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ANALYZING THE EFFECTIVENESS OF ZERO-INTEREST RATE ON THE U.S. MACROECONOMY DURING THE PERIOD (2000 -2020)

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Abstract:

The study aimed to analyze and utilize the zero interest rate implemented by the U.S. Federal Reserve and its impact on macroeconomic variables during the period 2000-2020, using the cointegration model to address economic and financial crises facing the economy and to overcome deflationary situations caused by shocks and crises (economic downturns) such as the COVID-19 pandemic and the decline in global oil prices, among many other crises that have led to a decrease in economic growth rates. The study indicated that adopting the zero interest rate option by the United States during times of shocks and crises (economic downturns) is one of the most important tools and channels in monetary policy that directly influences the growth of economic activity and the increase in GDP growth rate through stimulating investment, activating the multiplier effect, and energizing economic sectors. The results of the time series test showed the existence of cointegration between the independent variable of zero interest rate and the dependent variables representing some macroeconomic variables (investment, unemployment, inflation, GDP). There is an inverse relationship between the zero interest rate and GDP, meaning that the zero interest rate has the ability to face economic crises and shocks (economic downturns) and to find suitable solutions within the American economy, driving economic growth forward without relying on solutions that might cause future harm to the economy, such as depending on exchange rate reductions or foreign borrowing.

Keywords: Zero Interest Rate, Macroeconomics, Monetary Policy, American Economy

INTRODUCTION:

The zero interest rate is one of the monetary tools relied upon by the monetary policy adopted by the U.S. Federal Reserve during economic crises. It is considered one of the channels through which the practical measures of expansionary monetary policy flow. This policy is accompanied by certain legal measures and regulations that represent non-quantitative and preferential monetary tools, enhancing the application level of the zero interest rate and directing it towards productive goods sectors. This, in turn, supports loans primarily granted for investment, in addition to consumer loans aimed at activating the multiplier effect in the U.S. economy. The United States adopts the zero interest rate during economic crises based on financial abundance and global demand for the U.S. dollar, which prevents inflation rates from rising due to global demand for the dollar in the global oil market. Additionally, many countries have relied on the dollar as a reserve currency, and these countries need more dollars to import crude oil. Consequently, the United States has managed to achieve monetary stability and influence economic activity through the zero interest rate over both the short and long term. Test results showed a common integration between GDP and the zero interest rate, indicating that the zero interest rate can correct economic imbalances in the long term and has the capability to overcome economic crises relying on monetary policy channels, primarily the zero interest rate.

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Significance of the Research:

The study aims to highlight the importance of the zero interest rate in the American economy through the following points:

1. Analyze and test the impact of the interest rate on economic activity in the U.S. by examining the interconnection between goods sectors and monetary policy.
2. Explore the accompanying measures to the zero interest rate that make it effective and influential on the multiplier and accelerator in the American economy.

Research Problem:

Despite the recurring economic crises in the United States and the significant shocks affecting various economic sectors, the abundance of liquidity and the ability to raise the public debt ceiling provide the Federal Reserve with the flexibility to adopt the zero interest rate. This rate serves as a channel to mitigate the crisis's impact and export it externally.

Research Hypothesis:

Monetary policy in the United States has only been able to influence economic activity during times of economic crises through the zero interest rate. Therefore, the researchers hypothesize the following:

1. The zero interest rate achieves long-term equilibrium with the gross domestic product (GDP).
2. The zero interest rate has the capacity to absorb shocks and economic crises in the United States.

Research Objective:

The research aims to demonstrate the effectiveness of the zero interest rate and its impact on economic activity during economic crises. It seeks to highlight its capacity as a crucial channel used to create forward and backward linkages between economic sectors and to stimulate effective aggregate demand through government spending in the United States.

First: Description of the Econometric Model:

Every process of analyzing economic phenomena begins with defining the structure or economic model that outlines and frames the phenomena under study. This process maps out the influential and affected variables, represented by the independent and dependent variables, respectively, in a sequential manner based on data pertaining to the economic activity being studied. Subsequently, the econometric model is constructed in light of this data.

