Measuring and Analyzing the Impact of Private Investment on Unemployment Rates in Iraq (2006-2017)

Ass.Prof. Dr. Ezat Sabir Esmaeel

Department of Economics, College of Administration and Economics, University of Sulaymaniyah, Sulaymaniyah, Iraq

Lava Aras Ibrahim

Department of Economics, College of Administration and Economics, University of Sulaymaniyah, Sulaymaniyah, Iraq

Abstract

Private investment spending is one of the leading economic variables in the process of growth and development in many countries of the world, whether developed or developing, and the reason for the increasing importance of this variable is its impact and effectiveness the gross domestic product (GDP), create job opportunities and reduce the unemployment rate, and the like. Thus, it is encouraged by the decision makers. The aim of this study is to analyze the impact of private investment spending on reducing the unemployment rate in Iraq. To achieve this goal, we adopted the standard analytical method (short-term and long-term estimates based on the available data from 2006 to 2017. Finally, several conclusions have been drawn. one of them is that the unemployment rate is largely influenced by investment expenditure in Iraq.

1.   Introduction:

The private sector occupies a pivotal role in achieving economic and social development, based on its capabilities and characteristics that qualify it to influence the economic and social fields. Private investment spending is one of the important economic variables that contribute to increasing GDP, creating job opportunities, and reducing the unemployment rate. It is also vital for transferring knowledge and technology among economic sectors. Holding other factors equal, this can be true for most countries around the world. However, both private and public investments

in Iraq are still very limited due to the lack of stability in terms of political and financial aspects, in addition to the lack of serious programs and planning, let the effects of the central planning on seeing the private sector as evils in the previous decades alone. Moreover, the occurrence of the financial crisis in 2014 and the war against ISIS are other main reasons for the deterioration of the level of investments in Iraq, let devoting the large part of the public budget for operational expenses alone. These all have reflected negatively on the possibility of this profound activity to create job opportunities, especially in the private sector, and reduce the unemployment rate. Lack of investment means sticking with the public job opportunities, too.

The problem this study focuses on is the low levels of investment despite of availability of many ingredients in Iraq. The political instability, weak infrastructure, , combined with the absence of a comprehensive and clear economic plan for attracting investors, either domestic or foreign, led to a decrease in investments, making the correlation between investment expenditures and unemployment rate to be weak.

Accordingly, **the importance of the research** is attributed to the fact that analyzing private investment spending, or investments in general, and its effects on creating job opportunities and reducing the unemployment rate are within strategic issues.

However, this relationship has not been concentrated on in Iraq while very special events have been occurred in the last two decades, such as the invasion of Mosel by ISIS, coupled with the economic decline during the same period. In addition, recommendations and proposing mechanisms to overcomes the obstacles are less paid attention by scholar, a gap that this article want to contribute to fill it.

Hence, the research aims to:

1-Study and analysis the impact of private investment spending on reducing the unemployment rate in Iraq.

2 – Measure the influence of spending on private investment on unemployment rate in Iraq, alongside presenting supportive programs to facilitate increasing investment levels.

The study is based on a hypothesis that private investment spending in Iraq did not lead to a required reduction in the unemployment rate.

The study starts from 2006 as the former regime of Ba'ath party fell just a year or so earlier. It continues to 20177 as Iraq has been transformed, at least officially, form the central planning to market economy, and politically, from dictatorship to democracy.

In order to achieve the objectives of the research, we relied on the (analytical-standard) approach using a set of models (Long run and – Short and both Stationarity and integration-Co) based on the official data published by the Central Bank of Iraq and the data of the Ministry of Planning and Development Cooperation, and depending on the EViews 9 software .

The rest of the paper is organized as follows. The literature review is presented in Section 1. The theoretical aspect, including private investment and unemployment, is explained in Section 2. Section 3 devotes to standard analysis to clarify the impact of private investment expenditures in reducing the unemployment rate in Iraq. Finally, conclusions and recommendations are presented in the last section.

Literature Review

Until recently, the issue of unemployment rate was at the center of thinking by scholars. Gradually, this thinking has been shifted toward working environment and other aspects.

