

# A comparative study between military and social spending and its impact on sustainable development in Iraq - a case study for the period (2004-2022)

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**Abstract:** The research aims to demonstrate the comparison between military and social tunnels and the impact on sustainable development in Iraq – a case study for the period (2004-2022) by building a standard model that shows the impact of military spending, as well as social tunnels and selected economic variables.

In this research, the researcher relied on the extrapolation process mainly, which is based on monitoring the comparison between military and social tunnels and its impact on sustainable development in Iraq during the period (2004-2033), and then there may be another scientific approach that we will resort to in the course of our treatment of the issue, which is the analytical method with following some standard procedures to understand the nature of the data and variables that affect the crisis.

One of the most prominent results of the research is that there is definitely a cut in the data of the military agreement for Iraq, as the researcher could not insist on the data of the Pre-year military agreement (2003), this sector is both in the material and financial aspect, and there is a general trend of increasing military agreement in Iraq starting from the year (2003), until Statistics showed that Iraq occupies the fourth place at the level of Arab countries in the agreement on the military, as it became clear through the standard model used in the research, that there is no common integration -- The military agreement does not affect sustainable development in Iraq, and that increasing sustainable development leads to military spending, as shown by the results of the cranger causality test, and the result was that spending on social protection witnessed a remarkable development during the study period (2004- 2022), which was represented by an increase in the number of families covered by the network and an increase in the amount of funds allocated by the state to the network, and this was reflected positively on the covered groups of society, so the development rate for the total period was positive by (31.97%), but that percentage was low measured by gross domestic product and therefore did not contribute to reducing poverty rates and improving the standard of living of individuals, the results also showed that there is a causal relationship to the development of education as inputs and outputs by increasing the volume of spending on the educational sector, health and in the direction of On the other hand, increasing social spending will lead to raising the efficiency and skills of community members and then lead to contributing to raising the rates of sustainable development in Iraq.

The study recommended: There should be more attention in the military sector at the level of studies, research, statistics and data to avoid the problems of

represents an obstacle to the spread of corruption in this sector, as well as work to increase the volume of allocations and spending on the education sector because of its positive importance in improving the skills of individuals and raising productivity and reflecting this on achieving sustainable development, through supporting and developing the health sector, as increasing spending on health will lead to increased production and then the transition of channels of influence to sustainable development, that is, the impact is positive between them, as well as conducting a package of economic policies aimed at raising the welfare of The positive impact will then be transferred to the sustainable development of the state, especially in the field of job creation, reducing income inequality between individuals, providing care and a dignified free life.

**Keywords:** Military tunnels-social tunnels-sustainable development.

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## Introduction

Human societies have known the task of defense since ancient times. When societies reached the highest levels of This is an open access article under the [CC BY-NC](https://creativecommons.org/licenses/by-nc/4.0/) license

organizational development with the emergence of the state, security and defense were among the primary functions of the state



in light of ancient and modern economic theories. Therefore, countries around the world, whether developed or developing, strive to achieve economic stability and avoid the risks resulting from security instability.

Countries around the world have sought to allocate a large portion of their budgets to education, health, and infrastructure to meet the needs of their growing populations and promote sustainable development through investment in human and material capital. However, the security and political conditions experienced by some countries have led to a significant increase in military expenditures compared to social expenditures. A high military expenditure by neighboring countries may be perceived as a threat, prompting some to allocate more funds to security and defense. This is because a distinctive feature of global development is the ever-increasing increase in military spending in most countries. However, the impact of this increase varies among countries. Hence, the development of the military sector has contributed to economic growth. However, it has also posed a burden on the budgets of some countries and an obstacle to economic development in these countries. Iraq has suffered from the dominance of the military sector due to the circumstances it experienced, represented by the Iran-Iraq War and the Second Gulf War. The challenges facing the Iraqi economy since 2003, represented by the fluctuating security situation, terrorism, political strife, and various conflicts, have contributed to the exacerbation of the problem of security and economic stability in Iraq. As a result of these circumstances, military expenditures have increased, and conversely, this increase has affected overall economic activity.

#### Research Problem:

The Iraqi economy has experienced many crises, including internal wars, which have negatively impacted the Iraqi economy. Many major challenges and obstacles still threaten human security in Iraq. It is difficult for the state to direct its investments toward civilian investment and neglect the military aspect, which will ultimately contribute to promoting sustainable development if these expenditures are properly invested. Therefore, based on the above, the research problem will focus on answering the following

question: "What are the comparisons between military spending and social spending and their impact on sustainable development in Iraq during the period (2004-2022)?"