The model consists of an equation or a set of standard mathematical equations. If the model is simple, each equation in the model interprets a single variable in terms of the independent variable (Saif, 2003: 32). Therefore, the stage of describing the econometric model starts with formulating the technical mathematical relationship, which determines the form and direction of the mathematical equation and the nature of the data for the independent variables (Explained Variables) and the dependent variables (Dependent Variables) in each equation separately (Damodar, 1995: 6).

The researchers relied on annual reports and international periodic publications for describing and extracting data in the American economy, as shown in Table (1). The time series of the variables were extracted and tabulated to enable statistical and econometric tests to be conducted, as presented below.

Table 1:

Zero Interest Rate, Inflation, Unemployment, and Gross Domestic Product in the United States for the Period (2000-2020) (Million Dollars)

Year	Zero Interest Rate	Gross Domestic Product	Inflation Rate	Unemployment Rate	Investment Expenditure
2000	9.233	10284780	4.5	3.99	2369471
2001	6.922	10621830	5.2	4.73	2380554
2002	0.675	10977520	5.7	5.78	2350061
2003	1.123	11510670	4.9	5.99	2473902
2004	4.34	12274930	4.6	5.53	2701390
2005	0.189	13093720	3.9	5.07	2981176
2006	0.958	13855890	5.8	4.62	3166010
2007	0.05	14477630	6.2	4.62	3201502
2008	0.088	14718590	4.7	5.78	3091447
2009	0.25	14718740	4.03	9.27	2672701

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2010	0.25	14964380	3.9	9.62	2691108
2011	0.25	15517930	4.1	8.95	2836004
2012	1.25	16163150	5.1	8.07	3033722
2013	0.25	16768050	3.7	7.38	3170251
2014	0.6	17419000	4.7	6.17	4307906
2015	0.5	18036600	5.1	5.9	3867500
2016	0.8	19047841	4.4	5.2	4028140
2017	1.6	18038294	3.04	6.3	3901826
2018	0.9	19060275	3.1	4.1	3810483
2019	0.4	16382910	2.2	8.5	2910386
2020	0.2	17829403	4.5	6.1	3104820

Source:

1. Economic Report of the President/Transmitted to the Congress/Washington DC/2005/page 439.
2. Executive Office of President of the United States- Budget of the United States Government- Fiscal year 2005 - p : 223.
3. US -Bureau of Economic Analysis - Global Policy Forum- p :32.

Second: Augmented Dickey-Fuller (ADF) Test:

The Dickey-Fuller unit root test is a stability test used in time series analysis to determine the random walk of variables over time. The starting point for unit root tests (randomness) is to clarify the difference between random walk and stationarity. When the general trend of a variable is predictable and not variable, it is a defined and specific trend. If it is not predictable, it is called a random general trend (Gujarati, 2015: 1032).

All variables to be estimated should be stable and free from instability (spurious regression) if they are free from an upward or downward trend over time. The stability rank for each variable is determined independently through the unit root test, with the Dickey-Fuller test being one of the prominent tests suitable for time series data. The significance of the test depends on rejecting the null hypothesis by the probability of error, which is the highest power value for testing the following hypotheses and equations below (Al-Abdali, 2007: 24).

$$\boldsymbol{model(i)}: \Delta \boldsymbol{xt} = \boldsymbol{\lambda}. \boldsymbol{X_{t-1}} - \mathbf{1} \sum_{\boldsymbol{j=2}}^{\boldsymbol{p}} \phi \boldsymbol{j}\, \boldsymbol{\Delta xt} - \boldsymbol{j} + \mathbf{1} + \varepsilon \boldsymbol{t} \ldots\ldots\ldots\ldots\ldots\ldots (\mathbf{1})$$

$$\boldsymbol{model(ii)}: \Delta \boldsymbol{xt} = \boldsymbol{\lambda}. \boldsymbol{X_{t-1}} - \mathbf{1} \sum_{\boldsymbol{j=2}}^{\boldsymbol{p}} \phi \boldsymbol{j}\, \boldsymbol{\Delta xt} - \boldsymbol{j} + \mathbf{1} + \boldsymbol{c} + \varepsilon \boldsymbol{t} \ldots\ldots\ldots\ldots\ldots (\mathbf{2})$$

