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The Impact of Monetary Policy Instruments on Financial Performance of Commercial Banks in Pakistan: A Review of Monetarist Ideology with Particular Reference to Instruments Directly Under SBP Control

Rimsha Shahid[1], Sidra Ghulam Muhammad[2], Tayyaba Shafqat[3], Mahnoor Khan[4], Dr. Muhammad Navid Iqbal[5], Mohammed Safiullah[6], Naveed Babar[7]

Corresponding author: Dr. Muhammad Navid Iqbal
Email: *navid989@ntu.edu.pk*

Abstract:

The monetary policy is aimed at achieving financial prosperity and plays a key role in the economic development of a country. Changes in monetary policy tools affect various sectors of the economy including the financial sector. Profitability is a crucial pillar for success, if profitability is not handled efficiently, a bank will fail. This research examined how Pakistani banks' profitability was affected by instruments of monetary policy. Banks that are currently in operation in Pakistan were included in the research investigation. The panel data of bank profitability indicators return on assets (ROA) and return on equity (ROE) was obtained from the annual reports of the 22 banks for the period 2008-2021. Descriptive statistics and panel data regression along with the cross-

[1] *Lecturer & BBA Coordinator, SABAC-ARID INSTITUTE OF MANGEMENT SCIENCES, (Affiliated with Pir Mehr Ali Shah Arid Agriculture University Rawalpindi), Pakistan. rimshashahid363@gmail.com*

[2] *Institute of Business Management Sciences, University of Agriculture, Faisalabad, Pakistan. sidragm89@gmail.com*

[3] *MS Finance, Institute of Business Management Sciences, University of Agriculture Faisalabad, Pakistan. Tayyaba_shafqat@hotmail.com*

[4] *Institute of Business Management Sciences, Agriculture University, Faisalabad, Pakistan. mahnoormaha40@gmail.com*

[5] *Lecturer, Department of Business Administration, Faisalabad Business School, National Textile University, Faisalabad, Pakistan. ORCID 0000-0002-7168-2745 navid989@ntu.edu.pk (Corresponding Author)*

[6] *Institute of Business Management Sciences, Agriculture University, Faisalabad, Pakistan. safiullahasim78@gmail.com*

[7] *Deputy Manager HR, Quetta Institute of Medical Sciences Quetta Cantt, Pakistan. naveednomi77@gmail.com*

sectional dependence (CD) test, and Driscoll Kraay (DK) regression were employed to analyze collected data. The study found a statistically significant dependency in the panel data set indicating a long-run relationship among variables. Findings indicated the positive impact of the State Bank of Pakistan policy rate (PR) and the broad money growth rate (MG) on ROE and ROA. However, statutory liquidity ratio (SLR) negatively impacted ROE and ROA. This research used large number of banks as a novel component in Pakistan's context and filled a gap in the country's banking literature. This study could be helpful to regulators in formulating favorable policy rates that fulfill Pakistan's economic targets. Findings can be useful to policymakers, bank managers, academicians, and financial sector stakeholders in formulating appropriate policies and strategies. Commercial banks can anticipate their profitability considering changes in monetary policy.

Keywords: Monetarist Ideology, Driscoll Kraay (DK) Regression, Panel Data Analysis, Financial Prosperity, Policy rate (PR), Broad Money Growth Rate (MG), Statutory Liquidity Ratio (SLR), Commercial Banks.

1. Introduction

Monetary policy plays a key role in achieving goals a reasonable level of price stability and smooth functioning of the financial sector (Chakravarty, 2020). An efficient and effective monetary policy helps in determining the future directions of financial markets (Detmers and Nautz, 2012). Changes in monetary policy tools, which include discount rates, statutory liquidity requirements, and money supply, provide stimulus to different sectors of the economy (Mertens and Williams, 2019). The supply of money is linked to the availability of funds and the money flow. Through liquidity requirements, the central banks manage the money supply by requiring commercial banks to keep money in hand rather than lending it out (Altunbas et al., 2018). The purchasing and selling of capital assets by central banks influence the money supply in an economy (Bauer and Rudebusch, 2016).

