

Surveying the effect of Monetary Policy Instrument Components on the Performance of Commercial Banks in MENA Countries, especially Iraq

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Abstract: The legal reserve ratio is an indirect monetary instrument communicated to the banking system by monetary authorities, and it usually affects the behavior of financial institutions, including banks, with the goal of short-term monetary management. The banking system is the primary conduit for monetary policy. The impact of the components of monetary policy instruments on the performance of commercial banks in Mena countries, particularly Iraq, is examined in this article. The threshold vector autoregression (TVAR) method and quarterly data from 2013 to 2018 were used for this. The maximum likelihood method was used to test the nonlinearity of the econometric model first. According to non-linear and regime-dependent test statistics, the influence of monetary policy and inflation on the return on assets, net profit margin, cost-to-income ratio, and output. The volume of loans granted by state and non-state banks, as well as the gross domestic product, were confirmed. The one-threshold orthogonal logarithm test was then used to accept the model. This template's threshold value was calculated using the network search method. Finally, generalized instantaneous response functions are used to investigate the effects of monetary policy and inflation.

Keywords- Monetary Policy Components, Banking, Financial Performance, Business Performance, Iraq.

I. INTRODUCTION

The banking system's responsiveness to shocks or economic swings is one of the most critical difficulties in any economy. A "shock" [1] is defined as an unexpected event that has an unanticipated influence on economic variables. Shocks may be classed as environmental, external, internal, or supply and demand shocks. As one of the forms of economic policies, monetary policy adoption is a process in which the country's central bank or monetary authority manages the money supply or other monetary variables and imposes variations on the economy. This strategy is often employed to accomplish a set of economic development and stability objectives, such as boosting economic growth, achieving full employment, stabilizing general pricing levels, and so on (Majidi and Golriz, 1998). The Middle East and North Africa (MENA) area, which includes 28 nations and a population of 357.3 million people (World Bank, 2014), is fast rising and growing in importance in the global economy. Geographically, it serves as a link between Europe and Asia, and it is one of the world's most resource-rich areas, since it contains the Persian Gulf Cooperation Council's oil-rich nations. It is also the world's biggest Islamic bank (Globe Bank, 2013), with many of its branches serving Muslims and other populations all over the world. Foreign banks have entered the area as a result of globalization and the removal of obstacles, resulting in increased efficiency and competitiveness (Jan et al., 2011). Banks profit from the competitive edge that growing markets provide (Klassins et al., 2003). They do, however, play a role in the transmission of financial shocks (Classins et al., 2011). Domestic banks, unlike international banks, may be affected differently by financial crises (Ivanisha et al., 2010). The MENA area, on the other hand, has minimal proof. Articles on distinct nations, such as Egypt, already exist (Imran, 2007). They either evaluate regional banking efficiency and performance (Olson et al., 2011) or the possible influence of alternative forms of ownership (Olson et al., 2011). (Fazeri et al., 2011). However, none of them examines the impact of monetary policy on bank performance in the area (Mena), particularly in Iraq. Because the banking system meets the financial demands of other sectors, the banking sector is a vital part of the economy. As a result, the banking sector's performance affects macroeconomic performance. The banking sector must be successful in meeting the economy's liquidity and credit demands, and if it fails to do so, the economy's performance will suffer. The banking system is the primary conduit for monetary policy.

Monetary policy tools, as Ajayi and Atanda (2012) point out, do not have a direct influence on economic activity, but rather function via their impacts on the banking system. As a result, monetary policy may have a significant influence on depository firms through affecting access to system resources.

Furthermore, commercial banks' dominance in most developing countries' non-financial performance is undeniable. Because the banking system's primary function is to bridge the financial gap between savers and borrowers, the central bank assigns the banking system primary responsibility. The central bank's operations in carrying out this function may be described in at least two broad objectives: the former is done primarily via monetary policy, while the latter can be accomplished through the bank's supervisory role and payment system stability. The central bank is the sole element in maintaining the national currency's stability and adjusting inflation due to its involvement in monetary policy. However, in recent years, the central bank's monetary performance has been integrated with other auxiliary tasks. According to ICPO (2018), monetary policy's responsibility has extended to include price stability, currency market stability, financial market stability, high employment, economic growth, effective resource allocation, and expanding industrialization, among other things. Smoothing the business cycle, optimizing the balance of payments, preventing the financial crisis, stabilizing long-term interest rates and real exchange rates, promoting exports, and maintaining the internal and external balance make the above difficult for the central bank, resulting in the failure of key oversight functions. Performance indices in African commercial banks have decreased over time, particularly in Tunisia. The stock of justice shares, for example, fell from 114.3 percent in 2001 to 12.4 percent in 2006, and then to -0.46 percent in 2016. (Amojoi et al., 2016; Aerodel, 2014; Nodegbo and Ukraine, 2015; Aerodel, 2014) And Abioma et al., (2018) are two recent studies on the impact of monetary policy on commercial bank performance in African nations. Their procedure, however, was standard least squares regression. The financial development literature, according to Ajayi and Atanova (2012), has a methodological deficit. A strong financial sector is necessary for developing a strong national economy and ensuring enough liquidity. For economic progress, proper liquidity management is critical. Fiscal measures, on the other hand, are required to ensure economic stability. Despite the creation of regulatory agencies and monetary policy committees, banks have almost stopped providing enough liquidity and credit to keep the economy afloat. Over time, central banks in developing nations have implemented a variety of monetary policies to control and expand the financial sector in order to attain significant macroeconomic objectives, which are often incompatible and result in economic distortions. As a result, in the realm of monetary policy, asymmetric effects relate to a scenario in which the impacts of a policy are not fixed and alter depending on the circumstances. Asymmetric objectives, in general, result in nonlinear response functions, which is owing to the weight supplied by the possible deviation of inflation from target inflation, which varies depending on economic circumstances. Estimating threshold models is a straightforward technique to generate nonlinear connections or asymmetry in behavior policy. The threshold regression approach attempts to determine if regression functions pass all data evenly or may be split down into distinct groups.

