


**ANALYZING AND MEASURING THE LONG-TERM BALANCE RELATIONSHIP  
BETWEEN CHANGES IN GOVERNMENT SPENDING AND REAL GROWTH IN IRAQ FOR  
THE PERIOD 1990 – 2018**

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ARTICLE INFO	<u>ABSTRACT</u>
<p><b>Article history:</b></p> <p><b>Received</b> 30 Dezember 2021</p> <p><b>Accepted</b> 07 February 2022</p>	<p><b>Purpose:</b> The study Purpose to achieve to Study and analyze the reality of government spending and economic growth in Iraq through the real GDP index with and without oil.</p> <p><b>Originality/value:</b> The authors used the changes in government spending and real growth a panel cointegration analysis and Granger causality procedure to detect the dynamic relationships between the variables for the period 1990 – 2018.</p> <p><b>Design/methodology/approach:</b> Analyzing and measuring the impact of government spending on real economic growth with and without oil in the Iraqi economy.</p> <p><b>Findings:</b> The results of the joint integration test showed that there is no long-term and short-term balance relationship between the two variables government spending and real output with oil. While it showed the existence of a long and short-term balance relationship between the two variables government spending and the real output without oil.</p>
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## ANALISAR E MEDIR A RELAÇÃO DE EQUILÍBRIO A LONGO PRAZO ENTRE AS MUDANÇAS NOS GASTOS DO GOVERNO E O CRESCIMENTO REAL NO IRAQUE PARA O PERÍODO 1990 - 2018

### RESUMO

**Objetivo:** O estudo Objetivo a ser alcançado para estudar e analisar a realidade dos gastos governamentais e do crescimento econômico no Iraque através do índice do PIB real com e sem petróleo.

**Originalidade/valor:** Os autores utilizaram as mudanças nos gastos governamentais e no crescimento real uma análise de cointegração de painel e o procedimento de causalidade da Granger para detectar as relações dinâmicas entre as variáveis para o período 1990 - 2018.

**Design/metodologia/abordagem:** Análise e medição do impacto dos gastos do governo no crescimento econômico real com e sem petróleo na economia iraquiana.

**Descobertas:** Os resultados do teste de integração conjunta mostraram que não há relação de equilíbrio a longo e curto prazo entre as duas variáveis gastos do governo e a produção real com petróleo. Embora tenha mostrado a existência de uma relação de equilíbrio de longo e curto prazo entre as duas variáveis gastos do governo e a produção real sem petróleo.

**Palavras-chave:** Gastos do Governo, Crescimento Econômico, Economia Real.

## ANÁLISIS Y MEDICIÓN DE LA RELACIÓN DE EQUILIBRIO A LARGO PLAZO ENTRE LOS CAMBIOS EN EL GASTO PÚBLICO Y EL CRECIMIENTO REAL EN IRAQ PARA EL PERÍODO 1990 - 2018

### RESUMEN

**Propósito:** El estudio tiene como objetivo lograr estudiar y analizar la realidad del gasto gubernamental y el crecimiento económico en Irak a través del índice del PIB real con y sin petróleo.

**Originalidad/valor:** Los autores utilizaron los cambios en el gasto público y el crecimiento real un análisis de cointegración de panel y el procedimiento de causalidad de Granger para detectar las relaciones dinámicas entre las variables para el período 1990 - 2018.

**Diseño/metodología/enfoque:** Análisis y medición del impacto del gasto público en el crecimiento económico real con y sin petróleo en la economía iraquí.

**Resultados:** Los resultados de la prueba de integración conjunta mostraron que no existe una relación de equilibrio a largo y corto plazo entre las dos variables gasto gubernamental y producción real con petróleo. Mientras que mostró la existencia de una relación de equilibrio a largo y corto plazo entre las dos variables gasto gubernamental y la producción real sin petróleo.

**Palabras clave:** Gasto Público, Crecimiento Económico, Economía Real.

### INTRODUCTION

Government spending is the most important pillar of fiscal policy in influencing economic activity in developed and developing countries as bad as it is a major tool in achieving growth and economic stability and addressing some of the current problems in the economy, but at the same time it may be a tool for creating imbalances and instabilities in the economy. This stems from the nature of the economic structure in the country and its level of development. In light of a rentier economy dependent on the oil sector to finance its public expenditures and economic growth rates, this makes the dependence of government expenditures on oil revenues, as spending increases as it increases and decreases with its decline. Thus, it may lose its impact on the real output in Iraq and thus weaken in achieving the

real economic growth goals that are expected from this spending. It is known that the high level of government spending, especially investment, leads to an increase in the productive capacity of the economy, whether by adding new production capacities or by rehabilitating the idle energies, and then increasing the local production of goods and services and thus pushing the wheel of growth towards progress, and this does not It can be achieved unless there is an efficient and honest administration in upgrading the national economy.

Government spending is of great importance because of its significant effects on the overall economic activity, as it represents one of the main pillars in achieving economic growth, as many economists agreed on the difference of their intellectual schools on the role it plays in achieving the growth and development of the economy, in light of a rentier economy that depends on The oil sector in financing its public expenditures and economic growth rates, this makes the dependence of government expenditures on oil revenues, as spending increases with increasing and decreasing with decrease (Thijel et al., 2018). Thus, it may lose its impact on the real output in Iraq and thus weaken in achieving the desired real economic growth goals from it, as the research reached weak performance of the national economy and the state of structural deformation that suffers from it in light of the great financial capabilities and not exploiting it in a way that achieves economic development due to the lack of Efficient management of economic resources and obedience to those in control of personal and party gains and letting the economy float in a sea of underdevelopment. The politicization of the national economy to serve the politicians is the most realistic factor in the survival and continuation of the national economy until now. The services sector also had the largest role in the achieved increase in real output without oil due to its high rate of contribution to the formation of output, as it constituted close to the highest growth rate compared to other sectors except oil.

