers—in terms of asset size—constituted more than 68 percent of total assets and 65 percent of total Gross Premiums. The concentration of the non-life sector would be even higher if the public non-life insurer was included in the analysis.

Besides, the insurers were exposed to a variety of other risks…

In 2019, the tighter macroeconomic conditions resulted in weaker economic activities that, in turn, affected the business environment for the insurance industry (economic risks). Consequently, in recent years, insurers have adopted a cautious approach to preserve their business segments and expand into new segments. They have utilized new channels including Takaful operations, micro-insurance, technology-based distribution channels, etc.

In addition, natural catastrophes and climate change events could lead to increasing disruptions in life and economic activities (insurance risks). Insurers try to mitigate these risks by developing comprehensive risk management frameworks, which include implementation of underwriting strategies, adequate reinsurance coverage, etc.

Insurers that do not meet the solvency and capital adequacy requirements have been dissuaded from entering in to new contracts of business. The industry is gradually consolidating.

Moreover, the ongoing issue of imposition of provincial sales taxes (and other taxes) on insurance business and on the commission of insurance agents is another challenge facing the insurance industry.

[259] OECD Stats

…and the regulatory requirements increased…

While stringent regulations are necessary for the protection of consumers, they could also curtail the efficiency in the insurance sector. The insurance industry is currently implementing IFRS-17 on Insurance Contracts. This may enhance transparency, but it will also significantly change the way insurers currently value and report their insurance contracts.

In addition, the SECP - the insurance regulator - undertook the following initiatives and policy reforms during the year:

- Review of bancassurance regulatory framework – currently underway
- Undertook the issue of exemption of sales tax from health and life insurance with provincial tax authorities
- National Financial Inclusion Strategy (**NFIS**) on insurance
- General Takaful accounting regulations
- Proposed amendments to Motor Vehicles Act, 1939.

Growing use of digital channels exposes the sector to cyber security risks…

Digitization is seeping through the insurance industry. Insurance providers have digitized their consumer interaction and delivery channels. This has set their organizations up for easier interactions, more personalized products and experiences, and greater operational efficiencies. However, the risks of cyber threats with the increasing use of digital channels cannot be ignored. Therefore, insurance providers along with regulators are taking policy initiatives to mitigate these risks. The SECP is currently working on formulating a cybersecurity framework for the insurance sector.

Section C: Performance and Risk Analysis of Other Sectors

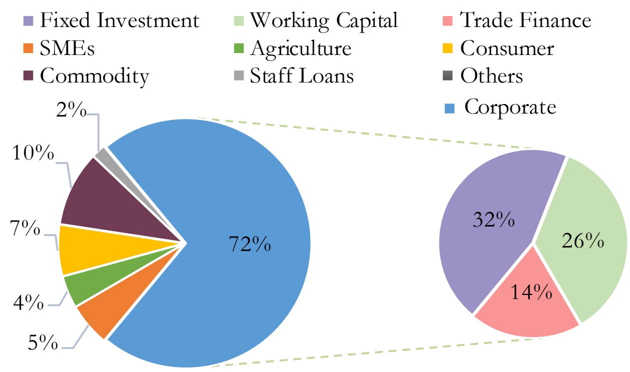
6. The Corporate Sector

Despite challenging conditions, the performance of non-financial corporate sector remained mixed; a view based on a sample of top-100 listed firms. The profitability and debt repayment capacity showed improvement while sales, solvency and asset efficiency indicators trended downwards. Disaggregated analysis highlighted that automobiles, energy and cement sectors faced major contractions in sales. The investors' perception about the corporate sector oscillated with the movement of macro-fundamentals. While the probability of defaults had increased, the levels remained on the lower side. The concerted efforts of the policy makers, however, may further improve the environment related to ease of doing business. The on-going COVID-19 pandemic could have strong repercussions for the corporate sector.

The interconnectedness between the corporate sector and the banking sector remained strong…

In Pakistan, banks are the key source of financing for the corporate sector, as the capital market depth remains limited. Lending to corporations constituted 71.94 percent (PKR 5.97 trillion) of banks' domestic loan portfolio as of end CY19 **(Chart 6.1)**. As such, strong interconnectedness existed between the two sectors. Thus, a shock in any one of the two sectors can adversely affect the operating performance and solvency of the other.

Chart 6.1: Segment wise distribution of domestic advances, as of end December 2019



Source: SBP

A select sample of firms forms the basis for the analysis of the corporate sector…

Since the financial statements of only listed companies were publicly available, the assessment of the corporate sector's performance was based on the financial statements of top 100 listed companies. These companies belonged to various sectors and, in aggregate, comprised 77.94 percent share in the asset base of all the listed companies.[260] As the listed companies, among the corporates, are generally more organized, managed professionally and have better financials, their performance could be treated as the upper bar for other firms. As such, the insights gained from the analysis of this restricted sample presents a partial view of the performance of the entire corporate sector.

Despite challenges, the overall performance of the selected sample of corporates remained stable…

During the period under review, tighter financial conditions and higher input prices pushed the cost of doing business up and demand for goods down for the corporate sector **(Chapter 1 and Chapter 3.1)**. There was deceleration in the growth of corporate sector's assets (7.1 percent in CY19 against 16.1 percent in CY18) and domestic sales went down by 1.6 percent **(Table 6.1)**. Owing to higher interest expense, firms partially shifted their current liabilities from short-term borrowings to trade credit and other payables.

Nevertheless, despite dip in the sales, the corporates were able to improve profitability, primarily, backed by efficiency in administrative expenses and curtailments of cost of goods sold (**COGS**)—a short-term profit preservation strategy. Higher profitability, on the one hand, enhanced the debt repayment capacity of the firms

[260] For 2019, the detailed financial position and performance of the selected companies were taken until September 2019, as reported by them.

and, on the other hand, masked the underlying weakness in demand.

Moreover, the liquidity indicators (e.g. current ratio), along with gearing and leverage, remained intact over the year. The increase in long-term investment hinted at enhanced capacity. Asset turnover, though, declined due to subdued sales during CY19.

Overall, the assessment indicated preservation of financial soundness and stable operating performance by the top 100 corporates.

Though sector-wise performance portrayed a mixed picture…

A few sector-specific risks were the highlight of the year. Cement sector faced over-production and price risks. Energy and oil sectors were confronting the problem of circular debt. Auto sector was dealing with the dwindling sales due to lower demand. Textile sector faced the risk of increased competitive pressures due to devaluation of the regional currencies against US dollar and hike in the cotton prices.

While the investors in the stock market gave more weight to the macro fundamentals…

Market sentiments mainly reflected the changing macro-financial dynamics as indicated by high volatility in KSE-100 index during the year **(See Chapter 2)**. The credit worthiness remained stable as reflected by the improvement in the credit ratings.[261]

Table 6.1: Financial Statements of PSX Listed Companies and Ratio Analysis

	CY15	CY16	CY17	CY18	CY19*	*growth*
			PKR billions			
Balance Sheet						
Non-Current Assets	2,624	2,761	2,853	3,069	3,269	*6.52%*
Net Operating fixed assets	*1,659*	*1,710*	*1,884*	*2,374*	*2,542*	*7.11%*
Intangible assets	*161*	*168*	*178*	*162*	*159*	*-1.48%*
Long term investments	*544*	*561*	*442*	*403*	*448*	*11.38%*
Other non-current assets	*69*	*79*	*78*	*131*	*119*	*-9.26%*
Current Assets	2,037	2,154	2,694	3,368	3,623	*7.58%*
Cash & bank balance	*182*	*216*	*219*	*193*	*196*	*1.47%*
Inventories	*373*	*379*	*462*	*709*	*742*	*4.73%*
Trade Debt / accounts receivables	*826*	*823*	*1,001*	*1,397*	*1,575*	*12.75%*
Short term loans and advances	*46*	*57*	*86*	*119*	*117*	*-1.99%*
Short term investments	*154*	*174*	*287*	*212*	*179*	*-15.60%*
Other current assets	*456*	*505*	*638*	*738*	*814*	*10.35%*
Total Assets	4,661	4,914	5,546	6,436	6,892	*7.08%*
Shareholders' Equity	2,274	2,478	2,732	3,009	3,195	*6.20%*
Issued, Subscribed & Paid up capital	*490*	*493*	*539*	*552*	*554*	*0.30%*
Reserves	*1,623*	*1,825*	*2,035*	*2,287*	*2,475*	*8.21%*
Surplus on revaluation of fixed assets	*161*	*160*	*158*	*170*	*167*	*-1.82%*
Non-Current Liabilities	769	788	837	862	937	*8.67%*
Long term borrowings	*381*	*376*	*404*	*440*	*457*	*3.83%*
Subordinated loans / Sponsor's loans	*2*	*3*	*4*	*7*	*6*	*-13.83%*
Debentures/TFCs (bonds payable)	*16*	*19*	*12*	*3*	*-*	*-100%*
Employees benefit obligations	*75*	*68*	*75*	*75*	*82*	*10.11%*
Other non-current liabilities	*295*	*321*	*341*	*337*	*391*	*16.17%*
Current Liabilities	1,618	1,649	1,977	2,566	2,760	*7.57%*
Trade credit & other accounts payables	*962*	*965*	*1,173*	*1,304*	*1,560*	*19.55%*
Short term Borrowings	*426*	*437*	*516*	*804*	*812*	*1.02%*
Current portion of non-current liabilities	*120*	*124*	*133*	*168*	*168*	*-0.18%*
Other current liabilities	*109*	*122*	*155*	*290*	*221*	*-23.72%*
Total Equity & Liabilities	4,661	4,914	5,546	6,436	6,892	*7.08%*
Income Statement						
Sales	4,640	4,059	4,717	5,603	5,550	*-0.95%*
Local sales (Net)	4,271	3,730	4,382	5,214	5,130	*-1.60%*
Export sales (Net)	369	329	335	389	799	*105.29%*
Cost of sales	3,847	3,278	3,871	4,640	4,563	*-1.67%*
Gross profit / (loss)	793	782	846	963	987	*2.50%*
General, administrative & other expenses	285	333	345	388	230	*-40.58%*
Other income / (loss)	144	138	154	132	97	*-26.58%*
EBIT	652	587	655	707	854	*20.68%*
Financial expenses	106	79	77	93	110	*18.76%*
of which, Interest expenses	88	64	65	67	79	*17.98%*
Profit / (loss) before taxation	546	508	578	614	743	*20.97%*
Tax expenses	128	122	143	156	216	*38.60%*
Profit / (loss) after tax	418	386	435	459	528	*14.99%*
Financial Ratios						
Gross Profit Margin (%)	17.09	19.25	17.93	17.18	17.78	
Net Proft Margin (%)	9.01	9.50	9.23	8.19	9.51	
Return on Equity (%)	18.39	15.57	15.93	15.25	16.52	
Return on Assets (%)	8.97	7.85	7.85	7.13	7.66	
Current Ratio (units)	1.26	1.31	1.36	1.31	1.31	
Asset Turnover (%)	99.56	82.59	85.05	87.05	80.53	
Capital to Total Assets(%)	65.29	66.45	64.35	60.14	59.95	
Debt Equity Ratio (units)	1.05	0.98	1.03	1.14	1.16	
Debt to Capital Employed (units)	0.78	0.75	0.79	0.89	0.89	
Interest Coverage Ratio (units)	7.38	9.12	10.07	10.59	10.84	
Financial Leverage (units)	2.05	1.98	2.03	2.14	2.16	

Source: SBP

*Data of 100 companies were used that represent 73% of listed non-financial entites. CY19 represents actual unaudited reported data as of Q3CY19.

