



The effect of public revenues and domestic debt on bank profitability: A sample of Iraqi government banks

A study for the period (2004-2017)

Hayder Jawad kadhim Murshedi

Faculty of administration and Economics, University of Kufa, Iraq.
haiderj.kadum@uokufa.edu.iq

Adil Issa Kadhim Wazni

Faculty of Tourism Science, University of Kerbala, Iraq.
adil.issa@uokerbala.edu.iq

Mohammed Hussein Kadhim Al-jubouri

Faculty of administration and Economics, University of Kerbala, Iraq.
Mohammad.h@uokerbala.edu.iq

Abstract

This research sought to analyze and estimate the effect of internal debt and public revenues on the profitability of a sample of government banks in Iraq during the research period extending from 2004-2017. The research aims to achieve its goals by testing its hypotheses which are: (The presence of these variables on the profitability of government banks, the research sample) and this effect is through public revenues and internal debt as independent variables. This relationship and influence was expressed through economic and standard analysis to clarify the level and amount of influence of independent variables on dependent variables through the use of modern methods of econometrics, including (time series, stability test (Dickie Fuller), building a var model). The research found that the profitability of the Rafidain Bank is not identical to the internal debt, as the relationship has shown a direct correlation between them. As for the revenue, it came identical to the logic of economic theory in its relationship with the profit of the Rafidain Bank, while the internal debt and revenue matched with the logic of economic theory in their relationship with the profitability of the Iraqi Bank. After all the statistical tests have been taken, there is no correlation with some financial variables and profitability indicators according to the economic analysis, whether direct or reverse, and other conclusions.

Keywords: Rafidain Bank, public revenues, public revenues, Iraqi Bank.

Introduction

Public revenues and internal debt are among the important financial variables that have a fundamental role in promoting economic development and affecting economic and banking activity, because of the possibilities these tools possess in achieving economic stability and thus stability in banking activity as an integral part of economic activity through the budget. Between the revenues received and the way they are spent on the aspects of spending, as well as the method of financing through government debt from commercial banks.

Banks have acquired a large, important and pioneering role through their work as a financial intermediary and their capabilities to mobilize the existing savings of society and direct them towards various economic activities (investments, monetary banking facilities, pledge, and other banking activities) which enable them to influence the economies of countries, especially developing countries, and support and develop an economy. Those countries. Supporting and supporting the financial policy of banks requires activating the role of these banks by providing the appropriate economic environment suitable for practicing their various activities effectively in line with the prevailing conditions of the country and maintaining the stability of their indicators and in particular the liquidity index in question and ensuring that they exceed exceptional or emergency conditions.

First: The research problem

The research problem consists in analyzing and measuring the extent to which the profitability indicators of government banks are affected by the economic variables of financial policy, and how to choose the best statistical methods in estimating the impact of financial variables on the profitability of government banks and determining which of these variables is more influencing the studied phenomenon and excluding the variables that has no effect.

Second: The research hypothesis:

This study seeks to achieve its objectives from two hypotheses:

- 1- There is a relationship between the profitability of government banks and the variables of fiscal policy (revenue and domestic debt).
- 2- The profitability of government banks is affected by public revenues and internal debt.

Third: The importance of research:

The importance of the research comes in measuring the impact of financial variables (revenues and internal debt) on the most important banking indicators, which is the (profitability index).

Fourth: The aim of the research:

The research aims to identify the reality of financial variables (revenues and internal government debt) in Iraq after the period that followed the 2003 war and the political change that occurred, by analyzing those variables during the period from (2004-2017). Also, the research aims to identify the activity of Iraqi government banks during the study period through analyzing and measuring profitability indicators for these banks. Also analyzing and measuring the impact of financial variables on the profitability of government banks.

Fifth: The research structure:

The submitted research structure included three demands and a conclusion from the conclusions and recommendations, as the first demand addresses the theoretical aspect of government spending and government revenue and the second demand is the analytical side of expenditures and revenues. As for the third demand, it addresses the practical framework of the impact of public revenues and investment expenditures on the liquidity of Rafidain and Rashid banks, the research concluded with a set of conclusions

and recommendations related to the research topic.

The first requirement: theoretical framework

First: Public revenues: In order for the state to spend in public spending, it must provide the resources necessary to finance that spending. These resources are considered state income and are called public revenues. The type of revenue may vary according to the source and the form, and this can be distinguished by the obligatory element in obtaining it. The revenue may be economic, sovereign or credit (1). Economic is the revenue of state property (the domain) and it is defined as all the property belonging to the state, whether it is a public domain and means the funds owned by the state and subject to public law such as roads, bridges, ports ... etc. Or a private domain and means the money that the state owns private property and is subject to the provisions of private law It is considered a state revenue, and it is of the types of real estate, agricultural, industrial, commercial and financial domains, while sovereign revenues are oil revenues, taxes, fees and credit are public loans (2).

