

# Effect of International Direct Investments on Jordan's Economy

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## Abstract

The main objective of this research concerns the detailed information advocated by data to the latest developments in the volume of external investments in the Kingdom and their effects on Jordan's economic growth. The study problem stems from the challenges facing the national economy in general and the role of none Jordanian investments and their effect on upgrading the national economic growth. In this study, researchers have used the descriptive analytical methods through the financial and economic reports and other relevant information available in the annual reports and publications issued by the financial institutions via measuring the effect of international direct investment (IDI) in boosting the national gross domestic product (GDP) in Jordan for 2005-2015 period. Research hypotheses were tested by using Pearson's correlation formula (IDI) and (GDP). The correlation negative (inverse). Analysis results revealed that the correlation between these investments are not linked to its (GDP) alone, thus, researchers have attributed it to several other variables which might have greater impact on GDP and recommend that Jordan should develop long-term strategies for investments in several productive areas characterized by investment sustainability, rather than directing investments to short-term areas seeking rapid profits. Also taking advantage lessons of successful countries in attracting foreign investments such as Malaysian, Korean and Thai experiences and should encourage specialized studies to examine further variables that might have strong impacts on Jordan's economic growth.

**Keywords:** GDP, IDI, UNCTAD, JIC, SPSS

## 1. Introduction

Investment is a modern terminology that has emerged in different societies in the sense of democratic transformations and the development in economic policy to market policy systems. International direct investments (IDI) are the most important financial investments that have proliferated in the 1990s, although their actual booms were among the multi driving forces of money inflows into a country. Through IDI, international investors benefit from utilizing their assets and resources efficiently, while IDI recipients benefit from acquiring technologies and from getting involved in international production and trade networks. Many researchers confirm that firms undertake IDI when three factors are present and the resulting advantages are sufficient to offset the natural disadvantages of having to operate in a foreign country. These three advantages are; ownership advantages, locational advantages, and international advantages (Buckley and Casson, 2009).

For developing countries, the positive impact of international direct investment is becoming increasingly popular as a tool for economic growth and strengthening (Muhammad, 2007). One of the strong positives of implementing International Direct Investment is the increase in aggregate productivity, increased opportunities of employment, greater outflow of exports and exchange of technological advancement between the investor and country. International direct investment in developing countries enables the employment and of natural and human resources, via implementing innovative international trade practices, such as management and marketing, and will facilitate budgets components. According to a number of studies, international direct investment can serve as a means of technology and knowledge transfer to the developing country partners (Dunning & Hamdani 1997). It was found that international investors look into markets that better protect their investments and employ financial policies that keep them well informed. Jordan's successive governments have realized the great importance of international investment, as an additive source of funding the economic development projects, and obtaining the necessary technology to achieve a sustainable economic progress and growth to promote exports

and diversify income.

So, this study is based on the reality of international investment in Jordan and the impact of these investment on Jordan's economic growth. In addition, this study highlights the nature of the relationship and the role played by international direct investments in promoting Jordanian economy in the light of international contemporary challenges. Jordan's successive governments have realized the importance of investment, especially international investment, as a source of funding for economic development projects, obtaining the necessary technology to achieve economic progress and growth, increasing exports and diversification of sources of income and exports.

## 2. Literature Review

Globalization has imposed many opportunities and challenges on all countries. Therefore, it is essential that these countries adapt to the new situation, meet the multiple challenges, and take advantage of their positive and avoid negative aspects. In light of the rapid changes and severe global economic conditions facing most countries, which require the flexibility and capacity to respond to these changes.

As a developing country, the Jordanian national economy suffers from slow growth and high indebtedness accumulated constant deficit in the balance of payments, which as a result requires a number of economic reforms to create economic growth, including the promotion of external investment opportunities to create more prospects for cooperation in various economic sectors. Although foreign direct investment plays an active role in economic development countries, direct investment in Jordan is still relatively limited and the role of foreign direct investment in stimulating the process of economic growth is still below the desired level and expectations and is questionable among many researchers, decision-makers Both.

Jordan recognizes the importance of international investment and its influential effect on the economic efforts within the limited domestic savings and ability to meet the increasing investment needs and Jordan's need for the modern administrative, technical and technological expertise provided by these investments in its quest for access to foreign markets and increasing its competitiveness under the policy of openness Commercial Bank, Jordan also relies on international investments in providing job opportunities with high added value and financing the developing production sectors within the limited natural and financial resources of the Kingdom.