The dependence of the Iraqi economy and its continued dependence on oil revenues for financing all of its development programs and its public spending were important in showing the extent of the Iraqi economy's connection to the international economy through the international oil market, which made it a rentier economy affected by fluctuations in oil prices in this market, to reflect those in revenue fluctuation and Then government spending, and then the impact of that on the chances of achieving the goals of real economic growth in Iraq.

## **THE CONCEPTUAL AND THEORETICAL FRAMEWORK FOR GOVERNMENT SPENDING AND REAL ECONOMIC GROWTH**

### **What is government spending?**

Government spending is an important tool of the main financial tools that the government uses in order to satisfy public needs and achieve the goals of society, and although government spending enables the government to run the wheel of the economy, as financial literature abounds with many definitions of government spending and the fact of the matter is that there is more than one definition Government spending does not mean at all a difference in concepts, rather it reflects the difference in the angle through which a mechanism is seen as it is defined as the sum of the financial sums that the state spends to provide public and private services to citizens or to purchase goods in order to be able to provide its services or To help a group of society or to establish various economic and social projects, that is, a cash amount that is released from the financial liability of the government or one of its constituent authorities with a view to achieving a public benefit (Mithan 1998) also known as the expenses incurred by the central and local governments to satisfy Collective social needs (Cauvery et al., 2010).

Others may view it as the amounts that government departments spend to pay a price for the goods and services that they obtain to complete the activities and tasks entrusted to them, such as salaries, wages, bonuses, water, electricity, appliances, equipment, machinery, rentals, etc. While there are those who are seen as the sums that the government pays to institutions, individuals or groups in exchange for obtaining production or consumer goods or services as well as the sums paid by the state as the benefits of government loans and what are known as transfer payments which are sums paid by the state without compensation and include a large group of elements Such as subsidies for the poor, juvenile benefits, unemployment benefits and old-age benefits (pensions). These benefits may take the form of subsidies for some factories or institutions or for some producers (Ahmed, 2002; Talab et al., 2017).

### **The development of theories of government spending and its divisions**

In the seventeenth and eighteenth centuries the commercial doctrine prevailed (the commercial school) and the pioneers of this school called for state intervention in economic affairs and the common idea among them is state intervention, and the strength of the state lies in the amount of its possession of wealth (Alzabari et al., 2019). As a result of individualism, after the commercial boom and the exchange movement, the tendency was to minimize state restrictions and confine themselves to jobs called the guardian state. The traditional theory emerged, which demanded that the role of the state, as defined by Adam Smith, be security,

defense, and carrying out actions that individuals do not offer because there is no profit in it. In the opinion of some thinkers such as Karl Marx that (the source of evil in any society is due to the individual ownership of capital and found its way to the ground and was the real challenge to the capitalist system (Al-Ali, 2002).

Traditional theory was prevalent until the Great Depression 1929-1932 with its ideas and its concepts were well established, but what happened during that period that supply did not create demand and the economy did not automatically turn towards full employment and that was a challenge to the capitalist system and was the reason for the birth of a new theory in economic thought which is the Keynesian theory of state intervention Through its financial tools, from taxes and expenditures to remedy this situation, and it has begun to address the lack of effective demand by increasing government spending. As a result of Keynesian ideas, conditions required government intervention in the economy, and his ideas were to enhance the role of the state in economic life, through its interference in economic life through its public spending to achieve specific goals, including reducing poverty, achieving an equitable distribution of income between groups of society, and directing spending to social sectors to improve their standard of living. The ideas of the Keynesian were a major attack on the ideas of the traditional school and the Say law, as the Keynesian emphasized that the problems of stagnation and recession lead to a lack of effective total demand and that the state is the only organ capable of influencing this demand and called for the need for the state to intervene to achieve full employment (Al-Amiri, 2001).

He built his theory on the premise that effective demand is not determined automatically at the level that achieves full employment and that the size of employment is determined at the point where the total demand intersects with the total supply and this is called effective demand, which is the expected outcome at the point where the total supply curve intersects with The aggregate demand curve, which is spending on consumption and spending on investment according to the expectations of business owners when they determine the size of the operation. "Consumption spending represents the demand side and spending on investment by business owners on the supply side. In the early seventies of the last century The capitalist system was exposed to an economic phenomenon that was not known before, namely the coexistence of inflation and stagnation side by side and the transformation of inflation into an insurmountable crisis (Al-Taie et al., 2017). Where it was based on the criticism of the Keynesian thought and the revival of the traditional quantitative theory and was able to promote his ideas and provide solutions to governments to get out of this crisis and the most important ideas that the critical school came up with (Al-Hallaq, 2010):

A. Absolute economic freedom, and there is no conflict between the individual interest and the interest of society.

B. The monetarists believe that the lack of government interference had a positive impact on the economy, even with the lack of harmony of private interests with the public, this does not justify the intervention to address this problem, and then the state should move away from economic activity and return to performing its traditional functions and not as a welfare state as in The Keynesian era.

C. The monetary theory focused on the amount of money and monetary policy and the interest in offering money as a primary engine of economic activity after Keynes underestimated the role that that policy plays, so Friedman stressed the need to achieve monetary stability by controlling the growth of the amount of money which leads to achieving economic stability through Keeping the economy out of crises, easing unemployment rates and improving the living conditions of individuals (Mawla, 2013).

