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# Analysis of the impact of some financial indicators on the reality of the Iraqi economy for the period 2004-2021

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#### Abstract:

The financial indicators reflect the most important financial developments of the country, which is the expenditures and public revenues of the Iraqi government and represent the procedures of the country's fiscal policy as well, in this research was selected realistic indicators are easy to achieve in reality, which makes them applicable in orderto achieve specific goals within the framework of the general plan for the economic and social development of the country and that these indicators are very important help in monitoring spending General government and not to exceed the planned spending during the fiscal year , which depends on oil revenues in a very large way because Iraq is a rentier country depends on more than 95% of its revenues on the revenues of the oil sector only due to the weak productivity of other economic sectors in Iraq, especially after the difficult conditions to which the country was exposed if these sectors constitute approximately 5% of the composition of public revenues of the Iraqi government.

The research reached a number of conclusions and recommendations, the most important of which was that these financial indicators have a major role in influencing the reality of the Iraqi economy by influencing those economic variables that have been identified in the research, but they are characterized by a weak role in that impact and have not been able to achieve progress and economic growth in the country due to the failures that occur in the procedures Fiscal policy, which negatively affects the reality of the Iraqi economy. Therefore, the government should be directed towards increasing government intervention in order to reduce the volume of current expenditures , especially consumption expenditures, and increase investment expenditures for the purpose of achieving economic growth and progress for the country.

**Keywords:** Financial indicators, Iraqi economy, public revenues. Public expenditure, Fiscal policy.

## 1. Introduction

The development and progress in the global economy at the present time led to the emergence of many problems that affected the lack of balance for developing countries in the world in general and at the level of Iraq in particular as a rentier country and exposed to many problems such as wars, occupation and comprehensive destruction of infrastructure in it, as a result of which some economies were exposed to close and successive economic cycles. It led to instability in the country, which made some financial indicators have a significant impact in addressing economic problems in the environment of the Iraqi economy and directing Iraq towards balance by affecting some important economic variables in the country. By positively influencing the reality of the Iraqi economy by influencing some economic variables such as (inflation, unemployment and

poverty) by reducing inflation rates and unemployment rates , reducing poverty rates and raising the productive capacities of the real economic sectors of the country, and this means an increase in GDP and an increase in national income, which are among the main and basic indicators For the country's economic progress and for the success of the economic and financial policy measures used in that country.

#### indicator of the Iraqi government's ability to employ financial resources:

This important financial indicator is updated by knowing the role played by fiscal policy by employing financial resources in the country, as well as the extent to which fiscal policy can generate savings in order to finance investment projects , and this indicator is extracted according to the following method:

Index of the government's ability to employ financial resources = (public revenues / GDP) \* 100

Government ability to employ financial re- sources %	GDP	Public revenues	Years
68.78553	47959000	32988850	2004
54.98992	73533000	40435740	2005
51.31977	95588000	49055545	2006
49.31537	111455813	54964850	2007
51.3552	157026062	80641041	2008
42.28613	130642187	55243527	2009
41.96664	167099204	70125921	2010
47.84911	217327107	103989089	2011
47.13029	254225490	119817222	2012
41.61011	273587529	113840076	2013
37.70503	258900633	97618556	2014
34.67124	191715791	66470251	2015
31.72737	171490000	54409269	2016
16.66064	464701138	77422172	2017
42.44719	251064500	106569833	2018
48.14725	223412523	107566993	2019
29.61253	213422122	63199689	2020
34.80215	313433144	109081463	2021

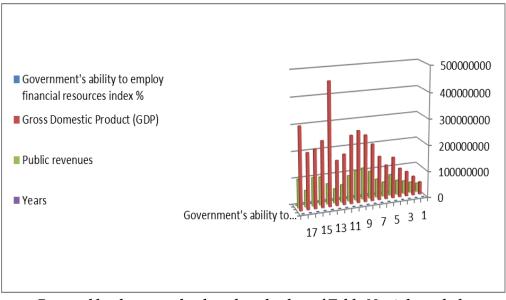
Table 1: Public Revenues and GDP in Iraq for the Period 2004-2021 (Million Dinars)

# Source: Prepared by the researcher based on the data of the Ministry of Finance, the Economic Department, the data for the period 2004-2021.

