

Nexus Between Monetary Policy & Liquidity Creation; Study From The Perspective Of Pakistan

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Abstract

The study investigates whether Pakistan's conventional banks create liquidity in response to monetary policy. The secondary data is gathered from the Thomson Reuter financial data streams. The annual time series data is collected from 2000 to 2021. Conventional banks create liquidity by using liquid liabilities to finance illiquid assets. Ali & Ahmad (2022) estimated the quantity of liquidity created by conventional banks in Pakistan over the past 21 years using the Catfat model developed by Berger and Bouwman (2009). The current study used the estimated amount to examine the impact of monetary policy on liquidity creation by using the simple linear regression econometric model. The outcomes of the study indicate that monetary policy has a significant positive impact on liquidity creation in Pakistan. By regulating the monetary policy rate, the State Bank of Pakistan manages the amount of liquidity that conventional banks create. The decisions made by the State Bank of Pakistan are crucial for the economic development of a country. The future implication of the study is that several bank-specific and industry-specific factors affect liquidity creation, so there is a need to explore the same in different regions of the world.

Keywords: Conventional Banks, Liquidity Creation, Monetary Policy Rate

JEL Code: C22, G21, O10

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1. Introduction:

The Quantitative Asset Transformation Function asserts that conventional banks play a significant role in creating liquidity, which fosters a nation's economic expansion. Banks use both on- and off-balance sheet items to create liquidity. Conventional banks create liquidity on balance sheets by financing illiquid assets with liquid liabilities (Diamond & Dybvig, 1983). On the contrary, conventional banks create liquidity off balance sheets through commitments (Kashyap et al., 2002). Liquidity creation by conventional banks significantly impacts a nation's economy's expansion, stability, and prosperity (Berger & Sedunov, 2017; Fidrmuc et al., 2015).

There needs to be more literature available on the liquidity creation function of the bank. However, Berger and Bouwman's (2009) thorough methodology for quantifying liquidity creation piques the researcher's interest in the context. Berger and Bouwman (2017) examine how liquidity creation is affected by the monetary policy in the US. According to Bernanke and Blinder (1992), monetary policy changes can affect conventional banks' access to loanable funds, affecting loan availability. The bank liquidity creation channel makes a more comprehensive prediction about how monetary policy affects bank operations. The monetary expansion aims to improve the creation of liquidity on the balance sheet by raising loans and deposits. Moreover, lower interest rates could raise financial institutions' profitability, which they might use to lend more money in response (Kane, 1989). Conventional banks could make more significant binders to their customers off the balance sheet because they have loanable funds and lower expenses (Kashyap et al., 2002).

Researchers and decision-makers are curious about how the conventional bank advances channel functions under diverse monetary conditions. Contrary to the extensive literature on the conventional bank advances channel, more research is needed to understand the nexus between liquidity creation & monetary policy. Berger and Bouwman (2017) proposed the conventional bank liquidity creation channel for a pool of commercial, credit card, and western union banks in the US. Furthermore, only some empirical studies investigate how monetary policy influences conventional bank liquidity creation. However, there are also circumstances in which monetary policy in the sense of creating liquidity is allowed, which eventually results in ambiguous findings (Chatterjee, 2015). Additionally, it is crucial to remember that creating liquidity involves actions other than lending (Davydov et al., 2018). Therefore, empirical data is required to validate and broaden the bank liquidity creation route.

The current study examines the nexus between liquidity creation and monetary policy in Pakistan. Since bank incentives are necessary for the proper operation of the bank advances channel, monetary policy may impact the amount of liquidity generated by conventional banks. Every time the State Banks of Pakistan reduce the monetary policy rate by a basis point, the advances for the borrowers become more affordable. People and businesses attempt to borrow more due to the lower cost. On the other hand, loans for individuals and companies become more expensive when the State Bank of Pakistan fluctuates the basis point of policy rates. Our research is the first to examine how monetary policy affects liquidity creation in a developing country.