II. BACKGROUND RESEARCH

In his study, Ammar Hamad Khalaf (2020) looks at the effects of financial restriction policies on financial growth in Iraq from 1970 to 2002. Iraq, like other developing nations, has used financial restriction as a tactic to encourage the growth of the financial sector. The banking sector's oppressive policies have failed to stimulate economic sectors. This reality demonstrates that Iraqi officials must reject restrictive measures in order to construct a sophisticated and advanced financial system that will lead to the country's economic progress. Throughout addition, new bank branches with more independence should be built, and sufficient funds should be distributed in the nation to boost finance. Fadhil Qari Qazar al-Sheibani (2019) investigated the impact of money supply increase on inflation in Iraq, proposing money or money supply of different forms in a given period of time in the society in which circulation and bank money are generated. During the study period (1990-2017), the Iraqi economy witnessed a significant growth in the issuance of money, which was represented in an increase in the money supply, as well as a general rise in prices and a reduction in the buying power of the Iraqi dinar. The ongoing acceleration of the practice of cheap monetary policy was responsible for this growth in the money supply. On the other side, via the method of expanding the budget deficit. Inflation has been impacted significantly by unjustified government expenditure and poor economic policies. As a result, the Central Bank of Iraq's instruments and procedures for reducing inflation and developing banking awareness for the Iraqi economy's security should be evaluated. Using the CAMELS model, Ali Abdul Hassan Abbas et al. (2019) performed a research to determine the most relevant variables impacting Iraqi commercial banks. This study used a sample of thirteen (13) Iraqi commercial banks that are listed on the Iraqi Stock Exchange. The CAMELS standard took into account economic inflation and other economic variables impacting the distribution of financial ratios of equations at five levels. In addition to using a statistical approach, changing categories according to standards (CAMELS),

and using a statistical method, an algorithm program was run in the MATLAB program. According to the report, Iraqi banks suffer from market risk sensitivity and are unable to deal with large market risk shocks, as well as weak management. Crisis 2014-2018, Hozan Nayef Abdul Qadir (2019). Currency and credit volatility, financial crises, and policy response are all on the table. The major goal of this research is to look at the non-monetary elements that influence employee performance in Iraqi Kurdistan in general and Erbil in particular. The researcher, on the other hand, devised five study hypotheses to test and evaluate in order to assess employee performance amid a financial crisis. To assess the hypotheses of the created study, the researcher used a basic regression analysis. Another source of job enrichment was employee performance amid the Iraqi Kurdistan region's financial crisis. In terms of the influence of monetary policy on bank performance, Abioma et al. (2018) found that the level of bank performance is sensitive to the kind of monetary policy instrument utilized, leading them to infer that monetary policy's strength rests in the combination of multiple instruments. The study of Alaa Hamed Faisal et al. (2018) intends to examine the developments of Iraq's money supply and determine the amount of money supply on GDP by regulating the monetary authority of the Central Bank of Iraq on the volume of money supply in order to raise GDP via inflation. The study employs a descriptive-analytical approach. The study's major result is that there is a positive functional link between money supply and GDP growth, and that monetary power may influence production for economic stability and growth utilizing this relationship. Finally, monetary policy's instruments and variables may assist in achieving economic stability and balance. Mohebbi and Shahrestani (2017) investigated the role of the banking system in transmitting shocks at the community level using a stochastic dynamic general equilibrium model and taking into account the interbank market as well as the possibility of endogenous default for firms and the banking sector. The findings revealed that the banking sector plays a critical role in the transmission of shocks in the Iranian economy, and that the central bank may help mitigate shocks in the near term by infusing liquidity into the interbank market. By treating the banking sector as a financial intermediary for the Iranian economy, Shah Hosseini and Bahrami (2016) developed a standard model of New Keynesian stochastic dynamic general equilibrium. The inclusion of the banking sector in the stochastic dynamic general equilibrium model and its empirical assessment in this work revealed that the variations of Iranian business cycles may be explained.

III. THE THEORETICAL FRAMEWORK OF RESEARCH

3-1. Monetary policy

Monetary policy refers to the actions taken by the central bank to manage liquidity. The bank attempts to affect family spending patterns and company output, as well as inflation, via the execution of these policies. Furthermore, monetary policy may directly restrict banks' capacity to issue new loans, limiting credit accessible to borrowers and making them more reliant on bank funding. This viewpoint essentially asserts that a restrictive monetary policy works not just through rising interest rates but also by reducing bank lending directly. The credit channel, often known as the credit view, is located here. Due to information difficulties in credit markets, the credit channel may be separated into two primary money transmission channels: bank loan and balance sheet (Kashyap et al., 2000). Bank reserves and deposits rise when monetary authorities pursue expansionary monetary policy, increasing the amount of bank loans available. In such circumstances, the bank loan may become operational, and the investment expenses would rise as a result of the increased debt. The general consensus on credit is that monetary policy has a stronger influence on the expenses of small businesses, who are more reliant on bank loans than on outside finance. It's helpful to know whether there's a lending route if you want to follow up on policy decisions. If bank capital is in decline, the lending channel is weakened; as a consequence, traditional recession remedies may not be successful, and capital injection into the banking sector may be a better choice than expanding monetary policy (Kashyap et al., 2000).

3-2. Contractionary and expansionary monetary policy

The basic objectives of monetary policy in the economy are confined to stimulating economic development, achieving full employment, stabilizing general price levels, and achieving a balance in the balance of payments. Monetary policy is viewed as a tool of power for controlling liquidity, and it is divided into two types: expansionary and contractionary monetary policy. The key to identifying expansionary sites that achieve the overall goal of monetary policy by increasing the money supply is to understand how to identify expansionary sites. In other words, it may be detected based on money supply expansion measures. When the economy is in a condition of recession, the central bank uses this monetary policy to balance the country's economy and minimize the negative impacts of this phenomena on the money supply rather than curbing the recession. A contractionary monetary policy may be characterized by the fact that it accomplishes the broad goals of monetary policy by lowering the money supply, or in other words, it can be identified by efforts to decrease the money supply. Given the tension between them, accomplishing all of the aforementioned aims at the same time cannot be accomplished just via monetary policy; instead, suitable fiscal and exchange rate

policies are required. In fact, it is necessary to use a suitable combination of monetary, fiscal, currency, and other policies in order to achieve a certain number of economic goals, and to see if these policies have the necessary coordination; otherwise, the expected effects of a contractionary monetary policy can be offset by an expansionary monetary policy. Contractionary policies are being implemented at a time when society's costs are growing, and there is concern that big quantities of money in people's hands may lead to the purchase of low-cost items from elsewhere, reducing local manufacturing. As a result, monetary policymakers must pursue a strategy that minimizes the money supply in society. When individuals have less money in their hands, their desire to buy lessens, and they buy the same items with less money, reducing the price of commodities (Arbabi and Shahrestani, 2009).