Through the above table , it is clear that the ratio of public revenues to GDP in Iraq (the government's ability to employ financial resources) for the period 2004 to 2021 formed varying percentages, and this indicates that there is a kind of fluctuation during that period, due to the increase in the value of GDP in the oil sector and then the increase in the volume of oil revenues , which led to raising the value of financial resources to The value of the gross domestic product in Iraq, despite that rise, indicated that this in-

dicator tended to decline, as its lowest value reached approximately (16.66064) during the year 2017, due to the decrease in public revenues during that year, as it reached approximately (77422172) million dinars.

# Figure (1) Indicator of the government's ability to employ financial resources in Iraq for the period (2004-2021)



Source: Prepared by the researcher based on the data of Table No. 1 through the use of Excel

# Financial resources index in covering the public expenditures of the Iraqi government:

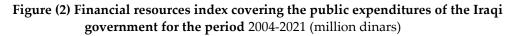
This financial indicator is one of the very important indicators for the Iraqi government, as it represents the government's activity, as well as shows the extent of the government's ability to finance public expenditures , which can be extracted through (the ratio of public revenues to total public expenditures \* 100) and Table (2) shows that indicator during the period 2004-2021 Through these data in the table, we note that oil prices have witnessed great fluctuations represented in the fluctuation of the volume of oil revenues in addition to the increase in the volume of public expenditures, as public expenditures are related to public revenues, which depend very heavily on oil revenues , as these public expenditures are compared to the size of the gross domestic productThis indicator reflects the fiscal policy measures in offsetting the coverage ratio of other government revenues in addition to how these revenues are used to finance public expenditures in order to strengthen the Iraqi government's budget and not reach the worsening deficit. (7) Draft resolution

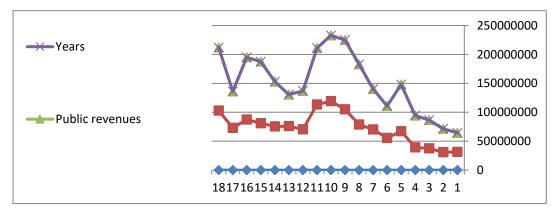
Table 2: Public Revenues and Public Expenditures in Iraq for the Period 2004-2021 (Million Dinars)

Years Public revenues Overhead Finan	cial resources index
--------------------------------------	----------------------

			in covering the public ex-
			penditures of the Iraqi
			government %
2004	32988850	31521427	104.6553
2005	40435740	30831142	131.1523
2006	49055545	37494459	130.8341
2007	54964850	39308348	139.83
2008	80641041	67277194	119.8639
2009	55243527	55589721	99.37723
2010	70125921	70134201	99.98819
2011	103989089	78757668	132.0368
2012	119817222	105139572	113.9602
2013	113840076	119127555	95.5615
2014	97618556	113473516	86.02761
2015	66470251	70397506	94.42132
2016	54409269	76067433	71.52768
2017	77422172	75490114	102.5594
2018	106569833	80873188	131.774
2019	107566993	87300932	123.214
2020	63199689	72873537	86.72516
2021	109081463	102849660	106.0591

Source: Prepared by the researcher based on the data of the Ministry of Finance, the Economic Department, the data for the period 2004-2021.





Source: Prepared by the researcher based on the data of Table No. 2 through the use of Excel

# **Government Support Index :**

This indicator is based on two main types of government support : (14).

### A- Ration Card Indicator:-

The estimates of government support are directly to the members of the Iraqi society through the provision of ration card items as well as cash subsidies , which are represented by the salaries of social protection networks , and the main objective of that indicator is to provide a monthly food ration for each Iraqi individual symbolically in order to fight poverty and deprivation among individuals and achieve social welfare in the country in addition to social protection programs In Iraq, services for people with special needs , orphanages, the disabled, the elderly, and other government support programs for members of Iraqi society.

B- Social Network: - It was found that the percentages are very small has ranged (1-2%) and this is a negative indicator of the lack of protection of the poor classes by the Iraqi government and this means an increase in the proportion of the population below the poverty line.