The macroeconomic performance of any country heavily relies on the performance of the banking sector. The banking system is recognized as a crucial pillar of the economy and the banks plays an important role in the country's economic development. (Aydemir and Ovenc, 2016). Nowadays, the role of monetary policy has broadened and has included other tasks such as stability of foreign exchange and financial markets, promotion of fintech, smooth functioning of the business cycle, and maintaining a favorable balance of payment. The monetary policy tools influence the

profitability of banks by affecting the lending and liquidity requirements of commercial banks (Bikker and Vervliet, 2018; Madaschi and Nuevo, 2017; Borio et al., 2017).

Banks have to follow central banks policies which significantly influence their activities and operations. Liquidity constraints have a considerable impact on operational performance and efficiency (Patiño and Gutiérrez, 2019). In Pakistan the banks plays a key role in financial development(Patiño and Gutiérrez, 2019). The SBP is the major bank that regulates all the financial activities. Banks are integral part of services sector of Pakistani economy because its contribution to GDP is increasing progressively (Mishkin, 2011).

The commercial banks in Pakistan perform variety of functions such as deposits and advancement of loans (Ahmed et al., 2021). In Pakistan the research work on the effect of monetary policy on the banks' profitability is limited. Khan and Sattar (2014) has investigated the impact of the interest rate on banking performance in Pakistan. However, they did not study other instruments and their impacts. Thus, this aimed to determine the impact of monetary policy instruments on performance of banks in Pakistan.

2. Literature Review

Role in Economy

Monetary policy is a tool to control the economy. Governments adopt a monetary policy to regulate economic activity, specifically by altering the overall supply of money and interest rates. An observation on monetary policy and central banking argues that tools of monetary policy are a kind of benchmark measure. The ideal monetary policy identified as the key role
of a central bank. Monetary policy helps to combat financial crises (Cornand and Heinemann, 2014). The function of central banks is to sustain economic and financial stability in critical circumstances and to maintain inflation under control as well as steady. The central bank requires clear policy frameworks to fulfill its goals. (IMF, 2022).

Monetary Policy Tools

Liquidity ratio is a federal reserve instrument which is used for managing the number of central bank reserves. This research work investigates the relationship between bank liquidity creation, financial collapse, and monetary policy. It evaluated that transformation in liquidity generation (compare to trends) is directly associated with economic and financial downturns (Berger and

Bouwman, 2017). The numerous research findings indicated that demand of banks in accordance with monetary policy operation is influenced by liquidity regulation (Rezende et al., 2021).Low-interest rates make it so much easier for banks to lend to people and enterprises (Maddaloni and Peydro, 2011). The Findings suggest that supportive monetary policy encourages banks to undertake more risk when sanctioning additional loans (Jiménez et al., 2014).

The regulation and scrutiny of money supply in any economy are handled through monetary policy, as well as it provides routes through which estimation of new money is established. According to the quantity theory of money people choose to take cash which is based on the transactions they perform (Luyali et al., 2021). In short, Finance literature reveals the significance of money supply, because impact of Money supply on economic progress has been a topic of controversy for researchers for decades the primary aim of their research was to statistically explore the link between money supply and GDP (Alawin, 2022).

Impact of Monetary Policy Tools

The impact of liquid ratio (LR) on banks' profitability is linked with the variation of statutory liquidity ratio (SLR) imposed by central bank. Liquid criterion is an essential part of banks for term deposits. Altunbas et al. (2012) gave information which proved that low-interest rates for a longer duration enhanced the risk of banks. De Nicolo et al (2010) suggested that banks are more probable to engage in risk-taking if they anticipated the central bank to lower the interest rate. Williamson (2008) evaluated the impact of growth and fluctuation in supply of money over time and found ramifications on price level when unusual supply of money injected into markets due to variations in central bank policy.

The monetary policy affects several factors in different markets, and it also provides signals to the economy through numerous ways. Identification of spread, alteration speed, and intensities of these all factors are crucial in generating successful monetary policy. The existence of monetary policy channels makes it far easier for the central bank to choose effective policy instruments (Loayza and Schmidt-Hebbel, 2002).

