

The Decision to Invest and Economic Growth. Romania's Case*

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Abstract. *Over time there was a diverse and continually evolving methods of business development beyond the country of origin, from the traditional export with the center to the complex leading to today's concept of international investment. The level of humanity development known today results from an ongoing investment in various forms. Different ways of measuring the efficiency of investment and investment level were the subject of discussions since the beginning of economic science, leading today that investment hold a great significance because of the dynamics of the economic development and economic growth, and also because of the great inequalities, given by the information asymmetry. In this paper we first proposed to explore the determinants of investment that lead to making the investment decision and in the second part we analyze the competitive economic environment with regard to Romania and its implications for economic growth and investment decision.*

Keywords: investment decision; competitiveness; economic growth.

JEL Codes: 8B, 8E, 10H.

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Introduction

Today investors must cope with a changing investment environment, they are forced by the current contexts designed to adapt more quickly to demand, to react very quickly and chose to act, as have all the powers of leveraging their production processes. All these actions and decisions taken by an international firm have effects on economic growth. Our work aims to capture aspects of an investment, at the level of national competitiveness and economic growth. In the first part of the paper it is presented the concept and current state of knowledge, in the second part is analized investment decision in the companies that operate internationally and in the final part analysis is made of competitiveness of the Romanian economic environment and its impact on growth.

Conceptual framework and current state of knowledge

Over time there was a diverse and continually evolving methods of business development beyond the country of origin, from the traditional export with the center to the complex leading to today's concept of international investment. According to International Monetary Fund and OECD, foreign direct investment is the investment that implies the existence of a eminent trader and a receptor trader located in different national spaces. Regarding foreign investment, we use the definition given by OECD, that foreign investment is part of international investment and refers to the interest held by a resident entity seeking long-term benefits from an entity resident in another economy called receptor unit. This type of investment involves a significant degree of influence over the firm receiving investor. Such a relationship occurs if the foreign investor holds more than 10% of the votes of the receiving entity.

Many studies approach the relevance of the impact of foreign direct investment (FDI) on economic growth. Some authors sustain the positive aspects of FDI impact and others are adepts of the negative aspects.

The decision to invest is reflected in the level of foreign direct investment taking place in a country and the risks assumed by them. These investments influence the development and growth of the country. Many studies approach the relevance of the impact of guiding foreign investment (FDI) on economic growth. Some authors support the positive impact of FDI while others its negative aspects.

For example, the Solow neoclassical growth model of the standard growth suggests that FDI increases capital stock and thus economic growth in the host country, through financing capital formation (Brems, 1970). Endogenous

growth models imply that FDI can promote long-term growth by increasing the existing stock of knowledge in the host economy by creating jobs and skills, on the one hand, and introducing alternative management practices and organizational arrangements, on the other side.

From the theoretical point of view there are several ways in which foreign investment can have an effect on growth. Foreign investment can play an important role in economic growth. Agosin and Mayer (2000) find that FDI in the form of mergers and acquisitions do not necessarily lead to increased capital stock in countries where there is a shortfall in this regard. Gorge and Greenaway (2004) make a critical review of studies regarding the productivity of firms in developing countries, developed and transition. They concluded that only 25 of the studies using appropriate data and estimation techniques lead to the conclusion that there are differences between a company with foreign capital and a national capital, none of them are in developing countries. One of these 25 studies, Aitken and Harrison (1999) for Venezuela, finds negative effects of the presence of foreign investors in the country. Despite these potential adverse effects, empirical analysis shows that FDI has a positive impact on economic growth here giving researchers such as Lim (2001) and Hansen and Rand (2006). Existence and magnitude of the impact of FDI on economic growth ultimately depends on economic and political conditions of the host country such as GDP per capita, human capital, openness, degree of financial market development, political stability.

Investment decision

In a turbulent macroeconomic environment investment decision becomes more difficult, talks about their investment and strategic guidance to the world are becoming increasingly heated. So existing investors and corporate managers worldwide are faced with daily changes at the financial, commercial, technological and policy making more difficult the decision to invest. Thus, regardless of the nature of investment, investment decision always means taking some risks in the hope of obtaining profit.

