

PalArch's Journal of Archaeology
of Egypt / Egyptology

ANALYSIS OF TRENDS IN PUBLIC SPENDING IN CONFLICT-
AFFECTED ECONOMIES: IRAQ CASE WITH CONCENTRATE OF
EDUCATION AND HEALTH SECTORS

*Dr. Mustafa Kazemi Najafabadi **
Islamic Republic of Iran

*Ali Jabbar Arimish***
Federal Republic of Iraq

Dr. Mustafa Kazemi Najafabadi, Ali Jabbar Arimish: Analysis of trends in public spending in conflict-affected economies: Iraq Case with concentrate of Education and Health Sectors-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(6). ISSN 1567-214x

Keywords: education- GDP - health- Iraqi economy- public spending.

ABSTRACT

The aim of the current study is to analyze the efficiency of public spending in Iraq, by monitoring and tracking the levels of that efficiency in the period (1997-2018), and to analyze the changes that it has gone through and determine its causes and the most important factors affecting it. The study found that the average public spending on output reached 17.9 percent during the period (1997-2018).

This is a minimum of 8.5 percent in 1997, and a maximum of 25.56 percent in 2004. A general trend of volatility appears during the period (1997-2014), while the last four years from 2015 to 2018 were almost stable. The study also showed an imbalance in the structure of public spending and the dominance of current expenditures over investment expenditures. And it showed that the proportion of spending on education is constant during the study period (1997-2018).

On the level of spending on the health sector, although there are sources saying that Iraq spends 5-7%, there are other sources that say, it only spends 3.3%, according to the Development Indicators Group of the World Bank and WHO,

the study recommends that, in order to raise the efficiency of public spending, we should not rely only on increasing the volume of that spending in order to achieve this, a set of measures is required. Complementary, foremost of which is fighting corruption and renewing oversight of the government's performance of all its components without exception

* Assistant Professor, Research Institute of Howze and University,(Corresponding Author); mostafakazemi@rihu.ac.ir,00989197457159

** PhD student in the Department of Economics, in Mustafa international, university, federal republic of Iraq, Alialsaady1700@gmail.com

Introduction:

Public spending is one of the primary tools of financial policy, through which it can influence the levels of the total demand, and thus on growth, employment, national income, and its pattern of distribution. In light of the available limited resources for that spending, it becomes necessary to ensure the efficient spending of these resources and their optimal use.

In this context many studies sought and try to measure the efficiency of public spending in many countries of the world, through study the impact of that spending on a range of economic and social indicators, and based on it will this study with methodology used by previous studies to become a valid application. Government spending on education as a share of GDP has increased markedly in low and middle income countries from an average of less than 3.6% in 2000 to more than 4% in 2015(6).

The origin of the discussions on measuring public spending efficiency is due to Farrell (1957), who identified two different ways in which the factors producing could be ineffective: first, they could use more inputs than is technically required to obtain a certain level of production, or two, they can use a suboptimal input group given due to the input prices and marginal productivity.

The first type of inefficiency is called technical inefficiency, while the second type is known as specialist inefficiency (8) so the efficiency and effectiveness analysis revolves around the relationships between inputs, outputs, and outcomes. Farrell has already investigated the issue of how to measure efficiency and highlighted its importance for economic policy makers, arguing that it is important to know the extent to which an industry can be expected to increase its production by simply increasing its efficiency and absorbing more resources. "Since then, technologies have improved efficiency measurement, and efficiency investigations have become more frequent, especially in the industry. However, measuring the efficiency and effectiveness of public spending remains an incomprehensible challenge, and problems arise when it is done, because public spending has multiple goals and because public sector outputs are not sold mostly in the market, which means that the price data is not available, and it is not possible to determine the amount of production.(15) education and health are the wings of public spending, and it depends on the performance of countries and their level of progress, the researchers initiated a study of the efficiency of public spending, especially for these two sectors. Garasoria and Wudon(2002) (11) adopted a frontier approach to assessing the efficiency of health provision and education in a sample of developing countries. The authors estimated efficiency limits in econometric methods, looking separately at the educational attainment index (primary level net enrollment) and the health outcomes indicator (average life expectancy) and assessed the functional linear relationship between these outcome indicators and the three inputs: per capita GDP, and per capita of spending and average literacy for adults to read and write, using data from 76 countries for the period from 1990 to 1998, they found that there is no relationship between spending and variables of educational or health outcomes, when they include per capita of gross domestic product. and the authors concluded that the more spending is not a guarantee of better educational or health outcomes. The authors do not refer

to the relationship between the two variables as a possible cause of this problem. It has been shown that countries with low health indicators are all African (Malawi, Zambia, Mozambique, Ethiopia) as well as in academic achievement Ethiopia, Niger, Burkina Faso (lack of a relationship between spending and variables of educational or health outcomes when it includes per capita GDP).

Evans and Tadun (2000) (7) went through a marginal approach to measuring the efficiency of national health systems of the World Health Organization, and by using a statement of Panel Data of 191 countries for the period 1993-1999 the health outcome was measured by disability, and the life expectancy index was adjusted (DALE) While the combined public and private health expenditures and the average years of schooling for the adult population were considered inputs. The degree of output efficiency was defined as the actual performance ratio above the potential maximum. The authors also presented the input of all inputs average years of study and expenditures, On the pretext that it is bringing Taylor's second degree to an unknown functional model.

