

# The Impact of the monetary policy on the performance of deposit money banks in MENA Region

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#### Abstract

To support the bank to act as a buffer if the situation is adverse, ownership funds would amount to capital. Moreover, higher bank balances reduce the likelihood of trouble. Campaign capital adequacy is the degree to which banks need to deal with uncertainties such as credit, market and operational risk to withstand potential losses and safe debtors. Banks, credit rates, cash balance, and legal proportions were the monetary factors, each of which individually regressed to the performance of deposit money. The loan rates have been found to have a significant, positive effect on banks' profitability, which shows a drop in lending rates which reduces the banks' profitability. Bank rates, cash balance ratios, and regulatory ratios have also been detected negatively impacting bank profitability. They also found that the connection of bank profitability to monetary policy tools in the Private Sector was united in credit, bank rates, cash balance ratios and statutory ratios. The research stated a direct relationship between monetary policies and financial performance.

Keywords: Financial Performance, Banks, ROA, ROE, Treasure bills, Monetary Policy, Deposits

## Introduction

A commercial bank implies a corporation that carries on or proposes to conduct banking business with a limitation but does not involve the Central Bank of MENA, according to the Central Bank of MENA. As required under the banking law, the central bank of MENA shall authorize, supervise, and oversee business banks (Cap 488). With many factors affecting their activity and efficiency, the world in which commercial banks work continually changes. The overall market climate has been increasing since the turn of the century, Pearce and Robinson, turbulent and highly competitive (2005). Commercial banks have been asked to reconsider their policies to deal with the ever more dynamic climate. Commercial banks ought to understand that their goods and services can ensure positive financial results irrespective of how good they are. Recent technological developments, financial advances, and globalization undoubtedly pose a new threat for market players in the MENA financial industry. To this degree, advancements are widening the boundaries of electronic banking and financial services through computing technologies and telecommunication.

Local banks have also continued to seek branches in other East African countries. This results in two banks being subject to diverse regulatory, interest size, market prices, etc., country-specific conditions. All of which will certainly impact the expense and profits of commercial banks in the MENA banking sector and, thus, their profitability. The knowledge of monetary policies by a commercial bank in the home country and the region in which they operate would be helpful not only to maintain high profitability but would also be necessary for their sustainability by allowing them to safeguard themselves against the hindrances of external shocks. The overarching objective of the monetary policy is to set currency policy objectives that would ensure low and stable inflation, foster productivity, promote public debt long-term sustainability through stable interest rates, and lead to lower business costs by enhancing financial access within the economy (MPS, 2014). Central Bank of MENA has monitored its economy's financial supply and credit conditions by open market operations, acquisitions, and sales of qualifying securities. OMO can also be seen in short-term interest rates for stabilization.

If the Central Bank buys securities on open markets, it raises commercial banks' deposits, allowing them to raise the money supply by expanding their loans. Commercial banks thus have the opportunity to boost their credit book and increase their earnings. The CBR is the lowest interest rate paid by the CBL on loans to business banks. The Monetary Policy Committee (MPC) is checked and reported at least every 2 months at the level of the CBR, and its directional and longitudinal motions signal the monetary policy position. A rise in CBR indicates that the bank's lending rate is rising, and thus, the credit notes of the banks are being tightened. The profits of the banks are projected to decrease. The CRR is the share of a commercial bank's deposit liabilities to be deposited with CBL. The investments are held at no interest in the CRR account. Reducing the liquidity of the CRR increases commercial banks' lending capability. In any case, interest income for banks is projected to rise, and thus, profitability is improved. A rise in CRR would tighten liquidity and reduce inflationary pressures induced by demand. The overall aim of monetary policy is to establish monetary policy targets that will ensure lower and steady inflation, support growth, encourage long-term sustainability of public debt at stable interest rates and reduce the cost of business by increasing financial access throughout the economy (MPS, 2014). The Central Bank of MENA, by open market activities, purchases and sales of qualifying shares, has been able in its economy to track financial supply and credit conditions. In short-term stability interest rates, OMO can also be used. The Central Bank purchases securities on open markets and increases deposits of commercial banks to allow them to increase the availability of capital by increasing their loans. This enables commercial banks to expand their credit book and revenues. The CBR represents CBL's lowest interest rate on loans to corporate banks. The CBR is monitored and submitted at least every two months to the Monetary Policy Committee (MPC), and the directional and longitudinal motives of the Committee indicate the monetary status. An increase in CBR shows an increase in the bank's loan rate, thereby tightening the banks' credit notes. The banks' earnings are expected to fall. The CRR is the share of a commercial bank that must be invested with CBL's deposit liabilities. The CRR account holds the deposits with no interest. Reducing CRR liquidity raises the credit capacity of commercial banks. In both cases, interest incomes are expected to increase for banks, thus improving profitability. An increasing CRR will enhance liquidity and also reduce demand-induced inflationary pressure.

