



Article Type: Research Paper

Investigating the influence of monetary policy on the balance sheet performance of commercial banks

Denis Kalua¹, Andrew Munthopa Lipunga^{2*}, Fredrick Banda³

Abstract

Research aims: The study investigates the influence of monetary policy on the balance sheet performance of commercial banks in Malawi.

Design/Methodology/Approach: The study employed an explanatory research design using time series data obtained from financial reports of commercial banks and economic reports published by the Reserve Bank of Malawi from 2012 to 2022. Regression analyses were conducted to establish the influence of monetary policy on balance sheet performance (loan and overdraft growth).

Research findings: The results suggest that the monetary policy instruments, namely, the liquidity reserve requirement (LRR), Lombard rate, policy rate, and open market operations, have insignificant influence on the loan and overdraft growth in commercial banks in Malawi.

Theoretical contribution/Originality: This implies that these monetary policy tools are not the exterior determinants of the balance sheet performance of commercial banks in Malawi.

Research limitation: The study used a single measure of the balance sheet performance of commercial banks.

Keywords: Article Banks; Balance Sheet Performance, Malawi, Monetary Policy



AFFILIATION:

¹Department of Business Management, Malawi University of Business and Economic Sciences, Malawi

²Department of Accountancy and Finance, Malawi University of Business and Economic Sciences, Malawi

³Department of Economics and Law, Malawi University of Business and Economic Sciences, Malawi

*CORRESPONDENCE:

alipunga@mubas.ac.mw

DOI: 10.18196/jai.v25i3.21052

CITATION:

Kaula, D., Lipunga, A. M., & Banda, F. (2024). Investigating the influence of monetary policy on the balance sheet performance of commercial banks. *Journal of Accounting and Investment*, 25(3), 857-873.

ARTICLE HISTORY

Received:

27 Dec 2023

Revised:

22 Apr 2024

28 Jun 2024

25 Jul 2024

12 Aug 2024

Accepted:

13 Aug 2024



This work is licensed under a Creative Commons Attribution-Non-Commercial-No Derivatives 4.0 International License

JAI Website:



Introduction

Monetary policy involves Central Banks taking steps to influence the value, cost, and supply of money and credit to achieve the nation's set macroeconomic goals (Adeniyi et al., 2018; Abuka et al., 2019). The macroeconomic goals include increasing the rate of economic growth and employment and achieving stability in price, financial market, interest rate, and foreign exchange market (Akalpler and Duhok, 2018). These goals are achieved through the use of monetary policy instruments. Commonly used instruments encompass the liquidity reserve requirement ratio (LRR), policy rate, discount rate (also called the Lombard rate), and open market operations (OMO) (Matola, 2023).

The LRR refers to the proportion of liabilities (or deposits received) that depository institutions, including commercial banks, are required to keep as a cash deposit with the Central Bank (Bitar, 2020). It is worth noting that the role of LRR has evolved over time. Initially, it was considered as insurance to protect customers' deposits against a bank run and crisis.

However, nowadays, it is used as a monetary policy instrument (Shah et al., 2021); as such, the rate depends on the monetary policy direction of the Central Bank. In Malawi, LRR was introduced in 1989, and it is observed separately for local currency and foreign currency deposits. Over the past decade, the liquidity reserve ratio has moved from 15.5% to 3.75% (Reserve Bank of Malawi, 2022).

Additionally, the policy rate is used to control the money supply. By definition, it is the rate of interest that commercial banks lend out to each other for any excess funds above the LRR on a short-term basis. The policy rate is particularly utilized to implement or signal the monetary policy stance in that an upward adjustment to the rate shows a contractive stance, while a downward adjustment displays an expansive stance. In Malawi, the policy rate has been fluctuating over the last decade, from 29% in 2016 to as low as 14% in October 2022 (Reserve Bank of Malawi, 2022).

Meanwhile, the discount rate is the rate of interest that commercial banks use to borrow from the Central Bank. Borrowing becomes handy when the interbank market is dry, so much so that no other commercial bank has excess funds to lend out overnight. The discount rate enables the commercial bank that has a deficit of funds to borrow the funds on a discount window to cover any LRR shortfall. The discount window is also called the Lombard facility, while the discount rate is called the Lombard rate. The Lombard rate is quoted against the policy rate. For instance, the October 2022 policy rate was 14%, while the Lombard rate was quoted at 14% plus 20 basis points, which was 14.2% (GoM, 2022). OMO, moreover, signifies the buying and selling of government securities, bills of exchange, promissory notes, treasury bills, and treasury notes. Central Banks are mandated to undertake open market operations, guaranteed by adequate collateral, to regulate the liquidity in the economy. For example, the open market purchase involves the buying the government securities, which ultimately results in the increase of money in circulation, hence performing an expansive monetary policy. Open market sales, on the other hand, result in the reduction of the circulation of money in the economy. Thus, it is a contractive monetary policy.