The fact that quadratic terms are important may be indicative of the importance of nonlinearity, but they may also reflect neglected dynamics or heterogeneity in the sample. Given the prominence of both developed and developing countries, an interesting contribution has emerged the building the confidence interval for efficiency estimates through the Monte Carlo procedure. These authors have documented a positive relationship between degrees of efficiency and level of spending. The more efficient health systems, the higher levels of spending. This result is specific to the Sultanate of Oman, Chile, and Costa Rica. The most efficient countries are all African: Zimbabwe, Zambia, Namibia, Botswana, Malawi and Lesotho. In the same vein, Afonso, Schöckenstein, and Tanzi (2003) (2) studied the efficiency of public spending using a non-pedagogical approach. They started building composite indicators of public sector performance for 23 OECD countries, using variables that capture the quality of administrative jobs, educational and health achievement and the presence of infrastructure and if we take the performance indicator as outputs, and total public spending as inputs, they perform one input and an individual output to classify the efficiency expenditure in the sample. Its results show that countries with small public sectors show the highest overall performance.

Afonso and St. O. Ben (2004) (1) dealt with the efficiency of education and health spending for a sample of OECD countries. They presented detailed results by comparing efficiency measurements directed at inputs and outputs, where small sample interference limits the comparability of these results. An apparently strange result, reported in the previous drafts of the paper, appeared that Mexico was listed as one of the countries of reference (on the borders of the efficiency). The result is strange given that the sample is OECD countries, and it is not intuitive. Spending in Mexico and the results of low educational attainment Consequently, CAM "is origin" to the efficiency limit. Herrera ,Santiago; Badr,Karim, 2011 (10) study estimated rates of return on investment in education in Egypt, which allows multiple sources of heterogeneity among individuals, and found, in the period 1998-2006, the increase in returns for workers with a higher education, but decreased for workers at levels of intermediate education;

and the relative wage of illiterate workers decreased in this period. This change can be explained by the factors of supply and demand. On the supply side, the number of workers with an average education, as well as the number of illiterate people, outpaced the growth of other groups that joined the workforce during the decade. On the other hand, on the demand side of the labor force, the Egyptian economy has witnessed a structural transformation that has acquired sectors that require higher-skilled labor, Such as financial intermediation, communications and information technology, importance at the expense of agriculture and construction, which requires workers with low skills. This result is attributed to the separation of individuals in different educational tracks, which creates the first source of heterogeneity, as those that are sorted in the university secondary general track have higher returns than those classified in vocational training. The study also found that large company workers earn higher returns than small company workers. Females also have higher returns from education, and government workers receive similar wages as female workers in the private sector, while male workers in the private sector receive an average bonus of about 20 percent. This may lead to a high gender gap, which may explain why female unemployment rates are significantly higher than male unemployment rates. Formal workers also receive higher rates of return from education than workers in the informal sector, which did not happen a decade ago. Finally, individuals with access to technology (according to personal computer ownership) enjoy higher returns.

All levels of government will have to learn to spend more wisely and efficiently, according to Pessino and Vuletin, Izquierdo, 2018 study, (4) that public spending in Latin America and the Caribbean has grown by an average of 7 percentage points on average over the past twenty years - an increase that unfortunately has not been reflected in a similar increase in physical and human capital, or in permanent social results. As the case especially in countries where public spending has increased more than others Today, it suffers from issues of financial sustainability and low growth. Both large and small countries experienced huge efficiency problems. Given that the budgets of all Latin American and Caribbean countries are likely to remain tight for some time to come, all levels of government will have to learn to spend more wisely. Citizens' anxiety, population aging, and tax burdens that have reached efficiency levels, are increasing International economic volatility has put pressure on governments to increase value for money for public services. Modern economies have become more knowledge-intensive and service-oriented, making human capital more important than ever for growth in the medium and long term. Therefore, education has become the main channel for the influence of governments on the formation of human capital, the subject of important research in the field of economic growth.

The study of Ahec Šonje, Amina and Deskar-Škrbić, Milan and Šonje Velimir 2018(3) researched in public spending efficiency on secondary and higher education in new member states. In the European Union, effective government spending cannot generate sufficient returns in terms of contributing to economic growth, with a special focus on Croatia. Input variables were public spending on education for each student and as a

percentage of total educational spending, while output variables in secondary education were the results of PISA, the share of higher education for unemployed persons with higher education, and the Shanghai ranking of leading national universities. The results showed that public spending on education is not efficient in Croatia.

In many OECD countries, population changes and health conditions exert pressure on public financing, to prevent further expansion of government spending as a percentage of GDP, and you will need to increase the efficiency of public spending. Dutu and Sicari study 2016,(14) used a methodology of DEA to assess the efficiency of spending on social welfare in a sample, methodology from OECD countries in 2012, with a focus on health care, secondary education, and public services. The Data model contains two output structures and one input, with at least one of the variables representing a composite index that controls country-specific factors (the socioeconomic environment and lifestyle factors for example) It was found that there is a wide dispersion of efficiency measures in all OECD countries and provide possible quantitative improvements for both production efficiency and inputs.