Bank Profitability

According to the oxford dictionary, "Profitability competition is the action and situation of endeavoring to earn and win something by conquering and attaining supremacy over others". The non-structural index, revealed that a lower competition was connected with increased profitability.

Performance in the banking industry can be obtained in various ways. One possible way to assess the performance of banks is to look at their profitability (Yuanita, 2019). The goals of the policy are successfully enhanced because profitability of banks becomes much more prominent in the light of central bank policy. Some researchers claimed that advancements in internal structure and efficiency of management boost the performance of banks. While other argues that sector-specific indicators and banking aspects are crucial for the success of banks. The trend of literature in recent years had revealed that economic indicators influence the banks 'profitability (Osuagwu, 2014).

The capital strength of a bank has a significant impact on its profitability. A well-capitalized bank is considered to be less risky, so this astonishing edge will be reflected in massive profits. Banks are the major source of capital hence their stability is essential for the growth of financial system (Vong and Chan, 2009). Akalpler and Duhok (2018) examined the association between central bank policy and economic growth in the context of the Malaysian economy. This research work is linked with the idea that easing monetary policy will boosts economic activity (English et al., 2018). Monetary policy is a core component that defines banking profitability from a philosophical point of view (Campmas, 2020).Omer (2019) revealed information that the monetary policy had same effects on retail prices of both Islamic and traditional banks. Akomolafe et al. (2015) explored the impact of monetary policy on the performance of Nigerian commercial banks and resulted that central bank policy have positive influence on banks profitability.

Theoretical Framework

Here we use different performance indicators to compute the banks worthiness. The independent variables policy rate, money growth rate, liquidity rate to check the influence of these explanatory tools on profitability of banks in Pakistan. Some control variables such as inflation and economic growth also imployed in analysis for efficient results. In the current paper, the conceptual frame work is defined in figure 2.1. Basically, variation in one independent factor can influence the dependent variable. On the other hand, one may hypothesize that modification in monetary policy tools might manipulate the bank's profitability ratio.

According to the quantity theory of money supply , changes in the money supply have the potential to significantly modify a wide range of variables, including the interest rate, the magnitude of aggregate demand, and the degree of employment, productivity, and profitability. (Omankhanlen *et al.*, 2021).