$$\boldsymbol{model(iii)}: \Delta \boldsymbol{xt} = \boldsymbol{\lambda}. \boldsymbol{X_{t-1}} - \mathbf{1} \sum_{\boldsymbol{j=2}}^{\boldsymbol{p}} \phi \boldsymbol{j}\, \boldsymbol{\Delta xt} - \boldsymbol{j} + \mathbf{1} + \boldsymbol{c} + \boldsymbol{bt} + \varepsilon \boldsymbol{t} \ldots\ldots (\mathbf{3})$$

Table 2:

The table (2) illustrates the results of the stability test based on the Augmented Dickey-Fuller (ADF) test for the variables of the model for the United States at the level (At Level) and in the first difference (First Difference):

a. The values of the variable (ZIR) zero interest rate in the United States for the period (2000-2020): After conducting the test, it was found that the variable is not stable at the level in the presence of a constant (Constant), in the presence of a time trend and constant (Constant & Trend), and without intercept and time trend (Without Constant & Trend), at the significance levels (1%, 5%, 10%) at the level (At Level). Therefore, the time series for the zero interest rate in the United States is considered non-stationary at order (I(0)).

b. After applying the first difference (At First Difference) for the zero interest rate with the same data, the results indicated that the variable is stable in the presence of a constant, in the presence of a constant and time trend, and without constant and time trend (Without Constant & Trend). The variable was stable at the first difference at the three significance levels (1%, 5%, 10%) and integrated of order (I(1)).

c. The series (GDP) represents the Gross Domestic Product in the United States during the period (2000-2020), which is a key indicator of economic activity. After conducting the test for the variable at the level (At Level), it was found

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that the variable is not stable in the presence of a constant (Constant), a constant and time trend (Constant & Trend), and without constant and time trend (Without Constant & Trend) at the significance levels (1%, 5%, 10%).
d. At the first difference (At First Difference) for the Gross Domestic Product (GDP), it was found that the time series for the variable is not stable in the presence of a constant (Constant), in the presence of a constant and time trend (Constant & Trend), but was stable without a constant and time trend (Without Constant & Trend) at the significance levels (5%, 10%) as shown in the table with a marker (**). Since the decision on stability relies on the test without constant and trend when the variable is unstable in the constant and trend, the researcher considered the time series of the Gross Domestic Product in the United States to be stable and integrated of order (I(1)).
e. The aggregate variable represented by the unemployment rate (UNM) in the United States during the period (2004-2020): Applying the ADF test to the time series at the level (At Level), it was found that the variable is not stable in the presence of a constant (Constant), in the presence of a constant and time trend (Constant & Trend), and without a constant and time trend (Without Constant & Trend), at the significance levels (1%, 5%, 10%).
f. The researcher tested the time series for unemployment in the United States after taking its first difference (First Difference). The results of the Augmented Dickey-Fuller test showed that the variable is stable in the presence of a constant, in the presence of a constant and time trend, and without a constant and time trend at the significance levels (1%, 5%, 10%) as indicated in the table with the marker (***), meaning that unemployment is integrated of order (I(1)).
g. The results of the inflation (INF) test in the U.S. economy during the study period (2000-2020) showed that the variable is not stable at the level, was stable with a constant and general trend, and unstable without a constant and general trend, at various levels.
h. After taking the first difference of the time series for inflation, it was found that the variable is stable at the first difference with a constant (Constant), with a constant and general trend (Constant & Trend), and without a constant and general trend (Without Constant & Trend), and was integrated of the first order (I(1)).
i. The results of the investment (INV) test in the United States during the study period showed that the variable is not stable at the level, was stable with a constant and general trend, and unstable without a constant and general trend, at various levels.
j. After taking the first difference of the time series for investment, it was found that the variable is stable at the first difference with a constant (Constant), with a constant and general trend (Constant & Trend), and without a constant and general trend (Without Constant & Trend), and was integrated of the first order (I(1)).
The graphical representation (Figure 1) corroborated the results obtained from the ADF test, indicating that all variables are stable and integrated at the first difference. The test results aligned with the economic perspective that most data are stable at the first difference or after a one-period lag, ensuring they are suitably stable for estimating model parameters using the OLS methodology after conducting cointegration. (Abdul Qadir, 2007: 842).

