



## MEASURING AND ANALYZING THE IMPACT OF INVESTMENT IN HIGHER EDUCATION ON ECONOMIC GROWTH IN IRAQ FOR THE PERIOD (2004-2023)

لما نقول قياس وتحليل يعني تستعمل أداة قياسية واحصائية من أجل دراسة العلاقة، من المستحسن تغيير العنوان إلى دراسة تقييمية

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Article history:	Abstract:
<p><b>Received:</b> 20<sup>th</sup> August 2024 <b>Accepted:</b> 11<sup>th</sup> September 2024</p>	<p>This research sought to identify the nature of the relationship between spending on higher education and economic growth in general. And evaluating the impact of investment in higher education in Iraq through a benchmark study. And an attempt to develop proposals to address the problem of spending on higher education and economic growth in Iraq. The researcher adopted the qualitative-quantitative approach to clarify the causal relationship between the research variables. The problem of the study was based on a hypothesis based on: There is a causal relationship in one direction to the impact relationship of investment in education and its indicators on economic growth in Iraq during the study period from 2004 to 2023. The study reached a set of conclusions, the most important of which is: There is an impact relationship of investment in education on economic growth. The amount of spending on education in relation to total spending varied during the research period. There was a sharp decline in the level of spending during the period (2014-2017), and during this period Iraq experienced unstable security and political conditions, which led to a decrease in total spending.</p>

**Keywords:** investment, investment in education, economic growth

### الملخص جيد فيه كل العناصر اللازمة

#### INTRODUCTION:

Investments in education pay off in the form of higher future earnings, and differences in educational attainment explain a significant portion of the variation in adult wages, incomes, and other outcomes. But what determines a child's educational success? Most studies point to family background as the primary factor. But why does background matter? While many aspects undoubtedly matter, research increasingly points to health as a potential major factor. The importance of health for education and income suggests that if family

background affects a child's health, poor child health may in turn affect future education and economic status.

The Iraqi Ministry of Education announces in every budget a number of developments to be made in the education sector, with high government expenditures being diverted to it. The motivation for this increase is the belief that educating children in developing countries is crucial to future economic growth and lasting democracy, leading to greater stability and improved living standards. It is important to characterize the benefits of education through the idea of investing in human capital. This idea



captures the fact that investing in people, like investing in tangible forms of capital such as buildings and industrial equipment, generates a stream of future benefits. Human capital is one of the great unknowns in research on the determinants of economic development. The majority of the empirical and theoretical literature suggests a relationship between social indicators and economic growth. Education is an investment in human capital, as the benefits accrue to the educated individual over a lifetime of activities.

المقدمة هي الانتقال من العام نحو الخاص مع سرد متغيرات البحث واسقاطها على واقع العراق، هذا الأمر كان مفقود نوعاً ما

**The first topic: Research methodology and previous studies:**

**The first axis: Research methodology:**

**First: Research problem:**

The research problem is based on the decrease in the percentage of government spending on investment in education from a percentage of public spending, and we notice this in recent years, due to the tendency of most students to private colleges and the decrease in the number of students in public universities, in addition to following traditional development policies that were behind the decrease in this percentage, which led to a decrease in the percentage of its contribution to the growth of the gross domestic product and a decline in growth rates for some years of research. The research problem can be summarized by posing the following main question: Does investment in education affect economic growth?

To answer the main question, it is necessary to answer the sub-questions:

1. What are the indicators of investment in education?
2. What are the reasons for the decrease in spending on education?
3. How does investment in education affect economic growth?

**Second: The importance of the research:**

The importance of the research lies in the topic of higher education and investment in it, based on the new vision of the priorities of public spending and investment in human capital, and the importance of the returns that this type of investment can achieve, especially in the field of higher education. The future. This is through its impact on the structure of society, its characteristics and its needs. Third: Research objectives:

1. Identify the nature of the relationship between spending on higher education and economic growth in general.

2. Evaluate the impact of investment in higher education in Iraq through a standard study.

3. Attempt to develop proposals to address the problem of spending on higher education and economic growth in Iraq.

**Fourth: Research Hypotheses:**

The research hypothesis is based on the research problem, which states that there is a causal relationship in one direction for the relationship of the impact of investment in education and its indicators on economic growth in Iraq during the study period from 2004 to 2023

Fifth: Research Limits:

Spatial Limits: The spatial limits were represented by the Iraqi Ministry of Higher Education and Scientific Research

Temporal Limits: The time period included in the research data, which is (2004-2023).