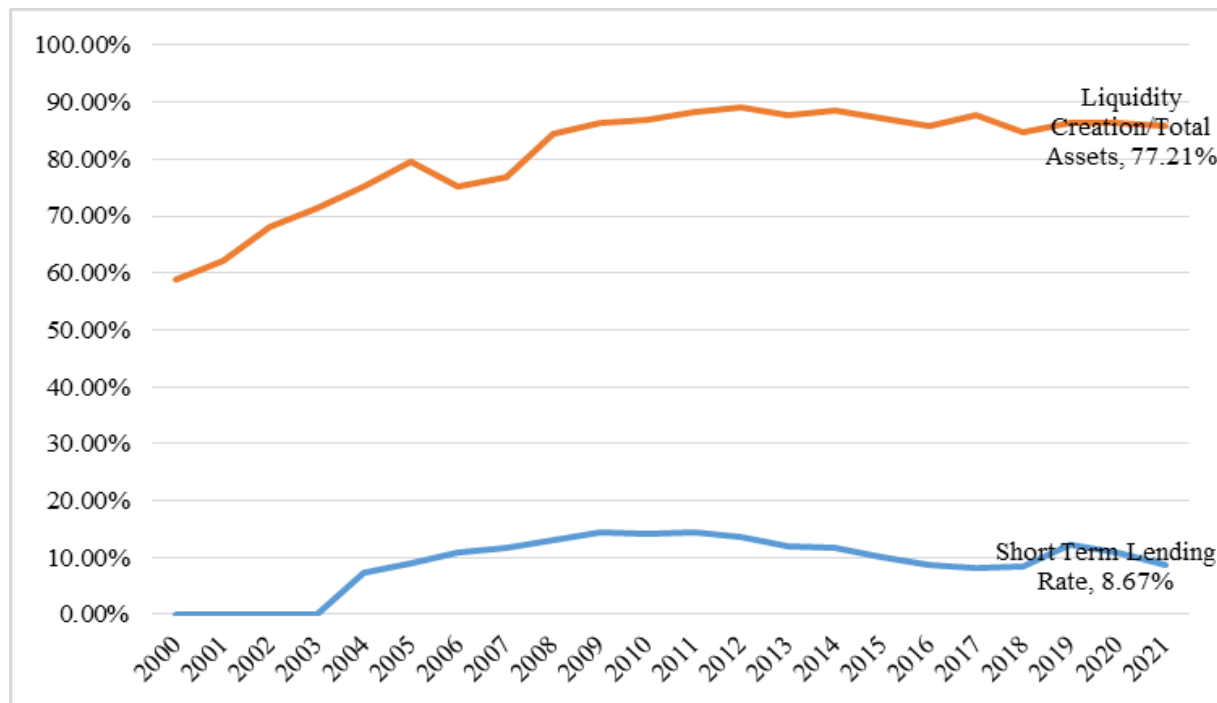


Figure 1: Trend of Short-Term Rate and Liquidity Creation / Total Assets

Liquidity creation is an essential function of conventional banks. Hypothetically, they create liquidity off-balance sheets by issuing credit commitments & on-balance sheets by financing illiquid assets with liquid liabilities. The creation of bank liquidity significantly accelerates a country's economic growth (Ali et al., 2022). Liquidity Creation significantly influences the economy's prosperity, stability, and expansion. Figure 1 shows historical data on short-term loan rates beginning in 2004 at around 8%. However, the liquidity creation/total assets ratio's trend over the previous 21 years shows that the ratio has increased. The loan interest rate increased until 2009, when it stood at 14.5%. Additionally, liquidity creation was about to begin on the verge of increasing and reaching its peak in 2017 at 79.4% (Ali & Ahmad, 2022).

The challenge is intriguing, particularly in a developing country like Pakistan, where financial institutions are essential and where the diffusion of monetary policy through this channel is significant and vital. In contrast to their advanced counterparts, emerging economies typically have different market structures and monetary policy frameworks. Pakistan is likely a fruitful laboratory for conducting experiments due to the unique and significant banking sector reforms implemented over the last ten years, which have considerably changed conventional banks' size, capital structure, and financial performance. In light of this context, our research broadens and deepens our understanding of liquidity creation and the bank advancing channel from a monetary regime perspective (Distinguin et al., 2013).

The article is a banking literature review of how macroeconomic indicators influence liquidity creation. Prior research has focused on the theoretical and empirical relationship between bank

capital and liquidity creation (Berger & Bouwman, 2009). Toh (2019) asserts that smaller banks produce more liquidity relative to bank size because of their competitive advantages in lending technology. When it comes to financial performance, less profitable banks are urged to increase profitability by intensifying higher-yielding credit sectors. Conventional banks with higher risk would restrict liquidity creation to protect their portfolios (Daz & Huang, 2017). According to Davydov et al., (2018), liquidity is pro-cyclical, and banks produce more when the economy is booming.

