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ANALYZING AND MEASURING THE IMPACT OF GOVERNMENT SPENDING ON THE ECONOMIC GROWTH OF SOME BRICS COUNTRIES, WITH REFERENCE TO IRAQ, FOR THE PERIOD (2004-2022)

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Abstract

This study dealt with the basics of both government spending and the inflation rate as indicators of economic growth, in addition to examining the gross domestic product, its growth rate, and its average per capita share as indicators of the economic growth rate, in addition to showing the relationship between these variables in both (Brazil) and (Russia) as a sample of BRICS countries for the period (2004-2022), in addition to the reference to (Iraq), through analyzing the reality of the study variables economically and analogically, as the descriptive approach was used in analyzing government spending data, the inflation rate and economic growth, and to measure the relationship between the variables under study, in the selected countries, Three standard models were estimated for economic growth (YG) as a dependent variable, government spending (X1) and inflation rate (X2) as two independent variables. Brazil was described with the symbol (B), Russia with the symbol (R), and Iraq with the symbol (I), it was shown that the degree of integration of the study variables is A mixture of type (0)I and type (1)I, according to the Philips-Peron stationary (PP) test, therefore, the three models were estimated according to the Autoregressive Distributed Lag (ARDL) methodology, and according to the bounds test for co-integration, it was revealed that there is a co-integration relationship for all models, it succeeded in all standard quality tests (autocorrelation, heterogeneity of variance, normal distribution of residuals), in addition to being stable according to the (CUSUM) and (CUSUM SO) tests. The most important results of the study were that government spending and the inflation rate in both (Brazil) and (Russia) had a direct relationship with GDP growth, in both the long and short terms, while in Iraq, government spending had a direct relationship in the short term with GDP growth, Directly, but in the long term, the relationship will be inverse, However, the inflation rate in Iraq was directly related to GDP growth in the long and short terms. The study came out with a set of recommendations, the most important of which was that both Brazil and Russia must work to adjust the general level of prices so that the inflation rate becomes less variable and at a lower level, as well as work to achieve higher levels of GDP growth and



prevent a decline in GDP due to Achieving negative rates, Iraq must also work to reduce dependence on the oil sector, and work to increase the contribution of non-oil sectors to the gross domestic product.

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Introduction:

The relationship of government spending to economic growth is an important topic in the economic literature, as the effects of government spending vary based on the economic and political context of each country. We will review this relationship in particular in the countries selected from the BRICS group (Brazil, Russia) and Iraq, as Brazil is one of the largest economies in South America and an important member of the BRICS group. Government spending has played a prominent role in stimulating economic growth, especially during periods of recession, while Russia is Within the BRICS countries, it is considered economically advanced and relies heavily on oil and gas exports, which makes its economy sensitive to fluctuations in energy prices. Government spending in Russia varies between defense, infrastructure, and social services. As for Iraq, it relies heavily on oil as a main source of government revenues after decades of conflict and instability. Iraq seeks to use government spending to promote economic growth and reconstruction, as the impact of government spending on economic growth varies from one country to another based on the economic, political, and social composition of each country. Government spending promotes growth through investments in infrastructure and social programs, as reconstruction and economic diversification are key to achieving economic growth, and therefore government spending during a certain period of time is determined by economic growth and government revenues, as well as affected by the objectives of fiscal policy.

The first section: research methodology

Firstly. Research problem:

The majority of countries suffer from several economic problems represented by low rates of economic growth and low real national income, which has caused a low level of per capita income. Therefore, the research problem lies in the following question: What is the extent of the impact of government spending policy on economic growth in the countries selected from the BRICS group (Brazil) And Russia) and Iraq?

Secondly. Research aims:

The aim of the current research is to present an analysis of developments in government spending, inflation rate, and economic growth in a sample of BRICS countries (Brazil, Russia) and Iraq, and to measure the impact of government spending and inflation on economic growth in those countries.

Third. Research importance:

The importance of the research lies in the fact that government spending is an essential component of aggregate demand, and therefore changes in it affect aggregate demand, and then affect the level of aggregate output. The importance also lies in identifying developments in government spending, inflation, and the growth rate in the selected countries, so the matter requires further analysis. To evaluate the developments that have occurred in government spending and inflation and measure their impact on economic growth in order to determine the extent to which government spending contributes to the economic growth of the selected countries.

Fourthly. Research hypothesis:

The research starts from a null hypothesis (H0) that says (there is no statistically significant effect of government spending and inflation on economic growth in the selected countries), and an alternative hypothesis (H1) that says (there is a statistically significant effect of government spending and inflation



on economic growth in the selected countries).(.

Fifth. Search limits:

Spatial boundaries: (Brazil, Russia, Iraq).