### 2.1 International Investment

International Investment has multiple forms and terms, in terms of form, it is divided into direct and indirect investment. Indirect investment or the so-called financial investment is the investment in the financial markets in both equity and debt securities, that are traded through exchange markets (ASE, 2016). International investment refers to the transfer national capital to foreign currencies and invest outside its home country to work in varying sectors: industrial, financing, construction, agricultural or service units. Profit is the main objective of these investments, as well, the foreign investor almost has the right to manage and control his assets from his home country or the country of residence. (Najmah and Mazrouei, 2012: 166), (Al Mamouri, 2016, p. 146).

### 2.2 The Importance of International Investments

International investments mostly aim to stimulate the per capita income growth rate in the country. In addition, external inflows help in financing the national current account deficit. Foreign investments can help in the development of human resources and training, encourages the transfer of technology, resources, skills, and integrated production processes in the host country (Tohme 2015, pp. 262-263).

### 2.3 International Investment Climate in Jordan

Jordan encouraging frameworks for investment activities that include encouraging and attractive incentives for both international and domestic investments.

In 1995, Investment Authority was formulated to simplify procedures related to investment and eliminate overlap and duplication of tasks to promote trust of international investors in the Kingdom's investment opportunities: (Amman Stock Exchange, 2009; Investment Promotion Authority, 2016):

Jordan is located among three continents: Europe, Asia and Africa. It represents the hub of transportation between the Middle East countries.

The Jordanian market has the advantage of expansion, growth and openness to most of the world markets. Jordan is a member of the World Trade Organization, EU markets, and the Arab Union Free Trade AFTA. Having many bilateral agreements and preferential trade protocols with more than 20 Arab countries, and US market through QIZ. Jordan's Free Zones operate in Aqaba and Zarqa. Other areas are under construction in both Sahab Industrial City and Queen Alia International Airport.

#### 2.4 Economic Growth in Jordan for the Period 2005-2015

Economic growth is one of the most important economic indicators. It is defined as the total value added to all production units operating in different branches of production in a given economy, such as agriculture, mining and industry.

Growth in this sense is the increase in the quantity of goods and services produced by a given economy, and these commodities are produced using the main production components such as land, labor, capital and regulations. Economic growth can be measured using the percentage of GDP growth, and the ratio is compared in a given year to its predecessor. The increase in capital, technological progress, and improved education are the main causes of economic growth. Accelerating economic growth has become a key function for economists, planners and politicians of developed and developing countries over the past five decades, because the belief is that economic growth is the key determining factor of living standards. (<http://www.Aljazeera.net/encyclopedia/economy/2008>).

Economic growth means an increase in gross national product (GNP) or gross national income (GNI) to increase average per capita income. Thus, the concept of economic growth is itself the concept of economic well-being. ([Www.economicshelp.org](http://www.economicshelp.org)).

Following table shows some of the numerical indicators of the national economy for the period (2005-2015), which show the figures of six important and fundamental variables of the state economy. The researcher wanted to extrapolate the Jordanian economic situation for the past 11 years:

- 1) GDP growth rate
- 2) The inflation rate: a measure of the speed of the overall rise in prices.
- 3) The Unemployment Rate: The number of unemployed persons divided by the labor force.
- 4) Population
- 5) Total debt
- 6) Current account.

Table 1. Basic economic indicators of Jordan and their prospects 2005-2015

Year	Total debt	Population (Millions)	Period Unemployment Rate%	Period Inflation Rate	Local Growth Rate%	Gross Current A/C
2005	82.0	5.5	14.8	3.5	8.1	-18.0
2006	76.3	5.6	14.0	6.3	8.1	-11.5
2007	70.8	5.7	13.1	4.7	8.2	-16.8
2008	65.4	5.9	12.7	14.0	7.2	-9.4
2009	67.8	6.0	12.9	-0.7	5.5	-5.2
2010	71.4	6.1	12.5	4.8	2.3	-7.1
2011	82.7	6.2	12.9	4.2	2.6	-10.3
2012	87.0	6.4	12.2	4.5	2.7	-15.2
2013	80.1	6.5	12.6	4.8	2.8	-10.3
2014	80.8	6.7	11.8	2.9	3.1	-7.3
2015	85.8	9.5	11.6	-0.9	2.4	-9.0

Source: (Department of Financial Independence, Financial Independence Report, 2015).

The above table shows that Jordan achieved a growth rate of real GDP in 2015 of 2.4% compared to 3.1 in 2014, while the budget deficit increased by 3.4% of GDP in 2015, Compared with 2.3% in 2014. (Financial Stability Report, 2015).