From the above it can be said that government spending is one of the tools of financial policy, so it is also a policy and the nature of the situation, it varies from one country to another according to the nature of the existing economic system as well as the level of development of countries, as the spending policies in developed capitalist countries aim to reduce unemployment rates and fight inflation and limit Exacerbating it and expanding the domestic market for the purpose of achieving economic stability in these countries. As for developing countries, the goal of these policies is to build a developed industrial production base to provide basic consumer goods for members of society and reduce industrial dependency towards the major industrialized countries. Therefore, the policy of spending, whether in developed capitalist countries or underdeveloped countries, aims to achieve specific goals that are appropriate to the state of the economy In terms of the level of development and the current state of the economy. The policy that the government uses to spend on various economic aspects is called public spending, and as we have shown previously (Allawi, 2016).

The divisions of public spending have varied and multiplied by several criteria, including the functional, economic, and administrative standard. The effects of this spending have had a major role in dividing it, even though this division of various kinds has a justification, which is to facilitate the process of controlling public spending and not leaving it as a waste, perhaps one of the most prominent The divisions are the division made by the economist Peugeot, which divided public spending according to its economic effects on national income into real and other transfer expenditures as follows (Eichberger et al, 1997; Andrews, 2009; Visit, 2017):



A. **Real spending:** This means the spending that the government spends for obtaining goods and services or productive capital, for example salaries, wages, current and investment spending in all its forms, and as we mentioned earlier, government spending is in return for whether it is a service or a commodity, then this is It leads to an increase in national income.

B. **Transfer spending:** This means spending that does not result in the government obtaining goods, services and capital but rather transferring part of the national income from social groups with high incomes to other low-income ones, it is merely a transfer of purchasing power between social classes and the government does not obtain from it In other words, the national income remains constant, for example, the spending that you make by imposing progressive taxes on people with high incomes in order to reduce social differences, meaning that spending here is to redistribute national income between those with high incomes in favor of those with low incomes for the purpose of raising Their standard of living reduces class differences and poverty reduction.

### **The economic and social impacts of public spending**

#### **Total production capacity**

It means the country's ability to achieve certain levels of productivity in accordance with what its economic resources such as labor, capital, natural resources, and other production technology provide. As the public expenditures for investment purposes, i.e. the formation of fixed capital or the creation of new capital, are one of the forces directly affecting the productive capacity of the national economy. Increasing government investment or productivity expenditures leads to an increase in the amount of capital assets such as (equipment, buildings, bridges, roads, and irrigation networks And the puncture) that contribute to increasing the economy's production capacity. The more the country increases its financial resources allocated to increase the production of capital assets, the more the rate of formation of fixed capital and then its productivity increases (Al-Khatib & Ahmed, 2007).

#### **Actual order**

Spending is one of the components of aggregate demand, and therefore it greatly affects the national income and production capacity in the country through its impact on the level of revenue from services of production factor services, which is reflected in the total on the contribution to achieving an increase in the national product. The subsidy clause that the government grants to projects, whether public or private, is of great importance in reducing

production costs and then contributing to increasing profit rates for these projects, which leads to an increase in their productive capacity (Mohammed et al., 2021). As for government spending related to the concept of traditional government jobs, it is necessary to create the appropriate environment for production and then stimulate it towards growth and increase provided that it is less than the level of full employment and the productive system has the necessary flexibility that enables it to cope with any changes in demand. Thus, we conclude that the changes that occur in spending in all its forms of consumption and investment greatly affect the national income and production capacity (RASHID et al., 2021).

### **The effect of public spending on national consumption:**

Public spending directly affects the volume of national consumption through its initial increase in the amount of consumer demand for goods and services. Through the government allocates it to its citizens in various forms, whether in the form of salaries, wages or subsidies, this will lead to an increase in consumption which Depends on the MPC for individuals, while the government may be a consumer by itself when it spends on its public facilities of security, defense, justice, health and educational services, and thus it is consumed when it is spent to satisfy those needs (Walle, 1995: 2).

### **Social effects of public spending:**

These effects may be evident in the redistribution of income, as government spending is one of the main tools that play an active role in correcting the income distribution results as well as correcting the imbalances caused by the tax system. Therefore, the goal of reducing poverty, for example, is one of the goals of public spending and social security programs in most countries. Because it plays an important role in providing public services, especially in developing countries, then the extent of the success of government spending policy and its ability to support the poor depends on the distribution nature of these expenditures, and its ability to reduce risks, shocks and income fluctuations, and then protect families from falling into Poverty (Walle, 1995).

Where government spending is one of the options available to the government to improve the distribution of income and reduce extreme situations of poverty by changing the components and trends of government spending, and this stage is by the government making adjustments to the initial and intended distribution (the government distributing cash income to those who participated in generating the output The total of goods and services, which is the sum of the costs of returns, factors of production) when income distribution conflicts with the



goals of equality and justice, and in order to narrow the differences between incomes and improve the level of economic and social welfare through what is available to F Society responded to goods and services. And the large volume of government spending compared to the share of poor groups of national income, changing its direction can have a significant impact on the real income of low-income groups of the population. Because per capita income is an indicator of the standard of living and the ability of spending to redistribute income (Jain, 2012).

### **What is economic growth?**

The goal of economic growth is one of the main goals that all countries seek to achieve, as it represents the efforts that these countries make in their societies to achieve it. It is also the most effective way to improve living standards and achieve a better life for members of society (DFID, 2007: 3). It is defined as the process embodied in increasing national production over time (Dimand, 2002). As defined by the American economist Kuznets as "the continuous increases in the production of material wealth. He also considered that one of the main sources of economic growth is investment in material and human capital, as well as technical progress and the efficiency of economic systems and this is done by training and qualifying the workforce to increase its productivity, this With regard to human and material capital, as for technical progress, lies in the use of new methods of production as well as innovation and invention (Al-Masoudi, 2010).

