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DIRECT FOREIGN INVESTMENTS AND THE LACK OF POSITIVE EFFECTS ON THE ECONOMY

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Abstract
In recent years, Croatia was interesting to investors in attracting foreign direct investment. One of the objectives of this research was to deal with their negative effects. Most of invested capital was invested in brownfield investments, i.e. in taking over the ownership share of companies through privatization. Consequently, revenues were spent to settle financial debts and not on the growth and development of competitiveness. According to economic theory, foreign direct investments have a positive impact on the economic growth of the recipient country. This paper attempts to answer the question: ‘Is the economic theory confirmed in the Croatian case?’ The aim is to analyse the impact of foreign direct investments on the economic growth of Croatia in the period from 1999 to 2014. The paper analyses the impact that direct foreign investments had on the unemployment rate, GDP per capita and export using the model of linear regression.

Keywords: foreign direct investments, employment, exports.

Jel Classification: F21; E20

INTRODUCTION

In recent years many authors have emphasized the positive impact of direct foreign investments, such as output growth, employment growth, exports and so on. However, only some have mentioned and presented the negative effects of the same. Therefore, the objective of this study is to investigate, analyse and define the negative impacts of foreign direct investments on the economy of Croatia. Considering that the unemployment rate is very high, production and competitiveness are low and not...
improving, the assumption was that foreign direct investments do not have a significant positive impact on the economy of Croatia.

The aim of this paper is to prove that direct foreign investments also had some negative consequences that affected the unemployment growth and stagnation of economic development in the observed period. This will be proved by using scientifically-based analysis and scientific research of previous authors. The methods used in this study are linear regression model, method of compilation, descriptive analysis and the time series method.

According to Pavlovic (2008) foreign direct investment (FDI) is a financial investment in which the investor buys at least 10% of the shares of the company in a country other than his resident country with the purpose to secure a lasting interest in the company and exercise a significant influence on its management.

As defined by the International Monetary Fund, foreign direct investment is a long-term investment that occurs when a foreign investor (non-resident) holds 10% or more of the ownership interest of economic entities (resident) in a country. Grgic, Bilas and Franz (2013) separated two elements when defining foreign direct investment. The first refers to the long-term interest of foreign investors, in particular to the long-term relationship of foreign investors and the domestic entity, while the second element relates to owning at least 10% of ordinary shares of the domestic economic subject which gives the investor the right to vote. Botric and Skufic (2006) define international flow of capital as investment made by a resident of one country in another country. They also differ between investments in the form of a loan granted to a resident of another country, the purchase of securities of a company or state, and acquiring the majority share in the non-resident company. Furthermore, Sisek (2005) states that depending on the percentage of shares shareholders have, recipient companies are called differently a) branch, if it is a totally owned, b) subsidiary, with more than 50% of the ownership, and c) associate, with a share of 10–50% of direct or indirect ownership abroad. Foreign investments can be divided into several groups depending on their purpose, aim and motive of investment. According to Grgic, Bilas and Franz (2013) from the perspective of the country of origin, FDI can be vertical or horizontal.

Horizontal investments are made for the purpose of horizontal expansion of international production of identical or similar products as in the home country. The most common horizontal investments are carried out for the purpose of exploitation of certain monopolistic and oligopolistic advantages. Vertical investments are made with the purpose to procure cheaper raw materials or to get closer to customers in foreign markets. They include geographical decentralization of the production chain of multinational companies. Bearing in mind the direction of investments, we can differ between inward and outward investments.

Inward investments occur when foreign capital is invested in domestic resources, they are encouraged by giving subsidies, tax breaks, loans, abolition of certain restrictions and barriers for the entry of foreign investors. Outward investments refer to investment of domestic capital abroad. A motivation for this kind of investment is security risk offered by the government of some countries. When it comes to the objective of investments, there are two types of investments.

