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.

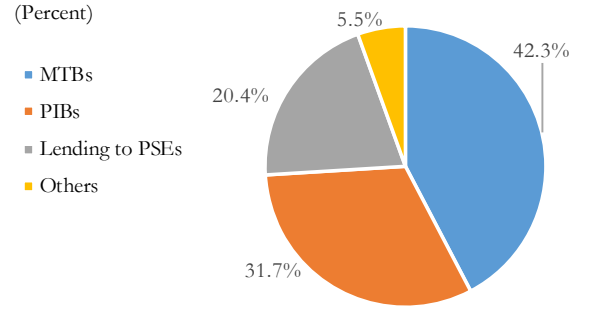
[204] There are established financial intermediaries in Pakistan including banks, Development Finance Institutions (DFIs), Non-Bank Financial Institutions (NBFIs), Microfinance Banks (MFBs), Insurance etc. Besides, capital market institutions (e.g. mutual funds, stock exchange etc.) play their own role 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]

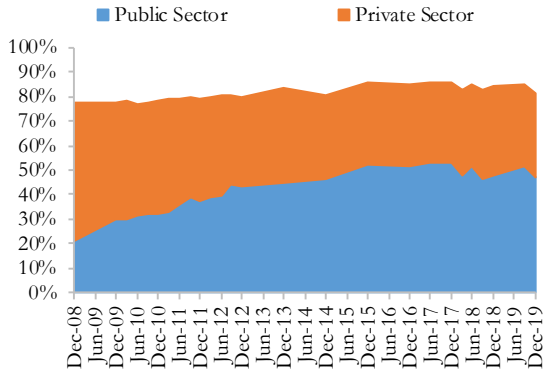
Chart B3.1.1: On-Balance Sheet Exposure of Banks on Public Sector as of end December, 2019



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**).

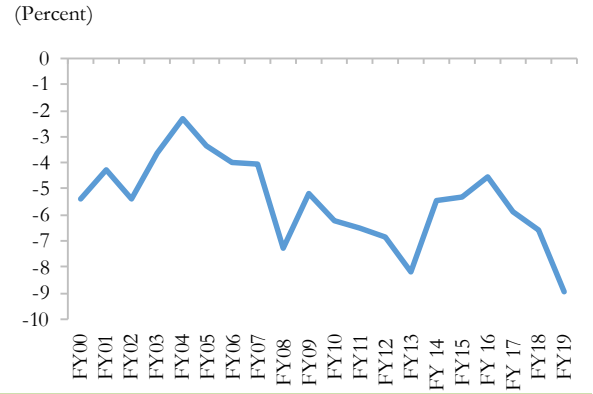
[206] Bai' Muajjal Agreement is a way of liquidity management by the SBP. For example, SBP purchases Government Ijarah Sukuk (**GIS**) from an IBI (say party A) on deferred payment basis. Then SBP can sell the same GIS to another IBI (say party B) sitting with the ample liquidity on ready payment basis.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

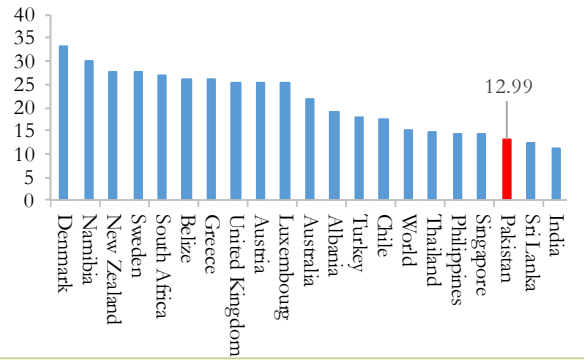


Source: MoF

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

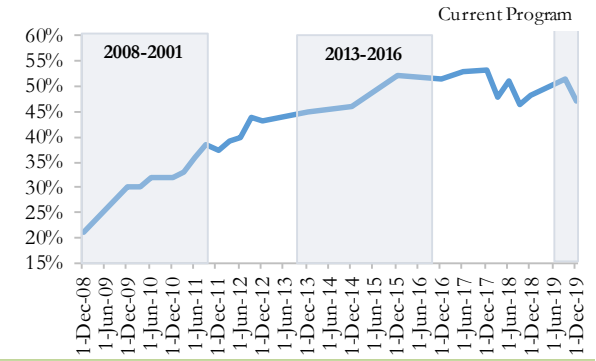
[213] Generally, the banking sector refers to SBP and schedule banks. However, banking sector is referred as 'schedule banks' only for this specific analysis.