Economists Samuelson and Nordhouse have defined economic growth as the process in which projected GDP expands in light of the full use of resources (Samuelson, 2021). He also knew that the improvement in living standards was caused by higher income that allowed individuals to consume more goods and services (Mankiw, 2000: 77). Likewise, economic growth should be expressive of a real increase in gross domestic product or average per capita share, and not a nominal increase in a real indicator in other words, the increase in per capita income from real income should be faster than the increase in the population growth rate (Romer, 2018).

### **The relationship between economic growth and public spending**

The relationship between economic growth and public spending received a lot of attention, especially after the changing economic philosophy used (the shift from the role of the guard country to the producing country). The German economist, Adolf Wagner (A. Wagner) was the first person to have this relationship in 1892 and this relationship was known by the Wagner Law which he called "the law of continuous expansion" (Bansal & Budhedo, 2012).

This relationship was characterized by controversy in the scientific community, with regard to who is the influencing factor on the other, as there is a causal relationship between them as the Wagner hypothesis says: that causality is directed from the gross domestic product to government spending, but in light of the Keynesian proposal, it sees a positive relationship. It is moving from government spending to GDP (the majority, 2012: 29). and we are not currently in the process of examining the causal relationship, but rather explaining the role of government spending in economic growth.

### **The role of public consumption spending in achieving growth in GDP**

Public consumer spending consists of two parts: The first includes the goods and services that the government provides to its citizens, such as salaries, wages, security and defense services, as well as military expenditures, or the second includes grants and assistance provided by the government to its residents, whether economic or social.

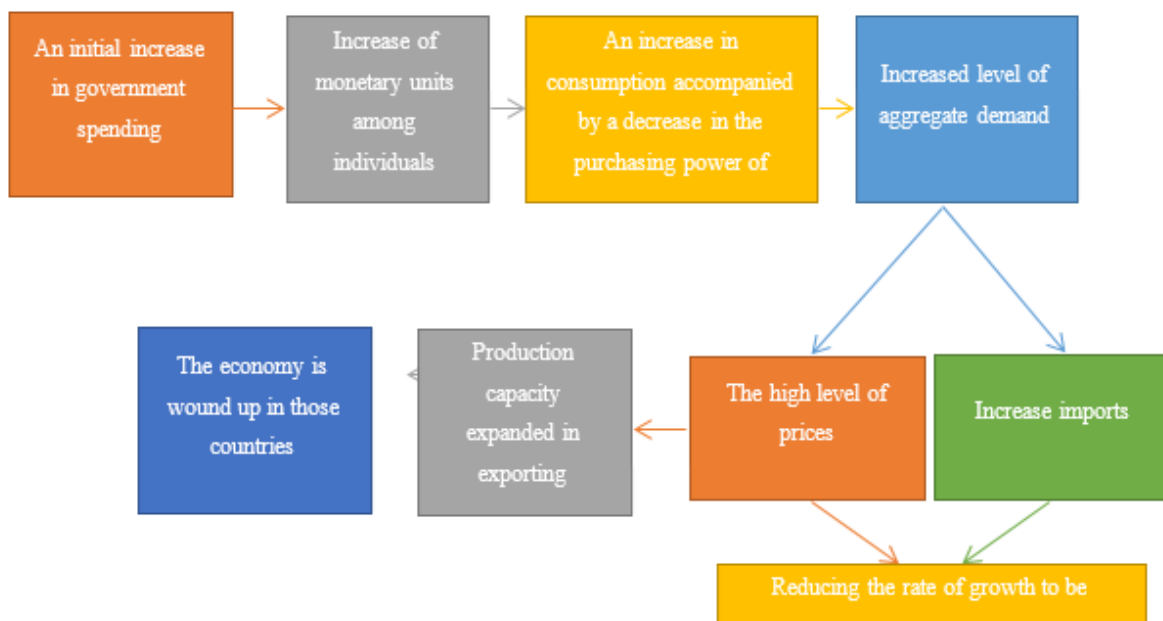
The increase in consumer spending has indirect effects on the gross domestic product, represented in increasing the level of aggregate demand, through its effect on the components of aggregate demand, to reflect this multiplier on the gross domestic product due to the time factor, and this is known as the effect of the multiplier. In the event of an increase in consumer spending, this leads to an increase in the purchasing power of individuals, which increases the level of the total demand for goods and services doubly (assuming a higher marginal propensity to consume). which in turn leads to absorption of the supply of goods and services, which leads producers to increase production. Machines and machines that produce goods for which consumer demand has increased (accelerated effect) assuming the flexibility of the production system, to reflect positively on the gross domestic product, and then economic growth (Al-Janabi, 1990).

Consequently, consumer spending is an effective factor in influencing economic growth, and Keynes emphasized this in order to save the global economy from its ordeal in 1929 (the Great Depression). as the government seeks to strike a balance between total supply and demand. In a state of recession (as in the case of 1929). total demand is characterized by a decrease compared to the total supply, which causes a surplus in production capacity, as well as an increase in the unemployment rate, and here the role of consumer spending is highlighted in reducing the gap, by raising the level of total demand, especially as the economy is in a stage Below the level of full use, the government injects the economy in order to raise the level of aggregate demand, and here the effect of the government spending multiplier will begin by

successive effects on output, and then increase it (borrowing the flexibility of the productive system) (O'Sullivan, 2014).

The work of the multiplier is more consistent with the developed countries, due to the availability of diversified economic structures and the flexible productive system, so the slow economic activity in them is due to insufficient aggregate demand and not aggregate supply, which makes the government spending multiplier a major role in raising the level of aggregate demand, on the contrary in Developing countries that are characterized by the underdevelopment of the productive system and its weak flexibility, as well as the limited diversity of economic structures, so the problem of slow economic activity in these countries lies in aggregate supply, not aggregate demand, and this will reflect the impact of government spending multiplier in generating inflationary pressures in the economy, as well. Not from the increase in imports due to the inability of production to keep pace with the increase in aggregate demand, which increases leaks in the multiplier effect, and thus reduces the occurrence of desired effects on economic growth. The mechanism of multiplier and expedited work in developing countries can be explained in the following Figure.