Accordingly, we will use the modified methodology to measure the efficiency of public spending in Iraq, with the aim of analyzing the changes and standing on - monitoring and tracking levels of that efficiency in the period from 1997-2018, analyzing the changes, identifying their causes and extracting a set of learned lessons that benefit decision makers in raising the efficiency of public production. In Iraq, the methodology for measuring it and the most important factors affecting it, then suggesting the methodology for measuring and dividing the study by the most important results that were reached.

Research importance:

The importance of the study is due to the importance of analyzing the efficiency of public spending by improving access to quality education, which is at the heart of all development strategies. It is common since education is associated with huge impacts on economic development. The current study seeks to analyze the efficiency of public spending in Iraq and opportunities to track levels of that efficiency. Emphasis is placed on the education and health sectors, as the first, fourth goal of the sustainable development plan endorsed by United Nations in 2015 and has been implemented in the beginning of 2016. UNESCO has also developed a road map to achieve this, the 2030 Education Framework.

Research Problem:

With regard to Iraq, the government budget suffers a difficult situation as a result of the prevailing armed conflict, political tensions, and severe economic crisis that the country suffers from, and all this is accompanied by a decrease in oil prices. The Iraqi economy depends heavily on oil revenues, which represent about 95% of all government revenues. As a result, the drop in oil prices led to a sharp drop in Iraq's oil revenues from 84 \$ billion in 2014 to 59 \$ billion in 2015. It should be noted that the decline in Iraqi government revenues is associated with increased spending on fighting terrorism since mid-2014. Because of the low oil prices, Iraq

was forced to withdraw from its foreign reserves, which led to a decrease of 76.1 \$ billion in 2013 then to 55.8 \$ billion in 2015. (16) National spending in Iraq has developed as a proportion of output according to World Bank data, from 79.6% in 2003 to 98.37% in 2018, despite the trend of general fluctuation that characterized it during the period 2003-2018, at the same time, public consumption expenditures as a percentage of GDP increased from 12,27% in 2003, to 21% in 2018, which means an increase in consumption expenditures and their occupation, approximately a fifth of the gross domestic product. Nevertheless, it found a general trend in which the level of public spending declined.

Research hypotheses:

Does rational public spending play a positive role in the demand levels, in addition to including political stability and security in the country.

Research Methodology:

This modified methodology is used in this research to measure the efficiency of public spending in Iraq. The aim is to monitor and track levels of this efficiency in the period 1997-2018.

The aim of the study:

To get acquainted with the concept of public spending efficiency and the methodology for measuring the efficiency of public spending and the most important factors affecting the performance and efficiency of public spending in Iraq for the period 1997-2018.

The limits of the study: - It is represented by the following:-

A -The objective limits: The research will be limited to measuring and efficient public spending in Iraq .

B- Spatial limits: the research was restricted to the Federal Republic of Iraq.

C- Time limits: The research limits are limited to a study of measuring public spending in Iraq, and proposals to upgrade them during the time period from (1997-2018)

The research structure: It is divided into three topics;

Topic one : the concept of spending efficiency and the concept of measuring public spending efficiency.

Topic two : The most important factors affecting the performance of spending efficiency.

Topic three : performance and efficiency of public spending in Iraq for the period 1997-2018.

Topic One

1-1 The concept of public spending efficiency

The efficiency analysis is mainly based on studying and analyzing the relationship between inputs and outputs, and therefore, it differs from performance concept that focuses on studying and analyzing the aspect of outputs only, regardless of the input aspect. Efficiency aims to achieve the optimal exploitation of inputs or resources by maximizing the outputs resulting from the use of a certain amount of these inputs or reducing the inputs necessary to obtain a certain amount of these outputs. The same analysis applies to the efficiency of public spending as the inputs in the form of public spending are employed to obtain the various outputs that the government seeks to achieve through that spending .The input-to-output

ratio is used to determine the efficiency of public spending so that the level of that efficiency rises the higher the proportion of output compared to a certain amount of spending or inputs used or the lower the ratios spending or inputs needed to produce a certain amount of output. However, it should be noted the difficulty of separation and the precise distinction clear between those concepts, especially when it comes to distinguish between results and effects - which often leads to their use as synonyms. The term outputs will be used in this study to express outputs in a broad sense, which includes outputs in a narrow sense as well as results and effects, given the lack of data

1-2 Methods for measuring the efficiency of public spending:

The process of measuring the efficiency of public spending is a complicated process due to the difficulties involved in light of the multiplicity of public spending goals besides ,not selling the outputs of the government sector in most cases through the market, hence the lack of price data for these outputs as well as the difficulty of determining the amount of these outputs and this in addition to the difficulty of isolating and separating the influence of the surrounding external factors, which in turn affects the efficiency of public spending. Several studies have sought to measure the efficiency of public spending by studying the impact of public spending on a set of social and economic indicators in which that spending aims to affect it. The study "A. Afonso and others is considered one of the pioneering and prominent studies in the field of measuring the efficiency of public spending, as it established a clear methodology for measuring it, followed by many researchers later on.

In light of the above, we can divide in the study into two sectors, the education sector and the health sector. As for education, its performance is measured by the index of enrollment in secondary education and oecd indicators for measuring the extent of achievement achieved in the field of education so that through the indicator it is possible to measure the available amount and quality of education. The study resorted to relying on the ratio of enrollment in secondary education to measure the level of performance, then its ratio to the amount of spending on the education sector to obtain the adequacy index. Two studies of "Afonso and others" and "Baker" were able to better measure the performance of this sector compared to those of Inglopole and others, because the latter relied on only one indicator to measure the performance of the education sector, which is the indicator for the proportion of those enrolled in secondary education, while these studies used additional index. In addition to the index of enrollment in secondary education, the Afonso study used the achievement index in education - which in turn includes a wide range of sub-indices, as we explained earlier, and the Baker study used the index of the percentage of those deprived of formal education.