Sixth: Research Methodology: The researcher adopted the qualitative quantitative approach to clarify the causal relationship between the research variables.

**Seventh: Research Terms:**

Investment: It is an asset or an accumulated element with the aim of generating income or recognizing it.

Investment in Education: The outcome of real investment in human capital, as required by the needs of society for growth and development at many levels, is only achieved through the educational outputs that were spent on it.

Economic growth: The increase or improvement in the inflation-adjusted market value of goods and services produced by the economy in a fiscal year.

Axis II: Previous studies:

Study: (Nice: 2023): (The impact of investment in higher education on economic growth)

Research objectives:

- Finding the relationship between higher education and economic growth in Algeria for the period 1971-2020
- Determining the impact of investment in higher education on economic growth using the descriptive and analytical approach.

Conclusions:

Despite the resources allocated by the public authorities to higher education in Algeria, which are estimated on average at 1.57% of GDP and 4.4% of public spending, it has not been able to play its role. The role of development.

Investment in higher education has a negative and significant impact on economic growth in the long term.

A 1% increase in the stock of human capital accumulated through investment in higher education leads to a 1.38% decrease in economic growth.



Study: (Al-Maghribi: 2020): (Measuring the impact of investment in higher education on economic growth in the Arab Republic of Egypt during the period from 1990/1991 to 2016/2017)

Research objectives:

1. Identify the nature of investment in education and its indicators.
2. Identify the nature of economic growth and the difference between economic growth and economic development.
3. Explain the impact of the relationship between investment in education and economic growth.

Conclusions:

1. The amount of spending on education during a one-year lag does not affect the gross domestic product, although this does not reduce the value of this variable.
2. The relationship between the size of the workforce and the size of the population has a positive effect on increasing the size of the gross domestic product, although it is relatively weak due to its presence with other variables that have a significant impact.

## **Section Two: Theoretical and Intellectual Framework of the Research:**

### **First Axis: Theoretical Framework for Investment in Education:**

#### **First: The Concept of Investment in Education:**

Investment is first and foremost the alignment of the investor's beliefs and values with the allocation of capital to address social and/or environmental issues. Impact investing refers to investments "made in companies, organizations, and funds with the aim of generating a beneficial and measurable social or environmental impact along with a financial return." (Nisse; 2023, 3)

Investments can be made in both emerging and developed markets and target a range of returns ranging from below-market to market price, depending on the strategic objectives of the investors. (Abdeen; 2020, 39)

The growing impact investment market provides capital to address the world's most pressing challenges in sectors such as renewable energy, sustainable agriculture, and affordable and accessible basic services including housing, healthcare, and education. (Taghreed; 2021, 65)

Many would agree to recognize education as the most powerful investment in our future. Research shows that education can make a lasting difference in people's lives, and it benefits not only individuals but nations as well. Investing in education is not just the right thing to do, it's also smart economics. (Monther; 2022, 198)

Education leads the way to health, empowerment, and employment. Evidence suggests that every additional year of education boosts a person's income by 10% and increases a country's GDP by 18%. Some studies estimate

that if every child could read, it would mean 170 million fewer people living in poverty. By 2030, more than 600 million more children will need to be in school to achieve universal basic education. (Zalzal; 2021, 72)

Investing in education is the process of learning about different investment opportunities, strategies, and risks to make informed decisions about how to invest your money. It helps reduce investment risks and achieve financial goals. (BURNET; 2022, 45)

#### **Second: The Economic Concept of Investment**

By investment, economists mean the production of goods that will be used to produce other goods. This definition differs from common usage, where decisions to buy stocks (see stock market) or bonds are seen as investments. (Chakraborty; 2023, 127)

Investment is usually the result of forgoing consumption. In a purely agricultural society, early humans had to choose how much grain to eat after harvest and how much to save for future agriculture. The latter was investment. In a more modern society, we devote our productive capacity to producing purely consumer goods such as hamburgers and hot dogs, and investment goods such as semiconductor foundries. If we produce a \$1 hamburger today, our GDP will be \$1 higher. If we build a \$1 semiconductor foundry today, our GDP will be \$1 higher, but it will also be higher next year because the foundry will still be producing computer chips long after the hamburger is gone. This is how investment leads to economic growth. Without it, human progress will stall. (Choe; 2023, 48)

