

باب الأبحاث باللغات الأجنبية:

1- Effect of some macroeconomic variables on total deposits in Iraqi commercial banks, For the period (2006 – 2017)

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ABSTRACT:

The increase in deposits is a goal pursued by all banks because they provide them with income and profits to ensure their survival and continuity. This study aims to shed light on the effect of some macroeconomic variables (GDP, inflation and unemployment) on the total deposits in commercial banks in Iraq for the period (2006 – 2017) . The study detect a number of results, the most important of which is that the size of GDP has a direct relationship with total bank deposits while unemployment rate and the Inflation ratio is linked to total deposits with a reverse relationship. The study recommends that government efforts be directed towards improving per capita income and reducing inflation ratio and unemployment rates in the country by increasing the development in economy in an effort to accelerate and strengthening of national savings .

Keywords: Macroeconomic, Economics Stability, Monetary Stability factor, Unemployment, Inflation targeting, Bank deposits.

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1. Introduction

The role of banks in the business world has become increasingly important as the existence of a developed and a strong banking system in any country which has been linked to the development of the economic systems, which in turn affect all aspects of life. This applies to Iraqi economy after the various stages of social and economic transformation that occurred in the last 10 years . The financial institutions in general, including banks, are exposed to a set of determinants that affect the profits of these banks,

especially as their role in the economy increases and the risks of economic activities increase. These determinants vary in their forms and causes, such as liquidity risk. Bank budget items cannot be controlled , such as unemployment, inflation, interest rate, and inevitably became the managers of banks and keep up mitigation and adoption of methods and devises ways and entrances are to reach goals and increase returns.

Our study highlights the impact of some macroeconomic variables on total deposits in all Iraqi commercial banks.

1.1 Problem Statement

Bank deposits are one of the main indicators in determining the profits of commercial banks and that all departments of those banks are always seeking to maximize their profits and for the purpose of achieving this must be to identify the factors of the external environment that lies outside the control such as the unemployment rate and inflation ratio to identify the effects and to avoid or reduce the effects of these factors. For this reason, this study is done to answer the following main question: What is the effect of macroeconomic variables on the movement of bank deposits in Iraq? The following questions can be asked:

Is there a statistically significant effect of unemployment on total deposits ?

Is there a statistically significant effect of inflation on total deposits ?

1.2: Importance of the study

The importance of this study stems from addressing the problem of the decrease in the volume of deposits in Iraqi commercial banks, especially private banks. The study also contributes to providing the necessary data and evidence for banks to manage deposits by identifying the strengths and weaknesses of the policies adopted. Iraqi banks need to attract deposits from customers to practice its activities and aimed to maximize profits in light of the basic phenomenon of bank deposits which are characterized by its permanent movement and transformation, so the means of its uses and the means of debt and rights are on it . Undoubtedly, banks and shareholders' administrations can benefit from this Study and results.

1.3 Objectives of the study

This study attempts to investigate the impact of macroeconomic variables on the total bank deposits and their movement in Iraqi commercial banks and clarify some things that will develop deposits in Iraqi banks and

support the Iraqi economy. As well as knowledge of the most important determinants of supply and demand on the market of bank deposits and the most important external factors affecting the attraction and development.

1.4 Study Hypotheses:

According to the problem of the study and its objectives, we assume that:
H0: Unemployment, inflation and gross domestic product (GDP) are not linked to total bank deposits.

H1: Unemployment, inflation and gross domestic product (GDP) are linked to total bank deposits.

2. Methodology and Data Analysis

This section deals with the specifications of the variables of in the study, definitions of data and data sources, estimation procedures, and the valuation techniques . The practical part of this study will be to know the nature of the relationship between the variables and the extent of influence of independent variables on the dependent variable in order to answer the problem of this subject.

2.1: Society and Study Sample: The banking system in Iraq consists of (69) banks until 31 December 2017 (7) government distributed between commercial and specialized banks, (62) banks including (24) private local commercial banks (19) foreign banks and (19) Islamic banks (Central Bank of Iraq, 2017). The study community consists of all deposits in the Iraqi commercial banks operating in Iraq, which are 28 banks . This is shown in Table (1) below:

Table 1: Study Sample (Million Dinar Iraqi, and Percentages)