Public revenues exert an important influence on the performance of banks as an integral part of the economic units that make up the economy. If there is a sufficient amount of public revenue in a quantity that covers public expenditures in a stable manner, this will work to achieve good performance for commercial banks, and that a stable environment will achieve economic stability as well It will provide sufficient financial capacity for the government, which will direct a portion of that money to the banking sector, which will lead to an increase in banks 'resources, thereby increasing their investments and achieving profits, and that a stable economic environment will provide an appropriate investment climate (1).

Second: Internal public debt: Loans are an important source of revenue that countries resort to as a result of increased spending or to stimulate economic activity and protect it from fluctuations. The reason or justification for borrowing by the state is that it is unable to impose more taxes either because of the limited costly ability of members of society or fear of the negative effects of new taxes imposed for political considerations, or its desire to transfer the burden of financing public spending to future generations in a period of periods, and knows The general loan is that it is one of the financial resources of the state and a tool for financing investment and war spending, which is a debt that is written in public bonds from individuals, financial institutions, or banks within the borrowing country, or the external bodies of the state, whether those entities are individuals or institutions. Mechanism banking and foreign governments with a pledge to repay the loan and the value of the benefits of the loan (2). The government uses domestic debt, i.e. (internal borrowing), to obtain the required revenue when a budget deficit occurs, and the government uses it to influence economic activity by influencing the size of local liquidity and the interest rate when the government borrows while there is cash inflation, i.e. selling government bonds to the banking sector or individuals (3) As for external borrowing, governments obtain it from outside the borders and resort to this type, either because of a lack of national savings or a deficit in the balance of payments (4). In general, it is necessary to differentiate between two types of loans (5):

A- Real loans: They arise as a result of borrowing from individuals and the private sector through subscribing to public loan bonds and are considered part of the purchasing power of the economy and cause a decline in aggregate demand and thus achieving economic stability.

B - Inflationary loans: arise as a result of borrowing from non-banking institutions and are the result of an increase in the amount of money through credit expansion, which caused more inflation due to its inability to absorb purchasing power, as its financing was by issuing a new cash.

Third: Banking Profitability

1- The concept of bank profitability: the profitability of banks is defined in its implicit meaning, which is the increase in income generated by the expenses that the bank performs in the same period of time, or the time period may differ between the expenses incurred by the bank and the income it receives, such as that the period is one week or a month and even a year regardless Whether the revenue is cash or not, and profit is the soul of the business and therefore profitability is the reason for the existence of those business (1). The profitability of the bank is the ability of the bank to generate revenue in excess of cost in relation to the bank's capital base. A healthy and profitable banking sector is better able to withstand negative shocks and contribute to the stability of the financial system (2). Commercial banks seek to maximize their profits by

accepting deposits and other resources at low costs and then reinvesting those resources in lending, credit and other things in exchange for a high return taking into account the liquidity and the degree of safety that these investments enjoy, and that the funds that are reinvested by commercial banks are In fact, it is in excess of its needs for primary and secondary reserves, and most of the banks 'investments are in the field of loans because of the high profits it provides, and also because it is the traditional function of banks. The greater the amount of credit granted, the greater the interest and thus the profitability of the banks, but this contradicts the liquidity goal which is no less important than the profitability goal, so if the profitability increases as a result of the increase in the credit granted, the bank is exposed to risk and at the same time the high liquidity exposes the bank to losses due to the funds frozen without investment (3) .

2- The objectives of banking profitability: Banks achieve their objectives in profitability through two decisions: (4):

The investment decision: - Expresses the decisions of the banks to use the resources available to them and to invest those resources to obtain the various assets in a way that ensures a balance in the distribution of those resources to the assets without increasing or decreasing, since the increase disrupts these resources and the decrease misses the opportunity for the bank to achieve profit and therefore the balance can be Banks achieve high returns.

Funding decision: - It expresses how to obtain the necessary funds to finance the banks 'investments, and the effect of the financing decision is shown on the profitability of banks through arranging priorities in financing, such as financing through deposits, followed by financing through shareholders' rights, and then financing through borrowing and in a manner that achieves the highest return To banks.

3- Factors affecting bank profitability

A- The interest rate: The interest rate that banks actually pay is called (the nominal interest rate), while the real interest rate is the nominal interest rate from which the inflation premium is subtracted (1). When the interest rates that banks pay on deposits are low, the increase in interest rates on loans granted by banks will inevitably lead to increased profits, meaning that there is a direct relationship between the interest rate margin and the profitability of banks (2).

B - Banking Liquidity: Commercial banks are concerned with liquidity greatly for two reasons. The first is to increase their liabilities over their assets and the second reason is that most of these liabilities are short-term. The effect of liquidity on banking profitability is if banks maintain high liquidity, which means a decrease in their resource investment (3).