Theory shows that to be competitive internationally, an investor (company) must have some specific assets such as knowledge, technology, organizational strategies, management or marketing skills. A firm "blessed" with such activities has some alternatives (except for export here) to get additional revenue by creating new subsidiaries, joint ventures, licensing, franchising, management contracts, marketing contracts. However, production at the subsidiary and joint ventures involving various degrees of foreign

presence and force the company to decide where to locate their activities abroad.

All international companies which invest abroad decide to invest only after a rigorous cost-benefit analysis. There is no single way to describe how companies use their own methods of decision-making or public information available, especially those relating to development of certain factors in the host country to reach a decision on the location, control, risk management of new investment. While some investors take into account benchmarks as tariff barriers, risk premiums and the "philosophy", others use the company's strategy to reach the decision to invest. While others believe that the location of investment is usually based on a combination of trial and error, experimentation and the acquisition of past experiences.

The most common way of market penetration is that of mergers and acquisitions. We could say that investors decide to invest in some locations due to clustering effect showing the existence of positive links between existing firms as the incitation appears to be in their vicinity. Another reason why companies are moving into areas where there were clusters, according to Howard J. Shatz and Anthony J. Venable (2000), is that they are based on the experiences of existing companies which gives them greater confidence.

In a study of the International Monetary Fund (2003), an analysis of the types of investment decisions is made of. Most investors make their decisions based on strategic behavior. Some companies, especially banks and managerial those in the mining, use a decision-making from the top down, where the executive departments analyze the overall management of the investment not taking into account the decision taken in consultation with its subsidiaries, realizing decision centers. It is carried out a study of geographical and demographic location of new investment including market size, input availability, distribution of income etc.

Other investors reference that very important for decision to invest is autonomy saying that the decision to invest should belong to the executive department of each subsidiary company. Thus each flow business will operate as an autonomous part. Parent company can provide advice and guidance to the decisions if requested. Other investors, especially those in the manufacturing sector, identify a hybrid form of decision making, thus taking account of the parent company's approval each branch can develop their own investment plans. Thus, each branch may have a different strategic purpose. In this way, the decision to remain centralized while investing ideas, financing, investment management is decentralized.

Many economists have studied various aspects of the decision to invest. David Wheeler and Ashoka Mody (1992), in their study, examine the decision

of international investors in terms of a wide range of indicators. Thus the two indicators divided in five classes (classical variables, the economic benefits of agglomeration, geopolitical risk, risk indicators of local and political variables, indicators of host country openness to foreign investors) Further analysing these indicators, the authors found relevant that foreign investors give great importance in their decisions to the benefits provided by economic agglomerations, on the one hand, and is also a strong emphasis indicates a combination of risk factors and the classics. The decision to invest depends on a balance between these indicators. Investors seem to prefer a quality infrastructure than tax incentives data. Relations with neighbors have a modest impact on the decision to invest a little more impact than having the relationship with the West but the removal of these two indicators do not affect the model itself.

In their study Yuko Kinoshita and Nauro F. Campos (2003) carried out a model that explains the decision to invest in terms of location. They examine 13 indicators that firms take into consideration when deciding to invest in another location demonstrating that institutions, natural resources and economic agglomerations are the most important determinants. The findings show that a more open economy HitPark contribute to a greater number of FDI inflows. Market size and labor costs are key factors in the decision to invest. A 1% increase in GDP leads to an increase of 0.1% FDI levels per capita that is because investors are attracted to a larger size of the local market. Abundance of resources is also a factor in the decision to invest.

We can say that as a country has a higher level of resources is even more attractive to investors looking for resources. Analysis of the institutional variables in the model shows that a country with a strong manages the institutional environment to attract more foreign investment. Analysis of the institutional variables in the model shows that a country with a strong institutional environment manages to attract more foreign investment. Variables such as level of education and infrastructure have been found significant. But not for all authors of models these variables are insignificant, depending on how advanced technology investment and whether they will need higher qualified workforce.