Nazmi (2015) argues that the emerging labor markets in various countries are affected by the spread of technology. The rise in knowledge, by allocating more capital, has not only affected the production of goods and services, it is also motived to use the less costly means of production. In this process, the concept of private activity has developed, including self-employment and small businesses. This sectoral shift, from agriculture to industry then technology, caused the informal sector to become a major source of work for new entrants to the labor market, especially in the developing countries, including Iraq. In the light of this concept, the focus has shifted from unemployment as a major social problem to the importance of creating job opportunities as an economic task along with creating programs to improve working conditions, and to develop private sector activities after the international trends and local challenges began imposing themselves to reduce the role of the public sector. The latter has failed in the tasks entrusted to it. In Iraq, the economic predicaments and the social tensions that the country suffered from have made the problem of unemployment, that has the most impact on development and its human dimensions, number one. These market changes, however, have not accompanied with the development of private sector. Most of the projects are under the influence of the state. Creating jobs outside of the public sector was random and irregular. The totality of these reasons is mainly due to the failure to adopt a strategy to meet the challenges of private activity and focus only on the financing aspect within the lending initiatives as a way to overcome the social obstacles, including unemployment, in the absence of the organizations responsible for directing private investment.

Alrabba(2017) explores the determinants of the unemployment rate in Jordan during (1992-2015). The study distributes the period into four sub-periods. The augmented Dickey-Fuller test (ADF) was used to check the stability of the variables. The results show that the variables are fixed in different orders, $I(0)$, $I(1)$, and $I(2)$. Granger's causality test found that there is a one-way causal relationship that extends from private investment to the unemployment rate. Two analysis tools were used: the impulse response function and the variance analysis by applying a vector automatic regression (VAR) model. The final results show that private investment has a negative impact on the unemployment rate in Jordan. It

explains about 2.64% of the variations in the unemployment rate in Jordan in the second period and (1.58%) in the fourth period. This ratio also tends to decline to the level where the explanatory power of private investment for the projected error in the unemployment rate can be as high as 1.34%.

The issue is different in Algeria. **Hassan (2017)** seeks to determine the relationship between unemployment and a set of profound macroeconomic variables in the Algerian economy. To address the subject and answer the hypotheses developed, The study found, through statistical tests, that there is a two-way inverse relationship between the unemployment rate and the gross domestic product. Although this relationship is going in the right direction according to Oken's law, the mutual effect between the two variables was very weak, especially the effect of the unemployment rate on the GDP. The relationship of unemployment with investment has taken the same form. The study also concluded that there is an inverse and unidirectional relationship between unemployment and both oil prices and public spending, where unemployment responds to a decrease in the case of an increase in either of them. It was also clear that there is a direct relationship between the active population and unemployment in a sense that, for example, it responds to an increase in the size of the active population. Finally, the study conclude that the most influential variables on the unemployment rate were mainly oil prices, the volume of investment, and the gross domestic product respectively.

Hasan& Sun'an(2020)'s study has taken another set of variables. They use local projection methods to examine the dynamic response to sudden increases in net private capital flows on production and the labor shares of manufacturing. Also, both the investment output ratio and the unemployment rate have been taken into consideration. High-income countries are studied separately from emerging economies, both from Asia and Latin America. their sample covers the years 1970 up to 2010.

They find that sharp increases in high-income countries do not amplify the trend towards deindustrialization. However, the persistently low investment-to-GDP ratio and rise in the overall unemployment rate suggest that sudden increases may negatively affect long-term growth prospects and employment opportunities in these countries. In middle-income Asian countries, sharp increases tend to cause deindustrialization in both production and employment in the medium term, but they do not reduce the investment-to-GDP ratio. In middle-income Latin America, sharp increases accelerate deindustrialization, reduce investment, and increase economy-wide unemployment.

Al-Jabari and Quneibi's study (2020)

aims to explain the possibility of investing in agricultural waste lands to reduce the unemployment problem that threatens Palestinian society. The methodology was largely based on interviewing experienced farmers and preparing a questionnaire to take the opinion of the unemployed people on joining the

agricultural activities to solve the problem of luck of job opportunities on the one hand, and investing in waste agricultural lands on the other hand. The results show that individuals are under the influence of unemployment rate, which creates creating psychological, social, economic, and migration problems within social groups and individuals. And that the negative practices of man in the occupation is considered a major cause of the degradation of agricultural land. The study is also indicated the most effective ways to reduce agricultural land degradation, such as water harvesting. The study recommends the necessity of exploiting the fallow of agricultural lands to employ the unemployed to meet the need or consider it as a source of income, which may contribute to a decrease in the unemployment rate (Junior et al., 2020).