#### Research Importance:

The importance of this research stems from its comparative study of military and social spending on some economic variables and sustainable development in Iraq, which faces a series of ongoing crises, including a financial crisis stemming from the mismanagement of the economic situation, and a security and political crisis since 2003. Terrorism has become a threat to its institutional and societal structure. Therefore, this research gains its importance by clarifying the aforementioned relationship through quantitative analysis and econometric models.

#### Research Objectives:

The research aims to demonstrate the comparison between military spending and social spending and their impact on sustainable development in Iraq—a case study for the period (2004-2022) by constructing an econometric model that illustrates the impact of military spending, as well as social spending, and selected economic variables.

### Research Methodology

In this study, the researcher relied primarily on the induction process, which is based on comparing military and social spending and its impact on sustainable development in Iraq during the period (2004-2033). Therefore, there is another scientific approach that we will resort to in our discussion of the issue, namely the analytical method, following some standard procedures to understand the nature of the data and variables affecting the crisis.

This study aims to demonstrate and analyze the impact of military spending on some economic variables in Iraq during the period (2004-2022). Table (1) shows the variables used in the standard study and their data sources.

*Table (1) Variables used in the standard study and their data sources*

Variables	Data sources used
Military Expenditures (ME)	Military expenditures, obtained from the World Bank database
Gross Domestic Product (GDP)	Gross domestic product at current prices, obtained from the World Bank
Trade Balance (TO)	Net trade in goods and services (current US dollars)
Operating Expenditures (S)	Operating expenditures, obtained from the World Bank
Iraqi Dinar Exchange Rate (EXC)	The value of the Iraqi currency against the US dollar, using the parallel rate for the Iraqi dinar
Foreign Investment (FDL)	Net foreign direct investment inflows, obtained from the World Bank
Public Revenues (RE)	Public revenues, obtained from published annual reports of the Central Bank of Iraq

With reference to the theoretical aspect, and based on previous studies and the reality of military expenditures in Iraq during the period (2004 AD - 2022 AD), the study relied on using a set of variables specific to the macroeconomy and showing the impact of

these variables on some variables represented by (gross domestic product - trade balance - net foreign investment flow).

### Research Limitations:

- Thematic scope of the study (research topic): A comparative study of military and social spending and its impact on sustainable development in Iraq.
- Time scope of the study (research period): The time scope of the study is defined as 2004 AD through 2022 AD.
- Geographical scope (spatial) of the study: The geographical scope of the research was defined as Iraq.

### First Topic: Sustainable Development in Iraq

#### *First: The Concept of Sustainable Development*

Al-Saqqal (2014) defines development primarily since World War II. However, development actually began in the eighteenth century. The concept of development has become widely used, replacing the term material progress or economic progress, to denote the occurrence of the aforementioned development in society. The concept of development is used to denote the process of bringing about a set of radical changes in a given society, with the goal of society acquiring the capacity for continuous self-development at a rate that ensures increasing improvement in the quality of life for all its members. Given the expansion of economic development approaches and its expanding relationship with other sciences, the concept of tourism development has emerged, which is considered part of comprehensive economic development. Understanding tourism planning is closely linked to understanding the concept and components of tourism development and the nature of the relationships between these components. Tourism development is the most recent of the many types of development to emerge, and it, in turn, pervades all the various elements of development and is almost identical to comprehensive development. All components of comprehensive development are intertwined. (Al-Saqqal, 2014, p. 12)

It is commonly known in economic literature that sustainable development is a concept widely used in many disciplines, whether social, geographical, economic, or other, as it relates to the most important economic concept, namely economic growth. Furthermore, the relationship between economic growth, development, energy, and the environment is clearly interconnected, yet encompasses a highly interconnected and complex structure, depending on one country or another. (Al-Saqqal, 2014, p. 13)

While (Measuring, 2008) states that the term "sustainable development" is a modern term that has been discussed among researchers specializing in development research and how to achieve it in harmony with the economy and the environment, this term was first mentioned in the "For a Common Future" report issued by the World Commission on Environment and Development in 1987, which became known as the Brundi-Toland Report. The report stated that sustainable development is "developing the needs of the present generation without sacrificing the needs of future generations or compromising their ability to meet them." This definition combined economic, social, and environmental aspects to achieve a long-term and sustainable goal. Then, in 1992, the Natural Resources Report provided more than (20) definitions. On the economic level, the report defined sustainable development as based on the economic progress of countries. Development in industrialized countries is defined as

radical transformations in the prevailing lifestyles, relying on a sustained reduction in energy and economic resource consumption. Development in poor countries, on the other hand, aims to raise the standard of living of the poor population through the utilization of their economic resources. The Food and Agriculture Organization (FAO) has provided a broader definition of sustainable development as the management and conservation of natural resources, and the direction of institutional and technological change to ensure the continued satisfaction of human needs for present and future generations without environmental degradation. (Measuring, 2008, p. 5)