Time limits.(2022-2004):

Sixthly. Research Methodology:

The research used a description of the standard model and reached the results of the estimated model through applied studies that dealt with the impact of government spending on economic growth. In addition, the research used the extrapolation approach by analyzing indicators of the development of economic growth rates.

The first requirement: The conceptual framework of government spending

Government spending is one of the financial policy tools followed by government authorities, and it represents one of the important aspects of national spending, which is increasing with the increasing role of the state and its intervention in various societal affairs. Government spending largely reflects government activities and the extent of their impact on economic growth, especially in capitalist countries capable of mobilizing... Local economic activities and achieving economic growth.

First: The concept of government spending

Despite the many concepts of public expenditures, they fall within one content and share many denominators, and they can be defined as cash amounts spent by a public entity during the exercise of its activity in order to meet public needs (Mahmoud and Shallouf: 2022, 67-68).

The policy through which the government spends on various aspects is called public spending and can be defined as "an amount of money spent by the state for the purpose of achieving a public benefit" (Matar: 2010, 191).

In carrying out its expenditures, the government aims to use a large sum of money for the purpose of achieving public benefit, and from here public spending can be considered a monetary amount spent by a public person with the aim of achieving public benefit (Al-Obaidi: 2018, 10).

From the above, it is clear to us that public spending is an amount that comes from the state or one of its constituent authorities with the intention of satisfying a public need. Through it, the state is able to provide the basic environment necessary for development.

Secondly. Elements of government spending:

As long as public spending is an amount of money spent by a legal entity with the aim of achieving public benefit, and through these concepts, economists agreed that public spending contains three elements, which represent the pillars of public spending: (Al-Murshidi: 109, 2021).

- 1. Public expenditure is a cash sum (cash character): The state's spending at the present time is characterized by a cash sum, after the state previously tended to perform some of its obligations in in-kind forms, that is, in exchange for obtaining goods and services or providing some of its workers with in-kind benefits such as granting them housing and food. Clothing and health services, and with development, this was excluded because the in-kind method is not compatible with the requirements of the era for practical, technical, administrative and accounting considerations, so public spending has become mostly in cash, and this does not prevent the state from resorting to obtaining some services and goods for free or in kind, especially in cases of necessity (Al-Qaisi: 2016, 36).
- 2. Achieving economic stability:

The concept of economic stability includes preventing fluctuations in production levels and prices, as



well as ensuring high growth rates, as well as achieving balance in the balance of payments, all with the aim of achieving economic balance that the market system was unable to provide. This means stability

The economic plan includes a number of specific objectives, which are as follows:

- Achieving full employment.
- Achieving stability in the general level of prices.
- > Achieving stable economic growth.
- Achieving balance in the balance of payments.

Hence, economic instability means a disruption of these goals or one of them, that is, it involves the presence of unemployment or inflation in society, or instability in growth, or an imbalance in the balance of payments.

3. Achieving full employment:

This goal of achieving full employment has become increasingly important since the Great Depression of the 1930s, as attention has focused on creating conditions conducive to the full employment of economic resources, especially human resources. Therefore, countries at the present time consider themselves responsible for using all practical means that are consistent with their needs and obligations, in addition to exploiting all their resources in order to create conditions that provide abundant job opportunities and maintain those conditions that would reach the level of full employment (Abdullah Al-Wahid, 2000: 338)

4. Achieving stability in the general level of prices:

The goal of achieving stability in price levels is an important matter, and the state seeks to solve the problem of inflation due to its negative economic, social and political effects. The most important of these effects is imposing a burden on members of society by reducing their real incomes, especially those with fixed incomes, as this results in bad In the distribution of income and wealth against this group of society, inflation also leads to money losing its purchasing power, that is, it becomes unacceptable to members of society, so each individual tries to get rid of it before its value decreases further, so money is replaced with in-kind goods, and this increases the wave of rising prices. In addition, the occurrence of an inflationary wave in the economy prompts workers to demand increased wages in order to maintain their real income level, which leads to higher production costs and then higher prices, i.e. more inflation (Abdul Wahid, 2000: 349-350).

Accordingly, it can be said that public spending is represented by what the state or one of its public bodies pays to obtain productive resources of goods and services that it needs to carry out its activity, such as paying the salaries and wages of workers, paying the dues of suppliers and contractors, spending on the army and security, and spending on services, facilities and public works. Public spending, including payment of installments and interest.

Third: The importance of government spending.

Government spending contributed to the development of the role of the state from a guardian state to a state that directs and influences economic activity, as economic theories differed among themselves about the importance of government spending, as the traditionalists' view of government spending was neutral, so they did not attempt to reveal the economic and social effects resulting from government spending, but after World War II, and after the emergence of Keynesian thought, traditional thought was exposed to criticism, which went beyond the scope of the role of the guardian state and encouraged intervention in economic and social affairs, which led to an expansion of the size of the economy. Keynesians believe that the classicists were unable to achieve balance in the absence of state intervention, whose duties are limited only to security and defense. And justice and state intervention

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has become an absolute necessity, while they see that effective demand is the important variable in changing the trends of economic activity and then the economic cycle, which determines the total supply. This theory does not believe in the automaticity of determining effective demand at full employment, unlike the traditional theory that requires the state to take specific measures. To eliminate inflation or economic stagnation (Abdul Banna: 2022, 13-14).