261 Further, most firms fell under investment grades.

Corporates followed cost minimization strategies in the wake of difficult operating environment…

The consolidated pro-forma financial statement exhibited augmented profitability, despite dip in local sales, higher financial cost and growing tax expense. As such, corporates managed to make a marked reduction in their administrative and general expenses along with lower COGS. This cost minimization strategy resulted in after tax profit increasing by 14.99 percent in CY19 (5.45 percent in CY18) and improving all profitability indicators. Higher earnings preserved the debt repayment capacity of the corporates as the interest coverage ratio increased.

They also rebalanced their assets and liabilities…

The growth of the asset base of the corporate sector almost halved to 7.08 percent in CY19 compared with a healthy increase of 16.05 percent in CY18. Primarily, the current assets caused the slowdown. There was slackness in inventory build-up and trade receivables. Under the non-current assets, however, long-term investments increased indicating some continuation of expansion plans by the corporates.

On the contrary, both long-term and short-term borrowing decelerated owing to rise in interest rates. This is consistent with the marked deceleration in the financing offtake for working capital and fixed investment advances (**see Chapter 3.1**). However, trade credit and other account payables increased by 19.55 percent in CY19 (11.17 percent in CY18). Thus, corporates replaced short-term borrowings with trade debts and payables.[262] This ability of the high-end corporates to shift the funding to interest-free trade credit also reflects their bargaining power in the supply chain of their production process. Due to limited scope of debt market in Pakistan, the borrowing through TFCs/debentures remained limited.

While the domestic focused firms witnessed decline in sales, the export oriented ones benefited…

Domestic macroeconomic dynamics adversely influenced the sales performance of the corporates during CY19. The total domestic sales contracted by 1.60 percent against a rise of 19.0 percent in CY18. As the stabilization measures gathered traction, the aggregate demand and incomes fell but inflation remained at elevated levels. This affected the purchasing power of the consumers and the spending activity contracted further. All this reflected in the drop in domestic sales of the selected sample firms.

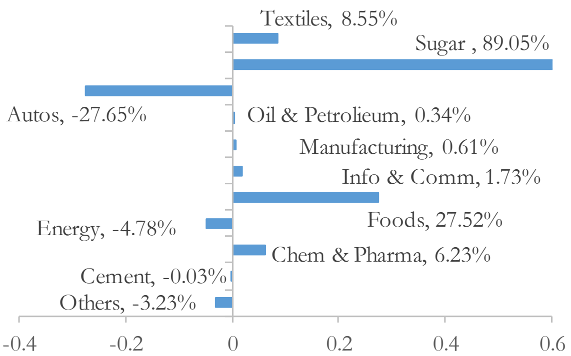
However, alignment of exchange rate with market fundamentals increased the competitiveness of exportable goods. Consequently, there was 105.29 percent rise in export sales, which constituted 14.40 percent of total sales in CY19 (export sales were 6.95 percent of total sales in CY18).

In terms of various economic sectors as well, the divide in sales was quite visible. The sectors that experienced most stress were automobiles, followed by energy and cement sectors. Together, they accounted for around 23.34 percent of the total corporate sector sales. On the contrary, firms operating in sectors having outward orientation, like textiles, sugar, manufacturing etc. saw their sales rising **(Chart 6.2)**.

[262] Trade debt and payables had 50.84 percent and 31.32 percent share, respectively, in the short-term liabilities in CY18, which increased to 56.50 percent and 29.41 percent, respectively, in CY19.

Chart 6.2: Sector-wise Sales Growth, CY19

(Percentages)



Source: SBP

Despite slight increase in leverage, the debt repayment capacity remained intact…

Due to higher Earnings before Interest and Taxes (**EBIT**), the debt repayment capacity of the corporate sector improved during CY19. The interest coverage ratio inched up from 10.59 in CY18 to 10.84 in CY19 **(Table 6.2)**. The solvency indicator, in terms of capital to total assets, deteriorated slightly during the reviewed year, as the growth in capital could not match the rise in asset base.

Table 6.2: Key Financial Indicators

	CY17	CY18	CY19
Profitability; Return on Equity (%)	15.93	15.25	16.52
Liquidity; Current Ratio (units)	1.36	1.31	1.31
Operational Effeceincy; Asset Turnover (%)	85.05	87.05	80.53
Solvency; Capital to Total Assets (%)	64.35	60.14	59.95
Leverage; Debt Equity Ratio (units)	1.03	1.14	1.16
Debt Repayment Capacity; Interest Coverage Ratio (units)	10.07	10.59	10.84

Source: SBP

Rise in taxation burden, besides other factors, resisted further rise in profitability…

The Return on Equity (**ROE**) increased from 15.25 percent in CY18 to 16.52 percent in CY19 **(Table 6.3)**. The Extended DuPont analysis revealed that improvement in operating profit margin (EBIT over sales) and slightly higher leverage (asset over equity) supported the earnings. On the contrary, the tax burden of the corporates increased. Similarly, decline in the asset-usage efficiency due to subdued sales limited the rise in ROE.

Table 6.3: Extended DuPont Analysis

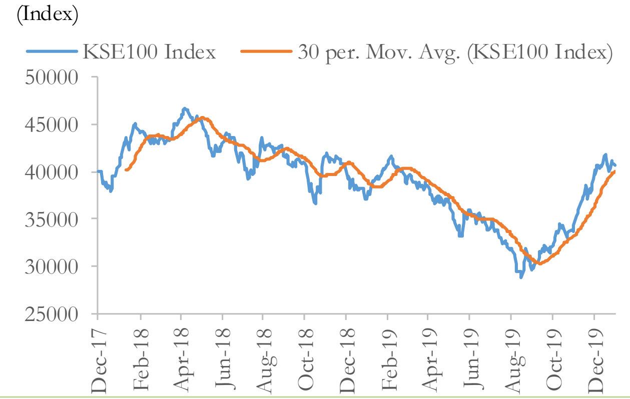
	CY17	CY18	CY19
Tax Burden (A)	0.75	0.75	0.71
Interest Burden (B)	0.88	0.87	0.87
Operating Profit Margin (C)	0.14	0.13	0.15
Asset Use Effeciency (D)	0.85	0.87	0.81
Financial Leverage (E)	2.03	2.14	2.16
Return on Equity (ROE) % (AxBxCxDxE)	**15.93**	**15.25**	**16.52**

Source: SBP

Market sentiments about corporate performance reflected the changing economic conditions…

KSE-100 index is a proxy to gauge the market sentiments about the current and future performance of the corporate firms operating in Pakistan **(Chart 6.3)**. During CY19, increase in interest rates, rise in energy prices, fiscal measures to enhance tax revenues, uncertainty among market participants over IMF program, and geo-political tensions kept the equity market under stress until August 2019 as it fell by 24.30 percent. However, in the last quarter of CY19, KSE-100 index rebounded by 41.62 percent. The strong recovery happened because of marked improvement in current account due to exchange rate alignment with the market and bilateral and multilateral financial inflows, inversion in yield curve, signing of the IMF program, and upgrade in Pakistan's credit rating by S&P and Moody's. **(See Chapter 2)**.

Chart 6.3: KSE-100 Index



Source: PSX, SBP

Cement sector faced challenges owing to softening demand…

Cement sector's capacity expansion was materializing as planned that could cause risk of oversupply. In CY19, feeble demand—driven by lower pace of economic activity and subdued PSDP expenditures—for cement caused downward pressure on cement prices and capacity utilization levels. In addition, crackdown on housing projects by FBR dented construction activity during H1CY19. As a result, the revenue of the cement sector declined by 18.20 percent in the reviewed year. However, in year-on-year comparison, cement local dispatches showed growth of 6.77 percent in December 2019 (negative 3.27 percent year-on-year growth in December 2018).[263]

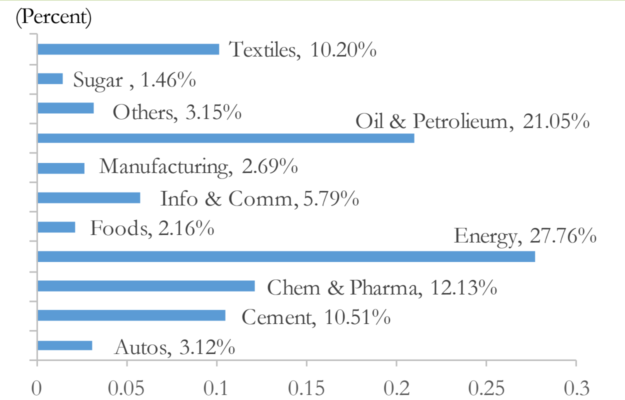
On the contrary, cement exports increased by 38.00 percent.[264] The exchange rate adjustment supported the price competitiveness of the sector; however, exports were only a nominal part of the aggregate cement sales. The outlook for the sector also seemed tough as overproduction might cause downward pressure on prices coupled with higher operating leverage.[265] The surcharges in energy and gas tariffs could also inflate input costs. Moreover, outbreak of global pandemic might delay expected major public sector development projects that could aggravate the sector's challenges. Furthermore, it might have negative impact on the export sales.

Power sector continued to face challenges in CY19…

Power sector continued to hold the major asset share of corporate sector during CY19 **(Chart 6.4)**. Though the operational performance of the power sector improved in the reviewed year, it remained vulnerable to the rising circular debt.[266] The circular debt—with addition of PKR 465 billion—reached PKR 1,618 billion in CY19 (4.20 percent of GDP).[267] Increasing level of circular debt created liquidity issues for the power sector entities (**See special box 3.1**).

Materialization of capacity expansion plans increases the burden of capacity payments, as there was limited growth in demand and revenue collection.[268] However, the government took measures to contain circular debt and to ease liquidity stress. The issuance of Pakistan Energy Sukuk II worth PKR 250 billion, would help address liquidity problems of the power sector.[269]

Chart 6.4: Asset-wise break-up of sectors



Source: SBP

263 All Pakistan Cement Manufacturer Association (APCMA)
264 BMA Capital (2020). Pakistan Strategy 2020. *Karachi, January.*
265 Operating leverage can be defined as the capability of the firm to use its fixed expenses to generate better returns.
266 Rise in circular debt is due to recovery shortfall of electricity bills, increase in transmission and distribution losses, delayed tariff adjustments and rise in finance costs.
267 International Monetary Fund, IMF Country Report No. 19/380
268 Capacity payments are charges paid to power producers for unused and unproduced but agreed level of electricity.
269 Ministry of Finance, Press release, PR No. 239

Circular debt kept Oil & Gas sector under stress as well…

Oil & Gas is the leading sector in terms of both market capitalization as well as the quantum of borrowings from the banking sector. During the period under review, the local production of hydrocarbon weakened as compared to last year. The impact was countered by the increase in global oil prices and currency depreciation. Thus, the sector remained profitable in CY19. To meet the tight fiscal deficit targets, the government was planning to offload its stake in OGDC and PPL, where the government's share stands at 7 percent and 10 percent, respectively.[270]

Power generation via furnace oil continued to decline in CY19 and anticipation is that this trend could continue in the future. Although domestic prices of the furnace oil declined, the production cost parity between furnace oil and other fuel sources remained high. High Speed Diesel (**HSD**) demand declined during the year due to economic slowdown and sale of cheaper Iranian products.[271] Even though, automobile sales declined, the motor petrol sales remained positive. Moreover, the gas tariff on the CNG reduced the price differential between CNG and motor petrol. Consequently, some vehicle users switched back to motor petrol as a fuel choice. Moreover, the number of on-road vehicles remained high, despite the decrease in automobile sales during the year.