Some define the term sustainable development as "development that ensures that an individual's share of economic well-being will not decrease in the future." It is development that takes into account the rights of future generations to natural resources and meets basic human needs for food, clothing, housing, work, education, and access to medical and other essential needs. Sustainable development requires that we do not take more from the earth than we give. Humans treat the environment with kindness, taking from it and giving back.

Therefore, sustainable development is a process that aims to achieve development in a country through the fair and equitable distribution of economic resources and social services between present and future generations, achieving efficient use of these resources on the one hand, and working to preserve the environment surrounding humans to ensure targeted developmental changes occur in the immediate and future, without harming the environment. (Farhan, 2021, p. 13)

#### *Second: Sustainable Development Goals:*

- Strengthening the means of implementing and revitalizing the global partnership for sustainable development.
- Sustainable development focuses on diverse and interconnected topics, such as aspects related to poverty, education, health, and gender equality. Therefore, it aims to (the Statistical Commission on the 2030 Agenda for Sustainable Development).
- End poverty in all its forms everywhere, measured by people living on less than \$1.25 a day.
- End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
- Ensure healthy lives and promote well-being for all at all ages.
- Ensure equal access to quality education for all and promote lifelong learning opportunities for all. (Al-Hammadi, 2018, p. 18)
- Build resilient infrastructure, stimulate inclusive and sustainable industrialization, and foster innovation.
- Reduce inequality within and among countries.
- Promoting the establishment of peaceful, inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable, and inclusive institutions at all levels (Al-Hamadi, 2018, p. 18).

#### *Third: Dimensions of Sustainable Development:*

Sustainable development consists of the following dimensions:

- The Economic Dimension: which includes achieving sustainable economic growth, capital efficiency, meeting basic needs, and achieving economic justice.
- The Social Dimension: which includes achieving equal distribution, social mobility, popular participation, cultural diversification, and institutional sustainability.
- The Environmental Dimension: ecosystems, energy, biodiversity, biological productivity, and adaptive capacity. (Farhan, 2021, p. 17)

#### ***Fourth: Characteristics of Sustainable Development:***

Sustainable development is characterized by a set of characteristics, including continuity, i.e., generating a high and continuous income that can be invested, enabling us to replace, renew, and maintain resources while saving the rest. Organization, i.e., the systematic use of natural resources, including both renewable and non-renewable resources, ensures the rights of future generations. The third characteristic of sustainable development is achieving and preserving environmental balance, ensuring the safety of natural life and the production of wealth, while ensuring the equitable use of depletable resources such as oil. (Farhan, 2021, p. 15)

#### ***Fifth: Indicators of Sustainable Development:***

Sustainable development has a set of indicators by which it can be measured, namely:

- Economic indicators, which include: Average per capita gross domestic product, which refers to the per capita share of the total value of the total production of goods and services, excluding the value of intermediate consumption of goods and services.
- The ratio of exports of goods and services to imports of goods and services: This shows the relationship between the economy in question and other economies worldwide, reflecting changes in the exchange rate and international competitiveness.
- Social indicators: These include the unemployment rate and the poverty rate.
- Environmental indicators: These include carbon dioxide emissions (O<sub>2</sub>), average per capita share of water resources, protection of the quality of freshwater resources and their extensions, the promotion of agriculture and sustainable rural development, and the fight against deforestation and desertification.
- Institutional indicators: These include spending on research and development, defined as the percentage of gross domestic spending on scientific and experimental research and research and development as a percentage of GDP, and other indicators such as the number of personal computers per 100 people and the number of main telephone lines per 100 people. (Al-Rubaie, 2018, p. 38)

## **Section Two: The Reality of Military Spending in Iraq and Its Impact on Sustainable Development in Iraq**

### ***First: The Concept of Military Spending***

The concept of military spending varies from the perspective of economists, politicians, and official bodies. This difference is due to the multiple types and concepts included in military agreements. However, based on the International

Monetary Fund's definition, military spending is defined as expenditures included in the defense clause of the armed forces, including agreements on the manufacture and storage of ammunition, the construction of military facilities, training, and health insurance. (Al-Moussawi, 2021, p. 79)

