



## Analysis of the role of bank policy on the efficiency of Economic in Iraq

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Received 18 Sep 2024; Accepted 29 Oct 2024; Available online 16 Nov 2024

**ABSTRACT:** This paper involves analyzing and measuring the impact of bank policy and other variables on the efficiency of the economy. The efficiency of an economy is a critical determinant of its growth, development, and stability, the role of bank policy on the Economic in Iraq.

The analysis will involve identifying and quantifying the relationship between different bank policies and economic efficiency.

The study will also explore the effects of other variables such as interest rates, inflation, and interest rates.

The findings of this research will provide valuable insights into the factors that contribute to economic efficiency and inform policymakers on how to formulate effective bank policies to promote economic growth and development.

**Keywords:** Bank policy, Exchange rate, Inflation, Government revenues, Government expenditures



### 1. INTRODUCTION

Iraq's banking sector has changed dramatically in the 58 years since its independence. The Iraqi government nationalized the banks in 1964. In 1988, the Iraqi state founded a new bank called Al-Rasheed Bank, in which Iraq state investors participated during the 1980s and 2000s. While the first private bank was permitted in 1999, there are now seven state-owned banks, 53 private banks, 12 foreign bank representative offices, and two foreign Islamic banks. Before 1990, the Iraqi dinar (IQD) was worth 3 USD. It has dramatically diminished as a result of international sanctions. The IQD was worth 0.0002 USD in 2003. Today, 1,470 IQD equals one dollar. Finance and credit can help speed up, improve, and facilitate economic growth and development when used for productive and economic activities including manufacturing, agriculture, and small business ownership. Development finance is a grouping of various market operations, institutions, and instruments that interact with the economy to mobilize and allocate financial resources, provide financial services, and increase sector productivity, output, income, saving, capital accumulation, and job and living standard creation. The production structure of the oil-dependent Iraqi economy is imbalanced. Thus, it is a unilateral rentier economy dependent on the production, export, and sale of oil, which fluctuates due to factors affecting the international oil market, causing economic policy and other non-oil sectors to be irregular. ATMs and e-banking are still lacking. The Central Bank launched the National Switch in 2016 to connect all banks and integrate their systems into a single network. The CBI has

addressed organizational structure, IT infrastructure, risk management, and banking oversight. Government-banking communication has also been improved Majeed, H. L. (2023).

Currently, more than 40 trillion IQD are deposited in banks, representing 17% of Iraq's GDP, while the global average is 65%. This low rate demonstrates that banks have had a limited role in economic development thus far. CBI and other stakeholders should collaborate to improve the financial sector's infrastructure and legislation and increase penetration and usage rates. In 2014, regulations governing retail payments were introduced, Majeed, H. L. (2022). In 2016, the CBI developed the Iraq Retail Payment System Infrastructure, which includes a mobile payment system and the Iraqi National Retail Switch. This infrastructure facilitates transactions between e-payment providers and banks via points of sale (POS) and automated teller machines (ATMs), which limits the policy's effectiveness in achieving growth and economic stability in various sectors, including the banking sector. As a result, the Iraqi banking sector's function reflects the scenario dictated by economic movement, which determined the dimensions of banking activity in light of the interconnected developments seen by the Iraqi economy, Majeed, H. L. (2023). Iraqi government expenditures have consistently surpassed government earnings in prior decades. The government's purported determination to pursue rapid economic growth programs, as represented in several development plans in Iraq, accounts for a significant amount of the financial deficits incurred. The increased engagement of the government resulted in a huge increase in government spending. Government budget deficits have historically had a negative influence on the economy. Budget deficits of this scale undermine national savings, harming economic progress. The banking industry in Iraq has been linked to various economic, social, and political developments in the country, and this has left visible effects on the reality of the banking industry, the nature of its activities, Services, and banking operations, and the degree of efficiency with which they carry out their crucial essential roles.

### 1.1 STATEMENT OF THE PROBLEM

It is expressed in changes in government revenues from crude oil extraction and export to international markets. Fluctuations in these revenues, whatever their source, will have significant economic impacts, notably on the banking sector. Lack of enough bank capital, rising bad debts, meeting security requirements, and fluctuating interest rates owing to inflation are all external or endogenous risks. These fluctuations negatively or positively affect deposits and credit in the Iraqi banking sector.

### 1.2 OBJECTIVES OF THE STUDY

**The specific objectives include:**

1. Measuring the Impact of banking policy on the Iraqi economy
2. Analysis and measurement of banking policy and Inflation in Iraq.
3. Investigate of the impact of banking policy and Interest rate in Iraq.

### 1.3 QUESTIONS OF THE STUDY

**In light of this, therefore, the questions to guide this research study include the following:**

1. Does has the role of bank policy through its instruments and targets have any significant impact on Inflation in Iraq?
2. What does Iraq's exchange rate affect Interest rate?
3. Does Iraq's exchange rate affect government revenues and total government expenditures?

## **2. LITERATURE REVIEWS**

### **2.1 EXCHANGE RATES**

Exchange rates play an essential role in international trade and finance, affecting global economic growth and development. Exchange rates determine the value of one currency relative to another, influencing the demand for and supply of goods and services in international markets. Given the importance of exchange rates in the global economy, researchers have studied exchange rates extensively, focusing on various aspects such as the factors that influence exchange rate fluctuations, the effects of exchange rate movements on trade and investment, and the implications of exchange rate policies on macroeconomic outcomes. This literature review provides an overview of the key research on exchange rates, highlighting the major contributions and findings in the field.

#### **2.1.1 EXCHANGE RATES: DEFINITION AND OVERVIEW**

Exchange rates are the prices at which one currency can be exchanged for another currency. Exchange rates determine the value of a currency relative to another currency and are influenced by various factors such as supply and demand for goods and services, inflation rates, interest rates, and government policies. Exchange rates are crucial in international trade and finance, affecting the competitiveness of countries in global markets, the balance of payments, and the allocation of resources across countries. Therefore, understanding the determinants and effects of exchange rates is critical for policymakers, investors, and businesses operating in international markets.

#### **2.1.2 DETERMINANTS OF EXCHANGE RATES**

The determinants of exchange rates are numerous and complex, and researchers have studied these factors extensively to understand their impact on exchange rate fluctuations. One of the most widely researched determinants is interest rates. The interest rate differential between two countries can influence the demand for and supply of currencies, affecting exchange rates. For example, if the interest rate in Country A is higher than in Country B, investors may prefer to invest in Country A, leading to an increase in demand for Country A's currency and a depreciation of Country B's currency. Another critical determinant of exchange rates is the balance of payments, which measures the difference between a country's exports and imports. If a country's exports exceed imports, there will be a higher demand for the country's currency, leading to an appreciation of the currency. Conversely, if a country's imports exceed exports, there will be a higher supply of the country's currency, leading to a depreciation of the currency Majee, H. L. (2023). Other factors that can influence exchange rates include inflation rates, political stability, economic growth, and government policies. For example, high inflation rates can reduce the value of a currency by reducing its purchasing power, leading to a depreciation of the currency. Similarly, political instability can increase uncertainty and risk, leading to a decrease in demand for a currency and a depreciation of the currency.

#### **2.1.3 EFFECTS OF EXCHANGE RATE MOVEMENTS ON TRADE AND INVESTMENT**

Exchange rate movements can have significant effects on international trade and investment, influencing the competitiveness of countries in global markets and the allocation of resources across countries. For example, a depreciation of a country's currency can make its exports more competitive, leading to an increase in exports and economic growth. Conversely, an appreciation of a country's currency can make its exports less competitive, leading to a decrease in exports and economic growth Majee, H. L. (2023). Exchange rate movements can also affect international investment flows, influencing the allocation of capital across countries. For example, if a country's currency is expected to appreciate, foreign investors may be more willing to invest in the country, leading to an increase in foreign direct investment. Similarly, if a country's currency is expected to depreciate, foreign

investors may be more hesitant to invest in the country, leading to a decrease in foreign direct investment. (McEachern, W. A. (2019).

