

An Introduction to Monetary Policy Framework of Pakistan: Instruments, Objectives, and Mechanism

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Abstract

In an economy, a central bank's behavior in formulating monetary policy is characterized by some specific actions. These actions meet the complex process of decisions about how a central bank regulates its policy instruments responding to the macroeconomic environment. In the case of Pakistan, the State Bank of Pakistan (SBP) has the mandate to regulate the monetary and credit system through a variety of monetary policy instruments and implementation mechanisms. Despite empirical studies on the subject, the monetary policy mechanism of SBP is comparatively less explored by connecting the policy stances to financial markets. We present a comprehensive review of the framework of monetary policy with modern monetary policy instruments. This study is equally important for researchers, investors, and bankers an insight into procedures of monetary policy of SBP. Similarly, it also helps stakeholders of the corporate sector and SMEs to allocate their resources efficiently after knowing the policy mechanism of the central bank.

Keywords: Monetary Policy, Monetary Instruments, SBP, Central Banking, Pakistan Economy, Policy Rates

JEL Codes: E52, E58

1. Introduction

The monetary policy, in coordination with the fiscal and other relevant policies, targets the level of aggregate demand to achieve

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consistent growth. Depending on the position of aggregate demand, the economy operates at any level of national income and employment within the production frontier. In the case of Pakistan, un-employment follows to inefficient aggregate demand and it was observed in the 1990s, high inflation follows to excess aggregate demand as has been observed in the middle of the 2000s. Moreover, double-digit inflation was witnessed in the economy during the financial year 2008 to the financial year 2012. The overall level of demand consists of both investment and consumption expenditure, which depend on the availability and cost of money, and available credit in an economy. SBP sets policy rate and liquidity ratios (cash reserves requirements) to manage the cost and availability of money and credit (the aggregate demand) in the country.

Money is supplied to raise national income and employment in case of low aggregate demand, this monetary stance will make credit for investors relatively cheap and easy to come by. On the contrary, when full employment level has been achieved, a monetary economist will recommend stopping further money supply and credit to tame inflation as a result of an excess demand situation. External accounts of an economy reflect internal position; similarly, internal actions of monetary policy also play a vital role to settle external imbalance. High policy rates may be recommended at times of worsening of the balance of payments to control foreign interest rates and to discourage foreigners to withdraw short term investments that will decrease pressure on foreign exchange reserves of the economy. This will not only restrain the withdrawal of foreign funds, rather will attract them to compensate for a payments deficit. As a result, this process will strengthen foreign exchange reserves.

The literature on monetary policy is wide-ranging for the last several decades. Bernanke and Gertler (1993) have explored that the theoretical underpinnings of monetary policy go back to pivotal papers of Brumberg and Modigliani (1954) and Friedman (1957). Later, we find the literature of prominent scholars who worked out the models and identified different channels of the monetary policy (Ando & Modigliani, 1963; Jorgenson, 1963; Tobin, 1969). However, there is mixed empirical evidence on the existence of these transmission channels after applying different most of the macroeconomic models (Bernanke and Gertler, 1993). In an open economy macroeconomics perspective of the transmission process, Fleming (1962) and Mundell (1963) have evaluated in a handful of ways. Mishra, Montiel, and Spilimbergo (2012) have mentioned four main channels of monetary

transmission: the interest rate channel, the asset-pricing channel, the exchange rate channel, and the bank lending channel. Similarly, Peter and Boston (2005) have added the direct monetary channel, namely the inflation expectations channel to monetary policy transmission.

In the case of Pakistan, we find empirical literature on monetary without discussing theoretical framework, procedure, objectives, existing tools, and subsidiaries of SBP (Zaheer, Ongena, & Wijnbergen, 2013; Janjua, Rashid, & Qurrat-ul-Ain, 2014; Omer, 2018). This specific area of research provides a vacuum to be filled. Therefore, we intend to present a monetary policy framework with a special concentration on the procedure of monetary policy, objectives, existing tools, and subsidiaries of SBP. This would be equally beneficial for researchers to know about the contemporary monetary policy practices SBP, along with monetary policy instruments and supporting departments to achieve the higher objective of monetary policy.

This review-based research paper intends to highlight the comparative framework of the monetary policy transmission mechanism in Pakistan with a special focus on instruments and objectives of the monetary policy.

2. The Monetary Policy Framework of Pakistan

There have been different regimes to conduct monetary policy over time. The regulator of monetary policy is the State Bank of Pakistan (SBP).

