



Available online at <http://jeasiq.uobaghdad.edu.iq>
DOI: <https://doi.org/10.33095/6thpfj85>

Government Investment Spending and Its Role in The Agricultural Sector for The Period (2004-2021)

Maitham Adnan Ghanawi *

Department of Economics
College of Administration and Economics
University of Baghdad, Iraq
maitham.Adnan1202a@coadec.uobaghdad.edu.iq

*Corresponding author

Lawrence Yahiya Saleh Al- Kubaisi

Department of Economics
College of Administration and Economics
University of Baghdad, Iraq
Lorance-phd@yahoo.com

Received: 27/9/2023

Accepted: 5/11/2023

Published Online First: 30 /8/ 2024



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc/4.0/)

Abstract:

The research addresses the reality of government investment spending in Iraq and its potential impact on the agricultural sector. Agriculture is considered one of the most important economic sectors in the country, as it contributes to achieving food security. However, the sector is witnessing several challenges that affect its productivity and development, including the need for more government investment.

This study represents an attempt to analyze the impact of government investment spending on the agricultural sector and estimate the extent of its impact on productivity. The study is based on an in-depth review of the available literature and analysis of data related to government investment spending and the performance of the agricultural sector.

Through data analysis, the research indicates that there is a negative impact of the lack of government investment on the agricultural sector, and this is reflected in a decline in productivity. Based on these results, the research presents proposals to improve the reality of government investment spending to enhance and develop the agricultural sector, in addition to specific conclusions to improve government investment spending in the agricultural sector, including enhancing financing, providing technical support to farmers, and developing agricultural infrastructure.

Paper type: Research Paper

Keywords: Government Investment Spending, Agricultural Sector , agricultural output , Agricultural finance , Infrastructure

1.Introduction:

The agricultural sector represents one of the fundamental pillars of the economy in any country. It is not only a source of food production but also plays a vital role in promoting sustainable development and achieving economic stability. Given the importance of agriculture in meeting the population's needs, the role of government investment in this sector is more significant than ever before.

Iraq is one of the countries with abundant agricultural potential, as it has fertile soil and climate diversity that enables it to cultivate and produce various crops. However, agriculture in Iraq needs to overcome many challenges ranging from weak infrastructure, lack of funding, and lack of technology used.

This study sheds light on the current reality of government investment spending in Iraq and provides an accurate assessment of the impact of this spending on the agricultural sector. The most important indicators and figures related to government investment spending in agriculture will be reviewed, in addition to analyzing the results of this spending and its impact on productivity through an in-depth analysis. Based on evidence, this research aims to provide a comprehensive overview of government investment spending in Iraq and its impact on the agricultural sector. The conclusions and recommendations that will emerge from the study will seek to direct efforts towards improving government investment spending and enhancing the role of the agricultural sector in Iraq.

1.1 Literature review:

Many studies have addressed the first variable, which is government investment spending, and among these studies are:

Ahmed (2014) emphasized that one of the distinctive characteristics of agriculture in developing countries, including Yemen, is the low volume of agricultural production because it needs to keep pace with the population increase. This is due to the low volume of investment in the agricultural sector, which contributes to the continued deficit in food and consumer resources and the failure to achieve economic and social development goals. This is related to the problem of public agricultural investment spending and government loans. This is linked to the decline in agricultural labour productivity and its relationship to the agricultural sector's contribution to national income. The study showed a positive relationship between agricultural loans and agricultural investment.

Ahmed (2017) indicated that the research problem can be formulated in the following question: Does government spending on the agricultural sector have a positive impact on the growth of the agricultural sector in Egypt? Based on the problem of the study, the main goal is to identify the development of government spending on the agricultural sector through... Study the development of this spending, its components, and the nature of the relationship between it and growth in the Egyptian agricultural sector. Honda (2018) concluded that there are several obstacles or restrictions facing the agricultural sector in Iraq that prevent its development and contribute to increasing the problem of food security despite the availability of agricultural components. It aimed to clarify the food commodities that Iraqi society needs without importing them from abroad, that is, to reduce the size of the food gap it suffers from—the Iraqi.

Robin (2020) stated that spending on agriculture in Nigeria is meagre compared to other African countries, and the study indicated that Nigeria is also far behind in agriculture. However, despite this, agricultural development in Nigeria still depends on government funding due to external factors; this was one of the results. The study showed that public agricultural spending has no impact on agricultural productivity.

In addition, many studies dealt with the dependent variable, which is the agricultural sector, including:

Bernard (2016) noted that the agricultural sector in Rwanda is still characterized by low productivity due to the use of crude machinery, low soil fertility due to population pressure, low inputs, and limited cultivated areas, among others. However, most literature on agricultural impact in Rwanda focuses on explaining the links between agriculture and poverty reduction, although structural transformation still needs to be improved.

Rahhal and Watawil (2019) explained that the study assumes that Algeria is unable to advance the agricultural sector despite the financial support provided to it within the framework of development programs. The study aimed to shed light on one of the essential functions of the agricultural sector, which is enhancing food security by achieving its most important dimension, providing food and reducing the size of the food gap in Algeria. The study concluded with results, the most important of which is that the agricultural sector in Algeria still suffers from stagnation and shortcomings, making it unable to meet or cover the increasing demand for food.

Jamal (2019) mentioned in his study the decline in agricultural production in Iraq due to the lack of a regulatory environment in the agricultural reality and the problem of the necessary support within the existing capabilities.

Omar (2022) emphasized that the problem of dumping is an increase in the size of the food gap, which leads to increased reliance on imports to cover the need for local demand for agricultural products without thoughtful government support for agricultural production.

Some studies have dealt with the link between the first and second variables, such as:

Hamad (2019) indicated that the decline in agricultural output in Iraq is due to the lack of a regulatory environment in the agricultural reality and the problem of the necessary support within the existing capabilities. The study aimed to analyze the rate of annual changes in investment spending, agricultural production, and fixed capital formation during the study period. The study assumes that There is a causal relationship between the variables of the study, which are investment spending and fixed capital formation as an independent variable and agricultural domestic product as a dependent variable.