Time	Deposits	Unemployment	Inflation	GDP	Deposits
%		%			ratio%
					%
1.	16928295	17.5	23.2	95587954	--- 2007
	26188926	16.9	32.6	1.11E+08	54.7 16.6 2008
	34525448	15.3	2.8	1.57E+08	31.8 40.8 2009
	38588086	15.2	-2.8	1.31E+08	11.8 -16.8 2010
	47947232	15.2	2.4	1.62E+08	24.3 24.1 2011
	56157180	15.2	5.6	2.17E+08	17.1 34.1 2012
	62005935	15.3	6.1	2.54E+08	10.4 17 2013
	68855467	15.1	1.9	2.74E+08	11 7.6 2014
	74073336	15	2.2	2.66E+08	7.5 -2.6 2015
	64344061	15	1.4	2E+08	13.1 2.5 2016
	62398733	15.1	0.5	2.04E+08	9 -9 2017
	67048631	14.8	0.2	2.26E+08	7.5 10.9

Source: 1. Arab Monetary Fund, Joint Arab Economic Reports for Years (2006-2017). <https://www.amf.org.ae/ar/jointrep>.

2. Central Bank of Iraq, Annual Statistical Bulletin for the Years (2006–2017). <https://cbi.iq/news/view/492>.

3. Ministry of Planning, Central Bureau of Statistics, Annual Statistical Group for Years (2006–2017). <http://cosit.gov.iq/ar/>.

All Iraqi commercial banks listed on the Iraqi Stock Exchange have been selected. The sample was selected on the basis of the availability of the information (financial statements, annual reports) of the PDF. We have relied on a set of primary and secondary data related to the subject of the study in the form of secondary data: the data of the theoretical side of the study where we conducted a survey of previous studies and review of literature published in books and magazines, articles and university researches and Internet; preliminary data The data and information related to the study sample institutions were collected from the websites of the institutions under study, including GDP, inflation, unemployment as well as total deposits, which are approved, and audited the pleasures of credibility .We calculate

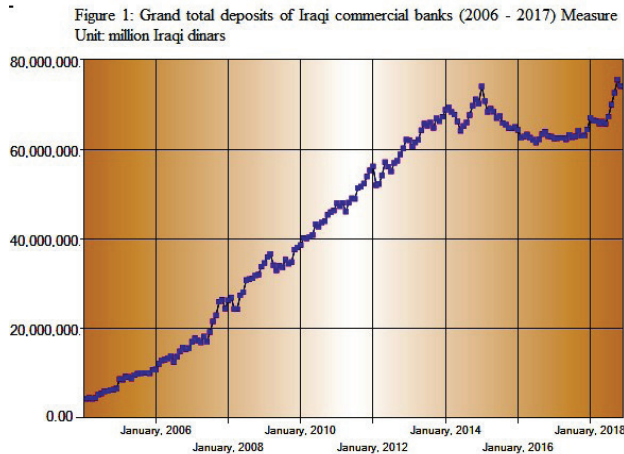
the yearly rate of increase in gross domestic product and in gross deposits (column 6 and column 7)

2.2. Dataset and variable definition:

The definition of input and output factors are essential for the implementation of the study and analysis of the results, due to the complexity of business and banking activities (Camilo Almanza et al., 2018) .

2.2.1. Total deposits (dependent variable): In this study, the reliance on deposits has been focused on the mediation approach in banking to determine input and output specifications. According to this approach, banks are considered intermediaries between owners of cash surplus and deficit-deficit holders. That is, banks are supposed to transfer financial resources from one to the other. Perhaps the biggest challenge facing deposits is the deterioration of confidence among depositors and possibly banks, in some cases because of the lack of deposit insurance system (Sebastian Schich 2009). I think that is what the banking system in Iraq needs.

Banks receive money from the public through deposits. The following types of deposits are usually received by banks: current deposits, fixed deposits, recurring deposits, miscellaneous deposits. The total deposits are then formed. The banks make deposits as a major source of funds. After banks are perfect, banks must be able to lend money to generate interest in lending . Debt mobilization is an ongoing task of the bank to ensure total deposits at any time to maintain the current level of lending and private investments to offset withdrawals by depositors. (Essays, UK. 2018).



Source: Central Bank of Iraq, Economic and Statistic Data.