2.1 The Regulator of Monetary Policy: State Bank of Pakistan (SBP)

The monetary policy is the responsibility of the State Bank of Pakistan (SBP). SBP is established under the State Bank of Pakistan Act, 1956, following with subsequent amendments, provided the basis of its operations today. This act gives the authority to SBP to regulate the monetary and credit system of Pakistan. Similarly, this act gives a mandate to SBP to foster its growth in the best national interest through the utilization of the country's productive resources. From a historical perspective, Khalabat (2011) has explored that before partition in August 1947, Reserve Bank of India (RBI) was the central bank of the subcontinent and it was divided between Pakistan and India with a ratio of 30:70, respectively on the 30th of December 1948 by the British Government's commission. Quaid-e-Azam Muhammad Ali Jinnah established the State Bank of Pakistan (SBP) immediately. The

ordinance was implemented in June 1948, and SBP started operations on July 1, 1948. The headquarters of SBP is in Karachi with branch offices in 15 places across the financial cities of the country, including Islamabad, Kashmir, and the four provincial capitals. As a monetary policy regulator, SBP issues monetary policy statements and other measures related to its policy and conduct of monetary management in the economy.

2.2 Monetary Policy Objectives

The preamble of the SBP Act, 1956 envisages the objectives of the State Bank of Pakistan. The objectives of SBP's monetary policy are to regulate the monetary and credit system of Pakistan. Similarly, it includes fostering the growth of the credit system in the best national interest by securing monetary stability in the economy and fuller utilization of the productive resources of the country.

SBP intends to achieve monetary stability by keeping an eye on the government's inflation policy targets. SBP also aims to guarantee financial stability with efficient functions of the financial markets and the payments system. This is in line with Mishkin (1996), who has explored that price and financial stability ensure sustained economic growth.

2.3 Monetary Policy and Exchange Rate Regime

The monetary policy regime comprises the set of an appropriate intermediate target or nominal anchor which helps to meet the objectives of monetary policy. As monetary policy instruments start their working, a nominal anchor (maybe an economic variable) works inflexible way and adjusts within no time. It supports the mechanism to achieve the objectives and protects the system from the discretion of monetary policy over a long time.

In recent monetary policies, SBP doesn't fix any intermediate goal of a nominal anchor, like M2 growth to reach its target of price stability. Rather, SBP adjusts short aggregate demand vis-à-vis the productive capacity, hence, this process controls inflation in the economy. In this context, policy direction and magnitude depend on the overall condition of macroeconomic indicators, especially the relative position of spot inflation and the inflation target. This monetary policy approach is like inflation targeting the lite regime. Currently, this is working in a monetary policy framework. SBP manages the overnight money market repo rate near to policy rate (target rate) as its operational target

Since May 1999, SBP has adopted an exchange rate regime that determines the value of local Pakistani currency through the forces of demand in the foreign exchange market. The supply and demand mechanism are the reflection of the country's Balance of Payments position. The exports, foreign investments, remittances, foreign loans, etc., determine the supply of foreign exchange, the foreign exchange is demanded imports, debt payments, fee payment for foreign services, etc. If the demand for foreign currency exceeds its supply, the domestic currency depreciates and on another hand, if supply is higher than demand, the domestic currency appreciates in the foreign exchange market.

Occasionally, SBP intervenes to settle the extreme fluctuations to ensure the smooth functioning of the foreign exchange market. However, SBP does not intend to provide a pre-determined level of the exchange rate in the foreign exchange market.

3. Monetary Policy Instruments

SBP is mainly conducting monetary policy through indirect instruments. SBP uses several instruments to ensure the transmission of policy signals to other key interest rates such as KIBOR, banks' lending and deposit rates, and financial markets to work smoothly. In Table 1, the monetary policy instruments are taken from official sources of SBP.

3.1 SBP Policy Rate

Through this policy rate, SBP targets the overnight money market repo rate which signals the monetary policy stance. SBP policy rate is fixed in the Interest Rate Corridor (IRC) set by the SBP's Standing facilities; Reverse Repo and Repo facility (Ceiling and Floor respectively).

3.1.1 Standing Facilities

SBP introduced an Interest Rate Corridor (IRC) to reduce the volatility of the money market overnight repo rates and to make monetary policy transparent. The IRC operates through standing overnight repo (floor) and reverse-repo (ceiling) facilities, that control movement of overnight repo rates consistent with the SBP monetary policy stance. The IRC comprises two end-of-day standing facilities offered by the SBP.