We believe that investors decide to invest in the host country only if economic fundamentals are strong. Most notable among these are market size and real income level, where there is skilled labor, infrastructure, provision of inputs and other components that facilitate productive activity, they also hang together trade policy, macroeconomic and political stability and other central determinant that we have previously analyzed invetsitor specific basis.

Investment decision, the host country's competitiveness and economic growth. Romania's case

Regarding the strong economic fundamentals in the host country, a role with a high impact on the decision to invest has the competitiveness of the host economy. In the following we intend to conduct an analysis of the level of competitiveness of Romanian economy and the relationship between competitiveness, foreign direct investment and economic growth for Romania.

There are a number of global methods and procedures for determining this level, among which are found some works such as The World Competitiveness Yearbook, prepared by International Institute for Management Development in Lausanne (IMD) and The Global Competitiveness Report issued by the World Economic

World Economic Forum analyzes competitiveness based on 12 pillars and these pillars 12 are divided into three development stages: factor-driven, efficiency-driven, innovation-driven. In its most recent report (The Global Competitiveness Report 2009-2010), WEF ranks Romania as the transition from the second stage (investment - driven stage) in the third stage (innovation driven stage), along with other Central European countries and Eastern Europe such as Poland, Hungary, Latvia, Lithuania, Russia, etc.. Romania ranks 64 in global competitiveness rankings with an average score of 4.11 (overall competitiveness score can range between 1 and 7), and is formed as an average of: Basic requirements, Romania with an average score of 4.10 instead of 86 (last rank 133); Efficiency enhancers, with an average score of 4.25, 49th place (last place in ranking 133); Innovation Factors, with an average score of 3.44, 75th (last rank 119). After analyzing the tables, Romania has recorded a positive development after joining the European Union resulting in the last position exceeded the value recorded before accession, the last seats, currently occupied Latvia, Greece and Bulgaria.

In what follows we analyze the competitiveness of Romanian economy in relation with the EU 25. The central objective of the Competitiveness Index calculation is to compare the situation of Romanian investment environment with the EU - 25. To do this analysis we used the matrix "Hard" performed by the Group of Applied Economics. Matrix "Hard" is based on structural indicators that are found in the Lisbon agenda, grouped by Eurostat in the following categories: general economic environment, employment, innovation and research, economic reform, social cohesion and environment. Taking into account these elements of the Group of Applied Economics Lisbon structural indicators grouped as follows:

- Economic indicators (general economic environment and economic reform);
- Social indicators (employment and social cohesion);
- Technology Indicators (innovation and research).

After weighting these three indicators to arrive at a formula to calculate the competitive index (CI) (sum of weights is utilize sum to 100). Each of these indicators are calculated as weighted averages of selected variables within each group. In the following we present the weights used for these three indicators:

▪ **Economic indicators (I_E):**

E1 - GDP per capita	10
E2 - GDP growth rate	10
E3 - Labour productivity	30
E4 - Net exports	10
E5 - Gross fixed capital formation	20
E6 - Net income per capita	20

▪ **Social indicators (I_S):**

S1 – Dispersion of regional employment rates	30
S2 – Employment (total)	40
S3 – Employment - women	10
S4 – Average life expectancy index	20

▪ **Technology indicators (I_T):**

T1 – R & D expenditure as% of GDP	40
T2 – Employment in high technology sectors	30
T3 – Tertiary Education specializing in advanced technology	30

This leads to the following calculation model for the three indicators:

$$I_E = \frac{10 E1 + 10 E2 + 30 E3 + 10 E4 + 20 E5 + 20 E6}{100}$$

$$I_S = \frac{30 S1 + 40 S2 + 10 S3 + 20 S4}{100} \quad I_T = \frac{40 T1 + 30 T2 + 30 T3}{100}$$