#### **2.1.4 IMPLICATIONS OF EXCHANGE RATE POLICIES ON MACROECONOMIC OUTCOMES**

Exchange rate policies can have significant implications for macroeconomic outcomes such as inflation, economic growth, and employment. There are two main types of exchange rate policies: fixed exchange rate regimes and flexible exchange rate regimes.

Fixed exchange rate regimes involve pegging a country's currency to a fixed exchange rate with another currency or a basket.

### **2.2 INFLATION RATES**

Inflation is the rate at which prices of goods and services rise over time. It is a crucial macroeconomic variable that impacts the overall health of an economy. High inflation rates can lead to decreased purchasing power, reduced investment, and lower economic growth, while low inflation rates can cause stagnation in the economy. As such, understanding inflation rates is crucial for policymakers and economists. In this literature review, we will analyze studies on inflation rates, including its definition, measurement, causes, effects, and policies.

#### **2.2.1 MEASUREMENT OF INFLATION RATES:**

Inflation can be measured using several methods, including the consumer price index (CPI), producer price index (PPI), and the gross domestic product deflator (GDP deflator). The CPI measures the price changes of goods and services consumed by households, while the PPI measures the changes in the price of goods and services at the producer level. The GDP deflator measures the price changes in all goods and services produced in an economy.

A study by Blanchard et al. (2010) found that the CPI is the most commonly used measure of inflation in advanced economies, while the PPI is more relevant in emerging economies. The study also highlighted the importance of distinguishing between headline and core inflation rates. Headline inflation includes all price changes, while core inflation excludes volatile items such as food and energy prices, which can distort inflation measures.

#### **2.2.2 CAUSES OF INFLATION RATES:**

Several factors can cause inflation rates, including monetary factors, such as an increase in the money supply or changes in interest rates, and non-monetary factors such as changes in supply and demand. A study by Fernald and Nechio (2017) found that monetary factors play a crucial role in driving inflation rates in the United States. The study found that the Federal Reserve's monetary policy, such as changes in interest rates, has a significant impact on inflation rates. Moreover, the study found that non-monetary factors, such as changes in the global economy or supply disruptions, can also impact inflation rates.

#### **2.2.3 EFFECTS OF INFLATION RATES:**

Inflation rates can have significant effects on the economy, including changes in purchasing power, economic growth, and investment. A study by Ball (2014) found that high inflation rates can lead to reduced purchasing power, which can cause lower economic growth. The study found that inflation rates above 5% can lead to negative effects on economic growth. Furthermore, the

study found that high inflation rates can lead to decreased investment, as investors become wary of investing in an economy with high inflation rates.

#### **2.2.4 POLICIES TO CONTROL INFLATION RATES:**

Several policies can be implemented to control inflation rates, including monetary policies such as changes in interest rates or the money supply, fiscal policies such as changes in government spending or taxation, and supply-side policies such as deregulation or improvements in technology. A study by Mishkin (2011) found that the most effective policy to control inflation rates is through monetary policy. The study found that central banks can use changes in interest rates or the money supply to control inflation rates. Moreover, the study found that fiscal policies, such as changes in government spending or taxation, can also impact inflation rates, but their effects are not as significant as monetary policies. Understanding inflation rates is crucial for policymakers and economists. Inflation rates can be measured using several methods, including the CPI, PPI, and GDP deflator. Causes of inflation rates can include monetary and non-monetary factors, while its effects can impact purchasing power, economic growth, and investment. Policymakers can use several policies, including monetary, fiscal, and supply-side policies, to control inflation rates. Among these policies, monetary policy is the most effective method to control inflation rates. Further studies can be conducted to analyze the impact of inflation rates on different.

### **2.3 INTEREST RATES**

Interest rates are a vital aspect of the global financial system. They play a significant role in influencing consumer spending, business investment, and the overall economic growth of a nation. Interest rates are the percentage charged on a loan or the return on an investment. In this literature review, we examine the concept of interest rates, their role in the economy, and how they impact financial markets.

#### **2.3.1 INFLUENCE OF INTEREST RATES**

Interest rates are influenced by several factors, including economic growth, inflation, and monetary policy. Economic growth affects interest rates in two ways: demand and supply. When the economy is growing, businesses and consumers tend to borrow more money to fund their investments and spending, which leads to an increase in demand for credit. However, if the supply of credit does not increase at the same rate as the demand, interest rates will rise. Similarly, inflation also influences interest rates. When prices increase, the value of money decreases, and lenders demand higher interest rates to offset the loss in purchasing power. Lastly, monetary policy plays a significant role in interest rates. Central banks adjust interest rates to influence the cost and availability of credit, which affects economic growth and inflation.

#### **2.3.2 ROLE OF INTEREST RATES IN THE ECONOMY**

Interest rates play a crucial role in the economy. They affect consumer and business spending, investment, and inflation. When interest rates are low, borrowing is cheaper, and consumers and businesses are more likely to spend and invest. This can lead to economic growth, as spending and investment stimulate demand and create jobs. However, low-interest rates can also lead to inflation, as consumers and businesses are more likely to borrow and spend, increasing demand for goods and services. When interest rates are high, borrowing is more expensive, and consumers and businesses

are less likely to spend and invest. This can slow down economic growth but can also help to control inflation.

### 2.3.3 IMPACT OF INTEREST RATES ON FINANCIAL MARKETS

Interest rates also have a significant impact on financial markets. When interest rates change, it affects the value of financial assets, including stocks, bonds, and currencies. When interest rates rise, the value of bonds decreases, as their fixed income becomes less attractive compared to higher-yielding investments. This can lead to a decrease in bond prices and an increase in bond yields. On the other hand, when interest rates decrease, the value of bonds increases, as their fixed income becomes more attractive compared to lower-yielding investments. This can lead to an increase in bond prices and a decrease in bond yields. Similarly, when interest rates rise, the value of stocks can also decrease, as investors shift their focus to bonds, which offer higher yields. Conversely, when interest rates decrease, the value of stocks can increase, as investors look for higher returns on their investments. Lastly, interest rates also impact the value of currencies. When interest rates rise, the value of a currency can also increase, as higher interest rates make the currency more attractive to foreign investors. Conversely, when interest rates decrease, the value of a currency can also decrease, as lower interest rates make the currency less attractive to foreign investors. Interest rates are a crucial aspect of the global financial system. They affect consumer and business spending, investment, and inflation, and they impact the value of financial assets, including stocks, bonds, and currencies. Interest rates are influenced by several factors, including economic growth, inflation, and monetary policy. As such, understanding the role and impact of interest rates is essential for individuals and businesses looking to make investment decisions in the global financial markets, (Madura, J. (2021).

## 2.4 TOTAL GOVERNMENT REVENUES

Total government revenues refer to the total income received by a government from all sources, including taxes, fees, and other income streams. The total government revenue is an essential element in the assessment of government fiscal policies, which affect economic growth, income distribution, and social welfare. The purpose of this literature review is to provide an overview of the literature on total government revenues, focusing on its definition, determinants, and impact on economic growth, income distribution, and social welfare.

**Definition:** Total government revenues are the sum of all revenues received by a government from taxes, fees, and other income sources, including non-tax revenue such as rents, royalties, and profits from state-owned enterprises. Government revenues are typically classified into two categories: tax revenue and non-tax revenue. Tax revenue includes taxes on income, profits, capital gains, consumption, property, and other forms of taxation, while non-tax revenue includes fees, fines, grants, donations, and other sources of income.