Fundamentally, the commercial banking sector plays a crucial role in the monetary policy transmission mechanism (Wang, 2020). To a considerable extent, the monetary policy goals are achieved through the operations of commercial banks. Thus, the health of commercial banks is of vital importance to the achievement of monetary policy goals. The health of commercial banks is evaluated by, among other things, their financial performance. In this regard, balance sheet performance is significantly important. Basically, the deterioration of a commercial bank's balance sheet may make it have fewer funds to lend out leading to declining commercial bank lending. The decline results in a decrease in its revenue, affecting its profitability. On a wider scale, the decline decreases investment spending, which slows down economic activities in the country. In case of severe deterioration of the balance sheet of a bank, it may entail its failure, a thing that can even cause fear to spread over the whole banking sector, accordingly affecting even the healthy banks. As such, the negative consequence of contraction in commercial bank lending can spread beyond the bank to the banking sector and the economy as a whole. Thus, balance sheet performance is crucially important to the banks and the economy as a whole.

Furthermore, it is worth observing that the financial sector of the country is small and is dominated by the banks (Biallas & Sossouvi, 2021). To a considerable degree, the government, organizations, and individuals depend on commercial banks for finance. Accordingly, the performance of the commercial banks and understanding the factors influencing it is of vital importance to the wellbeing of the economy. Besides, the country should have had three more banks, but they were wound up or acquired and absorbed by other banks due to performance challenges. Therefore, this study examines factors that influence commercial banks' balance sheet performance.

Previously, Koroleva et al. (2021) observed that the factors that influence the performance of commercial banks are not clear-cut since internal and external factors can influence the performance. The internal factors, which are also called micro or bank-specific factors, emanate from the financial accounts in the balance sheet or profit and loss account of the commercial banks, whereas the external factors are outside elements that are beyond the realm of the management of the banks. Deployment of monetary policy instruments forms one of the categories of the key external factors. Change in the monetary policy direction can lead to a change in the performance metrics of commercial banks, such as loans and overdrafts. Studies on the influence of monetary policy on performance have been carried out, such as Ademokoya et al. (2020) and Udeh (2015); however, to the best of the knowledge of the authors, none have endeavored to examine the influence of monetary policy on the balance sheet performance of commercial banks. The extant studies focus on examining the influence of monetary policy on profitability metrics, in particular, the profit or loss account performance (Clement, 2021). Thus, this study examines the influence of monetary policy on the balance sheet performance of commercial banks. The study addresses the following research questions:

1. Does monetary policy influence the balance sheet performance of commercial banks in Malawi? Moreover, which monetary policy instrument is more effective?
2. Is the effect of monetary policy on commercial banks the same for big commercial banks and smaller commercial banks?

Addressing these questions provides an understanding of whether policymakers can influence the balance sheet performance of commercial banks through the use of monetary policy tools.

Literature Review and Hypothesis Development

Malawi's banking sector comprises eight commercial banks, four of which are domestically owned while the other four are foreign-owned (International Trade Administration, 2024). The domestic-owned banks managed 55% of total net assets, while the foreign-owned banks managed 44% of total net assets (International Trade Administration, 2024). Malawi's eight commercial banks include the National Bank of Malawi, Standard Bank, First Capital Bank, CDH Investment Bank, FDH Bank, Ecobank, NBS Banks and Centenary Bank. With respect to size, the banks are categorized into big and small banks based on their customers' deposits and loan base. Out of the eight banks,

National Bank and Standard Bank are classed as big banks; together, they control about half of the market in terms of deposits and loan base (Phiri et al., 2021). They account for 56% of total loans, besides commanding 58% of the total equity capital of the banking sector (International Trade Administration, 2024).

Further, the financial intermediation theory of banking posits that commercial banks primarily serve as financial intermediaries. Their role is to gather deposits which they lend to investors. Earlier proponents of the financial intermediation theory of banking include Von Mises (1953), who pointed out that commercial banks act as negotiators of credit in that they borrow to lend out. According to Keynes (1936), banking is crucial in the mobilization of savings (deposits) that are turned into investments. This process may be referred to as asset transformation. In the intermediation function, the banks play a crucial part in transmitting monetary policy actions to the economy (Wang, 2020). Commercial banks can successfully engage in the asset transformation process if their balance sheets are sound.

Influence of the liquidity reserve requirement on the balance sheet performance of commercial banks

An increase in the LRR ratio is associated with a balance sheet tightening (Glocker, 2021). Shah et al. (2021) highlight that spikes in LRRs are likely to result in a decrease in the loans and an increase in the lending rates. Bosshardt et al. (2021) argue that LRRs act as a tax imposed with the view of internalizing externalities emanating from high short-term debt exposure of financial intermediaries. In harmony with most studies, Barroso (2017) found that LRRs affect credit growth in the sense that commercial banks that are vulnerable to countercyclical LRRs avoid riskier firms, indicating that higher LRRs tend to lessen bank risk-taking behavior. However, contrary to the findings by Barroso (2017), Ely (2019) found that an increase in LRRs has a positive influence on the risk-taking behavior of commercial banks. This is referred to as the search-for-yield effect, which is a situation where commercial banks resort to issuing more loans following the increase in lending rates to maximize their yield. In Malawi, the deposits held under the LRR do not attract any interest. Consequently, the LRR ratio is considered as a tax or an expense on the commercial banks as they are unable to utilize the funds to lend out as a loan. Thus, all things being equal, the higher the LRR, the higher the cost of funds that the commercial banks have to incur on a deposit, and the higher the interest rate they have to charge on loans as commercial banks try to pass on the cost to the clients. This would thus have negative effects on growth on loans and overdrafts. Accordingly, this study hypothesizes that:

H₁: Liquidity reserve requirement ratio has a negative influence on the balance sheet performance of commercial banks in Malawi.