Table 2. Jordan's GDP and growth rate of GDP and per capita (2005-2015)

Year	GDP growth per capita (%) per year)	GDP growth (% per year) At constant prices	P\V of GDP in U.S.D	GDP per capita (current US \$)
2005	4.89	8.16	12,590,000	2,360.53
2006	4.24	8.09	15,060,000	2,722.67
2007	3.87	8.18	17,110,000	2,970.89
2008	2.76	7.23	21,970,000	3,655.86
2009	1.15	5.48	23,820,000	3,800.68
2010	-1.605	2.337	26,425,000	4,054.277
2011	-1.118	2.561	28,840,000	4,266.077
2012	-0.784	2.651	30,937,000	4,423.117
2013	-0.312	2.829	33,594,000	4,656.220
2014	0.299	3.096	35,827,000	4,830.977
2015	-0.023	2.383	37,517,000	4,940.046

Source: Based on World Bank data (www.worldbank.org).

As per the above table, in 2014, the Jordanian economy managed to achieve real GDP growth at constant prices of about 3.096% to reach 35.827 million US dollars compared to 33.594 million US dollars in 2013. On current prices, GDP grew by 6.6% in 2014. As for the study period, Jordan's GDP showed a year-on-year increase in its volume. While it showed fluctuations of (GDP) growth at constant prices. Jordan is ranked 94th in the size of the world's export-dependent economy and 67th in terms of the economic complexity as per the Index of Economic Complexity (ECI).

In 2015, the value of Jordan's exports reached US \$ 7837.3 million while the value of imports amounted to US \$ 18058.7 million. The main importing destinations from Jordan were the United States (\$ 1.41 billion), Saudi Arabia (\$ 1.1 billion), Iraq (\$ 0.69 billion) and India (\$ 0.58 billion).

In order to clarify the picture further towards the Jordanian economy, it was necessary to identify the contribution of each of the economic sectors to GDP, Figure 4.

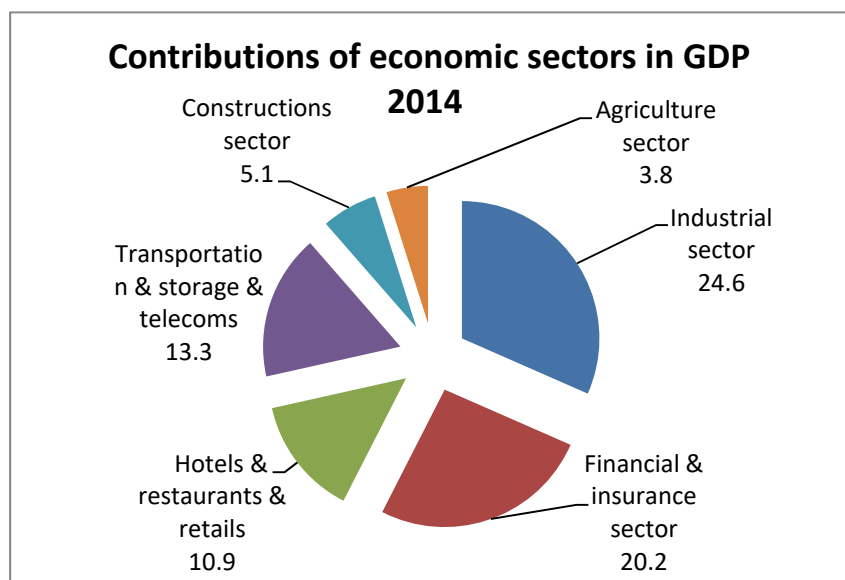


Figure 2. The contribution of the most prominent economic sectors in Jordan's GDP during 2014

Source: Jordan Chamber of Industry: Jordan Economic Development Report and Performance of the Industrial Sector, 2014.

Above figure indicates that industrial sector is the major economic contributor to the Jordan's GDP. It is one of the largest employment-generating sectors, and the majority of its facilities are almost medium-sized firms, which makes it highly capable of creating jobs as labor intensive. However, it is the second largest economic

sector after the services sector.

### *2.5 Previous Studies*

1-Study of (Agrawal, 2011): This paper attempts to study the impact of FDI on China's and India's economic growth during (1993-2009). The modified growth model was built from the basic growth model. The model includes factors (GDP growth, human capital, labor force, international investments and capital components), where GDP was the dependent variable, the followed four were independent variables. After conducting the OLS regression method they found that a 1% increase in foreign investment leads to 0.07% increase in China's GDP and 0.02% increase in India's GDP.