C- Loans or Losses of Loans: Loans are the main source of the bank's resources and therefore the bank's inability to collect loans from borrowers will cause huge losses to the bank and vice versa in the event that there is flexibility and commitment on the part of borrowers to pay what they owe to the bank's obligations (4).

4- Banking Profitability Indicators (5)

$$\text{Return on assets (ROA)} = \frac{\text{Net profit}}{\text{the findings}}$$

This ratio measures the net income that banks receive from investing their resources and is largely dependent on the profits of those assets. This ratio or indicator is also called the return on investment. It measures the profits of banks from short and long-term investments.

$$\text{Return on Equity (ROE)} = \frac{\text{Net profit}}{\text{Property rights}}$$

This indicator measures the percentage of the owners or shareholders in establishing the bank from investing their money in the bank, and this indicator reflects the efficiency of the bank's management, and its height indicates the high risks that result from increased leverage.

The second requirement: the analytical aspect

1- Analysis of internal (government) public debt performance: From Table (1), fluctuations in the rates of internal debt can be observed by an increase in one period and a decrease in others throughout the duration of the research. As in the year 2004 the amount amounted to (5925061) million dinars, treasury transfers amounted to (1242023) million dinars from the total debt and the remainder is the debt of the Ministry of Finance for the same year. Then the internal debt rate increased in 2005 to 10.7% to reach 6593960 million dinars compared to the previous year. However, it decreased in 2006 to reach (5645390) million dinars and a negative growth rate (-15.5%), then it continued at low rates until the year 2008 amounted to (4455569) million dinars and a negative growth rate of (-15.3%).

The internal debt returned to increase during the two years (2009 and 2010) to record the amount of (8434049, 9180806) million dinars, respectively, and the rate of growth (63.8%, 8.4%), respectively, but returned to decline again during the following years until 2013, as recorded in this The lowest growth rate during the research period, i.e. (-43%), reaching 4255549 million dinars for the same year. The internal debt for the year 2013 represents the amount of the debt remaining with the Ministry of Finance in favor of the Central Bank of Iraq, amounting to (2755519) million dinars, which was rescheduled under the agreement on 10/26/2010 and the amount of (1500030) million dinars representing treasury transfers, then the internal debt was recorded in recent years for research (2014, 2015, 2016, 2017) a significant increase by (9520019, 32142805, 47362251 and 47678796) million dinars respectively, where he recorded the highest growth rate in 2015 amounted to (121.6%), and the reason for the high rate of internal debt is the security and economic conditions Which shows the country as a result of the war on terrorist organizations ISIS and the lack of approval of the 2014 budget and the sharp decline in S. The oil shame, which caused the decrease in domestic liquidity and the budget deficit recorded in 2016, which led to the government resorting to internal borrowing to finance that deficit (1).

Table 1: the internal debt in Iraq for the period (2004-2017) (million dinars)

years	Debt to the Ministry of Finance	Treasury transfers to commercial banks	Loans for financial institutions	Term and delivery bonds National bonds	Total internal public debt	Growth rate%
2004	4683038	1242023			5925061	-
2005	5393890	1200070			6593960	10.7
2006	5393890	251500			5645390	-15.5
2007	4674705	519000			5193705	-8.3
2008	3955519	500050			4455569	-15.3
2009	3955519	4478530			8434049	63.8
2010	3955519	5225287			9180806	8.4
2011	3555519	3891340			7446859	-20.9
2012	3155519	3392000			6547519	-20.8
2013	2755519	1500030			4255549	-43
2014	2455519	7064500			9520019	80.5
2015	2355519	19311704	10461057	14525	32142805	121.6
2016	2355519	32763554	10546233	1696945	47362251	38.7
2017	2155519	32294624	10546233	2682420	47678796	0.6

2- Analysis of general revenues in Iraq

From Table (2), we note that the general revenues increased upward during the study period until 2008, as it increased from (32982739) million dinars in the year 2004 to (71088578) million dinars in the year 2008, and the reason for this is the resumption of Iraq's export of crude oil after raising The sanctions and blockade imposed on it before 2003 to contribute to the increase in the state's resources and increase the sources of financing in the budget (1). As for tax revenues, it reached (294900) million Iraqi dinars in the year (2004) to constitute (0.89%) of the public revenues and then increased In the year (2005) to (495282) million Iraqi dinars, i.e. a growth rate (67.9%) from the previous year, as in Table No. (2), and Tax revenue went up until the year (2008), where it decreased by (-19.7) from the previous year, reaching (985837) million dinars,

after it was (1228,336) million dinars in (2007), it constituted (0.13%) of the total Public revenues, and the last amounted during the same year (2008) (71088578) million dinars.