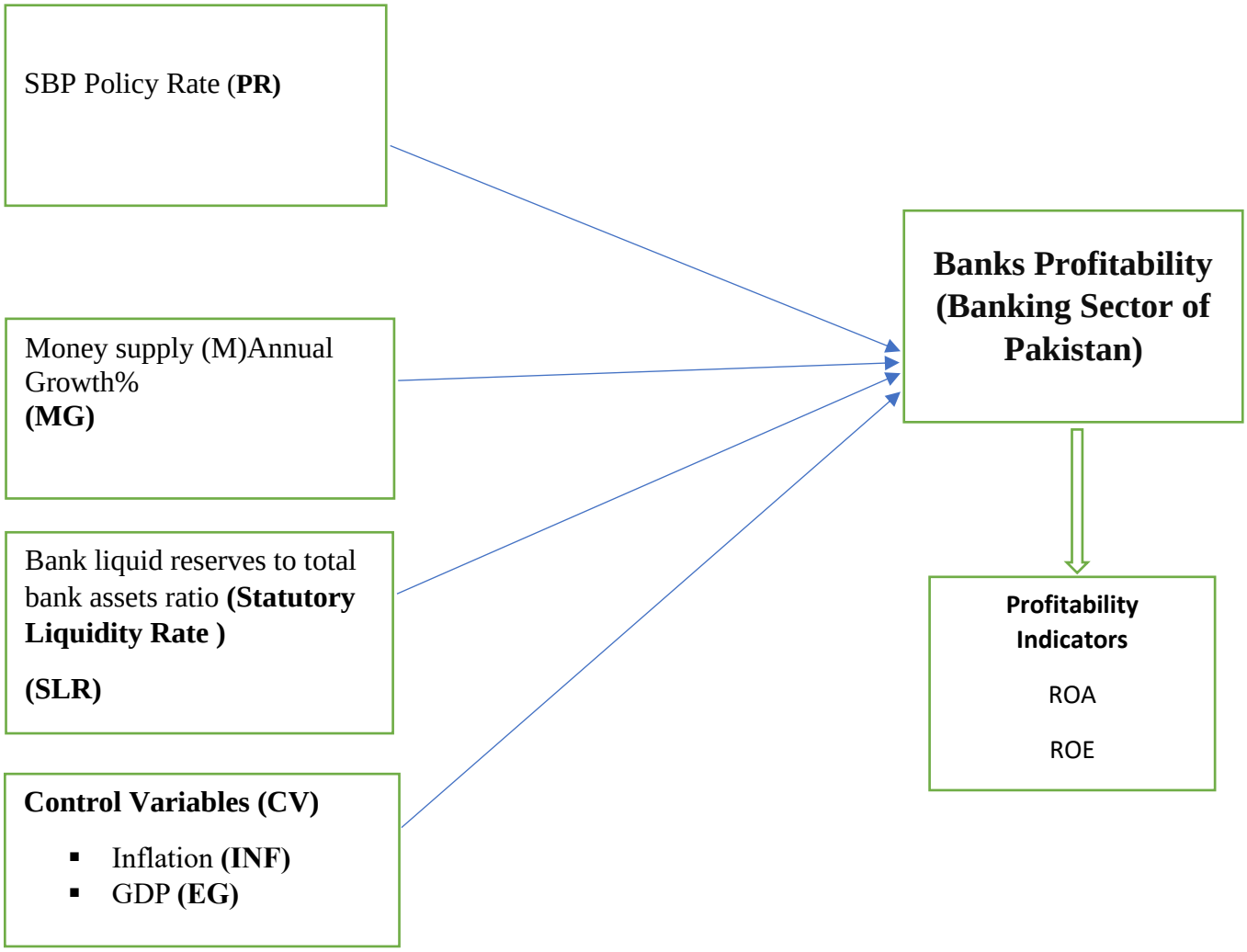

Figure 2.1: Theoretical / Conceptual Framework

3. Research Methodology

Sample of the study

The study is based on secondary data collected from listed commercial banks in Pakistan. The study based on 22 banks which included five Islamic, thirteen private commercial, three public sector commercial , and one specialized scheduled bank. Data were collected for the period from 2008-2021.

Data Sources and Description

Data were gathered from different sources such as the State Bank of Pakistan (SBP), The World Bank and annual reports of the selected banks. The bank-profitability indicators i.e. return on assets (ROA) and return on equity (ROE) were taken from the income statements and balance sheets of the banks. Data on monetary policy instruments such as policy rate (PR), money growth (MG), and statutory liquidity ratio (SLR) were congregated from the financial statistical reports of the SBP.

Research Design

Collected data were analyzed using descriptive statistics, correlation matrix, Cross-sectional Dependency (CD) test, and Driscoll Kraay test. This study used panel data of 22 selected banks and monetary policy tools. The panels were generated for ROA and ROE on MS Excel and later analysed analyzed with the help of Stata software. Descriptive statistics such as mean, standard deviation and correlation matrix helped to identify the relationships among the study variables. The CD test and co integration test measured dependency and integration among the data set. Due to high dependency, to examine the effect of monetary policy on bank profitability, second generation Dk regression was employed.

Model specification

The model specification for the study is is given as below

$$\mathbf{ROA_{it}= \beta_0+ \beta_1 PR+ \beta_2 SLR + \beta_3 MG + \beta_4 INF + \beta_5 EG + \epsilon_{it}}$$

$$\mathbf{ROE_{it}= \beta_0+ \beta_1 PR+ \beta_2 SLR + \beta_3 MG + \beta_4 INF + \beta_5 EG + \epsilon_{it}}$$

In above given equation no of banks indicated by i and time represented by t and ROA, ROE, are proxies of BP (banks profitability) and β_0 is constant term.