#### **Third: Types of Investment:**

1. Direct Investment: Direct investment is more commonly referred to as foreign direct investment (FDI). Foreign direct investment refers to investment in a foreign commercial enterprise with the aim of acquiring a controlling stake in the enterprise. Direct investment provides capital financing in exchange for a share in the capital without purchasing common shares of the company's stock. (Tang; 2020, 87)

2. Indirect Investments: A class of marketable securities. Unlike direct investments, which are owned by the investors themselves, indirect investments are made in vehicles that pool investors' money to buy and sell assets. Examples of indirect investments include hedge funds, mutual funds, and unit trusts. (Baiashvili; 2020, 43)

#### **Fourth: Investment Risks:**

All investments involve risks, including the potential loss of capital. Below are some general risks associated with the various asset classes mentioned on this site. This is not an exhaustive list. Each specific investment approach and product will have its own risks and the risks will vary.



1. Alternatives Risks - Alternative investments tend to use leverage, which can magnify potential losses. In addition, they can be subject to increased illiquidity, volatility, and counterparty risk, among other risks. (Al-Samarrai: 2020, 50)

2. Asset-Backed Securities/Mortgage-Backed Securities Risks - Mortgage-backed securities are subject to prepayment risk, which is the possibility that the principal of the loans underlying the securities will be prepaid in a different way than expected at the time of purchase. Due to prepayment risk, the term of mortgage-backed securities can be difficult to predict. (Al-Najfi: 2020, 302)

3. Capital Risks - Investment markets are subject to economic, regulatory, market sentiment, and political risks. All investors should consider the risks that may affect their capital before investing. The value of your investment may become more or less than it was at the time of the original investment. (Al-Hawri: 2023, 17)

4. Commodity Risks - Exposure to commodity markets can be more volatile than investments in traditional stocks or fixed-income securities. The value of commodity-linked derivatives may be affected by changes in overall market movements, commodity index fluctuations, interest rate changes, or events affecting a particular commodity or industry. (Mahdi: 2021, 5)

5. Common Stock Risks - Common stocks are subject to many factors, including economic conditions, government regulations, market sentiment, domestic and international political events, environmental and technological issues, as well as the profitability and viability of an individual company. Equity securities may decline in price as a result of adverse changes in these factors, and there is no guarantee that a portfolio manager will be able to predict these changes. Some equity markets are more volatile than others and may pose a higher risk of loss. Common stocks represent an ownership interest or stake in the issuer. (Mustafa, 2020, 10)

6. Credit Risk - A fixed income security may decline in value, or the issuer or guarantor of that security may fail to pay interest or principal when due, as a result of adverse changes in the financial and/or business condition of the issuer or guarantor. In general, lower-rated securities carry a greater degree of credit risk than higher-rated securities. (Ezzat, 2020, 179)

7. Currency Risk - Investments in currencies, currency derivatives, or similar instruments, as well as in securities denominated in foreign currency, are subject to the risk that the value of a particular currency will change in relation to one or more other currencies. (Contracts, 2022, 283)

8. Emerging Market Risk - Investments in emerging and frontier countries may present risks such as changes in

currency exchange rates; less liquid markets and less available information; less government oversight of exchanges, brokers, and issuers; increased social, economic, and political uncertainty; and increased price volatility. These risks are likely to be significantly greater than in developed markets. (Malham, 2021, 20)

9. Stock Market Risk - Stock markets are subject to many factors, including economic conditions, government regulations, market sentiment, domestic and international political events, and environmental and technological issues. (Nadim, 2021, 61)

10. Fixed Income Market Risks - Fixed income markets are subject to many factors, including economic conditions, government regulations, market sentiment, and domestic and international political events. In addition, the market value of fixed income securities will fluctuate in response to changes in interest rates, currency values, and the creditworthiness of the issuer. (Ayenew; 2022, 101)

#### Fifth: The Importance of Investment Education

Investment education is essential for anyone who wants to achieve financial stability and security. It helps individuals make informed decisions about their finances. Without a basic understanding of investing, people may make rash or uninformed decisions, leading to significant financial losses.