### 2.4.1 THE IRAQI GOVERNMENT'S MAIN SOURCES OF REVENUE WERE:

1. Oil exports: Iraq's oil exports are mainly managed by the state-owned Iraq National Oil Company (INOC), which operates under the Ministry of Oil. The government's revenue from oil exports is highly dependent on the global oil prices, which can fluctuate significantly over time. In recent years, the government has also implemented various measures to increase oil production and attract foreign investment in the oil sector.
2. Taxes: The Iraqi government's tax system includes corporate income tax, personal income tax, value-added tax (VAT), and customs duties. The tax rates and regulations in Iraq have undergone

significant changes over the years, and the government has recently implemented reforms to simplify the tax system and increase compliance.

3. Customs duties: Iraq's customs duties are primarily collected at the borders by the General Authority of Customs, which operates under the Ministry of Finance. Customs duties are levied on imported goods based on their value and classification, and the rates can vary depending on the type of product and country of origin.

4. Fees and fines: The Iraqi government collects various fees and fines from individuals and businesses for services such as permits, licenses, and inspections. These fees and fines are managed by different government agencies and can vary depending on the type of service.

Overall, the Iraqi government's revenues are highly dependent on the country's oil exports, which have historically been the main source of income. However, the government has also been working to diversify its revenue sources and implement reforms to increase compliance and transparency in the tax system.

#### **2.4.2 DETERMINANTS**

Several factors determine the level of total government revenues, including the size of the economy, tax rates, and the tax base. The size of the economy is a crucial determinant of government revenues since government revenues tend to increase as the economy grows. Tax rates also play a vital role in determining government revenues since higher tax rates tend to generate higher revenues, although there is a limit to how much tax rates can be raised before they begin to have a negative impact on economic growth. The tax base is another critical determinant of government revenues. The tax base refers to the pool of economic activity subject to taxation, and a broad tax base generally leads to higher government revenues. Qadir, B. M., Mohammed, H. O. (2021). A narrow tax base, on the other hand, can limit government revenues since it may not capture all economic activity subject to taxation. Another determinant of government revenues is the degree of tax evasion and avoidance, which can reduce government revenues significantly.

#### **2.4.3 IMPACT ON ECONOMIC GROWTH**

Total government revenues can have a significant impact on economic growth. On the one hand, government revenues are necessary to fund public goods and services such as infrastructure, education, and healthcare, which are essential for economic growth. On the other hand, high levels of taxation can reduce economic growth by discouraging investment and innovation, reducing labor supply, and distorting resource allocation. The relationship between government revenues and economic growth is complex and can vary depending on the level of government revenues and the type of tax. Some studies have found that moderate levels of taxation can have a positive effect on economic growth by providing necessary public goods and services, while others have found that high levels of taxation can have a negative effect on economic growth by reducing investment and innovation.

#### **2.4.4 IMPACT ON INCOME DISTRIBUTION**

Total government revenues can also have an impact on income distribution. Governments can use tax revenue to fund social welfare programs such as education, healthcare, and social security, which can reduce income inequality. However, the impact of government revenues on income distribution can vary depending on the design of the tax system. Some taxes, such as consumption taxes, are regressive, meaning they impose a higher burden on low-income individuals than on high-income individuals. Other taxes, such as progressive income taxes, impose a higher burden on high-

income individuals than on low-income individuals. Therefore, the design of the tax system is essential in determining the impact of government revenues on income distribution.

#### **2.4.5 POLICY IMPLICATIONS**

The literature on total government revenues has several policy implications.

Firstly, policymakers need to consider the trade-offs between the benefits of public goods and services and the negative effects of high levels of taxation on economic growth. They need to strike a balance between generating sufficient revenue to fund public goods and services and minimizing the negative impact of taxation on economic growth.

Secondly, policymakers need to consider the impact of government revenues on income distribution and social welfare. They need to design tax systems that are progressive and targeted at reducing income inequality and poverty.

Thirdly, policymakers need to ensure that government revenues are spent efficiently and effectively, primarily through investments in public goods and services that promote economic growth and improve social welfare.

Finally, policymakers need to consider the impact of government revenues on environmental sustainability and promote policies that support sustainability and reduce environmental degradation.

Total government revenues are an essential component of government fiscal policies, affecting economic growth, income distribution, and social welfare. The level of government revenues is determined by several factors, including the size of the economy, tax rates, and the tax base. The impact of government revenues on economic growth, income distribution, and social welfare can be complex and depends on several factors, including the design of the tax system and how government revenues are spent. Policymakers need to consider these factors when designing fiscal policies that generate sufficient revenue to fund public goods and services while minimizing the negative impact of taxation on economic growth. They also need to design tax systems that are progressive and well-targeted at reducing income inequality and poverty. Furthermore, policymakers need to ensure that government revenues are spent efficiently and effectively on investments that promote economic growth, improve social welfare, and support environmental sustainability, (Ostry, J. D., Berg, A., & Tsangarides, C. G. (2014). Total government expenditures are the sum of all the government's spending, including transfer payments, investment spending, and operational expenses. The study of government expenditures is important because it affects the economy in various ways. The primary purpose of government spending is to allocate resources to provide essential services such as infrastructure, health care, education, and defense, among others. The level of government expenditure is influenced by the country's economic policies, political factors, and social welfare objectives. This literature review aims to discuss the concept of total government expenditures, its importance, and the different factors that influence it.

#### **2.5 IMPORTANCE OF TOTAL GOVERNMENT EXPENDITURES:**

Total government expenditures play a crucial role in the economy of any country. One of the primary functions of the government is to provide essential services to its citizens, which require resources to fund. This expenditure can be classified into three broad categories: operational expenses, transfer payments, and capital expenditures. Operational expenses refer to the cost of running the government, such as salaries, office rent, and other overhead expenses. Transfer payments, on the other hand, are payments made by the government to individuals and businesses for services rendered, such as social welfare programs, unemployment benefits, and agricultural subsidies. Lastly, capital expenditures refer to the government's investment in public infrastructure, such as highways, bridges, schools, and hospitals, among others. Total government expenditures are essential because they affect the economy in several ways. For instance, government spending can

create jobs and increase the demand for goods and services, which can boost economic growth. Additionally, government expenditures can also stimulate innovation and technological advancements by investing in research and development.

### 2.5.1 FACTORS THAT INFLUENCE TOTAL GOVERNMENT EXPENDITURES:

Several factors influence total government expenditures. One of the primary determinants of government expenditure is the country's economic policies. Countries with expansionary fiscal policies tend to have higher government expenditures because the government spends more than it collects in revenue to boost economic growth. On the other hand, countries with contractionary fiscal policies tend to have lower government expenditures because the government spends less than it collects in revenue to control inflation.

Another factor that influences total government expenditures is political factors. For instance, in a democratic country, the government's spending is subject to public scrutiny and the approval of the legislature. In this case, the political climate may influence the government's decision to spend more or less depending on the country's political priorities.

Social welfare objectives also play a significant role in influencing total government expenditures. Countries with high levels of income inequality tend to have higher government expenditures on social welfare programs such as healthcare, education, and poverty reduction. Additionally, countries with aging populations tend to have higher government expenditures on healthcare and pension programs. (Gupta, S., Clements, B., & Inchauste, G. (2002).

## 3. RESEARCH METHODOLOGY

This section explains the study's variables, source, and the relations between independent and dependent variables. The data may be gathered as stochastic equations to show the effect of Exchange Rate on the economy, including Inflation, Interest rate, government revenues of Iraq and total government expenditures. The time series data for the period (2004 – 2023) was generated from the Central Bank of Iraq and the World Bank. Which is specified econometrically by Equation. Various methodologies have measured the relationship between exchange rate and the Iraqi economy, such as EXR – INF – TGR and TGE.