Table (2): General and tax revenues in Iraq for the period (2004-2017) (million dinars)

Year	Public revenue	growth rate%	Tax revenue	growth rate%	Tax revenue ratio to public revenue%
	1	2	3	4	5
2004	32982739	-	294900	-	0.89
2005	40502890	20.53	495282	67.9	1.22
2006	41422396	2.24	591229	16.2	1.42
2007	46142113	10.8	1228336	107.7	2.66
2008	71088578	43.22	985837	-19.7	0.13
2009	50622517	-33.95	3334809	238.2	6.58
2010	69521117	31.72	1532438	-54	2.2
2011	108807392	44.8	1783593	16.3	1.63
2012	119817224	9.63	2633357	47.6	2.19
2013	113840076	-5.11	2876857	9.2	2.52
2014	105386623	-7.71	1885127	-34.2	1.78
2015	66470252	-46.08	2015010	6.5	3.03
2016	54409200	-20.02	3861800	91.6	7.09
2017	77335900	35.16	6298300	63	8.14

Then the public revenues recorded a notable decrease after that in 2009, due to the decline in oil prices globally (1), while the tax revenues returned to rise in (2009), reaching (3334809) million dinars, to constitute (6.58%) of the total public revenues That amounted to (50622517) million dinars, with a growth rate of (238.2%). However, soon the tax revenues decreased to reach (1532438) million dinars in 2010, with a negative growth rate (-54%), as well as its percentage of the total public revenue of (2.2%) for the same year, which in turn amounted to (69521117) million, then the general revenue returned to The upward increase in the four years (2011, 2012, 2013, 2014) to record its highest level in the year 2012, which amounted to (119817224) million dinars, with a growth rate (9.63%) during the study period, although tax revenues increased during those years now that they do not It still suffers from a decline in its earnings in a way that is not commensurate with the trend towards finding sources of financing other than oil revenues fold. Public revenues recorded a fluctuating decline during the following years, reaching at the end of 2017 (77335900) million dinars, while tax revenues continued to increase slightly during the two years (2012, 2013), but they decreased in 2014 to (1891700) million dinars due to the security conditions that he was exposed to Iraq and the political challenges that the country went through during this phase all cast its shadow on its economic reality and afflicted it with a kind of stagnation and lack of diversification of income sources, and returned to rise again in 2017 as it reached its highest outcome of (6298300) million dinars and a growth rate (63%) compared The previous year.

3- Analysis of profitability indicators of the Rafidain Banks and the Iraqi Trade Bank for the period (2004-2017)

A- Return on Assets Index (ROA): This indicator indicates the ability and efficiency of the bank to generate profits by investing each of the assets in various aspects of investments, as its rise indicates the efficiency of the bank and its decline indicates the opposite. The percentages of this indicator shown in table (3) show us the highest percentage achieved by the Rafidain Bank as a return on assets during the study period, which was in the year 2007, which amounted to (0.296%), as a result of the bank's increased revenues over its expenses achieving a net profit of (727333) million dinars, In addition to achieving an investment return of 10% during the same year, the bank suffered a loss in the years (2004, 2009, 2010) and the bank achieved the lowest percentage for this indicator in the year 2011 and it was about (0.002%), and within the framework of the analysis of the indicator, the three years that The bank achieved a net loss from the lower and upper limits of the index, and the reason for the low rates of this indicator is due to Weak credit and investment policy of the Bank towards employing its cash holdings in the lucrative investment opportunities.

With regard to the Trade Bank of Iraq, this indicator showed a gradual increase during the study period until 2012 to reach its highest rate of (3.6%) as a result of the clear increase in the size of net profit, which

exceeded the rate of increase in total assets during the same period, and for years That followed this year (2012) has witnessed a variation in the return to total assets index, when referring to Table (3) it is clear that this percentage has decreased to (2.4%) in 2013, then the percentage has continued to decrease, reaching 2016, with a slightly higher rate. Growth (2.1%) from the previous year, as this percentage is higher than the year in which it occurred Blha indication that there is growth in the asset side as well as net profits, requiring the bank's best efforts to overcome the economic situation and seek to maximize profits by employing its assets in assets realized profits.

Table (3): (ROA and (ROE) Indicators for Governmental Banks (Al-Rafidain and Al-Iraqi for Trade) for the period (2004-2017)

year	ROA indicator		ROE indicator	
	Rafidain Bank	Iraqi Bank for Trade	Rafidain Bank	Iraqi Trade
2004	-0.0036	0.3	-14.7	0.3
2005	0.034	0.4	154.05	0.6
2006	0.14	1.2	813.5	1.6
2007	0.296	1.5	973.3	2.2
2008	0.067	1.8	206.5	2.8
2009	-0.0032	1.9	-5.27	3.4
2010	-0.005	2.1	-6.85	4.1
2011	0.002	2.3	18.55	4.2
2012	0.011	3.6	37.6	7.3
2013	0.13	2.4	23	5.8
2014	0.23	1.8	56	5
2015	0.23	1.9	87	3
2016	0.67	2.1	89	2.5
2017	0.87	2.5	95	4.1