Nabaa (2020) indicated that the agricultural sector is essential in economic growth and development due to its influential and vital role in economic activity. It is noted that the decrease in the agricultural sector's contribution to the GDP is due to the decrease in the volume of spending allocated to the agricultural sector. The research aims to identify the role of public spending as well as the contribution of the agricultural sector to the formation of the gross domestic product in the Iraqi economic environment. The study came with conclusions and recommendations, the most important of which is a reduction in the volume of investment expenditures, especially expenditures allocated to the agricultural sector. This is due to the state's weak ability to direct public expenditures and executive management.

The research problem is that agriculture in Iraq faces multiple challenges, and among these challenges is the need for more government investment in agriculture as an influential factor. The problem of the lack of government investment spending in agriculture is considered an essential factor that can hinder the sustainable development of the agricultural sector and negatively affect its productivity and the quality of its products. From this standpoint, questions can be put The following:

Q1/ Why did government investment spending not play a positive role in developing the agricultural sector in Iraq?

The research aims to achieve several important issues:

- 1- Analyzing the reality of government investment spending and the impact it has on the agricultural sector in Iraq.
- 2- Analyzing the reasons why government investment spending does not play a positive role in developing the agricultural sector in Iraq.
- 3- Trying to develop proposals to improve investment spending to develop the Iraqi agricultural sector.

2. Material and Methods:

2.1 Hypothesis of the Research:

The research hypothesis states that government investment spending did not have a positive role in developing the agricultural sector in Iraq.

2.2 the Reality of Government Investment Spending in Iraq:

Investment expenditures are “the amounts spent by the state to establish economic and social projects to achieve comprehensive economic and social development” (Saud & Jarallah, 2019). Government spending occupies particular importance in financial studies because it is considered the tool that the government uses to achieve development and progress in all aspects and fields of life, as the spending policy primarily reflects the goals set by the government, through which it advances the national economy to push the wheel of development and achieving economic stability (Al-Zamili, 2014).

Public spending constitutes an essential tool within the framework of economic policy to achieve the goals of growth, stability and economic reform, regardless of the direction of the system and the philosophy and nature of ownership in it, as this importance has increased with the steady growth in government expenditures and their ratio to the gross domestic product in various countries of the world. Some are advanced and developing, except for what is rare in some years and for exceptional reasons (Al-Ziyara, 2014).

Government investment spending plays a significant role in determining the economic growth rate, as every increase in this spending represents either the addition of new productivity or the repair of old and broken capacity (Khudair & Shaker, 2022). Investment spending is characterized by many characteristics, the most important of which is that investment spending is very volatile and is considered the link to the basis on which interest rates are determined and is considered one of the main components of aggregate demand or national spending. It is also considered an essential factor in determining production capacity (Al-Kinani, 2018), and investment spending is one of the elements of the gross national product (Khalaf, 2010). The high level of investment spending leads to an increase in the country’s productive capacity, that is, the production of more goods, which will result in an increase in the national product and thus push the development process forward (Gray, 2016).

Monetary and financial policies affect the composition and level of investment, savings, employment, and production (Hussein, 2020), as increasing government investments and encouraging the private sector to invest can lead to increasing job opportunities and reducing unemployment (Ali, 2022).

As is known, economic growth indicators declined significantly in Iraq in 2003 due to the cessation of most economic projects and the decline in domestic investment to the lowest levels. Add to that the fierce attack that the country was subjected to by the terrorist organization ISIS and the accompanying expansion in the volume of military spending at the expense of investment account, as well as poor management and planning and inefficient allocation. All of these factors together led to a decline in investment in its various sectors (Al-Khafaji, None), where investments in Iraq are due to the need for more stability in financial and political terms, in addition to the lack of programs and planning. It is still limited (Ibrahim & Ismail, 2022) as the Iraqi economy is a rentier economy that depends on oil revenues as a primary source of financing government spending, where the oil sector’s contribution to the gross domestic product constitutes a large percentage and the contribution of other sectors has declined, as the Iraqi economy has Since 1991, it has been exposed to two devastating wars that led to the destruction of infrastructure and the destruction of most productive economic projects, which led to the paralysis of the Iraqi economy (Al-Kubaisi & Hassan, 2014), as Iraq is an excellent example of such a country that faces poverty, war, and natural disasters (Abdul Allah, 2018) as a problematic macroeconomic environment characterizes the Iraqi economy as a result of the rapid and continuous changes that Iraq has witnessed (Ali, 2023).

Table. (1) shows the development of government investment spending in Iraq from 2004-2021.

Table 1: The development of investment spending in Iraq for the period (2004- 2021)

Year	Investment Spending (us\$)	Growth Rate (%)
2004	2,074,833,448	16,022
2005	3,112,333,560	50
2006	4,108,847,989	32
2007	6,153,819,920	50
2008	9,958,654,652	62
2009	11,188,888,889	12
2010	16,642,735,043	49
2011	11,643,589,744	-30
2012	17,801,029,160	53
2013	30,713,164,666	73
2014	29,871,212,121	-3
2015	15,600,568,067	-48
2016	13,356,310,084	-14
2017	13,835,681,513	4
2018	11,613,725,210	-16
2019	20,523,184,874	77
2020	2,521,008,403	-88
2021	8,904,109,589	253

Source: Table prepared by the researcher based on data from the Central Bank of Iraq, department of Statistics and research, and annual economic report for the period (2004 – 2021).