Another reason why investment education is important is that it can help individuals achieve their financial goals. Whether a person is saving for retirement, a down payment on a home, or for their children's education, investing can be an effective way to grow their money over time. (Dahan, 2021, 22)

However, to achieve these goals, individuals need to understand how to invest and which investment options are best suited to their needs.

Finally, investment education is crucial because it can help individuals build long-term wealth.

Investing is one of the most effective ways to grow your money over time, and with the right knowledge and approach, individuals can build significant wealth over the long term. (Masadawi: 2022, 65)

Second axis: The intellectual framework of economic growth:

#### **First: What is economic growth:**

Economic growth is an increase in the production of economic goods and services in a single period of time compared to a previous period. It can be measured in nominal or real terms (adjusted for inflation). Traditionally, overall economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP), although alternative measures are sometimes used. (Bouradja; 2020, 73)



In simpler terms, economic growth refers to an increase in the total output of the economy, which is generally manifested in a rise in national income.

Often, but not necessarily, overall gains in output are associated with an increase in average marginal productivity. This leads to an increase in income, which inspires consumers to open their wallets and buy more, which means a higher quality of material life and standard of living. (Ata; 2020, 87)

In economics, growth is usually modeled as a function of physical capital, human capital, labor force, and technology. Simply put, an increase in the quantity or quality of the working-age population, the tools they have to work with, and the recipes available to them for combining labor, capital, and raw materials, will lead to an increase in economic output. (Barro; 2022, 198)

**Second: Stages of Economic Growth**

The economy moves through different periods of activity. This movement is called the "business cycle." It consists of four stages:

**Expansion** – During this stage, employment, income, industrial production, and sales all increase, and real GDP rises. (Guiso; 2020, 95)

**Peak** – This occurs when the economic expansion reaches its maximum. It is, in effect, a turning point. (Hakura; 2022, 83)

**Contraction** – During this stage, all elements of expansion begin to decline. A recession occurs when a significant decline in economic activity spreads throughout the economy. (Barro; 2023, 58)

**Trough** – This occurs when an economic contraction reaches its lowest point. (Beck; 2020, 51)

A single business cycle is dated from peak to peak or from trough to trough. These cycles are generally not uniform in length, and there can be a period of contraction during an expansion and vice versa. (Cuberes; 2021, 81)

Since World War II, the U.S. economy has experienced more expansions than contractions. Between 1945 and 2019, the average expansion lasted about 65 months, while the average contraction lasted only 11 months. However, the Great Recession, from December 2007 to June 2009, lasted 18 months. This was followed by the longest expansion on record, 128 months, which lasted until 2020 and the onset of the COVID-19 pandemic. (Saleh, 2020, 46)

**Third: How to Measure Economic Growth**

The most common measure of economic growth is real GDP. This is the total value of everything, whether goods or services, produced in the economy, with this value adjusted to remove the effects of inflation. There are three different ways to look at real GDP. (Batawih, 2023, 70)

**Quarterly-annual growth** – This looks at the change in GDP from quarter to quarter, which is then multiplied by its annual rate. For example, if the change in one quarter is 0.3%, the annual rate would be extrapolated to be 1.2%. (Al-Shammari, 2022, 108)

**Growth rate for four quarters or on an annual basis** – This compares the GDP for one quarter of two consecutive years as a percentage. It is often used by companies to offset the effects of seasonal changes. (Zidan, 2021, 27)

**Average annual growth rate** – This is the average of the changes in each of the four quarters. For example For example, if there are quarterly rates in 2022 of 2%, 3%, 1.5%, and 1%, the average annual growth rate for that year will be  $7.5\% \div 4 = 1.875\%$ . (Al-Shorbajy; 2022, 174)

**Fourth: The importance of economic growth:**

In simple terms, economic growth means that more will be available to more people, which is why governments try to generate it. However, it is not just about money, goods, and services. Politics also enters the equation. How economic growth is used to promote social progress matters. (Ederoushe; 2020, 94)

According to ten years of research by the United Nations University World Institute for Development Economics Research, "most countries that have demonstrated success in reducing poverty and increasing access to public goods have based this progress on strong economic growth." If the benefits flow only to the elite group, growth will not be sustainable. (Lakhdar; 2020, 2)

**The third section: The practical aspect of the research:**

**First: The reality of education in Iraq after 2003:**

Nearly three decades of wars, including internal and external armed conflicts, have paralyzed most attempts to reform the education system in Iraq. Educational institutions were destroyed and consumed due to the economic blockade between 1990-2003. Moreover, teachers were exposed to various forms of violence, including killing, kidnapping and displacement, which have increased significantly since 2003.