3-3. Profitability of commercial banks

Many accounting and financial science experts have always examined profitability. Profit is the subject of numerous publications and conversations. Some academics have looked at the link between capital structure and profitability, while others have looked at the link between liquidity and profit, while others have looked at the quality of profits per share and emphasized the independent categorization of its component parts. Determine the study of the primary elements determining a company's profitability. The function of financial systems and the value of financial institutions in economic development have been vividly emphasized by global economic crises. By concentrating scarce resources and cash for significant investments, financial institutions may make an economy more productive. Given the significance of the banking system, understanding the variables that influence bank profitability is critical. More bank profitability not only helps banks to raise capital to lend more credit to the economy, but it also ensures that bank officials can invest in hazardous settings. It also provides stockholders with reasonable returns (Antonio; 2013). The capacity of a corporation to produce a profit is referred to as profitability. The final consequence of all of the company's financial strategies and actions is profitability. Profitability is often measured using profit-sell, return on assets, and return on equity (Ahmadpour, 2014). Companies nowadays are attempting to maximize their company's worth in order to attract investors, and growing revenue and profit growth is one of the options they examine.

3-4. Profitability of commercial banks

This displays the company's revenue and represents the difference between bank interest income on loans, securities, and interest expenses on loans obtained. The bigger the net profit margin, the more profitable and reliable the bank is.

3-5. Efficiency of commercial banks

The efficiency index is a ratio that reflects a bank's ability to develop facilities from deposits, i.e., a higher ratio implies that banks have been able to create more facilities from deposits in accordance with the central bank's rules and distribute them to various persons in society. One of the most essential measures for determining the best performance of economic units is efficiency. Although there are numerous definitions of efficiency, they all agree that an efficient business is one that makes the most of certain data combinations. When the negative repercussions of a firm's actions are also considered negative outputs, the various definitions of efficiency begin to resemble one another. This method distinguishes between the firm's "internal efficiency" (private efficiency) and its "external efficiency" (social efficiency). Internal efficiency is linked to the optimality of the business's operations, providing the firm is constrained by institutional limitations. To put it another way, how has the company responded in the present situation? The optimality of the impacts of business activity on the economy is referred to as external efficiency. In other words, individual interests are taken into account for internal efficiency, while societal interests are taken into account for exterior efficiency. One of the most fundamental concerns in economics is how to align private and societal efficiency (Tavaklian, 2012).

IV. RESEARCH METHODS

This study is quasi-experimental in nature, using a post-event methodology. When a researcher studies a topic after an occurrence, they employ the post-event approach. In terms of research methodology, this study belongs to the descriptive research category. The material for this article was gathered from library sources and is based on quarterly statistics from 2013 to 2018. The positive and negative impulses of monetary policy may have uneven impacts because simple linear time series patterns generally leave crucial features of economic data unexplained. As a result, nonlinear technologies seem to be more efficient when it comes to data analysis.

Regarding threshold autoregression pattern in the function (1) with two threshold variables in which the Y_t observations are divided into four regimes.

$$Y_t = \begin{cases} \beta_0^{(1)} + \beta_1^{(1)} y_{t-1} + \beta_2^{(1)} y_{t-2}, \dots, \beta_{p_1}^{(1)} y_{t-p_1} + u_t & \text{when } z_{1t} \leq \gamma_1^0, z_{2t} \leq \gamma_2^0 \\ \beta_0^{(2)} + \beta_1^{(2)} y_{t-1} + \beta_2^{(2)} y_{t-2}, \dots, \beta_{p_1}^{(2)} y_{t-p_1} + u_t & \text{when } z_{1t} \leq \gamma_1^0, z_{2t} > \gamma_2^0 \\ \beta_0^{(3)} + \beta_1^{(3)} y_{t-1} + \beta_2^{(3)} y_{t-2}, \dots, \beta_{p_2}^{(3)} y_{t-p_2} + u_t & \text{when } z_{1t} > \gamma_1^0, z_{2t} \leq \gamma_2^0 \\ \beta_0^{(4)} + \beta_1^{(4)} y_{t-1} + \beta_2^{(4)} y_{t-2}, \dots, \beta_{p_2}^{(4)} y_{t-p_2} + u_t & \text{when } z_{1t} > \gamma_1^0, z_{2t} > \gamma_2^0 \end{cases} \quad (1)$$

Where $z_t \equiv (z_{1t}, z_{2t})$ are threshold variables.

$\gamma^0 \stackrel{\text{def}}{=} (\gamma_1^0, \gamma_2^0) \in \Omega$ in which $\Omega = [\underline{Y}_1, \overline{Y}_1] \times [\underline{Y}_2, \overline{Y}_2]$ is This is a strict subset of Z_t backups.

γ^0 is the threshold parameter vector contains monetary variables.

$P_{j(j=1,2,3,4)}$ is the number of each regime.

$\beta_{(j)} \equiv (\beta_{0(j)}, \beta_{1(j)}, \beta_{2(j)}, \dots, \beta_{p_j(j)})$ are structural parameters. $B_{(i)} \neq \beta_{(j)}$

The patterns in every regime are a linear autoregression pattern. To identify the number of regimes, we first regard the zero hypothesis in which there is no threshold effect.

$$H_0 = \beta^{(1)} = \beta^{(2)} = \beta^{(3)} = \beta^{(4)}$$

Under the null hypothesis, there is only one regime. The probability ratio test statistic is defined as the formula (2).

$$J_T = \max_{\gamma \in \Omega} (T - P) \frac{\tilde{\sigma}^2 - \hat{\sigma}^2}{\hat{\sigma}^2(\gamma)} \quad (2)$$

$(T - P)\tilde{\sigma}^2$ are the sum of the remainders of the squares under the null hypothesis, while

$(T - P)\hat{\sigma}^2(\gamma)$ is under the opposite premise.