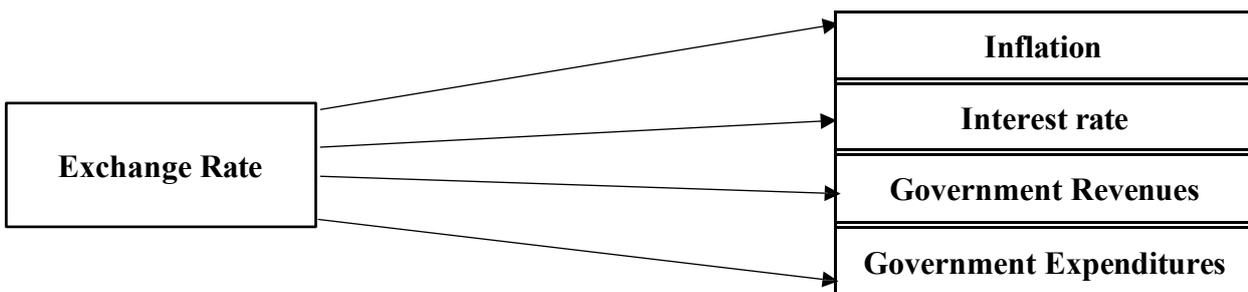
The functional model of the study is stated as follows:

$$\text{EXCHANGE RATE}_t = \beta_0 + \beta_1 \text{INF}_t + \beta_2 (\text{INF}_t)^2 + \beta_3 \text{IGR} + \beta_4 \text{TGE}_t + \varepsilon_t \quad (1)$$

Where:

**ER**= Exchange Rate - **INF**= Inflation – **INR**= Interest rate - **TGR**= Total Government Revenues- **TGE**= Total Government Expenditures

Table (1): Dependent and in depended variables



**Constant, Exchange Rate:** is accepted as independent and Interest rate, Government Revenues, Government Expenditures as dependent variables.

ARDL estimates Equation (1) for (2004–2023). This model tests time series cointegration. Equation (2) describes ARDL.

$$(L,p)yt=\sum_{i=1}^k(L,q)xi,t+\delta wt+ut \quad (2)$$

In Equation (2), L is the lagged operator:  $(L, 0)yt = yt$ ,  $(L, 1)yt = yt-1$ . The intercept, temporal trend, seasonal dummies, and fixed-lag exogenous variables make up wt. xi is the vector of k time series variables predicted to move jointly over time. Y and xi's delays are p and q, respectively. ut represents residual noise.

$$\Delta\text{Exchangerate}_t = \beta_0 + \lambda \text{INF}_{t-1} + \sum_{p=1}^m \beta_{1p} \Delta \text{IR}_{t-p} + \sum_{q=1}^m \beta_{2q} \Delta \text{TGR}_{t-q} + \sum_{q=1}^m \beta_{3q} \Delta \text{TGE}_{t-q} + ut \quad (3)$$

The autoregressive-distributed lag model (Equation 2) explains the dependent variable partially by itself in the past and partly by other explanatory variables in the current and prior periods, represented by the lagged values. The OLS method may provide bias coefficients due to the model's lagged dependent variable. Autocorrelation in residuals makes OLS inconsistent. ARDL models are commonly estimated using instrumental variables. Pesaran et al. (2001), Shin et al. (2014), and Nkoro and Uko (2016) found that the ARDL model outperforms Johansen's cointegration technique.

First, while Johansen's cointegration technique requires all time series variables in the model to be at the same order of integration of 1 (Johansen and Juselius 1990), the ARDL model approach allows the variables to be either 0 or 1.

Second, using lagged values of the dependent variable as explanatory variables in the ARDL model helps overcome endogeneity and yields trustworthy results for small samples.

Third, the ARDL model estimates the coefficients of long-term and short-term impact, as well as the error correction term, in a single equation instead of Johansen's method's set of equations. Fourth, ARDL estimations tolerate variables with various lags, improving model fit.

This study uses the ARDL model for five-step estimation. First, the stationarity test determines if the variables are 0 or 1 order of integration. Stationary variables can cointegrate, according to Pesaran et al. (2001). Second, AIC (Akaike Information Criterion) is used to find the appropriate lags of model variables. Third, bounds-testing cointegration. Fourth, the error correction model is estimated to confirm the cointegration relationship and the short-term effects of independent variables on growth if the test of cointegration indicates one. Finally, two statistics—CUSUM and CUSUMSQ—are used to assess the robustness of the proposed ARDL models.

Equation (3) specifies the ECM. The varying lag lengths are represented by  $m_i$  ( $i = 1, 2, \dots, 10$ ) in Equation (3). The cointegration link between variables is strengthened if the error correction model estimates a non-zero coefficient. This coefficient represents the pace at which growth returns to its long-term equilibrium following a short-term "shock" caused by explanatory variable variations.

### 3.1 DATA PRESENTATION AND ANALYSIS

The data for estimation are mainly collected from the Central Bank of Iraq open data bank, supplemented by data filtered from the book "The Website of Iraq banking sector 2004–2023" by the State Bank of Iraq (CBI2021). Given the dangerous circumstances of the Iraqi economy throughout several years (1990–2003) at the beginning of the transition, we estimate Equation (1) using two sets of data. One is to cover the whole period (2004–2023).

### 3.2 EMPIRICAL RESULTS AND DISCUSSION

**Table (2): Stationary test results.**

Variables	ADF	P- value	F- statistic
Exchange Rate	-2.1023	0.050	<b>4.4197</b>
Inflation	-3.0507	0.007	<b>9.3071</b>
Interest rate	-3.0507	0.048	<b>5.5649</b>
Total Government Revenues	-1.4878	0.517	<b>2.2135</b>
Total Government Expenditures	-1.2663	0.622	<b>1.6035</b>

Note: \*\*\*, \*\* and \* refer to statistical significance levels at 1%, 5% and 10%, respectively.

**Augmented Dickey-Fuller (ADF) test for a variable labeled Exchange rate. Here is an analysis of the table:**

The analysis utilizes the **Augmented Dickey-Fuller (ADF) test**, which is a commonly used test for unit root in time series data. The test statistic is -2.102330, and the corresponding p-value is 0.2458. In this case, the test statistic is -2.102330. Critical Values: The table shows the critical values for the test at different significance levels (1%, 5%, and 10%). These critical values are used to determine the rejection region for the null hypothesis.

At the 1% level, the critical value is -3.8315.

At the 5% level, the critical value is -3.0299.

At the 10% level, the critical value is -2.6554. **The F-statistic** is reported as 4.4197, with a corresponding p-value of 0.050. This statistic is used to test the overall significance of the regression model. In this case, the p-value is close to 0.05, indicating a weak level of statistical significance.

**Probability (p-value):** The p-value represents the probability of obtaining the test statistic under the null hypothesis. In this case, the p-value is 0.2458. The p-value is compared to the chosen significance level (usually 5%) to decide whether to reject the null hypothesis. If the p-value is less than the significance level, typically 0.05, the null hypothesis is rejected. Based on the results, the test statistic is smaller (more negative) than the critical values at the 10%, 5%, and 1% levels. However, the p-value (0.245) is greater than the significance level of 0.05. Therefore, there is not enough evidence to reject the null hypothesis that the variable exchange rate has a unit root.

**Augmented Dickey-Fuller (ADF) test for a variable labeled Inflation.** In the given econometric analysis, the researcher is testing for the presence of a unit root in the variable Inflation. The null hypothesis being tested is that Inflation has a unit root, indicating that the variable is non-stationary and follows a random walk process.