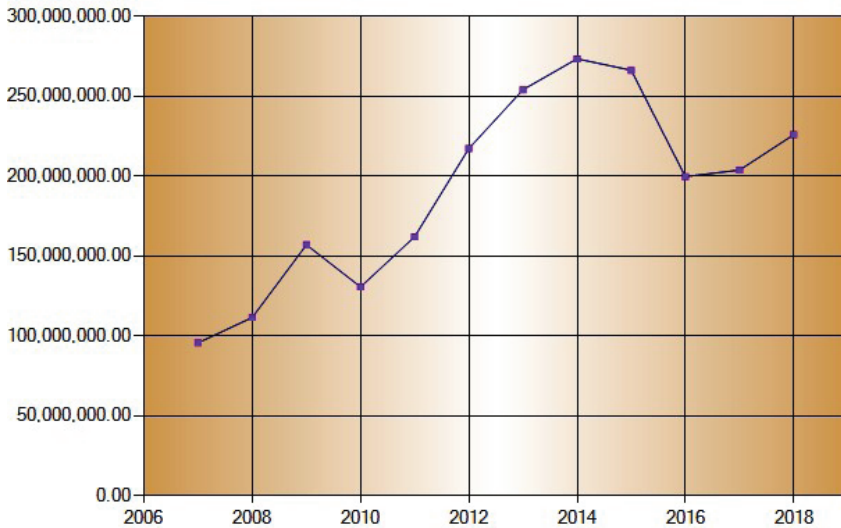
<http://cbiraq.org/SeriesChart.aspx?TseriesID=388>

It is clear from the above figure that the balance of deposits with the Iraqi banking sector continued to rise gradually from (16.9) in 2006 to reach (62.4) trillion dinars in 2016 and then to 67.04 trillion in 2017 . The reason for this increase is the relative improvement of the economic situation in 2017, which was reflected in the increase of the percentage of government deposits in banks, which constitute more than (60%) of total deposits in banks, especially in commercial banks belonging to the government . On the other hand, the improvement in the economic situation has been reflected in the increase in the incomes of individuals, as the average per capita GDP increased from (5.6) million dinars in 2016 to 6 million dinars in 2017. And then rose the private sector deposits from (23.7) trillion dinars in 2016 to (26) trillion dinars in 2017, with growth rate (10%) to increase the proportion of total deposits to (39%) in 2017, to reduce the difference between the proportion of deposits between the public and private sector . As regards the distribution of deposits by type (current deposits, savings deposits, fixed deposits), Current deposits continued to occupy the bulk of total deposits. It should be noted that the contribution of savings deposits and fixed deposits have increased from the total deposits is a good indicator of the trend towards increasing financial stability and this is what must be working on monetary policies in Iraq because this type of deposit gives banks a greater opportunity to finance development projects.

2.2.2. Independent variables: We need to start with some basic definitions:

2.2.2.1. Gross domestic product (GDP) is the market value of goods and services produced in a specific geographical area (often in a year). That GDP only measures goods and services, if produced and sold, will be calculated (E. E. Leamer, 2009). Also referred to as GDP, is the market value of all goods and services produced in a given country in a given period of time. This definition has four parts: market value, final goods, services produced within the country, in a given period of time (Wyatt Brooks, 2014). Context: GDP is an important indicator of economic activity and growth , as illustrated in the following figure:

Figure 2: Iraqi Gross Domestic Product (2006 - 2017).Unit of measurement: Million Iraqi dinars



Source: Central Bank of Iraq, Economic and Statistic Data:

<http://cbiraq.org/SeriesChartBig.aspx?isVir=0&dateFrom=12/31/2006&dateTo=02/06/2019&TseriesID=196>.

From figure (2), and from the data in Table (1) above . It is clear that the gross domestic product (GDP) fluctuated between rise and fall during the study period, from (95,587,954) million dinars in 2006 to reach (273,587,529) million dinars in 2013, in 2014 there was an increase to (386,426,384) million then declined to (199,715,699.9) in 2015, and then increased to (203,869,832) in 2016 and then to (225,999,179) in 2017. We can say that the fluctuations in the movement of GDP is due to security and economic instability in Iraq.

3.2.2.2. Inflation: The definition of inflation has been evolved with the development of economic .The definition varies according to differences and the development of schools of thought and economic schools and the repercussions of economic crises. Inflation is a sensitive increase in the amount of money (Denbel, et al., 2016). Keynesian theory sees inflation as the excess of quantitative demand for the display, that is in full use mode, such imbalance is characterized by high prices and therefore the rise in prices is a sign of inflation (Alan Blinder, 2018).

Inflation is an imbalance in monetary value with the real value of all investments; the rate of return on investment may be equal in terms of monetary value in two different markets. Investors prefer to work in a low-inflation market to achieve a really high return. Some writers say that the rise in the general price level is described as inflation and this indicates that the effective supply of funds is increasing faster than the speed of the supply of goods, the relative value of money decreases while the value of the goods increases and express at high prices.