Several studies on the diversity of the bank lending channel also served as inspiration for our research. Changes in monetary policy might be more responsive to the lending activity of conventional banks with frailer balance sheets because it may be more difficult and expensive for these banks to obtain external capital (Kishan & Opiela, 2006). The lending channel could be strengthened by incorporating more small, risky, liquid, and undercapitalized institutions (Kashyap & Stein, 2000). The prominent question researcher wants to answer is whether or not the bank's channel for generating liquidity is aided by poor balance sheets (Altunbas et al., 2010).

The bank performs two crucial tasks: risk transformation and liquidity creation. A large number of studies have been conducted regarding the role conventional banks play in transforming risks; however, banks' role in creating liquidity still needs to be explored in Pakistan. Analyzing the bank's ability to increase market liquidity is crucial. The literature informs us that monetary policy is one factor that influences the market's ability to create liquidity. The literature on how macroeconomic indicators affect liquidity creation in developing nations is scarce. The current study aims to close the literature's theoretical, practical, and geographic gap. According to Ali (2022), the creation of liquidity has a favorable, significant impact on a nation's economic development.

The idea of empirically measuring the creation of liquidity is a recent one. The influence of macroeconomic indicators on liquidity creation for the Pakistani conventional banking sector has yet to examine in the literature empirically. Concerns were raised about the nation's banking industry's capacity to provide liquidity due to the need for appropriate action. As a result, the following query must have a sufficient response: What effect does the monetary policy have on liquidity creation? Does Pakistan's conventional banking sector create more or less liquidity due to changing the basis point of monetary policy?

The above-mentioned research question inspired the researcher to develop the research goal. The study's primary aim is to examine the nexus between liquidity creation and monetary policy. Another goal is to examine the impact of fluctuation in the basis point of the policy rate on the volume of liquidity creation.

The current study's research area is only as far as Pakistan. Using the Berger & Bouwman (2007) Model for measuring liquidity creation, Sabahat (2017) estimated the amount of liquidity created by banks in Pakistan. The researcher was inspired to carry out the study because more literature is needed. Alternatively, research has yet to be done in Pakistan regarding the effect of macroeconomic indicators on liquidity creation. The current study fills the research gap by examining the influence of monetary policy on liquidity creation in Pakistan.

The main goal of this study is to examine the nexus between liquidity creation & monetary policy in Pakistan. These metrics were created, as in Berger and Bouwman (2009), by merging various elements relevant to on and off-balance sheet banking industry activity. This study uses annual bank balance sheet data from January 2000 to December 2021. Once the liquidity creation's actual amount is calculated, the study examines the impact of monetary policy on liquidity creation.

This study covers the following sections. Section 1 discussed the problem statement and research question that led to this study's research objective, scope, and significance. In section 2, researchers discuss the literature in the context of liquidity creation & monetary policy. Whereas in section 3, researchers discuss the research methodology. Moreover, section 4 reports the study's findings, followed by a discussion. At the end of the study, the researcher wraps up the study and gives a conclusion and recommendations.

2. Literature Review:

This study is relevant to two emerging fields in banking literature. The first examines the process of creating bank liquidity. In contrast, the second examines the influence of conventional bank market power & funding structures on the advancing channel that disseminates a monetary policy. Concerning the first literature stream, academics have focused mainly on liquidity creation. Although the idea of liquidity generation in banks has been theorized about for a while (Diamond & Dybvig, 1983), empirical research on this topic has only recently begun to gain traction after Berger and Bouwman (2009) created novel metrics to measure it.

The authors' choice was determined by the simplicity, expense, and speed of receiving liquid funds from banks. Banks can quickly, cheaply, and easily sell their commitments to satisfy their liquidity needs. Can produce the most significant amount of liquidity when financing liquid assets with the most incredible amount of liquidity, such as government securities). The drivers of bank liquidity creation have been the subject of a flurry of empirical studies using the unique metrics offered by (Berger & Bouwman, 2009).

As a result, numerous studies demonstrate a strong correlation between liquidity yield and bank-level factors, including frequently discussed components like bank capital (Berger & Bouwman, 2009). Some studies concentrate on how bank competition affects the production of liquidity. Horvath et al., (2016) show how competition among banks negatively affects liquidity through research on a sample of Czech banks.