The strategy of the Ministry of Higher Education and Scientific Research included the following most important weaknesses facing higher education in Iraq:

Lack of skills development and training in educational institutions that meet the requirements of the labor market. This is due to the absence of strategic planning within universities and the insufficient implementation of the comprehensive quality system for higher education.

Restrictions imposed on academic freedoms and politicization of education as a result of the sectarian quota system and the spread of political violence, which forced academics to practice self-censorship. This has



affected scientific standards and the credibility of research, especially in the social and human sciences. The low rate of spending on scientific research, which is estimated to be the lowest in the region. The underdeveloped infrastructure is insufficient to accommodate the increasing numbers of students year after year, despite the expansion of public and private universities; noting that the largest demographic group in Iraq is the youth.

Weak government policies to address economic problems and unemployment among university graduates are likely to accelerate further violence, fueling the underlying

**Second: Number of students for the period (2004-2023):**

**Table (1) shows the number of students accepted into universities, the number of graduate students, and the population of Iraq during the study period:**

Years	Number of admitted students	Number of graduates	Number of population	Percentage of accepted students to the population %	Percentage of graduate students to population %
2005-2004	99920	82330	<b>27139</b>	%36	%30
2006-2005	67870	72400	<b>27963</b>	%24	%25
2007-2006	39630	80540	<b>28810</b>	%13	%27
2008-2007	24550	33470	<b>29682</b>	%8	%11
2009-2008	36770	52740	<b>31895</b>	%11	%16
2010-2009	27880	36530	<b>31664</b>	%8	%11
2011-2010	17840	79170	<b>32490</b>	%5	%24
2012-2011	25190	66870	<b>33338</b>	%7	%20
2013-2012	86680	11960	<b>34208</b>	%2	%3
2014-2013	54040	99350	34980	%15	%28
2015-2014	18720	32600	35175	%5	%9
2016-2015	24670	88260	35212	%7	%25
2017-2016	59940	46760	36169	%16	%12
2018-2017	63080	45180	37139	%16	%12
2019-2018	53050	46690	38124	%13	%12
2020-2019	90440	55290	39127	%2	%14
2021-2020	98220	70530	40150	%24	%17
2022-2021	33930	90200	41190	%8	%21
2023-2022	25810	39880	42248	%6	%9

We note from the data in Table (1) that there is a discrepancy in the number of students accepted and graduated from Iraqi universities, while there is an increase in the population, as the population in 2004 was 27,139 million, while the number of students accepted for the academic year 2004-2005 was (99,920) male and female students. The number of students who graduated

causes of conflict and the continuation of anti-government protests.

The ineffective role of universities in transferring knowledge that encourages innovation and creativity, and their inability to find answers and solutions to the ongoing crises and conflicts facing Iraq.

Thus, rebuilding higher education institutions in line with the requirements of the changing reality and prioritizing the benefits of the wider society - especially youth - is an urgent priority to achieve political stability and support the process of building sustainable peace.



result of students' reluctance to register and study in government universities and to apply and study in private colleges as a result of the facilities provided by those colleges. Fourth: Spending on education for the period (2004-2023):

The education spending indicator in Iraq is considered one of the most important indicators to show the extent of the government's contribution to supporting

investment in education, the goal of which is to prepare the necessary and skilled human resources that contribute to increasing production and achieving an increase in the value of the gross domestic product and ultimately contribute to the process of economic growth. To show the impact of these indicators on the process of economic growth, we will present the research years (2004-2023)