3. Evaluate private investment and its roles in reducing unemployment rates

3.1 The Private Investment Spending

The private investment expenditures have been defined as: that part of the free-market economy that consists of companies leading the private sector development. It also covers the institutions owned and managed by the government provide funds for the private sector, meaning that the capital is owned by the government while production decisions are taken by the private sector to achieve private gains. From a macroeconomic point of view, private investment is the purchase of capital assets that are expected to generate income or/and increase their value. Capital assets are simply properties that are not easily sold and are generally bought to help the investor make a profit. Examples of capital assets include land, buildings, plant and equipment (Johnston et.al., 2019; Li, Yang, & Yu, 2021; Linqi et al., 2020).

The private sector is defined as "a basic and organized element in economic activity that enjoys private ownership, in which the production process is based on the market system and competition, and in which private initiative and risk-taking are determined, decisions and activities taken. The market mechanism under the competition system is what determines what to produce and what to consume. the private sector includes all private agents, whether they are individuals or groups, rich or poor, and is not limited to businessmen only. It includes all groups that accept risk through practicing an activity in order to achieve profits and incomes within the framework of maximizing the private interest (Halıcı . et. al., 2016:35).

The private sector is the mainstay for the establishment and development of economic activity in any country, as despite the controversy over the dimensions of its activity in light of the presence of the public sector, the economic literature, despite its differences, indicates the great role it plays in establishing a dynamic and prosperous economic activity. There remained a number of conditions that are considered as the integrated framework for the activity of the private sector and activate its performance in economic life (DİNÇER, 2019:18 & YUKSEL), for this we will turn to.

3.2 Private investment expenditures and economic growth

The private sector is a building block e for achieving real economic activity based on the production of wealth and the provision of jobs in a way that allows for the creation of a dynamic pace of growth and development in the long term, according to which economic activity proceeds. It is the main driver of the process of economic growth as a result of investment and capital accumulation, and the prevailing of competition in the market. When the Privat investors are allowed, they normally work efficiently, and provoke innovation; thus, achieve profit for themselves and produce goods and services for society(5572011: Mishra,). This is not to say that the private sector development is the only key for getting rid of institutional stagnation and a slow improve of the economic performance.

All in all, many studies in this regard confirm that the development of the private sector contributes to creating rapid and sustainable economic growth in the long term under some conditions (e.g., prevailing property rights), and this was particularly reflected in the increasing trend in many countries at the beginning of the eighties of the previous century   towards the process of privatizing public institutions and strengthening the position of the private sector in the economic activities , which is represented in the reallocation of resources from the public sector to the private sector. Interestingly, the privatization process shifts attention from the political goals that are reflected in the activity of the public sector to the economic goals that are reflected in the activity of the private sector. Absent from the public sector activity is the concept of profit due to the tyranny of the social objective with a political background over the economic objective. In other words, with central planning and limiting the role of the private sector, there is less space for self-interest, and it is dominated by the elite's interest in the name of social interest. Even if it does not reflect the interest of political elites, the hegemony of the public sector is no more than demotivating individuals to purse their interest. While the public sector is mostly characterized by wastefulness and lack of rationality in the use of resources, the private sector is more able to create and provide incentives to ensure high productivity and rigor in performance with the efficient management of scare resources (e.g., a high skills labor). With excellence in the spirit of entrepreneurship and the dynamism of creativity, and problem-solving skills the economy can be expanded in capacity. It is this capacity that assist in tackling social problems, such as poverty and unemployment (Youssef and Ali, 2021: 21)

3.3- Private investment expenditures and poverty alleviation:

The contribution of the private sector to achieving economic growth results in many advantages. One of them is planning and developing an appropriate strategy for the advancement and growth through enlarging its roles. The issue of poverty is one of the most important one facing policy makers as part of their social responsibilities. Without a strong private sector, the less empowered individuals

and social groups suffer from lack of choices. The fear of starvation and lack of choices sometimes make them accept the political elite's rents (111: 2020 Cammeraat,). It is also the private sector that supports creating the middle class. In this process, not only large businesses, but also small and medium sized businesses are necessary to be developed.