Greenfield FDI, which represent the most desirable form of foreign investment, as they create new production capacity and, consequently, new jobs, allow the transfer of technology and knowledge, and can lead to networking with the global market since
the foreign investors are usually multinational companies. Brownfield direct investments occur when a company is established by acquisition or merger with an existing company in a foreign country. The advantage of establishing these kind of companies is a fast and easy access to international markets. Problems arise in finding the right target market and companies in this market. Countries often have demanding and time-consuming administrative procedures for entering their market, which can discourage a merger or a takeover. In contrast to greenfield investment, mergers and acquisitions do not provide long-term benefits for the target country.

According to economic theory, which usually explains foreign direct investment through the motives of investment recipients and givers, the expected consequences in the recipient country are economic growth, positive impact on foreign exchange, unemployment reduction, increase labour productivity and more exports. In addition, multinational companies also pay taxes in the recipient country, thus making payments to the national budget, knowledge and skills are transferred, the efficiency of the domestic manufacturing sector by encouraging competition and increasing the efficiency of the rest of the economy increases (“spillover”). Generally speaking, foreign direct investments should have a positive effect on the economy of the recipient country both at macro and micro level. Barry and Bradley (1997) demonstrated a positive effect of foreign direct investment in export based on data for Ireland, Jensen (2002) found similar positive correlation in Poland. While analysing data of transition countries in Central Eastern Europe Lovrincevic, Maric and Mikulic (2005) also found a positive relationship between FDI and domestic investment. Schmerer (2014) tested model using macroeconomic data for 19 OECD countries and found that FDI has a positive effect on employment.

Despite of numerous studies whose results usually show positive effects of foreign direct investment, it is widely known that foreign direct investments can possibly have some negative effects on the economy of the recipient. However, this side of the medal is much less studied. Theoretically, possible negative effects could be an increase in net imports as a result of increased imports of the central enterprises, a possibility of achieving monopoly position in the market, reducing the production of domestic companies or reverse transfer of knowledge, technology and know - how. As for attracting foreign direct investments Wisniewski and Pathan (2014) found that investors appear to avoid countries with large government and military spending. They disfavor centrist and right-wing executives and lack of political competition. Globalization has led to rapid growth of foreign direct investment. China is considered as the largest recipient of foreign direct investment (Zhang and Daly 2011).

1. RESEARCH REVIEW

Foreign investments are usually the top priority of every government, but there are numerous studies that emphasize the negative effects of foreign investment. Although there are diverse opinions on the effects of foreign investments and their impact on the economy of recipient countries, much of the empirical research highlights positive effects. Therefore, this paper, in contrast to the above mentioned findings, will focus on negative consequences.

A number of studies that cannot be ignored have found that foreign direct investments do not have a significant impact or even have a negative impact, as in
Gorg and Greenaway (2003). According to Graham and Krugman (1995), one of the consequences caused by the inflow of foreign direct investments is unemployment reduction, which is a result of rationalization of the workforce. Barry and Bradley (1997) explain how multinational companies, in taking part of the market, have a negative impact on domestic producers. They also point out that the economic policy focused towards multinationals can cause economic instability of the recipient country. Aitken and Harrison (1999) found the same negative impacts on the domestic producers in Venezuela, proving that foreign investment negatively affected production of the domestic producers, what the authors call the effect of “stealing” the market share.

Based on the analysis of more than 4,000 companies they concluded that the net effect of FDI is quite small. Babic, Pufnik and Stuck (2001) found the legal basis for discrimination of small towards large enterprises, and foreign towards domestic. After conducting empirical analysis, Sisek (2005) concluded that the relationship between FDI and economic growth showed statistically negative causal link, which means that FDI did not help Slovenia to join the European Union. This can be explained by the fact that acquisitions, and not greenfield investments, prevail in the structure of FDI, and that the revenue made by selling companies during the privatization process was used for consumption and imports, and not to increase the production of capital.

In their work Bilas and Franz (2006) pointed out that domestic companies accept the strategy of export of foreign investors, but contrary to their expectations, it does not guarantee a positive effect of investments. Such effects do not depend only on the market orientation of sales and selling the products on the domestic or foreign market, but on the competitive advantage of the recipient country. Bogdan (2009) also emphasized that the most of foreign direct investments were focused on brownfield investments and funded tertiary sector, which had a negative effect on their efficiency.