Investment spending for the year (2004) amounted to (2,074) million US\$, and in (2005) investment spending increased, reaching (3,112) million US\$, recording a growth rate of (50%). In the year (2006) we also witnessed an increase in investment spending to reach (4,108) million US\$, but with a growth rate of (32%). Likewise, the years (2007, 2008, 2009, and 2010) witnessed an increase in investment spending to (6,153), (9,958), (11,188), and (16,642) million US\$, with a growth rate of (50%), (62%), (12%), and (49%) respectively, while it decreased in (2011) and reached (11,643) million us\$ with a growth rate of (-30%). The reason for the decrease is the selection of priorities and a decrease in efficiency. Implementation of projects despite the presence of grand corruption, which made these allocations not translate into real projects on the ground, then increased in the years (2012 and 2013) to 7,801 and (30,713) million US\$, with a growth rate of (53%) and (73%) respectively. The years (2014, 2015 and 2016) witnessed a decline in investment spending to reach (29,871), (15,600) and (13,356) million US\$, and recorded a negative growth rate that reached, respectively, (-3%), (-48%), and (14%) due to the entry of terrorist groups and government austerity policies, and then the economy entering a state of economic stagnation. In 2017, investment spending rose slightly, reaching USD 13,835 million, with a growth rate of 4%. The reason for the increase is due to the establishment of the government. Increasing spending allocations to support the growth process, rehabilitate infrastructure, create new job opportunities within various economic activities, and reduce deprivation rates. In 2018, investment spending witnessed an apparent decline, reaching (11,613) million US\$, with a negative growth rate (-16), but it soon rose again in 2019, reaching USD 20,523 million and a growth rate of 77%. 2020 witnessed an apparent decline, reaching \$2,521 million and a negative growth rate of -88 due to the Covid-19 pandemic. Finally, investment spending for the year (2021) witnessed an increase, reaching (8,904) million US\$,

with a growth rate of (253%). It is worth noting that investment spending witnessed an apparent decline after the year (2003), facilities and infrastructure were subjected to destruction and sabotage, and it is necessary to provide significant financial allocations for its reconstruction and then direct investment spending towards projects of central structures that have no direct relationship to material production. At the macroeconomic level, the investment spending policy faltered, and the reason is due to the need for coordination in the investment spending policy, which leads to significant growth in public consumer spending without being accompanied by an improvement in public services.

Table. (2) shows the relationship between agricultural investment spending and investment and government spending for the period from 2004-2021.

Table 2: The relationship between agricultural, investment and government spending for the period (2004 – 2021)

Year	(1) Agricultural investment spending (Us\$)	(2) investment spending (Us\$)	(3) Government spending (us\$)	(4) = $1/2 * 100$ Ratio of agricultural investment spending to investment spending (%)	(5) = $2/3 * 100$ Ratio of investment spending to government spending (%)
2004	128,079,835	2,074,833,448	22,104,260,840	6.17	9.39
2005	134,941,457	3,112,333,560	17,954,509,871	4.34	17.33
2006	152,616,905	4,108,847,989	25,955,552,147	3.71	15.83
2007	240,495,618	6,153,819,920	31,100,583,267	3.91	19.79
2008	266,649,623	9,958,654,652	49,793,273,261	2.68	20.00
2009	778,976,068	11,188,888,889	44,929,081,197	6.96	24.90
2010	739,027,350	16,642,735,043	59,943,761,538	4.44	27.76
2011	216,464,957	11,643,589,744	67,314,244,444	1.86	17.30
2012	1,241,885,077	17,801,029,160	90,171,162,950	6.98	19.74
2013	1,178,561,750	30,713,164,666	102,167,715,266	3.84	30.06
2014	565,656,566	29,871,212,121	95,516,428,451	1.89	31.27
2015	400,992,437	15,600,568,067	69,591,269,748	2.57	22.42
2016	200,840,336	13,356,310,084	61,824,372,269	1.50	21.60
2017	347,028,571	13,835,681,513	63,437,071,429	2.51	21.81
2018	188,541,176	11,613,725,210	67,960,663,025	1.62	17.09
2019	252,100,840	20,523,184,874	93,885,313,445	1.23	21.86
2020	66,386,555	2,521,008,403	63,934,826,050	2.63	3.94
2021	172,602,740	8,904,109,589	69,863,013,699	1.94	12.75
				Series average (2004 – 2021)	
				3.38	19.71

Source : The above data was prepared by the researcher based on data from the Ministry of Planning, Central Bureau of Statistics - Statistical Bulletins for the period from (2004-2021) .

Table No. (2) above shows the relationship between agricultural investment spending and government investment spending on the one hand and between government investment spending and government spending on the other hand for the period from 2004-2021, as column No. (4) shows us the percentages of the relationship between agricultural spending and investment for the period from 2004-2021, as it was shown to decrease gradually until the year 2021, as the average percentage during the study period reached (3.38%). This is a significant decrease in the volume allocated to the agricultural sector.

On the other hand, column No. (5) shows us the percentages of the relationship between investment and government spending from 2004-2021. The average percentage during the study period was (19.71%), showing us an apparent fluctuation from year to year. However, it cannot be sure that there is an apparent shortage in what is allocated to government investment because the government has its policies that increase or decrease the volume of investment spending according to the circumstances and habits practiced by the spending policy.

It can be said that the poor distribution of investment allocations between sectors leads to negative results in some of the sectors that make up investment spending in general and the agricultural sector under study in particular, as some sectors account for a high percentage of spending and other sectors, such as the agricultural sector, are allocated to it only a little, even if it decreases. Investment spending for some sectors means a decrease in agricultural spending, that is, the absence of production and the deterioration of the entire sector, as the Iraqi agricultural sector needs to double the amount of spending allocated to it to get out of its current crisis and advance the agricultural sector as a whole. However, it cannot be denied that agricultural investment spending, even if small, does not we find that it has a clear impact on reasonably developing the agricultural sector. The question arises: where are the amounts allocated to the Iraqi agricultural sector?