Since the private sector contributes to achieving rapid economic growth in the long term, it thus contributes to providing more tax revenues to the state treasury, either directly from its own turnover or through its employees' salaries. Assuming good institutions, the revenue comes from both rich people and employees can be directed specifically to benefit the poor from them, such as health and educational services, which guarantees significant improvement in the standard of living. Moreover, many studies indicate an inverse relationship between poverty rates and economic growth rates, as confirmed by the experiences of developed Asian countries. The decades of eighties and early nineties recorded a significant increase in economic growth rates and reduction of poverty rates in Asia by developing the private sector. Hence, the reduction was at two levels: relative, through the growth of the incomes of the poor at a rate greater than the average rate of income growth, and absolute, through decreasing the number of poor below the poverty lines (Rannan et.al., 2012:115

The process of poverty reduction varies from one economy to another and from one period of time to another, as its success is determined by the status of two main indicators, namely, the growth rate and the distribution rate, as the growth rate that goes in a positive direction measures the extent to which the incomes of the poor rise, i.e. vertical expansion, while the distribution rate that goes in the negative direction measures the impact of changes in the way incomes are distributed on the incomes of the poor, i.e. horizontal expansion. As they are two indicators in opposite directions, and therefore the extent of the possibility of reducing poverty or not is determined by comparing the size of both modified with each other. The higher the growth rate or the lower the distribution rate will reflect positively on the process of poverty reduction, and then, as it is also important to focus on the growth of the size of incomes for the poor, the work to target the reduction of inequality in the distribution of incomes is no less important in the process of Poverty Reduction (Thakur,2020:398).

4. Unemployment and its types

Unemployment as a social phenomenon sheds light on several aspects of the social structure and political systems. Its rate is an indicator not only for economic stability but also for citizen satisfaction.

Thinking about unemployment is to seek the pains a person at working age (16+) confronts, a person who is willing and able to work but no one is willing and/or able to purchase his/her mental and manual efforts, which in most cases gives him/her and the family a sense of depression. In some cases, it eventually reflects stability of societies.

That part of the labor force known as unemployed has impacts not only on their own families but also on the level of freedom other workers enjoy. When they see that the unemployment rate is high, accepting lower wages, deteriorating working conditions, and the like are all be easily accepted (Al-Awfi and Tal'an, 2017). When unemployment rate which can be found by the total sum of unemployed and the labor force times 100 (Sadia, 2017), is high, the housewife or the student whom are not included in the labor force can confront difficult circumstances, fear, and anger, which affects every single point of their daily life. The fear of being unemployed is stronger than the fear of being depressed by your director, manager, or owners. Accordingly, when unemployment rate is high, the ball is in the hands of owners, CEOs, directors, etc, and can throw it the way they want. Hence, the power of working class reduces. This is excluding the rate known as 'discouraged workers, the workers who has stopped looking for work due to being pessimistic in finding an opportunity.

As for its types and causes, there are four main types of unemployment as follows (Chotchaeva, 2019):

The first type is Frictional unemployment, which occurs due to temporary shifts in workers' lives, for example when a worker moves to a new city and has to find a new job. Fresh graduations do usually experience such a temporary unemployment. This is common among societies.

Structural unemployment results from the mismatch between the demographics of workers and the types of jobs available, either when there are jobs available that workers do not have the necessary skills for, or when there are workers available but there are no jobs to fill. This might take place due to technological developments. For example, in the farming industry, much of the work has become mechanized, which means that fewer farmers are needed and more are left behind. When these farmers go to the cities to find work, they may not find other similar jobs in which to apply their skills.

The third type is cyclical unemployment. It is the outcome of falling demand for goods and services, which lead firms not to sell their goods and services. Thus, they are unable to provide jobs. According to Keynesian economics, cyclical unemployment is a natural consequence of business cycle in times of recession. When consumers become afraid simultaneously, they will try to increase their savings at the same time, which means that there will be a fall in spending and firms will not be able to hire all the employable workers.