According to Zilina (2010), foreign direct investments with a positive effects (which are more common in the case of greenfield investments), may also cause adverse effects (brownfield investments), in cases where the investor is trying to earn more through cheaper local raw materials and resources with the end to sell the final product at a much higher price than the product is really worth. According to Ivanovic, Baresa and Bogdan (2011) only a small part of the investments are greenfield investments, while most foreign direct investments are brownfield investments. The main aim of brownfield investments is to achieve greater profitability of enterprises, and the easiest way to achieve it is by reducing the number of employees. The best example of this in Croatia is HT (Croatian Telecom).

In 1999, German Telekom bought 35% of the shares of CT company for $ 850 million, and after 2001 they bought an additional 16% for $ 500 million (in total German Telekom owned 51% of shares). German Telekom was planning to have 5,000 employees by 2014, and the important fact is that in 2002, the same company had 11,300 employees. This is just one of many examples of the negative effects of brownfield investments. According to Grgic, Bilas and Franz (2012) if the foreign investor is motivated by low labor costs that apply export-oriented trade regime. It is believed that greenfield investments generate higher employment rate than brownfield investments.

The consequences of mergers and acquisitions may be layoffs. According to Buterin and Blecic (2013) the potential social costs of FDI may result in a decrease in employment due to the rationalization of the workforce in the company that has been
taken over or due to the crowding of unsuccessful domestic companies. Negative impacts may occur in terms of the structure of the labour market, and can reduce the amount of well-paid jobs and increase the amount of low-paid jobs: differences in salaries of workers with the same skills and qualifications change due to foreign direct investments and labour market imperfections. Balance sheets can be made worse if the company, which was set up by foreign direct investments, has more imports than exports.

2. FOREIGN DIRECT INVESTMENTS IN CROATIA

When the transition from command economy to market economy began, Croatia was not attractive to foreign investors as a potential destination country. The reason for this was that Croatia was seen as a small national and regional market with a rather poorly developed infrastructure and questionable accession into the European Union. Although the Croatian aggravating circumstance was that it is a small market, the market size does not guarantee effectively attraction of FDI. Kuzmina, Volchkova, and Zueva (2014) studied the effect of poor governance quality on foreign direct investment in Russia. They found that higher frequency of using illegal payments and higher pressure from regulatory agencies, enforcement authorities, and criminals, negatively affect foreign direct investment. In spite of this as the years passed by, the situation in Croatia changed. In comparison to other countries in similar situation Croatia has attracted a significant amount of foreign direct investments, but lacking was a positive effect on the economy and on the employment growth. As aforementioned, this has happened because of brownfield investments, i.e. because the capital was invested in the acquisition of existing enterprises through privatization. So, greenfield investments have been scarce, as well as positive impact on growth and economic development.

Previous research on the topic of foreign direct investments concluded that foreign investment was the key factor for economic growth, and countries that have a high percentage of investments in capital goods can expect faster economic growth. In Croatia, there has been no such effect.

Figure 1 (which is obtained based on the data of the Croatian National Bank) shows the structure of FDI inflows in Croatia, which is classified according to FDI: equity investments, retained earnings and debt instruments. It is notable that the most foreign direct investments in Croatia refer to equity investments which in a given period (1993–Q1-Q3/2014) amounted to more than 19 billion euros. A small part of the total direct investments relates to the retained earnings and amounts to more than 5 billion euros, while debt instruments amount to slightly more than 4 billion euros. What is concerning is that the majority of direct foreign investments have been carried out in the industries in which export is not the primary orientation, having consequences in the lack of employment growth, export growth and low competitiveness of the entire economy. In some cases, FDI did not have any effect on country industrialization. For example, Gui-Diby, Loris and Renard (2015) found that FDI did not have a significant impact on the industrialization of African countries, while other variables, such as the size of the market, the financial sector, and international trade were important.
Figure 1 shows that the majority of foreign direct investments refer to equity investments. Activities, which received the largest share of foreign direct investments in Croatia, are financial intermediation activities, followed by insurance and pension funds with 25%, other business activities with 12%, wholesale and commission trade with 9% and real estate with 7%.