Table 2:
Results of the Augmented Dickey-Fuller (ADF) Unit Root Test at the Level and First Difference.

UNIT ROOT TEST RESULTS TABLE (ADF) <u>At Level</u> Null Hypothesis: the variable has a unit root						
		ZIR	**GDP**	**UNM**	**INF**	**INV**
With Constant	t-Statistic	-3.047	-1.805	-2.570	-2.670	-1.782
	Prob.	0.0586	0.3653	0.1170	**0.0965**	**0.3775**
		No	no	no	no	No
With Constant & Trend	t-Statistic	-1.353	-1.626	-2.887	-3.734	-6.265
	Prob.	0.0943	0.7407	0.1884	**0.0463**	**0.0007**
		No	no	no	**	***
Without Constant & Trend	t-Statistic	-0.951	-0.265	-0.311	-0.494	0.109
	Prob.	0.2908	0.5754	0.5605	**0.5888**	**0.7061**
Significan		No	no	no	no	No
<u>At First Difference</u>						

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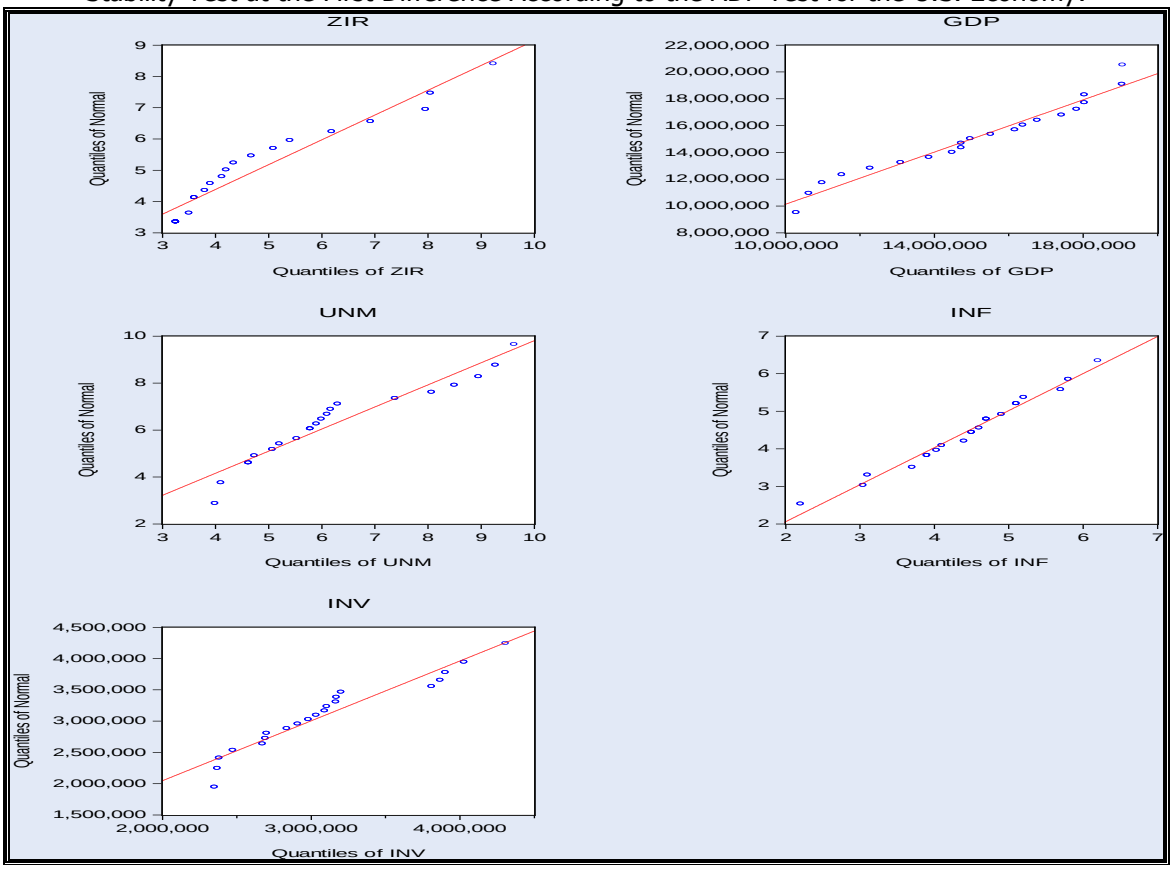
		d(ZIR)	d(GDP)	d(UNM)	d(INF)	d(INV)
With Constant	t-Statistic	-4.249	-0.697	-5.441	-4.482	-3.860
	Prob.	**0.0046**	**0.8217**	**0.0003**	**0.0026**	**0.0120**
		***	no	***	***	**
With Constant & Trend	t-Statistic	-3.885	-1.262	-5.321	-4.203	-3.676
	Prob.	**0.0356**	**0.8621**	**0.0022**	**0.0187**	**0.0573**
		***	no	***	**	*
Without Constant & Trend	t-Statistic	-4.302	-4.150	-5.576290	-4.609	-3.665
	Prob.	**0.0002**	**0.0401**	**0.0000**	**0.0001**	**0.0012**
Significan		***	**	***	***	***
a: (*) Significant at the 10% : (**)Significant at the 5% : (***) Significant at the 1% and (no) Not Significant						