3.1.2 SBP Reverse Repo Facility

The eligible financial institutions (the FIs) can avail SBP reverse repo facility, for sake of PKR funds over one day against their recognized securities. SBP agrees to repurchase back the same securities on the same day and release funds to FIs. SBP charges an interest amount on this type of lending, called “SBP reverse repo rate” that serves as a ceiling for repo rate.

3.1.3 SBP Repo Facility

In SBP Repo Facility, the financial institutions (the FIs) purchase treasury bills of SBP for overnight through excess funds. The interest rate paid to the FIs is called the SBP repo rate, working as a floor for overnight repo rate.

Table 1
Monetary Policy Instruments (percent)

	Current	w.e.f
SBP Policy Rate (Target for overnight money market Repo Rate)	5.75	21-May-16
SBP Reverse Repo Rate (Ceiling of Corridor)	6.25	21-May-16
SBP Repo Rate (Floor of Corridor)	4.25	21-May-16
Reserve Requirement on Banks (Rupee Applicable TDLs)	0.0	
Cash Reserve Requirement (CRR) on TDL < 1 Year		
Fortnightly average for Banks	5.0	12-Oct-12
Daily minimum for Banks	3.0	12-Oct-12
Weekly average for DFIs on total TDL	1.0	01-Jan-05
Weekly average for DFIs	5.0	01-Jan-05
CRR on TL <= Year	0.0	04-Aug-07
SLR on TL < Year		
Conventional scheduled Banks	19.0	24-May-08
Islamic Banks and branches	19.0	03-Jun-18
Weekly average for DFIs on total TDL	15.0	01-Jan-05
Weekly average for DFIs	10.0	01-Jan-05
SLR on TL > 1 Year		
Conventional scheduled Banks	0.0	18-Oct-08
Islamic Banks and branches	0.0	18-Oct-08
Reserve Requirement on DFIs (Rupee TDLs)		
Fortnightly average CRR on total TDLs	1.0	12-Oct-12
SLR on total DTLs	15.0	01-Jan-05
Reserve Requirement on Foreign Currency Deposit		
Cash Reserve Requirement (CRR)		
Conventional scheduled banks	5.0	07-Apr-01
Islamic banks and branches	5.0	13-Nov-06

Special Cash Reserve Requirement (SCRR)		
Conventional scheduled banks	15.0	30-Jun-08
Islamic banks and branches	6.0	13-Nov-06
Reserve Requirements on MFBs (Rupee Deposits/ TDLs)		
CRR on TDLs < 1 Year	5.0	28-May-10
SLR on TDLs < 1 Year	10.0	28-May-10

Source: State Bank of Pakistan.

Note: DL: Demand Liabilities, TL: Time Liabilities, TDL: Time and Demand Liabilities, DFI: Development Financial Institutions.

3.2 Open Market Operations (OMOs)

The monetary policy instruments in Table 1, are the most frequent for implementing monetary policy in the economy of Pakistan. SBP initiates OMOs for liquidity management in the money market. SBP intends to ensure the availability of sufficient funds to settle the interbank transactions smoothly and to keep overnight interbank repo rates around the Policy rate.

As repo transactions, SBP introduces OMOs to meet the temporary liquidity requirements of banks in the market. Systematically, SBP sells (purchases) the government securities to absorb (inject) liquidity from (in) the interbank existing market where exists a deal to purchase (sale) the underlying security at a specific price on a specific future date. SBP manages OMOs through “variable rate tenders” ensuring that banks will disclose the intended amount for the transaction and expected rate of the transaction, at which they will come up. SBP announces the tenor of OMOs at every time, mostly of one week with a degree of freedom in between overnight and two weeks.

It is notable when liquidity shortage or surplus in the market is found over a long time, SBP uses outright OMOs. In this process of the outright OMOs, the government securities are transacted the underlying security gets matured. Contrasting to the repo based OMOs, the ownership of security of outright OMOs transfers among the financial institutions and the SBP. In outright OMOs, SBP transfers government debt to scheduled banks’ balance sheets.

In nutshell, SBP conducts four types of OMOs to manage the system’s liquidity:

- i. Injection – Reverse Repo: This is used to control short-term market positions.

- ii. Mop-up – Repo: This is used to control long-term market positions.
- iii. Outright Sale or Purchase: This is also used to control long-term liquidity management.
- iv. Bai-Muajjal: It newly introduced an Islamic monetary instrument for deferred payments.