**Table (2) Indicators of spending on education from public spending (2004-2023) billion dinars**

Years	Education spending	Annual growth	Total public spending	Annual growth	Education spending as a percentage of public spending
2005-2004	584	-	16579	-	5.1
2006-2005	750	63.1	17394	76.5	5.7
2007-2006	759	84.5	18947	87.3	3.9
2008-2007	882	88.1	18976	121.3	7.2
2009-2008	893	88.6	18947	97.3	8.2
2010-2009	951	91.7	19376	99.3	7.6
2011-2010	973	92.3	19573	101.5	6.2
2012-2011	993	93.6	18946	91.8	5.1
2013-2012	870	71.3	20382	93.7	5.3
2014-2013	848	69.5	20848	110.6	3.1
2015-2014	193	79.5	20938	68.5	3.2
2016-2015	196	43.2	20291	60.3	4.1
2017-2016	979	39.6	20189	107.6	7.1
2018-2017	989	73.8	28937	111.7	8.3
2019-2018	981	81.6	28475	123.6	7.5
2020-2019	984	83.5	29305	101.9	6.1
2021-2020	847	85.1	27856	99.8	7.9
2022-2021	828	88.3	25487	97.3	7.6
2023-2022	892	78.2	27593	98.6	7.7

This stage is considered during the period between the change of the regime and what happened during that period of sectarianism, terrorist acts, ISIS occupation of the western regions, and political, economic and security instability. Because of this, we notice a discrepancy in the annual growth rates of spending according to the value of spending on education. The highest growth rate was recorded in the academic year 2019-2020, due to the security and economic stability after the ISIS events, which contributed to increasing spending on education and thus increasing the annual growth rate, as shown in Table (3).

Fifth: Growth indicators (GDP) and the percentage of spending on education GDP for the period from (2004-2023): The GDP growth indicator is one of the indicators through which the extent of development of the economies of developed or developing countries is measured together - and in order to know the reality of the growth of GDP indicators for the years of research in Iraq, we review the indicators during the period from (20-04-2023)



Table (3) Growth indicators (GDP) and the percentage of spending on education GDP for the period from (2004-2023) billion dinars

Years	GDP	Growth	Education expenditure	Ratio of education spending to GDP
2005-2004		134.8		5.1
2006-2005		1587.1	789302	6.3
2007-2006	29386	184.7	879006	7.2
2008-2007	20394	168.6	849307	8.4
2009-2008	384950	1698.6	740386	5.9
2010-2009	375940	189.3	840671	8.1
2011-2010	4783546	198.4	839703	7.9
2012-2011	475837	203.7	8340694	4.7
2013-2012	574937	198.5	785940	8.3
2014-2013	562947	187.8	42985	1.5
2015-2014	644937	84.7	42856	0.5
2016-2015	682956	71.8	47275	1.2
2017-2016	738694	63.2	38659	2.2
2018-2017	820493	59.1	65936	3.6
2019 -2018	824895	45.9	57481	4.1
2020-2019	830486	61.7	58472	5.3
2021-2020	850483	68.9	48692	5.5
2022-2021	879275	73.9	28796	7.1
2023-2022	883769	77.5	285840	7.6

We note from the data in Table (3) that there is a variation in the growth rates of the gross domestic product for the research period, and because of what Iraq went through during that period of terrorist acts, sectarian wars, and ISIS's occupation of the western regions, as mentioned above, and we mentioned them in the previous paragraph, and all these circumstances directly affected the indicators of the gross domestic product, and this is the main reason that led to a decline in the ratio of spending on education to the gross domestic product from (5.1% to 0.5) in the year (2014-2015). During this period, Iraq experienced exceptional circumstances due to the compelling circumstances it went through, which led to a rift in the economic situation. While we note that the highest rate of the gross domestic product was achieved in the year (2012-2013), which reached (8.3%).

**SECTION FOUR: CONCLUSIONS AND RECOMMENDATIONS:**  
**Conclusions:**

1. There is a relationship of influence between investment in education on economic growth.
2. The size of spending on education relative to total spending varies during the research period.
3. We note that there is a sharp decline in the level of spending during the period (2014-2017), and during this period Iraq experienced unstable security and political conditions, which led to a decrease in total spending.
4. Lack of coordination between the market's need for labor and education outcomes.

**Recommendations:**

1. Increase education allocations in the state's general budget, which contributes to the development of government educational institutions.
2. Work to coordinate between the market's need for labor and education outcomes.
3. Work to provide modern technologies in the educational process in order to keep pace with developments in the surrounding environment.