Our pattern will be a basic AR pattern if the H_0 hypothesis is not rejected. The presence of more than one regime as well as threshold effects is shown by rejecting the null hypothesis. Except for the likelihood ratio test, the three-regime model is evaluated first against the four-regime model throughout the whole procedure, with the following zero hypotheses.

$$H_0: \beta^1 = \beta^2$$

$$H_0: \beta^1 = \beta^3$$

$$H_0: \beta^1 = \beta^4$$

$$H_0: \beta^2 = \beta^3$$

$$H_0: \beta^3 = \beta^4$$

A verification test in the form of:

$$J_T(\hat{Y}) = (T - P) \frac{\tilde{\sigma}_0^2(\hat{Y}) - \hat{\sigma}_1^2(\hat{Y})}{\hat{\sigma}_1^2(\hat{Y})}$$

To test this pair of hypotheses are applied, where $(T - P)\tilde{\sigma}_0^2(\hat{Y})$ is the sum of the remainders of the squares under the hypothesis H_0 and the sum of the squares of the remainder under the hypothesis H_1 .

In all hypotheses, zero shows the existence of four regimes. If one of the hypotheses is accepted, then there are less than four diets, in which case we test the two-diet model versus the three-diet model. For instance, if the hypothesis $H_0: \beta_{(1)} = \beta_{(2)}$ is accepted, then there are a maximum of three regimes.

The following three hypotheses are tested applying $J_T(\hat{Y})$

$$H_0: \beta_{(1)} = \beta_{(2)} = \beta_{(3)}$$

$$H_0: \beta_{(1)} = \beta_{(2)} = \beta_{(4)}$$

$$H_0: \beta_{(1)} = \beta_{(2)} \text{ and } \beta_{(3)} = \beta_{(4)}$$

The opposite hypothesis notes that there are three regimes and is as follows.

$$H_0: \beta_{(1)} = \beta_{(2)}$$

If all the above null hypotheses are rejected, we conclude that there are three regimes. Otherwise, we conclude that the model has two regimes (Chen et al., 2012).

Consequently, the nonlinear threshold vector autoregression (TVAR) method was applied to estimate the pattern.

The pattern applied is as follows:

Where a two-mode TVAR pattern can be expressed as a function (3):

$$Y_t = \mu^1 + A^1 Y_t + B^1(L)Y_{t-1} + (\mu^2 + A^2 Y_t + B^2(L)Y_{t-1})I(c_t - d > \gamma) + u_t \quad (3)$$

Where γ_t is the vector of endogenous variables. I is an index variable that is equal to one when the threshold variable $c_t - d$ is greater than γ , otherwise it is zero. If $I = 0$, the VAR dynamics are determined by the constant vector μ_1 , the matrix of simultaneous reaction coefficients is A_1 , and the intermittent polynomial matrix is $B_1(L)$. If $I = 1$, the relevant coefficients are $\mu_1 + \mu_2$, $A_1 + A_2$ and $B_1(L) + B_2(L)$. μ_t is also a vector of structural change (Mandler, 2011).

V. RESEARCH FINDINGS

The results of identifying the optimal interval length based on the minimum criteria of Akaike, Schwartz, Henan Quinn and the maximum function of the logarithm are given in Table (1).

Table (1): Determining the optimal number of interrupts in the TVAR pattern

Number of interruptions	LogL	LR	FPE	AIC	SC	HQC
0	100/0553	NA	1/25e-09	-3/148124	-3/949167	-3/104945
1	201/3809	154/4010	3/84e-13	-17/27438	-16/27959	-17/05848
2	256/5935	30/86990	9/35e-14	-19/48509	-16/89866	-18/92377
3	216/0767	16/79518	5/30e-13	-17/15016	-15/35955	-16/76159
4	218/003	30/6601	7/06e-07	-19/33562	-16/61007	-18/92293
5	87/521	29/3793	6/09e-11	-16/43126	-13/82841	-17/14386
6	82/341	17/8124	3/34e-03	-15/88429	-15/99136	-14/81659

Reference: Research calculations using EViews software

The results of Table (1) indicate that during interval 2, the criteria of Akaik, Schwartz, Henan Quinn

The minimum value and the logarithm function have their maximum value, hence the interval 20 is chosen as the optimal interval length in the TVAR pattern.

The nonlinearity of the data behavior and confirmation of the research hypothesis (The effect of monetary policy and bank credit on the performance of the Commercial Bank of Iraq has a nonlinear process and the need to use threshold nonlinear patterns) are indicated by the results of the test of likelihood ratio and the values of test statistics in Table (2).

Table (3-4): Results of the likelihood ratio test

Verticality ratio test (linearity versus TVAR pattern (1) and TVAR pattern (2))		
	Test statistics	Probability value
Linear VAR vs. TVAR (1)	151/0004	0/000
Linear VAR vs. TVAR (2)	467/2492	0/000

Reference: Research calculations applying R.3.0.2 software

After confirming the nonlinearity of the vector autoregression pattern, the number of thresholds (number of regimes) is chosen applying the logarithm test.

Identifying the number of thresholds

Table (3): Results of the logarithm test

Validation logarithm test	
Type of test	Test statistics
Pattern of two regimes (single threshold)	-2780/95
Pattern of three regimes (two thresholds)	-2341/611

Reference: Research calculations applying R.3.0.2 software

Based on the values of test statistics in Table (3) and the smaller value of test statistics for the two-diet model, the two-diet model (single threshold) is chosen.

Figure 1 indicates the outcome of a network search as well as the target function's unusual behavior. A U-shaped network search graph is formed by a significant threshold effect. The threshold parameter in this pattern has a value of $6.e5 + 05$, as seen in the diagram. Credits (volume of facilities issued by state and non-governmental banks) are high when values are greater than this number in the GDP regime, while credits are low when values are lower than this amount in the GDP regime.