3.3 Reserve Requirements

In reserve requirements of banks, SBP requires all scheduled banks to hold liquid assets which may consist of cash and, cash equivalent, approved securities. As per prudential regulations of the SBP, the scheduled banks are required to preserve two types of reserves, i.e. cash reserve requirement (CRR) and statutory liquidity requirement (SLR) (See Table 2).

3.3.1 Cash reserve requirement (CRR)

On a fortnightly average basis, SBP maintains with it a specific proportion of all scheduled banks' applicable time and demand liabilities (TDLs) in the form of cash. Notably, cash with banks is not considered as the amount required in CRR. This minimum amount of CRR is essentially considered daily. A reserve maintenance time for CRR is worked out based on applicable TDLs of a bank at the end of the first day (i.e. Friday). Essentially, an excess of banks' reserve can't be carried for the next period. It is not allowed to any bank to carry their excess of reserves to the next maintenance period. Similarly, SBP does not remunerate deposits of a banking institution while calculating CRR.

The SBP, as the regulator increases the CRR ratio, this policy stance decreases the ability of a bank to advance the credit private or public sector of the economy. This is because of lending a scheduled bank is supposed to maintain its CRR against new liabilities. Thus, assuming all else equal, as there appears an increase in CRR results in a reduction of the money multiplier and money supply in the economy. As a result, interest rates tend to increase due to a reduction in credit supply by banks.

Table 2

Summary of Reserve Requirements

Summary of Reserve Requirements			
	Definition	Applicable liabilities	Requirement
Cash Reserve Requirement			
Domestic Currency Deposits	Commercial banks are required to keep a portion of their rupee deposits with SBP as cash	Demand and time liabilities of less than 1-year tenor	Daily and fortnightly average
Foreign Currency Deposits	Commercial banks are required to keep a portion of their foreign currency deposits with SBP as cash reserves (non-remunerated) and special cash reserves (remunerated).	All foreign currency deposits	Daily
Statutory Liquidity Requirement	Commercial banks are required to keep a portion of their liquid assets in the form of cash, gold or approved government securities	Demand and time liabilities of less than 1-year tenor	Daily
* Approved government securities include T-bills, PIBs, Ijara Sukuk, etc.			

Source: State Bank of Pakistan

3.3.2 Statutory liquidity requirement (SLR)

As per SBP requirements, SLR is also a specific proportion of the liabilities of scheduled banks, which are recommended to invest in approved securities of the economy and/or hold in the form of cash. It also comprises the balances with a central bank and/or with a representative of the central bank (NBP in case of Pakistan). Further, SLR includes the balances left in the vault of banks, and scheduled banks' investment in the capital of Micro-Finance Banks (MFBs). Furthermore, it also includes foreign banks' deposits with SBP. These components of SLR are defined as per section 13(3) of the Banking Companies Ordinance (BCO) 1962 of SBP. From Friday to next Thursday, SLR is also preserved based on the fortnightly calculation in line with that of CRR. Applicable. In the case of Friday holiday, TDLs are taken on the next working day to determine SLR.

As regulator when SBP increases the SLR ratio, it implies that banks are directed to maintain a larger share of their funds into liquid assets. These liquid assets should be approved/notified by the federal government for some specific objectives. A change in SLR will affect the composition of banks' assets.

Most frequently, SBP conducts monetary policy through other than these both CRR and SLR instruments. Table 2 reflects the history of change in CRR and SLR as an instrument for monetary policy.

3.4 Foreign Exchange (Forex) Swaps

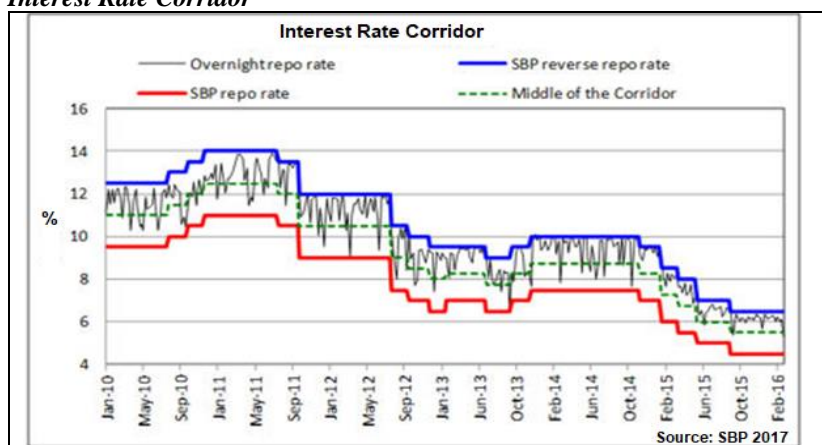
For the sake of efficient open market operations, SBP has a Forex swap as an instrument for liquidity management in the interbank money market. In process of Forex swap, SBP purchases or sells the foreign currency today at a specific value with a conditional deal of tomorrow on which another party agrees to reverse the deal at an agreed rate. In the forex market, SBP deals on both sides of a transaction; sell-buy and buy-sell swaps with the objective of contractionary or expansionary respectively, monetary policy.