Influence of policy rate and Lombard rate on the balance sheet performance of commercial banks

According to Fischer (2015), the interbank markets in developing countries are still underdeveloped, so much so that changes in the policy rates have minimal effect on the interest rate and, generally, on the economy. On the other hand, Abuka et al. (2019) noted that tightened monetary policy through the increase in policy rate decreases the supply of bank credit, which results in the dampening of economic activity. The study documented a considerable influence of monetary policy on the quantity and price of bank credit. Ademokoya et al. (2020) found that the monetary policy rate and the maximum lending rate do not influence banks' credit in Nigeria. Besides, Shah et al. (2021) uncovered that the interest rate shocks were not effective in controlling credit to the private sector in Pakistan. As already noted, the Lombard rate is determined based on the policy rate; as such, they are likely to have a similar influence. Consequently, this study proposes the following hypotheses:

H₂: Policy rate has a negative influence on the balance sheet performance of commercial banks in Malawi.

H₃: The Lombard rate has a negative influence on the balance sheet performance of commercial banks in Malawi.

Influence of open market operations on the balance sheet performance of commercial banks

According to Chen (2018), the Central Banks conduct open market operations considering the quantity of reserves that must be injected into the financial system to influence the price and quantity of loans, which, in turn, leads to the attainment of the targeted inflation rate. When the economy is experiencing a negative inflation gap, liquidity is injected into the banking system through an open market purchase. All things being equal, commercial banks make profits by investing the reserves in new loans. The extended credit triggers a process of money creation that produces ripple effects on expansions of deposits and loans. It must, however, be noted that the amount of open market operations wanted to close the inflation gap also hinges, to some extent, on the behavior of depositors. Hence, this study draws the following hypothesis:

H₄: Open market operations have a positive influence on the balance sheet performance of commercial banks in Malawi.

Influence of monetary policy on the balance sheet performance of big and small commercial banks

It is postulated that commercial banks' responses to monetary policy differ depending on factors such as size, liquidity, and capitalization (Dang & Huynh, 2022). It is worth noting that small banks mainly depend on deposits for their functions as they have less access to

the capital market; accordingly, monetary policy should have a relatively greater influence on them (Rashid & Abdul, 2019). On the other hand, big banks would certainly depend to a considerable extent on off-balance sheet means, suggesting that monetary policy may have a weaker influence on them. In that way, this study suggests that:

H₅: Monetary policy instruments have different influences on the balance sheet performance of big and small commercial banks in Malawi.

Research Method

Research Design

The study employed an explanatory research design as the purpose of the study was to examine the causal relationship between monetary policy and the balance sheet performance of commercial banks in Malawi. The population included all eight commercial banks in Malawi as it were on 30 June 2022. It is worth noting that out of the eight, two (National Bank of Malawi and Standard Bank of Malawi) control 50% of the market share and hence are considered the big commercial banks in the country. The other commercial banks share the remainder, hence, are classified as small banks. In addition, balance sheet data comprising the total loans and overdrafts for each commercial bank were collected from the commercial banks' quarterly reports, statistical bulletins, and annual reports, while data on monetary policy instruments were collected from the website of the Central Bank of Malawi. The data were for ten years, from 2012 to 2022.

Data analysis

The data collected was sorted and organized before capturing the same for analysis in the Stata software. Regression analysis was used to determine the influence of monetary policy on the balance sheet performance of the commercial banks in Malawi. The independent variables were the monetary policy instruments, namely Liquidity Reserve, Lombard Rate, Policy Rate, and Open Market Operations. On the other hand, the dependent variable was the growth of loans and overdrafts. The following analytical model was used:

$$PF_t = \alpha + \beta_1 LRR_t + \beta_2 LR_t + \beta_3 PR_t + \beta_4 OMO_t + \varepsilon_t \dots \dots \dots (1)$$

Where PF is the loan and overdraft; β is the slope of the coefficient of the explanatory variable; α is the intercept; LRR is the liquidity reserve requirement; LR is the Lombard rate; PR is the policy rate; OMO is the amount of open market operations; t is the time trend (from 2012 to 2022); ε is the error term.

Result and Discussion

All the eight commercial banks of Malawi, namely, National Bank of Malawi, Standard Bank, First Capital Bank, CDH Investment Bank, FDH Bank, Ecobank, NBS Banks, and Centenary Bank, were sampled. The study collected quarterly data from all eight commercial banks for ten years between 2012 and 2022, making up 320 observations. The subsequent paragraphs provide the results of the analyses conducted in the study.