Fourth - Determinants of government expenditures:

The size of public expenditures and their role in society and the economy depends on several factors, which:

The most important of them are the following: (Barro:1996,569).

- 1. The role of the state: The importance of public expenditures, their size, and the role they play vary depending on the role of the state in the economy. The neutral role of the state in the work of the economy and its activities under the classical theory is a neutral role for public expenditures, in that it does not have any impact on the work of the economy and its activities, and leaves the task of work to the market mechanism and without any interference from the state, while the role of the modern state has expanded at the present time to include all fields, so that the need has emerged for the necessity of state intervention in all fields, as public expenditures are an important tool of economic policy to achieve expansion and growth in the country, including economic stability.
- 2. The state of economic activity: There is often an inverse relationship between the level of economic activities determined by the state of the economy and the need for public expenditures. The decline in the level of economic activities in light of a state of recession requires an expansionary policy that includes the necessity of expanding and increasing public expenditures in order to expand these activities, especially When the economy is less than the level of full employment, while in the case of economic expansion that is achieved in light of inflation that occurs at the level after full employment, it is necessary to use a contractionary policy that includes working to reduce public expenditures in order to address the increase in aggregate demand over aggregate supply. To absorb the surplus purchasing power that accompanies the increase in aggregate demand, which helps treat inflation, and therefore the state of the economy and its level of activity determine the extent of the need for public spending (Al-Daami: 21, 2018).
- 3. Public revenues of the state: Public expenditures are affected by the size of public revenues, that is, by the state's ability to provide the public revenues necessary to finance public expenditures, because public expenditures are ultimately governed by what is available from this funding that is made available to it through public revenues (Al-Azzawi: 2019, 21).
- 4. Change in the value of money: One of the important factors that change the volume of public expenditures is changes in the value of money, as the rise in the general level of prices, i.e. the decline in the value of money, prompts some governments to increase the volume of public expenditures in order to fulfill the provision of public services that they must provide. The volume of public spending is not increased. If the general level of prices rises, the government will not be able to provide the necessary level of public services (Ibrahim: 2012, 7).

The second requirement is the conceptual framework for economic growth

Economic growth is a fundamental goal that countries seek to achieve through their economic policies to raise the standard of living for members of society. This is achieved by increasing the gross domestic product, increasing real per capita income and other indicators of economic growth achieved in various countries of the world, and getting rid of or exiting the cycle of underdevelopment and the problems that accompany it. Economic, social and other problems, as economic thinkers have increased interest in studying various interactions and relationships at the level of economic changes at the macro level, and clarifying economic growth and interpreting the sources and determinants of that growth will be



addressed as follows:

Firstly. The concept of economic growth:

The concepts of economic growth varied according to the point of view of the two economists, so much so that they did not agree on a clear and comprehensive concept of economic growth. Among the most prominent of them is that growth is a quantitative variable expressing changes in the available productive capacities and the extent of their exploitation. The greater the percentage of their exploitation, that is, the percentage of exploitation of the available energy. The production of goods and services has increased to meet the needs of society. Therefore, economic growth rates are calculated on the basis of society's total production of goods and services (Al-Obaidi: 2020, 21).

Second: Types of economic growth: We can distinguish between three types of economic growth:

- 1. Transient economic growth: This is the growth that occurs suddenly as a result of unforeseen causes, and these causes quickly end, and the growth they caused disappears with them, meaning that this growth is transient and does not have the characteristic of continuity or stability, and this type of growth usually occurs in developing countries, whose economies are characterized by dependence on the outside world and whose economic structure is unilateral, which depends on the export of raw materials such as oil. When a sudden increase in the price of oil occurs in the global market, this type of growth will occur, and when prices return to stability, it will disappear, and therefore this growth will not have meaningful economic effects (Al-Rashdan: 2008, 51).).
- 2. Natural economic growth: This is the growth that occurs during a historical series of transition from feudal societies to capitalist societies, resulting in processes of division of labor for members of society and initial capital accumulation that achieves the production of goods for purposes of exchange and the expansion of markets within which both the forces of supply and demand interact for each product (abd. King: 2023, 24).
- 3. Planned economic growth: This is the growth that occurs as a result of comprehensive planning policies and processes for all society's resources and requirements, and its connection and effectiveness to data, the ability of planners, the extent of its connection to the reality of the country, oversight, effectiveness of implementation, and the interaction of individuals with those established plans. Therefore, growth in the long term is self-driven and results in Steady growth and eventually turns into economic development (Ajamiya: 2007, 74).