Figure 1. Mechanism of multiplier and accelerator work in developing countries



Source: Prepared by the researcher

It is evident from chart (1) that there is a process of sizing multiplier and accelerator effects in developing countries, due to the weak flexibility of the production system, which made the effect of increased spending reflected in increased imports and higher prices for goods and services, so the effect of multiplier and accelerator work is in exporting countries. This

increase in government spending in developed countries was the opposite, as the increase in spending will be reflected in the increase in the level of aggregate demand, which leads to an expansion of production capacity (as a result of the flexibility of the production system). and then an increase in the demand for factors of production, which is reflected in the increase in the returns of elements Production and improvement in brightness Marginalized, and thus there is no amputation of raising the multiplier and accelerated in those countries.

It is possible to highlight an important part of spending, which is military spending, as it is an important part of the production process, because it provides a stable and appropriate environment for the establishment of projects that positively affect economic growth in developed countries, so the relationship between military spending and economic growth has been characterized by controversy. Some believe that its role is complementary to the civil sector, so that it has a positive return on economic growth, while some view that its role is competitive, negatively affecting economic growth, as OECD data show that there is a strong relationship with a negative impact of military spending on the formation of capital. The, leading to a decline in economic growth, while countries least data showed growth contrary to the results of the results of the Economic Cooperation and Development (OECD) countries, as it confirmed the existence of a positive relationship between military spending and economic growth (Al-Hussaini, 2012).

Therefore, the impact of military expenditures on economic growth varies from one country to another, as well as the nature of the security circumstance in the country itself, as it can be said: Military spending in developed countries is productive spending because these countries have huge military industries, which positively affects their output The gross domestic product, according to the economic theory, each spending has a return, it is a product. As for the developing countries, the majority of them lack most of these industries, and as a result of their unstable economic and security conditions, they meet their weapons needs through imports, which leads to the depletion of financial resources that were possible Use Her mother in the areas of national development, so it can count military spending in developing countries, with a negative impact on economic growth.

### **The role of public investment spending in achieving economic growth**

Those concerned with economic affairs focus on the role that investment spending plays in achieving economic growth, as investment is the main driver of the growth wheel. Increasing investment spending increases the national production capacity, whether by adding

new production capacities or reforming idle productive capacities, which is reflected positively. On national income and economic growth as a bottom line.

Investment in infrastructures (such as roads, bridges, airports, dams, etc.) is also a component of the production process, as it provides an environment suitable for production, so many studies focused on investing in infrastructure and productivity projects and its role in stimulating economic growth. David Achauer An analysis of the relationship between investment in infrastructure and productivity in the American economy during the period (1971-1985). as he demonstrated through it, that weak infrastructure services is the reason behind the decline in productivity, as the period witnessed (1971-1980) The annual productivity growth rate decreased from (0.2%) to (0.08%). and also decreased To reach (0.07%) during the period (1980 - 1985).

The role of government investment spending can not be limited to influencing economic growth in providing adequate infrastructure for the production process, but taking a broader dimension than that. The Denison Study (EFDenison 1962) that he conducted on the American economy, using the simple production function (Cob- Douglas) to measure the sources of growth in the American economy during the period (1910-1960) and reached the positive impact that investment in education has on economic growth, as (21%) of economic growth in America during the period (1921-1957) is due to the effect of education (Al-Maliki & Obaid, 2004).

In light of the foregoing, investment spending is of great importance in achieving economic growth, and this was confirmed by many development models, among them the Harrod Domar model, which emphasized the role of investment in increasing national income by emphasizing material capital, so increasing investment leads to an increase Production capacity, and hence the increase in national income, which causes economic growth, as well as the Paul Romer model during the eighties, which emphasized that the profit incentive is what drives individuals to search for new technology, and then Robert Lucas 1988 developed the model when it focused on human capital as a factor affecting growth Economist, for Especially that it is not subject to the law of diminishing returns (Loayza & Soto, 2002).

## **RESEARCH METHODOLOGY**

The importance of research is centered on the role that government spending, both consumer and investment, plays in influencing real economic growth represented by increasing real output through its contribution to developing national economic sectors, and then achieving

high economic growth rates. The study sample included data from 1990 to 2018. The research hypothesis enables:

H1: government spending contributes significantly to real economic growth in Iraq.

To achieve the aim of the research and to prove or deny his hypothesis, the researcher relied on combining the two methods of inductive and deductive analysis through analyzing the data under research and tracking their developments for the purpose of extrapolating the economic reality, and then devising the effects and results to reach specific results through the available economic tools as well as using the quantitative method in Measuring the long-term equilibrium relationship between search variables using Eviews10.

## THE RESULTS

### A study and analysis of the effect of government spending on real economic growth in Iraq

Government spending is one of the main pillars for achieving economic growth. If I want to achieve high growth rates, then specialists in this regard should expand government spending, especially investment, since it achieves two goals at the same time: adding new production capacities either by investing in new production capacities or reforming and rehabilitating The idle productive capacities, which contributes to increasing real growth, and the second: increasing the productivity of the inputs to the production process through the optimal use of resources.