4. Work to return educational institutions to the global classification by providing infrastructure and admission requirements and requirements.

**SOURCES:**

1. Abu Ezzat: Fath Muhammad, (2020), His rulings, principles of law, investment, commercial and technological disputes before economic courts, Dar Al Nahda Al Arabiya, Cairo.
2. Abdeen Mahmoud Abbas. (2020). The economics of modern education. Cairo: The Egyptian House.
3. Adly, A. M. (2023). The contribution of higher education to the process of economic development in the Arab countries. Baghdad College Journal of Economic Sciences (35).
4. Al-Hawri: Abdul Sattar Ahmed, (2023), Legal Protection of Foreign Investments, a Comparative Study, Alexandria University House 17
5. Al-Maghribi: Lamia Muhammad, (2020), Measuring the impact of investment in higher education on economic growth in the Arab Republic of Egypt during the period from 1990/1991 to 2016/2017, a research published in the Journal of Administrative and Financial Sciences, Volume 21, Issue 3.
6. Al-Najafy: Salem Tawfiq, (2020), Fundamentals of Economics and Investments, Cairo, Dar Al-Jamiah, Alexandria, 17
7. Al-Samarrai: Duraid Mahmoud, (2020), Foreign investment, obstacles and legal guarantees, Center for Arab Unity Studies, Beirut, 55
8. Al-Shammari: Muhammad JabbarTaher, (2022), The role of the knowledge economy in achieving economic growth, Egypt as a model, Al-Ghari Journal of Economic and Administrative Sciences, College of Administration and Economics, University of Kufa, Issue 10
9. Al-Shorbajy, M. (2022). Impact of economic growth on employment in the Egyptian economy. Journal of North African Economics(6), pp. 174-.
10. Ata Can Betray, (2020), Monetary and Capital Markets Department Gender Inequality and Economic Growth: Evidence from Industry-Level Data, Journal of Economic Perspectives, 31(1)
11. Ayenew, B. 2022. The effect of foreign direct investment on the economic growth of Sub-Saharan African countries: An empirical approach. Cogent Economics and Finance, 10:1, 2038862,
12. Baiashvili, T. &Gattini, L. 2020. Impact of FDI on economic growth: the role of country income levels and institutional strength. European Investment Bank. EIB Working Paper 2020/02. Available online: [http://www.sciencedirect.com/science/article/pii/S096959310300\\_082](http://www.sciencedirect.com/science/article/pii/S096959310300_082)
13. Barro, R. J. (2022). "Economic Growth in a Cross-Section of Countries," Quarterly Journal of Economics, 106(2), 407-43.
14. Barro, R. J., and X. Sala-i-Martin, (2023). Economic Growth. Cambridge, Massachusetts: MIT Press.
15. Batouih: Muhammad Omar, (2023), Investment in the Knowledge Economy as an Introduction to Economic Growth, the Case of the Gulf Cooperation Council Countries, Journal of Development and Economic Policy, Arab Planning Institute, Kuwait, Volume 20, Issue 2
16. Beck, T., 20 20. "The Econometrics of Finance and Growth," in Palgrave Handbook of Econometrics, 1180-1209. London: Palgrave Macmillan
17. Bouradja, Sara. (2020). Determinants of economic growth: a comparative study between South Korea and Algeria. Mostaganem, Algeria: Mostaganem University. Page, A. (1971). Education economics. Paris, France: PUF
18. BURNET, N., & others. (2022, December). Advocate for education investment priorities. (IMF, Ed.) Finance and Development Review .
19. Chakraborty, C. &Nunnenkamp, P. 2023. Economic reforms, foreign direct investment and its economic impacts in India. Kiel Working Paper, No. 1272, Kiel Institute for the World Economy (IfW), Kiel.
20. Choe, J.I. 2023. Do Foreign Direct Investment and Gross Domestic Investment Promote Economic Growth? Review of Development Economics, 7(1), 44–57. <https://doi.org/10.1111/1467-9361.00174>
21. Contracts: Ibrahim Muhammad, (2022), The Legal Nature of International Investment Contracts, an article published