ROA = Return on Assets, ROE = Return on Equity, PR = Policy Rate, SLR = Statutory Liquidity Rate, MG = Broad Money Growth Rate (Money Supply), INF = Inflation Rate, EG

= Economic Growth Rate (GDP Growth), ϵ_{it} = Error Term, β_0 = Intercept, $\beta_1\beta_2\beta_3\beta_4\beta_5$ = Slope Coefficients

The above-mentioned equations expressed the relationship among predictor variables, control variables and predicted variables. Some other researchers used these indicators for performance (Akomolafe *et al.*, 2015; Borio *et al.*, 2017; Akalpler and Duhok, 2018; Hoque *et al.*, 2020).

4. Results and Discussion

Descriptive Statistics

Descriptive statistics actually showing mean, median, mode, standard deviation, minimum and maximum values of the study, variables are presented in Table 1. It describes what the data is and what it actually indicates. It enables data to display quantitative data in a logical and comprehensible manner, providing the simplest and most straightforward understanding of the data set. (Mishra et al., 2019).

Table No 1 Descriptive Statistics

Variable	Mean	Std.Dev.	Min	Max
ROE	6.32	29.90	-317.87	58.96
ROA	0.47	2.22	-18.51	6.17
PR	9.91	2.79	6.25	14
MG	13.65	2.32	9.56	17.47
SLR	11.99	2.18	8.63	15.46
INF	9.18	4.56	2.52	20.28
EG	3.20	1.95	-0.93	5.83

The mean value of ROE was 6.32 with standard deviation of ROE 29.90 represents that it has higher degree of riskiness. The minimum and maximum values were -317.87 and 58.96. The mean value of ROA was 0.47 with SD value 2.22 and min max values were -18.51 and 6.17 respectively. A low standard deviation implies that the data points are clustered around the data set's mean,

whereas a high standard deviation denotes greater spread of data. The total number of observations is 308. All other independent variable's PR, MG, SLR had standard deviation of 2.79, 2.32, 2.18 respectively. The mean values of PR, MG, SLR were 9.91, 13.65, 11.99 respectively. The minimum and maximum values of PR, MG, SLR were 6.25-14, 9.56 - 17.47 and 8.63-15.46 respectively. On the other hand, the control variable Economic Growth had an average value 3.20 with standard deviation of 1.95 and min, max values were -0.93 and 5.83. Inflation had mean value 9.18 with SD value 4.56 and minimum and maximum values were 2.52 and 20.28 respectively. After ROE Inflation also presents high SD value 4.56. Basically, higher SD interpret in the form of higher level of riskiness. In this statistical table we can clearly find that ROE and INF have largest variability.

Correlation Matrix

The correlation between all possible pairs of values in a table is presented in a correlation tabular matrix. When both variables exhibit a tendency to rise or fall in the same direction, the correlation line slopes upward and the coefficient is positive.

Table No 2 Pairwise Correlations Matrix

Variables	ROE	ROA	PR	MG	SLR	INF	EG
ROE	1.000						
ROA	0.662***	1.000					
PR	-0.015	-0.080	1.000				
MG	0.133**	0.085	-0.162***	1.000			
SLR	0.015	0.077	-0.384***	0.310***	1.000		
INF	0.005	-0.108*	0.769***	0.135**	-0.398***	1.000	
EG	-0.059	0.031	-0.458***	-0.397***	-0.200***	-0.655***	1.000

Significance levels 10%, 5%, 1% represented with *, **, *** respectively.

A negative correlation coefficient and a downward-sloping correlation line indicate that one variable tends to climb while the other tends to fall. (Liu et al., 2012). It displays a perfect positive correlation between both dependent variables ROE and ROA. It has a significant positive association because its value is 0.662, but PR has very little negative association with ROE and ROA because it has p=-0.015 and p=-0.080 respectively.

The ROE is positively correlated with money growth (MG) at 5% level of significance with p=0.133. The ROA and INF are negatively associated with p=-0.108 at 10% level of significance. The correlation coefficients along the diagonal of the table are all equal to 1 because each component is perfectly correlated with itself. A correlation matrix is used as an input for further complicated analysis. The independent variable PR has a negative link with MG, SLR, and EG with p=-0.162, -0.384, -0.458 respectively and Policy rate (PR) has a significant and perfect positive correlation with INF P=0.769 at 1% significance level.