2.3 The reality of the Iraqi agricultural sector for the period from 2004-2021:

The 1971 Oxford Dictionary defines "Agriculture" very broadly as "the science and art of tilling the soil, including the pursuits of gathering in crops, raising of stock, etc." (Harris and Q Fuller, 2014) The agricultural sector can be defined as "that sector that cannot be dispensed with about the economic growth of any country in the world, as well as the aspect of food security, job creation, and poverty alleviation in particular." In the rural community." (Economic Survey Pakistan, 2020) As for agricultural investment, it is spending on assets that are expected to achieve a return over a long period, as it is considered a necessary engine for the national economy in all its sectors because it helps to create new job opportunities to absorb unemployment, improve the effectiveness of the agricultural sector, and raise the level of production and productivity through the optimal use of resources (Hamad & Ali, 2019), as increasing investments allocated to the agricultural sector contribute to supporting the economic, political and social stability necessary to achieve economic development (Sulaiman, 2022)

Investment allocations to the agricultural sector vary from year to year, according to the agricultural policy adopted by the state. Either the allocations are relatively high such that the agricultural sector cannot absorb them, or on the contrary, they may be low and inconsistent with what the sector needs, as there is fluctuation and irregularity in the size of the financial investment allocations. The sector above would lead to the sector and its investment projects being exposed to stumble, delay, and destruction. (Majid, 2018) . The low production level is due to several reasons, including weak investments, a significant decrease in water quantities, high salinity, weak laws and legislation, and the policy of flooding the markets with imported products (Khalaf, 2010). We note that there is weakness in the agricultural sector, and this means that it is not under-provided with capital, as the weakness occurred due to the low efficiency of the executive bodies in the agricultural sector, the exaggeration in requesting allocations, and a weakness in its spending capacity for the capital allocated for its development, which makes it unable to keep pace with developments and increases in investment allocations. (Al-Jumaili, 2021)

As agricultural development is an essential task for achieving economic development, Iraq relies heavily on forming its national income through the export of crude oil, and agriculture has a clear role in economic development through the nutritional needs it provides for individuals. The agricultural sector is diversified in producing crops such as grains, vegetables, fruits, and animal products, whether for direct food consumption or as inputs for manufacturing industries.

The agricultural sector plays a vital role in providing cash resources and using them for the basic needs of economic development through the expansion of export crops. The agricultural sector is considered the sector that absorbs surplus labour and thus reduces the unemployment rate and then creates incomes that contribute to increasing production. (Al-Bayati, 2018). Productivity growth is usually a fundamental topic in discussing the development of agriculture, as agricultural growth is measured by the productivity of a unit of area and the productivity of a unit of farm labour. The productivity of a unit of area is a function of many factors, the most important of which are the nature and fertility of the soil and the possibility of reaching the optimal resource combination in a unit of cultivated land. This requires that it be accompanied by appropriate efficiency of farm work in order to maximize agricultural output (Bashar, 2012).

Agricultural activity in Iraq is considered one of the most important economic activities because it provides food for all members of society and job opportunities for more than a third of the country's population. It is the activity responsible for providing the most significant percentage of raw materials for the food industry, whether plant or animal. (Abbas and Khairy, 2015) Many factors interacted with the deterioration of agricultural production after 2003. The shift in economic policy towards implementing market economy measures led to the abolition of protection measures and the expansion of the scope of foreign trade by abolishing the ban and holiday system and reducing customs duties. In a significant way, they were eliminated from the majority of imported agricultural products. As a result of these measures, local agricultural production, both plant and animal, was exposed to intense competition from imported goods that enjoy the advantage of low production costs and high quality. This caused the disappearance of many local agricultural products from Iraqi markets and exposed Iraqi agricultural producers. Due to losses, many of them resorted to abstaining from production. (Muhammad, 2022) Iraq possesses most of the components of agricultural production, including agricultural land, water, and labour, in addition to capital, but after 2003 these capabilities are not exploited in serving the country. Despite all of this, there has been a deterioration and decline in agricultural production due to the dumping policy, meaning imports, not to mention the lack of necessary financing for this sector, which led to a decline in production level (Ali, 2012). The random import policy of agricultural products contributed significantly to the decline of this sector, which greatly affected the internal product, as the agricultural sector could not compete with external products because of the significant difference between the cost of internal and external products. (Al-Jubouri and Al-Kuraiti, 2014)

It is known that the Iraqi agricultural sector is based on a vast resource base (natural, human and material), as it is one of the leading sectors in the Iraqi economy. (Al-Badri and Muhammad, 2016) Agriculture in Iraq is based on critical natural components and resources that form the basis of the agricultural process, especially water, arable land, and human resources. (Narrator, 2007) In addition to the distinctive climatic conditions. (Ibrahim, 2013) Therefore, paying attention to the agricultural sector and providing the requirements for its advancement, most notably agricultural production inputs, is an urgent necessity as it is the only source of food production and achieving national food security (Dahesh, 2014). As is known, Iraq's dependence on the agricultural sector Oil's increase in GDP has reduced the government's genuine interest in the agricultural sector (Hussein & Al-Kanani, 2020), as one of the reasons for the decline in agricultural production yields is due to its reliance on traditional methods of agriculture (Al-Jumaili, 2017) and in light of the changes that Iraq is experiencing, the agricultural sector faces many diverse problems (Jaber, 2007), including the problem of agricultural lands, the problem of population encroachment, land desertification, water problems, and obstacles to using the agricultural technology package (Khalaf, 2015), as well as the problem of land salinization. Agricultural problems, low water levels, and the problem of environmental pollution, in addition to the problem of instability of agricultural policies (Ibrahim, 2014).

The problem of salinity can be considered one of the most critical problems facing the agricultural sector, which leads to a decrease in productivity per unit area, which in turn leads to a decrease in the contribution of agricultural output. (Shukr and Ali, 2013) Iraq has been facing, for some time, a large and complex problem represented by the Tigris and Euphrates rivers and their tributaries (Khalaf, 2014). The agricultural sector faces several problems and challenges, the impact of which has increased with successive years of drought, fluctuations in rainfall, and changes in the various environmental, political and demographic factors have led to a decline in the role of the agricultural sector in the national economy and the challenges it faces in light of the liberalization of trade in agricultural commodities (Al-Atabi, 2019), as any increase in agricultural yield depends on the degree and efficiency of optimal exploitation of water according to scientific methods in existing irrigation operations (Ibrahim, 2017).