Military expenditures are also defined as the types of expenditures that include active parties, including the armed forces affiliated with the Ministry of Defense and the forces of other government agencies involved in defense projects. Military expenditures include clothing and salaries for members of the military force, as well as the costs of various types of armaments. Military expenditures also include the production and import from other countries of weapons, tools, and vehicles used in security and defense. They also include the maintenance and armament costs of these vehicles, as well as the salaries of military and civilian personnel working in the defense sector. (Muhammad, 2020, p. 28)

### ***Second: Determinants of Military Spending***

The determinants of military spending include the following:

- Political factors: These include political stability and the nature of the ruling system.
- Economic factors: These include the level of economic development, economic resources and aid, the exchange rate, and the size of the government budget.
- Strategic factors: These include anticipated wars, civil wars, regional conflicts, and pre-arms deployment, as well as military aid.

The escalation of regional tensions, international conflicts, preparations for war, and the resulting large-scale armament operations, greater interest in technological and military aspects, and an increase in the income and rewards of military personnel, all lead to an increase in military spending. Although military spending varies from one country to another depending on the country's political and economic circumstances and its role in international and regional conflicts, military spending in general constitutes one of the most important basic components of public spending and takes a very large share of government budgets. Military spending may become costly if the demand for military equipment is met through imports, and when military spending comes at the expense of reducing public spending on other facilities such as education, health, and infrastructure, which leads to a reduction in job opportunities and creates unemployment. It also reduces growth due to the diversion of resources from productive economic sectors, especially the export sector, to economically productive activities. Both of these have a negative impact on the balance of payments through increased imports of military equipment. (Muhammad, 2020, pp. 31-33)

### ***Third: The Reality of Military Spending in Iraq:***

One of the most important challenges facing the Iraqi economy since 2003, affecting the development process in Iraq and the region, is the problem of security instability and terrorism. Bombings and armament operations increased significantly in Iraq during the period from 2003 to 2007. Furthermore, the political conflict between the main forces in Iraq has increased the process of sectarian and ethnic polarization once again, the emergence of calls for federalism and secession, and the escalation of conflicts and divisions between the various political and sectarian movements and forces. This has contributed to the exacerbation of the problem of security and economic stability in Iraq. According

to the study conducted by Knights (2012), the political crisis in Iraq, the increase in violence and insurgency, and the excessive centralization of security decision-making have all contributed to the exacerbation of the current situation and the strengthening of the roots of terrorism. In addition to the hateful policies based on ethnic and sectarian identity, all these circumstances affected the military agreement in Iraq, as after (2003 ) military spending in Iraq is a purposeful agreement for security and defense, as shown by Table and Figure (1), as the military agreement rose from (613,724,869.6) dollars at current prices in (2004 ) to (1,120,278,533) dollars in (2005 ), i.e. an annual growth rate of (82%), and continued to rise gradually to reach its highest level in (2015 ), as the total military spending was estimated at (9604,231,011) dollars. This increase is due to the terrorist operations carried out by the Islamic Organization in Iraq and the

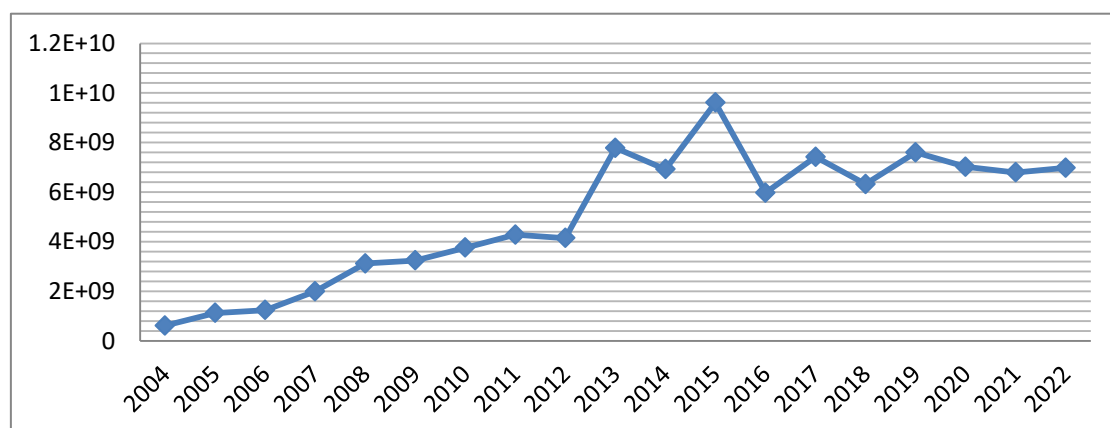
Levant (ISIS) during the year (2014 ) and its control over some areas in Iraq, which contributed to the increase in the number of war victims to reach (20,169) victims in the year (2014 ). The percentage of military spending from the total general agreement also increased gradually, as this was The percentage does not exceed (2%) of the total public spending in the year (2004 ), and continued to rise to reach (12.4%) of the total public spending in the year (2015 ). The percentage of this agreement decreased from the general agreement after (2015 ) to reach (10.9%) in the year (2017 ) and (8%) in the year (2020 ), and the percentage of military spending in the gross domestic product went through the same fluctuations that the previous indicator went through (the percentage of military spending from the total public spending. (Al-Moussawi, 2021 , pp. 80-83)