At the level of health sector indicators, its level of satisfaction is measured by the infant mortality rate and the life expectancy index at birth. As for the sub-indicators that depend on measuring the performance and efficiency of each sector, it is noted that while the Angelopols and other study neglected to include the health sector in the process of measuring the performance and efficiency of public spending, the Baker study focused on measuring the level of performance in that sector based on the life expectancy at birth.

However, the Baker study is taken to be confined to only one indicator to measure the level of performance in the health sector, which is for life expectancy at birth, especially since the life expectancy index at birth is affected by several factors other than spending on the health sector, on top of it is nutrition and the environment, and therefore the reliance of the Afonso and other study on an additional indicator other than the life expectancy index at birth, which is the child mortality rate, may allow a better measurement of health performance.

Topic Two

2-1 The most important factors affecting the performance and efficiency of public spending.

There are many economic, social and political factors that affect the positive or negative aspects of the performance and efficiency of public spending. Below is an explanation of the most important of these factors and how they affect them.

1. Ratio of public spending to gross domestic product: The size of the government, measured by the ratio of public spending to gross domestic product, affects the degree of performance and efficiency of public spending, as several studies have concluded that governments with a smaller size, whose public spending ratio does not exceed 40% of GDP, usually enjoy higher levels in performance and efficiency alike compared to those of the largest governments. The larger size of the government, measured by the ratio of public spending to GDP, the lower the level of efficiency of that public spending and vice versa, given the applicability of the Law of Diminishing Returns.

2. The pattern of spending allocation on sub-sectors: In this research, most studies are identified that the pattern of spending allocation on the different sub-sectors that each sector includes a significant impact on efficiency levels, which means that modifying that pattern without adjusting the size or proportion of spending on the sector as a whole should influence the level of efficiency of that spending. Hence, making some adjustments to the combination through which spending is done on the various items or activities and fields for the sector and diverting some resources from one field to another may be enough to raise the level of efficiency of spending on that sector and accordingly, search for the appropriate combination of intervention that would raising the level of spending efficiency in that sector is important.

3. Governance, corruption and the degree of control over government performance: Some studies have found a direct relationship between the level of good governance achieved by the country under study and both the performance and efficiency of public spending in it. The reason for this is that the improvement in the levels of governance leads to an improvement in the performance and efficiency of the public administration sector, which ultimately reflects positively on the performance and efficiency of the government sector as a whole, and that is because the public administration sector is one of the sub-sectors on which it relies to measure the performance and efficiency of the government sector as a whole.

Topic Three

The performance and efficiency of public spending in Iraq from 1997-2018

Public spending, in its current and investment divisions, is the state's tool for guiding economic policy, but exceptional circumstances affect public spending and its direction, which leaves a clear impact for that country. The deficit in Iraq is not a matter of an increase in expenditures over revenues, but rather a deficit in investment spending. Therefore, we will discuss in this topic the development of public spending in detail (current and investment) in Iraq during the period of the research (1997-2018) and this topic can be divided into two periods of time as Iraq went through different circumstances, which is the stage before 2003, that is, before the American occupation, and the second stage is after the occupation, we will try to employ some economic indicators.

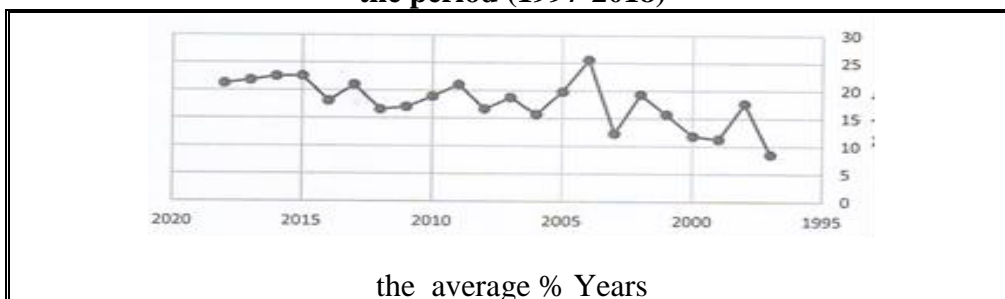
3/1 The development of public spending in Iraq during (1997-2018)

First: The development of the value of public spending in Iraq.

It is an indicator of the ratio of public expenditures to gross domestic product, and reflects the extent of the state's interference in economic life in general and social in particular, that is, the higher this ratio indicates the state's intervention and vice versa, it also indicates the level of public needs, and the extent of spreading justice and social balance and welfare in society, the average per capita GDP index that reflects the welfare of society by increasing it, and the indicator of total forming , fixed capital that indicates the amount of spending on the acquisition of new capital goods and the innovations and improvements that are taking place on capital goods list, while adding the value of the construction works under construction to reach the end value of the fixed capital goods, plus the value of the capital goods that the producer makes for use in his factory.