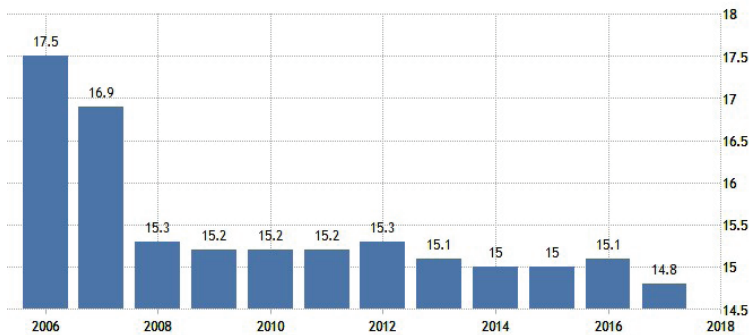
Figure 3: inflation rate in Iraq for the period (2006 – 2017) percentage



Source: Figure by the researcher based on the table (1).

- The shortfalls in the gross domestic product are meeting the growing domestic demand and the volume of government spending which their increasing has created a greater breadth in inflation continuously until it reached its highest level in 2007. It has directly affected the general price increase and reached its lowest level in 2010, after that, the ratio was fluctuated but at a slightly acceptable rate. The expansionary fiscal policy adopted by the state in managing its economy has not achieved its desired objectives but has brought many economic problems represented by inflation and devaluation of the currency ... etc. Recently, the budget programs announced by the Iraqi government focused on a range of tasks, notably increasing domestic production, increasing per capita income, reducing unemployment, controlling inflation .
- **2.2.2.3. Unemployment:**
- Unemployment is defined as a situation in which a person of working age is unable to obtain a job. There are many kinds of unemployment:

- Demand Deficient Unemployment – Lack of aggregate demand in the economy .
- Frictional unemployment – workers in between jobs.
- Voluntary Unemployment. – Workers prefer not to work.
- Structural unemployment – Workers lack the necessary skills or suffer from geographical inertia.
- Real unemployment – wages above equilibrium, for example, due to the rise in the national minimum wage.
- Figure 4: unemployment in Iraq for the period (2006–2017) percentage



Source: <https://tradingeconomics.com/iraq/unemployment-rate>

In Iraq, the unemployment rate measures the number of people actively searching for a job as a percentage of the labor force, which means that they usually rise or fall because of changes in economic conditions. According to the graph above, we note that the unemployment rate in Iraq decreased from (17.5) in 2006, (the highest in the years of this study) to (16.9) in 2007, then unemployment fell to (15.3) in 2008 and then stabilized at close rates between the rise slightly or slightly decline until the year 2017, which reached the rate of unemployment (14.8) which is the smallest rate .

2.3. Study model

The multiple linear regression model for our study was chosen for the purpose of obtaining reasonable results. It is an advanced and excellent statistical method that ensures the accuracy of reasoning in order to improve the results of the study through the optimal use of data in the creation of causal relationships between variables. Multiple linear regression is the creation of a mathematical equation that expresses the relationship between variables and is used to predict future values . It is also a regression of the

dependent variable (Y) on many independent variables ($X_1, X_2, X_3, \dots, X_k$). It is therefore used to predict changes in the dependent variable, which affects several independent variables, whose idea is based on semantic relationships that use what is known as dispersion. (Ramesh Reddy & K.Sarma, 2015)

Multiple linear regressions are not just one method, but a set of methods that can be used to determine the relationship between a dependent variable and a number of independent variables. The linear equation will be :

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where : Y is the dependent variable deposits index

X1 the first independent variable (gross domestic index)

X2 the second independent variable(unemployment ratio)

X3 the third independent variable(inflation ratio)
 b1 is the regression coefficient of the first independent variable
 b2 is the regression coefficient of the second independent variable
 b3 is the regression coefficient of the third independent variable
 a = fixed value or Constant
 e = random error

After obtaining the results of the regression equation, we show whether these transactions are statistically acceptable, which is statistically significant, noting that the morality is for each factor separately . In order to judge the significance of regression coefficients, we use the t – test and the corresponding probability level. The program will automatically extract the test and the corresponding probability level . Statistics will also be used to determine the overall morale of the model Such as (R^2) it is used to interpret the explanatory power of the multiple linear regression model because it takes into account the number of independent variables. We also use the (F) statistic to judge the significance of the estimated model as a whole at a specified significant level. Stepwise method is used to eliminate no significant independent variable that show a weak or no significant effect on the dependent variable .