4. Monetary Policy Implementation in Pakistan

In Pakistan, monetary policy is implemented by fixing a target and Open Market Operations (OMOs) for liquidity management in the money market. Below, we discuss the operational target and liquidity management and the transmission mechanism along with different channels.

4.1 Operational Target and Liquidity Management

Figure 1
Interest Rate Corridor



Monetary policy is implemented through the announcement of the Policy (target) Rate in Pakistan. In implementing the policy, liquidity is considered keenly daily to keep the interest rates consistent with the policy rate. As an operational target, SBP maintains the weekly weighted average of overnight repo rate near to the Policy Rate of the specified period through Open Market Operations (OMOs) for liquidity management in the money market. During operations, if there appears an upward pressure on the repo rate, it means the system is

facing the problem of the shortage of liquidity, SBP's OMO operation starts by injecting the PKR liquidity against the purchasing of government securities from the banking sector.

On the contrary in case of excess liquidity in the market, SBP sells the government securities with the promise to purchase them from banks on a future date. This arrangement is named OMO mop-up by SBP by purchasing or selling the government securities in shortage or excess of liquidity, respectively. Sometimes if there is required to affect the market liquidity, SBP also operates foreign exchange swaps in the interbank to bring the market into equilibrium. Similarly, SBP also uses the reserve requirement as a tool when liquidity is expected on extremes for a lengthy period.

In Figure 1, we can observe that the width of the corridor was set at 300 bps in August 2009 when it was introduced as the explicit interest-rate corridor in the money market. The width remained consistent at this level till February 2013, then narrowed down to 250 bps. Further, it reached to 200 bps in May 2015.

On practical grounds, the lower reliance of banks on central banks and a limited variation in overnight rate are potential elements to bring smooth transmission of monetary policy that signals to other market interest rates prevailing in the economy. Extreme instability in the overnight interest rate can affect the term structure of interest rates adversely because of the disconnection between short and long-term interest rates. Moreover, this disturbance of term structure disturbs the efficiency of financial market instruments because most of them are designed based upon a well-developed yield curve determined in the market.

4.2 Transmission Mechanism of Monetary Policy in Pakistan

Monetary policy transmission is the mechanism through which monetary policy transmits the decisions into changes in the real GDP, the rate of inflation, and other macroeconomic indicators. The report of SBP (2016-17) has mentioned that the monetary policy transmission in Pakistan is working through five prominent channels, the interest rate channel, the balance sheet channel, the exchange rate channel, the assets price channel and the expectations channel.

The interest rate channel of monetary policy works through influencing the retail interest rates; lending interest rates charged to business enterprises and deposit rates offered to households. Hicks

(1937) had kept the interest rate channel at the heart of the traditional Keynesian textbook IS-LM model. First, a change in the policy rate affects different rates of money market, like repo rate and KIBOR (Karachi Interbank Offered Rates), that further affects the long-term interest rate. Specifically, KIBOR is a benchmark rate that determines the borrowing cost for consumers and businesses affecting the decisions of the public to consume, save, or invest. Low-interest rates lead households to save less and consume more out of their income. Generally, because of low-interest rate firms do more investment and hire more workers, which affects income positively through increases in output. In contrast to this, households save more and consume less to get the benefits of high-interest rates. Similarly, investors' demand for funds decreases in case of high-interest rate, making overall economic activity slowdown. On the empirical grounds, Taylor (1995), Meltzer (1995), Arena, Reinhart, and Vázquez (2006), Mohanty and Turner (2008) and Tenreyro and Thwaites (2016) have documented that the interest rate channel has a substantial impact on consumption and investment spending through interest rate shocks.