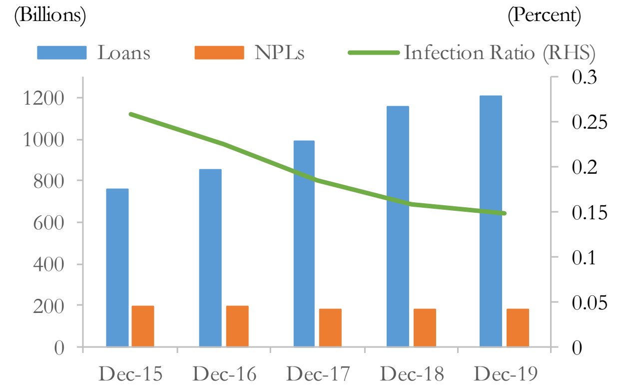
Textile sector incentivized to enhance their exports…

Textile sector, being the major export-oriented sector, benefited most from the macroeconomic adjustments in CY19 especially the exchange rate alignment. Besides higher credit offtake, the NPLs and infection ratio of the sector also witnessed declining trend **(Chart 6.5)**. Further, the governments incentivized the sector to boost its exports through subsidized financing and utilities. To improve the sector's liquidity, the government retired the previously issued promissory notes to the tune of PKR 30 billion.[272] However, withdrawal of zero-rating facility and delay in sales tax refunds pressurized the liquidity of the sector.

Last year, shortfall in the cotton production coupled with constrained imports from India led to rise in cotton prices. To remedy that, government withdrew duties on imported cotton and allowed cotton imports from Afghanistan and Central Asian States. Thus, the cotton prices might ease off in CY20. Moreover, the implementation of China Pakistan Free Trade Agreement-II (**CPFTA-II**) would enable Pakistan to export new products to China.

Nevertheless, devaluation of the regional currencies against US dollar could result in increased competitive pressure for Pakistan's textile exports. Given that domestic industry relies heavily on natural fiber, the hike in the cotton prices, along with stagnant final product price, might hurt the profit margins of the textile entities.

Chart 6.5: Textile sector loans, NPLs and infection ratio



Source: SBP

Automobiles sector witnessed worst sales performance in CY19…

[270] https://www.brecorder.com/2019/11/30/549117/spo-for-ogdcl-ppl-expected-to-fetch-rs88bn/

[271] BMA Capital, Pakistan Strategy- A new market high in 2020

[272]The government has approved Rs30 billion for redemption of sales tax refund bonds issued by the Federal Board of Revenue (**FBR**)Ministry of Finance, Press Release, PR No. 215

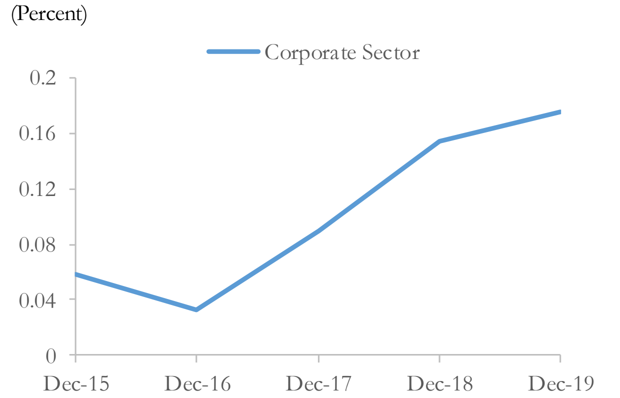
Automobiles sector faced challenges because of dwindling consumer demand. Government imposed ban on sales to non-filers of tax returns and increased excise duties on imported vehicles.[273]. On top of that, price hike within the range of 24 percent - 36 percent, owing to exchange rate depreciation further weakened the demand for automobiles.[274] Consequently, sales of passenger car plunged by 43 percent during CY19[275].

Additionally, increase in competition due to new entrants, Kia and Hyundai, and sanction of Electric Vehicles policy might put downward pressure on the price levels in the coming years. However, if the ban on imported vehicles continues it could benefit the local assemblers.

Probability of default for the corporate sector decelerated …

The weighted average 1-year PD of selected firms of the corporate sector increased to 0.17 percent in CY19 (0.15 percent in CY18) **(Chart 6.6)**.[276] The rise was, primarily, due to increased volatility in the market, which remained under stress for majority of the time in CY19. However, the growth in PD decelerated compared to last year due to improvements in operating performance and increased investors' confidence as bolstered by successful implementation of stabilization program. Further, the quantum of PDs, itself, is at the lower side and does not pose notable default risk to the lenders of corporate firms. As such, these corporate firms maintained strong financial soundness and decent operating performance despite challenging macro-financial conditions.

Chart 6.6: Weighted avg 1 year PD of Corporate Sector



Source: Bloomberg, SBP

…and the credit risk of the non-financial corporate firms could have improved in CY20

An econometric investigation into the impact of financial and macroeconomic factors on the possible corporate delinquencies during CY20 revealed that most of the firms could remain in the *safe zone* and that limited number of firms could fell in the default zone. As such, the number of firms expected to default in CY20 is lower than firms actually defaulted in CY19, 44 against 49 **(Box 6.1)**.

However, the outbreak of COVID-19 and uncertainty surrounding its repercussions changes the scenario altogether. If the pandemic prolongs, it will have severe consequences for the economy and the number of defaults of non-financial corporate firms could rise substantially.

Credit risk ratings culture showed improvement…

In recent years, the rating culture in Pakistan showed improvement as, out of the 544 listed entities, about 82.35 percent of them were rated in CY19.[277] However, in the universe of total registered public companies, the rated companies comprised merely 14.36 percent, which was on the lower side. Many companies in Pakistan rely on indirect source of financing like banks or their internal sources (profit plough backs etc.) but

[273] Federal Budget Speech 2019-20, pg,32, FED on Cars
[274] Optimus Capital Management, Market Strategy 2020
[275] Optimus Capital Management, Market Strategy 2020

[276]The PD (1 Year PD) is mainly driven by the quality of firm's liquidity management and ability to honor short-term obligations.
[277] In CY18, out of 558 listed entities only 55.56 percent were rated.

remain less reliant on capital market for their funding needs **(See Chapter 3.1)**. Out of the rated entities, major chunk of the companies lie in investment grades (AAA to BBB-), which advocates high credit quality in terms of long-term ratings **(Table 6.4)**.

Table 6.4: Ratings of Listed Companies in CY19

Long-term		Short-term	
Ratings	Percent	Ratings	Percent
AAA	3.6%	A1+	15.8%
AA+	4.0%	A1	26.3%
AA	6.0%	A2	43.8%
AA-	7.4%	A3	9.8%
A+	8.7%	Others	4.2%
A	13.4%		
A-	27.5%		
BBB+	7.8%		
BBB	8.5%		
BBB-	6.0%		
Others	7.1%		

Source: PACRA, JCR-VIS

Whereas, in terms of short-term ratings, majority of the companies were rated as A2 that was satisfactory capacity for timely repayment.[278] Companies rated in this category might be vulnerable to adverse changes in business, economic and financial conditions.

Ease of Doing Business ranking significantly improved during CY19…

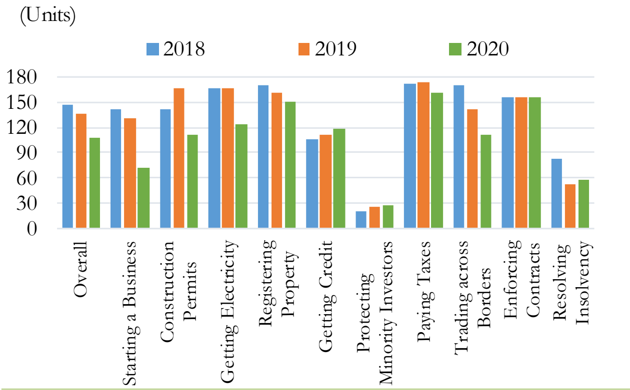
According to the World Bank, Pakistan's ranking in terms of "Ease of Doing Business" improved notably to 108 in 2019 from 136 in the previous year.[279] The score improved on account of getting electricity (from 44.8 to 64.0), trading across borders (from 60.1 to 68.8), construction permits (from 53.6 to 66.5) and starting a business (from 81.9 to 89.3) **(Chart 6.7)**.

Other areas where score improved included registering a property and paying taxes.

Enhancement in the functionalities of the online one-stop shop by Government of Pakistan aided in starting a business segment. Furthermore, introduction of online payment modules for value added tax and corporate income tax streamlined the tax payment process.

Moreover, integration of various agencies in the Web-Based One Customs (**WEBOC**) electronic system and coordination of joint physical inspection at the port improved the score in the segment of trading across borders. Enhancement in the approval process and regular building quality inspections made procurement of construction permit relatively easier and safer. Moreover, the enforcement of service delivery time frames, launch of an online portal for new applicants and transparency in electricity tariffs enhanced the getting electricity segment.

Chart 6.7: Ease of Doing Business - Rankings



Source: World Bank, SBP

278 PACRA. (2019). Rating Scale. Pakistan, March. http://www.pacra.com.pk/uploads/doc_report/PACRA_Rating%20Scale_Corporate_FY18.pdf

279 World Bank. (2020). Doing Business 2020: Economy Profile Pakistan. Pakistan, March https://www.doingbusiness.org/content/dam/doingBusiness/country/p/pakistan/PAK.pdf

Box 6.1: Credit riskiness of listed non-financial corporate firms

Introduction

Credit allocation is an important driver of economic growth and the firms utilizing credit are the engines of real growth. Credit, however, tends to be pro-cyclical and its availability to riskier firms increases during expansions.[280] The easy monetary conditions tend to breed financial excesses which could unwind during contractions, leading to defaults.[281]

The corporate non-financial firms (NFFs) of Pakistan happen to be the largest borrowers of the banking sector. Of the PKR 6,291.5 billion loans extended by the banks to the domestic private sector as of December 2019, the corporate private sector has availed a hefty PKR 4,649.8 billion.

While banks institute all measures to ensure that the selected borrowers are financially sound, solvent, and have capability to service their obligations, the idiosyncratic and systemic uncertainties always leave a possibility of default, however small it may be. As of end-CY19, the loan delinquency rate in the domestic corporate lending stands at 9.93 percent. Given the high exposure of banks to the non-financial sector, it would be interesting to explore how the dynamics of financial and macroeconomic factors affect the possibility of corporate delinquencies, conditioned on the information of already delinquent corporates.