2-Study of (Rıza et al., 2012): This study examined if the relationship between IDI and GDP in the ECO region is irrational with theoretical expectations. In this context, the effect relationship between the flow of FDI to the ECO region and GDP was analyzed. 1995-2011 period data were used in the analysis testing covered the OECD member states. Granger's error correction model test was used. Test results revealed that a strong positive causal relationship of international investment on GDP. The results obtained from this study were consistent with the theoretical expectations.

3-Study of (Antwi et al., 2013): This study aimed at identifying the relationship between international investment and economic growth in Ghana during 1980-2010 period via using time series data. Researcher used Investment factor as an independent variable, and GNP and GDP were used as dependent variables. For the purpose of data analysis, the unit root test, ADF test, OLS method, Cointegration test, VECM were used. The study tests revealed that international investment has a positive effect on dependent variables in Ghana.

4- Study by (Hussein, 2014): This study demonstrates the correlation between FDI and economic growth as well as the correlation between FDI and economic integration of GCC countries. This research examines and analyzes evidence relating to direct investment in GCC countries (Saudi Arabia, UAE, Oman, Qatar, Kuwait and Bahrain). The objective of this paper is to examine to what rate these countries are able to recognize the rate of FDI role in their national economic growth and integration. They also classify and distinguish some FDI determinants and effect on GCC economic integration. This paper uses modern growth theories, techniques and statistical methods to test experimentally the correlation between FDI, economic growth, and economic integration in GCC countries. The results indicated the strength between FDI and the economic growth of these countries.

5-Study by (To'ma, 2015): The objective of this research is to measure the effect of international investments on Jordan's economic growth and to identify the concept of foreign investment and its forms, as well as measuring the impact of foreign direct investment on economic development in Jordan. The analytical standard method was followed by analyzing the data related to the Jordanian Gross Domestic Product and the volume of foreign direct investment for the period 1996-2008. The results of the study showed a statistically significant effect of international investments on economic growth in Jordan.

6-Study by (Al Fawaz, 2016): This study aims at identifying the concept of international investment in the manufacturing sector and measuring its effect on the economic developments in Jordan during 2000-2013 and identifying the degree of its contribution in stimulating the national income. Error correction model test revealed that international investments have insignificant effect on economic growth. This result supports the argument that FDI may not significantly enhance manufacturing capacity. However, the export sector showed a positive and statistical impact on growth, while the financial sector revealed a weak impact on long-term GDP\M2 growth and no impact in the short term, which might be attributed to the flight of the high generated capital.

### *2.6 The Study Main Feature*

This study is almost consistent with these afore mentioned studies as they address the same subject with the difference in the nature and method of dealing with the subject in addition to the difference in time range and the study sample, which resulted in a difference in the results of the research analysis.

## **3. Study Methodology**

This research used the descriptive analytical method through the data and information available in the financial reports, Central Bank publications, Investment Promotion Corporation, the Department of Statistics, the World Bank and UNCTAD.

Analysis methods were: the process of describing the phenomenon, the analysis measurement and data interpretation. The study relied on several secondary sources such as: articles, related Arabic and foreign studies, the Internet and other relevant studies to get the study objectives.

The researchers used the statistical analysis program (SPSS) in a bid to pin through the statistical relationship

between foreign direct investment (FDI) and gross domestic product (GDP) by testing the correlation factor between them by using (Person Correlation test).

### 3.1 Study Objectives

This research aims to reflect the effect of international investments on Jordan's economic growth via:

- 1- Recognizing the stimulating role of Jordan's government in creating an appropriate investment climate to motivate local and foreign investors to identify the most important investment sectors in Jordan.
- 2- Recognize the reality and the size of international investments and the consequent growth level in the economy for the period (2005-2015).
- 3- Measuring the effect of international direct investment in promoting Jordan's GDP growth for the period 2005-2015, by measuring the correlation between the numerical indicators of both variables for that period.
- 4- To approach for consequents and recommendations on the nature of the relationship.

### 3.2 Study Model

The research model is composed of two variables, one independent and one dependent. The independent variable represents (FDI), while the dependent variable represents GDP:

Table 3. The study model

Independent Variable	Dependent Variable
Jordan's Economic Growth-GDP	Foreign Direct Investments-FDI

### 3.3 The Study Problem and Questions

The problem of this study stems from obstacles and challenges facing the Jordanian economy and an attempt to demonstrate the role of direct international investments. And their impact on national economic growth and measures to promote this growth.

The study problem is summarized by the following questions:

1. What is the status and totality of International Direct Investment in the study period?

What is the economic situation in Jordan during the study period and the expected levels of change?

- 3- Is there a significant impact of foreign investment on economic growth in Jordan for 2005-2015?