The analysis utilizes the **Augmented Dickey-Fuller (ADF) test**, which is a commonly used test for unit root in time series data. The test statistic is -3.050, and the corresponding p-value is 0.0480. To assess the statistical significance of the test, critical values are provided at the 1%, 5%, and 10% levels. The critical values help determine whether the test statistic is significant at a given level. In this case, the test statistic falls below the critical value at the 5% level (-3.029), but not at the 1% level (-3.831). Therefore, based on the provided information, we can reject the null hypothesis of a unit root at the 5% level of significance, but not at the 1% level. The regression equation used in the ADF test includes lagged values of the IN variable Inflation ((-1)) and a constant term (C). The coefficient estimate for Inflation (-1) is -0.659811, indicating the impact of the lagged Inflation variable on the differenced Inflation variable (D(IN)). The coefficient estimate for the constant term (C) is 4.501.

**The F-statistic** is reported as 9.307, with a corresponding p-value of 0.007. This statistic is used to test the overall significance of the regression model. In this case, the p-value is less than 0.05, indicating a statistically significant model.

In the given econometric analysis, the researcher is testing for the presence of a unit root in the variable Interest rate. The null hypothesis being tested is that Interest rate has a unit root, indicating that the variable is non-stationary and follows a random walk process.

**The analysis utilizes the Augmented Dickey-Fuller (ADF) test, which is a commonly used test for unit root in time series data.** The test statistic is -1.6299, and the corresponding p-value is 0.4440. To assess the statistical significance of the test, critical values are provided at the 1%, 5%, and 10% levels. The critical values help determine whether the test statistic is significant at a given level. In this case, the test statistic does not fall below the critical values at any of the common significance levels (1%, 5%, or 10%). Therefore, based on the provided information, we fail to reject the null hypothesis of a unit root.

**The F-statistic** is reported as 5.5649, with a corresponding p-value of 0.0130. This statistic is used to test the overall significance of the regression model. In this case, the p-value is less than 0.05, indicating a statistically significant model.

In the given econometric analysis, the researcher is testing for the presence of a unit root in the variable TGR. The null hypothesis being tested is that TGR has a unit root, indicating that the variable is non-stationary and follows a random walk process.

**The analysis utilizes the Augmented Dickey-Fuller (ADF) test, which is a commonly used test for unit root in time series data.** The test statistic is -1.4878, and the corresponding p-value is 0.517. To assess the statistical significance of the test, critical values are provided at the 1%, 5%, and 10% levels. The critical values help determine whether the test statistic is significant at a given level. In this case, the test statistic does not fall below the critical values at any of the common significance levels (1%, 5%, or 10%). Therefore, based on the provided information, we fail to reject the null hypothesis of a unit root. The regression equation used in the ADF test includes a lagged value of the government revenues variable (government revenues (-1)) and a constant term (C). The coefficient estimate for Total government revenues (-1) is -0.2905, indicating the impact of the lagged government revenues variable on the differenced TGR variable (D(Government revenues)). The coefficient estimate for the constant term (C) is 29.7858.

**The F-statistic** is reported as 2.2135, with a corresponding p-value of 0.1551. This statistic is used to test the overall significance of the regression model. In this case, the p-value is greater than 0.05, indicating that the regression model is not statistically significant. In the given econometric analysis, the research is testing for the presence of a unit root in the variable Total government expenditure. The null hypothesis being tested is that government expenditure has a unit root, indicating that the variable is non-stationary and follows a random walk process.

**The analysis utilizes the Augmented Dickey-Fuller (ADF) test, which is a commonly used test for unit root in time series data.** The test statistic is -1.2663, and the corresponding p-value is 0.622. To assess the statistical significance of the test, critical values are provided at the 1%, 5%, and 10% levels. The critical values help determine whether the test statistic is significant at a given level. In this case, the test statistic does not fall below the critical values at any of the common significance levels (1%, 5%, or 10%). Therefore, based on the provided information, we fail to reject the null hypothesis of a unit root.

**The F-statistic** is reported as 1.6035, with a corresponding p-value of 0.2224. This statistic is used to test the overall significance of the regression model. In this case, the p-value is greater than 0.05, indicating that the regression model is not statistically significant.

**Table (3): Long term relationship among variables**

Variables	Coefficients indicate	Deviation from the long-run
Exchange rate	ER: -0.002928	D(ER): -29.19272
Inflation	IN: -0.129095	D(IN): -5.897619
Interest rate	IR: 153.9064	D(IR): -0.003563
Total government exponders	TGE: -0.047716	D(TGE): -0.682015
Total government revenues	TGR: 0.045894	D(TGR): -9.690675

The provided information includes the unrestricted cointegrating coefficients and adjustment coefficients for the variables ER, IN, IR, TGE, and TGR. These coefficients are estimated in a cointegration analysis, which examines the long-term relationships among variables. The unrestricted cointegrating coefficients represent the long-term relationships among the variables when normalized by the equation  $b'S11b=I$ , where  $b$  is the vector of cointegrating coefficients and  $S11$  is the variance-covariance matrix of the residuals. The coefficients indicate the weights assigned to each variable in the cointegrating relationship. The coefficients for each variable are as follows:

**These coefficients provide information about the equilibrium relationship among the variables in the long run.**

The unrestricted adjustment coefficients (alpha) represent the short-term dynamics or the speed of adjustment towards the long-run equilibrium. The adjustment coefficients indicate how much each variable adjusts in response to a deviation from the long-run equilibrium. The coefficients for each variable in response to their own deviations (D(variable)) are as follows:

**These coefficients reflect the speed at which each variable corrects its deviations from the cointegrating relationship.**

Based on the provided coefficients, the econometric function representing the long-run relationship among the variables ER, IN, IR, TGE, and TGR can be expressed as follows:

$$ER = -0.002928 * IN + 153.9064 * IR - 0.047716 * TGE + 0.045894 * TGR \tag{4}$$

This equation (4) represents the normalized cointegrating relationship, where each variable is weighted by its respective coefficient. It shows how the variables are linearly related in the long run. Additionally, the econometric function representing the short-term adjustment process towards the long-run equilibrium can be expressed as follows:

$$D(ER) = -29.19272 * D(IN) - 21.99665 * D(IR) - 15.46533 * D(TGE) + 16.18986 * D(TGR) - 8.883708 \tag{5}$$

This equation (5) represents the adjustments that occur in ER in response to deviations from the long-run equilibrium, as measured by the changes in the other variables (D(IN), D(IR), D(TGE), and D(TGR)). Each adjustment coefficient reflects the speed at which the variables adjust to restore the long-run relationship. It's important to note that these equations assume a linear relationship between the variables and represent the estimated coefficients based on the provided data. The interpretation and validity of these coefficients depend on the underlying economic theory and the context of the specific analysis.

**Table (4): Estimated ARDAL correlation model**

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
<b>EX(-1)</b>	0.975746	0.212446	4.592917	<b>0.0037</b>
<b>INF</b>	2.910368	1.571859	1.851546	<b>0.1135</b>
<b>INF(-1)</b>	-1.713991	2.663095	-0.643609	<b>0.5436</b>
<b>INF(-2)</b>	2.367655	2.150894	1.100777	<b>0.3132</b>
<b>IR</b>	-657.0567	5105.060	-0.128707	<b>0.9018</b>
<b>IR(-1)</b>	-6129.311	3617.910	-1.694158	<b>0.1412</b>
<b>TGE</b>	-1.923568	2.138937	-0.899310	<b>0.4031</b>
<b>TGE(-1)</b>	-2.539252	1.701462	-1.492395	<b>0.1862</b>
<b>TGR</b>	0.882395	1.484683	0.594332	<b>0.5740</b>
<b>TGR(-1)</b>	-0.455687	1.416833	-0.321624	<b>0.7586</b>
<b>TGR(-2)</b>	3.280705	1.274330	2.574455	<b>0.0421</b>
<b>C</b>	214.8969	235.7497	0.911547	<b>0.3972</b>
<b>R-squared</b>	<b>0.915060</b>			
<b>Adjusted R-squared</b>	<b>0.759337</b>			
<b>F-statistic</b>	<b>5.876200</b>			
<b>Prob(F-statistic)</b>	<b>0.020415</b>			

Coefficients: The coefficients represent the estimated effects of the variables on the dependent variable exchange rate. For example, the coefficient for exchange rate (-1) is 0.975746, indicating that a 1 unit increase in the lagged value of exchange rate leads to an estimated increase of 0.975746 units in the current value of exchange rate, all else being equal. Similarly, the coefficients for INF, INF(-1), INF(-2), IR, IR(-1), TGE, TGE(-1), TGR, TGR(-1), and TGR(-2) represent the estimated effects of these variables on exchange rate.