MG has positive association with SLR and a negative correlation with EG p=0.310, -0.397 respectively at 1% level. MG has a weak but positive association with INF p=0.135 at 5% significance level. The independent variable SLR is negatively associated with the control variables INF P=-0.398 and EG p=-0.200. The significant strong negative association between Inf and EG with p= -0.655. The table of correlation describes that all the variables have less than 0.7 correlation except PR and INF it has p=0.769 indicating high correlation. This result showed the multicollinearity and strong significant positive relationship.

(CD) Cross-Sectional Dependence Test

The CD test is recommended in the research work of (Liu et al., 2018) as a basic and preliminary test of cross-sectional dependence before proceeding to other analysis. According to the results of Cross-section Dependence testing (CD), Banks are cross-sectionally dependent. As a result, traditional panel unit root tests are ineffective for determining the sequence of integration (Hafeez et al., 2019). A cross-sectional dependence test was used to determine whether first-generation or second-generation panel unit root testing should be used. The Pesaran Cross-sectional Dependence were used to achieve this goal (CD).

Equation of CD

$$CD = \sqrt{\frac{2T}{N(N-1)}} \left(\sum_{i=1}^{N-1} \sum_{j=i+1}^{N} \hat{P}_{ij} \right) \backsim N(0,1)$$

Table No 3 Cross-Sectional Dependence Test

Variables	ROE	ROA	PR	MG	SLR	INF	EG
CD-Stats	6.747	5.561	52.249	52.249	52.249	52.249	52.249
Prob. P value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

When T is constant and N is large, then CD method will apply. If N is large in comparison to T and the model is static, then any of the xtcsd tests may be appropriate (2nd generation tests). Pesaran test for cross-sectional dependence known as Pesaran's statistic it is based on a normal distribution and can handle both balanced and unbalanced panels (Pesaran et al., 2004). The P-values zero and near to 0 indicated that data were correlated across panel groups under the null hypothesis of cross-section independence. **According to the results of CD tests Banks and monetary policy are cross-sectionally interconnected.**

Driscoll-Kraay Standard Error Method

In order to evaluate HAC (heteroskedasticity and autocorrelation consistent), the DK approach primarily uses average values from the result of independent variables and residuals. estimators with standard errors (Jalil, 2014; Özokcu and Özdemir, 2017). Apart from that, the DK technique has the following characteristics:

(1) In the existence of spatial dependency and heteroskedasticity, DK produces reliable parameter estimations. (Rafindadi and Ozturk, 2017; Sarkodie and Strezov, 2019).

(2) It is equally successful in short and long timeframes.

In fact, the DK technique is an adequate estimation approach for approximation of robust estimators where there is periodic and cross-sectional dependence (Jalil, 2014; Sarkodie and Strezov, 2019). Pei et al., (2018) explained that the DK approach can be used even when there is spatiotemporal dependency and heteroskedasticity. As a result, the current work employed the DK technique with standard errors for pooled OLS (ordinary least square) in the context of the linear functional form denoted by equation given below.

$$BP_{it} = \delta_0 + X^*_{it}\,\beta + \in_{it}$$

Above given equation shows that i is 1,2……22 (Banks) t is a time span of dataset, BP is banks profitability dependent indicator. X^*_{it} means set of control variable and β indicates independent variables while $\in_{it}$ is used to express error term in the model.

DK Regression (OLS) with ROE

The inefficiencies were removed with the use of Driscoll-Kraay standard errors regression method. For heteroskedasticity, autocorrelation, and cross-sectional dependence, Driscoll-Kraay standard errors regression is a sophisticated and reliable technique. (Pazienza, 2015; Khasawneh and Dasouqi, 2017; Baloch et al., 2019).