Specifically, we use five accounting ratios of a sample of 275 listed firms as well as macroeconomic variables over the period 2013-2019 and assume that the credit riskiness, $P(D_{it} = 1)$, evolves as per the following specification:

$$P(D_{i,t} = 1) = \Phi\left(\alpha + \sum_{i} \beta_i X_{i,t-1} + \sum_{k} \gamma_k Y_{k,t-1}\right).$$

Here, X_i refers to the firm-specific financial information and Y_k embodies the systemic factors common to all firms, both lagged one period. The probability transform function, $\Phi(.)$, is assumed to follow a logistic distribution.[282] The idiosyncratic factors, X_i, include the working capital, retained earnings, earnings before interest and taxes, equity and sales, all normalized by total assets. The systemic factors , Y_k, include industrial sector growth and interest rate. The indicator for credit riskiness, D_i, is a binary variable, with $D_i = 1$ denoting default. We proxy the default by using firm specific data from SBP's Credit Registry, where a firm is taken to have defaulted if its credit obligations remain overdue by 365 days and above (OD ≥ 365). For 2020, we project financial variables using averages of the five preceding years, industrial sector growth in line with SBP projections for real growth and the prevailing interest rates.[283]

Important as the overall NFF sector is, the textile industry is the mainstay of Pakistan's economy. The industry's contribution in the export earnings of the country is around 54.45 percent in CY19. It also constitutes a substantial share of the corporate lending of the banking industry– around 25.57 percent. However, the major concentration of NPLs also continues to be in the textile sector – 36.86 percent of the total corporate NPLs. Given that textile sector is a key borrower, it has been subjected to the same analysis as the overall NFFs.

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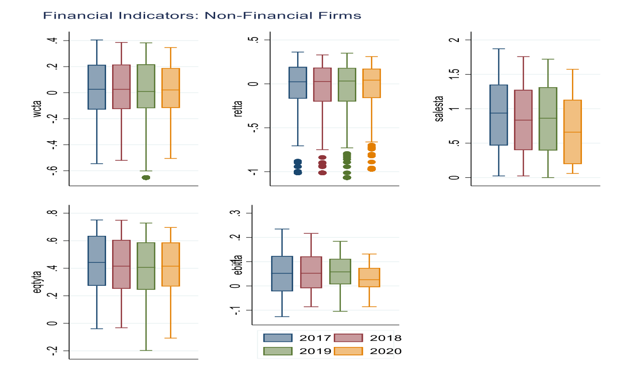
280 Borio C. and Lowe P. (2002). Asset prices, financial and monetary stability: exploring the nexus. BIS Working Paper No. 114
281 IMF (2018) Global Financial Stability Report, April.
282 This is in essence an Altman-type model augmented with macro variables. [Altman E. (1968). Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy. The Journal of Finance, 23(4), 589-609.] A similar analysis has also been carried out in Chapter 2 of IMF (2018) and in SBP's FSR 2017, Box 5.1.
283 See SBP Monetary Policy Statement dated April 16, 2020.

Empirical Results

(a) All Non-financial Firms

The financial performance of the NFFs in terms of above-mentioned five ratios over last five-year period is shown in **Chart B6.1.1**.[284] The working capital ratio, though positive on average, remains tilted towards lower quartile, implying reliance of firms on sources other than their own in the short run. This corroborates the fact that working capital finance (**WCF**) dominates the lending by the banks. However, during CY19 the WCF decelerated as firms scaled down their businesses and enhanced their reliance on internal financing (**see Chart 3.1.6 in Chapter 3.1**).

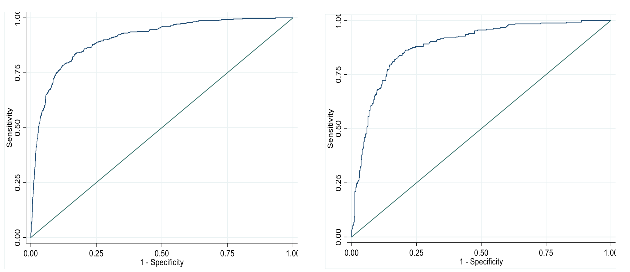
Chart B6.1.1: Financial Indicators - Non-Financial Firms



Source: SBP Staff Estimates

The retained earnings turn out to be highly concentrated below the median, with substantial number of outlying firms, implying low incidence of retention. The corporates' sales, on the other hand, remain robustly positive although declining, with some firms having sales more than 1.5 times their asset size. The equity of the firms on average remains strongly positive as well, though some outliers on the negative side can also be observed. Finally, the corporate sector remains marginally profitable.

Chart B6.1.2: Receiver Operating Characteristics (ROC) Curve



Source: SBP Staff Estimates

Table 1: Actual and projected number of defaults

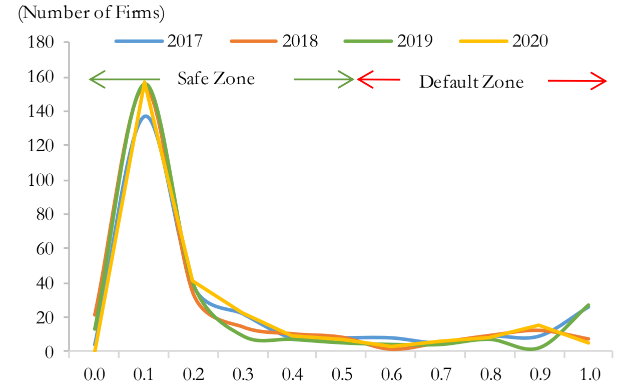
	2016	2017	2018	2019	2020
All NFFs					
No. of Firms, *of which*	273	274	274	273	274
OD 365*	61	62	51	49	NA
P(D>=0.5)**	66	65	42	49	44
Textile Sector					
No. of Firms, *of which*	109	109	109	109	109
OD 365*	40	41	33	32	NA
P(D>=0.5)**	50	51	35	36	35

Source: Finanial Statements of Firms and Credit Information Bureau, SBP

* Firms with credit obligations overdue by 365 days and above as per CIB data;

** Model based projections. Subject to usual statistical uncertainty.

Chart B6.1.3: Probability of Default - Corporate Non-Financial Firms



Source: SBP Staff Estimates

The estimates of defaults alongwith actual number of firms defaulted each year between 2016 and 2019 are presented in **Table 1**. The model appears to be mapping the historical defaults quite well. Moreover, the receiver operating characteristic (**ROC**) curve in **Chart B6.1.2** depicts that the model can adequately discriminate between defaulting and non-defaulting firms under various

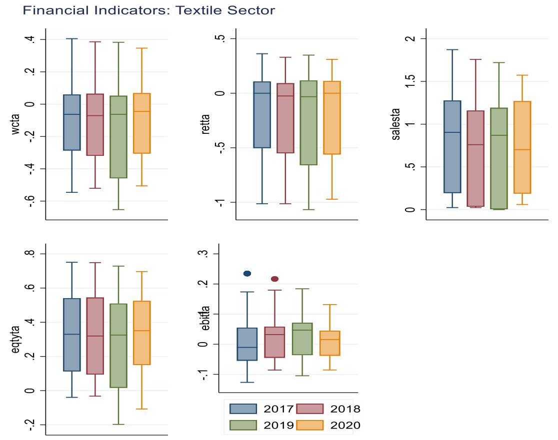
[284] **wcta**=Working Capital to Total Assets; **retta**=Retained Earnings to Total Assets; **salesta**=Sales to Total Assets; **eqtyta**=Equity to Total Assets and **ebitta**=Earnings Before Interest & Taxes to Total Assets.

thresholds. The area under ROC curve (**AUC**) for models for all NFFs and Textile sector is 0.904 and 0.884, respectively.[285]

The model-based distributions of probabilities of default (**PDs**) are depicted in **Chart B6.1.3**. The mass of PDs are concentrated in the range of 0.01 percent to 0.4 percent, i.e. in the *safe zone*. The curve beyond 0.5 percent, the *default zone*, remains thinner and is projected to thin out further in 2020. Indeed, as shown in **Table 1**, the number of firms expected to default in 2020 is 44 against 49 that actually defaulted in 2019, largely on the back of strong equity.

The above estimates are based on data available prior to COVID-19 outbreak. This pandemic has resulted in an unprecedented slowdown of the global economy with the IMF expecting global economic activity to decline on a scale not seen since the Great Depression.[286] It will have consequences for the real growth as well as the financial stability in Pakistan, as well. With deteriorating domestic demand conditions, due to COVID-19, the sales and hence the earnings of the NFFs are expected to fall. The economic fallout, due to the pandemic and lockdown, is yet to unfold and there could be higher defaults.

Chart B6.1.4: Financial Indicators - Textile Sector



Source: SBP Staff Estimates

(b) Textile Sector

The financials of the textile sector depict some deterioration. The sales and profitability indicators show decline and the sector remains net borrower in the short term (see WCTA ratio in **Chart B6.1.4**). However, better earnings in 2018-19 give more resilience to these firms in terms of equity and solvency.

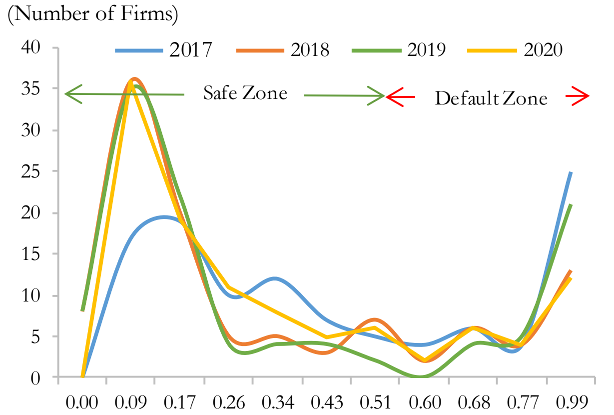
The distribution of default probabilities presents some interesting facts (see **Chart B6.1.5**). There was some leftward movement within the *safe zone* (0.01-0.43 percent) in 2019 as compared to 2017 denoting healthy solvency position of the firms in 2019. Likewise, the healthy solvency conditions in 2019 resulted in fewer firms in *default zone* (0.51-0.99 percent) in 2019 as compared to 2017. In 2020, a slight increase in the *default zone* (0.51-0.99 percent) is expected: Concretely, 35 firms are projected to be delinquent in 2020 as against actual 32 in 2019 (see **Table 1**). However, as noted above, the firm-specific factors are expected to deteriorate in CY20. Moreover, economic fallout from COVID-19 could also result in higher defaults in comparison to predictions in this

285 The ROC curve is a mapping of the false positive rate (Type II errors) to the true positive rate (the complement of Type I errors). The AUC is a convenient and interpretable summary measure of the signaling quality of a binary signal, with values higher than 0.5 indicating a better quality signal. (see Drehmann, M. and Juselius, M., 2014. Evaluating early warning indicators of banking crises: Satisfying policy requirements. *International Journal of Forecasting*, *30*(3), pp.759-780.)

286 IMF (2020). A Global Crisis Like No Other Needs a Global Response Like No Other. April. <https://blogs.imf.org/2020/04/20/a-global-crisis-like-no-other-needs-a-global-response-like-no-other/>

analysis. From a policy perspective, there is a need for banks to strengthen their credit monitoring and loan re-structuring standards while a continuous regulatory macro-prudential oversight is warranted as well.