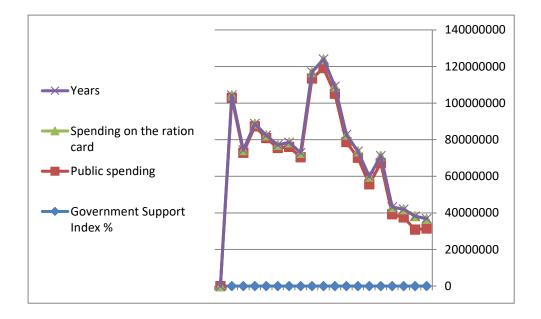
Years	Spending on	Overhead	Government
	ration card	2	Support Index %
	1		1/2
2004	5250000	31521427	16.65534
2005	7350000	30831142	23.83953
2006	4500000	37494459	12.00177
2007	3928000	39308348	9.992788
2008	3928000	67277194	5.838531
2009	4200000	55589721	7.555354
2010	3500000	70134201	4.990433
2011	4000000	78757668	5.078871
2012	4000000	105139572	3.804467
2013	4916750	119127555	4.127299
2014	3505977	113473516	3.089687
2015	2500000	70397506	3.551262
2016	2470000	76067433	3.247119
2017	1693000	75490114	2.242678
2018	1500000	80873188	1.854756
2019	1500000	87300932	1.718195
2020	1500000	72873537	2.05836
2021	1500000	102849660	1.458439

Table (3) Public expenditures and expenditure on ration cards in Iraq for the period2004-2021 (million dinars)

Source: Prepared by the researcher based on Data of the Ministry of Finance, the Economic Department, data for the period 2004-2021, Central Bank of Iraq, Department of Statistics and Research, Annual Statistical Bulletin for the period 2004-2021.

Figure (3) Government Support Index in Iraq for the Period 2004-2021

#### (Million Dinars)



# Source: Prepared by the researcher based on the data of Table No. 3 through the use of Excel

We note from the above table that the percentage of the government support index for the ration card for the period 2004-2021 is very low percentages that the Iraqi Ministry of Finance indicates that government support is a great burden on the general budget of the Iraqi government, as the government provides the people with a food basket in exchange for symbolic amounts, which aims to reduce poverty rates in that, but Due to smuggling and administrative corruption, which leads to the loss of a large part of the rations and does not reach the poor, and therefore the ration card becomes an increasing burden on the budget and the Iraqi government, and because of that, the allocation to ration card support programs decreased by 25%, especially in its budget in 2018 and 2019, as shown in the table above. (9) Draft resolution

The highest percentage of the government support index was equal to (23.83953) during the year 2005 during the research period, due to the increase in the amounts allocated to support the ration card, then the percentage of the ration card decreased to approximately 7.5% in 2009 according to the text of Article 39 of the Federal Budget Law, which stipulates ((The commitment of the Federal Ministry of Commerce to the numbers of A new detailed mechanism and plan for the work of the ration card and on rationalizing it to be directed to the needy and the poor only and not to grant it to employees whose income exceeds one and a half million Iraqi dinars from the Iraqi government.

The decline in the government support index means that this financial indicator did not reduce unemployment rates during the research period, knowing that the problem of poverty and unemployment is a major obstacle to the economic development of the country.

#### 4- Human Capital Investment Index

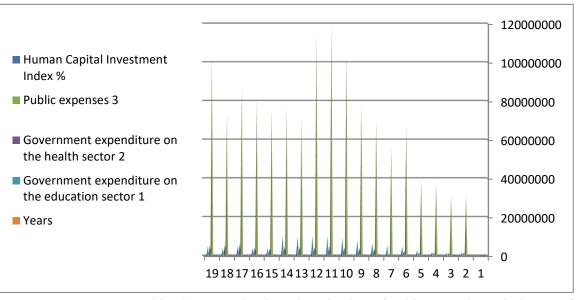
This indicator is very important and shows the extent of the government's spending on the education and health sectors in Iraq, as they represent one of the most important tools for investing in human capital, which is what the Iraqi Constitution referred to in 2005 from Article 34 ((Free education is a right for all Iraqis and at all stages)). The index of investment in human capital is very important in increasing human investment through increasing spending on the Ministry of Health and the Ministry of Education in order to achieve human development, as education and health are important indicators in achieving the development of human resources for Iraq. (8)