As the deterioration that afflicted the Iraqi economy included all its branches, the Iraqi agricultural sector received its share of this devastation (Khalaf, 2012), as agricultural production rates declined to the degree that became unable to meet the needs of the population as a result of the deterioration and decline of the agricultural reality (Majeed, 2022)

2.4 Analysis of The Reality of Government Investment Spending to Support the Agricultural Sector in Iraq For the Period From 2004-2021

Table 3: Analysis of the reality of government investment spending to support the Iraqi agricultural sector for the period from (2004-2021)

Year	(1) Agricultural investment spending in dollars	(2) Government investment spending in dollars	(3) = $1/2 * 100$ The share of agricultural investment spending in government investment spending	(4) Agricultural output in dollars	(5) gross domestic product In dollars	(6)= $4/5*100$ Percentage of agricultural output's contribution to GDP
2004	128,079,835	2,074,833,448	6.17	3,817,066,758	70,093,091,535	5.45
2005	134,941,457	3,112,333,560	4.34	4,960,216,474	70,491,084,411	7.04
2006	152,616,905	4,108,847,989	3.71	5,178,271,984	74,567,103,613	6.94
2007	240,495,618	6,153,819,920	3.91	4,377,858,167	88,809,412,749	4.93
2008	266,649,623	9,958,654,652	2.68	3,965,120,704	101,111,917,016	3.92
2009	778,976,068	11,188,888,889	6.96	4,186,985,470	106,582,970,085	3.93
2010	739,027,350	16,642,735,043	4.44	4,752,844,444	113,407,716,239	4.19
2011	216,464,957	11,643,589,744	1.86	5,526,201,709	121,965,997,436	4.53
2012	1,241,885,077	17,801,029,160	6.98	5,162,573,756	139,440,422,813	3.70
2013	1,178,561,750	30,713,164,666	3.84	6,397,233,276	150,077,337,050	4.26
2014	565,656,566	29,871,212,121	1.89	6,152,370,370	150,632,497,475	4.08
2015	400,992,437	15,600,568,067	2.57	3,498,496,639	154,299,371,429	2.27
2016	200,840,336	13,356,310,084	1.50	3,864,681,513	175,573,201,681	2.20
2017	347,028,571	13,835,681,513	2.51	3,246,405,882	172,378,207,563	1.88
2018	188,541,176	11,613,725,210	1.62	3,662,647,899	170,400,226,050	2.15
2019	252,100,840	20,523,184,874	1.23	4,737,156,303	172,130,640,336	2.75
2020	66,386,555	2,521,008,403	2.63	4,912,530,252	175,089,177,311	2.81
2021	172,602,740	8,904,109,589	1.94	3,616,821,461	138,676,904,795	2.61

Source: Data prepared by the researcher based on the statistical data of the Central Bank of Iraq / Department of Statistics and Research, the annual economic report for the period (2004-2021).

2.4.1 The Share of Agricultural Investment Spending in Government Investment Spending:

The percentages extracted from Table No. (3) show a decrease in the volume of agricultural investment spending about government investment spending, starting from the year 2004, when its percentage reached (6.17%), until the end of 2021, which amounted to (1.94%) This is because the investment allocations for the agricultural sector are meagre from the investment budget, and this is not consistent with the importance of this sector in the Iraqi economy, as the Iraqi agricultural sector needs to double these allocations to get it out of the situation it is in. Many reasons pushed towards limiting these allocations and giving them a top position among the rest of the investment allocations. The most important of these reasons is the significant investment allocations from the general fund for specific sectors. However, the investment allocations for the agricultural sector are still below the level, as seen in Table No. (3), specifically in the year 2004, when the agricultural investment spending percentage reached (6.17%), after which the percentages began to decline until the year 2014, when they reached (2.68%), then they began to rise to reach (6.98%) in 2015, after which the percentages decreased and continued to range at the same pace until the year 2021 when they reached (1.94%) It is noted that in 2009, agricultural investment spending increased to reach (6.96%) as a result of the agricultural initiative launched by the Iraqi government, as the agricultural initiative did not succeed in picking up the agricultural sector and changing its reality. These percentages continued to decline in conjunction with the wrong conditions. Security for the country from the entry of the terrorist organization ISIS due to the increase in the volume of military spending to confront it, which affected the volume of government and investment spending, and which affected the volume allocated to investment, as well as to the agricultural sector and the rest of the sectors. In summary of the above, and as has been shown, the decrease in the volume of agricultural investment spending came as a result of its low share of investment expenditure allocations; in addition to the investment expenditures allocated to the agricultural sector, it was tainted by corruption and nepotism and was misplaced and used by beneficiaries for purposes other than agriculture, as agricultural investment expenditure, even if it was small, did not give a clear imprint on its development.

2.4.2 Percentage of The Agricultural Sector's Contribution to the GDP:

The analytical view of the data extracted from the table shows the extent of the decline of the agricultural sector in Iraq, represented by the decline in the contribution of agricultural output to the GDP. The contribution of agricultural output to the GDP in 2004 was (5.45%) This percentage, if compared to previous years, is low, and this is due to the previous wars that the country was exposed to and the impact on its infrastructure. However, in 2005, the contribution of the agricultural sector increased to 7.04%), and this increase came from the government support provided to the sector above. As the second sector in providing foreign exchange to Iraq, in 2006, the percentage remained constant. After the year 2006, the percentage decreased to (4.93%) for the year 2007 because the agricultural sector suffered from many problems and obstacles, including bad weather conditions represented by low rainfall rates, dust storms that caused damage to many crops, scarcity of water and its inadequacy for irrigation, high land salinity as a result of the deterioration of irrigation and drainage networks, decreased investment in this vital sector and flooding of the market with imported crops, in addition to the spread of diseases and epidemics and the failure to use modern technologies, in 2008, the agricultural sector's contribution to the GDP reached (3.92)%, which is a slight decrease from the previous year. After the year 2008, and as a result of the agricultural initiative, there was some noticeable growth in the agricultural sector, as the percentage of the agricultural sector's contribution to the GDP increased from (3.93%) in 2009 to (4.26%) in 2013. However, the agricultural sector returned, and its level declined in subsequent years, as agricultural production for the years (2014-2021) fluctuated and decreased.