Chart 6.1.5: Probability of Default - Textile Sector



Source: SBP Staff Estimates

7. Financial Market Infrastructures

*Financial Market Infrastructures (**FMIs**) remained efficient, effective and resilient. Pakistan Real-Time Interbank Settlement Mechanism (*PRISM*) handled larger volumes and values of transactions during CY19, with growing share of third-party fund transfers. Growing electronic banking transactions took the spotlight in the retail segment, as digital modes brought relief to the consumers. Automated Teller Machine (**ATM**) downtime reduced further, lowering the operational risk. A significant development, in recent times, took place in national payment settings as SBP and World Bank launched National Payment System Strategy (**NPSS**), a roadmap for broad transformation of the national payment system to bring greater efficiency and accessibility. In area of Fintech, regulations were issued for the promotion of Electronic Money Institutions (**EMIs**) to ensure that the retail payments segment of the country received innovative payment options. Furthermore, the securities clearing, and settlement institutions of the country continued to function effectively to ensure efficient working of financial markets.*

For the stability of the financial system, the smooth functioning of critical institutions, instruments and channels involved in the Financial Market Infrastructures (**FMIs**) is essential. It ensures efficient and secured flow of payments and smooth working of the financial intermediation process in the economy.

The FMIs, mostly, involve the Payment Systems, Central Securities Depositories (**CSD**), Securities Settlement Systems (**SSS**), Central Counter Parties (**CCPs**) and trade repositories.[287] In Pakistan the core FMIs include large value payment system (**LVPS**) i.e. Pakistan Real-Time Interbank Settlement Mechanism (**PRISM**); Retail Value Payment System (**RVPS**); 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**).

Payment Systems and their Performance

SBP is the regulator of the payment system

Payment Systems and Electronic Funds Transfer Act (**PSEFT**), 2007 provides the main regulatory framework for payment systems and electronic funds transfers. It entrusts SBP with the powers to regulate, operate and facilitate the national payment systems. The Act empowers SBP with the authority to alter the regulatory framework to achieve any of the objectives including a) maintaining the soundness of the payment system, b) minimizing the emergence of systemic risk and c) protecting the consumers' interest.

Higher activity recorded under both the LVPS and RVPS…

During CY19, there was consistent growth in both the volume and value of PRISM and retail transactions. PRISM grew in terms of both the volumes and the values, though, at a slower pace than last year. The retail segment growth, on the contrary, was consistent with preceding years due to significant contribution by the e-banking transactions **(Table 7.1).**

[287] 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".

Table 7.1: Profile of Payment System Mechanisms

Mechanism	CY16	CY17	CY18	CY19
(Volume in thousands and Value in PKR trillion)				
PRISM				
Volume	985.4	1,384.9	2,210.1	2,425.3
Value	238.1	336.9	375.1	410.6
Retail Payments				
Volume	962,610.7	1,161,655.1	1,281,618.5	1,381,607.2
Value	170.8	192.6	198.7	207.3
Paper based				
Volume	392,499.5	463,602.6	464,839.8	467,455.5
Value	134.1	152.0	145.0	142.3
E-Banking				
Volume	570,111.2	698,052.5	816,778.7	914,151.6
Value	36.8	40.6	53.7	65.0

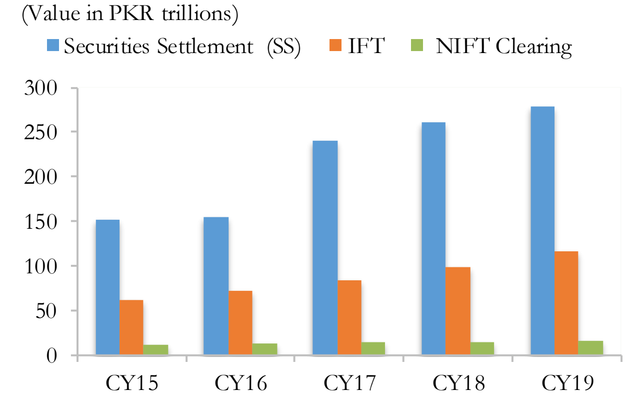
Source: SBP

PRISM—the LVPS—efficiently handled growing activity…

PRISM dominates the payment system in terms of value. Its transactions accounted for almost two third (66.46 percent) of the total value of the payment system during CY19. The daily average value of settled transactions reached PKR 1,604 billion (CY18: PKR 1,465 billion) during the year. The volume of daily average transactions also increased (9,473 in CY19 against 8,633 in CY18). However, growth of both the value and volume of transactions decelerated. The value deceleration, partially, resulted from the slowdown in securities settlement transactions following the shift in government borrowing to SBP[288], which led to a decrease in the OMOs activity and banks repo borrowings from the SBP.

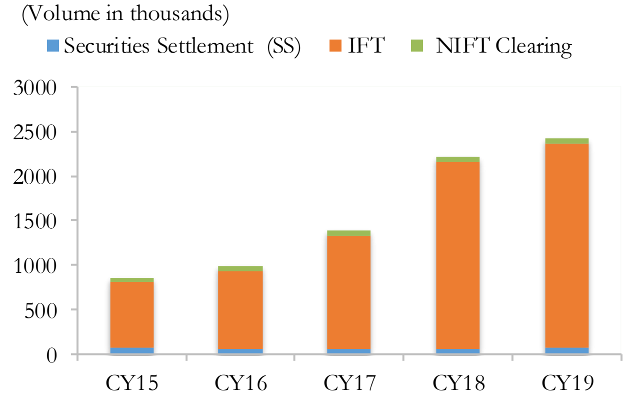
The volume deceleration, primarily, resulted from the slackness in growth of Inter-bank Funds Transfer (**IFT**) transactions, which constitutes the major share.[289] The volume of IFT transactions increased by 9.90 percent in CY19 against 65.68 percent in CY18. Though average value per transaction of IFT improved, suggesting the possible reason in slowdown could be a general drop in banking transactions due to subdued economic activity in the country **(Chart 7.1a and Chart 7.1b).**

Chart 7.1a: Value of PRISM transactions



Source: SBP

Chart 7.1b: Volume of PRISM transactions



Source: SBP

…as the structural changes introduced earlier were paying dividends…

Since its inception, significant development in PRISM processes have been carried out for enhancing productivity, such as, the introduction of straight through processing, allowing third party fund transfers, transfer of home remittances, and membership for institutions etc.[290]

And the business continuity plans are in place …

The continuous availability of critical system, like PRISM, is imperative for efficient working of the payment system. To mitigate risk arising from any potential disruption in its availability, SBP has in place comprehensive backup arrangements

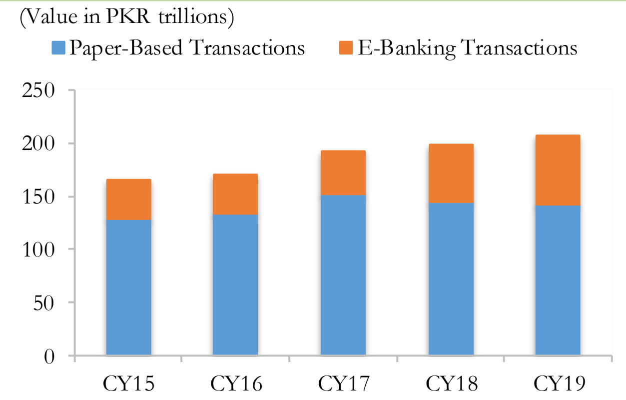
288 This trend pertains to Q1 and Q2 quarters of CY19.
289 IFT transactions consist of bank–to-bank transfers and third-party customer transfers.
290 As per the PS Review Q2 FY20, PRISM has 50 direct participants as of December 2019. Includes banks, MFBs, DFIs, CDC, NCCPL, etc. http://www.sbp.org.pk/PS/PDF/PS-Review-Q2FY20.pdf

comprising disaster recovery sites that could be utilized in case the primary sites goes offline. In this regard, SBP in collaboration with banks had conducted a drill in CY19 to test the readiness of the systems in place **(See Box 3 in Overview)**.

E-Banking transactions continued to gain increasing share….

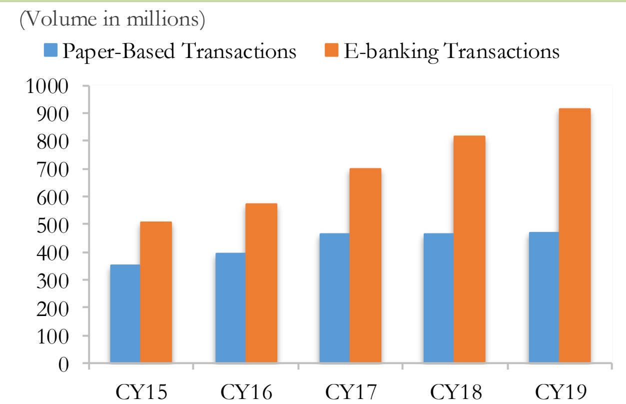
Retail payment systems observed a moderate growth of 4.31 percent and 7.80 percent, respectively, in the value and volume of transactions during CY19. The deceleration was mainly due to declining trend in paper-based transactions. Electronic modes of transaction, on the other hand, contributed the major part in the growth of total retail payments **(Chart 7.2a and Chart 7.2b).** Though, paper-based transactions still hold majority portion with respect to value transacted, that is 68.64 percent of total retail transactions.

Chart 7.2a: Value profile of retail transactions



Source: SBP

Chart 7.2b: Volume profile of retail transactions

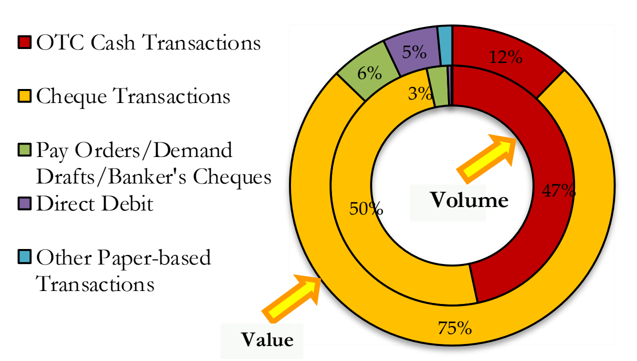


Source: SBP

While the paper based transaction stagnated, cheques remained dominant…

In parallel to preceding years, the volume and value of paper-based transactions stagnated during CY19. They accounted for 0.56 percent growth in the volume, while they did not contribute positively to the growth in value of transactions (negative 1.90 percent growth). Among the commonly used instruments, cheques remained the most preferable, contributing 49.94 percent of the volume and 75.23 percent of the value **(Chart 7.3).**

Chart 7.3: Volume and Value wise share of paper-based retail transactions during CY19



Source: SBP

Customer's behavior regarding use of cheques remained in line with the trend experienced in the previous years. Large value cheques were used for transfers and clearing transactions. Cash withdrawals took up 50.09 percent of the volume, but only 12.37 percent of the value transacted. **(Table 7.2).**

Table 7.2: Chequing Transactions in CY19

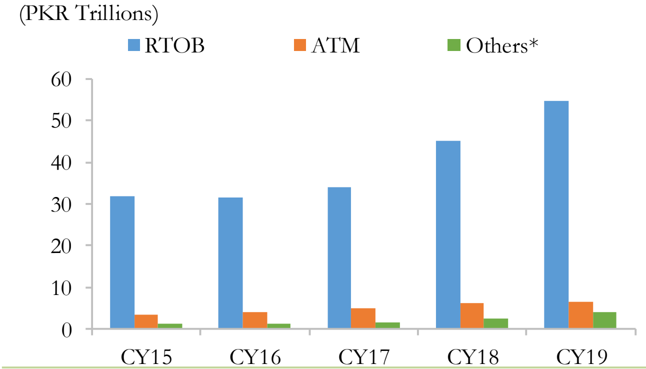
Type	Number	Amount	Volume share	Value Share
	(Million)	(PKR billion)	(Percent)	
Cash Withdrawals	172	19,382.9	50.1	12.4
Transfers	114	104,678.4	33.1	66.8
Clearing	58	32,588.1	16.8	20.8

Source: SBP

E-banking transactions in mobile and internet banking improved….