It is clear from table (1) the decrease in investment spending at the beginning of this period, as it decreased to (1906) million Iraqi dinars in 1991, that is, after (3196) million Iraqi dinars in 1990 and a rate of decrease of (-40.4). and this is due to the decline in oil revenues as a result The economic blockade imposed on Iraq, which led to a decrease in real output and by almost the same percentage, as it decreased to (7740) million Iraqi dinars in 1991 after it was (13370) million Iraqi dinars in 1990 and a rate of decrease of (-42,10) and this Because of the decline in investment in the economic sectors. And due to the central bank's pursuit of cheap monetary policy, this led to an increase in public government spending, both consumer and investment, as consumer spending witnessed a gradual increase from about (6142) million / d / p in 1990 to about (7919967.6) million / d / year in general. 2002 With a very large rate of increase (128.8%) for the same period, while investment spending was affected by that policy, then it headed towards the increase during the period 1992\_1995, registering positive growth rates, which reflected all of this positively on the real product without oil, and achieved high growth rates during 1992\_1993, as It amounted to about (26.7% \_52.6%). respectively, due to



increased interest by the Arab government Protective in the economic sectors, especially for the agricultural sector, through the support that was provided to it, such as the government's purchase of agricultural products as well as their excessive pricing, in order to encourage farmers to produce, and then meet the local need of the necessary agricultural products that were stopped due to the economic blockade, to reflect this increase on The real output with oil is to achieve positive growth rates as well.

After 1995, public spending and real output with and without oil witnessed positive growth rates until 2002, and this causes the signing of the Memorandum of Understanding for the oil-for-food program.

After the political change in Iraq in 2003 and as a result of the return of oil exports to the international market and the increase in revenues from foreign exchange, this was reflected in the increase in the volume of government spending, both consumer and investment, in order to raise the living standards of individuals, repair infrastructure and overhead, and work to achieve economic growth. With oil, without it, from (40,31). (18,2) billion Iraqi dinars to (41.6). (21.7) billion Iraqi dinars, respectively, where most of the increase in real output without oil is due to the high percentage of the service sector's contribution to the formation of the output As it formed approximately the highest rate of growth compared to the qq Other sectors (other than oil) due to the government's increased income elasticity towards services. It is necessary to note that consumer spending in light of the two crises that occurred in (2009 and 2014) did not decrease as an absolute number due to the policy of transfer between public expenditures that the government pursued and that what happened was the decrease in investment spending due to its flexibility of its components unlike consumer spending, and with The severity of the crisis of low oil prices increased after 2014, public spending decreased by hardship and then increased again with the recovery of global oil prices. It is also noticeable to those who do not doubt that increased government spending, especially investment, during the study period did not play its role in achieving real growth rates for the economy National, where the government was unable before 2003 to improve the reality of the productive sectors due to the economic blockade and therefore was unable to rehabilitate and rehabilitate what was destroyed by the war that Iraq fought, while the weak impact of investment spending on real output is due to the government's neglect of the manufacturing process, relying on domestic and foreign investment in The industrial and agricultural sectors. In an inappropriate environment represented by economic and security instability, poor infrastructure, and the spread of administrative and financial corruption, all of this prevented the achievement of the desired goal of government spending,

as well as the low ratio of investment spending to people. The real factor, especially in an economy that enjoys large revenues, in addition to the low rate of project implementation.

As the incomplete implementation of the projects does not make it have any impact on the real output as if it had never been implemented. Where nearly (250) billion dollars were for investment and reconstruction, as well as no fewer than 193 large projects belonging to the public sector in an almost idle state due to the deterioration of the infrastructure, as a result of the damage caused by wars and terrorist operations.

A study prepared by the American company DTA interested in energy affairs also revealed that the losses of Iraq as a result of the disruption and postponement of projects and mismanagement and planning in the oil field during the period (2002\_2011) amounted to about (493) billion dollars. As for the Iraqi losses resulting from the delay of natural gas projects, they are estimated at about (53) billion dollars during the period (2006\_2011) and rise to (147) billion dollars during the period (2012\_2016). In total, the study capacity of Iraq is the result of mismanagement and postponement of production projects by about (5.3) One trillion dollars, which is approaching the losses inflicted on Iraq by the wars it fought, amounting to (7.8) trillion dollars.

Finally, a necessary and unforgettable thing is the policy of transferring between expenditures, as investment allocations are usually used in the public budget to absorb fluctuations in government revenues, and this is what actually happened in 2009 and 2014 due to the decline in global oil prices.

In light of the foregoing, it can be said: The weak performance of the national economy, its structural deformation, which suffers from it in light of the large financial capabilities and its non-exploitation in a way that achieves economic development, is due to the lack of efficient management of economic resources and the submission of those in their control to personal and party gains and letting the economy float in a sea From underdevelopment. The politicization of the national economy to serve the politicians is the most realistic factor in the survival and continuation of the national economy until now.

Table (1) Developments of public spending and real output with and without oil in the Iraqi economy for the period (1990 - 2018)