Descriptive Analysis

Figure 1 provides a graphical presentation of the trends of monetary policy and loan growth variables over the ten years before carrying out the stationarity test. Figure 1 (a) shows how total loans and overdrafts for all commercial banks have been steadily increasing over the period. Figure 1 (b) depicts the trend of the LRR. It indicates that the Central Bank has tremendously reduced the rate from 15.5% in 2012 to 3.75% in 2022. Figure 1 (c) displays the Lombard rate. It shows that the rate was stable over the period until it started dropping in 2017. Figure 1 (d) illustrates the policy rate trend.

Just like the Lombard rate, the policy rate was stable for a while; however, it started declining in 2017. Figure 1 (e) presents the open market operations. The figure shows that the Central Bank has not been consistent in its intervention in the market. The largest spike was in 2016 when the Central Bank pumped in MWK250 billion through security purchases. Figure 1 (f) demonstrates the total loans disbursed by the two big banks, National Bank of Malawi and Standard Bank of Malawi. It shows the steady growth of loans over the period from MWK105 billion to the current MWK500 billion. Lastly, Figure 1 (g) depicts the total loans extended by the other six smaller banks operating. The figure exhibits the movement of total loans and overdrafts from MWK89 billion in 2012 to MWK485 billion in 2022.

Kuala, Lipunga & Banda

Investigating the influence of monetary policy on the balance sheet performance ...

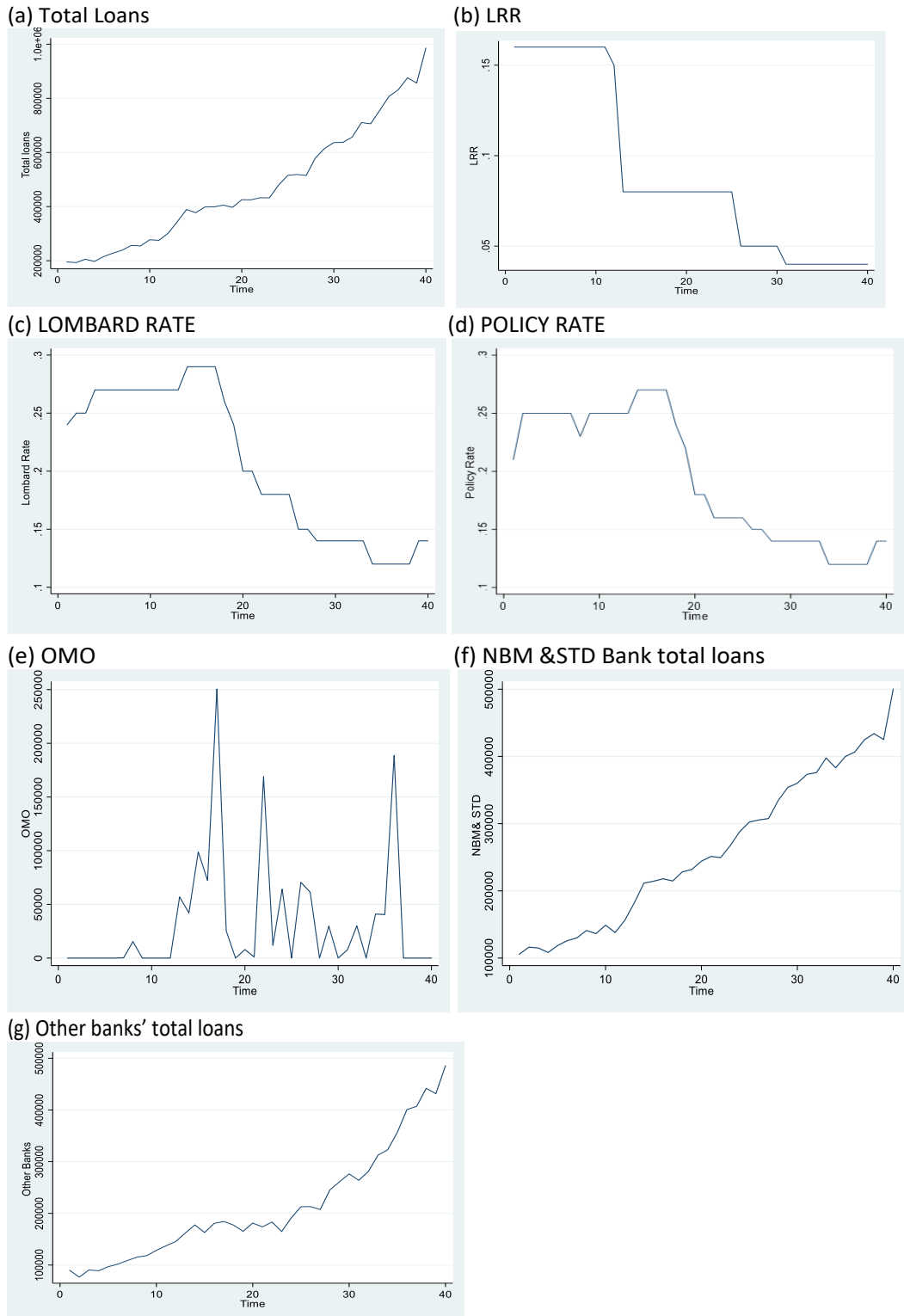


Figure 1 Graphical description of the variable before stationarity test

Kaula, Lipunga & Banda

Investigating the influence of monetary policy on the balance sheet performance ...