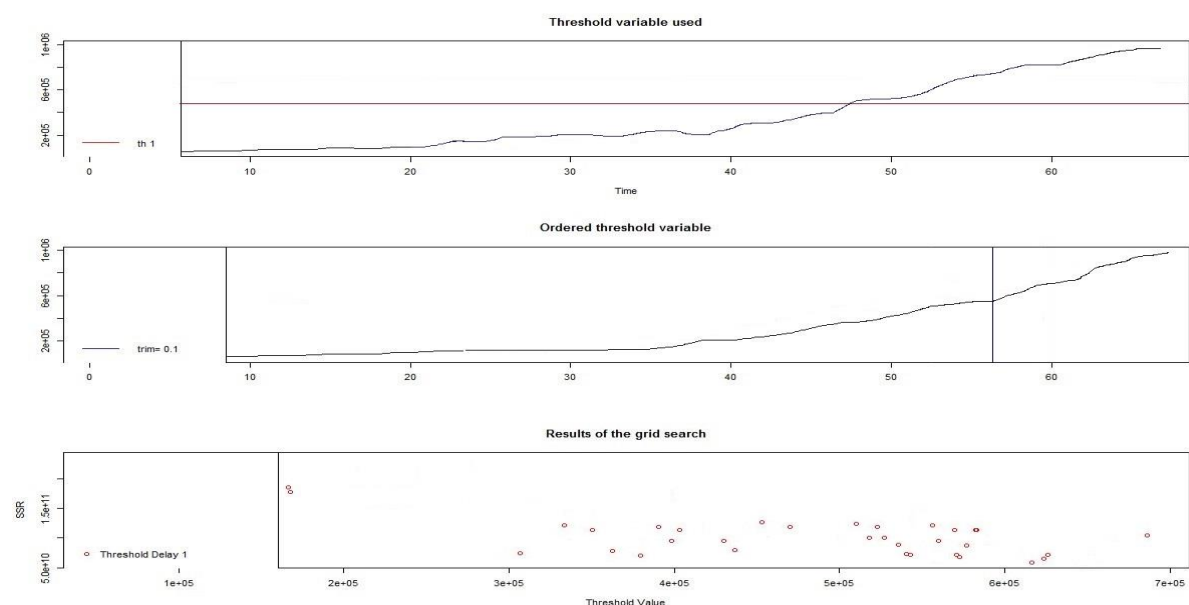


Figure 1): Determining the threshold value (network search results)