A - Public spending and its ratio to output: General government consumer spending includes all current government expenditures for the purchase of goods and services (including employee compensation). It also includes most of the expenditures on defense and national security, but excludes government military expenditures that are part of the formation of government capital. Figure (1) shows that the average public spending to output was 17.9. Percent during (1997-2018) with a minimum of 8.5 percent in 1997 and a maximum of 25.56 percent in 2004. A general trend of volatility is seen during (1997-2014) At a time when the last four years from 2015 to 2018 were almost stable.

Fig. (1) the evolution of government spending to output in Iraq during the period (1997-2018)



Source: The researchers' preparation based on World Bank data.

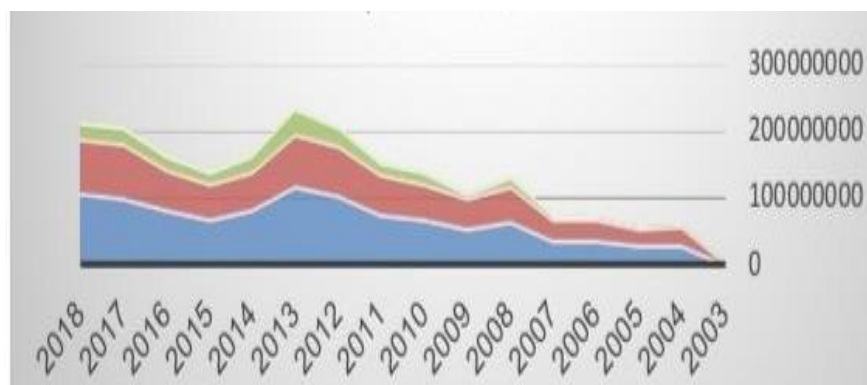
The public expenditures in Iraq are closely related to the revenues of oil exports, with the return of these exports to the oil market significantly after 2003 and the increase in their returns from foreign exchange. This was reflected in the increase in the volume of public expenditures, especially after the end of the embargo that the Iraqi economy suffered for more than a decade. By tracking the path of total (actual) public expenditures, we see that the upward path of operating expenses was 11357 in 1997, and the escalation began, in 1991, the rate of growth of expenditures for the same year was 123.40%, and it continued to rise in 2002, when operational expenditures reached 1762683 million dinars, with a growth rate of expenditures 121. , 67% of the total public expenditures for the year 2002 were (258258 million dinars), and that the increase in the ratio of current expenditures in relation to public expenditures is higher than before, because of international sanctions and the government's commitment to provide basic commodities to individuals as it started to commit by providing the largest possible amount of allocations to finance the ration card expenditures and constitute a large percentage of the current budget, as this procedure is no longer an option for the government, but was necessary to face the harsh siege conditions, that led to the suspension of most of the investment projects and development plans in that period, and the investment expenditures increased in 1999 as it reached (201960 million dinars), and that the increase that occurred in both current and investment expenditures was by financing the deficit (inflationary financing). The public expenditures financed with inflationary financing were high in the years (1990 -1996-1997) to 2002), when operational expenditures reached about (1762683) million dinars in 2002, which is the highest level reached during this period (1990-2002). As for investment expenditures in 2002, it reached 755602 million dinars are the highest level reached during this period is due to the increase in the volume of public revenues, as shown in table (2). and reached 83061000 million dinars in 2018, compared to 25202000 million dinars for investment expenditures, i.e. that investment spending is only a quarter of current spending, which is a clear imbalance in the state's general budget, which is illustrated in Figure (2) and table (1)

From the foregoing, we can conclude that there are factors that exert pressure on public spending ,concentrating in the side of operating spending at the expense of investment spending, and the budget can guarantee growth through the investment part, that is, within the limits of the investment budget, as it is possible through investment spending increases productivity in the economy, this leads to the production of more goods and services ,and then increase the national product and thus raise the standard of living of members of society. The increase in number of The population requires work to provide more private consumer goods and public goods such as education and health and other services so that the rate of growth of production of these goods and services is at least at rates similar to the rate of population growth so that the level of individual welfare is not affected.

The size of this investment budget is measured by the amount that the government sector contributes to the formation of capitals during the fiscal year. and therefore growth and development cannot take place without the state implementing the basic construction projects and major projects and

others, because the necessary condition for growth and development in the country, the importance of sound investment planning for capital, especially in developing countries, because it is a capital component is the scarce element in all countries except oil-producing countries, and this necessitates its use in an optimal way to ensure its achievement for the country.

Fig. 2 The development of public spending and its current and investment components during the period 2003-2018



The average % Years

Investment expenditures current expenditures public expenditures

Preparing the researchers based on the data of the Ministry of Finance

Table 1

Total public expenditures and their distribution between investment and operating expenses for the period 2003-2018

Years	Current expenses	Investment expenses	General expenses	General revenue	Growth rate of public expenditure %	Growth rate of public revenue %
2003	464080	2788810	49019610	25985527	194.65	18.86
2004	27597167	3924260	31521427	32988850	643.04	95.55
2005	27066124	3765018	30831142	40435740	97.81	76.25
2006	34917607	2576852	37494459	49055545	121.61	76.43
2007	32719837	6588511	39308347	54964850	104.84	71.52
2008	52301181	14976016	67277197	80641041	171.15	83.43
2009	45941063	9648658	55589721	55243526	82.63	100.63
2010	54580860	15553341	70134201	70178223	126.16	99.94
2011	60925554	17832114	78757668	108807390	112.30	72.38
2012	75788722	29350954	105139576	119733241	133.50	87.81
2013	78746805	40380750	119127555	113840076	113.30	104.64
2014	58625456	24930752	83556208	105266029	70.14	79.38
2015	51832839	18564676	70397515	66470252	84.25	105.91
2016	59702433	2443119	84134252	81700000	19.51	102.9
2017	79508072	24650112	104158184	79010000	23.8	13.18