Finally, seasonal unemployment occurs due to different industries or parts of the labor market available during different seasons. For example, unemployment rises in the winter months, because many agricultural jobs end once crops are harvested in the fall, and those workers are left to find new jobs.

5-Possible solutions to unemployment

Proposals for reducing the unemployment rate are controversial among scholars and policy makers. However, in most countries, if unemployment rates

rise significantly, the government will usually intervene with specific policies designed to reduce the total number of unemployed:

A-Monetary Policy: Monetary policy is the financial influence implemented by the central bank, usually come in the form of low interest rates, which increase the total money supply within the economy by allowing banks and companies more access to loans - and thus, more purchasing power that can be accessed.

B- Fiscal policy: If expansionary monetary policy does not reduce the unemployment rate sufficiently, government agencies will switch to fiscal policy. Fiscal policy is the fiscal stimulus implemented by the national government, include spending on infrastructure or proposing tax cuts, increasing the minimum wage, or implementing unemployment benefits (for example, unemployment insurance). These methods are designed to inject more demand into the private economy and boost economic activity.

6. Measuring and analyzing the impact of private investment on reducing the unemployment rate in Iraq

Investment of all kinds is one of the most profound mechanisms of economic development and its means to achieve economic growth in all countries, regardless of their economic systems. Despite the fact that Iraq is an oil country, that is, it enjoys financial resources that qualify it to finance the development movement, the investment activity is still limited within the annual budgets that are allocated to carry out some projects and which have a clear role in reducing the unemployment rate.

6.1 The reality of private investment spending in Iraq and its impact on unemployment

In order to clarify the level of development and changes that occurred in unemployment as a result of the changes that occurred in private investment spending in Iraq, we relied on secondary data. Table 1 shows the relationship and the effects of private investment spending on unemployment rates, depending on the growth rate and the compound annual growth. As it is clear in Table (1), the volume of private investment spending has no actual and clear effects in reducing unemployment rates in Iraq, though the data does not show which type of unemployment is more prevailed.

Although its level and size vary from year to year, Table 1 shows that in 2006 the volume of investment spending was (9,177,644) million IQD, which constitutes (9.6%) of the GDP, while the unemployment rate in the same year was (17.7%). In 2007, private investment expenditures increased to (9,839,100.3) million IQD, which constitutes (8.827%) of the GDP, and during this year the unemployment rate decreased to (11.7%). But following 2008, despite the differences in the amounts of private investment spending and its percentage in the volume of public spending and GDP, these amounts neither did have a clear impact on unemployment rates, nor did lead to a decrease in

unemployment rates. The reason for this is due to the lack of appropriate planning. By this we mean a plan that can be neutral and rely on data collection. There is not, for example a clear guide for reducing unemployment among women, or among educated people. Another reason is that foreign workers have arrived, become competitors of domestic workers on wages and other privileges. This is in addition to the fact that the volume of private investment expenditures constitutes a small percentage of GDP.

Table (1) Private investment Spending and its impact on unemployment rates in Iraq (2006-2017)

Interest rate	Unemployment rate	Ratio of private investment /GDP	Gross domestic Product Million dinars	Private investment (Million dinars)	Years
11.40	17.7	9.601	95587954	9177644	2006
14.59	11.7	8.827	111455813	9839100.3	2007
16.60	15.39	19.074	157026061	29952559	2008
16.02	15.4	6.080	130643200	7943505.1	2009
14.10	15.2	6.324	1620643200	10249059.7	2010
12.55	15.2	7.811	217327107	16977424.6	2011
12.67	15.2	8.671	254225490	22044590	2012
12.86	15.3	11.830	273587529	21277860.9	2013
12.30	15	10.826	266420384	31517905	2014
12.11	15	7.663	199715699	21621735.5	2015
12.05	15.1	6.675	203869832	15624220	2016
11.98	14.8	6.750	225995179	15085377.5	2017
0.41 %			4.23 %	4.23 %	compound annual growth rate
The compound annual growth rate is extracted according to the following equation: $$R = \sqrt[N-1]{\frac{v_1}{v_0}} - 1 \times 100$$ Since: V1: The value of the variable in the comparative year. VO: The value of the variable in the base year. N: The number of years. www.cagrcalculator.net					
Source: work of researchers based on the data: 1- Central Bank of Iraq, Annual Economic Report for the years 2003-2018. 2- Ministry of Planning and Development Cooperation data, annual statistical group, different years. 3- Republic of Iraq, Ministry of Finance, final accounts of the Republic of Iraq for the years 2003-2011.					