Toh et al., (2020) and Jiang et al., (2019) support the assertion that such an effect will vanish for Malaysia's diversified banks and US banks. Additionally, it has been found that bank-specific, industry-specific, and economic factors influence the creation of bank liquidity. Banks frequently produce additional liquidity, particularly when the economy is expanding or the increase in the basis of the stock market exhibits strong liquidity (Davydov et al., 2018). Another body of literature focuses on the availability and usefulness of the bank advancing channel. Its fundamental goal is to determine how this crucial banking channel is utilized to spread monetary policy among conventional banks with various characteristics at different bank levels. The percentage change in client loans demonstrates how different aspects of banks' financial health impact how effectively the monetary policy is transmitted through bank lending. Liquidity, bank risk, bank size, and capital are standard measures of this financial strength (Kaship & Stein, 2000; Rashid et al., 2020).

According to previous authors, smaller, less liquid, undercapitalized, and riskier conventional banks are generally more susceptible to financial tremors because they have less access to outside funding.

Market power has drawn the most attention because it has changed significantly due to banking integration and financial liberalization and has the potential to affect how monetary policy transitions are handled. Banks with more market power typically reduce their loan supply during more minor monetary contractions than banks with less power, and this is due to two factors. First, it is possible to justify banks' use of market dominance to control prices. Market leaders may frequently need to modify their funds and loans to reflect price changes. These banks are consequently more circumspect and want to maintain their position by quickly maintaining the exact yield (Baarsm & Vooren, 2018). Second, access to alternative sources of funding may be the cause of banks' dominance in the market (Funga'cova et al., 2014; Turk Ariss, 2010). More stressed banks respond less strongly to changes in monetary policy when more money is available. Riffat et al., (2022) examine the nexus between risk management and financial performance in Pakistan's banking sector.

Despite these potential channels, recent empirical research on the marginal effects of bank market power on the dissemination of monetary policy has produced conflicting findings. The Lerner index is used by Funga'cova et al. (2014) to measure market power in the euro area and demonstrate how it limits the transmission of monetary policy through the bank advances channel. This phenomenon is also frequently seen in other nations & regions, including Latin America, ASEAN, China, Asia, and others (Olivero, 2011; Hussain & Bashir, 2019). However, there is an indication that the monetary policy spread is strengthened in less competitive markets (Amidu & Wolfe, 2013). In other words, more market power promotes the efficient transmission of monetary policy on bank advances.

2.1. Financial Intermediation Theory & Concept:

The foundations of traditional theories of intermediation are asymmetric information & transaction costs. They are designed to consider organizations that offer insurance, accept deposits, and disperse funds to businesses. However, there have been a lot of significant developments lately. The transformation by a bank of many short-term, low-risk, small, and liquid deposits into a small number of much more significant, long-term, risky, and illiquid advances (loans).

2.2. Liquidity Creation:

Banks are exposed to more risk when more liquidity is created. Selling illiquid assets to meet client liquidity demands carries greater risk and potential losses (Diamond & Dybvig, 1983). Liquidity is the ability of a financial institution to meet all of its customer's financial needs (Yeager & Seitz, 1989). Basel Committee on Banking Supervision (BCBS) defines bank liquidity as a bank's ability to finance asset growth and short-notice obligation fulfillment while sustaining a minimum level of modest losses (BCBS, 2009). Empirical studies frequently use accounting data ratios, such as liquid assets over total assets, to evaluate bank liquidity (Bunda & Desquilbet, 2008; Distinguin et al., 2013).

2.3. Monetary Policy:

Monetary policy is a macroeconomic tool that can be used by the State Bank or other regulatory bodies to alter the level of the money supply in a given economy. The availability of conventional bank loans is influenced by how monetary policy affects bank deposits, which in turn affects the creation of bank liquidity. According to some research, constricted monetary policy affects the return on deposits, which affects householders' preference to hoard money rather than deposit it in banks (Kishan & Opiela, 2000). Some authors have a slightly different perspective on the relationship between bank deposits, and bank advances during monetary policy contraction (Cantero-Saiz et al., 2014; Disyatat, 2004). According to Disyatat (2004), bank deposits might not matter in terms of decreasing bank lending after a contraction in monetary policy if three conditions are met (Fiat money, adequately capitalized, and a liberalized financial sector). The conventional bank can meet advanced demand without affecting credit availability. Disyatat (2004) emphasizes the link between loan demand and bank deposits. However, it also considers the significance of the balance sheet and market funding premium in enhancing the bank's advancing channel of monetary policy transmission.