The consumer's preference for electronic modes of payment remained strong as per the trend witnessed in recent years. The e-banking transactions achieved growth of 21.10 percent in value and 11.92 percent in volume. Notable enhancements were observed in transactions conducted through internet and mobile banking, signifying the consumers growing interest in utilizing the latest available facilities **(Chart 7.4).**

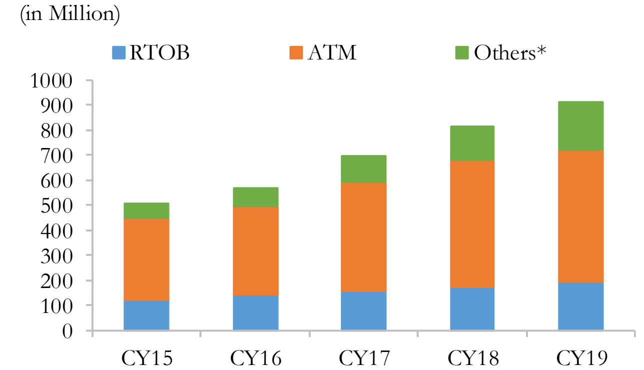
Chart 7.4 Value Profile of E-banking transactions



Source: SBP
*Other include POS, Internet banking, Mobile Banking, others

Since CY17, the comparably newer services of mobile banking and internet banking have quickly gained increasing share in the total volume of transactions.[291,292] However, ATMs and Real Time Online Branches (RTOBs) still hold the lion's share of 58.02 percent and 21.23 percent, respectively **(Chart 7.5).**

Chart 7.5: Volume Profile of E-banking transactions



Source: SBP
*Other include POS, Internet banking, Mobile Banking, others

The expansion in digital networks continued…

To cater to the consumers growing demand for electronic modes of payment, commercial and microfinance banks improved their network of e-banking infrastructure for better service delivery during CY19. There was expansion in essential networks of RTOB and ATM **(Table 7.3).** The prevalence of Paypak, the first domestic payment scheme, continued to gain traction in the national payment system.[293] Until end CY19, its total adoption through banks and consumers had reached more than 2.0 million cards.

Table 7.3: E-Banking Infrastructure

Description	CY15	CY16	CY17	CY18	CY19
			Number		
Online Branches	12,442	13,926	14,610	15,346	15,930
ATMs	10,736	12,352	13,409	14,361	15,252
POS	50,072	52,062	52,506	49,621	47,567
			Number in Thousands ('000)		
Total Payment Cards	32,744	36,202	39,361	41,708	42,083
of which:					
Credit Cards	1,394	1,209	1,374	1,522	1,644
Debit Cards*	26,489	17,470	19,848	23,303	26,440
ATM Only Cards	4,861	6,806	8,385	8,805	7,650
Social Welfare Cards	-	10,358	9,501	7,848	6,180
Pre-paid Cards	-	359	253	230	168

Source: SBP
* Prior to CY16, Debit cards also included social welfare and pre-paid cards.

291 As of June 30, 2019, registered mobile phone banking users more than doubled to 5.6 million from 2.5 million in June 2017.
292 As of June 30, 2019, registered internet-banking users increased by more than 50 percent to 3.3 million from 1.9 million in June 2016.

293 This alternative scheme provides a low-cost and efficient payment solution.

In the wake of growing e-banking transactions, cyber security is paramount…

In accordance with the prospects, adoption of digital solutions for payment needs witnessed a healthy growth in recent years. This phenomenon also brought concerns for potential challenges in the areas of electronic fraud and cyber security.

Being aware of these challenges, SBP has made consistent efforts towards improvement in the regulatory regime of digital payment. In this backdrop, SBP introduced additional measures to enhance the standardization in digital instruments in CY19 **(See Box 3 in Overview)**.

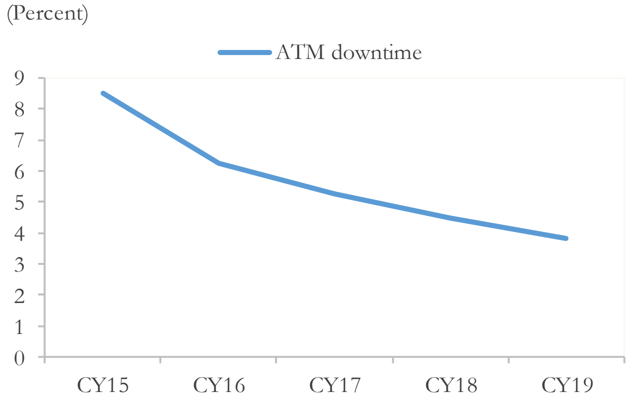
SBP encouraged Standardization and Interoperability of payment instruments…

Mobile based payment system like Quick Response (**QR**) code provides a convenient, swift, and efficient payment option to consumers, essentially a suitable alternative to replace the POS terminals. The QR Code based payment solutions are actively working in the country, but generally lack in standardization and feature of interoperability. To address such issues, in CY19, SBP issued comprehensive regulations "Standardization of QR Codes for Payments in Pakistan" to promote uniform standards among the services offered by various institutions.[294] Accordingly, all the existing and newly issued and/or acquired QR codes for payments by institutions would adopt standards of Europay, Mastercard, Visa (**EMV**) QR Code for Specification of Payment Systems (**QRCPS**).

ATM Efficiency at all-time high…

As a key component of the payment system, ATM holds the highest share in e-banking transactions; therefore, its round-the-clock functionality is indispensable for efficiency of the payment system. Being conscious of the reputational and operational risk for the payment system associated with ATM downtime, SBP and financial institutions efforts resulted in higher ATM availability during the reviewed period **(Chart 7.6).**

Chart 7.6: ATM downtime



Source: SBP

Branchless banking supported financial inclusion in the country…

Branchless Banking (**BB**) serves as a key pillar for expanding the formal financial services to the excluded population of the country. In recent times, it has been instrumental in meeting the rising demand for financial services in the underserved areas. Significant improvement was witnessed in the volume of agents, active accounts, deposits, and transactions during CY19. The volume and value of branchless banking transactions surged by 1,309.3 million (37.1 percent) and PKR 4,504.8 billion (23.1 percent), respectively. The number of active banking accounts and deposits increased by 23.9 percent and 21.5 percent, respectively, though total accounts witnessed a slight decline by 2.3 percent **(Table 7.4).**

[294] PSD Circular No. 02 of 2019 http://www.sbp.org.pk/psd/2019/C2.htm

Table 7.4: Key Highlights of Branchless Banking

Description	CY18	CY19	Growth (percent)
No. of Agents	425,199	437,182	2.8
No. of Accounts (thousands)	47,165	46,103	(2.3)
No. of Active Accounts (thousands)	19,800	24,530	23.9
Deposits as on period end (PKR million)	23,678	28,770	21.5
No. of Transactions during the period (millions)	955	1,309	37.1
Average No. of Transactions per Day (thousands)	2,653	3,637	37.1
Value of Transactions during period (PKR billion)	3,659	4,505	23.1
Average Size of Transactions (PKR)	3,831	3,445	(10.1)

Source: SBP

In view of growing financial footprint and outreach of branchless banking network, SBP revised the branchless banking regulations for financial institutions in order to accelerate the outreach of branchless banking operations and strengthen controls against Money laundering (**ML**)/Terrorist Financing (**TF**) risks.[295] These regulations are part of a broader strategy to create enabling regulatory environment for growth prospect of the BB.

SBP took initiatives for Promotion of Electronic Money Institutions

To foster innovation in the payment instruments and promote financial inclusion, during CY19, SBP introduced regulations for the establishment of Electronic Money Institutions (**EMIs**) explicitly functioning as non-bank entities.[296,297] The regulation aims at removing the critical bottlenecks, minimizing entry barriers, and providing level playing field in the national payment landscape.

The instruments and payment channels offered through EMIs would deliver new payment options for consumers. It could potentially become more convenient and cost effective in comparison to prevalent payment instruments. Consequently, it could make digital payment options more efficient and inclusive for the consumers. Until March 2020, SBP authorized five EMIs for issuance of E-money wallets for consumers and merchants.[298]

Development of digital payment acceptance points

To facilitate the promotion of digital collection of payments through the establishment of digital payment acceptance points, SBP issued the rules for the digital on-boarding of merchants by the EMIs.[299] The circular outlines the minimum due diligence requirements for on-boarding merchants. It improves the mitigation measures for security of digital payments and helps the merchants' in their utilization of financial services access points and channels.

National Payment Systems Strategy launched…

National Payment System Strategy (**NPSS**), prepared by SBP in collaboration with World Bank, sets out a roadmap to structure the National Payments System on the principles of efficiency and safety of the system, universal accessibility and protection of the consumers, and to provide a competitive market environment in the payment landscape.[300,301]

The strategy suggests broad transformation in key areas of legal and regulatory framework, payment infrastructure, retail payments market, government payments, remittance market and oversight

295 BPRD Circular No. 10 of 2019; http://www.sbp.org.pk/bprd/2019/C10.htm
296 EMIs means such nonbanking entities duly authorized to issue means of payments in the form of electronic money.
297 PSD Circular No. 01 of 2019; http://www.sbp.org.pk/psd/2019/C1.htm
298 Authorized EMIs list. http://www.sbp.org.pk/PS/PDF/List-of-EMIs.pdf
299 The process, by which, acquiring institutions open the accounts of merchants thus enabling them to accept payments via digital means.
300 This strategy builds upon the international standards of Principles for Financial Market Infrastructures (**PFMIs**) given by Committee of Payments and Markets Infrastructures (**CPMI**) and International Organization of Securities Commissions (**IOSCO**)) as well as the standards of Payment Aspects of Financial Inclusion (**PAFI**) prepared by CPMI and World Bank.
301 National Payment System includes a country's entire matrix of institutional and infrastructure arrangements and processes for initiating and transferring monetary claims in the form of commercial bank and central bank liabilities.

framework to bring fundamental improvements in the national payment system.[302]

Further, it aims to promote cost effective and rapidly deployable digital payment options to guarantee universal accessibility and greater financial inclusion. This planned transformation in the national payment landscape resolves critical issues, such as it, eliminates system inadequacies to cater for emerging payment needs and opportunities, promotes the technological footprint and brings innovation, secures compliance with international standards and best practices, and mitigates concerns of safety and security of the consumers and the system.

FMIs other than Payment Systems

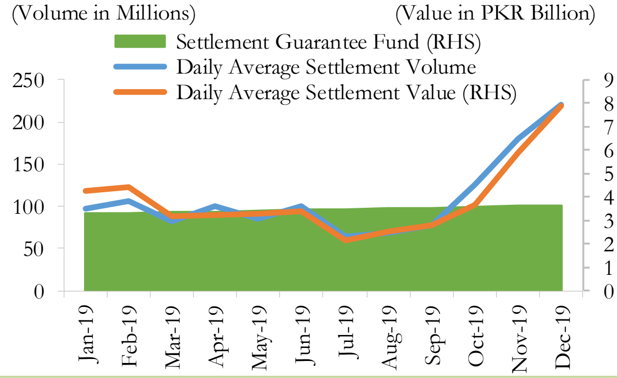
NCCPL performed efficiently during CY19…

NCCPL, a systemically important FMI dealing with the settlement of trades in the capital markets, took various measures to enhance the efficacy of its operations and strengthened its risk management regime.

