# THE DETERMINANTS OF FOREIGN DIRECT INVESTMENTS INFLOWS IN G7 COUNTRIES

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**Abstract**

*The objective of this study is to emphasise the role of some important determinants of FDI inflows in the G7 group, between 2000 – 2015. The member states of G7 are characterized by developed economies, with a high value of Human Development Index and big national wealths. The member states are: United States of America, United Kingdom, Canada, Japan, France, Germany, Italy and are owning 60% of the world GDP, therefore atract large FDI inflows. The impact of the considered determinants is analyzed using the Pearson correlation test. The variables taken into account are: infrastructure, market size, market openess, natural resources, human resources, political stability, exchange rate, external debt, inflation, wages, tax rates, GDP and FDI stock.*

**Keywords:** Foreign direct investments, determinants, G7, FDI inflows

## Introduction

Foreign direct investment is an investment by non-resident investors in other countries in order to set up and develop firms in various areas. Foreign direct investment reflects elements of externality, represented by capital, country of placement, technology flows, knowledge, management, goods and services (Voinea, 2008).

Dunning (1977) formulates the "eclectic theory" on foreign direct investment. The results obtained using this theory and the multitude of factors that influence the activity of the multinational companies have made this theory the most accepted in the literature.

The model proposed by this theory proposes, explains why a multinational company can open a foreign subsidiary through location theory. Dunning suggests that companies may be interested in investing in other

countries if they have the following advantages: ownership, localization and internalization.

There are numerous studies focusing developed countries, but studies researching determinants in G7 countries are few. This study takes into account new sets of data in order to contribute on the subject.

**Literature review – a brief theoretical survey on FDI determinants**

No general acceptance exists for the FDI determinants, and their impact on FDI inflows are present in many studies. Artige & Nicolini (2005) describe GDP/per capita as the best measure for market size. Kinda (2010) relates on the importance of infrastrcture and specialized work force in order to increase productivity of FDI. Root & Ahmed (1979) have shown that market openness measured by imports and exports over GDP emphasises the acceptence of foreign investors.

Dawar & Frost (1999) relate that natural resources are especially important in atracting FDI in delevoping countries. Bagchi-Sen & Wheeler (1989) study FDI inflows in United States of America and they observe that workforce qualification and population levels are important in atracting flows to a location. Kisunko (1999) is conducting a study of 3,500 companies and 74 countries, demonstrating that the uncertainty of political risk discourages foreign investment in developing countries.

Buch & Kleinert (2008) demonstrated through the study that an appreciation of the currency in the host country will promote foreign direct investment and acquisitions in other areas of interest. The analysis has been made on the outflows of foreign direct investment from Germany over the period 1997-2002. The risk of a high external debt level may affect the level of foreign direct investment due to the possibility of nationalization of certain industries and the lack of compensation to the original investors due to the over-indebtedness of the states (Schnitzer, 2002 and Wezel, 2003).

Niazi (2011) highlights that changes in the stock of foreign direct investment are due to domestic production and inflation. If domestic production increases, there will also be increases in foreign direct investment flows, and between inflation and the flow of foreign direct investment there is a reverse link, a phenomenon of deflation attracting foreign investors. Doh (2005) notes that multinationals in developed countries want to move their production to countries where wages are lower and to automate as much domestic processes as possible. Asian countries offer this possibility, and

countries like India and China have captured the IT market due to low wages in these countries.

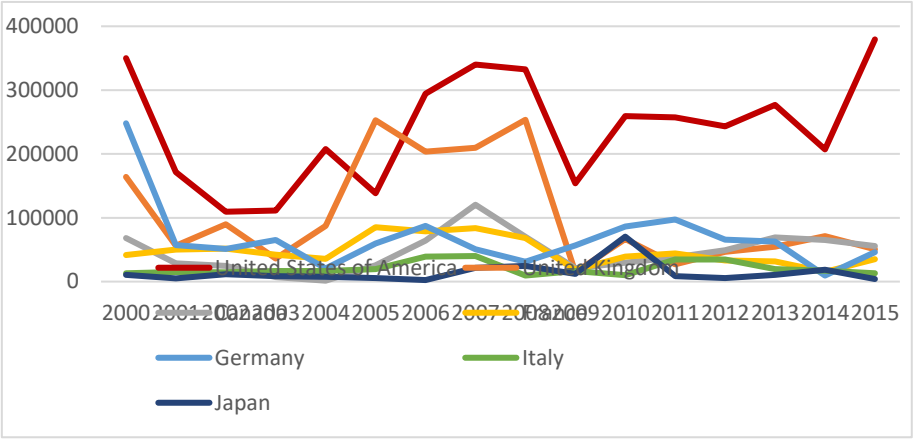
Hines (1996) examines the distribution of foreign direct investment in the United States to find links between the level of taxation and FDI. His study confirms that countries that offer tax concessions to foreign investors have a greater inflow of foreign direct investment, generally higher by 9 percent. Jun and Singh (1996) call the GDP as the only determinant to attract foreign investment, and the other factors do not have a general understanding.