Years	Government         Government         Overhead         Human Cap		apital In-		
	spending on the	spending on	3	vestment Index %	
	education sector 1	the health sector 2			
				1/2.0/	2/2.0/
				1/3 %	2/3 %
2004	1802610.9	1788257.4	31521427	5.718684	5.673149
2005	1472788.2	1469086.2	30831142	4.77695	4.764943
2006	2051914.3	1637696.9	37494459	5.47258	4.367837
2007	2728653.1	1789216.0	39308348	6.941663	4.551746
2008	4943189.8	2708934.1	67277194	7.347497	4.026527
2009	5267519.6	266786.2	55589721	9.475708	0.47992
2010	6617860.1	3823056.5	70134201	9.435996	5.451059
2011	7842843.4	3910804.6	78757668	9.958197	4.965618
2012	9194187.2	4364781.7	105139572	8.744745	4.151417
2013	10105925.3	5173071.0	119127555	8.483281	4.342464
2014	10212502.2	4516493.7	113473516	8.999899	3.980218
2015	9874555.6	4894245.2	70397506	14.02685	6.952299
2016	10303119.0	4887463.0	76067433	13.54472	6.425171
2017	3907899	3834516	75490114	5.176703	5.079494
2018	4121195	4302671	80873188	5.095873	5.320269
2019	5053840	6306219	87300932	5.788987	7.223541
2020	3991824	5757693	72873537	5.477742	7.900938

Table (4)Percentage of government expenditure on the education and health sectors<br/>in Iraq for the period 2004-2021 (million dinars)

2021	4981914	5456894	102849660	4.84388	5.3057

### Data of the Ministry of Finance, the Economic Department, data for the period



2004-2021

Source : Prepared by the researcher based on the data of Table No. 4 through the use of the Excel program

Despite the great importance of the education sector in the Iraqi constitution, we note that the percentages along the duration of the research study are low, as shown in the table above, the highest percentage was equal to (14.02685) during 2015 and the lowest percentage was equal to (4.77695) during 2005.

The low ratio of public spending for the health sector to public expenditures indicates the weak interest of the Iraqi government in providing health services to members of Iraqi society, due to the destruction and sabotage of the Iraqi economy during the US occupation, the ISIS war and other difficult conditions that the country went through.

We note that the highest ratio of public spending for the health sector to the public expenditures of the Iraqi government was equal to 7.223541 during 2019 and (7.900938) in 2020, noting that Iraq was exposed in 2019-2020 to the global epidemic, which is the Corona pandemic (Covid 19), which It was supposed to increase the expenditures of the Iraqi government on the health sector in order to provide means of prevention and treatment from this dangerous global epidemic.

#### 5- Indicator of the relative importance of public revenues:

It is one of the important financial indicators that have an important and significant impact on the reality of the Iraqi economy, when preparing the general budget, whether in Iraq or in any country, the government determines its public spending first and then works to determine the public revenues that finance those expenditures from them, and since public revenues in Iraq depend by 95% on revenues Since Iraq is a

rentier country only , this indicator represents the relative importance of oil revenues from public revenues. As shown in Table (5).

Years	Inflation	Unemployment rate	Poverty rate
2004	26.8	26.80	35
2005	37.1	17.97	30.38
2006	53.1	17.50	26.38
2007	30.9	11.70	22.90
2008	12.7	15.34	22.04
2009	8.3	14	21.12
2010	2.5	12	20.41
2011	5.6	11.10	19.64
2012	6.1	11.92	18.90
2013	1.9	12.10	19.09
2014	2.2	10.59	19.28
2015	1.4	10.72	19.47
2016	0.5	10.82	19.66
2017	0.2	13.02	20.05
2018	0.4	12.87	20.05
2019	0.2-	12.76	19.26
2020	0.6	13.47	31.7
2021	26.8	14	32

 Table (5) Data of the Relative Importance of Public Revenues Index in Iraq for the Period 2004-2021 (Million Dinars)

Source: Prepared by the researcher based on the data of the Ministry of Planning and Development Cooperation, the Central Bureau of Statistics, data for the period 2004-2021.