This decline in the agricultural sector is due to several reasons, including the deterioration of the security situation, the displacement of millions of Iraqi people, the decline in oil prices, and the entry of sectarian considerations and political affiliations into the agricultural initiative in a way that led to the spread of administrative and financial corruption. The Iraqi agricultural sector also needs help with many problems. Among them are the shortage of fertilizers and seeds, the low efficiency of irrigation methods, and power outages, in addition to the problem of high salinity and desertification, which are now threatening many agricultural lands. Therefore, emphasis must be placed on developing this sector by confronting all the challenges that hinder the process of its advancement and encouraging investments allocated to this activity as it constitutes a fundamental and turning point in the path of economic transformation and the advancement of the agricultural reality through which the economy can be diversified, which contributes to the development and strengthening of the economy in general.

2.5 Proposals to improve government investment spending to support the Iraqi agricultural sector:

- Increasing the percentage of local investments allocated to the agricultural sector, while encouraging foreign investment, provided that the atmosphere that suits this investment is available and taking into account the areas in which investment is made.
- Paying attention to scientific institutes and institutions and increasing spending on aspects related to developing current technology and encouraging scientific research by updating its curricula in line with the scientific development taking place in countries of the world.
- Using a policy to protect national agricultural products from foreign competition in terms of selling prices for products to consumers.
- Getting rid of the salinity problem through land reclamation ((irrigation and drainage networks))

3. Discussion of Results :

By analyzing the results, it is clear that the Iraqi agricultural sector needs more investment spending allocated to it. The research revealed that the agricultural sector needs to double what is allocated to it to get out of its crisis and advance the agricultural sector as a whole and that the hypothesis reached is consistent with what the research stated.

4. Conclusions :

The research revealed the validity of the hypothesis that government investment spending did not play its role in developing the agricultural sector because the study showed an apparent shortage in what is allocated to the agricultural sector and an apparent weakness in the performance of agricultural policy, according to what the study addressed. Therefore, the hypothesis that government investment spending did not contribute to the development of the agricultural sector is rejected, or the hypothesis is proven correct.

The research revealed an apparent confusion in the spending policy, in terms of what is allocated to investment, as the research revealed that there is an apparent shortage in the amount of what is allocated to this investment spending on the one hand and the other hand, a reconsideration of the agricultural investment spending policy, as the data was terrifying. It is shameful at the same time because it indicates an apparent deficiency in the amount of total investment spending allocated to the agricultural sector, as there is a disparity in the distribution of investment expenditures, as there are sectors that account for a high percentage of expenditures. In contrast, the agricultural sector has not been allocated a small amount due to hidden considerations and is challenging to interpret.

The results showed a significant decline in agricultural production, as agricultural production in Iraq suffers from fluctuation in the volume of production due to the conditions facing the agricultural sector in terms of high production costs, water shortages, deteriorating soil quality, lack of modern mechanization and fertilizers, and high costs of improved seeds. Other factors contributed to agricultural output, such as the gross domestic product low due to economic policies, including inappropriate agricultural policies and the inability of the local product to compete with the imported one due to the random import policy and the failure to protect the producer from dumping goods.

The Iraqi agricultural sector suffered from the deterioration of the infrastructure, especially after the events of 2003 and the subsequent sabotage of roads, bridges, irrigation channels, electricity, and others.

5. Recommendations:

We recommend reconsidering the spending policy for the agricultural sector by prioritising the sector and the agricultural policy to develop the agricultural sector by exploiting the available funds in a way that contributes to developing the Iraqi agricultural sector and enhancing its activity.

Enhancing the Iraqi agricultural sector through, among other considerations, such as improving modern technologies in agriculture, as well as providing financial support to farmers, developing infrastructure, encouraging investment in agriculture, as well as developing agricultural research and improving the irrigation system. These considerations and other considerations will advance the agricultural sector.

Authors Declaration:

Conflicts of Interest: None

-We Hereby Confirm That All The Figures and Tables In The Manuscript Are Mine and Ours. Besides, The Figures and Images, Which are Not Mine, Have Been Permitted Republication and Attached to The Manuscript.

- Ethical Clearance: The Research Was Approved By The Local Ethical Committee in The University.

References:

- 1- Abbas, M.J. (2015), "The private sector's contribution to the development of agricultural activity in Iraq (1970-2010), reality and prospects," Baghdad University College of Economic Sciences Journal, No. 43, pp. 105-134.
- 2- Abdul Hamid, A. K. (2014), "The development and structure of public expenditures in Iraq," Ahl al-Bayt Magazine, Vol 1, No. 15.
- 3- Abdullah, Y. A., and Mansour, M. N. B. (2018), "The moderating effect of the business environment on the relationship between entrepreneurship skills and small business performance in Iraq," International Journal of Entrepreneurship, Vol 4, No. 22, P P.1-11.
- 4- Akkawi, O.M., and Abdul Latif, A.M.A. (2023), "The Impact of Some Macroeconomic Variables on Banking Stability in Iraq," Central European Management Journal, Vol 2, No. 31, PP.866-881.
- 5- Al-Aqidi, (2006), "The Future Strategy for the Agricultural Sector in Iraq." Al-Mustansiriya Journal of Arab and International Studies, (20-21).
- 6- Al-Attabi, H.A., and Al-Badri, Bahaa (2019), "An economic analysis of the most important factors affecting agricultural growth in Iraq using the ARDL model." Iraqi Journal of Agricultural Sciences 50(6).