Source: From the results of the Eviews 12 software package.

Figure 1:

Stability Test at the First Difference According to the ADF Test for the U.S. Economy.



Source: From the results of the Eviews 12 software package.

Third: Testing for Cointegration Among Model Variables

Cointegration describes the stable long-term path and temporal direction of two or more variables simultaneously, revealing their integration and co-movement at the same integration order (Al-Qadeer, 2006: 11). It indicates that changes in one variable can offset fluctuations and deviations (imbalances) in other variables. Cointegrated variables can jointly correct deviations over the long term and achieve equilibrium, maintaining a constant ratio between the values over time (Bakhit, 2014: 188).

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The researchers used the Johansen test due to its suitability for the model data. Cointegration is confirmed if the dependent variable, represented by Gross Domestic Product (GDP), is regressed on the independent variable, the zero interest rate (ZIR), or any other dependent variables. This is the primary goal of cointegration theory, to verify the existence of cointegration among variables. Johansen proposes two tests: the Trace Test (λ Trace) and the Maximum Eigenvalue Test (λ Max) (Callum, 2005: 380).

Table 3 and Figure 2 show that after testing for cointegration, the model exhibits cointegration, with variables capable of achieving equilibrium in both tests, with three variables in each test. The Trace Test (λ Trace) values were compared with the critical values from Mackinnon. The computed values were higher than the tabulated values: λ Trace was 157.9 for the first variable, 135.1 for the second, 77.05 for the third, and 37.12 for the fourth, all exceeding the tabulated critical values of 69.8, 47.8, and 29.7 respectively. Therefore, we reject the null hypothesis and accept the alternative hypothesis, which suggests cointegration among the variables. Similarly, the Maximum Eigenvalue Test (λ Max) showed computed values exceeding the tabulated values for three variables: 58.09, 39.9, and 24.8, compared to the tabulated critical values of 33.8, 27.5, and 21.1 respectively. This confirms the results indicating cointegration between the zero interest rate (ZIR) as an independent variable and the explanatory variables, reinforcing the notion that investment and monetary policy are key pillars of the U.S. economy (Hamilton & Richard, 2009: 20).