#### Economic reports of the Central Bank of Iraq for the period 2004-2021.

We note from the data of the table above that unemployment rates are high and poverty rates are also high, and this means that there is no well-studied policy that reduces poverty rates and works to raise the standard of living for individuals, noting that the government's spending in this aspect is very large, represented by the ration card, subsidies, salaries and social transfers provided as government support for individuals.

#### Fourth: the standard aspect:

In order to study and analyze the impact of some financial indicators on the reality of the Iraqi economy for the period 2004-2021, statistical analysis will be presented if three standard models are reconciled as follows:

#### Whereas:

x1: (Government Capacity to Employ Financial Resources Index), X2: (Government Support Index), X3 Human Capital Investment Index, Education), X4: Human Capital Investment Index, Health), X5: Relative Importance of Public Revenues Index, X6: Financial Resources Index in Covering the Public Expenditures of the Iraqi Government.

#### 1- The first model:

# A. The model of the impact of financial indicators (x1,x2,x3,x4,x5,x6) on the inflation rate as follows:

The statistics of the test F showed a high significance of 5.38 with a probability value close to (0.008), which means the significant impact of financial indicators on the inflation rate. The value of the coefficient of determination also showed a high percentage of interpretation of the financial indicators in the variable of the inflation rate. The regression equation appeared with a non-negative reference to the variables (x1, x2, x6), which means that the effect is direct between the independent variables (the mentioned financial indicators) and the inflation rate, and the T-test for regression parameters is the other showed a high significance for the financial indicators (x2, x5) as shown in the following statistical results:

Regression Analysis: Y1 versus X1; X2; X3; X4; X5; X6

The regression equation is

Y1 = 7.5 + 0.085 X1 + 1.83 X2 - 0.42 X3 - 0.81 X4 - 0.286 X5 + 0.198 X6

Predictor Coef SE Coef T P

Constant 7.49 24.56 0.31 0.766

X1 0.0852 0.3239 0.26 0.797

X2 1.8298 0.5777 3.17 0.009

X3 -0.415 1.051 -0.40 0.700

X4 -0.806 1.561 -0.52 0.616

X5 -0.2862 0.1264 -2.26 0.045

X6 0.1984 0.1700 1.17 0.268

S = 9.95438 R-Sq = 74.6% R-Sq(adj) = 60.7%

Analysis of Variance

Source DF SS MS F P

Regression 6 3199.94 533.32 5.38 0.008

Residual Error 11 1089.99 99.09

Total 17 4289.93

### The second model: .2

The model of the impact of financial indicators (x1,x2,x3,x4,x5,x6) on the unemployment rate is as follows:

The test statistic F showed a high significance of 7.77 with a probability value close to (0.002), which means significant impact of financial indicators on the unemployment rate. The value of the coefficient of determination was also showing a high percentage of interpretation of the financial indicators in the unemployment rate variable, which is equal to (R-Sq = 80.9%). The regression equation appeared with a non-negative reference to the variables (x1, x2, x4), which means that the effect is direct between the independent variables (the mentioned financial indicators) and the unemployment rate, and the T-test for regression parameters is also showing high significance for the financial indicators (X1, X2, x3, X6) as shown in the following statistical results:

Regression Analysis: Y2 versus X1; X2; X3; X4; X5; X6

The regression equation is

Y2 = 20.8 + 0.203 X1 + 0.257 X2 - 0.690 X3 + 0.133 X4 - 0.0159 X5 - 0.103 X6

Predictor Coef SE Coef T P

Constant 20.800 5.192 4.01 0.002

X1 0.20266 0.06847 2.96 0.013

X2 0.2571 0.1221 2.11 0.059

X3 -0.6896 0.2222 -3.10 0.010

X4 0.1328 0.3299 0.40 0.695

X5 -0.01587 0.02673 -0.59 0.565

X6 -0.10274 0.03594 -2.86 0.016

S = 2.10436 R-Sq = 80.9% R-Sq(adj) = 70.5%

Analysis of Variance

Source DF SS MS F P

Regression 6 206.514 34.419 7.77 0.002

Residual Error 11 48.712 4.428

Total 17 255.225

#### The Third Model: .3

The model of the impact of financial indicators (x1, x2, x3, x4, x5, x6) on the poverty rate is as follows:

The test statistic F showed a high significance of 10.46 with a probability value of (0.001), and this indicates the significance of the impact of financial indicators on the poverty rate. The value of the coefficient of determination was also showing a high percentage of interpretation of the financial indicators in the unemployment rate variable, which is equal to (R-Sq = 85.1%). The regression equation appeared with a non-negative reference to the variables (x1, x2, x4), which means that the effect is direct between the independent variables (the mentioned financial indicators) and the poverty rate, and the T-test for regression parameters is also showing high significance for the financial indicators (X5, X6, X2, X3, X4) as shown in the following statistical results:

Regression Analysis: Y3 versus X1; X2; X3; X4; X5; X6

The regression equation is

Y3 = 41.4 + 0.139 X1 + 0.506 X2 - 0.985 X3 + 0.732 X4 - 0.109 X5 - 0.128 X6

Predictor Coef SE Coef T P

Constant 41.428 6.357 6.52 0.000

X1 0.13918 0.08382 1.66 0.125

X2 0.5060 0.1495 3.38 0.006

X3 -0.9851 0.2721 -3.62 0.004

X4 0.7319 0.4039 1.81 0.097

X5 -0.10867 0.03272 -3.32 0.007

X6 -0.12766 0.04400 -2.90 0.014

S = 2.57630 R-Sq = 85.1% R-Sq(adj) = 76.9%

Analysis of Variance

Source DF SS MS F P

Regression 6 416,362 69,394 10.46 0.001

Residual Error 11 73.010 6.637

Total 17 489.372

#### \*Standard side results: -

The standard results have reached the existence of strong correlations between the financial indicators and the economic variables specified in the study, which were represented by (inflation, poverty, unemployment) through the values of the coefficient of determination (R-Sq), which reached in the first standard model (74.6%) and in the second standard model (80.9%), and its value for the third standard model reached approximately (85.1%), which are very good percentages indicating that the financial indicators affect the economic variables by that percentage according to each standard model, as shown in the standard results above.

# **Conclusions and recommendations**

#### 1: Conclusions :

**First**. The F test statistic for all estimated models showed a high moral and a probability value of less than 0.005 and this indicates the significance of the impact of financial indicators in affecting economic variables (inflation rate, unemployment rate, poverty rate) and this means the impact of financial indicators on the reality of the Iraqi economy.

**Second** .The dominance of current expenditures over investment expenditures , which means a decrease in the volume of investments in the country, which is a negative indicator of the lack of economic growth of the country, and that the decrease in the volume of investments in the economy means an increase in unemployment rates and an increase in poverty rates, since the increase in the volume of investments in the country contributes to the creation of new job opportunities in order to absorb the growing workforce in the country.

**Third**. The continued adoption of the general budget to finance its expenditures from oil revenues only, which constituted approximately 95%, and this reflects the high index of the relative importance of public revenues, which is one of the most important financial indicators in Iraq.

**fourth**. The Iraqi Ministry of Finance considers the ration card a burden on the Iraqi government, which led to a decrease in the percentage of government support represented in the provision of ration card items provided to the Iraqi people.

#### 2- Recommendations

**First** . Work to modernize the government financial system in order to achieve economic growth of the country by reducing unemployment rates, inflation rates and poverty rates in the Iraqi economy.

**Second**. The need to work with the ration card system and increase its vocabulary in Iraq, especially for the poor or low-income classes, as it reduces poverty levels in Iraq.

Third. Paying attention to the government health and educational sector in Iraq, as they represent one of the most important financial indicators in the country, which is represented by the index of investment in human capital.

**Fourth** .Work on the use of financial policies and financial reforms that activate the role of the productive sectors in the economy and increase their contribution to the formation of the gross domestic people.

**Fifth**. Work on developing new plans to rationalize spending and move towards investment in order to achieve high rates of economic well-being by raising per capita income, reducing poverty rates, raising employment levels, thus reducing unemployment rates and achieving economic progress.(( The recommendations regarding reducing current expenditures and increasing investment spending in Iraq are considered feasible in light of the current economic and political climate in Iraq)).

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