According to the same report of SBP (2016-17), the balance sheet channel of monetary policy transmits the monetary policy actions to affect the credit portfolio of financial intermediaries. Bernanke and Gertler (1993) have described a broader credit channel, the balance sheet channel from the perspective of financial market imperfections that play an important role in monetary policy actions. Further, Bernanke, Gertler, and Gilchrist (1995) have extended the existing New Keynesian model to consider the balance sheet channel of monetary transmission. A contractionary monetary policy action reduces the capacity of the banking sector to supply the credit. As a result, a tight monetary policy affects adversely the aggregate demand and thus the prices of goods and services in the market through the balance sheet channel of monetary policy. Similarly, Janjua, Rashid, and Qurrat-UI-Ain (2014) also empirically found the presence of the centric view of monetary policy through the balance sheet channel in Pakistan using annual data regarding banks over the period 2006-2012. Further, the report of SBP (2016-17) has revealed the exchange rate channel of monetary policy because this channel links the domestic economy with international economies. An expansionary monetary policy depreciates local currencies and appreciates foreign currencies, which reflects in raising the prices of imported goods. The efficiency of the exchange rate channel is dependent on the exchange rate regime. Similarly, the asset price channel and the expectations channel about the future interest rates and inflation are also part of the report of SBP

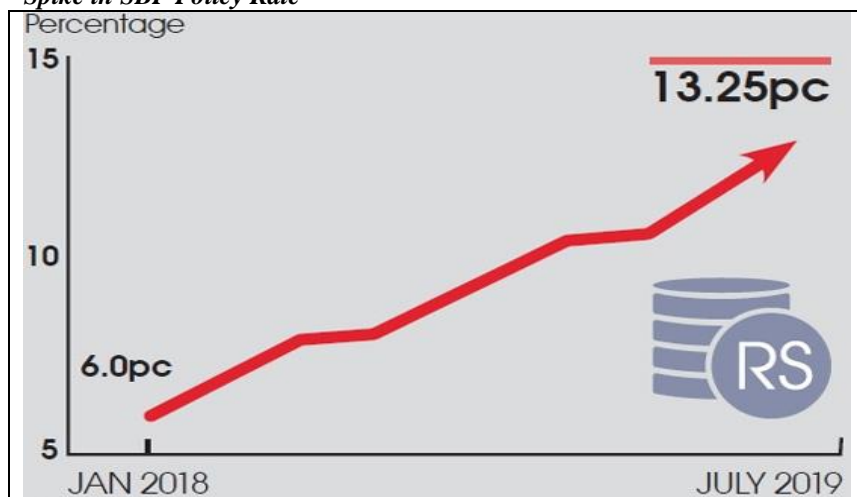
(2016-17). Shah and Rashid have investigated the credit supply channel from several perspectives of Pakistan. The banks' credit supply channel of monetary policy is found significant through the responses of all commercial banks to monetary policy tightening.

5. Monetary Policy Measures in Pakistan

There are different monetary policy measures; namely monetary policy rate, KIBOR, the lending interest rate, the deposit interest rate, and the interest rates spread to examine the impact of monetary policy actions on different segments of the economy. In Figure 2, we can observe that the SBP policy rate has more than doubled, the fastest pace of growth ever.

The lending rate is the amount of interest charged by banks on lending to business enterprises of the private sector. The lending rate is normally differentiated following terms and creditworthiness of borrowers. However, the terms and conditions differ from country to country. In figure 2, the lending rate is decreased to 7.13 percent in 2016 from 7.28 percent in 2015. On average, it has been 12.12 percent between 2005-2016 with the highest point of 14.33 percent in 2008 and the lowest point of 7.13 percent in 2016.

Figure 2
Spike in SBP Policy Rate



Source: State Bank of Pakistan.

The deposit rate is the amount of interest paid by commercial banks to depository accounts holders. Banks increase their inflows by offering incentives in terms of offering a good deposit interest rate to

accounts holding larger balances. On the liability side, deposits are the main source to fund the business activities of a financial institute. Therefore, these deposits can be managed for the long term by paying high deposit rates as compensation to fund providers. In Table 3, we can observe that the deposit rate has decreased to 3.74 percent in 2016 from 4.58 percent in 2015. On average, it has been 6.65 percent between 2005-2016 with the highest point of 8.94 percent in 2008 and the lowest point of 3.74 percent in 2016. The statistics of lending and deposit rate over 2005-2016 can be observed in Table 3.