- 7- Al-Badri, B.H., Muhammad, S.J. (2016), "An economic analysis of pricing policy and foreign trade policy for the agricultural sector in Iraq during the years 2003-2013," *Iraqi Journal of Agricultural Sciences*, Vol 2, No. 47, PP..563-572.
- 8- Al-Bayati, H.M. (2018), "The agricultural food sector in Iraq (challenges and challenges)," *Journal of Management and Economics*, Vol 7, No. 27, PP.. 189-208.
- 9- Al-Dujaili and Khalaf, (2012), "The dumping policy and its impact on the development of agricultural production in Iraq (2003-2009)," *Journal of Economics and Administrative Sciences*, Vol. 18, No. 66, PP.. 173-188.
- 10- Ali and Kazem, Prof. D., M. M. (2017), "The Role of Investment in Developing the Agricultural Sector in Iraq," *Al-Kout Journal of Economic and Administrative Sciences*, No. 26.
- 11- Ali, A.H. (2022), "Economic stability and its role in achieving comprehensive growth in Iraq," *AgBio Forum*, 24(3), 109-119.
- 12- Ali, M. D, (2012), "Agricultural production in Iraq between reality and ambition," *Al-Mustansiriya Journal of Arab and International Studies*, No. 38, PP..1-32.
- 13- Al-Jubouri and Al-Kuraiti, M.H. (2014), "Agricultural policies in Iraq - challenges and ways to address them," *Journal of Management and Economics*, Vol. 3, No. 12, PP.. 174-200.
- 14- Al-Jumaili, J.S.A. (2021), "Agricultural investment forecasts in Iraq for the period (2020-2030)," *Tikrit Journal of Administrative and Economic Sciences*, Vol 17, No. 55, PP.449-460.
- 15- Al-Khafaji and Jari, (2017), "The efficiency of public investment spending and its impact on economic growth in Iraq for the period 2003-2013," *Journal of Economics and Administrative Sciences*, Vol. 23, No. 97, PP.. 293-314.
- 16- Al-Kubaisi, and Qadir, (2014), "Measuring and analyzing the causal relationship between government spending investment and non-oil GDP in Iraq for the period (1990-2011)," *Journal of Economics and Administrative Sciences*, Vol 20, No. 78, PP.269 -278.
- 17- Al-Rawi, A.M.D. (2007), "The future of the Iraqi agricultural sector in light of the new changes," *Iraqi Journal of Economic Sciences*, Vol. 5, No. 13.
- 18- Astonished. (2014), "The reality of the use of chemical fertilizers and their impact on agricultural production in Iraq and an assessment of the demand for them for the period (2015-2022)," *Al-Kout Journal of Economics and Administrative Sciences*, Vol 6, No. 14, PP.173-201..
- 19- Central Bank of Iraq (2004-2021) "Annual Economic Report", Baghdad, General Directorate of Statistics and Research.
- 20- Central Bank of Iraq (2004-2021) "Annual Statistical Bulletins", Baghdad, General Directorate of Statistics and Research.
- 21- Central Bureau of Statistics (2004-2018), Baghdad, National Accounts..
- 22- Ebadi and Al-Khafaji, A. D (2021), "Measuring the relationship between public investment expenditures and domestic investment in Iraq for the period (2004-2018)," *Journal of Economics and Administrative Studies*, Vol 1, No. 22, PP.. 177-201.
- 23- Hamad, M.J., and Ali, J.H. (2022), "Measuring and analyzing the impact of investment spending and fixed capital formation on the outputs of the agricultural sector in Iraq for the period (2004-2017)," *Anbar University Journal of Economic and Administrative Sciences*, Vol. 11, No. 27, PP.. 60-78.
- 24- Hamdan, A.A., and Hussein, S.A. (2020), "Cooperative Decision Making on Fiscal and Monetary Policy in Iraq Using the Prisoner's Dilemma," *Banks and Banking Systems*, Vol 4, No. 15, PP.88.
- 25- Harris, D. R., & Fuller, D. Q. (2014). Agriculture: definition and overview. *Encyclopedia of global archaeology*, 104-113.

- 26- Hussein and Ibrahim, (2017), "International Water Policy Treaties and Agreements and their Impact on Agricultural Production in Iraq," *Journal of the College of Basic Education*, Vol. 23, No. 97, PP.607-633.
- 27- Hussein, Al-Kanani, and Hassoun, (2020), "It is completely real and effective in achieving economic and social development in Iraq," *Journal of Economics and Administrative Sciences*, Vol 26, No. 117, PP.327-346.
- 28- Ibrahim and Ismail, L.A. , E.S. (2022), "Measuring and analyzing public investment spending in the number of workers in Iraq during the period (2006-2017)," *Polytechnic Journal of Humanities and Social Sciences*, Vol 1, No. 3, PP.. 209-218.
- 29- Ibrahim, A.H. (2013), "The reality of the agricultural sector and its effects on the agricultural development of Iraq for the period (1990-2008)," *Iraqi Journal of Economic Sciences*, Vol. 11, No. 38, PP..45-83.
- 30- Ibrahim, A.H. (2014), "The role of agricultural policy in solving the problems of the agricultural sector in Iraq for the period (1990-2008)," *Journal of the Baghdad College of Economic Sciences*, No. 41, PP.405-436.
- 31- Judeh, S.J., Shaker, E.N., and Khudair, H.A.H. (2022), "Analysis of the relationship between government investment spending and human development in Iraq for the period 2006-2019", *Warth Scientific Journal*, Vol 4, No 10.
- 32- Khalaf and Ali, (2010), "Fisheries Resources in Iraq: Reality and Future Prospects," *Journal of Economics and Administrative Sciences*, Vol. 16, No. 59, PP.92-107.
- 33- Khalaf, (2011), "The reality of the Iraqi economy and the challenges of foreign direct investment," *Journal of Accounting and Financial Studies*, Vol. 6, No. 15.
- 34- Khalaf, (2014), "The role of irrigation techniques in improving the efficiency of non-flooded rice production in achieving self-sufficiency in rice and contributing to reducing the need for irrigation water in Iraq," *Al-Kut Journal of Economics and Administrative Sciences*, Vol 6, No. 16, PP..26- 44.
- 35- Khalaf, (2015), "The problem of agricultural investment and its repercussions in the development of industrial milk in Iraq," *Journal of the Baghdad University College of Economic Sciences*, Vol. 6, PP.. 23-38.
- 36- Kosar, N., Riaz, R., & Mehmood, A. (2020). People's Works Programme: An Analytical Study of Political Response and Constitutional Reality. *Journal of the Research Society of Pakistan*, 57(3), 131.
- 37- M. Al-Jubouri, B., M. Al-Zamili, D. (2014), "The role of government expenditures in achieving economic stability in Iraq for the period (2003-2012)," *Al-Qadisiyah Journal of Administrative and Economic Sciences*, Vol 1, No. 15, PP.. 190-202.
- 38- Majeed, (2018), "Agricultural Loans and Agricultural Investment in Iraq," *Journal of Administrative Economic Sciences*, Vol 24, No. 106, PP.324-337.
- 39- Majeed, A. H, Farhan, M. N., Salloum, I. M, (2022), "The impact of the dumping policy on the food gap in chicken meat in Iraq for the period (2004-2019) - Turkish imports of chicken meat a case study", *International Journal of Professional Business Review*, Vol 3, No 7, PP.140-165 .
- 40- Muhammad, A. M. D (2022), "Agricultural economic surplus in Iraq - challenges and solutions", *Iraqi Journal of Economic Sciences*, Vol 20, No 75, PP.150-167.
- 41- Najiris Al-Fahdawi, L.K.S., Al-Jumaili, J.S.A. (2017), "The impact of the use of agricultural technology on the agricultural sector in Iraq for the period (1990-2013)," *Tikrit Journal of Agricultural Sciences*, PP.284- 292.