Table No 4 Driscoll kraay pooled OLS regression (ROE)

Dependent Variable: ROE	**Coef.**	**Std. Err.**	**t**	**P>|t|**	**[95% Conf. Interval]**
PR	1.368485	.5043538	2.71	0.013	.3164218 2.420549
MG	1.972826	1.174139	1.68	0.108	-.4763846 4.422036
SLR	-1.23451	1.292886	-0.95	0.351	-3.931423 1.462402
INF	-2.366132	.9543452	-2.48	0.022	-4.356862 -.3754033

EG	-1.903096	.9083543	-2.10	0.049	-3.79789 -.008302
Constant	9.492021	5.728	1.66	0.113	-2.456377 21.44042
RMSE			27.7347		
F-Stats			6.55		
Probability Value (P-value)			0.0009		

At 5% significance level

When a cross-sectional dependency is present in the panel data set, Driscoll Kraay's approach eliminates the flaws. The p-value 0.0009<0.05 indicates that results were highly significant because null hypotheses had been rejected. The overall significance F-test provides adequate evidence that the data fits the regression model. In order to have a concrete conclusion about fitness of model when p value was evaluated with the significant value p<0.05, the results confirmed that p value is less than 5% significance level and p=0.0009 showed adequacy of results. The H0 rejected if the p-value is less than 0.05 as rejected in this model as 0.0009 is less than 0.05. The beta coefficient measures how much the outcome variable change when the predictor variable varies by one unit. T value used to see whether the relationship between the response variable and the predictor variables is linear.

It is apparent from the coefficient value that 1% change in policy rate will bring a positive movement of 1.36% in return on equity. This model denoted that PR and ROE were significantly interrelated. Same results demonstrated by (Berger and Bouwman, 2017; Bubeck et al., 2020; Farooq et al., 2021; Nikhil and Deene, 2021). It was evident from the coefficient value that 1% fluctuation in money supply, growth of monetary policy will positively influence returns on equity by 1.97%. The highly significant and positive relation found between ROE and MG. Study findings were consistent with the results of (Farooq et al., 2021; Nikhil and Deene, 2021; Omankhanlen et al., 2021). The coefficient suggested that ROE would decline by -1.23 percent if the statutory liquidity rate increase by 1%. The current results were matched with the research findings of (Hoque et al., 2020; Rezende et al., 2021; Dang and Nguyen, 2022).

DK Regression (OLS) with ROA

At 5% significance level, 1% increase in policy rate (PR) will bring 0.08% increase in ROA (positive relation), while due to 1% increase in MG, ROA will increase 0.10%, return on assets

was positively impacted by the money growth rate and policy rate. The control variables were also used to determine the adequate impact of a monetary instrument because economic growth and inflation had somehow effect on profitability. The outcomes demonstrated that 1% increase in SLR will cause a decline of -0.007% in ROA. The inverse relation was existed between ROA and SLR. The reason of this negative relationship was mainly concerned with the low availability of credit. High liquidity rate causes lower level of loan and advance available for customers that's why profitability declines to some extent.

As per the financial theory of expectations a negative relationship exists between profitability and liquidity. If banks fail to invest its funds in the financing and investing activities there will be surplus liquidity with the banks hence the risk and consequently profitability of bank will suffer. On the other hand, if the banks made excessive investment than there may be scarcity of liquid funds so bank has to borrow from financial market at higher interest rates therefore again profitability will suffer.

Table No 5 Driscoll kraay pooled OLS regression for ROA

Dependent Variable: ROA	**Coef.**	**Std. Err.**	**t**	**P>|t|**	**[95% Conf. Interval]**
PR	.083009	.0375122	2.21	0.039	.0047599 .1612581
MG	.109052	.0583117	1.87	0.076	-.0125841 .230688
SLR	-.0078663	.0555895	-0.14	0.889	-.123824 .1080914
INF	-.1185193	.036297	-3.27	0.004	-.1942335 -.0428051
EG	-.050417	.045147	-1.12	0.277	-.144592 .0437581
Constant	-.2711562	.7229368	-0.38	0.712	-1.779176 1.236864
RMSE			1.4375		
F-Stats			14.54		
Probability Value (P-value)			0.0000		

At 5% significance level

The p-value of 0.0000 demonstrated that the results were highly significant at level of 5%. The findings are similar to the results of (Hoque *et al.*, 2020; Nikhil and Deene, 2021), monetary policy had significant effect on banks profitability, liquidity had inverse impact on profitability.