2.4. Liquidity Creation and Monetary Policy:

Berger et al., (2016) demonstrate the requirement for limiting bank liquidity generation during capital support measures and regulatory actions during ongoing bank supervision. Conventional banks adjust their advances and liquidity policies in direct reaction to shifts in monetary policy, which impacts how effective monetary stimulus is. A monetary policy easing for small banks, according to Berger and Bouwman (2017), promotes the creation of liquidity. However, the minimal impact on large and medium-sized banks shows that monetary policy does not consistently influence the liquidity these institutions produce on or off their balance sheets.

Additionally, they discover the significance of the State Bank of Pakistan's liquidity creation by conventional banks, particularly during times of crisis. According to Berger et al., (2016), monetary policy's effects on liquidity creation are frequently less significant in low times than under normal circumstances. Regulatory bodies contend that conventional banks are reluctant to increase advances in low times due to incomplete information and elevated levels of uncertainty, which lessens the impact of loosening monetary policy.

According to Chatterjee (2015), monetary policy impacts banks' borrowing costs, which aligns with earlier research by Berger and Bouwman (2017). The author concludes that changes in credit spreads and asset market liquidity, both of which are significant drivers of bank liquidity creation, are caused by monetary policy. Again, it is asserted that this effect will be more prominent for smaller banks. Based on the size of the banks, Pham et al., (2021) investigate the impact of monetary policy on liquidity creation by Vietnamese banks. The findings are consistent with Berger and Bouwman's (2017) findings for the US market, which demonstrated that a contractionary monetary policy hinders new liquidity creation, with the effect being more substantial for smaller banks. Dang (2022) finds that easing monetary policy promotes liquidity formation using data from the Vietnamese market. However, a more diverse funding structure and greater market power could reduce the transmission effects.

Banks are exposed to more risk the more liquidity is provided. Even more unbelievable is the possibility and size of losses linked with having to dispose of illiquid assets to meet client liquidity requirements (Allen & Gale, 2003; Allen & Santomero, 1998). Monetary policy is a macroeconomic tool that can be used by the State Bank or other regulatory bodies to alter the level of the money supply in a given economy. The availability of conventional bank advances is influenced by how monetary policy affects bank deposits, which in turn affects the creation of bank liquidity. The author is doing this research because it currently needs to be done in Pakistan. There have been few studies on monetary policy's influence on liquidity development.

H₁ = Monetary Policy has a significant impact on liquidity Creation

The researcher creates the following research framework to study the nexus between liquidity creation and monetary policy. To the researcher's knowledge, only a few studies have been done on liquidity creation in developing nations like Pakistan, and various variables can influence liquidity creation. The framework that has been created aids the researcher in examining how different variables interact in a developing nation.

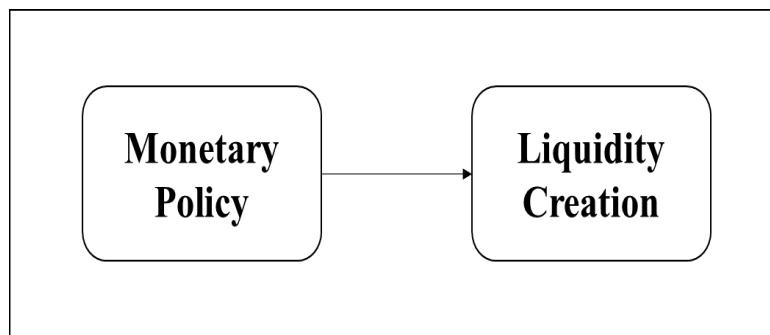


Figure 2: Theoretical Framework

3. Research Method

This study investigates the impact of bank characteristics on the monetary policy's channel for creating liquidity. The researcher adopts the positivism philosophy and employs the deductive method. The quantitative research methodology uses a deductive approach to accomplish the research objectives. The secondary sources used to gather the data include the Thomson Reuters financial data stream. Data for the time series is collected between 2000 and 2021. The dependent variable in the study is liquidity creation, and the independent variable is monetary policy.