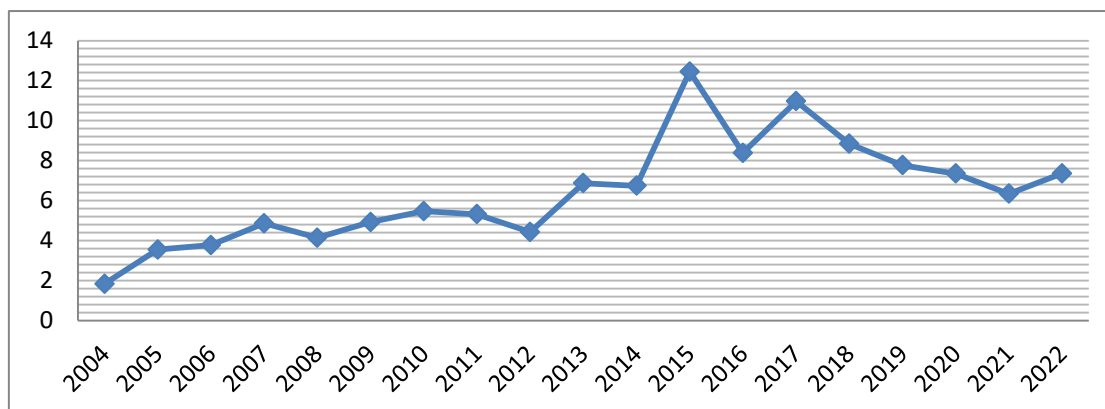
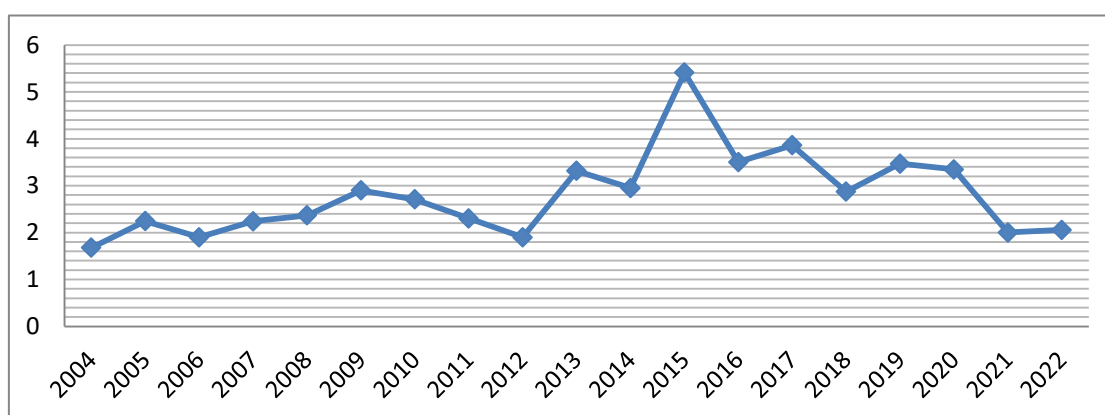
**Table (2) Indicators of military spending in Iraq for the period (2004 - 2022)**

Year	Military Spending	Percentage of Military Spending as a Share of Total Public Spending	Percentage of Military Spending as a Share of GDP
2004	613724870	1.832	1.676
2005	1120278533	3.548	2.243
2006	1236081013	3.770	1.898
2007	1989948747	4.856	2.240
2008	3116304020	4.136	2.368
2009	3237179487	4.919	2.899
2010	3752905983	5.465	2.709
2011	4278632479	5.311	2.303
2012	4141066054	4.429	1.900
2013	7780188679	6.872	3.316
2014	6923644082	6.739	2.951
2015	9604231011	12.454	5.410
2016	5970383698	8.379	3.503
2017	7416385135	10.969	3.862
2018	6317977150	8.841	2.871
2019	7598829336	7.769	3.469
2020	7015558808	7.346	3.346
2021	6791237654	6.343	2.001
2022	6975783888	7.356	2.058