Table 3: Johansen Cointegration Test

Date: 14/05/24 Time: 16:58				
Sample (adjusted): 2002 2020				
Included observations: 19 after adjustments				
Trend assumption: Linear deterministic trend				
Series: ZIR GDP UNM INF INV				
Lags interval (in first differences): 1 to 1				
Unrestricted Cointegration Rank Test (Trace)				
Hypothesized	**0.05**	**Trace**		
No. Of CE(s)	**Critical Value**	**Statistic**	**Eigenvalue**	**Prob.****
None *	69.81889	**135.1532**	0.953001	0.0000
At most 1 *	47.85613	**77.05834**	0.877730	0.0000
At most 2 *	29.79707	**37.12943**	0.729312	0.0060
At most 3	15.49471	12.30043	0.381467	0.1431
At most 4	3.841466	3.172734	0.153789	0.0749
Trace test indicates 3 cointegrating eqn(s) at the 0.05 level				
*** denotes rejection of the hypothesis at the 0.05 level**				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				
Hypothesized	**0.05**	**Max-Eigen**		
No. Of CE(s)	**Critical Value**	**Statistic**	**Eigenvalue**	**Prob.****
None *	33.87687	**58.09489**	0.953001	0.0000
At most 1 *	27.58434	**39.92891**	0.877730	0.0008
At most 2 *	21.13162	**24.82900**	0.729312	0.0144
At most 3	14.26460	9.127693	0.381467	0.2757
At most 4	3.841466	3.172734	0.153789	0.0749
Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level				
*** denotes rejection of the hypothesis at the 0.05 level**				

Table prepared by the researcher using Eviews 12 software.

Figure 2:
Cointegration Between the Independent Variable and the Dependent Variables of the U.S. Model

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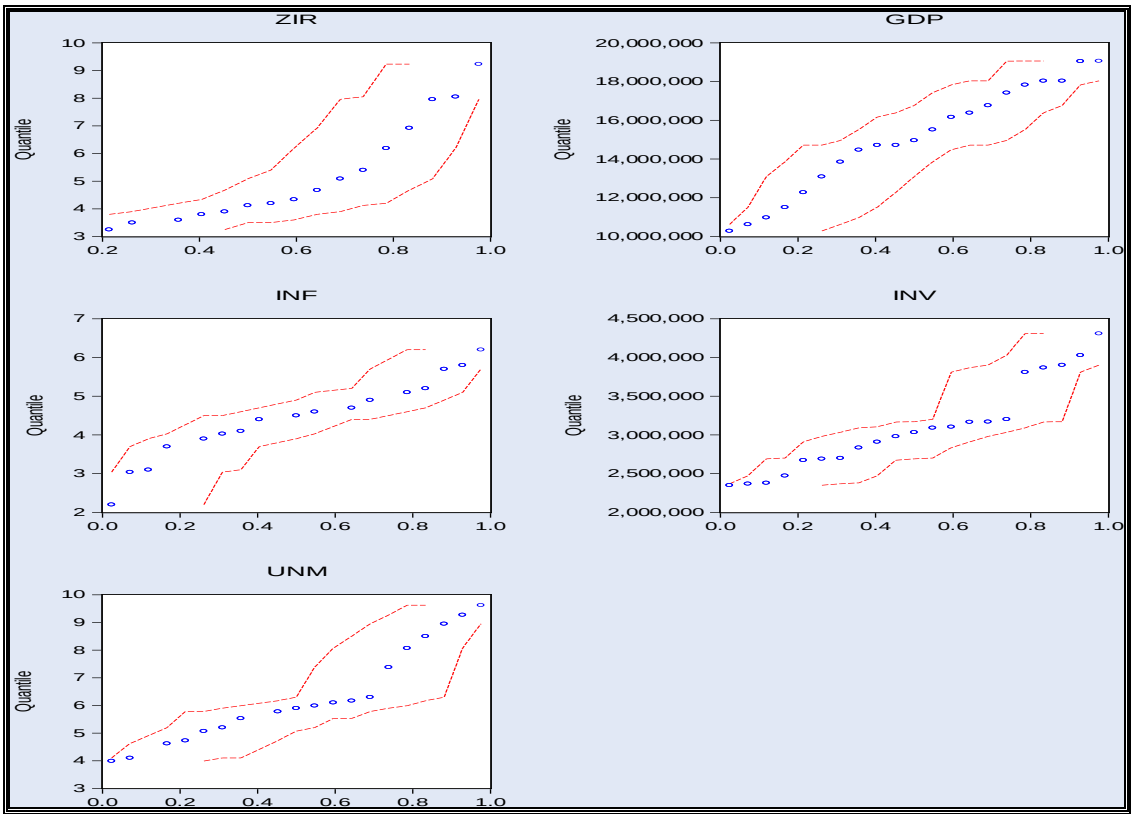

Figure prepared by the researcher using Eviews 12 software.