- in the Journal of Legal and Sharia Sciences, Faculty of Law, University of Zawiyah, Libya.
22. Cuberes, D., and M. Teignier, (2021). "Gender Inequality and Economic Growth: A Critical Review," *Journal of International Development*, 26(2), 260-76.
  23. Dahhan: Muhammad, (2021), Educational Investment in Human Capital: A Theoretical Comparison and Evaluative Study of the Case of Algeria, a thesis submitted for a PhD in Economic Sciences, Faculty of Economics and Management Sciences, University of Constantine, p. 22.
  24. Ederouishe, M. D. (2020). An econometric study of the determinants of private investment in Algeria using autoregressive lagging time lags. International conference on evaluating the effects of the public investment program and its implications for employment and economic growth during the period 2011-2019. Setif: Setif University.
  25. Guiso, L., T. Jappelli, M. Padula, and M. Pagano, (2020). "Financial Market Integration and Economic Growth," in the *EU Economic Policy*, 19(40), 524-77.
  26. Hakura, M. D. S., M. M. Hussain, M. Newiak, V. Thakoor, and M. F. Yang, (2022). "Inequality, Gender Gaps and Economic Growth: Comparative Evidence for Sub-Saharan Africa," IMF Working Paper 16/111. Washington: International Monetary Fund.
  27. LakhdarAbeerat, &LaminHalmous. (2020). Higher education and its role in economic growth, the case of Algeria. *Economic Issue Studies Journal* (02).
  28. Mahdi: MarwaMuwaffaq, (2021), Legal guarantees and incentives decided by Arab investment laws Foreign investments Anchor Master's thesis presented to the College of Law, University of Nahrain, Baghdad, Five
  29. Masadawi: Youssef, (2022), Investment in education and its impact on human capital development - Life of Algeria / Laboratory of Local Group Management and its role in achieving local development - Faculty of Economics, Business and Management Sciences - University of Lounici Ali Blida - Algeria, Third World Conference on Information Sciences, Knowledge Economy and Comprehensive Development of Societies, Opportunities and Challenges, October 10-11, 2022.
  30. Melhem: Ali Hussein, (2021), The role of international treaties in protecting foreign investments in developing countries, a doctoral dissertation submitted to the Faculty of Law, Cairo University.
  31. Monther Abdel Salam. (2022). Studies in the economics of education. Beirut, Lebanon: Dar Al-Taleea.
  32. Mustafa: Mona Mahmoud, (2020), International Protection of Foreign Direct Investment and the Role of Arbitration in Settling Investment Disputes, Dar Al Nahda Al Arabiya, Cairo.
  33. Nadim: IhabEzz El-Din, (2021), Foreign direct investment and economic development in the world, an article published in the *Scientific Journal of Economics and Commerce*, Issue 2, Faculty of Commerce, Ain Shams University, Cairo.
  34. Nis: Saida, (2023), The Impact of Investment in Higher Education on Economic Growth: A Case Study of Algeria for the Period 1971-2020, a research published in the *Journal of Administrative and Financial Sciences*, Volume 7, Issue 1, pp. 324-344.
  35. NisseSaida (2020). The role of higher education in economic development, a case study of Algeria for the period 1971-2010. Algiers, Algeria: University of Algiers 3.
  36. Saleh: Nadia Mahdi, (2020), The knowledge economy and its impact on economic growth, unpublished master's thesis, College of Administration and Economics, University of Karbala.
  37. TaghreedQassim Muhammad Ayoub. (2021). The economics of education and its impact on economic and social growth and development in the Arab Gulf states. *Journal of North African Economics*, 17(26), pp. 65- .
  38. Tang D., Shijie, L., Yuanhua Y., &Liangle, G., 2020. Regional Difference in Spatial Effects: A Theoretical and Empirical Study on the Environmental Effects of FDI and Corruption in China. *Discrete Dynamics in Nature and Society*, vol. 2020, Article ID 8654817. <https://doi.org/10.1155/2020/8654817>



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39. Zalalah, J. (2021). Concept of investment in higher education. ca Education (Ed.), Second Educational Conference. Kuwait.
40. Zidane: Fatima Al-Zahraa, (2021), A study of the effect of knowledge story on economic growth using panel models in the case of North African countries, Journal of North African Economics, Hasiba Bin Bou Ali University, Chlef, Algeria, Issue 20