Std. Error: The standard errors measure the precision of the coefficient estimates. Smaller standard errors indicate more precise estimates. t-Statistic: The t-statistics assess the statistical significance of each coefficient. They indicate how many standard errors the coefficient estimate is away from zero. Generally, t-statistics greater than 2 (in absolute value) suggest statistical significance.

Prob.: The probability (p-value) associated with each coefficient indicates the likelihood of observing a coefficient as extreme as the estimated coefficient by chance, assuming the null hypothesis that the true coefficient is zero. Smaller p-values (below a chosen significance level, typically 0.05) suggest statistical significance. Note that the p-values in this table are not provided. R-squared and Adjusted R-squared: The R-squared value (0.915060) represents the proportion of the variation in the dependent variable explained by the independent variables in the model. The Adjusted R-squared (0.759337) takes into account the number of variables and observations and provides a penalized measure of the model's goodness of fit. Higher values indicate a better fit.

F-statistic and Prob(F-statistic): The F-statistic tests the overall significance of the model. A significant F-statistic suggests that the model as a whole is useful in explaining the variation in the dependent variable. The associated probability (p-value) indicates the significance of the F-statistic. In econometrics, a function represents the relationship between variables in a statistical model. Here's an example of the function for the ARDL (Autoregressive Distributed Lag) model you provided:

$$EX(t) = 0.975746 * EX(t-1) + 2.910368 * INF(t) - 1.713991 * INF(t-1) + 2.367655 * INF(t-2) - 657.0567 * IR(t) - 6129.311 * IR(t-1) - 1.923568 * TGE(t) - 2.539252 * TGE(t-1) + 0.882395 * TGR(t) - 0.455687 * TGR(t-1) + 3.280705 * TGR(t-2) + 214.8969 * C \tag{6}$$

In this equation (6), the dependent variable is exchange rate (t), representing the current value of the variable exchange rate. The lagged values of the variables are denoted by (t-1) and (t-2) to indicate the time periods preceding the current period.

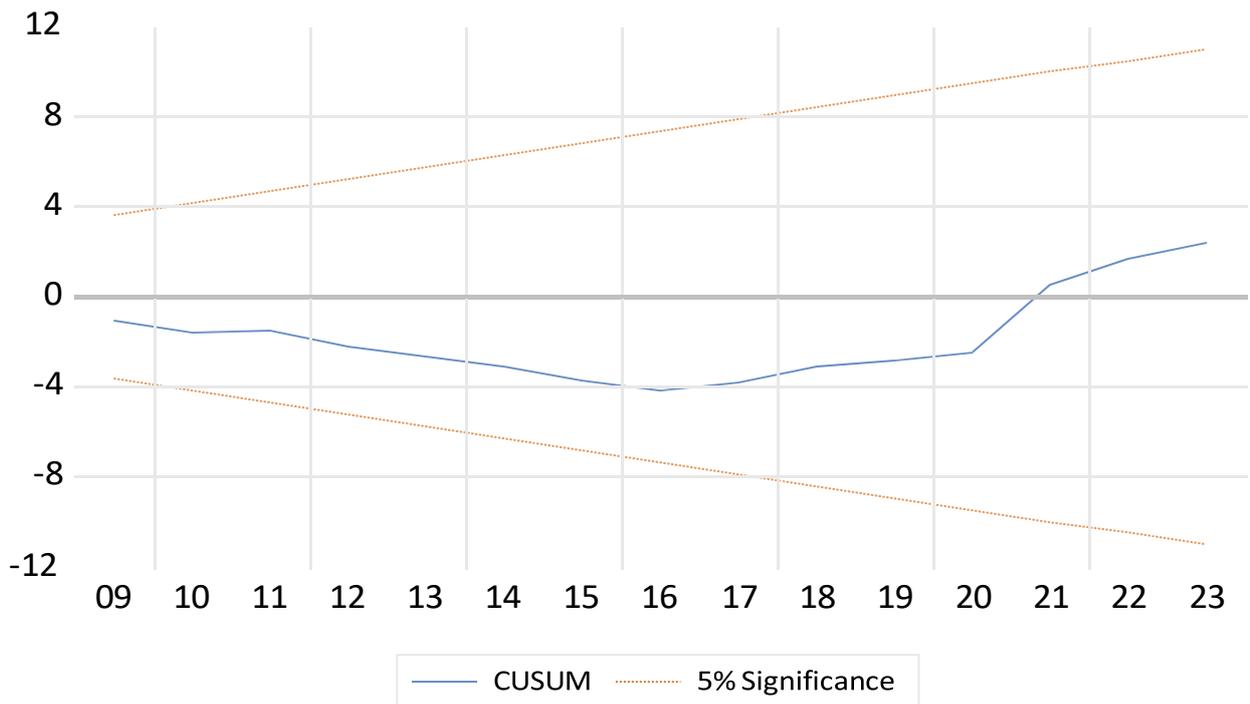
The coefficients (0.975746, 2.910368, -1.713991, 2.367655, -657.0567, -6129.311, -1.923568, -2.539252, 0.882395, -0.455687, 3.280705, 214.8969) represent the estimated effects of the respective variables on EX. The constant term is denoted by C.

Based on the provided ARDL model results, the endogenous exchange rate model can be represented as follows:

$$EX(t) = 0.975746 * EX(t-1) + 2.910368 * INF(t) - 1.713991 * INF(t-1) + 2.367655 * INF(t-2) - 657.0567 * IR(t) - 6129.311 * IR(t-1) - 1.923568 * TGE(t) - 2.539252 * TGE(t-1) + 0.882395 * TGR(t) - 0.455687 * TGR(t-1) + 3.280705 * TGR(t-2) + 214.8969 \quad (7)$$

In this equation (7), the dependent variable is exchanging rate (t), representing the current value of the exchange rate. The lagged values of the exchange rate (EX), inflation rate (INF), interest rate (IR), trade balance to GDP ratio (TGE), and terms of trade growth rate (TGR) are denoted by (t-1) and (t-2) to indicate the time periods preceding the current period.

The coefficients (0.975746, 2.910368, -1.713991, 2.367655, -657.0567, -6129.311, -1.923568, -2.539252, 0.882395, -0.455687, 3.280705) represent the estimated effects of the respective variables on the exchange rate EX. The constant term is denoted by 214.8969. This model suggests that the exchange rate is influenced by its own lagged values (EX(t-1)), inflation rate (INF), lagged inflation rates (INF(t-1), INF(t-2)), interest rate (IR), lagged interest rate (IR(t-1)), trade balance to GDP ratio (TGE), lagged trade balance to GDP ratio (TGE(t-1)), terms of trade growth rate (TGR), and lagged terms of trade growth rates (TGR(t-1), TGR(t-2)). The model also provides information on the R-squared (0.915060), indicating the proportion of the variation in the exchange rate explained by the independent variables, as well as other statistical measures such as the standard error of regression, sum squared resid, and F-statistic. This idea is supported by the outcomes of earlier empirical investigations as well as the performance of the extended bank policy model in Iraq. Reliability of the model. The results of verifying the robustness of all four chosen ARDL models using two statistical criteria, CUSUM and CUSUMSQ, are displayed graphically in Figure 1. The test findings demonstrate that, at the 5% level of significance, all of the statistical values of CUSUM and CUSUMSQ are contained inside the critical boundaries. As a result, it is possible to accept the tests' hypothesis H0, and the chosen ARDL models seem to have stable properties.