Competitiveness index, I_C, is given by the weighted average of the three as follows:

$$I_C = \frac{40 I_E + 30 I_S + 30 I_T}{100}$$

The value of these indicators calculated by the method presented above is as follows:

Table 1

	Romania					EU - 25				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Economic index	-86.51	-239.63	-161.1	-275.62	6.85	103.75	104.78	105.73	111.44	103.28
Social index	79.18	77.58	80.33	80.29	80.3	95.51	97.04	97.47	97.28	97.36
Technology index	25.85	25.39	27.67	29.02	28.4	103.74	102.38	103.02	105.17	106.27
Competitiveness index	-3.09	-64.96	-32.04	-77.45	35.35	101.28	101.74	102.44	105.31	102.4

Source: Eurostat.

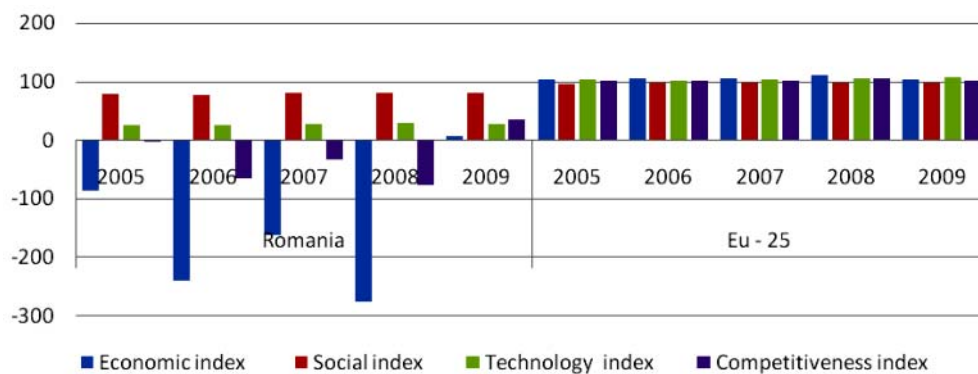


Figure 1. The evolution of IE, IS IT and IC for Romania and the EU (2005-2009)

As shown in Figure 1, Romania's competitiveness index is negative in relation with the EU-25. Given the model structure by which index of competitiveness was calculated, the main reason why the values showed a negative trend is mainly due to economic index, except for 2009, when it recorded a positive value, and it is observed that, by default, the competitiveness index registered this year a positive value but significantly less than the amount registered in the EU.

Next we will analyze the evolution of the indicators are part of the model, for we can get a broader picture of the competitiveness of Romanian economy.

Table 2

Evolution of indicators of competitiveness index

Economic Indicator	Romania					EU - 25				
	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
GDP per capita	35	38.4	41.6	43.5	41.2	104.1	103.9	103.07	103.4	102.5
GDP growth rate	210	246.87	217	1042.8	169.04	95	96	100	85.71	100
Labour productivity	36	39.6	43.3	50.2	48.2	104	103.9	103.7	103.3	103
Net exports	-1457.1	-3050	-2316.6	-4333.3	-590	114.28	125	133.33	200	110
Gross Fixed Capital Formation	118.5	123.67	141.78	151.18	134.03	100	99.51	99.53	99.05	100
Net income per capita	1.02	1.15	16.81	18.91	17.82	106.06	106.11	105.39	108.64	105.65
Social Indicator	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
Dispersion of regional employment rates	37.81	31.57	41.44	42.85	44.95	86.54	89.47	90.99	91.07	92.66
Employment	98.05	98.67	98.07	97.7	97.07	98.64	100.27	100.19	100.03	99.67
Employment - Women	102.42	102.69	101.68	100.36	98.97	99.81	99.79	99.85	99.92	100
Average life expectancy index	91.89	91.85	92.49	91.61	90.46	100.57	100.56	100.54	99.78	98.47
Indicator Technology	2005	2006	2007	2008	2009	2005	2006	2007	2008	2009
R & D% of GDP	22.52	24.32	28.1	30.52	30.52	100.54	100.54	100.54	100.52	102.62
Advanced Education with a specialization in research	36.6	25	25	25	21.21	120	115.62	118.75	121.87	118.18
Advanced Education with a specialization in research	19.54	27.19	29.78	31.04	32.75	91.75	91.58	90.6	94.68	99.24