## **Empirical Review**

More reported research is carried out on the international determinants of commercial banks' financial results. Some reports have used different monetary instruments to evaluate the impact of macroeconomic stability on the financial output of commercial banks. In this section, several of these studies are examined. (Bernanke, 1995) surveyed to study how bank lending companies respond to tightening monetary policy.

Their research indicates that company credit should not decrease as regulation is tightened. They assumed that the net fall in loans came from a drop in mortgage and property loans (Abigail, 2019).

# **Monetary Performance and Deposits**

(Lacker, 2014) finds proof that corporate lending could contribute to the tightening of monetary policy. They find that both overall credits and company lending in small banks decline as regulation is strengthened, whereas credit in large banks is untouched. The differential reaction of small banks will show that they have lower access to alternate sources of financing than large banks and are less in a position to prevent loss of core deposits if their policies are tightened.

(Krušković, 2017) examined the velocity and asymmetry of monetary policy shocks (changes) in Italy between 1985 and 2002 to solve bank interest rates, using the Asymmetric Vector Correction Model (AVECM) that enables various short-term and long-term behaviours. The study indicates that, in the short term, but not in the long term, interest rate modification due to positive and negative shocks is asymmetrical following the implementation of the banking legislation in 1993. They also noticed that banks adapt their loan (deposit) rates quickly (Mitchell, 2018-2020). Banks, credit rates, cash balance, and legal proportions were the monetary factors that individually regressed to banks' profitability. The loan rates have been found to have a significant, positive effect on banks' profitability, which shows a drop in lending rates which reduces the banks' profitability. Bank rates, cash balance ratios, and regulatory ratios have also been detected negatively impacting bank profitability. They also found that the connection of bank profitability to monetary policy tools in the Private Sector was united in credit, bank rates, cash balance ratios and statutory ratios. (Mitchel, 2018)

# Monetary policy and liquidity requirement

(Aklita, 2010)analyzed Bangladesh as a monetary policy tool the importance of the Statutory Liquidity Requirement (SLR). Using descriptive empirical strategies such as pattern analysis and summary statistics, they found that the regulatory liquidity criteria had rarely changed. Previous data showed that the decrease in SLR positively affected bank loans, especially before the 1990s. The SLR and Cash Reserve Requirement (CRR) have proven to be important instruments for lowering inflation and are utilized only by scheduled banks in the event of dramatic imbalances caused by severe shocks. They noted that, as monetary policy instruments by its market-focused stance, Banglanco Bank has more frequently used Free Market Activities (ONMs) than adjustments in bank rate and SLR. The study (Mitrović, 2017) examined the impact on bank profits by using data from the top Pakistani commercial banks between 2005 and 2009 on bank-specific and macroeconomic variables. The methodology used for the analysis of the effects of the capital asset, credits, share capital, reserves, economic development, inflation and profitability capitalization calculated by the return on investment, stock returns (ROE), capital returns and net interest margins was the Pooled Ordinary Least Square (POLS) methodology (NIM). The findings show that domestic and external conditions play a major role in profitability.

## **Monetary Performance and Banks Profit**

In its research (Finger, 2009), polling details on the Indonesian stock bursary between 2002 and 2011 is used to analyze the profits of commercial banks in Indonesia. Return on equity and performance showed bank profitability to positively influence total assets, total equities, and the allocation of loans losses on total credit. (Mitrović, 2017), the factors for assessing domestic business banks' success in Uganda were studied. The thesis analyzed the data of both approved domestic and international commercial banks using linear multi-regression analyzes from 2000 to 2011. The study showed that the bank's success in Uganda is

determined by administration productivity, asset quality, interest revenues, capital appropriation, and inflation.