The year	Real output with oil 1988 = 100	Its growth rate %	Real output without oil 1988 = 100	Its growth rate %	General consumer spending	Its growth rate %	Public investment spending	Its growth rate %
1990	29711,1	-	13370	-	6142	-	3196,7	-
1991	10682	42,1-	7740	14,5	7033,3	40,4-	1906	64-
1992	14163,5	26,7	9804,2	2,6	8691,4	281,3	7267,3	32,6
1993	18453,6	52,6	14964,2	81,5	15771,8	164,5	19220,3	30,3
1994	19164,9	0,9-	14832,1	170,9	42734,6	44,1	27699,5	3,9
1995	19571,2	1,4-	14620,5	265,3	156117,7	206,7	8493,5	2,1
1996	21728,1	11,2	16251,2	1,7	158755,3	57,1-	36439	11
1997	26342,7	16-	13658,5	710,4	1286556,2	96,8	71706,7	21,2
1998	35525	6,6	14559	134,8	3020603,9	33,6	95796,1	34,9
1999	41771,1	12,9	16434,2	4,6-	2880197,9	110,8	201960	17,6
2000	42358,6	0,01	16435,7	106,4	5944656,8	51,5	306055	1,4
2001	43335,1	7,1	17609,4	9,2	6488987,4	88,9	577993,8	2,3
2002	40344,9	3,3	18198,1	22,1	7919967,6	100,8	1160720,4	6,9-
2003	26990,4	28,3-	13047,5	54,1-	3631594,9	-	-	33,1-
2004	41607,8	66,5	21722,2	384,8	13608947,3	159,7	3014733	54,2
2005	434438,8	15,6	25119,2	7,9	14683390,3	51,7	4572018	4,4
2006	47851,4	13,6	28523,9	2,1	14984454,1	31,8	6027680	10,2
2007	48510,6	2,8-	27732,1	39,3	20871484	28,1	7723043,7	1,4
2008	51716,6	2,2	28344,9	25,2	26139166	196,2	22873474,6	6,6
2009	54721,2	8,8	30843,5	5,3	27517759,7	41,6-	13369508,7	5,8
2010	57751,6	9,1	33652	11,4	30660743,7	48,8	19895190	5,5
2011	63650,4	8,5	36527	20,7	36999562,9	44,8	28809059,7	10,2
2012	71680,8	12,4	41058,5	13,9	42158634,3	42	40907216	12,6
2013	76922	10,4	45319,8	13,3	47755742,7	27,3	52072517	7,3
2014	77789,7	1,1-	44812,8	0,4	47946900,1	10,8-	46431892	1,1
<b>2015</b>	78640,1	11	50093,4	5,1-	45506443,6	93,1-	23099651	1,09
<b>2016</b>	73751,6	25,8-	37137,4	-24,3	39873772	3,7	23962131,4	6,2-
<b>2017</b>	80556,2	9,1	40529,6	1,9	40345453,2	36,7	32760603,1	9,2
<b>2018</b>	79312,9	6,2-	38031,3	6,5	42494374,1	3,1	33781085,4	1,5-

Source: The Iraqi Ministry of Planning and Development Cooperation, Central Statistical Organization, (National Accounts Directorate, Directorate of Record Numbers, Government Investment Programs Department). multiple years; The percentages of the researcher's work based on the data of the table itself,

## Measuring the long-term balance relationship between government spending on real economic growth in Iraq

### Description of the form

After we showed the nature of the relationship from an analytical point of view, we now come to measure it with the help of the statistical program Eviews10, relying on the same data that was used in the analysis. At this stage, the independent and dependent variables

included in the model should be indicated, as public spending represents the independent variable and the real nang with oil and without the variable without it. The function, according to the following function:

$$RGDP, Non\ oil\ RGDP = f ( exg )$$

## Displaying and analyzing standard results

### Sleep test

Here, we will rely on Philips Brown's unit root test in order to indicate whether the search variables are still or not, as table data (2) indicates the presence of the unit root in the time series of the variables in question at their original level, which means accepting the null hypothesis (Ho) which It states that the time series will not be static, and this is confirmed by the value of Prob, as it was greater than (5%) at their original level. When taking the first difference for them, we find its quietness, as the value of Prob is less than (5%). Accordingly, it is integrated from the first class (I (1)).

Table (2) PP test results for No-RGDP, RGDP, and EXG variables in the Iraqi economy

variable	the level			The first differences		
	Fixed limit Just	Flat bound and general trend	Without a fixed border and a general trend	Fixed limit Just	Flat bound and general trend	Without a fixed border and a general trend
	Prob*	Prob*	Prob*	Prob*	Prob*	Prob*
EXG ~ I(1)	0.903	0.545	0.841	0.008	0.038	0.0007
RGDP~I(1)	0.94	0.009	0.95	0.0000	0.0000	0.0000
N-RGDP~I(1)	0.83	0.23	0.88	0.0000	0.0000	0.0000

Source: Prepared by the researcher, based on the outputs of the Eviews10 statistical program.

\* Probability value method was used, according to which the parameter is significant if the value of (Prob) is less than 0.05). and this indicates that the time series is free of the unit root and vice versa.

In order to achieve or refute the research hypotheses, this model was divided into two models to show the effect of investment spending on real GDP with oil and without it in detail, as follows:

### Measuring the effect of government spending on real output with oil.

A - Results of time lag test: It is clear from the results of the criteria used in determining the optimum time lag in Table (3). that the best lag is (1).

Table (3) The results of the test to determine the optimal time lag behind the government and RGDP spending variables in the Iraqi economy

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-575.0695	NA	6.51e+16	44.38996	44.48674	44.38996
1	-526.7963	85.40650*	2.16e+15	40.98433*	41.27466*	41.06794*
2	-524.7258	3.344655	2.53e+15	41.13275	41.61664	41.27210
3	-524.2391	0.711383	3.37e+15	41.40301	41.08044	41.59808

Source: Eviews10 output. The symbol (\*) indicates the optimum defaults by standard

B - Results of the joint integration test using the Johansen - Geselius methodology: After knowing the stillness of the variables and determining the degree of their optimum integration and backwardness, we can conduct joint integration between them according to the Johansen Joint Integration Test, which confirms that the null hypothesis (Ho) and that there is no long-term complementary relationship between the variables under study, while the alternative hypothesis (H1) shows the existence The integrative and long-term relationship between these variables. This is done by relying on impact and maximum value tests.