Source: Central Bank of Iraq, Annual Economic Report, Bulletins for the years (2004 - 2022)

**Figure (1) shows indicators of military spending in Iraq during the period (2004 - 2022)**



*Figure (2) shows the percentage of military spending to total social spending during the period (2004 - 2022)**Figure (3) shows the percentage of military spending to the gross domestic product during the period (2004 - 2022)*

Source: Prepared by the researcher based on the Central Bank of Iraq, Annual Economic Report, Bulletins for the years (2004-2022)

## Section Two: Social Spending and Its Impact on Sustainable Development in Iraq

### First: Definition of Social Spending

Social spending on human resources (education, training, and health services) is one of the sources of economic growth, according to the economic theories and models that pervade economic thought on growth. Some of these models have adopted production functions, such as physical and human capital, as one of the main sources of sustainable development, due to their contribution to determining overall productivity levels and achieving widespread prosperity. Increases in human capital have a clear impact on increased output. Education plays a pivotal role in producing human capital and developing its skills, enabling it to double its production and the productivity of the national economy, thereby driving sustainable development rates to higher levels. Accumulation leads to increased educational attainment and establishes a structure that enables the widespread production of knowledge. Investment in human capital may increase, but it is not a condition for increased educational attainment, as some argue. The gains in productivity depend on society's intellectual capital. There are limits to growth based on education, and therefore it is assumed that the process proceeds within a sequential framework that requires acceptable limits or levels from which to proceed. The process, by its nature, has a cumulative effect. (Al-Aliawi, 2018, p. 26)

Therefore, health, education, and literacy cannot impact sustainable development rates without prior real investments in both sectors and in the rest of the national economy. Education

requires an infrastructure of schools, universities, equipment, training centers, and other components of the educational process. This can only be achieved by increasing the share of social spending compared to current spending. Similar to education, the infrastructure in the health sector, including hospitals, equipment, specialized institutes, healthcare centers, education and awareness plans, and specialized and qualified personnel, are essential factors for the sector to stimulate sustainable development rates. (Al-Aliawi, 2018, p. 27)

Long-term investments are an important source of economic growth. A qualified workforce can adapt to market conditions and therefore move easily with economic changes. It enables them to quickly learn and acquire new skills and deal with advanced technologies and equipment. Accumulation also facilitates the transfer of knowledge and experience at a lower cost and time, which brings dignity to the private sector and the overall economy (William, 2006). Education also contributes to savings and investment, improving and distributing income, and equalizing opportunities. It plays a major role in influencing technology and cognitive skills, enhancing women's contribution to economic activity, raising health awareness and the associated life expectancy, reducing fertility rates, birth control techniques, and

other factors (Arab Planning Institute, 2007). It is believed that compulsory education may limit student dropout and at the same time may lead to a reduction in the efficiency of outputs in light of the lack of investments directed towards education and the increasing numbers of enrollees due to high population growth, which places financial and technical restrictions on determining the compulsory age. There are more chances in L, in addition to the fact that laws obligating enrollment in basic education have not been issued. Also, determining the compulsory age affects the duration of basic education and thus the labor force, population growth rates, production and growth. (Al-Alyawi, 2018, p. 27)

In contrast, Abu Nurudeen and Abdullahi Usman (2010) argue that the agreement on education had a negative impact on economic growth. The increased government agreement did not achieve real development in Nigeria, the study found, as it remains one of the poorest countries in the world. The opposite is true for spending on the health, transportation, and communications sectors, as the study demonstrated that they play a positive role in driving economic growth rates in Iraq. Meanwhile, Albatel (2002) found that social spending on the social services sector increases labor productivity, reduces production costs, and increases private sector investment, which would enhance sustainable development. Al-Maliki and Bin Ubaid (2001) found that the reciprocal relationship between education (expressed in terms of enrollment in public education) and economic development in Iraq can only be achieved by increasing government spending on the education sector, which leads to an increase in the real GDP of the non-oil sector, which in turn increases the number of enrollees in public education, which requires increased spending on education, and so on.