### 3.4 Study Variables

A) (FDI): (IMF) defines (FDI) as " type of international direct investment that reflects a resident's interest in an economy having a permanent interest in an institution resident in another economy" (Al-Mamouri, 2016: 146).

B) – GDP: It is the economic indicators that reflects the activity of the economic resources over a given period of time which is usually one year. It is a formula that measures economy size (Najmah and Mazroui, 2012: 170. Researchers used GDP to measure economic growth in Jordan during the period (2005-2015).

### 3.5 Study hypotheses

To answer the study questions, the following main hypothesis was formulated:

**H<sub>0</sub>**: There is no statistically significant impact of FDI on (GDP) growth in Jordan for (2005-2015) period at significance level ( $\alpha \leq 0.05$ )

### 3.6 Study Limitations

The study limits were:

- A) Time limits: The time period was 2005-2015.
- B) Spatial boundaries: Study Population: Jordan's economy.

### 3.7 Statistical Analysis

"Testing the hypothesis by studying the correlation between International Investment (Inter.I.) and GDP in Jordan for 2005-2015": To study the correlation between International investment and Gross Domestic Product (GDP), Pearson correlation test was used to quantify the relationship by using SPSS as follows:

X: represents the independent variable and it reflects (FDI.) in Jordan.

Y: Represents the dependent variable, which expresses the GDP in Jordan.

$$r = \frac{\sum_{i=1}^n (X_i - \bar{X})(Y_i - \bar{Y})}{(n-1)S_x S_y}$$

Whereas:

$S_x$ : Standard deviation of variable X.

$S_y$ : standard deviation of variable Y.

$X - \bar{x}$ : Difference between the first variable and the arithmetic mean.

$y - \bar{y}$ : Difference between the second variable and the arithmetic mean.

n: Number of data.

r: correlation coefficient.

The arithmetical mean and the standard deviation of the two independent variables (X, Y) for the period 2005-2015 are as follows:

Table 4. SPSS outputs: descriptive statistics

	Mean	Std. Deviation	N
Inter. I	2105181818.0000	682184405.90000	11
GDP	25790000000.0000	8476746121.00000	11

A) The results of the calculation of the correlation coefficient for the relationship between the independent variables and the following:

Table 5. SPSS Outputs: Correlations

		Inter. I	GDP
Inter. I	Pearson Correlation	1	-.689*
	Sig. (2-tailed)		.019
	N	11	11
GDP	Pearson Correlation	-.689*	1
	Sig. (2-tailed)	.019	
	N	11	11

\*. Correlation is significant at the 0.05 level (2-tailed).

It is clear from Table 5 that the correlation coefficient reached (-.689). This indicates that the relationship is strong and is negatively negative, and that means that increasing one of the two variables leads to the decrease of the other variable and vice versa.

This means that there is an inverse relationship between the independent and dependent variables, i.e. between (IDI) and GDP of Jordan in the study period. The smaller (Inter.I) inflows, the higher the gross domestic product is, as can be seen from Table 5 (2007, 2009, 2010, 2011, 2015), IDI flows have declined significantly while GDP has been steadily increasing and has not been affected by the decline in these flows.

#### 4. Study Results and Conclusions

##### 4.1 Study Results

Data review and statistical analysis results confirmed the quantitative theoretical analysis afore mentioned. Correlation analysis between the variables confirmed that international investment funds flowed to Jordan were linked to Jordan's (GDP).

Test results were obtained by Pearson's correlation coefficient.

Test results are summarized by the following:

- 1) The correlation between (IDI) inflows and (GDP) is negative (inverse).
- 2) The limited volume of investments and their additive effect to Jordan's economy were modest.

- 3) The volume of investment flows proved to be lower than the potential level and ambitions.
- 4) There was a lack of public responsibility and lack of interest in international investments.

## 5. Conclusions

- 1- Data revealed that Jordan Investment Authority's had focused on short-term goals in establishing investment climate.
- 2- As the correlation between FDI flows and gross domestic product (GDP) proved to be negative (inverse), the researchers attribute it mainly to the possibility of several other variables that might have a greater impact on GDP.
- 3- Study results showed limited number of investments and their limited contribution to the Jordanian economy.
- 4- The volume of international investment flows is still below the level of potential and ambitions, this is due to the obstacles facing foreign investors that must be overcome and verified continuously.
- 5- The investment climate has helped attract many investors despite the existence of some obstacles that need to be studied and analyzed in order to work to overcome them and solve them.
- 6- Study data showed that Jordan Investment Authority focuses on the short-term objectives while it needs to establish a long-term investment view in which it seeks to build a strong economic base supportive of the country's economic, social and political situation in the long term.

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