In 2019, Securities and Exchange Commission of Pakistan (**SECP**) granted license to NCCPL as Centralized "Know-your-Customer" Organization (**CKO**) that ensures a more reliable, efficient, and secure account opening process. Additionally, NCCPL i) underwent a major IT network infrastructure upgrade, and ii) implemented SSL security protocol to ensure a more secure, reliable, and faster connectivity to the market participants.[303] Such measures allowed NCCPL to mitigate the operational risk to a tolerable level and to smoothen day-to-day business operations.

NCCPL maintains a Settlement Guarantee Fund (**SGF**), a mechanism to mitigate the settlement risk occurring owing to potential default of any member. At initiation, the fund was valued at PKR 2.75 billion. However, gradually it had risen to PKR 3.65 billion by December 2019. However, the daily average settlement value for the year stood at PKR 7.90 billion, which is still larger than the value of the fund **(Chart 7.7)**. Although the margins provided by clearing members are the first line of defense against the default risk, SGF provides a buffer against emergence of systemic issues in the capital market.

Chart 7.7: Comparison of settlement of Guarantee Fund with daily average of settlement value



Source: NCCPL

The upgrade of IT network infrastructure coupled with reforms in risk management system of Capital Markets, restructured Margin Financing System, Value at risk (**VAR**) Margin and revised slabs of liquidity margin, all enabled NCCPL to efficiently supervise the risk profile of clearing members and employ adequate safeguards against the emergence of settlement risk, if any. Last year, NCCPL shifted from the previously deployed risk management system, of PSX, to its in-house risk management system.

CDC also performed effectively…

As a leading FMI, CDC acts as the central securities depository (**CSD**) of the country.[304] It

302 It represents the large value payments, electronic retail payments, paper-based payments, and securities settlement.

303 A networking protocol to secure the connection among clients and server.

304 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.

continued to hold the trust of the public as evident from the increasing number of investor accounts, which stood at 56,815 at the end of CY19, an increase of 5% from CY18. The CDC handled 146 billion shares with a market capitalization of PKR 4.9 trillion at the end of the reviewed period.[305]

To benefit the consumers and market, in CY19, CDC undertook major measures that included regularization of expired CNIC sub-accounts, reduction of CDS tariff structure, implementation of CKO functions, automation of process for regulatory submission and register, amendments in CDC regulations on margin financing regime and outsourcing of onsite inspection, investigation and enquiry of security brokers.[306]

CDC has effective buffers in place to cater for IT security risk that ensures the security of its network infrastructure. In CY19, it implemented a mandatory hard-drive serial number authentication and new two-factor authentication solution to provide secure access to CDS and other CDC's applications, thus mitigating cyber and operational risk. As an ISO 27001 certified company, CDC has provided adequate controls to establish information security. Similarly, the certifications, such as, ISO 22301 and ISAE 3402, helps in the areas of business continuity management and internal controls.

[305] CDC Newsletter, Oct-Dec 2019

[306] CDC Newsletters, Jan-Dec 2019

Appendix A

Indicators used to derive Financial Sector Vulnerability Index (FSVI)

FSVI was first introduced in FSR 2016, and since then it has been modified and regularly published in the subsequent reviews. In FSR-2018, few modifications were made in terms of coverage, indicators and methodology (See Appendix A in FSR-2018).

To recall, FSVI is a composite index derived from averaging the sub-indices of macro-economy, financial markets, banking sector, Non-Banking Financial Institutions, Development Finance Institutions, Insurance Companies and Corporate Sector. The complete list of indicators used within each dimension is given in the table below:

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	Macro-economy $\frac{1}{n}\sum Ex, R, F, In$ n = 4	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 (R)	*Real GDP Growth*	Positive
		Fiscal Sector (F)	Fiscal Deficit as Percentage of GDP	Negative
		Inflation (In)	CPI inflation	Negative
2	Financial Markets $\frac{1}{n}\sum FE, MM, CM$ n = 3	Foreign Exchange (FE)	*Mid-Weight Interbank Exponential Moving Weighted Average (EMWA) Volatility*	Negative
		Money Market (MM)	*Overnight Repo Rate Exponential Moving Weighted Average (EMWA) Volatility*	Negative
		Capital Market (CM)	*KSE-100 Index Exponential Moving Weighted Average (EMWA) Volatility*	Negative
3	Banking Sector $\frac{1}{n}\sum C, AQ, E, L, D, I$ n = 6	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) $E = \frac{1}{n}\sum_{i=1}^{n} e_i,$ $n = 6$	*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
4	Non-Banking Financial Institutions $\frac{1}{n}\sum A, E$ n = 2	Assets (A)	*Asset Growth (YoY)*	Positive
		Earnings (E)	*Net Sales*	Positive
5	Development Finance Institutions $\frac{1}{n}\sum C, AQ, E, L$ n = 4	Capital Adequacy (C) $C = \frac{1}{n}\sum_{i=1}^{n} c_i,\ n = 3$	c_1= *Capital Adequacy Ratio(CAR)* c_2=*TIER 1 (CAR)* c_3=*Capital to Asset Ratio*	Positive Positive Positive
		Asset Quality (AQ) $AQ = \frac{1}{n}\sum_{i}^{n} aq_i,$ $n = 3$	aq_1 = *NPLs to Total Loans* aq_2 = *Net NPLs to Capital* aq_3 = *Net NPLs to Net Loans*	Negative Negative Negative
		Earnings (E) $\mathrm{E} = \frac{1}{\mathrm{n}}\sum_{i=1}^{n} e_i,$ $n = 4$	e_1= *Return on Assets Before Tax* e_2=*Return on Equity(Avg. Equity and Surplus) Before Tax* e_3 = *Net Interest Income/Gross Income* e_4 = *Cost to Income Ratio*	Positive Positive Positive Negative
		Liquidity (L) $L = \frac{1}{n}\sum_{i=1}^{n} l_i,$ $n = 3$	l_1= *Liquid Assets/Total Assets* l_2= *Liquid Assets/Total Deposits* l_3= *Advances/Deposits*	Positive Positive Positive
6	Insurance Companies $\frac{1}{n}\sum Li, NL$ n = 2	Life (Li) $\mathrm{Li} = \frac{1}{\mathrm{n}}\sum_{\mathrm{i}=1}^{\mathrm{n}} \mathrm{li}_{\mathrm{i}},$ 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) $\mathrm{NL} = \frac{1}{\mathrm{n}}\sum_{\mathrm{i}=1}^{\mathrm{n}} \mathrm{nli}_{\mathrm{i}},$ n = 5	nli_1= *Claims ratio* nli_2= *Premium Retention* nli_3= *Return on Assets before tax* nli_4= *Return on Investment before tax* nli_5= *Capital to Assets*	Negative Negative Positive Positive Positive
7	Corporate Sector	Corporate Debt	*Debt Burden (average of asset/equity and debt/equity)*	Negative

Acronyms

AAOIFI	Accounting and Auditing Organization for Islamic Financial Institutions
AC&MFD	Agricultural Credit & Microfinance Department
ADC	Alternate Delivery Channels
ADR	Advances to Deposit Ratio
AEs	Advanced Economies
AFS	Available-For-Sale
AMCs	Asset Management Companies
AML	Anti Money Laundering
ATM	Automated Teller Machines
AUMs	Assets Under Management
Av.	Average
B2C	Business-to-Customer
BB	Branchless Banking
BC&CPD	Banking Conduct & Consumer Protection Department
BCBS	Basel Committee on Banking Supervision
BCI	Business Confidence Index
BCP	Business Continuity Plans
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
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
C2B	Consumer to Business
CAR	Capital Adequacy Ratio
CCB	Capital Conservation Buffer
CCP	Central Counter Party
CCRT	Catastrophe Containment and Relief Trust
CDC	Central Depository Company
CDD	Customer Due Diligence
CDS	Central Depository System
CDS	Currency Declaration Systems
CDS	Credit Default Swap
CF	Consumer Finance
CFT	Combating the Financing of Terrorism
CKO	Centralized Know Your Customer
CMC	Collateral Management Companies
COGS	Cost of Goods Sold
COVID-19	Corona Virus Disease - 2019
CPFTA	China Pakistan Free Trade Agreement
CPI	Consumer Price Index
CPMI	Committee for Payments and Market Infrastructure
CRR	Cash Reserve Requirement
CRWAs	Credit Risk Weighted Assets
CSD	Central Securities Depository
CSS	Cross Currency Swaps
CTR	Currency Transactions Reports
CY	Calendar Year
DFIs	Development Finance Institutions
DMMD	Domestic Markets & Monetary Management Department
DPC	Deposit Protection Corporation
DR	Disaster Recovery
D-SIBs	Domestic Systemically Important Banks
E-banking	Electronic Banking
EBIT	Earnings before interest and taxes
ebitta	Earnings Before Interest and Taxes to Total Assets
ECB	European Central Bank
ECL	Expected Credit Loss
EFF	Extended Fund Facility
EMDEs	Emerging Market and Developing Economies
EMEs	Emerging Market Economies
EMI	E-Money Institution
EMV	Europay, Mastercard and Visa
EMWA	Exponential Moving Weighted Average
EPD	Exchange Policy Department
eqtyta	Equity to Total Assets
ER	Exchange Rate

EWIs	Early Warning Indicators
EWR	Electronic Warehouse Receipt
FATF	Financial Action Task Force
FBR	Federal Board of Revenue
FCY	Foreign Currency
FDR	Financing to Deposit Ratio
FFSAP	Financing Facility for Storage of Agriculture Produce
FIs	Financial Institutions
FMI	Financial Market Infrastructure
FPIBs	Floating Rate PIBs
FPT	Fit & Proper Test
FSB	Financial Stability Board
FSD	Financial Stability Department
FSHM	Financial Sector Heat Map
FSIs	Financial Soundness Indicators
FSR	Financial Stability Review
FSVI	Financial Sector Vulnerability Index
FT	Family Takaful
FX	Foreign Exchange
FY	Financial Year
FY	Fiscal Year
GCC	Gulf Cooperation Council
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GHC	Global Health Crisis
GIS	Government Ijarah Sukuk
GNPLR	Gross Non-Performing Loans Ratio
GoP	Government of Pakistan
G-SIBs	Global Systemically Important Banks
GT	General Takaful
H2	Second Half of Calendar Year
HFT	Held-For-Trading
HSD	High Speed Diesel
IADI	International Association for Deposit Insurers
IAs	Investment Advisors
IATA	International Air Transport Association
IB	Islamic Bank
IBD	Islamic Banking Department
IBFT	Inter Bank Fund Transfer
IBIs	Islamic Banking Institutions
IFIs	Islamic financial institutions
IFRS	International Finacial Reporting Standards
IFT	Interbank Fund Transfers
IH&SMEFD	Infrastructure, Housing & SME Finance Department
ILTFF	Islamic Long-Term Financing Facility
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
IRR	Interest Rate Risk
KIBOR	Karachi Inter-Bank Offered Rate
KSE	Karachi Stock Exchange
LCR	Liquidity Coverage Ratio
LR	Leverage Ratio
LSM	Large Scale Manufacturing
LTFF	Long Term Financing Facility
LTROs	Long Term Refinancing Operations
LVPS	Large Value Payment Systems
MCR	Minimum Capital Requirement
MENA	Middle East and North Africa
MER	Mutual Evaluation Report
MFBs	Microfinance Banks
ML/TF	Money Laundering/Terrorist Financing
MMCs	Modaraba Management Companies
MoF	Ministry of Finance
MPD	Monetary Policy Department
MPPF	Macroprudential Policy Framework
MRWA	Market Risk Weighted Assets
MSR	Minimum Saving Rate
MTBs	Market Treasury Bills
MUFAP	Mutual Funds Association of Pakistan
NA	Not Applicable
NADRA	National Database and Registration Authority
NAV	Net Asset Value
NBFIs	Non-Bank Financial Institutions
NBMFCs	Non-bank Microfinance Companies