[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

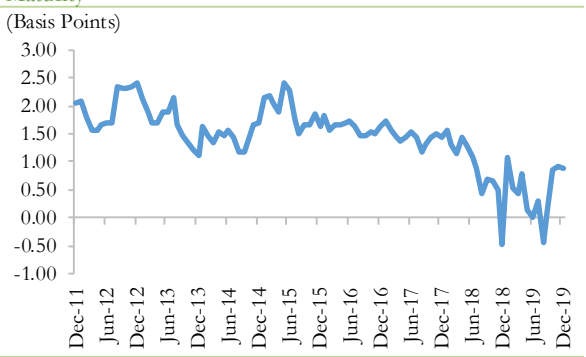


Source:SBP

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



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.

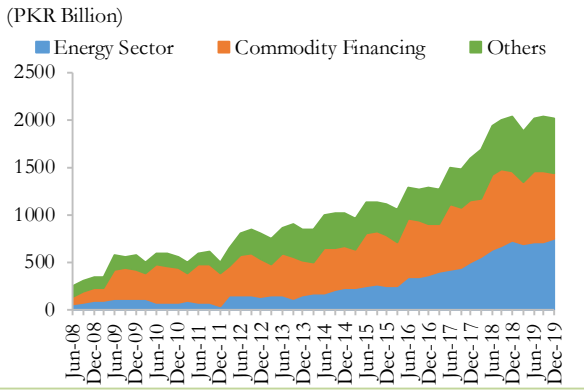
In the absence of TSA, cash is kept in multiple bank accounts without consolidation. Resultantly, unknown to actual cash position, the cash managers of the government are forced to meet the cash requirements through additional borrowings. Further, lacking the oversight of accurate cash position, it becomes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

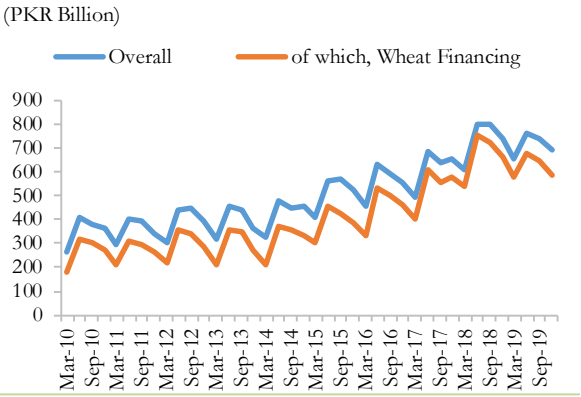
[221] Commodity financing is a consortium financing where previous loans is paid back through generating new facilities. The govt. asks for the bids and entertain the banks with the lowest asking rates.

[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)

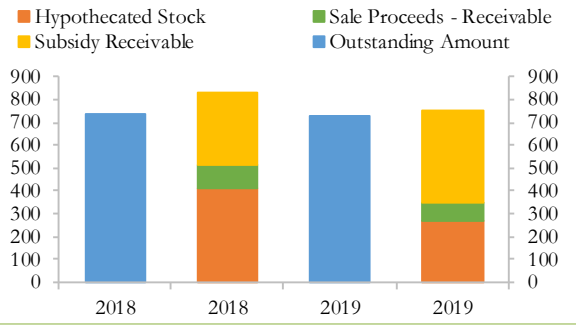


Source: SBP

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.

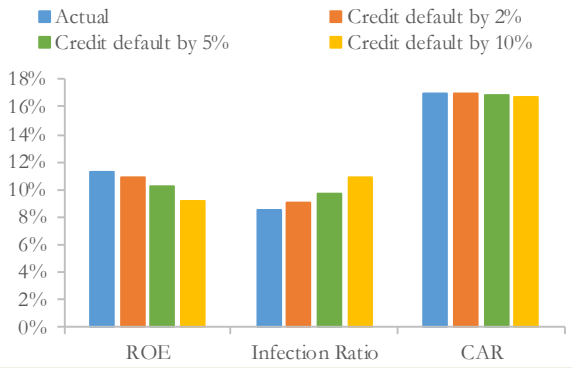
[225] By virtue of its business, PHPL does not intend to earn profit or undertake any other business but it only facilitates other PSEs (e.g. power distribution companies) by providing them funding support.
[226] As highlighted in NEPRA Annual Report 2018-19, DISCOs and K-Electric contributed losses 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



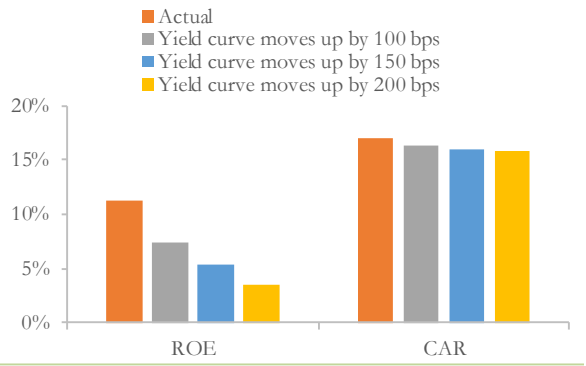
Source:SBP

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

[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 away from their core financial intermediary function.

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.