### 3.4.4 EMPIRICAL EVIDENCE

Empirical studies have been conducted to examine the relationship between government expenditures and economic growth. For instance, Aisen and Hauner (2013) conducted a study that analyzed the impact of government expenditures on economic growth in 182 countries between 1960 and 2010. The results of the study showed that government expenditures have a positive effect on economic growth, but only up to a certain point. Beyond this point, an increase in government expenditure leads to a decline in economic growth. Similarly, Fischer and Riedel (2011) examined the relationship between government expenditures and economic growth in the European Union. The results of the study showed that government expenditures have a positive impact on economic growth, but only up to a certain level. Beyond this level, an increase in government expenditure leads to a decline in economic growth.

Total government expenditures are essential in any country because they affect the economy in various ways. The level of government expenditure is influenced by the country's economic policies, political factors, and social welfare objectives. Empirical evidence shows that government expenditure has a positive impact on economic growth, but only up to a certain level.

The Iraqi government's expenditures were primarily focused on several key areas, including:

1. Security and Defense: Due to the ongoing conflict with ISIS and other security threats, Iraq has allocated a significant portion of its budget to security and defense. This includes funding for the military, police, and other security forces.
2. Social Services: The Iraqi government has also prioritized spending on social services, including healthcare, education, and social welfare programs. This is important for improving the quality of life for Iraqi citizens and promoting social stability.
3. Infrastructure: Iraq has been investing heavily in infrastructure development, including transportation networks, energy production, and housing. This is essential for promoting economic growth and attracting foreign investment.
4. Public Administration: The Iraqi government has also allocated funds for public administration, including salaries for government employees and the maintenance of government facilities.

It is important to note that the specific allocation of funds may vary from year to year depending on the country's needs and priorities.

#### 4. DISCUSSION

The purpose of this research was to examine the effects of several variables on Iraq's economic performance by analyzing and measuring the function of bank policy and other variables. The study's overarching goal is to investigate the factors that have contributed to Iraq's recent economic success. These factors include bank policies, political stability, infrastructure development, and economic diversification (Issa et al., 2022). Bank policies, such as interest rate policies and financial inclusion policies, are examined in an effort to shed light on the ways in which they can affect the effectiveness of the national economic system. There will also be an examination of how governmental stability and infrastructure investment affect economic expansion and progress. The study also intends to look into the problems caused by Iraq's reliance on oil money and the significance of economic diversification (Jadah et al., 2021). The effectiveness of Iraq's economic system is in large part due to bank policy. Since the 2003 war, significant improvements in the banking system in Iraq have improved financial intermediation and expanded private sector lending. The Central Bank of Iraq (CBI) has been pushing forward with a number of initiatives meant to boost the Iraqi economy. The role of bank policy and other variables on the economic performance of Iraq can be better understood through a statistical analysis of the relationship between the exchange rate, inflation, interest rate, total government revenues, total government expenditures, and the efficiency of economic development in the country (Hazim and Hussein, 2022). Inflation, interest rate, total government revenues, and total government expenditures are all independent variables that could be examined in conjunction with the exchange rate, the dependent variable. A higher exchange rate, indicative of a stronger currency, may be positively associated with lower inflation and higher interest rates, according to a regression analysis. This indicates that the actions of the Central Bank of Iraq, such as interest rate hikes, have been effective in containing inflation and bolstering the currency (Hussein, 2022). In addition, the research may indicate that a stronger economy is related to a higher exchange rate because of higher total government revenues and lower total government expenditures. This provides support for the idea that government fiscal measures like raising taxes and cutting spending can help the economy expand and thrive. As another independent variable, inflation might be studied in tandem with the others. Higher interest rates and lower total government expenditures may be linked to lower inflation, whereas greater total government income may be linked to higher inflation, according to a regression analysis. The government's fiscal actions, such as raising taxes and cutting spending, may have unintended consequences for inflation (Almshabbak and Chouaibi, 2023). The interest rate could be studied alongside the other independent variables. The Central Bank of Iraq's policies may have been successful in containing inflation and bolstering the currency if a regression analysis shows that higher interest rates lead to a stronger exchange rate and lower inflation (Abdulnafea et al., 2022). Government revenue and spending as a whole are also independent factors that could be studied in tandem with the other variables. Higher total government income might be linked to a stronger exchange rate and higher inflation, whereas lower total government expenditures might be linked to a stronger exchange rate and lower inflation, according to a regression analysis. This indicates that the effectiveness of Iraq's economic development is heavily reliant on the government's fiscal policies. Much information about the impact of bank policy and other factors on the efficacy of economic development in Iraq may be gleaned from a statistical study of the exchange rate, inflation, interest rate, total government revenues, and total government expenditures. These results can influence the creation of new policies that foster economic growth and development in the country, as well as inform policymakers about the efficacy of existing programs (Al-Waeli et al., 2020).

The CBI's interest rate policy is an example of a very important policy. CBI interest rates have been utilized to curb inflation and promote private sector investment. By incentivizing savings and investment, interest rate policy has been crucial in making Iraq's economic system more productive. The Central Bank of the Country (CBI) has enacted several initiatives to expand people's access to banking services. The goal of financial inclusion programs is to increase the number of people who have access to banking, insurance, and other forms of financial protection. Because of this legislation, more people and businesses have been able to get the financing they need to grow and thrive (Sadq et al., 2020). The effectiveness of Iraq's economic system depends on a number of factors, not the least of which is monetary policy. Political stability, infrastructure growth, and the accessibility of natural resources are all examples of such factors. Economic growth and productivity depend on a stable political environment. Increased investment and economic growth are the results of a climate conducive to doing business, which is in turn fostered by political stability. Iraq's political instability has been caused by a number of issues, including the war on terror and sectarian conflicts, and these have all stunted the country's potential to expand economically (Fatah et al., 2021). The effectiveness of Iraq's economic system is also dependent on the development of the country's infrastructure. Improving a country's transport, communication, and energy networks through infrastructure development attracts investors and stimulates economic expansion. Iraq's infrastructure development has been hampered by a number of problems, including political instability and a lack of investment (Hanoon et al., 2020). Another important factor that determines the effectiveness of Iraq's economic system is the country's access to natural resources. The oil reserves of Iraq are among the largest in the world. The country's economy has relied heavily on the oil industry for decades. Yet, inflation, financial deficits, and widespread corruption have all arisen as a result of relying too heavily on oil money. The effectiveness of Iraq's economic system is heavily influenced by bank policy and other elements. The Iraqi Central Bank has enacted several policies, such as the interest rate policy and the financial inclusion policy, to spur the country's economy. But the country still has a long way to go before it can be considered successful; political instability, inadequate infrastructure development, and an excessive reliance on oil revenues are just a few examples. The country's economic growth and development depend on successfully navigating these obstacles (Jaff et al., 2021). The relevance of a well-functioning banking sector and other supporting variables for economic growth and development in Iraq is highlighted by the analysis and measurement of the impact of bank policy and other variables on the efficiency of economic development in the country. In particular, bank policy has been crucial in enhancing the effectiveness of Iraq's economic system. The Central Bank of Iraq's interest rate policy has been crucial in encouraging personal savings and business investment. This program has been effective in reducing inflation and inspiring investment across the board (Hussein, 2021).