2018	83061000	25202000	108263000	91649000	3.94	118
Average of duratio n						89.1

Source: Ministry of Finance / Budget Department

It is clear from Table (1) that operating expenses continued to increase, as they reached 2003 (4614080) million dinars and investment expenditures continued to decrease in 2003 and it is the lowest values recorded during this period during the last war (American occupation) and deterioration the security situation and the political deterioration. As for 2004, the new boom has increased in size of consumer and private investment, but in 2006 the investment expenditures decreased while investment expenditures in 2013 was higher and it is (40380750) and at the year (2005-2006-2009) it formed decrease due to the security situation and this decrease was due to the deteriorating security situation and the global financial crisis had repercussions on the financial situation in Iraq in 2009, and there serious attempts to increase investment spending, as it is the main driver in stimulating the side of the commodity supply and fixed capital, despite its improvement, but this type of spending led to the total public expenditures did not exceed in their best condition, and the increase in consumer and investment expenditures was the result of an increase in the volume of expenditures in general and the result of the increase in revenues that constitute oil revenues of about 88% of total revenue, and the increase in expenditures was directed towards strengthening the security side, adjusting salaries and allowances, while keeping the current ratio of expenditures expected throughout the study period.

Second: spending on education in Iraq

The education system in Iraq was one of the best in the region during this time period and it was praised all the time by 1984, it called the golden years 1970-1984, and great achievements have been made which include but are not limited to;

- increase in gross enrollment rates 100%.
- Almost complete gender equality in enrollment.
- Illiteracy between the age group 6-12 years decreased to less than 10%.
- Dropout / recurrence rates were lowest in MENA region.
- Education spending amounted to 6% of gross national product and 20% of the total Iraqi government budget.
- Average government spending per student in education was approximately 620\$.

By contrast, the 1980s sparked a war with Iran, which in turn diverted public resources toward military spending. Of course, this has led to a sharp drop in public social spending. However, the education budget suffered from a deficit, which has continued to grow over the years. There was also no strategic plan in place to address these issues at the time. The years 1990-2003 were the years of crisis. Moreover, the 1990s led to the first Gulf War and the economic sanctions that weakened educational institutions in Iraq.

- Some of the results of the weak system included but not limited to;
- The share of education in gross national product has fallen to nearly half and stabilized at 3.3% in 2003.
 - With total income declining, education resources suffered and education came to assume only 8% of the total government budget.
 - Government spending per student on education declined from 620 \$ in the golden year to 47 \$.
 - Teachers' salaries decreased in real value , from 500-1000 \$ per month to 5 per month in 2002-2003.
 - Total primary school enrollment has decreased to 90%, the gender gap has increased 95% for males and 80% for females, and the dropout rate has reached 20% (31% of females and 18% of males)
 - The repetition rate is twice that of the MENA region 15% and 34% in secondary schools.(5)

Public spending on education indicates a percentage of total government spending is the total public spending (current and capital) expressed as a percentage of total government spending for all sectors in a given fiscal year. Expenditure on public education includes government expenditures on educational institutions (both public and private), education management, and benefits of private entities (students / households and other private sector entities). Given Table 2 this percentage appears to be stable during the study period (1997-2018) at 4.6 percent, although there has been notable progress in education in Iraq, through the growth of the enrollment rate in primary education has increased dramatically over the past decade, it rose by 4.1 percent annually. As of 2015-2016 that 9,2 million students enrolled in all levels of education in Iraq, and the total number of primary school enrollment doubled to six million children in 2012 from 3.6 million children in 2000.

Several factors have stood behind the low efficiency of the learning process in Iraq, including the following;(12)

1-The Iraqi academic year is one of the shortest in the world: students spend Only 151 days at school each year - less than 29 days of students in ECO countries, which amount to 180 days a year. Compare that to 210 and 220 days required in Japan and South Korea, respectively. Although the number of school days per year is not a limiting factor in student performance, Iraqi schools largely lack extracurricular activities, including sports, creative arts, academic enrichment programs, outdoor education, preparation for testing, and community outreach. Iraqi students lack almost all of these opportunities.

2-Enrollment and dropout rates: The primary school enrollment rate in Iraq is 91%. This percentage drops dramatically to 36% in middle schools and further decreases to 18% in secondary schools. The percentage of students entering universities is only 14%. Thus 91% of those who attend primary school have 73% drop out.

According to UNESCO, UNICEF and the World Bank, the highest dropout rates are among females Dropout 11.4% of females compared to only 5.4% of males.

Thus, the ratio of male to female in middle school has changed to 100: 142, as a result of this number of students who drop out and repeat schools, Iraq lost nearly 850 \$ million in 2016 in one year.