B- Return on Equity Index (ROE): This indicator receives great attention by the bank's management, as it reflects the extent to which the bank seeks to achieve the goals, as it is a standard for maximizing their wealth (1), in addition to being a specific indicator of growth and development, and Table 3 shows Ratios of the rate of return to equity of government banks. The data related to this indicator and presented in Table (3) showed that the index values for Rafidain Bank were high during the years (2005, 2006, 2007, 2008), while the three years (2004, 2009, 2010) recorded a loss for the bank, and the index ratios ranged between (18.55 %) As the lowest percentage achieved by the bank in the year 2011 and between the ratio of (973.3%) as the highest value reached by the bank in the year 2007, and this is the highest percentage of the index among government banks, and the years from (2011-2013) witnessed a decline in the ratio and then gradually increased again, but At a rate less than the first years of study, which ranged between (56% -95%). These high percentages of the index values, especially in the early years, are indicative of the bank's efficiency in investing funds in more profitable areas, on the one hand, and on the other hand a monopoly of many government transactions as well as a low ratio of equity to net profits (1).

As for the Iraqi Bank for Trade, the index started with low rates, which is a normal case in the first years of the bank's life, as it recorded its lowest percentage during the study period at a rate of (0.3%) in the year 2004, then the percentage gradually increased until it reached the highest rate achieved by the bank in the year 2012, which is (7.3%) for every invested dinar of property rights, and the reason is the variation in both profits and property rights, as the increase in net profit growth is offset by consistency or growth with a lesser percentage in property rights, except that the index recorded a gradual decrease in the last years of the study except for 2017 Which witnessed an increase of 4.1%, which requires the bank To maximize the rights of its owners to the potential capacity, which reflects the positive aspect of the bank's performance and shareholder satisfaction.

The third requirement: The standard aspect (measuring the effect of internal debt and public revenues on banking profitability)

First: test the stability of time series

1- Profitability of the Rafidain Bank and the Iraqi Trade Bank: The table below shows the results of the stability test of the profitability data series for both banks using the Dickey-fuller (ADF) test, according to the following table:

It is clear from the series in Table (4) that the estimated parameters at the level for both banks did not prove according to the Dickie-Fuller test, as all calculated values are greater than the tabular values (with a fixed limit, with a fixed limit and direction, without a fixed limit and direction), so it is obligatory to accept The alternative hypothesis and the rejection of the hypothesis, indicating the instability of the time series at the level, and after taking the first difference of the bank's time series, we find that all the tabular values are greater than the calculated values for the t-tau distribution, at the level of significance 1%, 5%, 10%, and for this was rejected The alternative hypothesis, which provides for the presence of the unit root and the acceptance of the non-existence of the absence of the unit root, is derived Exclusive time series, which prompted the researcher to rely on the results of the first teams for a series of time and a slowdown in one year,%, and all border (when hard, hard and direction, and without hard and direction), and the stability of the time series when the first difference.

Table (4): ADF test results

Type	Level of significance	Deicky- Fuller test							
		Profitability of the Iraqi Trade Bank				Profitability of the Rafidain Bank			
		the level		The first difference		the level		The first difference	
		Tabular value	Calculated	Tabular value	Calculated	Tabular value	Calculated	Tabular value	Calculated
With a fixed limit	1%	-3.55502	<u>1.831486</u>	-3.55747	<u>-7.21253</u>	-3.555023	<u>-1.768099</u>	-3.557472	<u>-7.300467</u>
	5%	-2.915522		-2.916566		-2.915522		-2.916566	
Towards a fixed unit	1%	-4.133838	<u>-2.197630</u>	-4.13727	<u>-7.17335</u>	-4.133838	<u>-1.544218</u>	-4.137279	<u>-7.345078</u>
	5%	-3.493692		-3.49529		-3.493692		-3.495295	
No fixed border and time trend	1%	-2.607686	<u>-1.512339</u>	-2.60849	<u>-7.28011</u>	-2.607686	<u>-0.145234</u>	-2.608490	<u>-7.280110</u>
	5%	-1.946878		-1.946996		-1.946878		-1.946996	

Table prepared by the researcher based on the results of the statistical analysis E-Views

(2) Test the overall and partial self-correlation function

The data for the variables in question has been subjected and after conducting the Correlogram test for each variable the following results were reached:

- Financial policy variables: it is clear from the results obtained that the time series is free of self-correlation coefficients, since the stability of the chain requires that the correlation coefficient be equal to zero or not fundamentally different from zero, in other words that the self-correlation coefficient falls between (1) -1)

It can be seen that the values are within the confidence limits (-1,1) and they are close to zero, meaning that the relationship of the current values with the previous values for 24 years' failure took a descending path, starting with 92% and then gradually decreasing to 0.4%. According to the overall correlation function AC in the recent period, and also the partial correlation function PAC indicates the distribution of A. Values are close to zero, as they were at the beginning of the period with (92%) until they reached (3%) at the end of the period. To infer the significance of the function from a statistical point of view, we resort to Q-Stat by comparing the Q-Stat values of 219 which It showed that it is greater than the calculated values of the 2 × Caixare test of 9.88 at the 95% level of significance. Thus, we accept the alternative hypothesis that there is no correlation between the previous and the subsequent values.