While Pritchett (1999) demonstrated that there is no evidence of productivity gains due to the expansion of the education sector, as a result of educated workers demanding higher wages in the public sector and the government's response to their demands, these increases were not reflected in increased worker productivity and their contribution to growth. Growth also depends on the adaptation of education to changes in demand, and the quality of education has a significant impact on the efficiency of human capital. Therefore, the economic environment is a major factor in economic growth due to the expansion of education. This was confirmed by Ghali (1997), who concluded that increased growth rates are linked to improved performance in the education and health sectors. However, this is likely a characteristic of developed countries that have made significant strides in education and its outcomes, where growth rates are faster. The effect seen in some economies does not extend to the closest economic indicators associated with the two sectors. It has become clear that changes in consumption and government spending do not affect the real per capita GDP rate (Al-Alyawi, 2018, p. 29).

There has been considerable debate about the relationship between poverty and health, and which of the two affects the other. Economic status criteria such as income and wealth Health status is affected by factors such as life expectancy, mortality rates, and disease prevalence. Wealthy families are better able to spend on health care than poor families, which is why disease rates increase. Income and economic growth are therefore the primary determinants of health. On the other hand, poor health leads to

poverty due to its negative impact on income and economic growth rates. It limits individuals' ability to work, earn income, build wealth, and save, leading to an inability to afford healthcare (Al-Alyawi, 2018, p. 27). Weak economic performance has its impact on low social spending, particularly on the health and education sectors. Despite some improvements in the Yemeni economy's growth rates, the situation remains contingent on the availability of financing to increase the share of each sector compared to the share of current spending, especially salaries and wages (Al-Alyawi, 2018, p. 30).

## **Second: The impact of social spending and its impact on sustainable development in Iraq for the period (2004-2022).**

The transmission channels of the impact from social expenditure items, such as education, health, and social protection, to economic growth are more influential than the transmission channels of the impact from GDP growth to social expenditure, according to the Kranger causality index and the significance of the variables in the standard analysis model. (Al-Dulaimi, 2021, p. 45)

Despite the low percentage of social spending allocations to GDP, its impact is more measured by the shift from economic growth to social spending. This is consistent with the size of allocations for social spending items as a percentage of GDP during the study period, which requires increasing spending on education, health, and social protection to raise the level of social welfare in Iraq. This will have a positive impact on achieving economic growth rates. This requires attention to the services provided to members of society, increasing allocations for basic services, as well as providing a database and defining a map of deprivation across Iraq. Furthermore, the nature of social spending in Iraq reflects the extent to which this indicator contributes to raising economic growth rates when spending policies in the field of social welfare aim to build human capital, develop infrastructure, provide job opportunities, and protect the unemployed. Therefore, the final outcome will be a reciprocal relationship, with two opposite directions: from social welfare to economic growth and vice versa. (Al-Dulaimi, 2021, p. 46)

The following will identify and understand the type of causal and reciprocal relationship between aspects of social spending during the period (2004-2033), clarifying the relationship in one direction or two directions and the magnitude of that relationship to determine the extent to which social welfare was achieved in Iraq during the mentioned period and its impact on achieving economic growth rates. Before conducting the standard analysis to determine the relationship between aspects of social spending and economic growth, the volume of spending on social welfare and its various items (health, education, which shows the levels - and social protection) in Iraq during the study period will be shown. The low allocation to various expenditure items amounted to (0.02%) of the gross domestic product in (2004). The ratio of spending on social protection to the gross domestic product ranged between (0.01%). Despite the low percentage compared to the importance of these services provided to members of society and the level of well-being achieved for them, it witnessed a very significant decline after (2003), as shown in Table (3), which shows indicators of social spending in Iraq for the period (2004-2022 AD) (Al-Dulaimi, 2021 AD, p. 47)



**Table (3) Indicators of social spending in Iraq for the period (2004 AD-2022 AD)**

Year	Social Spending	Percentage of Social Spending as a Share of Total Public Spending	Percentage of Social Spending as a Share of GDP
2004	849.89	0.0225	1.457
2005	936.841	0.0412	2.235
2006	825.36	0.0367	1.097
2007	635.32	0.0319	2.567
2008	570.62	0.0268	2.120
2009	619.14	0.0294	2.456
2010	669.25	0.0330	2.456
2011	759.47	0.0355	2.907
2012	809.72	0.0416	1.900
2013	921.87	0.0480	3.113
2014	662.03	0.0191	2.567
2015	85.41	0.0279	5.410
2016	939.08	0.0150	3.503
2017	679.94	0.0406	3.567
2018	1135.82	0.0391	2.128
2019	1135.82	0.0385	3.568
2020	1562.41	0.0469	3.976
2021	1723.62	0.0670	2.098
2022	2455.73	0.0636	2.036

Source: Central Bank of Iraq, Annual Economic Report, Bulletins for the years (2004-2022)