Table 3
Monetary Policy Measures

Years	LENDING RATE	DEPOSIT RATE	IR SPREAD
2005	9.53	4.23	5.3
2006	11.16	5.58	5.58
2007	10.95	5.81	5.14
2008	14.33	8.94	5.39
2009	13.71	7.38	6.33
2010	14.2	7.41	6.79
2011	13.23	7.06	6.17
2012	11.07	6.01	5.06
2013	10.54	6.54	4
2014	10.28	5.97	4.31
2015	7.28	4.58	2.7
2016	7.13	3.74	3.39

Source: State Bank of Pakistan

Interest rate spread is the difference between the interest rate (the lending rate) received by banks on loans to business enterprises minus the interest rate (the deposit rate) paid by the commercial banks to depositors. The terms and conditions attached to these rates differ by country, however, limiting their comparability. Over the period 2005-2016, the lowest overall average spread was found 2.7 percent, whereas the highest spread was recorded at 6.79 percent. On average, it was 5.46 percent in 2010.

SBP has defined that the banking interest rate spread is the difference between the weighted average of banks' lending rate and the weighted average of banks' deposit rate (SBP Statistical Bulletins,

2013). The statistics of interest rate spread over 2005-2016 can be observed in Table 3. In Figure 3, we can see the trends of interest rates; lending and deposit rates as recorded by State Bank of Pakistan.

Figure 3
The Behaviour of Monetary Policy Measures in Pakistan

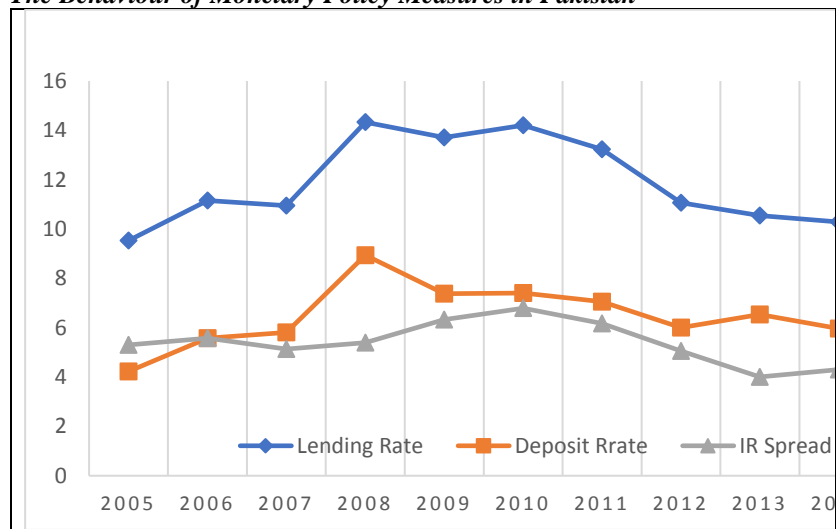


Table 4
Structure of Interest Rates in Pakistan

Date	WA rates (overall deposits and lending)			
	Lending		Deposit	
	Marginal	Stocks	Marginal	Stocks
Jun-04	5.05	6.49**	1.19**	1.21
Jun-05	8.21	8.41	3.38	1.85
Jun-06	9.93	10.40	4.72	2.89
Jun-07	10.32	11.33	5.33	3.98
Jun-08	12.75	11.96	7.03	5.18
Jun-09	14.32	14.02	7.58	6.50
Jun-10	13.22	13.39	6.80	5.79
Jun-11	14.25	13.78	7.22	5.92
Jun-12	13.13	12.96	6.46	5.82
Jun-13	10.56	11.36	5.11	5.01
Jun-14	10.37	11.10	4.93	4.75
Jun-15	8.24	9.63	4.63	3.89
Jun-16	7.15	8.44	3.59	3.14
Jun-17	7.07	7.86	3.43	2.84