Date: 08/21/19 Time: 09:02
 Sample: 2004Q1 2017Q4
 Included observations: 56

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
1	0.925	0.925	50.516	0.000	
2	0.850	-0.03...	93.950	0.000	
3	0.775	-0.04...	130.73	0.000	
4	0.700	-0.04...	161.29	0.000	
5	0.591	-0.27...	183.53	0.000	
6	0.482	-0.07...	198.63	0.000	
7	0.374	-0.08...	207.88	0.000	
8	0.265	-0.08...	212.62	0.000	
9	0.197	0.275	215.30	0.000	
1...	0.129	-0.05...	216.48	0.000	
1...	0.061	-0.05...	216.75	0.000	
1...	-0.00...	-0.05...	216.75	0.000	
1...	-0.02...	0.171	216.80	0.000	
1...	-0.04...	-0.03...	216.92	0.000	
1...	-0.05...	-0.04...	217.18	0.000	
1...	-0.07...	-0.04...	217.63	0.000	
1...	-0.06...	0.093	218.02	0.000	
1...	-0.06...	-0.03...	218.34	0.000	
1...	-0.05...	-0.03...	218.60	0.000	
2...	-0.04...	-0.03...	218.80	0.000	
2...	-0.04...	0.045	219.00	0.000	
2...	-0.04...	-0.03...	219.19	0.000	
2...	-0.04...	-0.03...	219.36	0.000	
2...	-0.04...	-0.03...	219.53	0.000	

Profitability of government commercial banks

It is clear from the results obtained that the time series is free of self-correlation coefficients, since the stability of the chain requires that the correlation coefficient be equal to zero or not fundamentally different from zero, in other words that the self-correlation coefficient falls between (1, 1-). It can be seen that the values are within the confidence limits (-1,1) and they are close to zero, meaning that the relationship of the current values with the previous values of 24 years' failure took a descending path, the partial correlation function PAC indicates that the values are distributed approximately to zero, as they were at the beginning of the period (92%) until it reached (7%) at the end of the period, and also starts with 91% and then decreases significantly Gradually, to reach 31% according to the overall correlation function AC in the recent period, and to infer the significance of the function from a statistical point of view, we resort to the Q-Stat test by comparing the Q-Stat values of 263, which showed that they are greater than the calculated values of the 2 × C Square test of 9.88 when Significant level of 95%, thereby accepting the alternative hypothesis indicating that there is no correlation between the previous and the subsequent values.

Date: 08/21/19 Time: 09:25
Sample: 2004Q1 2017Q4
Included observations: 56

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
		1 0.918	0.918	49.772	0.000
		2 0.836	-0.04...	91.820	0.000
		3 0.754	-0.04...	126.67	0.000
		4 0.672	-0.04...	154.90	0.000
		5 0.597	-0.00...	177.61	0.000
		6 0.522	-0.04...	195.32	0.000
		7 0.447	-0.04...	208.57	0.000
		8 0.372	-0.05...	217.94	0.000
		9 0.304	-0.00...	224.32	0.000
		1... 0.236	-0.05...	228.24	0.000
		1... 0.167	-0.05...	230.26	0.000
		1... 0.099	-0.05...	230.99	0.000
		1... 0.057	0.111	231.23	0.000
		1... 0.015	-0.04...	231.25	0.000
		1... -0.02...	-0.05...	231.31	0.000
		1... -0.07...	-0.05...	231.70	0.000
		1... -0.09...	0.101	232.39	0.000
		1... -0.11...	-0.04...	233.47	0.000
		1... -0.13...	-0.04...	235.04	0.000
		2... -0.15...	-0.04...	237.21	0.000
		2... -0.19...	-0.13...	240.74	0.000
		2... -0.23...	-0.06...	246.00	0.000
		2... -0.27...	-0.06...	253.43	0.000
		2... -0.31...	-0.07...	263.47	0.000

Second: Description and evaluation of the standard model

(1) The effect of explanatory variables on the profitability of the Rafidain Bank

After the model was converted to the natural LOG and deleted distorted views (1-4) and (41-44) which gave the best results, the researcher reached the following results:

ssion Analysis: logprafden versus log debit; log expend; ...