NCCPL	National Clearing Company of Pakistan Limited
NEPRA	National Electric Power Regulatory Authority
NFA	Net Foreign Assets
NFF	Non-Financial Firms
NFIS	National Financial Inclusion Strategy
NFSC	National Financial Stability Council
NIFT	National Institutional Facilitation Technologies (Pvt.) Limited
NII	Net Interest Income
NIM	Net Interest Margin
NPF	Non-performing Financing
NPLs	Non-Performing Loans
NPSS	National Payment System Strategy
NSFR	Net Stable Funding Ratio
NSS	National Savings Schemes
NTDCL	National Transmission and Dispatch Company Limited
O/N	Overnight Rate
OD	Overdue
OECD	Organization for Economic Co-operation and Development
OMOs	Open Market Operations
ORWAs	Operational Risks Weighted Assets
OSED	Off-site Supervision &Enforcement Department
P2G	Pillar 2 Guidance
PDs	Probabilities of Default
PFMI	Principles for Financial Market Infrastructures
PHPL	Power Holding (Private) Limited
PIBs	Pakistan Investment Bonds
PKR	Pakistani Rupee
PKRV	Pakistan Revaluation
POS	Point Of Sale
PPP	Public Private Partnership
PRC	Publication Review Committee
PRISM	Pakistan Real-Time Interbank Settlement
PRs	Prudential Regulations
PSC	Private Sector Credit
PSD	Payment Systems Department
PSDP	Public Sector Development Programme
PSEFT	Payment Systems And Electronic Fund Transfer
PSEs	Public Sector Entities
PSF	Private Sector Financing
PSX	Pakistan Stock Exchange
PSE	Public Sector Exposure
QR	Quick Response
QRCPS	QR Code for Specification of Payment Systems
RBA	Risk Based Approach
RCOA	Reporting Chart of Accounts
RD	Research Department
RE	Renewable Energy
retta	Retained Earnings to Total Assets
RFCC	Refinance Facility for Combating COVID-19
RHS	Right Hand Side
RMCs	REIT Management Companies
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
RPI	Rapid Financing Instrument
RTGS	Real Time Gross Settlement
RTOB	Real Time Online Branches
RTOB	Real Time Online Banking
RVPS	Retail Value Payment Systems
S&DWH	Statistics & Data Warehouse Department
S&P	Standard & Poor's
salesta	Sales to Total Assets
SBP	State Bank of Pakistan
SCRA	Special Convertible Rupee Account
SCRS	Specialized Companies Return System
SDV	Single Depositor View
SECP	Securities and Exchange Commission of Pakistan
SECP	Securities & Exchange Commission of Pakistan
SGF	Settlement Guarantee Fund
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
T-Bill	Treasury Bills
TBML	Trade Based Money Laundering
TF	Terrorism Financing
TFC	Term Finance Certificate
TFS	Targeted Financial Sanctions
TLAC	Total Loss Absorbency Capital
TSA	Treasury Single Account
UAE	United Arab Emirates
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNSC	United Nations Security Council
US	Unites States
USD	US Dollar
VaR	Value at Risk
WADR	Weighted Average Deposit Rate
WALR	Weighted Average Lending Rate
WAPDA	Water and Power Development Authority
wcta	Working Capital to Total Assets
WEBOC	Wed-Based One Customs
WEO	World Economic Outlook
WHO	World Health Organization
WHRF	Warehouse Receipt Financing
WTI	West Texas Intermediate
WTOs	Window Takaful Operators
YoY	Year on Year
YTD	Year To Date
YTM	Yield to Maturity

Annexures

Annexure I - Balance Sheet and Profit & Loss Statement of Banks

PKR million

BALANCE SHEET	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19
ASSETS					
Cash & Balances With Treasury Banks	909,429	1,184,521	1,303,914	1,574,551	1,987,096
Balances With Other Banks	198,395	168,394	156,332	147,829	232,671
Lending To Financial Institutions	360,772	551,695	604,990	909,754	978,640
Investments - Net	6,880,765	7,509,164	8,729,019	7,913,923	8,939,438
Advances - Net	4,815,827	5,498,813	6,512,485	7,955,195	8,248,973
Operating Fixed Assets	310,102	336,376	395,246	437,235	596,924
Deferred Tax Assets	65,644	64,681	72,354	81,082	74,052
Other Assets	602,301	517,412	567,205	662,485	933,542
TOTAL ASSETS	**14,143,234**	**15,831,058**	**18,341,545**	**19,682,054**	**21,991,337**
LIABILITIES	-	-	-	-	
Bills Payable	145,089	182,858	218,588	243,237	231,178
Borrowings From Financial Institution	1,766,145	1,942,458	3,125,432	3,001,186	2,932,082
Deposits And Other Accounts	10,389,260	11,797,867	13,011,778	14,254,210	15,953,489
Sub-ordinated Loans	51,366	59,330	64,703	111,713	123,218
Liabilities Against Assets Subject To Finance Lease	50	41	21	7	7,446
Deferred Tax Liabilities	47,622	61,109	44,684	34,557	43,602
Other Liabilities	420,935	434,598	495,549	631,529	1,042,073
TOTAL LIABILITIES	**12,820,468**	**14,478,261**	**16,960,755**	**18,276,439**	**20,333,089**
NET ASSETS	**1,322,767**	**1,352,797**	**1,380,790**	**1,405,615**	**1,658,248**
NET ASSETS REPRESENTED BY:		-	-		
Share Capital	619,862	579,882	516,013	541,040	556,886
Reserves	192,039	205,314	271,448	315,570	349,529
Unappropriated Profit	290,908	344,615	410,371	433,205	521,807
Share Holders' Equity	**1,102,809**	**1,129,812**	**1,197,832**	**1,289,816**	**1,428,222**
Surplus/Deficit On Revaluation Of Assets	219,958	222,985	182,958	115,799	230,026
TOTAL	**1,322,767**	**1,352,797**	**1,380,790**	**1,405,615**	**1,658,248**

PROFIT AND LOSS STATEMENT	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19
Mark-Up/ Return/Interest Earned	981,760	938,026	998,671	1,153,383	1,851,790
Mark-Up/ Return/Interest Expenses	485,575	453,232	499,819	608,309	1,156,062
Net Mark-Up / Interest Income	**496,185**	**484,793**	**498,851**	**545,074**	**695,727**
Provisions & Bad Debts Written Off Directly/(Reversals)	38,874	5,305	3,706	36,201	67,855
Net Mark-Up / Interest Income After Provision	**457,311**	**479,489**	**495,146**	**508,873**	**627,872**
Fees, Commission & Brokerage Income	82,640	90,266	102,898	112,852	123,895
Dividend Income	16,910	17,187	17,875	13,589	12,325
Income From Dealing In Foreign Currencies	22,824	14,015	14,308	25,981	26,269
Other Income	86,369	74,260	52,565	25,698	19,628
Total Non - Markup / Interest Income	**208,743**	**195,728**	**187,646**	**178,121**	**182,117**
	666,053	675,217	682,791	686,993	809,989
Administrative Expenses	330,006	356,183	387,878	430,375	495,018
Other Expenses	7,231	5,003	4,417	5,068	10,517
Total Non-Markup/Interest Expenses	**337,237**	**361,186**	**392,295**	**435,444**	**505,535**
Profit before Tax and Extra ordinary Items	328,817	314,031	290,496	251,550	304,454
Extra ordinary/unusual Items - Gain/(Loss)	0.51	0.27	23,717.35	9,015.91	48.78
PROFIT/ (LOSS) BEFORE TAXATION	**328,816**	**314,030**	**266,779**	**242,534**	**304,405**
Less: Taxation	129,811	124,117	108,987	93,194	133,656
PROFIT/ (LOSS) AFTER TAX	**199,006**	**189,914**	**157,792**	**149,340**	**170,749**

Annexure II - Financial Soundness Indicators of the Banking Sector

percent

Indicators	Dec-15	Dec-16	Dec-17	Dec-18	Dec-19
CAPITAL ADEQUACY					
Risk Weighted CAR^	17.34	16.17	15.83	16.19	17.00
Tier 1 Capital to RWA	14.39	13.02	12.94	13.24	14.01
Capital to Total Assets	8.42	7.80	7.15	7.14	7.21
ASSET QUALITY					
NPLs to Total Loans	11.36	10.06	8.43	7.97	8.58
Provision to NPLs	84.95	85.05	87.24	83.80	81.43
Net NPLs to Net Loans	1.89	1.64	1.16	1.38	1.71
Net NPLs to Capital^^	7.66	7.32	5.77	7.83	8.91
EARNINGS					
Return on Assets (Before Tax)	2.51	2.10	1.56	1.31	1.48
Return on Assets (After Tax)	1.52	1.27	0.93	0.81	0.83
ROE (Avg. Equity& Surplus) (Before Tax)	25.83	23.86	19.51	17.39	20.15
ROE (Avg. Equity &Surplus) (After Tax)	15.63	14.43	11.55	10.71	11.30
NII/Gross Income	70.39	71.24	72.67	75.37	79.25
Cost / Income Ratio	47.84	53.07	57.14	60.21	57.59
LIQUIDITY					
Liquid Assets/Total Assets	53.81	53.73	53.97	48.69	49.65
Liquid Assets/Total Deposits	73.25	72.10	76.08	67.23	68.44
Advances/Deposits	46.35	46.61	50.05	55.81	51.71

^ 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-18	Dec-19
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 Ltd.	4 Industrial and Commercial Bank of China Ltd.
5 Bank of China Limited	5 Bank of China Limited
D. Specialized Banks (4)	**D. Specialized Banks (3)**
1 Industrial Development Bank Ltd.	
2 Punjab Provincial Co-operative Bank Ltd.	1 Punjab Provincial Co-operative Bank Ltd.
3 SME Bank Ltd.	2 SME Bank Ltd.
4 Zarai Taraqiati Bank Ltd.	3 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 (33)**
Include A + B + C + D	Include A + B + C + D

Annexure IV - Composition of Islamic Banking Institutions

	Dec-18		Dec-19
	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.
		17	Zarai Taraqiati Bank Ltd.
	Grand Total 21 (5+16)		**Grand Total 22 (5+17)**

Annexure V - List of Development Finance Institutions (DFIs)

Dec-18	Dec-19
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 Pakistan Mortgage Refinance Company Limited	8 Pakistan Mortgage Refinance Company Limited
9 Saudi Pak Industrial & Agricultural Investment Company Limited	9 Saudi Pak Industrial & Agricultural Investment Company Limited

Annexure VI - List of Microfinance Banks (MFBs)

Dec-18		Dec-19	
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