6.2 The methodology

This section aims to explain and analyze the impact of private investment

spending on unemployment rates in Iraq for the period (2006-2017), which is illustrated by Table (1).

Presentation and Discussion

By estimating and measuring the impact of public investment spending on reducing the unemployment rate in Iraq for the period (2006-2017), the results of the estimation are as follows:

6.2.1- Stability (Stationary test / Unit root test

Stability and stability play a key role in standard studies, especially studies related to time series data. And there are many different indicators that can be used to indicate the level of stability and stability in the data. However, each of (Philips-Perron, Augmented Dickey-Fuller) used the most common indicators. Through Table (2), the results of the analysis are presented:

Table (2) The result of the root test for all the variables included in the model

ADF: Augmented Dickey-Fuller				
unit roots (First Difference)		(Level)		
				variables
Intercept	Trend	Intercept	Trend	
0.0092	0.0318	0.0842	0.2085	**Private investment**
0.0000	0.0001	0.0003	0.0006	**unemployment**
0.0495	0.0695	0.0611	0.7740	**Public spending**
0.0456	0.0078	0.0962	0.0097	**Interest rate**

The significant level is at (1%), (5%) and (10%), respectively.
The source: was prepared by researchers based on annual data for the period (2006-2017) and using the E -views9 program

From Table (2) it appears that all the variables in the model (private investment spending, unemployment, public spending, interest rate) are fixed and stable in the first difference (intercept-trend, at the level of sentiment) 1%, 5% and 10% % respectively. This allows the co-integration process between the model variables.

6.2.2-Integration and Co-Integration (Co-Integration / Johannsen test)

After completing the process of testing the reliability and stability of the data used in the field of co-integration testing between the variables within the model, it is one of the important tests to show the level of the relationship between the variables under study, in order to allow the model to be estimated. It is necessary at least to have one relationship between one of the variables. The independent

variables and the dependent variable, have been shown from the results of this test and shown in Table (3):

Table (3) the co-integration rresults test between the model variables

decision	critical probability value	Critical Value	Trace statistics	Variables
Significant	0.0000	**47.85**	115.274	unemployment
Significant	0.0000	29.79	58.416	Public spending
Significant	0.0016	15.49	24.691	**Private investment**
Significant	0.0508	3.813	3.8134	**Interest rate**

The source: was prepared by researchers based on annual data for the period (2006-2017) and using the E- views9. Program.

In order to allow an estimate of the model, it is necessary at least to have one relationship between one of the independent variables and the dependent variable, and through the above table, we find that all the variables included in the model have a common complementary relationship with each other at the level of significance (5% and 10%) and thus we accept the alternative hypothesis that acknowledges the existence of significant integrative relationships in economic, statistical and standard terms, and we reject the null hypothesis that acknowledges the absence of a relationship between the independent variables and the dependent variable.

6.2.3 Econometrics Model Estimation

Using time series, the results of stability and stability and the results of joint integration seem to have a strong and logical basis for estimating the model in order to estimate the impact of private investment spending in reducing unemployment rates in Iraq for the period (2006-2017), as the research discovered through several attempts of appropriate models according to the requirements of economic theory and Standard and converting to the (double logarithmic) formula, which is one of the most suitable functions in terms of (size, value and sign) of the estimated parameters given in Table (4):

Table (4) The estimated parameters of the unemployment model

variables	Coefficient	Std. Error	t-Statistic	Prob.	Significant level
unemployment	0.4626 -	0.1130	-0.917	0.015	%5 Level
Private investment	0.035	0.012	2.8341	0.0471	%5 Level
Public spending	0.106	0.037	2.867	0.0456	%5 Level
Interest rate	-0.2715	0.1002	-2.7102	0.0535	%10 Level
constant	1.7387	1.014	1.7135	0.1618	Not significant
The random variable (financial crisis)	-0.0177	0.0042	-4.1425	0.0061	%1 Level

The source: was prepared by researchers based on annual data for the period (2006-2017) and using the E-views program.