$$LC_t = \beta_{0t} + \beta_1 MP_t + \epsilon_t$$

The Catfat model is used to measure the amount of liquidity creation (LC) in this study utilizing the three-stage method (Berger & Bouwman, 2009). Step 1 involves categorizing all on-balance and off-balance sheet activities as liquid, semi-liquid, or illiquid based on how easily banks and customers can raise money and avoid commitments. The activities identified in step 1 are given varied weights in step 2, which can either be +1/2, 0, or 1/2 depending on the liquidity trait attached to the specific activity. Creating the appropriate model of measuring liquidity creation using the

on-balance sheet and off-balance sheet activity is merged in step 3. These measures are differentiated based on the classification of advances and the inclusion & exclusion of off-balance sheet operations. For instance, categorical classification methods are designated as "Cat," and maturity-based classification methods are designated as "Mat." Similar to how "fat" denotes metrics that incorporate off-balance sheet activity, and "non-fat" denotes measures that exclude them. Finally, Cat fat, Cat non-fat, Mat fat, and Mat non-fat are four liquidity creation measures developed using Berger and Bouwman's (2009) methodologies. In Berger & Bouwman (2009), they have applied the Catfat model to estimate the amount of liquidity creation in the study in the US. However, the current study has adopted the Catfat model to estimate the amount of liquidity created by Conventional Banks in Pakistan. Berger & Bouwman has preferred and recommended the Catfat model over other models.

Table 1: Variables and Measurement Tools

S No.	Variables	Indicator	Measurement Tool	Test
1	Liquidity Creation	LC	$\text{Catfat} = + (1/2) * \text{Illiquid Assets} (0) * \text{Semi Liquid Assets} - (1/2) * \text{Liquid Assets} + (1/2) * \text{Liquid Liabilities} (0) * \text{Semi Liquid Liabilities} + (1/2) * \text{Illiquid Liabilities} + (1/2) * \text{Liquid Equity} (0) * \text{Semi Liquid Equity} + (1/2) * \text{Illiquid Equity} + (1/2) * \text{Illiquid Guarantees} (0) * \text{Semi Liquid Guarantees} - (1/2) * \text{Liquid Guarantees}$	Berger & Brown (2009)
2	Monetary Policy	MP	Short Term Lending Interest Rate	World Bank

The data is collected from the financial statements of the conventional banks registered on the Pakistan Stock Exchange from 2000 to 2021. The total number of observations is 21. The short-term lending rate is gathered from the World Bank website. The current study has used the amount of liquidity creation estimated by the researcher in their study of liquidity creation by Conventional Banks in Pakistan (Ali & Ahmad, 2022).

The researcher used a simple regression technique for the data analysis. The time series data is collected from 2000-2021. The researcher used E-Views as it is preferable for the time series analysis. The simple linear regression model tests the relationship between the dependent and independent variables. Statistical tests were applied to check the reliability and validity of the data.

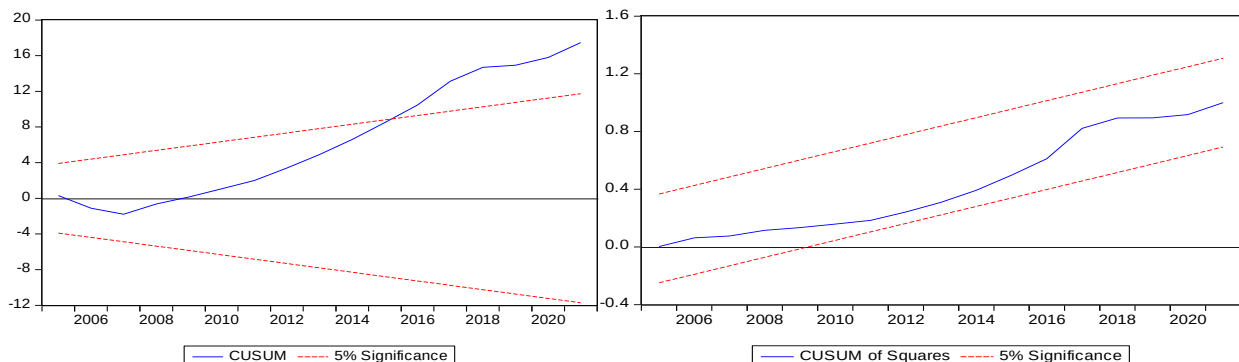
4. Result and Discussion

4.1. Result

Table 2: Regression Analysis

Variable	Coefficient	Std. Error	t-Statistics	Prob.	Centered VIF
C	0.667566	0.022442	29.74665	0	NA
MP	0.574686	0.219368	2.619729	0.0164	1
R-squared	0.255481				
Adjusted R-squared	0.218255				
F-statistic	6.86298				
Prob(F-statistic)	0.016411				
Durbin-Watson stat	0.557191				