From the above, it can be said: Economic growth means a continuous increase in production of goods and services, and it is not limited to this increase only, but this increase must exceed the increase in population, which ensures an increase in the average per capita share of national income, and this is reflected in improving the level of health and livelihood. For individuals, which ensures their wellbeing, public spending policy has a large and effective role in influencing economic growth rates through its impact on the basic economic sectors, whether directly or indirectly. It affects national production and the ability of individuals to consume, save and invest, and it also affects the increase in... Employment, redistribution of income, achieving economic stability, maintaining price levels, and maintaining low levels of inflation.

Analysis of trends in government spending, inflation, and economic growth in selected countries from the BRICS group (Brazil, Russia) and Iraq for the period (2004-2022)

The majority of countries in the world seek to achieve economic balance through the rational use of their resources, especially financial resources. Economic growth is the primary goal in achieving economic balance. Therefore, government spending has gained great importance as a tool that helps financial policy enhance economic growth by balancing public revenues and expenditures. public, preventing the accumulation of public debt, reducing inflation rates, and improving other economic variables, in a way that helps achieve economic balance and achieve acceptable economic growth rates.



Economic growth is represented by achieving continuous positive growth rates in the gross domestic product, which are greater than the population growth rate, and that increases Therefore, the average per capita GDP is adopted as an indicator of economic growth, while inflation is the continuous rise in the general level of prices.

The Iraqi economy is characterized in most of its economic indicators by the diversity of natural, human and capital resources, but it suffers from the oil sector's control over the gross domestic product, and the economic policies relied upon represent a reason for not achieving economic growth, as the oil sector dominated the Iraqi economy in making the economy a unilateral rentier economy. It depends on one resource, while the Brazilian and Russian economies are diversified economies and are slightly affected by fluctuations in global oil prices. In order to cover all aspects of the analysis related to the research variables and analyze the relationship between them, the second chapter dealt with four sections. The first section included: an overview of the BRICS countries, while The second section included: analyzing the trend of government spending and inflation in the countries selected from the BRICS group (Brazil, Russia) and Iraq. The third section included: analyzing the trend of economic growth in the countries selected from the BRICS group (Brazil, Russia) and Iraq. The fourth section included: analyzing the relationship between spending Government, inflation and economic growth in selected countries from the BRICS group (Brazil, Russia) and Iraq.

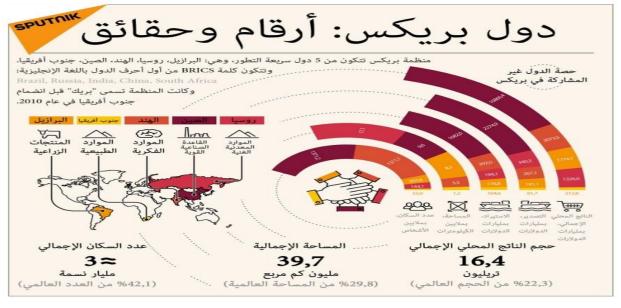
The third requirement: An overview of the BRICS countries

The BRICS group of countries is an economic grouping that includes five main countries: Brazil, Russia, India, China, and South Africa. Together, these countries constitute approximately 42% of the world's population and 23% of the global gross domestic product. The group seeks to enhance economic and political cooperation among its members and achieve sustainable development.

Firstly. What is BRICS:

The BRICS bloc or the BRICS group is an organization founded in 2006 and consists of five countries: (Brazil, Russia, India, China and South Africa). "BRICS" is an abbreviation of the first letters in the English language of the countries that make up the organization, so the name BRICS became an abbreviation for the five member countries (Brazil and Russia). India, China, and South Africa), these countries established this bloc to enhance economic, political, and cultural cooperation among themselves to achieve...

Their common interests, most notably the formation of a strong, multipolar economic system with the ability to withstand global economic shocks and crises.





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secondly. The origins of BRICS:

The term "BRICS" first appeared when it was coined on November 30, 2001 by the then Chairman of the Board of Directors of the American investment bank Goldman Sachs (British economist Jim O'Neill) in his report he wrote entitled "Building Better Global Economic Centers" and noted that it was expected that The BRIC countries are growing faster than the G7 countries, and in 2003.

Dominic Wilson and Puru Schuthamann wrote a report entitled "Dreaming with BRIC the Road to 2050", which was published again by Goldman Sachs claiming that by 2050 the BRICS could grow to a size larger than the G7 and thus the world's most important economies would appear This will be radically different in four decades, and the global economic powers will no longer be the largest in terms of per capita income (Hagem: 2016, 29).