Table 4 shows that there is an inverse relationship between private investment spending and the unemployment rate. If private investment spending increases by (0.03%), the unemployment rate decreases by (0.46%), depending on the critical probability value that is less than the level of morale (5%) and depending on the size of the estimated parameter, its value and its indication of the impact of private investment expenditures on the unemployment rate.

6.2.4Diagnostic tests for the reliability of the models.

The other step in completing the stages of building the standard model is the stage of evaluating the estimated model, in order for the model parameters to be more accurate and for decision-makers to rely on. Therefore, this research used several diagnostic tests, including:

A: Tests for the validity and adequacy of the model:

There are many tests and indicators, in this aspect, the most important of which are (Std. Error, F-test, Adjusted R 2, Squared-R, and the results of the analysis are as follows:

Table (5) It shows the results of testing the reliability of the estimated model

estimated model	Indications			
	R-Squared	Adjusted R2	F- statistic	S.E. of regression
unemployment	0.98	0.95	32.9842 0.0022	0.017

The source: was prepared by researchers based on annual data for the period (2006-2017) and using the E- views 9 programs.

As it is clear from table 5, the coefficient of determination and the modified coefficient of determination (R squared, Adjusted R2) for the model are high, as it is (0.98% and 0.95%), this means that the variable private investment spending explains about (98% and 95%) of the changes in the Unemployment rate, and since the value of (F) in statistical significance (0.0022) is less than the value of the P-value, as well as the value of (SE of regression) is low and acceptable.

B: Tests to assess the validity of the model: Indicators Statistical and test Diagnostic:

The necessity of examining the validity of the estimated model and the possibility of its application in practical life now and in the future, as well as the estimated models can be used for prediction purposes, the necessity of the model exceeded the majority of standard problems, and the following table summarizes the results of these diagnostic tests:

table (6) Shows the results of the model's validity test

estimated model	Indications				
	Autocorrelation problem	Multicollinearity Problem	Heteroskedasticity Problem	Diagnostic problem	The problem of the normal distribution of the data
Unemployment	0.5257 The problem is not found because it is greater than 5%	3.2138 The problem is not found because it is greater than 5%	0.3054 The problem is not found because it is greater than 5%	0.6056 problem is not found because it is greater than 5%	0.6665 The problem is not found because it is greater than 5%

The source: was prepared by researchers based on annual data for the period (2006-2017) and using the E- views9. program

Table (6) shows the use of the ARDL model and the absence of evidence for any of the standard problems worth mentioning. And the model passed most of the statistical tests (such as autocorrelation, multilinearity, heterogeneity of variance, diagnosis and the problem of normal distribution) as evidence of its good use (the estimated model).

7. Conclusions

1- Private investments are one of the important economic variables that affect the national economy and direct it to progress and revitalize it and increase the national income.

2- Although there are positive effects of private investment expenditures in reducing the unemployment rate in Iraq, but not to the required level. One reason can be to rely largely on foreign employment.

3- By analyzing the data adopted in this research, we find that there is an inverse relationship between private investment expenditures and the unemployment rate, as the rise in private investment expenditures at a rate of (0.035%) leads to a decrease in unemployment at a rate of (0.46%).

Based on the conclusions above, we propose the following steps to confront the problem of unemployment:

1- the government shall encourage private investments by removing routines and private investment transaction obstacles. However, a more proper plan is to conduct surveys with both employers and employees, in small-sized, medium-sized, and large business, alongside regular surveys with unemployed workers. This democratization of planning will assist in understanding the roots of unemployment getting rid of unemployment.

2- the capacity of government and the economy is limited as Iraq has come out of

a long-term war. This imposes upon us to propose limiting employing foreign workers, and encourage local manpower to accept jobs outside of the public sector. This needs media broadcasts, social media, and other communication tools to actively participate in the campaign. Otherwise, it will be difficult for domestic workers to accept low salaries.

3- A transition from the central planning prevailed until 2005 towards market planning need supportive institutions. Up to date, the private sector has not been welcomed by ordinary people, accusing them that they purse for profit only. Pursing profit is not welcomed in the culture. More support to the private sector can paves the wat to expand their roles in the economy, and attract more workers. However, it should not be forgotten that the companies shall also adjust with the needs of domestic workers, a point that is out of the scope of this study.

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