Fourth: Estimation of the Simple Linear Regression Equation in the U.S. Model

The researchers employed the stability test and found that the variables are stable at the first difference, necessitating the use of the cointegration test. The results indicated a long-term equilibrium between the independent variable, represented by the zero interest rate in the United States, and the dependent variables reflecting various aspects of economic activity. Therefore, regression analysis is crucial to determine the significance of the independent variable and its effect on the dependent variables in each model individually, using the Ordinary Least Squares (OLS) methodology, as shown in Table 4:

Model 1:

In the first model, the independent variable is the zero interest rate (ZIR), and the dependent variable is Gross Domestic Product (GDP). The logarithmic form at the first difference was selected as the best representation for the first model, with the results showing:

1. A one-unit decrease in the zero interest rate in the United States leads to an increase in GDP by a coefficient of elasticity of (0.32), inversely. This aligns with economic logic, based on classical assumptions that a decrease in interest rates stimulates and encourages investment due to lower costs, which means higher profits and, consequently, increased demand for production factors. This results in an increase in the supply of goods, indicating an inverse relationship between interest rates and GDP (Nixon, 2010: 206). Using logarithmic data allowed the researchers to obtain elasticity directly from the statistical software report.
2. After testing the adjusted coefficient of determination, the R^2 value for the first model is (0.64), which represents the proportion of the variation in economic activity in the U.S., as indicated by GDP, that can be explained by the single independent variable. The other variables not included in the model account for (0.36) of the effects. The significance of the entire model can be assessed using the F-test, which shows that the computed value is greater than the critical value, amounting to (6.9), indicating the model's significance. This suggests that the model is suitable for predicting future values. The $D.W$ value of (2) confirms that the model does not suffer from autocorrelation issues.

Model 2:

The second equation of the simple linear regression model consists of the independent variable, zero interest rate (ZIR), and the dependent variable, investment (INV) in the United States. The report from the analysis shows:

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1. The effect on investment (INV) in the United States, as explained by the zero interest rate (ZIR), was estimated using a semi-logarithmic model for the independent variable. The impact of the interest rate on investment was found to be similar in essence to its impact on GDP, but with a direct effect on investment and an indirect effect on GDP. The effect on investment was amplified through the expected demand for production factors, influencing optimistic forecasts. It was observed that investment is significantly affected by the interest rate, with the coefficient indicating that a one-unit change in the zero interest rate in the U.S. leads to a 24% change in investment, inversely. This effect is supported by a probability value of 0.029, demonstrating a negative relationship.
2. The \(R^2 \) value for the second model reveals that the independent variable explains approximately 73% of the variation in the model, while other variables not included in the model account for 27%. The \(F \)-test indicates that the model is substantive, with a calculated value of 9.5, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis, confirming the significance of the entire model. Additionally, the autocorrelation test, assessed by the \(D.W \) value of 2.1, shows no evidence of autocorrelation in the model.

Model 3:

The simple linear regression model for unemployment (UNM) in the United States uses the zero interest rate (ZIR) as the independent variable. The regression is specified as follows:

1. The semi-logarithmic function for the dependent variable was the best representation of the model. The estimation of the equation parameter revealed that the interest rate has a positive effect. A one-unit change in the interest rate corresponds to a change in the unemployment rate by 1.02 in the same direction, with a probability value (prob) of less than 0.05. An increase in the interest rate represents a contractionary monetary policy that negatively affects the demand for production factors, leading to economic contraction and higher unemployment rates. Conversely, a decrease in the zero interest rate results in lower unemployment rates in the United States.
2. The \(R^2 \) value for the unemployment model in the United States is 69%, indicating that the zero interest rate explains 54% of the variation in unemployment. The remaining 46% is attributed to other variables not included in the model. The \(F \)-test confirms the significance of the entire model with a value of 8.81. Additionally, the autocorrelation test, as indicated by the \(D.W \) value of 2.0, confirms that the model is free from autocorrelation.