(Dibeh, 2008)has analyzed the factors that mainly influence commercial banks in Albania's financial results. The research community consisted of 16 domestic and international commercial banks, with 48 data from 2010 to 2013. The research utilized cross-sectional time-series data derived from the annual reports on the balance sheet. The study concluded that the banking scale had a negative yet statistically negligible impact on the banks' profitability, capital adequacy being one of the specific bank variables influencing the profitability level of the bank, whereas liquidity was negatively connected with profitability.

# **Monetary Policy and Banks Deposits**

The impact of monetary policy instruments on the profitability of trade banks in Nigeria was investigated, utilizing Plc's information of Zenith bank. The paper contained the descriptive conception of the study. The Time Series details from 2005 to 2012 financial statements published by Zenith Bank Plc and the Nigeria Central Bank Bulletin were used. The thesis posed four questions with analysis and four hypotheses. The collected data were evaluated during hypothesis research using the Product Time correlation methodology. The study showed that the earnings before taxes of Zenith Bank Plc were not greatly affected by the cash flow, liquidity and interest rate. However, the minimum rediscount cap has been found to significantly affect profits before bank tax. Many monetary policy instruments have not had a major impact on the profitability of commercial banks in Nigeria. The document was over. The paper recommended that Nigerian commercial banking management take monetary policy tools into account to maximise profits. (Gertler, 1994).

The MENA Commercial Bank ( (Bernanke, 1995) has released a study that analyzes the impact on the capital adequacy of profitability on banks. He notices that in their capital structure, banks are strongly supervised. This is where the bank loses because high leverage is likely to be needless in the interest of financial providers to maximize shareholder valuation since capital played a vital part in minimizing bank default figures and losses to depositors. He concluded that banks with enough resources are more effective than banks struggling to maintain the minimum regulatory requirement on capital adequacy. The effects of monetary policy on commercial banks' lending behaviour were examined (Bernanke, 1995). The research showed that CBR, cash reserve ratios, corporate opens, and uncertainty caused by more monetary policy changes affect the credit behaviour of commercial banks. (Bhattacharya, 2003) examined the macro-economic effects between 2001 and 2010 on the performance of commercial banks. The analysis was conducted over 10 years using a linear multi-regression model and generally used Lower Square data table to estimate its parameters. The results show that, except for the liquidity variable, the performance of commercial banking is greatly affected.

However, the general effect of macroeconomic conditions was not conclusive with 5 per cent of priority. Financial productivity was marginal for the modest holding of commercial banks. Consequently, it can be concluded that the financial performance of commercial banks is largely determined by management and board decisions, while macroeconomic factors do not contribute. (Bhattacharya, 2003) investigated the impact on the financial performance of commercial banks of exchange-rate determinants. The study has shown that the interest rate negatively affects bank earnings. However, the study shows that higher interest rates lead to higher profitability in commercial banks. The analysis showed that inflation has a detrimental effect on the Performance of MENA. Higher rates of inflation have often resulted in reduced profitability of banks. The analysis found that external debt had a detrimental impact on bank rentability. The analysis thus suggested that higher amounts of foreign debt lead to a decrease in bank profits. The

study showed a substantial effect on banking profitability for the export and import of products. It showed that higher exports and import levels contributed to higher profits for commercial banks. (Dibeh, 2008)examined macro-economic factors with a limited emphasis on stock banks for their impact on banks' profitability. Taking account of past inconclusive results of macroeconomic factors affecting researchers' bank earnings, the Equity Bank thesis is based on the effects of macroeconomic factors on bank profitability.

The research primarily aimed at assessing, developing and investigating the impacts on the profitability of banks of economic growth (real GDP), inflation and money, making use of the annual details over five years from 2008 to 2012, respectively. The OLS results show that MENA's profitability may not affect macro-economic conditions for equities. Economic growth (real GDP) and inflation positively affect the 5 percent mark. An immobile financial report was prepared in the Nairobi Stock Exchange-listed commercial banks (Dibeh, 2008). The study concluded that listed corporate banks were effective in receiving property financing. The study indicated that commercial banks should be concerned about the impact of mortgage financial performance. The current mortgage funding levels do not improve banks' financial products, and it is necessary to examine how mortgage finance can be used for bank deposits.