On September 20, 2006, consultations began on establishing the organization, and the first ministerial meeting of the BRIC group was held based on the proposal of Russian President Dmitry Medvedev on the sidelines of the United Nations General Assembly session in New York. The foreign ministers of Russia, Brazil, China, and the Indian Defense Minister participated in the meeting, inaugurating this. A series of subsequent meetings to consult on the establishment of the organization led to more formal annual summits starting in 2008, and a meeting was held in the Russian city of Yekaterinburg, followed by the first summit of the group's countries on June 16, 2009. In 2010, South Africa began negotiating accession. To the group, which was officially held on December 24, 2010. In general, these meetings are held in order to improve economic conditions within the BRICS countries and give their leaders the opportunity to work cooperatively regarding these efforts. The combined area of the BRICS bloc is 39,746,220 square kilometers, and the total population is 3.21 billion people, Or about 26.656% of the world's land area and 41.53% of the world's population. Four of the five members are among the ten largest countries in the world in terms of population and area, with the exception of South Africa, which ranks twenty-fourth in both. It should be noted here that South Africa was accepted into the BRICS group due to its geographical location of strategic importance (Adawi: 2018, 66).

Third. Objectives of the BRICS bloc: The BRICS bloc aims to achieve several objectives, including: (Abdul Rahman: 2017, 79)

- 1. Providing financial assistance to member states.
- 2. Development of member states.
- 3. Cooperation with member states in the field of trade and development
- 4. Supporting projects and infrastructure for member states.
- 5. Achieving economic integration.

The economic strength of the bloc: The strength of the BRICS countries appears through the rapid pace of growth of their countries, as well as the absence of a decline in the economies of these countries after the financial crisis in 2008, in addition to the demographic strength. From an economic standpoint, the capital of the "BRICS" group is approximately 200 billion dollars, which was transferred in Several joint projects, and the gross domestic product of the BRICS countries in 2016 amounted to about 16.4 trillion dollars, or 22.3% of the global GDP. The economies of the BRICS countries also occupy advanced ranks at the international level, as follows: China is in second place globally, India is ranked fourth in the world, Russia is ranked sixth in the world, Brazil is ranked ninth in the world, and South Africa is ranked twenty-fifth in the world.

Fourthly. Financial institutions of the BRICS countries:

At the sixth BRICS summit, hosted by Fortaleza, Brazil, in July 2014, Brazil, Russia, China, India and



South Africa officially announced the establishment of a new development bank and a unit reserve arrangements fund. Official documents portrayed the two initiatives as complementary to existing financial and economic institutions, but in the short term they would strengthen The independence of developing countries in relation to the IMF and the World Bank may, in the long term, represent the realization of a new set of principles that will guide economic relations between countries in the twentyfirst century (Hajm: 2016, 23).

The New Development Bank: was established under an agreement concluded between the BRICS countries in the Brazilian city of Fortaleza in 2014. In principle, the structure of the National Development Bank addresses the defects created by the BRICS members as a counterpart bank to the World Bank. The initial authorized capital of the bank is \$100 billion, divided into One million shares worth \$100,000 per share. The initial subscribed capital of the National Development Bank is \$50 billion, divided into paid shares (\$10 billion) and tradable shares (\$40 billion), the bank's initial subscribed capital was distributed equally among the founding members. The agreement regarding the BRICS Development Bank stipulates that each member shall have one vote, without anyone having the right of veto, and Shanghai was chosen. As the headquarters of the new bank, the first president of the bank was Indian, the first chairman of the Board of Governors was from Russia, the first chairman of the board of directors was from Brazil, and the first regional center of the bank was in South Africa (Al-Asoumi: 2013, 61).

Analysis of the trend of government spending and the inflation rate in the countries selected from the BRICS group (Brazil and Russia) and Iraq for the period (2004-2022)

Government spending is an important and effective tool of economic policy for governments to influence the economy. When government spending increases, this leads to increased demand for goods and services and thus leads to increased production and employment. As for reducing government spending to calm the economy during economic growth and to control inflation rates, that is, government spending can It stimulates economic growth, but if the increase in demand exceeds the economy's ability to produce, this will lead to inflation, and balanced economic policies aim to enhance productive growth and ensure sustainable financing of government spending. In this study, the trend of government spending and the inflation rate in the countries selected from the BRICS group will be analyzed. (Brazil, Russia) and Iraq, as follows:

Firstly. Analysis of the trend of government spending and inflation rate in Brazil:

1. Analysis of the trend of government spending in Brazil:

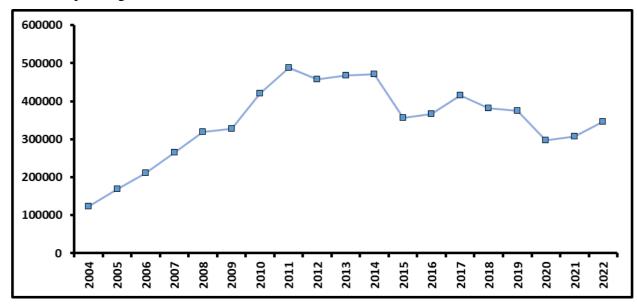
Table (1) shows the developments in government spending in Brazil during the period (2004-2022), and it is clear that it was constantly increasing during the period (2004-2011), as it was (\$123,602 million) in 2004, and it continued to increase after that until it became (\$488,417 million) in 2011, with a positive annual growth rate of (16%), after the Brazilian economy recovered from the financial crisis and witnessed tremendous growth in industrial and agricultural production, which led to an increase in its export rates, an increase in foreign trade surpluses, and a decrease in current account deficits. This was helped by the continuing rise in global prices for commodities that Brazil exports, especially crude oil (Annual Economic Report of the Brazilian Central Bank, 2011, 27-29).

In 2012, it decreased to (\$456,809 million) with a negative annual growth rate of (-6%), after the decline in global prices for basic commodities that Brazil exports, especially to China, which led to a decline in public revenues and its impact on government spending. In the years 2013 and 2014, government spending increased continuously, reaching (\$467,177 million) and (\$470,419 million) with positive annual growth rates of (2%) and (1%), respectively, after the recovery in global prices. For basic commodities, in 2015, after the significant decline in global oil prices due to the increase in the strategic reserve of the United States of America, government spending in Brazil decreased after the significant decline in the value of public revenues to become (\$356,420 million) and with a negative



annual growth rate of (-24%).

As for the years 2021 and 2022, government spending in Brazil increased continuously to reach (\$307,124 million) and (\$346,265 million), with positive annual growth rates of (3%) and (13%), respectively, due to the gradual disappearance of the threat of the Corona virus and the rise in The significant increase in global oil prices and the increase in public revenues and its impact on government spending.



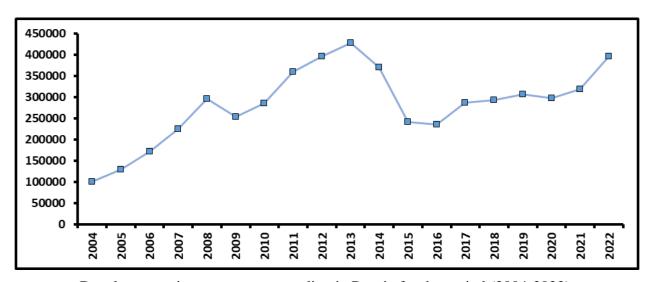
Developments in government spending in Brazil for the period (2004-2022)

2. Analysis of the trend of government spending in Russia:

Table (2) shows the developments in government spending in Russia during the period (2004-2022), and it becomes clear that it was constantly increasing during the period (2004-2008), as it was (\$100,305 million) in 2004, and it continued to increase after that until it became (\$296,139 million) in 2008, with a positive annual growth rate of (32%), due to the continuous rise in global oil and gas prices, which led to increasing global revenues and its impact on government spending (Annual Economic Report of the Central Bank of Russia: 2008, 104).

In 2009, government spending in Russia decreased to \$254,146 million, with a negative annual growth rate of -14%, due to the global mortgage crisis. However, during the period (2010-2013), government spending increased continuously. After it became (\$285,541 million) in 2010, with a positive annual growth rate of (12%), it then continued to increase until it became (\$428,126 million) in 2013, with a positive annual growth rate of (8%). The reason for this is This is due to the continuous rise in global oil and gas prices, reaching very high levels exceeding \$100 per barrel, which led to an increase in global revenues and this was reflected in government spending. However, during the period (2014-2016), the exact opposite happened, as government spending decreased. In Russia continuously, after it became (\$371,226 million) in 2010 with a negative annual growth rate of (-13%), it then continued to decrease until it became (\$235,770 million) in 2016, with a negative annual growth rate of (- 3%), due to the decline in global oil and gas prices and reaching very low levels due to the increase in US reserves, which led to a decline in global revenues and its impact on government spending. However, during the period (2017-2019) government spending increased continuously, as After it became (\$286,769 million) in 2017, with a positive annual growth rate of (22%), it then continued to increase until it became (\$306,477 million) in 2019, with a positive annual growth rate of (4%), after recovery. Relative global oil and gas prices, which led to an increase in global revenues and this was reflected in government spending.



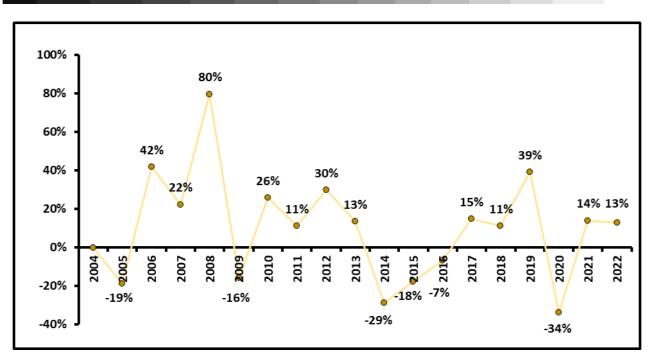


Developments in government spending in Russia for the period (2004-2022).