The regression equation is

$$\text{logprafden} = -64.5 + 1.09 \text{ log debit} + 0.321 \text{ log revnu}$$

Predictor	T	P
Constant	-6.96	0.000
log debit	5.38	0.000
log expend	7.07	0.000
log revnu	2.20	0.035
log ex	5.80	0.000
logintrest	13.39	0.000
logm2	5.45	0.000

$$S = 0.150460 \quad R\text{-Sq} = 98.9\% \quad R\text{-Sq(adj)} = 98.7\% \quad f = 481.87 \quad p = 0.000$$

Economic tests

It is noted from the indications of the estimated model, the profitability of the Rafidain Bank is not identical to the internal debt, as the relationship between them has shown a direct correlation, due to the fact that the Rafidain Bank was not affected by the government borrowing from it because of the large size of the capital and its large transactions and consequently the increase in its profits. As for the revenues, they were identical to the logic of economic theory. In its relationship with the profitability of the Rafidain Bank, and this confirms the conformity of the Rafidain Bank policy with the government in moving towards a market economy and supporting investments that bring benefits to the government. He confirmed using t-test, as the value of t greater than the calculated value for all t Tabulated variables at the abstract level:

$$1\% = 2.82$$

$$5\% = 1.83$$

$$10\% = 1.38$$

Which indicates the significance of the statistically estimated parameters, thereby accepting the alternative

hypothesis and rejecting the null hypothesis.

Determination coefficient (R²), indicates the success of the model under study in explaining the changes that happen to the dependent variable with an effective force of 98.9%. The rest is due to other variables affecting the model, but the researcher did not address them.

In order to test the overall significance of the model as a whole according to the test of f, since the calculated value of 481.87 is greater than the value of the tabular f at the level of significance:

$$1\% = 8.02$$

$$5\% = 4.26$$

We therefore accept the alternative hypothesis, which indicates the significance of the estimated model, due to the explanatory power of the determining factor R² and since the F test accompanies the determining factor, so it indicates the significance of the estimated model.

(2) Estimate the effect of independent variables on the profitability of the Iraqi Trade Bank

20/08/2019 11:55:30

Regression Analysis: piraq versus debit; expend; revnu; ex; intrest; m2

The regression equation is

$$\text{piraq} = 4.29 - 0.072 \text{ debit} + 0.000033 \text{ revnu}$$

Predictor	T	P
Constant	1.51	0.137
debit	-0.62	0.538
expend	1.08	0.286
revnu	0.20	0.841
ex	-1.43	0.159
intrest	0.27	0.786
m2	2.45	0.018

$$S = 0.814270 \quad R\text{-Sq} = 83.3\% \quad R\text{-Sq}(\text{adj}) = 81.2\% \quad f = 40.67 \quad p = 0.000$$

Form tests

Economic tests:

Through the results it was reached:

Indications of the estimated parameters showed that the internal debt and revenues match the logic of economic theory in their relationship with the profit of the Iraqi bank, so as the internal debt increases, the profitability of the Iraqi bank will decrease by (0.072), and a positive relationship with the revenues.

Statistical tests:

(t-Test) t: by comparing the calculated value of t * with its tabular counterpart of the model variables and the degree of freedom n-k, which is

$$1\% = 2.82$$

5% = 1.83

10% = 1.38

We find that it is ($t > t$) for (M2) variables, so we accept the alternative hypothesis and reject the null hypothesis, which indicates the significance of these parameters for the model. The remaining variables are not significant since t calculated is less than tabular.

Within the framework of other statistical and standard tests of the model as a whole, the researcher reached the following:

2- Determination coefficient (R²), indicates the success of the model under study in explaining the changes that happen to the dependent variable with an influence force of 83.3%, and the rest is due to other variables affecting the model, but the researcher did not address them.

3- The model was able to pass the F-test in order to exceed the calculated value of 40.67 over its tabular value at a significant level.

1% = 8.02

5% = 4.26

He must accept the alternative hypothesis and reject the imposition of nothingness and thus judge the morale of the estimated model.

Conclusions

1- Adjusted Coefficient of Determination achieved the highest percentage in the Rafidain Bank profitability model (98%).

2- The financial indicators during the study period showed an increase in public revenues and the contribution of treasury transfers by more than 70% which the government proposes for internal borrowing.

3- The profitability of the Rafidain Bank does not coincide with the internal debt, as the relationship has shown a direct correlation between them, perhaps due to the fact that the Rafidain Bank was not affected by the government borrowing from it because of the large size of the capital and its large transactions and consequently the increase in its profits, while the revenues came in line with the logic of economic theory in its relationship with The profitability of the Rafidain Bank, and this confirms the conformity of the Rafidain Bank policy with the government in moving towards a market economy.