# The Size of the Bank and Deposits

The scale of the bank has a key function in the bank's success and cannot be overlooked. Large banks take advantage of high deposits and are thus more efficient than SMBs. The size of the bank usually influences the market share, which in turn impacts revenue; the higher the market proportion of a company is, the more earnings if the commercial banks that depend on it raise the loans and thus improve interest rates. Bank market share absorbs likely markets or high deposits (Krušković, 2017). The bank's scale has a lot to do with its financial success. Large banks may take advantage of large and large markets to be more competitive than small businesses. The net premium, the premium a bank has received after deduction of the reinsurance ceded, is the size. The insurers' premium base determines how much insurance liability they bear.

# **Capital Adequacy and Deposits**

Capital is a central factor affecting banks' earnings. In unfavourable circumstances, the sum of equity of shareholders can be used (Lacker, 2014). As (Lacker 2014) advocated, most banks have greater resources do much better than their undercapitalized colleagues. Income and equities between EU financial entities are associated positively. The positive link between the capital/asset ratio and bank income was supported (Mitrović, 2017). Again, it is impossible to foresee the partnership's future between bank resources and profitability unanimously. The results of domestic and international commercial banks in 15 EU countries in the span 1995-2001 are described by (Pratiwi, 2020). They conclude that bank characteristics and deposits influence domestic and international banks' profitability. The findings show that capital adequacy, credit danger, bank size and risk of liquidity are significantly linked to bank profitability; however, the impacts and relationships for domestic and international banks are not always standardized. (karam) investigated in Malawi the connection between the economy's structure and the profitability of business banks utilizing time-series data from 1970-1994. Study findings suggest that the ratio of viability and adequacy of resources and gearing has a detrimental relationship.

# Bank Liquidity Management through the means of deposits

Commercial banks have sufficient liquidity to have a seamless mediation between deficit and surplus households. Managers, therefore, ought to seek optimum cash flows. Banks borrow from other banks or

the central bank when money is a downside at criminal rates. High liquidity results in a lack of profitability. The liquidity vulnerability is reproduced by the failure of a bank to absorb liabilities or to finance increases in assets. An illiquidity bank implies that, either by raising liabilities or by transferring the assets promptly, it cannot get adequate funds at acceptable costs. When the banks have insufficient capital, they cannot meet the requisite debt capital without turning the commodity to liquidity at a fair cost. He observed that all equity and liquidity relationships had a favourable connection to profitability using the foreign data from 1972-1981.

# Methodology

# **Data Collection and Analysis**

The compilation and interpretation of data depend on the methodological methodology adopted. The method in this phase of analysis greatly contributes to the overall reliability and validity of the study (Saunders et al., 2007). Irrespective of the project method, it is possible to distinguish the data gathered into two types: main or secondary. The research relied on analyzing the data using SPSS statistical tool.

# **The Primary Data**

The primary data comes from primary sources, and this may be historical sources or the data from surveys or interview respondents (Bryman, 2012). However, the analysis conducted does not generally yield results. Data extracted from statistical collections like the census, for example, may form primary data. Other researchers may be used as primary information, or reflect a text analysis (Flick, 2011). Therefore, the main data is better interpreted than through the lens of some studies as data analyzed by itself.

# Secondary Data

Secondary evidence is based on other scholars' work or views (Newman, 1998). Similarly, analyzes of statistical samples may be secondary evidence (Kothari, 2004). However, the usage rather than the intrinsic character of the data is specified (Flick, 2011). Newspapers may demonstrate both a main and secondary database, based on the direct presence of the author.

## **Target Population**

The real demographic on which knowledge is desired is the target population of statistics. According to Ngechu (2004), a community of individuals, programs, elements, activities, groups or households are identified or examined. The study's focus population was the 14 commercial banks by the Central Bank of MENA.