3 . Regression Analysis:

First we apply the multiple linear function to obtain the fitted equation to the assigned data (Total deposits as the dependent variable , gross domestic product , unemployment rate , Inflation ratio as independent variables) . Computing the coefficients of correlation between variables. Testing the as–

signed hypothesis and the results were as follows :

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.964 ^a	.930	.904	5748186.590

a. Predictors: (Constant), Inflation, Gross domestic product, unemployment

1.1 ANOVA^a

Model		Sum of Squares	df	Mean Square	F	.Sig
1	Regression	3507245230458 137.500	3	1169081743486 046.000	35.382	.000 ^b
	Residual	2643331926256 60.380	8	3304164907820 7.547		
	Total	3771578423083 798.000	11			

Dependent Variable: total deposits

a. Predictors: (Constant), Inflation, Gross domestic product, unemployment

1.2 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients Beta	t	.Sig
		B	Std. Error			
1	Constant	153941646.679	103402530.677		1.489	.175

Gross domestic product	215.	044.	696.	4.925	001.
unemployment	-9348805.258	6505513.745	420.-	-1.437	189.
Inflation	181082.871	436043.044	103.	415.	689.

a. Dependent Variable: total deposits

The Function Obtained is :

$$Y = -671.969 + 0.215 X_1 - 9348805 X_2 + 181082 X_3$$

The value of adjusted R Square indicates ($R_{adj}^2 = 90\%$) a very good ratio.

The results show a positive relation between gross deposits with gross domestic product and inflation ratio but an inverse relationship is appear between gross deposits and unemployment ratio which are seen as a non-significant relationship .

The multiple correlation coefficients (R^2) is equal to 93% and therefore the relationship between the dependent variable (total deposits) and the independent variables is strong .

When we exclude the unemployment variable from the analysis we obtain the following results

1.3 Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	.Sig
		B	Std. Error	Beta		
1	(Constant)	5757669.208	8132653.708		708.	497.
	Gross domestic product	252.	037.	817.	6.790	000.
	Inflation	-375618.154	211670.887	214.-	-1.775	110.

The resulting model will be :

$$Y = 5757669 + 0.252 X_1 - 375618 X_2$$

Which show a non-significant reverse relation between total deposits and

Inflation ratio .

When we exclude Inflation variable we obtain the following results :

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.964 ^a	.928.	.912.	5477546.649

Coefficients^a

Model		Unstandardized Coefficients Std. Error	B	Standardized Coefficients Beta	t	.Sig
1	Constant	116867013.547	49717220.105		2.351	.043.
	Gross domestic product	220.	039.	.715.	5.596	.000.
	unemployment	-6948603.487	2845640.187	-.312.	-2.442	.037.

The final results show a direct relation between total deposits and gross domestic product and inverse relationship between total deposits and unemployment rate which are highly significant. The final equation will be :

$$Y = 116867013 + 0.22 X_1 - 6948603 X_2$$

Which assign a positive relationship between deposits and gross domestic product and inverse relationship with unemployment rate .

4 Conclusions & Recommendation

4.1 Conclusions

We conclude that a positive relationship exist between total deposits and gross domestic product , while an inverse relation exist between total deposits and unemployment rate (were statistically significant at a 0.05 level) , it seems logically that the increase in gross domestic product will lead to an increase in bank deposits . Where income is one of the most important determinants of savings and real deposit. Unemployment, however, is indirectly linked to total deposits, which appears when an

additional increase in unemployment affect total deposits, in other words increase in deposits assigned with a corresponding decrease in unemployment . Investment in economic activities will decrease unemployment rate . Unemployment in Iraq has become a thorn in the flesh. University graduates have become discouraged by high levels of unemployment, and securing profitable work has become a daunting task. Unemployment has a significant impact on total deposits in Iraqi commercial banks The government and other stakeholders are supposed to put a practical solution to decrease the rate of unemployment . Of course the lower interest rate, in turn, increases the tendency for consumption and the low tendency to save.

Inflation is associated with a negative relationship with the total bank deposits. The higher rate of inflation is assigned with a corresponding decrease in gross deposits , but it is seen non-significant relationship by statistical analysis . The analysis indicate a direct relation between inflation and rate of unemployment .

4.2 Recommendations

The relationship between the economy and the banking sector is constant cooperation. The development of the banking sector contributes to the development of the economy, based on the study, we suggest that the Iraqi commercial banks or private banks need attention by the monetary authority to avoid the factors that affect the profits of banks by improving the quality and effectiveness of banking services and raising the interest rate on deposits in order to positively affect the volume of deposits in the banks operating in Iraq. We suggest that commercial banks increase there investment in different economic fields to absorb a large part of unemployment . We also recommend the need to reduce inflation because of its negative effects on the economy . Unemployment caused many social and economic problems in Iraq, so it must be eliminated by encouraging young people to be creating jobs by helping them with investment loans with low interest .

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