Evaluating the positive impulse of monetary base in high regime

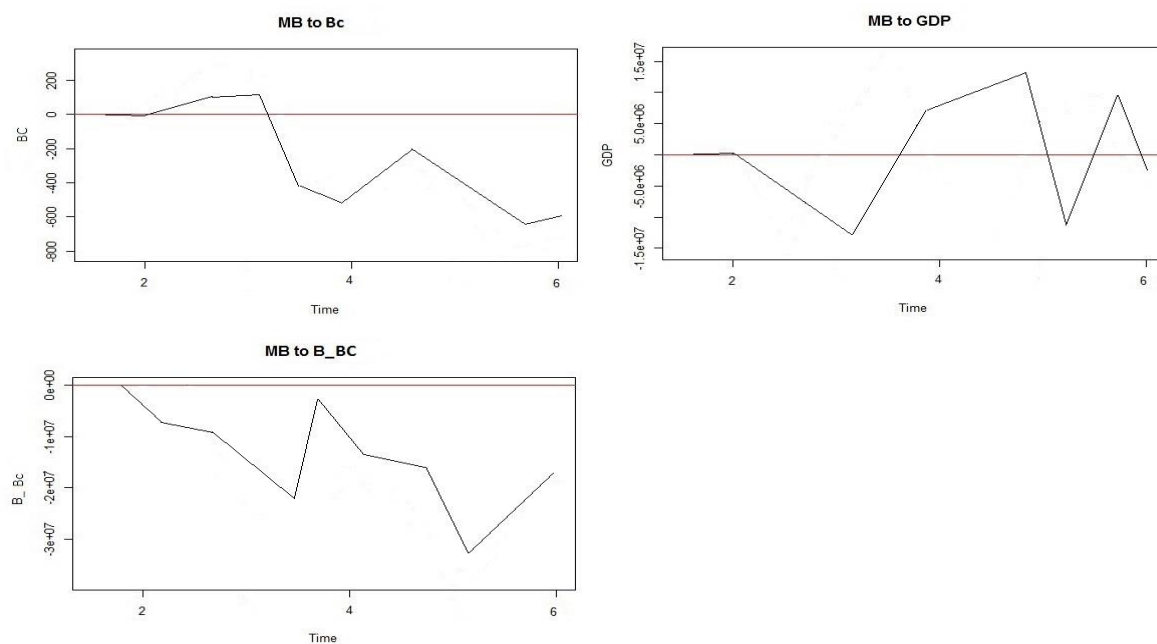


Figure (2): figure of positive monetary base impulse - high regime

Investigating positive monetary base shocks in low regime

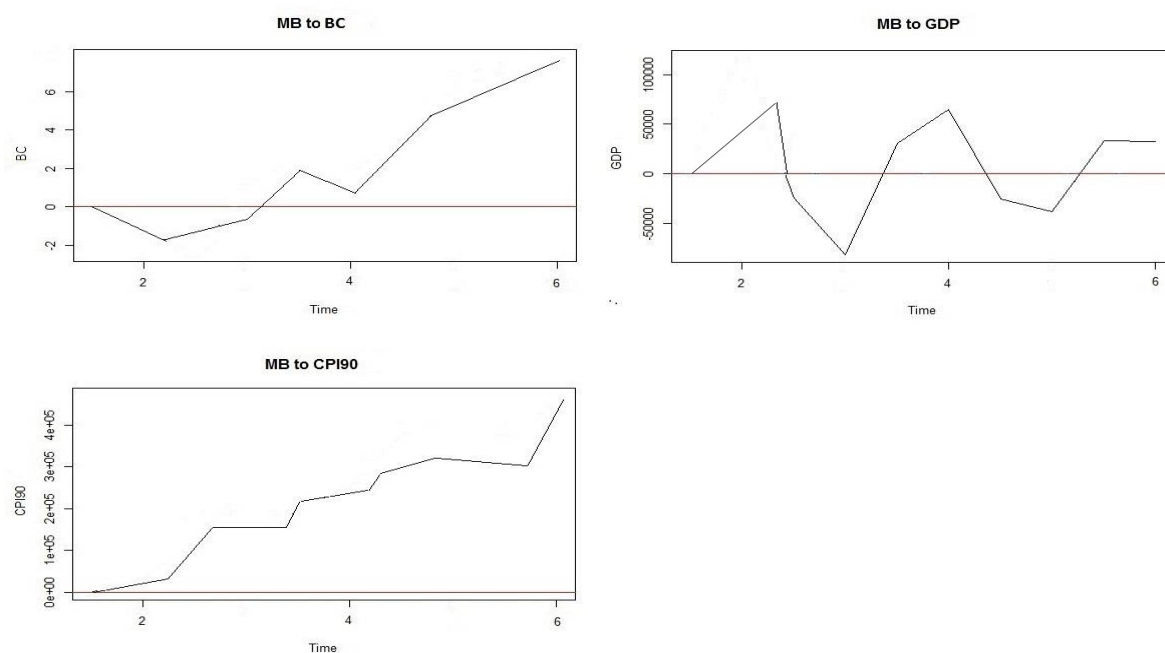


Figure (3): Monetary base positive momentum diagram - low regime

Investigating negative impulse of monetary base in high regime

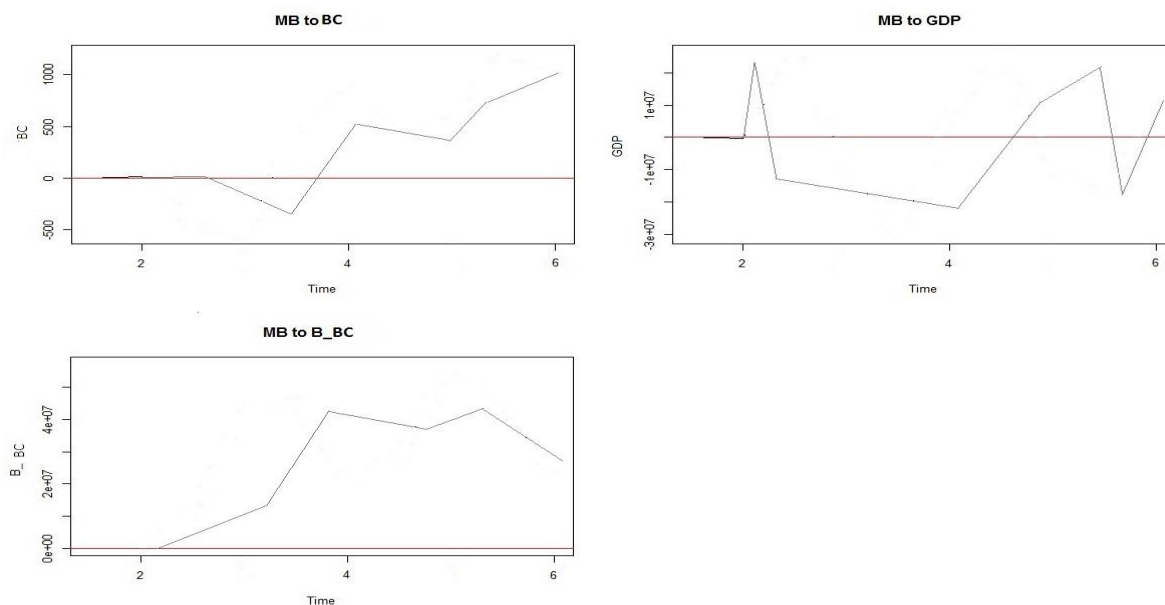


Figure (4): figure of negative monetary base impulse - high regime

Investigating negative impulse of monetary base in low regime

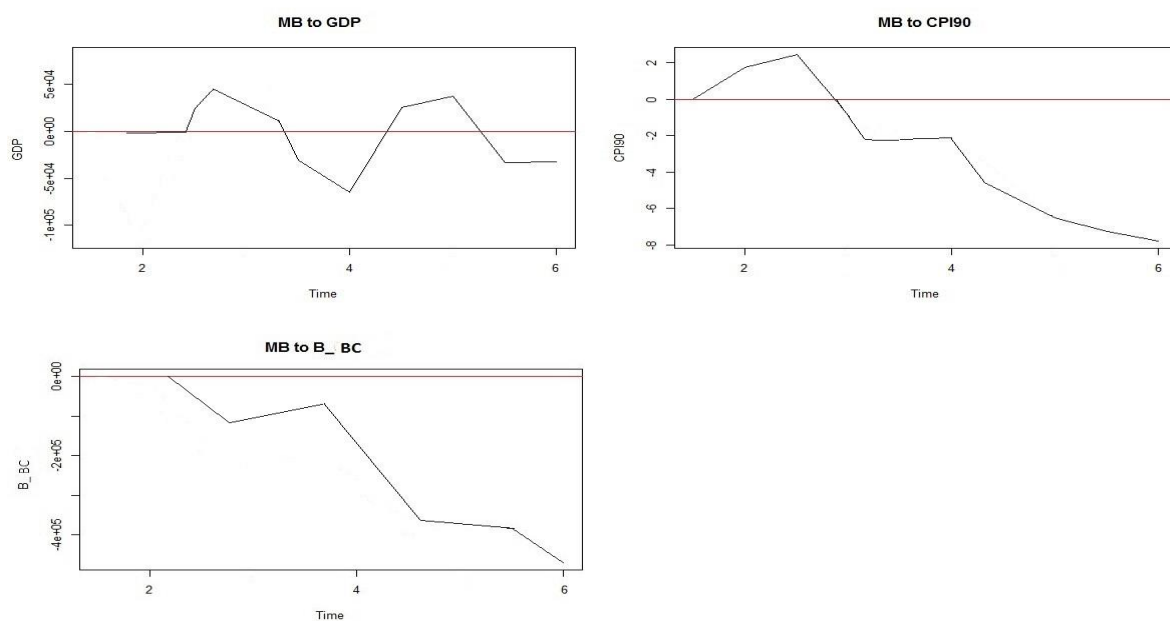


Figure (5): figure of negative monetary base impulse - low regime

Evaluating positive impulse of inflation in high diet

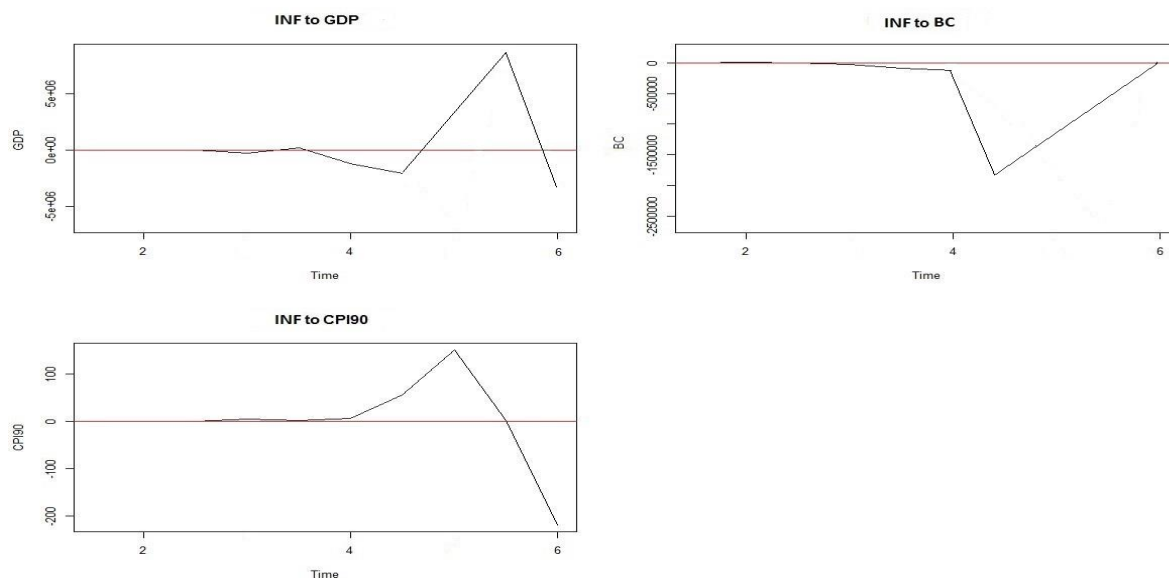


Figure (6): figure of positive inflation momentum - high regime

Evaluating positive impulse of inflation in low diet

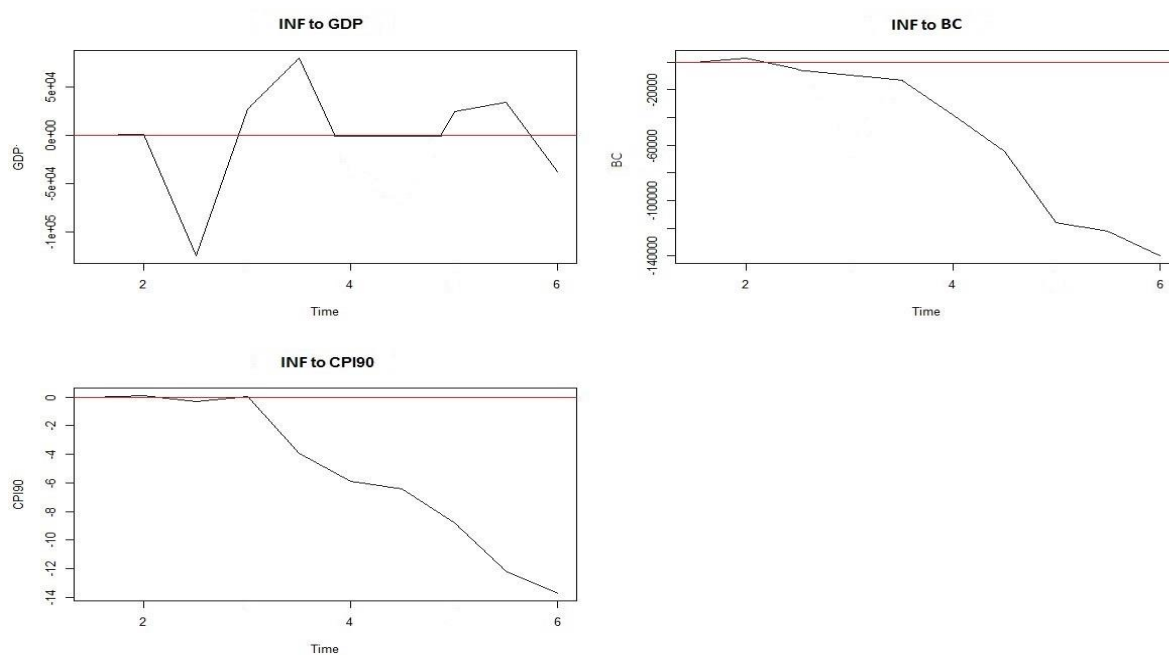


Figure (7): figure of positive inflation momentum - low regime

Investigating the negative impulse of inflation in the above regime

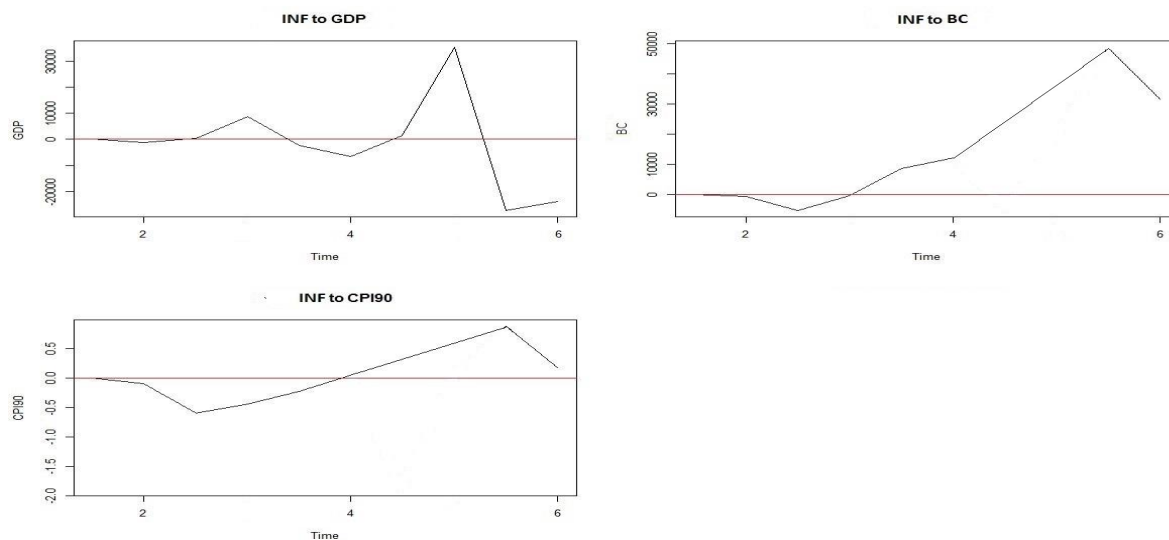


Figure (8): figure of negative inflation momentum - high regime

Investigating the negative impulse of inflation in the low regime

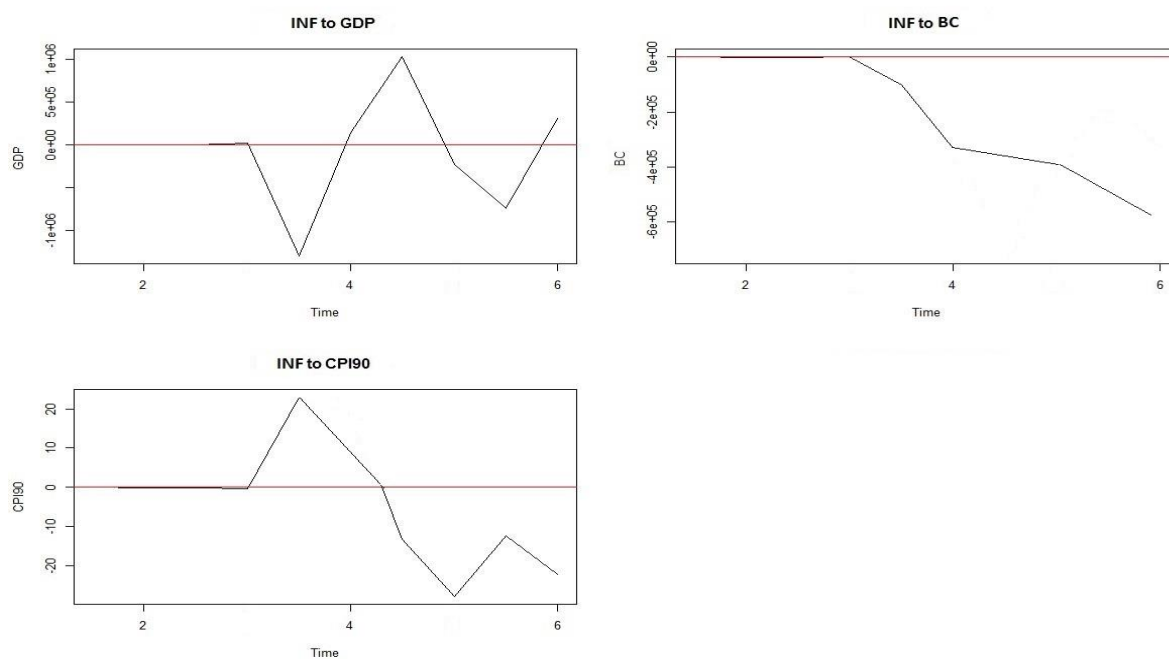


Figure (9): figure of negative inflation momentum - low regime

VI. CONCLUSION