Model 4:

The regression model for inflation (INF) in the U.S., using the zero interest rate (ZIR) as the independent variable, is specified as follows:

1. The logarithmic regression equation revealed an inverse relationship between the two variables. As the interest rate decreases, the demand for money increases, leading to a rise in the inflation rate in the United States. Each one-unit change in the interest rate affects the inflation rate by a coefficient of 0.93. This reflects an active and vibrant commodity sector within the U.S. economy. The model illustrates the strong relationship between the commodity and monetary flows, showing the balance and lack of distortion in the economy. Inflation in this context is seen as stimulating production and encouraging the productive commodity sector, which is influenced by investment costs represented by the interest rate supported by the U.S. government (Romer, 2002: 402).
2. The \(R^2 \) value for the inflation model indicated that the zero interest rate (ZIR) accounts for 81% of the variation in the inflation rate. This means that 19% of the changes in the U.S. inflation rate are attributable to factors other than the zero interest rate. The \(F \) test demonstrated the significance of the model, with the computed value of 10.05 being higher than the critical value. Additionally, the Durbin-Watson (D.W) statistic, which was 1.98, confirmed that there was no issue with autocorrelation in the model.

Table 4: Illustrates the estimation results for the simple linear regression equations for the variables in the U.S. economic model.

Method: Least Squares						
Date: 14/05/24 Time: 20:32						
Sample: 2000 2020						
Included observations: 19						
Dependent Variable	**Variable**	**Coefficient**	**Prob**	**Adjusted R-squared**	**F-statistic**	**Durbin-Watson**

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						stat
(DLOG(GDP))	**(DLOG(ZIR))**	**0.327-**	**0.048**	**0.64**	**6.96**	**2.00**
(DLOG(INV))	**(D(ZIR))**	**-0.241**	**0.029**	**0.73**	**9.50**	**2.10**
(D(UNM))	**(DLOG(ZIR))**	**1.029**	**0.046**	**0.54**	**8.81**	**2.00**
(DLOG(INF))	**(DLOG(ZIR))**	**0.930-**	**0.000**	**0.81**	**10.05**	**1.98**

Source: Table prepared by the researchers based on results from the Eviews 12 software.

CONCLUSIONS AND RECOMMENDATIONS:

Conclusions:

1. Zero Interest Rate as a Key Monetary Channel: The zero interest rate in the United States is one of the most significant monetary channels influencing economic activity and GDP. It contributes to the creation of credit, stimulates investment, and helps solve economic problems.
2. Enhancing Competitiveness: The zero interest rate increases the competitiveness of the American economy and diversifies the production system to better withstand negative economic shocks. It reflects the strength of the economy and its position in the global economic landscape.
3. Supporting Aggregate Demand: The policy of the Federal Reserve focuses on activating aggregate demand by supporting investors through the zero interest rate channel. This aims to improve the functioning of the multiplier and accelerator in the economy, enhancing competitiveness and absorptive capacity in the global market.
4. Direct Impact on Macro-Economic Variables: The zero interest rate directly affects macroeconomic variables in the United States, such as GDP, inflation rate, unemployment rate, and investment spending. These variables play a significant role in achieving high levels of economic growth.

Recommendations:

1. The American experience of utilizing financial surpluses to support industrial sectors in response to external shocks or global financial crises could be leveraged.
2. The U.S. has used the threats it faces to turn them into opportunities to absorb the global financial crisis or address issues affecting the production system, such as the COVID-19 crisis in 2019.
3. It is essential to diversify the foreign reserves of the Central Bank of Iraq to counteract the "helicopter money" policy adopted by the U.S., which involves exporting crises to countries holding their financial reserves in U.S. dollars.
4. Implementing the zero interest rate policy could lead to economic stability, stimulate all economic sectors, and open up opportunities for higher private sector investment, making it a driver for economic growth and development.
5. It is crucial to utilize the zero interest rate policy to mitigate the effects of crowding out, speculative activities, and inflationary pressures, which are often associated with global crises and shocks such as declines in oil sales prices that lead to reduced economic activity and increased debt.

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