3. Analysis of the trend of government spending in Iraq:

Table (5) shows developments in government spending in Iraq during the period (2004-2022), which includes employee compensation (salaries of government employees), social welfare salaries, grants and subsidies, debt service, commodity supplies, service supplies, asset maintenance costs, spending on special programs, capital expenditures, commitments and contributions. It also includes investment expenditures in the industrial sector, the buildings and services sector, the transportation and communications sector, the agricultural sector, and the education sector. It is clear that it decreased in 2005, after it was (\$22,089 million) in 2004. It decreased to (\$17,906 million) in In 2005, with a negative annual growth rate of (-19%), which is a natural decline due to the increase in government spending in 2004, especially for the reconstruction of what the war left behind in public institutions, so we see that it declined in 2005 after the decrease in those expenditures, but during the period (2006 -2008) It is clear that it was constantly increasing, as after it became (\$25,386 million) in 2006 with a positive annual growth rate of (42%), it then continued to increase until it became (\$55,786 million) in 2008 with an annual growth rate. Positive amounting to (80%), and the reason for this continuous increase is due to the increase in the number of employees and the increase in employee salaries, in addition to the large increase in investment expenditures. However, in 2009, government spending decreased to become (\$46,990 million) with a negative annual growth rate of (- 16%, due to the repercussions of the mortgage crisis, but during the period (2010-2013) it is clear that it was constantly increasing, as after it became (\$59,086 million) in 2010 and with a positive annual growth rate of (26%), it continued Then it increased until it became (\$96,616 million) in 2013, with a positive annual growth rate of (13%). The reason for this continuous increase is due to the increase in the number of employees and the increase in employee salaries for the second time, in addition to the large increase in investment and operational expenses as a result of the increase in oil revenues. This occurred due to the increase in global oil prices and the continuous increase in the quantities produced and exported of Iraqi crude oil.





Developments in the annual growth rate of government spending in Iraq for the period (2004-2022).

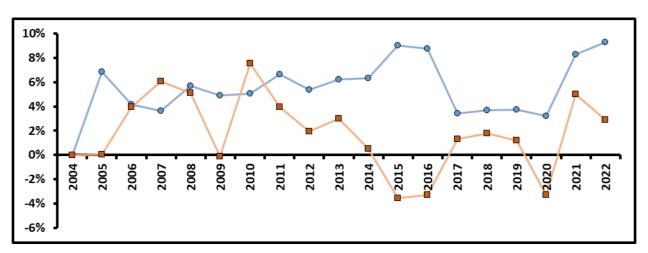
The relationship between government spending and the inflation rate with economic growth in (Brazil, Russia) and Iraq for the period (2004-2022)

The impact of government spending is concentrated on the components of the gross domestic product, which contributes to bringing about important changes in the productive capacity of the economy as well as aggregate demand, which makes it a vital tool for influencing economic growth. The effectiveness of government spending is largely related to increasing the productive capacity of society, and this would help in achieving economic growth. This research will analyze the relationship between government spending and the inflation rate on the one hand and the economic growth rate on the other hand in the countries selected from the BRICS group (Brazil and Russia) and Iraq, during the period (2004-2022), as follows:

The relationship of the inflation rate to the economic growth rate in Brazil:

Developments in the relationship between the inflation rate and the economic growth rate in Brazil during the period (2004-2022), and it becomes clear that during the period (2004-2008) it was completely inverse, as the increase in the inflation rate was accompanied by a decrease in the economic growth rate and vice versa. During the period (2009-2013), it is clear that the relationship has become positive in general, noting its negativity in 2011. However, during the period (2014-2019), the relationship between the inflation rate and the economic growth rate in Brazil has become inverse in general, noting It was positive in 2018, but in 2020 and 2021 it became direct, turning in 2022 into an inverse relationship again, and we can say that the relationship between the inflation rate and the economic growth rate in Brazil is inverse in general, because it was inverse in most years of the study.

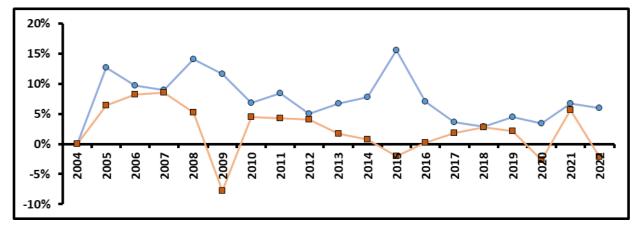




Evelopments in the relationship between the inflation rate and the economic growth rate in Brazil for the period (2004-2022).