The impacts of monetary policy and inflation on return on assets, net profit margin, cost-to-income ratio, GDP, and the volume of lending facilities provided by state and non-state banks in the Iraqi economy are examined in this paper. The threshold vector autoregression (TVAR) approach and quarterly data from 2013 to 2018 were utilized for this. The effect of monetary policy and inflation on asset return, net profit margin, cost-to-income ratio, and production, according to non-linearity and regime-dependent test statistics, was first tested using the maximum likelihood method, and the effect of monetary policy and inflation on asset return, net profit margin, cost-to-income ratio, and production, according to non-linearity and regime-dependent test statistics. The amount of loans provided by state and non-state institutions, as well as the gross domestic product, were validated. The one-threshold orthogonal logarithm test was then used to approve the model. This template's threshold value was calculated using the network search approach. Finally, generalized instantaneous response functions are used to explore the consequences of monetary policy and inflation. The difference between the positive and negative impulses of monetary and credit policy and inflation on return on assets, net profit margin, cost-to-income ratio, GDP, and volume in the upper and lower regimes can be seen in a comparison of the effects of positive and negative monetary and credit impulses in the upper and lower regimes. Under terms of direction and strength of effect, the facilities provided by state and non-state banks in these two regimes. As a result, under both high and low production regimes, the impacts of monetary policy and inflation on asset returns, net profit margin, cost-to-income ratio, GDP, and the volume of facilities given by state and non-state banks are asymmetric.

VII. RESEARCH SUGGESTIONS

The net profit margin, cost-to-income ratio, GDP, and the volume of facilities provided by state and non-state banks are suggested based on the empirical results of this study and taking into account the non-linearity of the influence of monetary policy on asset returns. The central bank will use the findings of modeling nonlinear patterns to analyze the influence of monetary policy and inflation on real economy variables such as asset returns, net profit margin, cost-to-income ratio, GDP, and the volume of loans provided by state and non-state institutions. Use threshold vector autoregression to solve your problem. Second, according to the experimental results of this study on the asymmetric effect of monetary policy and inflation on return on assets, net profit margin, cost-to-income ratio, GDP, the volume of facilities granted by governmental and non-governmental banks, and dependence, monetary policy and inflation have an asymmetric effect on return on assets, net profit margin, cost-to-income ratio, GDP, the volume of facilities granted by governmental and non-governmental banks, and the volume of facilities granted by governmental and non-governmental. What impact do these policies have on the economy? In order to best affect monetary policy and inflation, it is advised that the central bank and the country's monetary authorities consider Iraq's economic status and the position of the business cycle in decision-making.

VIII. REFERENCES

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