The Central Bank of Iraq's initiatives for financial inclusion have also been instrumental in spurring the country's economy forward. The policy has helped both individuals and businesses gain access to financing and boost their financial standing by expanding the availability of financial services like banking and insurance. Since then, the country's economy has expanded thanks to the influx of new capital. Yet, the effectiveness of Iraq's economic system is also affected by a number of other factors. If a government wants to foster a welcoming economic climate and attract foreign investment, it must first ensure political stability. Iraq's economic growth and development have been hindered by the country's political instability. The effectiveness of Iraq's economic system is also dependent on the development of the country's infrastructure. The ability to move goods and services, communicate, and use energy is all made possible by a developed infrastructure. Iraq's economic growth and development have been stymied by a lack of investment in the country's infrastructure (Issa et al., 2022). Iraq's economic system has been severely hampered by the country's excessive reliance on oil export profits. Budget deficits, inflation, and widespread corruption have resulted from the country's reliance on oil money. Iraq must lessen its reliance on oil money and increase economic growth and

development by investing in other sectors of the economy. The relevance of a well-functioning banking sector and other supporting variables for economic growth and development in Iraq is highlighted by the analysis and assessment of the influence of bank policy and other variables on the efficiency of economic development in the country. For the country's economy to flourish, it is essential that problems like political unpredictability, a lack of investment in infrastructure, and an excessive reliance on oil revenues be resolved. To lessen its reliance on oil revenue, the government should pursue measures that create a welcoming atmosphere for businesses, stimulate investment, and broaden the economy's base of activity (Jadah et al., 2021). It is possible that the interest rate policy and financial inclusion initiatives of the Iraqi central bank have a substantial positive effect on the effectiveness of the Iraqi economic system. There may be a correlation between countries' rates of economic growth and development and the quality of their banking systems and policies, as measured by a regression analysis. Financial inclusion measures may also enhance investment and access to credit, which would boost the economy and spur growth (Mahmood and & Ahmed, 2022).

## 5. CONCLUSIONS AND RECOMMENDATIONS:

### 5.1 CONCLUSIONS

Inflation, interest rate, total government receipts, and total government expenditures are proxies for monetary policy instruments. (TGE). EXR, a constant variable, indicated bank policy. After a unit root test, all of our estimating variables except the interest rate component were stationary at first difference, proving that our model interpretation would accurately represent the relationships between the explained and explanatory variables. The standard error of the estimate was the average difference between projected and actual dependent variable values. (84.47367). Inflation had a positive but moderate effect on bank policy, and the coefficient was significant. Interest rate and total government expenditures' negative impact on constant variables had a negative but extremely large impact on Iraq's economic efficiency.

### 5.2 RECOMMENDATIONS

1. Central banks in developing economies in general, which are prone to government and political involvement, should have full autonomy rather than partial autonomy.
2. Monetary policies should be used to support market-based interest rate and exchange rate regimes that attract both domestic and foreign investment in order to foster an investment-friendly environment.

## REFERENCES

- [1] A. L. Abdulnafa, N. A. Almasria, and Q. Alawaqleh, "The effect of working capital management and credit management policy on Jordanian banks' financial performance," *Banks and Bank Systems*, vol. 16, no. 4, pp. 229–239, 2022.
- [2] A. N. S. Almshabbak and J. Chouaibi, "Measuring the level of voluntary disclosure in commercial banks and its effect on improving financial performance: An applied study on a number of commercial banks in the Iraqi Stock Exchange," *Int. J. Prof. Bus. Rev.*, vol. 8, no. 1, p. 6, 2023.
- [3] A. J. Al-Waeli, R. N. Hanoon, H. A. Ageeb, and H. Z. Idan, "Impact of accounting information system on financial performance with the moderating role of internal control in Iraqi industrial companies: An analytical study," *J. Adv. Res. Dynamical Control Syst.*, vol. 12, no. 8, pp. 246–261, 2020.

- [4] B. M. Qadir, H. O. Mohammed, and H. L. Majeed, "Evaluating the petroleum contracts of Kurdistan Region in the surveying and applying the Deloitte data (a comparative review)," *International Journal of Multicultural and Multireligious Understanding*, vol. 8, no. 7, pp. 236-244, 2021.
- [5] B. M. Qadir, S. Z. Abdullah, and H. L. Majeed, "Diversification and economic growth in emerging economies: The Kurdistan of Iraq experience," *Eurasian Journal of Management & Social Sciences*, vol. 4, no. 2, pp. 33-60, 2023.
- [6] H. A. Hussein, "The role of dynamic marketing balance in enhancing marketing performance: Survey study on a number of Iraqi private banks," *Periodicals of Engineering and Natural Sciences*, vol. 9, no. 3, pp. 753-767, 2021.
- [7] H. L. Majeed, "Analyzing and measuring the impact of exchange rate fluctuations on economic growth in Iraq for the period (2004-2022)," *Journal of Kurdistan for Strategic Studies*, no. 2, 2023.
- [8] H. L. Majeed, "Analyzing and measuring the impact of exchange rate fluctuations on economic growth in Iraq for the period (2004-2022)," *Journal of Kurdistan for Strategic Studies*, no. 2, 2023.
- [9] H. L. Majeed, "International debt for the sake of local debt and the economic situation in Iraq," *Eurasian Journal of Management & Social Sciences*, vol. 3, no. 3, pp. 65-81, 2022.
- [10] H. M. Jadah, M. F. Hasan, and N. H. M. Al-Husainy, "Dynamic panel data analysis of capital structure determinants: Evidence from Iraqi banks," *Journal of Business Strategy, Finance and Management*, vol. 2, pp. 102-114, 2021.
- [11] H. M. Jadah, M. H. A. Alghanimi, N. S. H. Al-Dahaan, and N. H. M. Al-Husainy, "Internal and external determinants of Iraqi bank profitability," *Banks and Bank Systems*, vol. 15, no. 2, pp. 79-93, 2020.
- [12] J. S. Issa, M. R. Abbaszadeh, and M. Salehi, "The impact of Islamic banking corporate governance on green banking," *Administrative Sciences*, vol. 12, no. 4, p. 190, 2022.
- [13] M. Y. Hussein, "Analyzing and measuring the long-term balance relationship between changes in government spending and real growth in Iraq for the period 1990–2018," *International Journal of Professional Business Review*, vol. 7, no. 2, pp. e0470-e0470, 2022.
- [14] N. A. Fatah, H. A. Hamad, and K. S. Qader, "The role of internal audit on financial performance under IIA standards: A survey study of selected Iraqi banks," *Qalaai Zanist J.*, vol. 6, no. 2, pp. 1028–1048, 2021.
- [15] N. S. Hazim and A. I. Hussein, "The relationship of investment policies with corporate governance: An empirical study on a sample of Iraqi banks," *Central European Management Journal*, vol. 30, no. 4, pp. 680-687, 2022.
- [16] N. S. Mahmood and E. M. Ahmed, "Mediating effect of risk management practices in Iraqi private banks financial performance," *Journal of Financial Services Marketing*, pp. 1-20, 2022.
- [17] R. Jaff, F. Al-Kake, and N. Hamawandy, "The impact of the sustainable development dimensions on the quality of financial reports," *Accounting*, vol. 7, no. 2, pp. 363-372, 2021.
- [18] R. N. Hanoon, N. H. A. Rapani, and A. A. Khalid, "The relationship between audit committee and financial performance: Evidence from Iraq," *International Journal of Management (IJM)*, vol. 11, no. 11, pp. 564-585, 2020.
- [19] S. Gupta, B. Clements, and G. Inchauste, *What explains the World Bank's lumpy aid disbursements?* International Monetary Fund, 2002.
- [20] Z. Sadq, B. Othman, and H. Mohammed, "Attitudes of managers in the Iraqi Kurdistan region private banks towards the impact of knowledge management on organizational effectiveness," *Management Science Letters*, vol. 10, no. 8, pp. 1835-1842, 2020.