- 42-** Najm al-Din and Obaid, (2019), "Using Granger causality in analyzing the relationship between investment expenditures and total fixed capital for the composition of the agricultural sector in Iraq for the period (1980-2016)." *Karbala University Journal*, Vol. 17, No. 1 .
- 43-** Osama and Bashar, (2012), "Measuring the growth of resource productivity in the Iraqi agricultural sector for the period (1970-2010)," *Karbala University Journal (Second Scientific Conference of the College of Agriculture)*, PP.10-20.
- 44-** Saud, Ibrahim, Alaa, S.D. (2019), "The role of public investment spending in economic development in Iraq during the period 1970-2018", *Journal of Finance and Business Economics*, Vol 3, No 3, PP. 361-383.
- 45-** Shangara, A. M. D, (2007), "The agricultural sector in Iraq after international sanctions, what to do," *Iraqi Journal of Economic Sciences*, Vol. 5, No. 13, PP.195-215 .
- 46-** Shukr, A. (2013), "An economic analysis of the most important influential investment allocations for agricultural reclamation in Iraq for the period (1990-2010)," *Diyala Journal of Agricultural Sciences*, Vol. 2, No. 5, PP.. 264-274.
- 47-** Suleiman and Al-Abdali M. D, A. Dr.. , (2022), "Measuring and analyzing the relationship between gross fixed capital formation and GDP in the agricultural sector within the framework of cointegration and the error correction model.", *Iraqi Journal of Economic Sciences*, Vol 20, No. 75, PP.4-20.

الانفاق الاستثماري الحكومي ودوره في القطاع الزراعي للمدة (2004-2021)

لورنس يحيى صالح
جامعة بغداد/ كلية الادارة والاقتصاد/ قسم الاقتصاد
Lorance-phd@yahoo.com

ميثم عدنان غناوي
جامعة بغداد/ كلية الادارة والاقتصاد/ قسم الاقتصاد
maitham.Adnan1202a@coadec.uobaghdad.edu.iq

Received: 27/9/2023 Accepted: 5/11/2023 Published Online First: 30 /8/ 2024

هذا العمل مرخص تحت اتفاقية المشاع الابداعي نسب المصنّف - غير تجاري - الترخيص العمومي الدولي 4.0
[Attribution-NonCommercial 4.0 International \(CC BY-NC 4.0\)](https://creativecommons.org/licenses/by-nc-sa/4.0/)



مستخلص البحث:

يتناول البحث واقع الإنفاق الاستثماري الحكومي في العراق وتأثيره المحتمل على القطاع الزراعي ، و تعتبر الزراعة من أهم القطاعات الاقتصادية في البلاد، حيث تسهم في تحقيق الأمن الغذائي ومع ذلك يشهد القطاع تحديات عدة تؤثر على إنتاجيته وتطويره منها قلة الاستثمار الحكومي . تمثل هذه الدراسة محاولة لتحليل تأثير الإنفاق الاستثماري الحكومي على القطاع الزراعي وتقدير مدى تأثيره على الإنتاجية وتعتمد الدراسة على مراجعة متعمقة للأدبيات المتاحة وتحليل البيانات ذات الصلة بالإنفاق الاستثماري الحكومي وأداء القطاع الزراعي . من خلال تحليل البيانات و يشير البحث إلى وجود تأثير سلبي لقلة الاستثمار الحكومي على القطاع الزراعي و ينعكس ذلك في تراجع الإنتاجية ، وبناءً على هذه النتائج يقدم البحث مقترحات للنهوض بواقع الإنفاق الاستثماري الحكومي لتعزيز وتطوير القطاع الزراعي مضافاً الى استنتاجات محددة لتحسين الإنفاق الاستثماري الحكومي في القطاع الزراعي ، منها تعزيز التمويل وتقديم الدعم التقني للمزارعين وتطوير البنية التحتية الزراعية.

نوع البحث : ورقة بحثية¹

المصطلحات الرئيسية للبحث: الانفاق الاستثماري الحكومي , القطاع الزراعي , الإنتاج الزراعي , التمويل الزراعي, البنية التحتية