The researcher sees from the above: The channels of transmission of the effect from spending items of a social nature, such as education, health, and social protection, to economic growth are more effective than the transmission of the effect from GDP growth to social spending, according to the Kranger causality index and the significance of the variables in the standard analysis model. Despite the low percentage of social spending allocations to GDP, its effect is greater in relation to the transmission of the effect from economic growth to social spending. All of this is consistent with the size of allocations to social spending items as a percentage of GDP during the study period, which requires increasing the size of spending on education, health, and social protection in order to raise the level of social welfare in Iraq and reflect this positively on achieving sustainable development rates. This requires the need to pay attention to the services provided to members of society and increase allocations for basic services, as well as providing a database and determining a deprivation map at the level of Iraq. Moreover, the aspects of social spending in Iraq reflect the extent of the contribution of this indicator to raising sustainable development rates when the spending policy in the field of social welfare aims to build human capital, develop infrastructure, provide job opportunities, and protect the unemployed. Therefore, the final result will be a reciprocal relationship with two opposite directions of social welfare. To economic growth and vice versa.

## Conclusions

The research reached a set of conclusions, including the following:

- There are certainties in the military agreement data for Iraq. The researcher was unable to obtain data on the military agreement prior to 2003, as this sector, whether financial or material, has a general trend of increasing military agreements in Iraq since 2003. Statistics have

shown that Iraq ranks fourth among Arab countries in military agreements. The standard model used in the

research also revealed that there is no co-integration between the research variables according to the Angel-Kranger test, meaning there is no long-term relationship between economic and military spending. Furthermore, the military agreement does not affect sustainable development in Iraq, and increased sustainable development leads to military spending, according to the results of the Kranger causality test.

- The compound growth of social expenditures during the study period was positive, and this was reflected in the increase in the number of students enrolled in primary, secondary and university education and the preparation of graduates, in addition to the expansion in the number of schools and universities across Iraq during that period (2004-2022). Furthermore, the levels of health spending fluctuated due to the instability of the general situation in the country and the lack of adoption of well-thought-out plans for managing public facilities in Iraq, which was reflected in the level of relative importance of health spending to social spending and also to the gross domestic product. The growth rate of health spending fluctuated between negative and positive values and was not related to the growth of the gross domestic product, which negatively impacts the decrease in allocations to health on worker productivity and consequently on economic growth due to the decrease in the worker's contribution to raising and improving productivity.
- Spending on social protection also witnessed a significant development during the study period (2004-2022), represented by an increase in the number of families covered by the network and an increase in the amount allocated by the state to the network. This positively impacted the covered segments of society. Therefore, the growth rate for the entire period was



positive, amounting to 31.97%. However, this percentage and therefore did not contribute to reducing poverty rates and improving the standard of living for individuals.

- There is a causal relationship in two opposite directions between sustainable development and social spending. This means that the relationship is reciprocal, as sustainable development leads to the development of education as both inputs and outputs through increased spending on the education and health sectors. Conversely, increased social spending will lead to increased efficiency and skills among members of society, thereby contributing to higher rates of sustainable development in Iraq.

## Recommendations

*Based on the above, we recommend the following:*

- The need to devote greater attention to the military sector at the level of studies, research, statistics, and data to avoid the problems of insufficient and outdated information and data, as this poses an obstacle to the spread of corruption in this sector.
- Avoid excessive military spending in the long term, as the standard model does not reveal a long-term relationship between the two variables. Therefore, rational spending must be observed, especially in light of the current economic conditions, to prevent military spending from becoming a burden borne by future generations, as occurred during the rule of the previous regime.
- Support research and development projects in this sector, as well as support local military manufacturing projects, given their potential to provide various job opportunities, limit the drain on foreign currency abroad, and reduce imports, particularly in the areas of ammunition, military clothing, and other items.
- The need to ensure maximum transparency regarding arms and armament deals, so that researchers and interested parties can understand the extent of the country's military spending and obtain data and information for research purposes.
- 5. Work to increase allocations and spending on the education sector, given its positive role in improving individual skills, increasing productivity, and its impact on achieving sustainable development. This can be achieved through supporting and developing the health sector. Increasing health spending will lead to increased production, which in turn will shift the channels of influence to sustainable development, meaning that the impact is positive.
- Implement a package of economic policies aimed at enhancing societal well-being, thereby transferring the

was low compared to the gross domestic product (GDP), positive impact to the country's sustainable development, particularly in the areas of providing job opportunities, reducing income disparities, and providing care and a dignified and free life for all members of society.

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