GDP per capita is one of the most significant indicators of the competitiveness of the national economy in which economic growth reflects. It can be noticed significant differences in per capita GDP in Romania and the EU-25. In 2008 GDP per capita has also improved reaching 43.5% of EU

average (GDP expressed in purchasing power parity), but in 2009, it decreased, reaching 41.2% of the average European Union because of economic crisis. High values for growth rates of GDP are associated with good performance of the national economy. Since 2004 the Romanian economy has risen above the average economic growth of European Union countries. This was due mainly to increased consumption, leading Romania to economic growth "on duty", so making their presence felt in 2009, when Romania was one of the most powerful economic setbacks in the European Union. In the period 2005-2008 investments were a direct driver for growth of Romanian economy, leading to increased technology transfer leading to increased competitiveness of Romanian companies internationally.

Labour productivity measures the efficiency in obtaining the use of human capital GDP. With labor productivity in some way we can see the level of competitiveness of the economy compared with other economies. Romania's peak was 50.2% in 2008, then in 2009 recorded a 2% decline the previous period. There are several reasons which justify the low level of productivity of the Romanian economy, but the main issue is the lack of investment in new technologies, many of them have expired lifetime.

Absolute value of net exports has little relevance when used in comparative analysis, therefore, usually expressed as a percentage of GDP. In addition to the indicator GDP, per capita, net exports are an indicator of where we want to see how competitive is national economy. Competitiveness of an economy is given by the degree to which goods and services produced in that country meet the test of international markets. Romania has a high trade balance difficult, and this is also the main reason for the negative values of the Competitiveness Index, with the exception of 2009, when it declined due to weaker domestic demand for goods originating from abroad and not due to an increase of competitive.

Gross fixed capital formation in the national economy is the value of goods purchased by resident producer units to be used for at least a year in production and services incorporated in the bodies of the value of fixed capital. For comparative analysis between the economy, the greater is the ratio of gross fixed capital formation and GDP the more attractive is that economy for investment. High value is perfectly justified, because Romania is an emerging economy with high growth potential, is therefore attractive to foreign investors. It should be noted that it will take some time before these investments will be reflected in GDP growth.

Employment is calculated as a percentage of the total population. This indicator is particularly important in terms of competitiveness of an economy, because, considered together with the GDP we can draw a conclusion about the

productivity level, of the human capital efficiency. Also, this indicator is useful when you want to see how economic activity is presented in a given country. Romania is at a level closer to the EU average in terms of employment, the difference is less than one percent (Romania - 43.00% and 43.73% EU-25 in 2009). Also, it is apparent that the economic recession of 2009 had a negative effect on employment, falling by an average of one percent from the previous year. Average life expectancy index is an indicator of quality of life. Influences on this indicator are multiple, they can leave from the level of GDP, per capita, the quality of health care system, and reach the level of criminality. Also, you can not achieve a high level of competitiveness with a population living at subsistence limit. In Romania, the index of the average life expectancy is 73.5 years and for the euro area the average age is 80.89 years in 2009.

According to European Union's new strategy, expenditure on research development, along with other factors that enter into the composition of total factor productivity are considered as the main engines of sustainable growth. Investing in research and development and education is a necessary pillar in terms of real convergence with European Union countries because investment accelerates the process of catching up. Expenditure on research development in Romania are the fourth of the average costs incurred by European Union countries. Even if the commitment assumed by Romania through the Accession Treaty was to spend 1% of the public budget for research and the development and to facilitate private development project expenditures by 2% of GDP, this is far from being realized. The average level of research expenditure to GDP development in the last three years was 0.5% of GDP. This indicator shows how "concerned" is an economy with research development. Also as the percentage of employment in high tech sectors and total employment is higher so the economy recorded a higher level of competitiveness. Disappointing is the fact that in Romania the number of people working in high technology-intensive sectors is very low in comparison with the average European Union countries. In Romania, only 0.07% of total employed population works in technology-intensive sectors. If in the Eurozone the number of people employed in high technology has remained constant in 2009 (first year of economic recession), in Romania the number of people employed in high sectors decreased from 0.08% in 2008-0, 07% in 2009.