Table 1 provides descriptive statistics of each variable. It shows the mean of total loans of MWK473 billion that had a range of the maximum of MWK985 billion and a minimum of MWK192 billion. The LRR denotes a mean of 9% with a maximum of 16% and a minimum of 4% and gives a standard deviation of 4.8%. The Lombard rate averaged 20.6% with a maximum of 27%, a minimum of 12%, and a standard deviation of 5.5%. On the other hand, the policy rate averaged 19%, but the rate has gone as high as 27% and as low as 12%. The mean of open market operations was MWK32 billion, ranging from MWK250 billion and MWK0. In terms of comparative analysis of the loan book growth between big and small banks, Table 1 presents that the average loans disbursed by the two well-capitalized commercial banks in Malawi were MWK260 billion with a maximum of MWK500 billion and a minimum of MWK105 billion. In contrast, the other six banks combined disbursed on average MWK 213 billion with a maximum and minimum of MWK485 billion and MWK76 billion, respectively.

Table 1 Descriptive Statistics

Variable	Mean	Maximum	Minimum	Standard Deviation
Loans	K473,729.5	K985,953	K192,988	219,339.5
LRR	9%	16%	4%	0.0485165
Lombard Rate	20.6%	29%	12%	0.0638829
Policy Rate	19.375%	27%	12%	0.0558242
OMO	K32,133.33	K250,529	0	56,567.88
Big Banks Loans	K260,653.4	K500,285.7	K105,685	113,528
Other Banks Loans	K213,076.1	K485,667.3	K76,775	108,515.6

Diagnostic Tests

A unit root test was conducted before conducting the regression analysis to ascertain the stationarity of the data. A stationarity test checks whether data do not vary with time or are not a function of time (Kwiatkowski, 1992). The study used the Augmented Dicker Fuller (ADF) test to undertake the test. Table 2 shows the results that all the variables except OMO were not stationary in levels. The Table 2 further provides the results of the test at the first difference, showing the attainment of stationarity of all the variables as their p-values of equal to 0 were statistically significant at a 1% level of significance.

Table 2 Stationarity Tests

Variable	Stationary	t-statistic	Critical value at 1%	Critical value at 5%	P-Value
Loans	At level	2.425	-3.655	-2.961	0.9990
	At First Diff	-6.135	-3.662	-2.964	0.0000
LRR	At level	-1.116	-3.655	-2.961	0.7085
	At First Diff	-5.667	-3.662	-2.964	0.0000
Lombard Rate	At level	-0.251	-3.655	-2.961	0.9321
	At first Diff	-5.003	-3.662	-2.964	0.0000
Policy Rate	At level	-0.454	-3.655	-2.961	0.9007
	At first Diff	-6.218	-3.662	-2.964	0.0000
OMO	At level	-5.492	-3.655	-2.961	0.0000
Big Banks loans	At level	1.306	-3.655	-2.961	0.9966
	At first Diff	-5.893	-3.662	-2.964	0.0000
Other Banks loans	At level	2.551	-3.655	-2.961	0.9991
	At first Diff	-6.610	-3.662	-2.964	0.0000

Figure 2 provides graphical presentations of all variables (except OMO) of the test at first difference. The graphs confirm the stationarity of the variables.



Figure 2 Description of the variables after the stationarity test

Furthermore, the variance inflation factor (VIF) was calculated to check multicollinearity in the model. The results in Table 3 reveal a VIF of less than 10 and a tolerance of more than 0.1, suggesting no multicollinearity in the data.

Table 3 Results of the Multicollinearity Test

Variable	VIF	1/VIF
LRR	2.98	0.335972
Lombard rate	2.94	0.340214
Policy rate	1.03	0.969198
OMO	1.02	0.979394

Influence of monetary policy on loan and overdraft growth

Table 4 gives the summary of regression analysis results of all the commercial banks. The results uncovered a negative but insignificant influence of LRR, policy rate, and OMO on loans and overdraft growth, while the Lombard rate exerted a positive but also insignificant influence on loans and overdraft growth. Hence, the study failed to reject the first and second hypotheses.

Table 4 Regression Results of the Influence of Monetary Policy

Total Loans	Coefficient	Standard Error	t-statistic	P>t
LRR	-210633.1	392673.3	-0.54	0.595
Lombard rate	408222.9	660356	0.62	0.541
Policy rate	-375395.1	595516	-0.63	0.533
OMO	-0.0275756	0.083328	-0.33	0.743
Constant	20899.99	5500.803	3.80	0.001
R ² = 0.0208				

The results corroborate with research done by Adeniyi et al. (2018), who found that there is no causal relationship between cash reserves and credit to the private sector in Nigeria. The study indicates that although the Central Bank has, over the decade, reduced the LRR from 15.5% to the current 3.75%, the increased supply of money has not translated into an increase in loans and overdrafts. This may be the case because commercial banks are capitalist organizations and their main goal is to maximize shareholder’s wealth with as little risk as possible. The excess liquidity created would have been invested in sovereign instruments, including treasury bills, treasury notes, and promissory notes. These are risk-free assets, and the return on investment is much better compared to loans and overdrafts. Banks are, therefore, inclined to invest all the liquidity in these risk-free assets.