This point to the fact that most foreign direct investments were made into the service sector rather than into manufacturing. The activities, which received the largest share of foreign direct investments, do not lead to an increase of exports and economic growth. Investments in the above-mentioned sectors amounted to 15 billion euros, or 52.41% for the period from 1993 to 2014. The reason why foreign direct investments in Croatia do not achieve better results is that the obtained funds are used to compensate shortage in the state budget.

Buterin and Blecic (2009) provide an example of INA d.d. which sold the majority of ownership to foreign investors and then used the funds received to settle its difficult financial situation, and not to increase competitiveness, exports, etc.
Figure 2. Direct investment, Liabilities activities of residents in millions EUR

Figure 2 shows the countries, which made direct foreign investments in Croatia. The biggest investors in Croatia are actually the most stable countries in the Euro zone, in the first place with 21% is the Netherlands, followed by Austria with 21% and Germany with 8%. These countries together have invested over 14 billion euros which is 50.57% of total foreign direct investment. Croatian accession into EU has encouraged investors.

Figure 3. Direct investment, obligations (by country of origin), in millions EUR
3. EMPIRICAL ANALYSIS OF DATA FOR CROATIA

Based on similar research conducted by Tos-Bublic, Pavicic and Resetar (2013) and with the aim to determine the connection between foreign direct investments and selected macroeconomic indicators, such as: unemployment, GDP and exports an economic model has been conducted.

Data used in the analysis refer to the period from 1999 to 2014, which means that there are sixteen observations. The dependent variables (Y) are unemployment, GDP per capita and exports, while the independent variable in Croatia (X) is foreign direct investment, and the analysis ends with the interpretation of results.

The regression equation is

\[ y_i = \alpha + \beta x_i + \epsilon_i \quad i = 1, 2, ..., n \]  

where \( \alpha \) and \( \beta \) are unknown parameters, and variable \( \epsilon \) is an error in the model. The model with the estimated parameters is

\[ \hat{y} = \hat{\alpha} + \hat{\beta} x \]  

Regression value is calculated by using the formula

\[ \hat{y} = \hat{\alpha} + \hat{\beta} x_i \quad i = 1, 2, ..., n \]  

Regression value is determined by the dependent variable Y with the real value of the independent variable X, and the difference between the regression value and the actual value of the dependent variable is error term (\( \epsilon \)).

The analysis was conducted by using simple linear regression model where the dependent variable (Y) is export, GDP per capita and the unemployment rate, while the independent variable (X) is direct investment. The analysis used a LOG-LOG with the following variables:

- \( \text{LOGFDI} = \text{log (Foreign Direct Investment)} \)
- \( \text{LOGNEZ} = \text{log (unemployment rate)} \)
- \( \text{LOGEX} = \text{log (export)} \)
- \( \text{LOGGDP} = \text{log (GDP per capita)} \)

Data Source for foreign direct investments, unemployment and exports is CNB Bulletin No. 213. Data used in the analysis is in the period 1999–2014.

4. RESEARCH RESULTS

The scatter diagram in Figure 4 shows the correlation between the dependent variable (the unemployment rate) and independent variable (FDI). Determination coefficient \( r^2 = 0.484 \) shows that foreign direct investments account for 48.40% of the variations in employment. The correlation coefficient \( r = 0.695739 \) shows that the correlation between the variables was relatively weak in the period from 1999 to 2014 in Croatia.
The regression equation model with the estimated parameters:
\[ \text{LOGNEZ} = 4.86421103415 - 0.311980844822 \times \text{LOGFDI} \]

Interpreting the results obtained by conducting a simple regression analysis it can be concluded that if foreign direct investments increase by 1%, the unemployment rate will fall to an average of 0.31198%. According to the F-test and according to the significance of regression for unemployment, \( P \) value is 0.0028, which is lower than the value of \( \alpha = 0.05 \), and the null hypothesis test can be rejected as false. Differences that result in \( P < \alpha \) are considered statistically significant. The null hypothesis is rejected if the probability that a random variable takes on a value greater than the size of the test is less than the theoretical significance level \( \alpha \). All model assumptions have been met.