**The analysis of FDI inflows determinants in G7**

FDI inflows in the state members of G7 are dominated by United States, United Kingdom and Germany. The period of financial crisis triggered at the end of 2007 has affected the world's main economies more strongly than developing countries. Problems in the banking system have affected the United Kingdom most heavily, ranking as the world's second-largest recipient of foreign investment being lost to China in 2010.

The ability of the German state to overcome the economic turmoil has prompted foreign investment inflows since 2009, in the detriment of other European countries: France, Italy and the United Kingdom. Germany is due to surpass the United Kingdom for foreign investment stock in 2017 and will become the main attraction at European level for foreign investors and third on a global basis after the United States and China. The austerity measures in Italy and France and the inability of these countries to overcome the financial crisis led to a decrease in annual investment volume, which was lower than in the period 2000-2007. In the G7 countries, Japan recorded the smallest volume of inflows of FDI, due to the economic problems started in 1990, the loss of the supremacy in the electronic domain, the economic crisis that severely reduced exports and natural disasters in 2011.

Figure 1 – Evolutions of FDI inflows in G7 (millions of dollars), 2000 – 2015




In order to understand the factors that attract FDI in G7, the study presents a statistical correlation to identify the bonds between the variables. Pearson coefficient is noted with r and it is defined by:

Table 1 – Variables, description and sources

| Indexes | Definitions | Source |
|---|---|---|
| Infrastructure | LPI INDEX (index of logistic performances) | lpi.worldbank.org |
| Market size | GDP/per capita (dolari) | data.worldbank.org |
| Market openness | Imports + Exports / GDP (%) | data.worldbank.org |
| Natural resourse | Earnings from the exploitation of natural resources (% GDP) | data.worldbank.org |
| Human resources | Percentage of th e population enrolled in university studies (%), own processing | www.unctad.org<br>www.bluenomics.com<br>en.unesco.org<br>www.tradingeconomics.com |
| Political stability | Political Stability and Absence of Violence/Terrorism (PV.EST) | data.worldbank.org |
| Exchange rate | Exchange rate volatility against US dollar | www.bluenomics.com |
| External debt | The total amount of external debt (trillion dollars), own processing | www.bluenomics.com<br>www.cia.gov/library/publications/the-world-factbook/ |

| | | |
|---|---|---|
| Inflation | Consumer price index (%) | data.worldbank.org |
| Wages | Medium wage (dollars), own processing | data.worldbank.org |
| | | www.wageindicator.org |
| | | www.ilo.org |
| Tax rates | Total level of taxes on profit (%), own processing | www.bluenomics.com |
| | | www.businessinsider.com |
| | | www.oecd.org |
| | | www.accounting-degree.org |
| GDP | Gross Domestic Product (dollars) | data.worldbank.org |
| FDI stock | Foreign Direct Investment (FDI) stocks measure the total level of direct investment | www.unctad.org |

For the analyse of the determinants presented in Table 1 it was used the program SPSS v20. The results obtaind from the correlation are presented in Table 2. For the interpretation of the values, the value of the Pearson correlation coefficient and the significance value Sig. at a threshold lower than 0.05, will be taken into account.

Table 2 – The result of Pearson correlation test

| Coeficient Pearson/Determinant | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Statele Unite ale Americii | Regatul Unit | Canada | Japonia | Germania | Franța | Italia |
| infrastructure | Pearson Correlation | .840** | .056 | -.634** | -.789** | .085 | .840** | .633** |
| | Sig. (2-tailed) | .002 | .836 | .008 | .002 | .755 | .002 | .009 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Market_size | Pearson Correlation | .853** | .747** | .917** | .740** | .915** | .887** | .916** |
| | Sig. (2-tailed) | .002 | .001 | .001 | .001 | .032 | .001 | .003 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Market_openess | Pearson Correlation | .665** | .751** | -.882** | .687** | .899** | .614* | .615* |
| | Sig. (2-tailed) | .005 | .001 | .002 | .003 | .000 | .011 | .011 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Natural_resources | Pearson Correlation | -.512* | -.420 | -.370 | .870** | .016 | -.426 | .535* |
| | Sig. (2-tailed) | .143 | .105 | .158 | .007 | .953 | .100 | .033 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Human_resources | Pearson Correlation | .891** | .771** | .844** | .801** | .865** | .956** | .907** |
| | Sig. (2-tailed) | .001 | .001 | .001 | .002 | .003 | .001 | .001 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Political_stability | Pearson Correlation | .542* | .024 | .204 | -.609* | -.345 | -.277 | -.434 |
| | Sig. (2-tailed) | .030 | .933 | .448 | .072 | .191 | .318 | .093 |
| | N | 16 | 15 | 16 | 16 | 16 | 15 | 16 |
| Exchange_rate | Pearson Correlation | .c | -.111 | -.912** | -.760** | -.757** | -.753** | -.819** |
| | Sig. (2-tailed) | | .683 | .002 | .001 | .001 | .001 | .000 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | N | 0 | 16 | 16 | 16 | 16 | 16 | 16 |
| inflation | Pearson Correlation | -.464 | .219 | -.516* | .275 | .950** | -.463 | -.401 |
| | Sig. (2-tailed) | .070 | .415 | .041 | .303 | .002 | .071 | .124 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| External_debt | Pearson Correlation | .776** | .924** | -.395 | .744** | -.252 | .955** | .962** |
| | Sig. (2-tailed) | .002 | .003 | .130 | .001 | .346 | .001 | .023 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| wages | Pearson Correlation | .812** | .068 | .851** | .039 | .769** | .967** | .560* |
| | Sig. (2-tailed) | .001 | .803 | .002 | .885 | .003 | .001 | .024 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Tax_rates | Pearson Correlation | -.803** | -.345 | -.751** | -.630** | -.181 | -.140 | -.763** |
| | Sig. (2-tailed) | .001 | .190 | .001 | .009 | .503 | .605 | .001 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| GDP | Pearson Correlation | .866** | .824** | .957** | .719** | .909** | .915** | .937** |
| | Sig. (2-tailed) | .001 | .001 | .001 | .002 | .001 | .002 | .001 |
| | N | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