Besides, banks face capital constraints. Regulatory and internal policies of each bank may not allow the institution to invest the excess liquidity. Being regulated institutions, banks must abide by certain regulatory ratios. Such ratios include Single Obligor Limit (SOL) and loan deposit ratios. In this regard, the Central Bank does not allow institutions to loan out 25% of their tier-one capital to a single entity. This means that even if the bank has excess liquidity and has already reached a limit on a willing quality borrower, they cannot disburse the loan unless they ask for a waiver from the Central Bank. Seeking waivers from the Central Bank takes time, and most banks will invest the excess funds in government

securities. The same applies to an internal loan deposit ratio. International banking standards stipulate that banks have to disburse up to 75% of their deposits as loans. Banks will not, therefore, invest in loans and overdrafts even if they have excess liquidity when they reach the loan deposit ratio. Lastly, the liquidity reserve requirement is a cost to the deposit-collecting banks. For the same deposit, banks keep the liquidity reserve requirement funds at zero interest; meanwhile, the depositor earns interest for the whole amount. This is a cost to the bank because they cannot utilize the whole amount of the deposit to earn interest. Lowering the liquidity reserve requirement would mean increasing the interest rate spread that banks earn on the assets, including loans, assuming the deposit rates remain constant. Banks will, therefore, not be motivated to increase the loan book because they are already earning more from the current loan book.

The study has revealed that the Lombard rate did not affect loans and overdrafts disbursed by commercial banks in Malawi, thereby failing to reject the third objective. This result agrees with a study done by Ademokoya et al. (2020), which revealed that the Lombard rate does not influence the quantity of bank credit in Nigeria. Theoretically, an upward adjustment of the Lombard rate does lead to a reduction in the loan book. However, this is not the case. This indicates that the banking sector is an oligopolistic market where the customer is the price taker. The price of loans is the same in all the banks, and most customers cannot negotiate better prices. This means the Central Bank's usage of the Lombard rate to stimulate the economy will have a limited impact on the demand for loans.

The study has also uncovered that policy rates had no significant impact on the loan book growth of commercial banks. Despite the policy rate being reduced over the period from 27% to 14%, the results suggest that its contribution to loan book growth is negligible. This contradicts research carried out by Ndubuaku et al. (2017), which found a significant influence of monetary policy rate on total asset value. The results further contradict Bernanke and Blinder's (1988) lending channel of monetary policy transmission theory, which suggested that contractive monetary policy forces banks to reduce their lending. Basically, the movement in policy rate is correlated to the movement in the securities yield curve. When the Central Bank raises the policy rates, yields on the securities market also move up. Banks may be uncomfortable investing in any long-term securities because they are going to make losses if the banking book is marked to the market. Commercial banks invest in short-dated instruments with an option of repricing them in the near future rather than putting funds in loans that have a floating interest rate. In addition, commercial banks become risk-averse to giving out loans because the policy direction signals a bad economic outlook. On the other side, when the Central Bank reduces the policy rate, yields on government securities start falling as well. Banks will try to lock in higher rates on securities before they fall further. They may even go short on local currency to maximize the net interest income. This means the Central Bank's intention of stimulating the economy through cheap loans will not yield the desired results because banks do not have excess liquidity, which they can loan out because they are already short on local currency. This may explain why the policy rate influence on loans and overdrafts may be insignificant.

Moreover, the study exposed a negligible influence of open market operations on the growth of loans and overdraft facilities disbursed by commercial banks in Malawi, thereby failing to reject the fourth hypothesis. The results indicate that the interventions of the Central Bank over the period have not translated into an increase in loans and overdrafts disbursed by commercial banks. The insignificance may be because of the government’s huge appetite to borrow at rates that are better than loans. Thus, when the Central Bank pumps in money on the market through the purchase of securities, commercial banks use the same to invest in more attractive government securities instead of routing the funds to loans and overdrafts. Further, commercial banks may use the same open market operations as a tool to reprice their securities books. They sell securities that are loss-making when they are marked to the market and buy more profitable securities. This means commercial banks’ agenda is different from the Central Bank’s agenda. Commercial banks will always look for safer ways of making money and will therefore not invest in loans and overdrafts, given better rates on government and reserve bank’s securities.

In a nutshell, although the monetary policy tools were employed to influence the performance of commercial banks, the results suggest that they did not have a statistically significant influence on the balance sheet performance. This indicates that all the monetary policy instruments were not effective in this regard.

Influence of monetary policy on big banks and small banks

The study also sought to investigate if the monetary policy instruments had a significantly different influence on big and small commercial banks. There are two banks (National Bank and Standard Bank) that are categorized as big banks and the remaining six as small banks. As reported by Phiri et al. (2021), as of 2019, National Bank and Standard Bank controlled 25% and 21% market share of deposits respectively, while the other banks commanded less than 13% of the deposits. This study carried out separate regression analyses on the data from big and small banks. Tables 5 and 6 provide the summary of the regression analysis results.