The Ordinary Least Square estimation technique was implemented to evaluate the relationship between the dependent variable, i.e., liquidity creation, and the explanatory variable, i.e., monetary policy. There was a total of 21 observations utilized to run the regression model. The constant parameter has a positive value of 0.667, the monetary policy has a positive value of 0.574, and it is significant at 0.0164 Prob value which is less than the criteria of 5%. Results indicate that research hypotheses are accepted i.e., monetary policy has a significant positive impact on liquidity creation. The positive change in monetary policy brings positive change in liquidity creation. Results are significant at a 5% confidence level. The explanatory variable in the model can explain 25.5 percent (R- Squared) of the variation in the dependent variable. Thus, Monetary policy has a significant positive impact on liquidity creation.


Figure 3: Cumulative Sum & Cumulative Sum of Square

The CUSUM test, which determines whether the model is stable based on a blue line, is used for sensitivity studies (if it crosses the red line, the model is unstable). The results of CUSUM show that the model is not stable. However, the CUSUM Sum of Square test results determine whether the model is stable. The Chow breakpoint test results demonstrate that the model is stable. The results of the CUSUM of the square also indicate that the model is stable. Thus, Monetary policy has a significant positive impact on liquidity creation.

4.2. Discussion:

The study's results demonstrate that monetary policy significantly enhances liquidity production. Changes have significantly influenced liquidity in the market in the monetary policy rate set by Pakistan's State Banks over the past 21 years. By controlling the basis point of monetary policy rates, the State Bank of Pakistan managed the creation of liquidity by conventional banks. Due to the financial sector's continued expansion since 2000, Pakistan's banking industry has grown. The number of regular bank customers also increased due to population growth. More advances are made as a result of the monetary policy rate reduction because bank borrowing costs for people and businesses are reduced. On the other hand, a decrease in advances happens as the monetary policy rate rises. By changing the monetary policy rate, the State Banks of Pakistan can regulate the liquidity produced by banks.

Our findings demonstrate that the monetary policy positively influences liquidity creation as the economy grows and more banks open. Pakistan's state bank publishes the monetary policy rates. They change over time. They evolve with time. The state bank of Pakistan is successfully regulating the rate by increasing the creation of liquidity in the market. The number of bank customers and users increased due to the expanding population, which also increased the number of borrowers. In more developed economies, interest rates are typically the central bank's primary tool for implementing policy.

However, non-interest rate instruments in emerging markets are frequently used to complement or replace interest rate-based monetary policy (Chen et al., 2017). The State Banks of Pakistan should raise the rate during times of high bank liquidity creation to deter bank risk-taking and lower it during times of low liquidity creation to promote investment. Overall, the market size is growing, which causes the monetary policy rate to rise and create more liquidity, according to our research. The US market is enormous; they have small, medium, and large banks, around 4,000. The total number of conventional banks registered on the Pakistan Stock Exchange is 20. That is why this study did not classify the banks into different sizes.

5. Conclusion

The study concludes that monetary policy has a significant positive influence on banks' liquidity creation. The time series data was gathered from 2000 to 2021 from the conventional banks registered on the Pakistan Stock Exchange. A linear regression model was used to test the relationship between liquidity creation and monetary policy. The conclusions provided different viewpoints on the connection between liquidity creation and monetary policy in Pakistani conventional banks. By increasing loans and deposits, monetary expansion is anticipated to expand the creation of liquidity on balance sheets (Bernanke & Blinder, 1992). It has been demonstrated that credit, liquidity, and operational risks can positively or negatively impact bank profitability (Saleh & Afifa, 2020).

Additionally, the nexus between the dependent variable (liquidity creation) and the explanatory variable (monetary policy) was evaluated using the Ordinary Least Square estimation method. There were 21 total observations used to run the regression model. The constant parameter's positive value of 0.6675, with a significance value of 0.0164, shows that monetary policy positively influences liquidity creation in Pakistan. The explanatory variable in the model can

account for 25.5% (R-Squared) of the variation in the dependent variable. The study's results confirm Berger and Bouwman's (2017) seminal work from the perspective of a developing market by demonstrating the existence of the bank liquidity creation channel.