** 1-Year

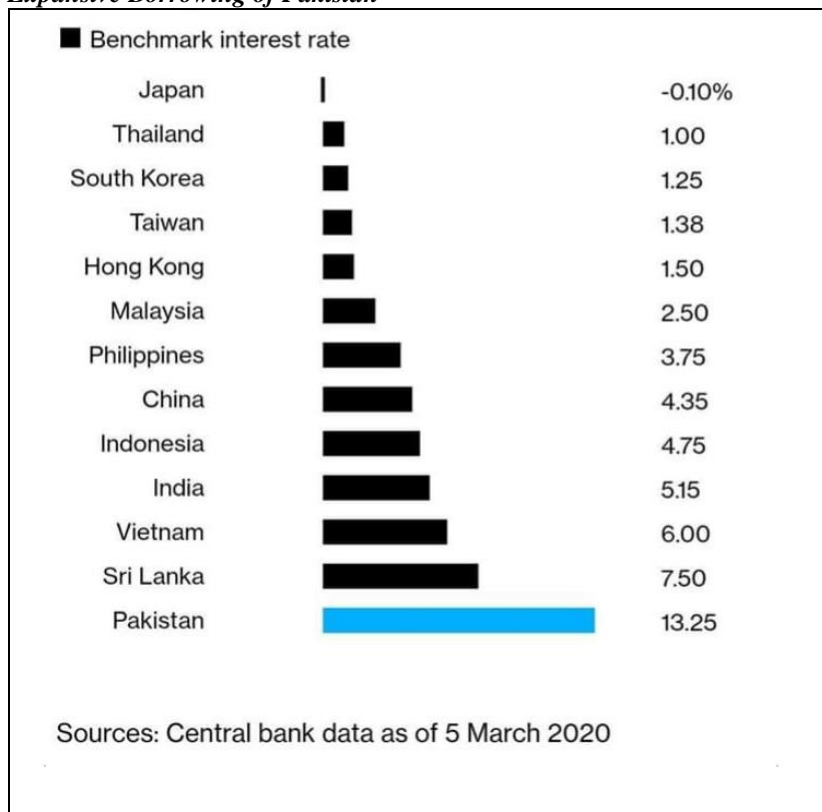
Source: State Bank of Pakistan

In Table 4, the structure of interest rates is shown from sources of State bank of Pakistan. It shows the marginal and stock rate of policy

variables for deposit and lending in Pakistan. We can observe the behavior of deposit and lending rates over the period 2004-2017.

Currently, Pakistan is offering a 13.25 % benchmark interest rate which is the highest rate across the region as shown in Table 5.

Table 5
Expansive Borrowing of Pakistan



6. Subsidiaries of SBP

SBP has two following subsidiaries to enhance its functions:

6.1 SBP-Banking Services Corporation (SBP-BSC)

SBP-BSC was initiated under the SBP-BSC Ordinance 2001. It helps SBP in controlling the currency system and credit management. It facilitates the inter-bank settlement system of the economy and contributes to selling and purchasing of savings instruments on behalf of the Central Directorate of National Savings. SBP-BSC manages the government's revenue and payments as a representative. It also

conducts operational work related to the management of public debt, export refinances, development finance, and foreign exchange operations. The Board of Directors of SBP-BSC, that is chaired by the Governor of SBP, includes all members of the Central Board of the central bank and the Managing Director of SBP-BSC. The Governor of SBP chairs the Board of Directors of SBP-BSC that consists of all members of the central board of SBP and the managing director of the SBP-BSC. The head office of the SBP-BSC is established in Karachi with 16 field offices over the country to manage the operations effectively.

6.2 National Institute of Banking and Finance (NIBAF)

The NIBAF is the training organ of the central bank, which provides basic training support to develop inductees and the staff members of SBP at various levels. It also launches international courses on commercial banking as per requirements of the economy in dealing with the Federal Government. Similarly, the training sessions to SBP-BSC and other financial institutions are also in the mandate of NIBAF. The NIBAF is incorporated under Companies Ordinance, 1984 with a separate Board of Directors. The offices of the NIBAF are in Islamabad and Karachi.

7. Conclusion

The monetary policy builds a link between policy instruments and macroeconomic indicators such as aggregate output, wages of the labor market, prices of goods and services, interest rates of financial markets, exchange rates, and employment level. We find practices of SBP in line with modern practices as a regulator of monetary policy in Pakistan. This study appears with a comprehensive review of the framework of monetary policy with modern monetary policy instruments. Similarly, the procedure of the implementation of monetary policy with alternate measures is also presented to understand the variation of policymakers from one to another with effective policy control. Then, the role of SBP-BSC and NIBAF is also highlighted by which they help SBP to achieve the objectives of policy effectively.

This study provides researchers, investors, and bankers an insight into procedures of monetary policy of SBP. Similarly, it also helps stakeholders of the corporate sector and SMEs to allocate their resources efficiently after knowing the policy mechanism of the central bank. In the future, all the departments of SBP and their connection to the financial market during the expansionary and contractionary

monetary policy can also be explored to facilitate the corporate sector and others.

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