## **Data Analysis**

In order to determine the average variables meaning for the research, the data obtained have been tabulated in an excel worksheet. The collected data was strictly quantitative, and descriptive-analytical methods were studied. The researchers have been able to classify data and assess the amount of data they have used using descriptive statistical methods like SPSS. Tables and maps, percentages, tablets, 37 means and other central trends present results. The thesis focused on the partnership between monetary policy instruments and financial results of commercial banks in MENA. The data collected were tabled in an excellent worksheet to assess the significance of the average variables for the study. Data were compiled, and methodological techniques were purely quantitative and descriptive. Researchers have characterized data by descriptive mathematical approaches such as SPSS and analyzed the data they used. For results

presentation, tables and charts, percentages, smartphones, 37 media and other key patterns are used. This research centered on the relationship between monetary policy tools and MENA's financial performance.

# **Analytical Model**

The model used in the study took the form below:  $Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta 4X4 + \varepsilon$  Where:  $\alpha = Constant Term$ ;  $\beta 1$ ,  $\beta 2$ ,  $\beta 3$  and  $\beta 4 = Beta coefficients$ ;  $\varepsilon = Error term$ .

# **Descriptive Analysis**

	N	Minimum	Maximum	Mea	n	Std. Deviation
					Std.	
	Statistic	Statistic	Statistic	Statistic	Error	Statistic
NIM	110	.0232	.1697	.073985	.0025332	.0265688
TBILL	110	.0505	.1457	.100620	.0029298	.0307283
CBR	110	.0679	.1576	.096320	.0030101	.0315705
CRR	110	.0450	.0525	.050000	.0003029	.0031768
SIZE	110	15.3263	19.7477	17.50890	.1171721	1.2289111
Valid N (listwise)	110					

#### Table 1: Descriptive Statistics

Source: Research Findings

Key: NIM = Net Interest Margin; TBILL = 364 T-Bill Rate; CBR = Central Bank Rate; CRR= Cash Reserve Ratio; SIZE = Size of the bank.

As seen in this table 1, 110 observations were acquired from 22 banks selected throughout five years from the research for interpretation. In NIM, the total financial outcome was 0.07399, with a default deviation of 0.0266. The average rates for T-bills were 0.1006 with a standardized deviation of 0.03072, and the average rates were 0.0963 with standard deviations of 0.03157; the CRR had a mean of 0.05 with the standard deviating rates being 0.00317.

## **Correlation Analysis**

Table 2 presents the results of correlation analysis on all the independent variables used in the study. This analysis was conducted to test how the independent variables were related to each other to ascertain the presence of multicollinearity.

	NIM	TBILL	CBR	CRR	SIZE
NIM	1.000	.037	.018	.052	.414
TBILL	.037	1.000	.868	.850	.125
CBR	.018	.868	1.000	.565	.046
CRR	.052	.850	.565	1.000	.184
SIZE	.414	.125	.046	.184	1.000

Table 1. Correlation Analysis
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Key: NIM = Net Interest Margin; TBILL = 364 T-Bill Rate; CBR = Central Bank Rate; CRR= Cash Reserve Ratio; SIZE = Size of the bank.

Table 2 data reveal that the interest and cash balance of the Central Bank are highly linked to T-Bills. This argues that a multi-linearity of separate variables shows that integration into the regression model leads, as without modification, to fake regression. Before the study regression equation was accomplished, the first inequalities were translated. The regression analyses of the findings gathered have been reported in Table 3 and shows association, norm, t and meaning coefficients.

		Unstandardized Coefficients		Standardized Coefficients		
Model	l	в	Std. Error	Beta	t	Sig.
1	(Constant)	084	.034		-2.463	.015
	DIFF(TBILL,1)	.506	.984	.140	.514	.608
	DIFF(CBR,1)	221	.547	082	405	.687
	DIFF(CRR,1)	-4.349	8.797	087	494	.622
	SIZE	.009	.002	.416	4.640	.000

#### Table 2. Regression Analysis

a. Dependent Variable: NIM Source: Research Findings

As seen below, the volumes in T-Bill have a beneficial influence on MENA business banks' financial success. In 5 percent,  $\beta = 0,506$ ,  $p = 42\,0,608$  this impact was negligible. The data also indicate that the central bank rate negatively impacts commercial banks' financial performance. The impact was negligible at 5%,  $\beta = 0.221$ , p = 0.687. The table 3 also reveals a negative effect on the financial performance of commercial banks from the cash-reserves ratio  $\beta = -4,349$ , p=0,622. In conclusion, the studies showed that commercial banks had a favourable and significant financial impact in MENA:  $\beta = 0.009$ , p<0.05. The results are hopeful and crucial.

#### Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.420 <sup>a</sup>	.177	.145	.0246789

a. Predictors: (Constant), SIZE, DIFF(CBR,1), DIFF(CRR,1), DIFF(TBILL,1)

Variations in monetary policy instruments can be clarified only by 17.7% of financial results variations by commercial banks in MENA. Other variables justify 92.3 percent of the differences (table 4).

# **Analysis of Variance**

Variance analysis (ANOVA) is a mathematical method under which a variable's cumulative variability is divided into components attributable to various influences. In regression analysis, ANOVA was used by the researcher to assess the utility of the individual variables in describing the variable. The F-test was an effective statistical test for variance analysis, as shown in table 5.

Mode	1	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.014	4	.003	5.581	.000ª
	Residual	.063	104	.001		
	Total	.077	108			

Table 5.	Sum	of Squares
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a. Predictors: (Constant), SIZE, DIFF(CBR,1), DIFF(CRR,1), DIFF(TBILL,1)

b. Dependent Variable: NIM

The F-statistics were 5,581 and important at 5%, p=0,000, meaning it was appropriate to clarify the relation of monetary policy instruments to commercial banks' financial success in MENA.

# Conclusion

The research analyzed the financial results of commercial banks in MENA by monetary policy instruments. The analysis showed that the financial success of commercial banks in MENA has no substantial impact on monetary policy instruments. The report thus concludes that the financial efficiency of commercial banks in MENA is not affected by monetary policy instruments. The report evaluated the Lebanese financial efficiency of commercial banks of the Treasury Bill Rate (T-Bill Rate). The findings suggest that the T-Bill Rate positively impacts commercial banks' financial success. Therefore, the analysis concluded that the T-Bill prices have a negligible yet optimistic impact on commercial banks in MENA's financial results. The report analyzed the Central Bank Rate's effect on commercial banks' financial success in MENA. The findings have shown that the CBR rate had a detrimental impact on commercial banking's financial success. The analysis thus found that the CBR rate did not significantly impact MENA's financial results. The report also evaluated the impact on the financial results of commercial banks in MENA of the Cash Reserve Ratio. The findings suggest that the financial efficiency of listed banks is negatively affected by Cash Reserve Ratio. The analysis thus found that the cash reserve ratio has little effect on MENA's financial results. The thesis analyzed the impact of bank size on MENA's financial efficiency. Results revealed that the financial success of commercial banks had had a slightly positive impact. The analysis thus concluded that the financial success of listed companies in MENA is affected by the bank volume.

# Limitations of the Study

In the analysis, 22 commercial banks of MENA used secondary evidence. This sample cannot indicate all business banks in MENA and does not apply to all banks. It could be necessary to involve all commercial banks to strengthen this restriction. The findings do not apply to other financial institutions because commercial banks were the subject of this analysis. While it may provide other financial institutions with significant perspectives, those assumptions need to be considered with caution, considering the differences between the way commercial banks work and the functioning of other financial institutions. This research must be replicated or included in the study by other financial institutions to strengthen this. The period for the data gathered was five years a year. There is not a long time that will contribute to robust returns for banks. It would have been preferable to perform a panel study over a longer time, say 10 years, with shorter periods, say three-quarters. This constraint will be reduced by a longer time.

## **Recommendations for Policy**

The report recommends that commercial banks emphasize financial results more internally. These domestic considerations include finance adequacy, asset quality, management performance, income and liquidity. The management would use risk management policies for the bank to control the monetary policy instruments impact. It also advises that although the size of the bank has been shown to improve financial efficiency, banks must consider the origin of their funds and their costs. The study indicates that more research in this domain is being conducted, emphasizing all Lebanese banks and other financial entities, such as microfinance, which also lend. This can be achieved by emphasising both Lebanese commercial banks and microfinance institutions. Studies on this matter can also be performed using relatively long (over five years) and narrower (say quarterly) time intervals of data collection since these studies can prove valuable in revealing patterns and long-term relationships between monetary policy instruments and MENA's financial results. The report also proposes that more studies examine the connection between commercial banks' monetary and financial policy instruments with small, medium, and large banks. As the study results show, bigger banks have seen higher net interest rates than smaller banks.

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