Scatter diagram in Figure 3 shows the correlation between the dependent variable GDP per capita and independent variable FDI. Determination coefficient \( r^2 = 0.109790 \) means that foreign direct investments account for 10.97% of the variation in GDP per capita. The correlation coefficient \( r = 0.33134 \) means that correlation between variables is relatively weak and positive in the period from 1999 to 2014 in Croatia.

The regression equation model with the estimated parameters:
\[ \text{LOGGDP} = 7.63720983479 + 0.187067912255 \times \text{LOGFDI} \]

Interpreting the results of a simple regression analysis it can be concluded that if foreign direct investments increase by 1%, GDP per capita will rise by an average of 0.18706%. According to the F-test and according to the significance of regression for GDP per capita, \( P \) value is 0.21, and considering that the \( P \) value is greater than the value of alpha, which is 0.05, it is considered that the probability of an event is higher than 5% of random results. Since \( P > \alpha \) it is considered that samples do not distinguish significantly, therefore the null hypothesis has been accepted as possible. The result of the sample does not deviate from the hypothetical value, the sample confirms the hypothesis, i.e. deviation from the hypothetical value is insignificant.
Scatter diagram in Figure 6 shows the correlation between the dependent variable export and independent variables foreign direct investment.

Determination coefficient $r^2 = 0.106740$ means that foreign direct investment accounts for 10.67% of the variation in exports. The correlation coefficient $r = 0.326710$ means that the correlation between the variables was relatively weak in the period from 1999 to 2014 in Croatia.

The regression equation model with the estimated parameters is:

$$\text{LOGEX} = 7.66573056372 + 0.173229075551 \times \text{LOGFDI}$$

Interpreting the results of a simple regression analysis it can be concluded that if foreign direct investments increase by 1%, exports will rise by an average of 0.17322%. According to the F-test and according to the significance of regression for export, $P$ value is 0.21, and considering that the $P$ value is greater than the value of alpha, which is 0.05, it is considered that the probability of an event is higher than 5% of random results. Since $P>\alpha$ it is considered that samples do not distinguish significantly, therefore the null hypothesis was accepted as possible. The result of the sample does not deviate from the hypothetical value, sample confirms the hypothesis, i.e., a deviation from the hypothetical value is insignificant.
CONCLUSION

The hypothesis of the study was to prove that alongside some positive impacts of foreign direct investments, there are also the negative ones, which was proved by various authors also. By means of structural analysis of foreign direct investments in Croatia in the period from 1993 until the third quarter of 2014 it was determined that Croatia has received a little more than 19 billion euros of foreign direct investments. Despite of this fact, there were very few positive effects of foreign investments in Croatia, and therefore economic performance did not change nor did it get better. The revenues from direct foreign investments have mostly been used to settle financial debts. The analysis of foreign direct investments and their impact on GDP, employment and exports was done using linear regression model. This kind of analysis, especially with regard that one of the assumptions was not valid, is not sufficient to make a final conclusion on the impact of foreign direct investments on the economic growth. According to the results, which were partially contradictory to the economic theory, it can be concluded that the problem is in the structure of foreign direct investments, with particular emphasis on green-field investments. The conclusions of this paper do not mean that Croatia needs to stop encouraging the inflow of foreign direct investments, but they suggest that changes of the strategy of attracting direct foreign investments are needed and are required. Croatian priority, when foreign direct investment are in question, should be to attract greenfield investments and investments into new production, in order to increase the number of jobs, exports and thus growth and development of the economy. In this way, Croatia could achieve a positive impact of foreign direct investments and the competitiveness of the Croatian economy could improve.

In the analysis log- log model is used, so that the variables used in the analysis

\[ \text{LOGEX} = \log(\text{EXPORT}) \quad \text{LOGFDI} = \log(\text{FDI}) \]
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