4- The conformity of the internal debt and revenues with the logic of economic theory in their relationship with the profitability of the Iraqi bank, so as the internal debt increases, the profitability of the Iraqi bank will decrease by (0.072), and a positive relationship with the revenues.

Recommendations

1- Study other financial variables such as expenditures and oil revenues and their impact on the profitability of Rafidain Banks and the Iraqi Trade Bank.

2- Spreading banking awareness among members of society by holding seminars, seminars and meetings with the aim of encouraging savings and directing them towards productive investments.

3- Using the E-Views method in the process of estimating the impact of financial metaphors on the profitability of banks, as it is the most appropriate way to reach goals, given that this method is mainly based on identifying the variables affecting the phenomenon and excluding variables that have no effect depending on the statistical considerations that support On that.

References

(1.) Reda Abu Hamad, Qadduri, Faik Qadduri, Banking Department, Ibn Al Atheer House for Printing

- and Publishing, University of Mosul, 2005.
- (2.) Bin Ali Balazouz, Abdul Karim Kunduz et al., Risk Management, Financial Derivatives and Financial Engineering, 1st Floor, Al-Warraq Publishing and Distribution, 2013.
 - (3.) My studies, Masoud, Financial policy and its role in achieving economic balance, PhD thesis submitted to the Faculty of Economic Sciences and Management, University of Algeria, 2005.
 - (4.) Fatima Ibrahim Khalaf Al-Jubouri, The Impact of Financial Policy on the Economic Growth of a Sample of Countries, PhD thesis submitted to the Council of the College of Administration and Economics, University of Mosul, 2006.
 - (5.) Salah Amer Abu Houna, The Effect of Banking Capital Adequacy on the Risks, Profitability, and Liquidity of Banks - A Study in a Sample of Iraqi Banks, PhD Thesis, College of Administration and Economics, University of Kufa, 2016.
 - (6.) Rami Akram Mazyek, A Study of Factors Affecting the Profitability of Syrian Commercial Banks, Master Thesis, Faculty of Economics, Tishreen University, 2014.
 - (7.) Kamal Kazem Jawad Shammari, Ibtihal Ahmed Abdul Aoun Al-Shammari, Analysis of Coordination between Monetary Policy and Financial Policy in the Shadow of Governmental Debt, Iraqi Journal of Administrative Sciences, Article 14, No. 58, 2016.
 - (8.) Bushra Abdul-Bari Ahmed, Estimating the Impact of Monetary and Financial Policies on the Performance of Commercial Banks, Kirkuk University Journal for Economic and Administrative Sciences, M3- 2, 2013.
 - (9.) Hassan Muhammad Jawad Al-Daami, Measurement and Analysis of the Impact of Financial Policy Variables on the Performance Indicators of the Iraqi Stock Exchange Market Journal of the College of Administration and Economics for Economic, Administrative and Financial Studies, University of Babylon, M 9, p1, 2017.
 - (10.) Mahmoud Saleh Atiya Al-Jubouri, Zuhair Hamed Salman Al-Zaidi, Iraqi Financial Policy and Its Effects on Financial Economic Development, Diyala University, College of Administration and Economics, Diyala Journal, p. 61, 2014.
 - (11.) Ahmed Nagy, The effect of credit risk on the profitability of commercial banks in Iraq, Tikrit University, College of Administration and Economics, Tikrit University Journal of Administrative and Economic Sciences, Volume 11, p 33, 2015.
 - (12.) Dr. Ali Kanaan, Ali Mahmoud Mohamed, The Interest Rate and its Impact on the Profitability of Commercial Banks, Faculty of Economics, Damascus University, Damascus University Journal for Economic and Legal Sciences, Volume 3, First Issue, 2014.
 - (13.) Samer Muhammad Fakhry, Aso Bahauddin, Index of Banking Profitability and the Factors Affecting it, Tikrit University - College of Administration and Economics, University College of the Book, University of Kirkuk Journal of Administrative and Economic Sciences, Volume 6, p2, 2016.
 - (14.) Rafid Kadhim Nassif Al-Obaidi, Basel II agreement and its impact on banking performance, University of Babylon, Journal of the College of Administration and Economics for Economic, Administrative and Financial Studies, Volume 10, p3, 2018.
 - (15.) Central Bank of Iraq, General Directorate of Statistics and Research, Annual Economic Report for the Years (2004-2017).
 - (16.) Al-Rafidain Bank Annual Report for the Years (2004-2009), (2011, 2012), The Bank's Profitability Indicators (2004-2017).
 - (17.) Annual report of the Iraqi Bank for Trade for the years, indicators of profitability of the bank (2004-2017).
 - (18.) Victor C. Lartey & Others, The Relationship between Liquidity and Profitability of Listed Banks in Ghana, School of Finance and Economics, Jiangsu University International Journal of Business and Social Science, Vol. 4 No. 3; March 2013.