Table 5 Results of the Influence of Big Banks

	Coefficient	Standard Error	t-statistic	P>t
Big Banks				
LRR	-213037.8	206654.6	-1.03	0.310
Lombard rate	123419.6	347529.5	0.36	0.725
Policy rate	-71047.61	313405.8	-0.23	0.822
OMO	-.0525922	.0438535	-1.20	0.239
Constant	11384.7	2894.941	3.93	0.000
R ² = 0.067				
Small Banks				
LRR	2404.7	238187	0.01	0.992
Lombard rate	284803.3	400557.3	0.71	0.482
Policy rate	-304347.5	361226.8	-0.84	0.405
OMO	0.0250166	0.0505449	0.49	0.624
Constant	9515.288	3336.665	2.85	0.007
R ² = 0.0208				

With regards to the big banks, the results in Table 5 demonstrate similar results to those for the entire market. There was a negative but insignificant influence of LRR, policy rate, and OMO on loans and overdraft growth, while the Lombard rate had a positive but also insignificant influence on loans and overdraft growth. On the other hand, in relation to small banks, the results in Table 5 reveal slightly different results to the results for the entire market in Table 4 of positive but insignificant influence of LRR, Lombard rate, and OMO on loans and overdraft growth. Policy rate, on the other hand, had a negative but also insignificant influence on loans and overdraft growth in Malawi. In a nutshell, the results indicate that the monetary policy instruments exerted no significant influence on the growth of loans in both big banks and small banks, thereby failing to reject the fifth hypothesis. Thus, the postulation that monetary policy should have a relatively greater influence on them may not be true (Rashid & Abdul, 2019).

Conclusion

The study has examined the influence of monetary policy on the balance sheet performance of the commercial banks in Malawi. The study used time series data over ten years. The results suggest the insignificant influence of all the monetary policy tools, namely liquidity reserve requirement (LRR), Lombard rate, policy rate, and open market operations. This implies that these monetary policy tools may not be the significant exterior determinants of the balance sheet performance of commercial banks in Malawi. Accordingly, the bank management may need to focus on other factors in their strategy to improve balance sheet performance. Besides, the study suggests to policymakers that these monetary policy tools may not be having the intended effects on the economy, as none was found to be effective. This may be due to other factors that may need to be identified to boost the effectiveness of the tools on the economy. The study contributes to the literature on the influence of monetary policy on the financial performance of commercial banks. While most extant studies focus on profitability measures, this study has investigated the effect on loans and overdraft growth, which is one of the key measures of balance sheet performance. Nevertheless, the study's limitation emanates from the fact that it used data collected from 2012 to 2022, a period of 10 years only. Future studies, as such, should consider using data for a longer period.

References

- Abuka, C., Alinda, R. K., Minoiu, C., Peydró, J. L., & Presbitero, A. F. (2019). Monetary policy and bank lending in developing countries: Loan applications, rates, and real effects. *Journal of Development Economics*, 139, 185–202. <https://doi.org/10.1016/j.jdeveco.2019.03.004>
- Ademokoya, A. A., Sanni, M., & Oke, L. A. (2020). Impact of Monetary Policy on Bank Credit in Nigeria Bank Credit. *Journal of Accounting Research Organization & Economics*, 3(3), 196–205.
- Adeniyi, A., Kayode, A., Sakirat, S., & Olamide, F. (2018). Monetary Policy and Bank Credit in Nigeria: A Toda-Yamamoto Approach. *Acta Universitatis Danubius. Economica*, 14(5), 717–735.