3- Iraq spends less on education than any country in the world. According to OECD(13) data , Luxembourg spends 21320 \$ per student, while Indonesia spends 1209 \$ per student. In Iraq, spending is, at best, around 600 \$ per student. In 2016, Iraq allocated 5.7 \$ billion to education, but 91% of the education budget went to cover salaries, while investment in education was relatively small, amounting to about 600 \$ million, and most of them were looted.

Third: Spending on health in Iraq during the period (1997-2018)

Health spending is one of the most important aspects of spending in all countries, and total health spending (% of GDP) in Iraq is measured at 3.3%, according to the World Bank Development Indicators Group, compiled from officially recognized sources.

Total health spending is counted the sum of public and private health spending. It covers the provision of preventive and curative health services, family planning activities, nutrition activities, and emergency health assistance, but does not include provision of water and sanitation. The current health spending per capita is in current US dollars in 2016. Health expenditures per capita in Iraq were 153 \$. Health expenditures per capita from Iraq increased from 97 US \$ in 2007 to 153 US \$ in 2016, with an average annual growth rate of 6.28% that includes estimates of current health expenditures consumed health care goods and services during each year. Health care spending in Iraq for 2015 was 154 \$, down to 17.4% from 2014. The spending on health care in Iraq for the year 2014 was 187 \$, a decrease of 3.99% from 2013. The health care expenditures in Iraq for the year 2013 are 195 dollars, an increase of 8.85% over the year 2012. As for the allocations for health, it reached in the year 1997 are 2.63 and they started to rise after 2004 until they reached 14.13 and the proportion of allocations for the year 2010 was 66.10 and for state establish funds to increase allocations for the health, education and education sectors in order to raise their levels and advance them as shown in Table (2).

Table (2): Percentage of spending on education (% of total national income)

Years	Percentage of spending on education (% of total national income)
1997	4060
1998	4060
1999	4060
2000	4060
2001	4060
2002	4060
2003	4060
2004	4060
2005	4060
2006	4060
2007	4060
2008	4060
2009	4060
2010	4060
2011	4060

2012	4060
2013	4060
2014	4060
2015	4060
2016	4060
2017	4060
2018	4060

Source: UNESCO; data are extrapolated to the most recent year available

Health spending is divided as 40% is spent on inpatient services including long-term care), and 15% on medicines / consumables, 8% is spent on investments and 23% is spent on outpatient services.(9) In Iraq, there were a number of changes in the number of public and private hospitals in Table 2, in 2003 there were an average of 0.7 government hospitals per 100,000 people. Differences between governorates were less clear than primary health care centers, and the number of public hospitals ranged from 0.4 per 100,000 people in Dhi- Qar to 1.8 in Sulaymaniyah. On average, it was a number Public hospitals per 100,000 people are higher in the Kurdistan region than in the rest of Iraq. In 2012 the average number of public hospitals per 100,000 residents was still 0.7.

Conclusions:

- 1.It is evident from the study period to discuss the disruption of the GDP structure and the domination of current expenditures over investment expenditures.
- 2.Public expenditures during the study period were characterized by the reduction of its structure and the absence of justice in the distribution and prevalence of current expenditures over the proportion of public expenditures was the lowest level, which is the low level of investment expenditures
- 3.The expenditures on health and education sector in the period 1997-2002 were less than 2003—2015.

Recommendations:

As for the current spending policy, it should be reformed in order to rationalize spending according to economic viability only. In the field of investment spending, raising human development indicators (such as education, health, and housing) should be a priority, and in terms of operational spending, it is necessary to review the government support policy directed at supporting oil product and supporting agricultural crops and public companies, etc., if there is no feasibility for any of the aforementioned support policies support they should be abolished gradually to correct the path of government support. In 2006 the policy of decreasing the price of oil products subsidies began, but it stopped due to the weak will to reform and the absence of promoting reform policies (Question / What is the true value of the total costs of support?)

A. Leaving the classic methods of financing and implementing projects: Most countries of the world have adopted Private Sector Partnership for the Year "to address the scarcity of investment financial allocations for financing and adopting new mechanisms to implement them and they are

applied in both developed and developing countries alike. This new mechanism is known as the Private Sector Partnership, and business environment indicators (currently undeveloped) should be worked out according to data from the World Bank Survey Doing Business towards encouraging the local and foreign private sector.

B. Providing an economic support policy based on economic feasibility and with the aim of drive the economy that has become low (for example, the industrial and agricultural sectors currently contribute to the value of GDP 3% and 4%, respectively) due to weak competitiveness and the result of the closure of many projects and the increase unemployment rate. To address this issue, a study was prepared for the purpose of operating stalled projects and stopped factories and building competitive capacities, creating the necessary labor and moving the joints of the economy through the "economic multiplier."

C. Reforming wages and salaries: Another measure is to address the structural imbalances caused by the abundance of oil revenues, the increase in wages and salaries at the level of spending, and their height over the level of their counterparts in the private sector. This disparity created two types of difficulties The first , growth and development of domestic and foreign private sector projects, and the second by creating incentives for rural emigration to the city that led to the spread of random housing units and until the infrastructure has become unable to provide services (overriding the absorptive capacity)

It is necessary to review salaries and wages in order to align with economic feasibility in order to avoid waste and exacerbate the deficit to great levels this year is 127 trillion (% of GDP).

D. The Attention to the health and education sectors and allocating a special budget for these two important sectors, and interest in research and development in the education sector.