The infrastructure is correlated with the foreign direct investment stock, with the exception of the Pearson coefficient for the United Kingdom and Germany due to the developed infrastructure and the stable level that the LPI indicator records during the analyzed period. The correlation is signicative in all cases for market size and it can be concluded that GDP/capita is an important determinant in attracting foreign direct investment.

Between the market opening level and the direct investment stock, significant positive correlations exist at a threshold of less than 0.05, except for the Pearson coefficient in the case of Canada. The negative value of this situation is due to declines in trade with the main partner, the United States, and the volume of foreign investment from this market, which has led Canada to Asian and European Union countries. The only countries in the G7 group where the Pearson coefficient obtains a significant level in the case of natural resources are Japan and Italy. Proceeds from exploitation of natural resources occupy an insignificant percentage of Gross Domestic Product, below 0.05% annually. Thus, natural resources can not be considered as a determinant of foreign investment.

In all G7 countries, there is a strong correlation between the level of university education and the stock of foreign direct investment, demonstrating that foreign investors are interested in qualification of labor force. The low levels of the political stability indicator due to the absence of terrorism and

politically motivated violence in the United States of America between 2002 and 2004 led to a fall in foreign direct investment stocks during this period, with Pearson's gaining moderately significant value.

Exchange rate has a strong negative correlation with the FDI stock. The appreciation of the local currency reduces the level of foreign direct investment in all G7 countries, with the exception of the United Kingdom. Inflation levels are the lowest in Europe's strong core, Germany being the most stable and strong European country in economic terms. Inflation increases in Germany are largely due to wage increases, which lead to an increase in consumption and commodity prices. The near-perfect correlation between inflation and foreign direct investment stocks shows that a stable and predictable macroeconomic situation attracts foreign investment.

There are strong correlations between external debt and foreign direct investment stocks, except Canada and Germany. For the G7 countries this determinant has increased over the period under review due to the strong impact that the economic crisis triggered in 2008 has produced these economies. External debt was needed to maintain economic growth and to develop the economic sectors hit by this phenomenon.

Wage rises influence the decision of foreign investors to move towards these markets, as evidenced by the Pearson coefficient values, showing strong positive and statistically significant correlations, with the exception of the United Kingdom and Japan. In the case of the United Kingdom, wage increases do not influence the attraction of foreign investors due to the sectors targeted by multinational companies in these countries, namely financial and IT, where labor force qualification is imperative.

The G7 member states are characterized by a stable and predictable macroeconomic situation, with the level of taxation constant over the period under review, especially in European countries. The tax cuts in the United States, Canada, Japan and Italy show an increase in foreign investment flows, demonstrating that the level of taxation is an important determinant in attracting foreign direct investment to areas where taxes are lower. The correlation between GDP and FDI has a positive Pearson coefficient with a threshold of less than 0.05, concluding that there is a strong link between the two variables.

## Conclusions

The paper's objective to explain the determinants of FDI inflows in the state members of G7 was acomplished. Macroeconomic stability, measured by inflation indicators, external debt, exchange rate volatility and annual GDP growth, are the main determinants of attracting foreign direct investment. Economic uncertainty and an unstable and unpredictable macroeconomic situation will significantly reduce the stock of foreign investment. Population determinants included in the study: the market size measured by the GDP/per capita ratio, the "human resources" determinant measured by the percentage of university enrollment population and the average annual salary demonstrate the importance of the human factor to the flow of foreign direct investment.

The interdependence of foreign direct investment flows strengthens the phenomenon of economic globalization and reduces the risks of global players through the dispersion of presence on a larger number of markets. Risk redistribution delivers technology, managerial and logistical knowledge transfers, beneficial to countries hosting these investments through economic growth and long-term business environment stability.

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