Indicator advanced specialized tertiary education in research refers to the number of students with advanced research studies, the total number of students. It also has a special importance for longer time horizons, because investment in education will increase the quality of a nation's future generations. In Romania, only 1.7% of total number of students are in advanced

studies in research, while in the Eurozone more than 5% of students have advanced studies in research.

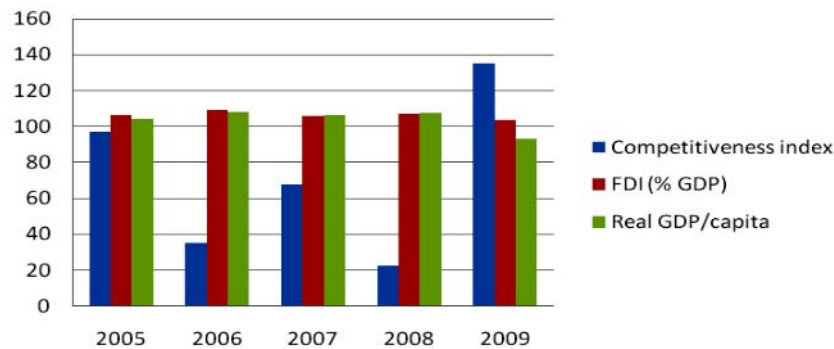


Figure 2. *Evolution of FDI, economic growth and competitiveness (2005-2009)*

Continuing with the analysis, it is illustrated in Figure 2 that there is a synchronous development of foreign direct investment, level of competitive and growth for Romania. Dunning noted that FDI interact with existing competitive advantage while the host country and influence the future competitive advantage. John Dunning has made an adaptation of Michel Porter's diamond (diamond competitive advantage), demonstrating the influence of FDI on the four facets of the diamond and on government actions and mentality of the host country entrepreneurs. Porter's conclusion is that success or failure of international companies in a given area is the result of combined action of all factors to which we referred in the process. The four elements creates the environment in which national firms appear and compete. The economic policy adopted by governments can positively or negatively influence each of the components business. These influences are manifested through subsidies, tax policy, antitrust policy, education policy etc.

Conclusions

FDI contribution to the development of a country is straightforward: transnational company established branches and subsidiaries that directly increase the level of investment in the host country and increase the productive capacity and decrease unemployment. FDI can also bring additional benefits in the form of technology transfer, managerial and marketing strategies. FDI can increase access to foreign markets because international companies are investing distribution channels of goods from one country to other markets. For

developing countries, the contribution of foreign investment the development is strengthened by the transfer of technical knowledge, organization and management. Joseph E. Stiglitz (2008) argues that the main cause of all negative effects of FDI and hence the companies that operate internationally is that they operate for profit, are not acts of charity, hence the strength and their weakness. Money is a strong motivation and desire to win can bring benefits society. When things go wrong, they can mobilize very many resources, can spread the most advanced technologies and contribute to the development of markets available exponentially. Recognition of these advantages by host countries, noting that foreign investors do not always bring benefits but also negative aspects which we discussed earlier, it has prompted them to strengthen their legal framework, the institutional as well as various advantages that can attract foreign investment. But FDI flows to host country depends on investment decisions made by international companies investing are determined by several factors. Knowledge management plays a key role as decision maker in the global economy. Information flow, information technology, learning, working and sharing their knowledge are embedded in both economic level of a country (see „Lisbon Strategy”) and at the enterprise level.

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