References

- Afonso, A. and M. St Aubyn, (2004),Non-parametric approaches to education and health: Expenditure efficiency in OECD countries". Mimeo. Technical University of Lisbon.
- Afonso, A., L. Schuknecht and V. Tanzi 2003 Public sector efficiency:an international comparison". Working paper 242. European Central Bank ..Aigner, D.J., C.A.K. Lovell, and P. Schmidt. 1977. Formulation and estimation of stochastic frontier production function models, *Journal of Econometrics*, Vol. 6: 21-37.
- Ahec Šonje, Amina and Deskar-Škrbić, Milan and Šonje, Velimir (2018): Efficiency of public expenditure on education: comparing Croatia with other NMS. Published in: INTED2018 Conference Proceedings (7 March 2018): pp. 2317-2326.
- Alejandro Izquierdo, Carola Pessino and Guillermo Vuletin, (2018), Better Spending for Better Lives Edited by Alejandro Izquierdo, Carola Pessino, and Guillermo How Latin America and the Caribbean Can Do More with Less, DEVELOPMENT IN THE AMERICAS

- Education Worldwide, History of Education in Iraq,
<https://www.k12academics.com/Education%20Worldwide/Education%20in%20Iraq/history-education-iraq>
- Élisé Wendlassida Miningou,(2019), Quality Education and the Efficiency of Public Expenditure A Cross-Country Comparative Analysis, Human Development Global Practice, Policy Research Working Paper 9077, World Bank,December,p2. Public Disclosure Authorized Public Disclosure Authori.
- Evans, D, A. Tandon, C. JL Murray, and J. A Lauer. 2000. The comparative efficiency of national health systems in producing health: an analysis of 191 countries. World Health Organization GPE Discussion Paper Series No. 29
- Farrell, M.(1957), “The measurement of productive efficiency”, Journal of the Royal Statistical Society, Series A. Vol. 120, No. 3, pp. 253-290
- Healthcare Resource Guide: Iraq (2018),
https://2016.export.gov/industry/health/healthcareresourceguide/eg_main_116238.asp
- Herrera, Santiago; Badr, Karim. 2011. Why Does the Productivity of Education Vary across Individuals in Egypt? Firm Size, Gender, and Access to Technology as Sources of Heterogeneity in Returns to Education. Policy Research working paper; no. WPS 5740. World Bank. © World Bank.
<https://openknowledge.worldbank.org/handle/10986/3503>
License: CC BY 3.0 IGO.”
<http://www.uabonline.org/ar/research/economic/157815911608158515754733/1>
- Jayasuriya, Ruwan, and Quentin Wodon, (2002), Measuring and explaining country efficiency in improving health and education indicators. The World Bank.
- Mohamed Al-Rubeai and Ahmed K. Al-Jaafari, What problems face Iraqi education?, 06/02/2019, <https://middle-east-online.com/en/what-problems-face-iraqi-education>
- OECD (2020), Spending on tertiary education (indicator). doi: 10.1787/a3523185-en (Accessed on 17 February 2020).
- Richard Dutu and Patrizio Sicari, (2016), PUBLIC SPENDING EFFICIENCY IN THE OECD: BENCHMARKING HEALTH CARE, EDUCATION AND GENERAL ADMINISTRATION ECONOMICS DEPARTMENT WORKING PAPERS No. 1278, 11-Feb.
- Ulrike Mandl, Adriaan Dierx, Fabienne Ilzkovitz,(2008), THE EFFECTIVENESS AND EFFICIENCY OF PUBLIC SPENDING, European Commission Directorate-General for Economic and Financial Affairs Publications B-1049 Brussels, Belgium
- Union of Arab Banks, developments in the Arab economy,2013-2016, 15/3/2016, Available at the following link:
<https://www.uabonline.org/ar/research/economic/157815911608158515754733/1>

Abstrakcyjny

Celem niniejszego opracowania jest analiza efektywności wydatków publicznych w Iraku poprzez monitorowanie i śledzenie poziomów tej efektywności w okresie (1997-2018) oraz analiza zmian, przez które przeszły i ustalenie ich przyczyn oraz najważniejsze czynniki na nią wpływające. Badanie wykazało, że średnie wydatki publiczne na produkcję wyniosły 17,9% w okresie (1997-2018).

To minimum 8,5 proc. W 1997 r. I maksimum 25,56 proc. W 2004 r. Ogólny trend zmienności pojawia się w okresie (1997-2014), podczas gdy ostatnie cztery lata od 2015 do 2018 roku były prawie stabilne. Badanie wykazało również nierównowagę w strukturze wydatków publicznych oraz przewagę wydatków bieżących nad wydatkami inwestycyjnymi. Okazało się, że proporcja wydatków na edukację jest stała w badanym okresie (1997-2018).

Jeśli chodzi o poziom wydatków na sektor zdrowia, choć są źródła podające, że Irak wydaje 5-7%, są inne źródła, które mówią, że wydaje tylko 3,3%, jak podaje Development Indicators Group Banku Światowego i WHO,

studium zaleca, aby w celu podniesienia efektywności wydatków publicznych nie polegać jedynie na zwiększaniu wielkości tych wydatków, aby to osiągnąć, potrzebny jest zestaw środków. Uzupełniający, z których najważniejszy jest walka z korupcją i odnowienie nadzoru nad działaniami rządu nad wszystkimi jego składowymi bez wyjątku