5. Summary and Conclusion

Conclusion

This paper's investigation revealed a long-term correlation between Pakistani bank profitability and monetary policy. It was clarified that profitability can be influenced by different monetary policy indicators. Data analysis was carried out with descriptive statistics, correlation analysis, CD test, and Driscoll kraay OLS regression. On the basis of the results of the study, descriptive statistics showed the variation, spread and normality of data like ROE and INF had largest variability. The outcomes of correlation matrix revealed that policy rate and inflation showed multicollinearity at p=0.769, return on equity was positively linked with ROA, MG and return on assets was positively correlated with money growth rate MG, but negatively interlinked with inflation (INF). The cross-Sectional dependence test, specified that the Performance of Banks and monetary policy tools were cross-sectionally interrelated and dependent on each other. A co-integration relationship had been found in the panel data set at a statistically significant level. According to DK (OLS) model, the coefficient value explicitly stated that Policy rate, money growth rate was significantly interrelated with ROE and had positive impact, while SLR and ROE had an adverse impact on each other. Return on assets was positively impacted by the money growth rate and policy rate, at 5% significance level, but there was a negative impact of SLR on ROA. Both profitability indicators showed same impact caused by monetary policy tools because PR and MG positively influenced profitability (ROA and ROE) but SLR had negative impact on profitability (ROA and ROE). This adverse outcome was primarily caused by the insufficient sources of credit due to high SLR. In short, the monetary policy tools had a significant impact on the profitability of banking sector in Pakistan. The State Bank of Pakistan should be aware of the impact that modifications in monetary policy will have on banks because of the possible knock-on impact this might have on the economy.

Recommendations

- Current Research study suggested that Pakistani commercial banks should design their profitability and credit risk plans by considering monetary policy tools, particularly policy rate and liquidity rate.
- The central bank of the country must consider the impact of modification in monetary policy to attain financial stability for the economy.
- Banks must take deliberate action in response to the unanticipated variations in interest rate and statutory liquidity ratio.
- In Pakistan, commercial banks are escalating borrowing costs while decreasing depositor payouts. Bank management should prioritize profitability for the sake of the economy by charging lower interest rates and offering an attractive return to depositors.
- State bank should do all possible efforts to reduce the policy rate. Therefore, a minimal interest rate should be encouraged to achieve efficient profitability objectives.
- Policymakers need to adopt effective monetary policy according to the risk appetite and considering SLR as an influencer tool.
- SBP should be vigilant about how their actions may affect bank profitability, and other factors including inflation and economic stability.
- This research enables policymakers to make better decisions regarding adjustments to monetary policy instruments.
- To ensure that they are successful in increasing and boosting the magnitude of economic activity necessary in the banking sector, the monetary policy committee ought to oversee the monetary instruments.
- Lastly, but just as importantly, government interference in the financial services sector is detrimental to its expansion and health and must be avoided.

Suggestions for Future Research

This research will provide fruitful suggestions regarding the dynamic factors of policy shocks on bank profitability and provide guidelines to the banks, government, monetarist, and concerned

stakeholders. The research still had a wide hole to be filled. Depending on the needs of the future research, the study's duration may also be prolonged. In order to determine the more effective influence of monetary policy rates on banks' profitability, further investigations might look at additional policy rates, such as the repo rate and marginal standing facility.

Policy Implications

Implications for Government

The government may incorporate those policies and regulations that facilitate and support the country's financial activities based on the empirical findings revealed in this research.

Implications for Bank Managers

With the help of this investigation, Bank managers can accurately predict changes to monetary policy and inflationary ups and downs because these factors are crucial indicators for efficient financial performance.

Implications for Researchers and Academicians

This study serves as a roadmap for future investigations about how institutions profitability was impacted by monetary policy tools.

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