The results of Table (4) show that there is no long-term integrative relationship between government spending RGDP, as the impact test indicates that there is no common integration between the two variables because the value of Prob, which reached (0.48) is not statistically significant, being greater than (5%) at Significant level (5%). This confirms the acceptance of a hypothesis that stresses that there is no long-term integrative relationship between these two variables. Whereas, the maximum value test came as a boost to the results of the first test, as the same result was reached, and that the value of Prob (0,43) is statistically insignificant as it is greater than (5%) at the same level of the mentioned significance, i.e. acceptance of the null hypothesis, and this is also confirmed Cranger's causality test, which indicated that there was no causal relationship between the two variables using time lag (1). which confirms this acceptance of the null hypothesis, as shown in Table (5). And that this result in terms of pure economic theory is rejected, but if we examine the nature of the economic economy, which has the rentier characteristic of it, it is made of its apparatus Productivity is inelastic in the direction of aggregate demand changes resulting from increased government spending, which is not reflected in the increase in real output with oil because oil constitutes more than (60%) of the total output, and on this basis it accepts such a statistical result as it is compatible with the Iraqi economy.

Table (4) The results of the Johannes-Geselius test of the joint integration of the government spending and RGDP variables in the Iraqi economy

Hypothesized No. of CE (S)	Eigenvalue	Max - Eigen Statistic	0.05 Critical Value	Prob**
None	0.242958	7.7932229	15.49471	0.4878
A most-1	0.010249	0.278137	3.841466	0.5979

Source: Eviews10 output.

Table (5) Cranger Causality Test Results between RGDP Government Spending in the Iraqi Economy

Null Hypothesis	Obs	F - Statistic	Prob
EXG does not Granger Cause NRGDP	28	2.32182	0.1401
NRGDP does not Granger Cause EXG		0.67958	0.4175

Source: Eviews10 output.

### Measuring the effect of government spending on real output without oil

After knowing the stillness of the variables and determining the degree of their optimum integration and backwardness, we can conduct joint integration between them according to the Johansen Joint Integration Test, which confirms that the null hypothesis (Ho) and that there is no long-term complementary relationship between the variables under study, while the alternative hypothesis (H1) shows the existence The integrative and long-term relationship between these variables. This is done by relying on impact and maximum value tests.

The results of Table (6) show that there is a long-term integrative relationship between government spending NO-RGDP, as the impact test indicates that there is a common complementarity between the two variables because the value of Prob, which reached (0.03) is statistically significant, being less than (5%) at Significant level (5%). This confirms the rejection of the null hypothesis and the acceptance of the alternative hypothesis, which confirms the existence of a long-term integrative relationship between these two variables. Whereas, the maximum value test came as a boost to the results of the first test, as the same result was reached, and that the value of Prob (0,02) is statistically significant, being less than (5%) at the same level of significance mentioned, i.e. rejecting the null hypothesis and accepting the alternative hypothesis, and this What was also confirmed by the Cranger causality test, which indicated the existence of a one-way causal relationship from government spending to NO-RGDP to the unemployment rate using time lag (1). as the value of Prob (0,001) was statistically significant being less than (5%). This confirms the rejection of the null hypothesis and the acceptance of the alternative hypothesis, as shown in Table 7.



Table (6) the results of the Johannes-Geselius test of the joint integration of the NO-RGDP government spending variables in the Iraqi economy

Hypothesized No. of CE (S)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob**
None	0.445446	16.69419	15.49471	0.0328
At most-1	0.028304	0.775221	3.841466	0.3786

Source: Eviews10 output.

Table (7) Results of Cranger Causality Test between NO-RGDP governments spending in the Iraqi economy

Null Hypothesis	Obs	F - Statistic	Prob
EXG does not Granger Cause NRGDP	28	12.5406	0.0016
NRGDP does not Granger Cause EXG		0.60520	0.4439

Source: Eviews10 output.

### VECM test results

It is clear from Table (8) that the value of the error correction factor (C1) and the amount (- 0,52) is negative and statistically significant, as the value of Prob (0,03) is less than (5%). which indicates an integral relationship Long-term between the two variables under study. This means accepting the alternative hypothesis and that government spending affects NO-RGDP, and the error correction factor value indicates a correction of 52% of the short-term imbalance in the dependent variable leading to long-term equilibrium. As for the other short-term parameters, we see that the parameters (C2, C3, C4,) are not significant, in terms of Prob greater than (5%). And that the value of R2 is (61%). and this means that (44%) of the changes that occur in the NO-RGDP are due to government spending and what remains due to other variables. This percentage is acceptable in both statistical and economic terms, as well as the model as a whole is significant, because The value of Prob (f-statistic) is less than (5%). as it reached (0,003). and the value of Durban Watson is greater than R2. This indicates that there is no false slope between the two disadvantages under study. Therefore, there is a possibility to rely on the results of the model statistically and economically.

Table (8) VECM test results for the short-term relationship between government spending and NO-RGDP in the Iraqi economy

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	-0.528142	0.233040	-2.266312	0.0332
C(2)	-0.172251	0.181498	-0.949055	0.3525
C(3)	8.83E-08	8.84E-08	0.998360	0.3285
C(4)	1.056141	0.648130	1.629521	0.1168

Source: Eviews10 output.

## CONCLUSIONS

The lifting of the economic blockade had a major role in increasing the volume of government spending, both consumer and investment, in order to improve the living standards of individuals on the one hand, and to repair infrastructure and metadata, and work to achieve economic growth on the other. The services sector had the largest role in the achieved increase in real output without oil due to its high rate of contribution to the formation of output, as it constituted approximately the highest growth rate compared to other sectors (except oil) as well as due to the high resilience of the government's internal demand for services. The policy of transferring between public expenditures that the government pursued in times of negative shocks to oil prices had a major role in the non-depreciation of consumer spending, on the contrary, in relation to investment spending, because of its flexibility in its components, unlike consumer spending. Poor performance of the national economy and its state of structural deformation, which suffers from it in light of the large financial capabilities and lack of exploitation in order to achieve economic development due to the lack of efficient management of economic resources and the submission of those in their control to personal and party gains and letting the economy float in a sea of backwardness. The politicization of the national economy to serve the politicians is the most realistic factor in the survival and continuation of the national economy until now.

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