- Akalpler, E. and Duhok, D. (2018). Does monetary policy affect economic growth: evidence from Malaysia. *Journal of Economic and Administrative Sciences*, 34(1), 2–20.
- Barroso, J. B., Gonzalez, R., & Van Doornik, B. (2017). Credit supply responses to reserve requirement: Loan-level evidence from macroprudential policy. BIS Working Papers, 674. <https://www.bis.org/publ/work674.pdf>
- Bernanke, B. & Blinder, A. (1988). Credit, money, and aggregate demand. *American Economic Review*, 78(2), 435–439. <http://www.jstor.org/stable/1818164>
- Biallas, M. and Sossouvi, K. (2021). Building Resilience Through Digital Financial Services Africa COVID-19 Digital Finance Market Impact Series. <https://www.ifc.org/content/dam/ifc/doc/mgrt/malawi-building-resilience-through-dfs.pdf>
- Bitar, J. (2020). A note on reserve requirements and banks' liquidity. *International Journal of Economics and Finance*, 27(4), 4837–4852.
- Bosshardt, J., Kakhbod, A., & Saidi, F. (2021). Liquidity regulation and bank risk taking on the horizon. CEPR Press Discussion Paper 17811. <https://cepr.org/publications/dp1781>
- Chen, S. (2018). The credit-channel transmission mechanism and the non linear growth and welfare effects of inflation and taxes. *Economic Inquiry*, 56(2), 724–744. <https://doi.org/10.1111/ecin.12546>
- Clement, D. (2021). The impacts of monetary policy on the performance of deposit money banks (DMBs) in Nigeria. [Masters thesis]. Ahmadu Bello University, Zaria.
- Dang, V.D., & Huynh, J. (2022). Monetary Policy and Bank Performance: The Role of Business Models. *The North American Journal of Economics and Finance*, 59.
- Ely, R. A., Tabak, B.M., & Teixeira, A.M. (2019). Heterogeneous effects of the implementation of macroprudential policies on bank risk. University Library of Munich, MPRA Paper. https://mpra.ub.uni-muenchen.de/94546/1/MPRA_paper_94546.pdf
- Fischer, S. (2015). Monetary policy in the United States and in developing countries. A Speech at the Crockett Governors' Roundtable 2015 for African Central Bankers. <https://www.federalreserve.gov/newsevents/speech/files/fischer20150630a.pdf>
- Glocker, C. (2021). Reserve requirements and financial stability. *Journal of International Financial Markets, Institutions and Money*, 71, 101286. <https://doi.org/10.1016/j.intfin.2021.101286>
- Malawi Government (2022). Monetary Policy Report October 2022, Reserve Bank of Malawi, Lilongwe.
- International Trade Administration (2024). Trade Financing. <https://www.trade.gov/country-commercial-guides/malawi-trade-financing>
- Koroleva, E., Jigeer, S., Miao, A., & Skhvediani, A. (2021). Determinants affecting profitability of state-owned commercial banks: Case study of China. *Risks*, 9(8). <https://doi.org/10.3390/risks9080150>
- Kwiatkowski, D. (1992). Testing the null hypothesis of stationarity against the alternative of a unit root: How sure are we that economic time series have a unit root? *Journal of Econometrics*, 54(13), 159–178.
- Keynes, J.M. (1936). *The General Theory of Employment, Interest, and Money*. London: Macmillan.
- Matola, J.U. (2023). How Monetary Policy Affects Industrial Activity in Malawi: Evidence from ARDL and VAR Models. *Cogent Economics and Finance*, 1(11)
- Ndubuaku, Ozioma, I., Chiaka, N., & Samuel, O. (2017). Impact of Monetary Policy (Interest Rate) Regimes on the Performance of the Banking Sector in Nigeria. *IOSR Journal of Economics and Finance*, 08(04), 16–32. <https://doi.org/10.9790/5933-0804011632>

Kaula, Lipunga & Banda

Investigating the influence of monetary policy on the balance sheet performance ...

- Phiri, H., Kaluwa, B. & Mazalale, J. (2021). Cost Efficiency of the Banking Industry in Malawi. *Economics*, 10(4), 164-174. <https://doi.org/10.11648/j.eco.20211004.16>
- Rashid, A. & Shah, M. A. R. (2019). Do Bank Size and Liquidity Position Matter in the Monetary Policy Transmission Mechanism? Evidence from Islamic and Conventional Banks in Pakistan. *Journal of Islamic Business and Management (JIBM)*, 09(02), 248–271. <https://doi.org/10.26501/jibm/2019.0902-002>
- Shah, M., Khan, N., & Khan, M. I. (2021). The Effectiveness of Monetary Policy in Pakistan : The Role of the Required Reserve Ratio. *Indian Journal of Economics and Business*, 20(4), 1689–1703.
- Udeh, S. (2015). Impact of monetary policy instruments on profitability of commercial banks in Nigeria: Zenith bank experience. *Research Journal of Finance and Accounting*, 6(10), 190–206.
- Von Mises, L.(1953). *The Theory of Money and and Credit*. Ludwig Von Mises Institute: Germany.
- Wang, O. (2020). Banks, Low Interest Rates, and Monetary Policy Transmission. *SSRN Electronic Journal*, 1–92. <https://doi.org/10.2139/ssrn.3520134>
-

About the Authors

Denis Kalua (D.K.) is a Master of Business Administration student in Department of Business Management, School of Business and Economic Sciences, Malawi University of Business and Economic Sciences, Private Bag 303, Chichiri, Blantyre 3; Denis can be contacted by email: dnskalua@gmail.com

Andrew Munthopa Lipunga (A.L.) is a senior lecturer from Department of Accounting and Finance, School of Business and Economic Sciences, Malawi University of Business and Economic Sciences, Private Bag 303, Chichiri, Blantyre 3; Andrew can be contacted by email: alipunga@mubas.ac.mw.

Fredrick Banda (F.B.) is a lecturer from Department of Economics and Law, School of Business and Economic Sciences, Malawi University of Business and Economic Sciences, Private Bag 303, Chichiri, Blantyre 3; Fredrick can be contacted by email: fmbanda@mubas.ac.mw.

Author Contributions

Conceptualisation, D.K. and A.L.; Methodology, F.B. and D.K.; Investigation, D.K. and F.B.; Analysis, D.K., A.L. and F.B.; Original draft preparation, A.L.; Review and editing, F.B., D.K. and A.L.; Visualization, F.B., A.L., and D.K.

Kaula, Lipunga & Banda

Investigating the influence of monetary policy on the balance sheet performance ...

Conflicts of Interest

The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.



© 2024 by the authors. Submitted for possible open-access publication under the terms and conditions of the Creative Commons Attribution (CC-BY-NC-ND 4.0) license (<http://creativecommons.org/licenses/by/4.0/>).