Moving forward, we discover that various bank groups behave differently regarding the bank's route for creating liquidity. Banks prefer to raise more capital when they have lower capitalization levels and better liquidity positions. Monetary policy of expansion. Our research also indicates that other bank-level variables like capital, risk, and return have no impact on generating new liquid assets. Our research also assists the government in making wiser decisions. This study will benefit banks and be helpful in a variety of circumstances. The government can comprehend how monetary policy affects the creation of liquidity thanks to our research. For instance, if the government successfully controls interest rates, the cost of loans will drop, and banks will extend more loans to the general public, increasing the amount of liquidity created. As banks would be lending more loans to support the economy's expansion, lowering the cost of loans would boost investment.

Lower interest rates could also boost banks' net worth, prompting banks to repay more loans in response (Kane, 1989). With more liquidity creation, this study can assist banks in managing their liquidity creation. The profitability of the bank is crucial. Our study gives banks a better understanding of how monetary policy rates affect their profitability. The government and policymakers should pursue independent credit policies and alter the credit risk structure to achieve future financial investment goals (Kioko et al., 2019). Our conclusions have political ramifications. Because monetary policy is an effective tool for controlling bank liquidity creation, authorities should carefully consider using it. Notably, specific bank-level characteristics can reduce, enhance, or neutralize the power of monetary transmission. Our findings open the door for more investigation into the bank liquidity creation channel in other nations and regions from the perspective of research.

There is a nexus between liquidity creation and monetary policy, which is investigated in the current study in Pakistan. The current study recommends that there is a need to investigate whether bank-specific traits impact the Bank's channel for creating liquidity. Bank size, capital, risk, and many other factors are crucial determinants of the creation of liquidity and traditional moderators of the Bank's advancing channel. Banks must take the necessary actions to enhance their financial performance to continue offering loans at fair interest rates. Policymakers should increase investment opportunities resulting from favorable economic development arrangements, strengthen practical exchange credit, and lessen financial institutions' financial dependence on them. The study's findings show a positive-significant impact of monetary policy on liquidity creation in Pakistan. Because of this, all listed conventional banks should work to increase asset quality by implementing stringent customer screening and other controls.

For risk managers to effectively manage credit risk, top bank management must provide clear and appropriate instructions. Additionally, it is recommended that bank management must ensure that long-term borrowers are regularly watched and managed to ensure loan repayment on time and prevent credit risk. In addition, we implore banking leaders, decision-makers, and professionals to create detailed standards for loan issuance and prompt consumer repayment of loan installments. To make sure banks address the risks, they deal with daily. Collectively, financial institutions must

prepare for and adapt to deterministic and plausible credit risk scenarios. To prevent incompetence and subpar financial performance, banks must make effective strategies to adopt technology in the business. These preparations are made within the context of a bank's risk appetite (Manu et al., 2020). The credit risk could worsen into a liquidity crisis if banks cannot manage their long-term borrowers. Banks should monitor the liquidity position to ensure enough short-term assets are available to cover short-term liabilities. However, banks must manage loan-to-deposit ratios to control liquidity risk.

The strict liquidity risk management guidelines provided by the State Banks of Pakistan must be followed by conventional banks to avoid the consequences. This policy will set the foundation for developing a solid framework for managing liquidity risk. This framework will outline the Bank's significant funding and liquidity risks, how they are measured, tracked, and reported, and the management and mitigation tactics to be employed. The policy should also specify the upkeep of different ratios, funding preferences, and an evaluation of the Bank's liquidity in both standard and emergencies (stress testing).

The Bank should have a contingency funding plan to deal with emergency liquidity issues. This strategy should identify early warning signs to avoid unexpected liquidity crises. As a result, the liquidity position of the banks will improve. Conventional Banks must have enough resources to manage operational risk to avoid bank failure. Furthermore, if banks successfully implement these policies, they can mitigate the adverse effects of credit, liquidity, and operational risks while improving financial performance. Because of the uncertainty in the banking environment in developing countries, management must be cautious and focus more on these risks to maintain profitability and keep a strategic distance from bank failure and insolvency. The author only took one macro factor into account, but multiple factors like Inflation and unemployment can expand the scope of the study. Moreover, bank-specific factors like corporate governance and firm size can be taken. On the micro level, we can check the impact of Bank and industry-specific variables on liquidity creation, which would help better understand.

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