2. The relationship of the inflation rate to the economic growth rate in Russia:

The following figure (23) shows the developments in the relationship between the inflation rate and the economic growth rate in Russia during the period (2004-2022), and it becomes clear that during the period (2004-2019) it was generally inverse, as the increase in the inflation rate was accompanied by an increase in The economic growth rate and vice versa, noting its positivity in 2009 due to the global mortgage crisis, as well as its positivity in 2012, while during the period (2020-2022) it becomes clear that the relationship has become completely positive, as follows:



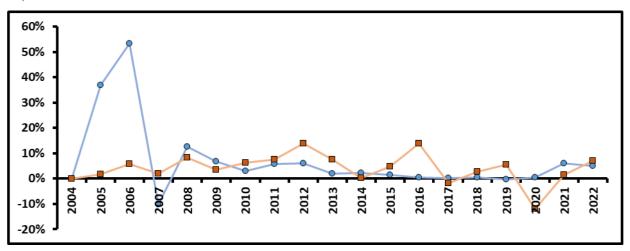
Developments in the relationship between the inflation rate and the economic growth rate in Russia for the period (2004-2022)

3. The relationship of the inflation rate to the economic growth rate in Iraq:

The following figure (24) shows the developments in the relationship between government spending and the economic growth rate in Iraq during the period (2004-2022), and it becomes clear that during the period (2004-2013) it was generally positive, as the increase in the inflation rate was accompanied by an increase in economic growth rate and vice versa, noting its negativity in 2010. It is worth noting that Iraq had planned to reduce inflation rates that were high during the first half of the study period, and at the same time it did not Iraq is able to achieve increasing and continuous positive economic growth rates, which made the relationship become inverse. However, during the period (2014-2022), it becomes clear that the relationship has become inverse in general, as the continuous decrease in the inflation rate during this period was accompanied by a continuous increase in the economic growth rate. The opposite is true, except that the fluctuation of global oil prices in 2017 and the first half of 2018 made the relationship become positive in 2017 and 2018, as well as in 2021, and due to the

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repercussions of the spread of the Corona virus, the relationship also became positive, and we can say that the relationship between the inflation rate and the Economic growth in Iraq was generally positive during the first half of the research period, and generally inverse during the second half of the research period, as follows:



evelopments in the relationship between the inflation rate and the economic growth rate in Iraq.

Conclusions:

- 1. The volume of government spending in each of (Brazil, Russia, Iraq) depends primarily on the volume of oil revenues, as it increases with their increase when global oil prices rise, and decreases with their decrease when global oil prices decrease.
- 2. The general level of prices in both (Brazil and Russia) was at a higher level than in Iraq, so the inflation rate in them remained varied and at a high level, while in Iraq it reached levels close to zero, especially in the second half of the research period. On an ongoing basis.
- 3. The growth of the GDP in both (Brazil and Russia) did not achieve high positive rates and was negative during the years 2009, 2015 and 2020. However, in Iraq the positive rates were at a higher level, but in 2017 it declined slightly, and it In 2020, its decline was very significant, and this explains to us the unilateral structure of Iraq's exports.
- 4. Government spending in Brazil had a positive relationship in the two terms with GDP growth, as increasing it in the short term by (1%) would lead to an increase in GDP growth by (0.18%), and this relationship was highly significant at the level of (1%), while increasing it in the long term by (1%) will lead to an increase in GDP growth by (0.34%), but this relationship was not significant.
- 5. Inflation in Brazil had a direct relationship in the two terms to GDP growth, as its increase in the short term by (1%) would lead to an increase in GDP growth by (0.45%), while its increase in the long term by (1%) It will lead to an increase in GDP growth by (2%), although these two relationships were highly significant at the level of (1%).
- 6. Government spending in Russia had a direct relationship in the two terms to GDP growth, as its increase in the short term by (1%) would lead to an increase in GDP growth by (0.18%), while its increase in the long term by (1%)) will lead to an increase in GDP growth by (0.05%), and these two relationships were highly significant at the level of (1%).

Recommendations:

1. Iraq should work to diversify its sources of income and reduce its dependence on crude oil and its revenues in forming the gross domestic product and government spending, which fluctuate with the fluctuation of global oil prices, increasing when they rise and decreasing when they fall.

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- 2. Both Brazil and Russia must adjust the general level of prices to a lower level than they are, and thus the inflation rate will be less variable and at a lower level.
- 3. Iraq must work to reduce dependence on the oil sector, and work to increase the percentage of nonoil sectors' contribution to the gross domestic product.
- 4. Both (Brazil and Russia) must work to achieve higher levels of GDP growth and prevent a decline in GDP in order to avoid achieving negative rates.

The reviewer

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