

**POLITECNICO DI TORINO**

**Master of Science in  
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**Determinants of foreign direct investments. Evidence from  
Balkan countries.**



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# I. Abstract

The existing literature on determinants of foreign direct investments (hereafter, FDI) can be regarded as being rather extensive. FDI is a proxy for multinational firms' activity, which has grown at an accelerated rate compared to other international transactions (Blonigen, 2005). At the same time, FDI has played an important role in the development of transition economies, especially in the Eastern and South-Eastern part of Europe, where the levels of foreign investment grew from virtually nothing in the period pre-1990s to billions of Euros worth today (UNCTAD). Several European economies have gone through a rapid systemic transition, starting with the late 1980s, from centrally planned economies which had strictly prohibitive capital inflows to a fully liberalised capital setting; a process that went together with the democratization of the region. Various experts argue that we have been experiencing a change in the determinants of FDI in developing countries due to the process of globalization and economic integration, making it insufficient to offer promising markets performance to induce the accumulation of inward FDI. In recent years, European developing economies have pursued numerous policies to attract investments and have increasingly liberalised local FDI regimes. FDI are increasingly important through their contribution to trade integration, enhancement of competition and economic developments. The dynamic and volatile past of the analysed countries and their increased interest into foreign investment make the developing economies of Europe an interesting study object.

The objective of this paper is to analyse determinants of FDI in the Balkans to better understand the forces which have driven investments in the area in the past two decades. The structure of the paper is as follows: the upcoming section presents a general discussion of Multinational Enterprises, providing

a brief history and the main effects. In the second section a general overview of FDI is provided: we will start with the main taxonomies used to distinguish FDI, then both determinants and effects will be handled with an in-depth analysis of literature. The third section gives an overview of the Balkan region assessing the economic structure of the countries and analysing FDI flows in the area. In the fourth section an econometric analysis is carried out with the aim of assessing the main determinants which drive source countries in the choice of the location of FDI among the seven Balkan countries considered in the study. This econometric model will let us draw the conclusion based on historic data on both FDI and country indicators.

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# 1. Multinational Enterprises

Nowadays, Multinational Enterprises (hereafter, MNEs) represent the most viewable manifestation of companies in the world: they are the subject of discussion under the political dialogue regarding topics such as tax fraud or low respect for the environment and so on. The term “*Multinational enterprise*” was used for the first time in 1960 with the aim of pointing out companies that organized and coordinated activities beyond national boundaries. UNCTAD, i.e. United Nations Conference on Trade and Development, defines MNEs as companies holding at least the 10% of equity of a foreign company and over which it exercises control. In economic field, a MNE is an economic entity organizing its production in at least two different countries by means of Foreign Direct Investments.

## 1.1 Brief history of MNEs

The distinction between Foreign Direct Investments and Portfolio Investments (e.g. bonds, loans, etc.) was born in the early 1900s whereas the term “Multinationals” was firstly deployed by David Lilienthal in 1960: multinationals had the peculiarity to organize and coordinate activities by crossing home country’s boundaries (Goldstein, Piscitello, 2007). Hierarchical structure, multi-ethnic workforce, value added generation in different locations go back in ancient times, when Sumerian merchants deployed foreign harbours to do their job. At first, MNEs were companies operating in commercial sectors: firms intensified not only goods and services’ flow, but also capital and labour. Multinational banks arose, together with trading companies. The latter played a key role in the diffusion of MNEs: they were

the first to invest in warehouses, where store products and produce commodities, and in manufacturing activities. Later, traders worked as venture capitalists, identifying market opportunities and giving investors opportunities to deploy them.

In the modern age, after a robust boost in MNEs creation subsequent to First Industrial Revolution, there was a break in foreign investments due to the effects of First World War: European multinationals focused their efforts in home country's trading given that the war had upset the geographical framework. After the two world wars, a period of expansion took place with strong economic growth and social development. In 1960, the 50% of total stock of FDI was the property of the American investors, indeed US used to produce the 26% of the gross worldwide income. American companies hold the leadership in the production of steel, aluminium and copper. Support services companies were born in that period: they were firms supporting other firms in doing their business. It is the case of Madison Avenue advertising agencies. Advertising played a key role in the history of MNEs since it was the means thanks to which MNEs which wanted to replicate their winning strategies were linked to local contexts with specific habits. From 1990s, there has been a huge development in Information and Communication Technology which have had a great impact on the decrease of barriers in international trade. Companies started a process of fragmentation of production chain in search of better infrastructure, lower labour cost and proximity to the main nodes of trade. A change in the economic ideology towards a neoliberal vision convinced the governments of emerging, transition and developing countries to open their trade to foreign investments. Liberalization of services and the opening of trade boundaries offered new opportunities in weak sectors, except for banking, which remains of national nature.

## 1.2 MNEs' effects

The presence and activities of MNEs produce several effects from different viewpoints: economic, social, political, cultural, environmental (Goldstein, Piscitello, 2007). Advocates of multinationals say they create high-paying jobs and technologically advanced goods in countries that otherwise would not have access to such opportunities or goods. On the other hand, critics say multinationals have undue political influence over governments, exploit developing nations and create job losses in their own home countries. Moreover, those considering globalization as source of all evil identify MNEs as the main players of globalization and the only beneficiaries of this phenomenon.

The analysis of MNEs' effects needs to be faced depending on several aspects. First, the point of observation must be defined: are we referring to the companies making the FDI? To local ones? To workers? To third countries indirectly linked to MNEs' strategies? Then, it's fundamental to assess whether the country is developed or developing. Finally, the horizon must be considered (long-term vs short-term).

### 1.2.1 *Effects on the host country*

It's important for host countries to assess how much internal resources must be aimed at attracting and integrating multinationals in their economic framework. (Goldstein, Piscitello, 2007). To do that, they must figure out the effects of MNEs on local economy and companies. Direct effects are easily detectable in case of Greenfield (See chapter 2): transfer of money in the country, *ex-novo* creation of production capacity and the inflow of superior managerial competences. In case of Brownfield, instead, direct effects are

mainly limited in the boundaries of the specific firm.

Indirect effects are not easily detected: the idea is that MNEs usually use better technologies and these can spread in local companies. This aspect represents an externality, i.e. an economic and technological benefit for people acting in the local sector caused by a third party (foreign firm in this case). The economic literature defines this phenomenon with the term *spillover*: there might be spillovers *intra industry*, or horizontal, and spillovers *inter industry*, or vertical. The former refers to effects in the same sector of the multinational enterprise, whereas the latter refer to effects that spread among the whole supply chain of the enterprise itself. Empirical analyses show that horizontal spillovers are mainly negative because MNEs crowd out local competitors in the same sector. On the other hand, vertical spillovers are positive since foreign investors provide suppliers with technical assistance, training and other kinds of information. Furthermore, when the MNEs get in touch with local firms, linkages with both suppliers and customers can rise: these relationships usually lead to positive effects toward local actors such as increasing input demand and a prices reduction.

## 2. FDI

FDI is one of the three components of international capital flows, besides the portfolio investment and the other flows like bank loans. Foreign Direct Investment takes place when a corporation in one country establishes a business operation in another country, through setting up a new wholly-owned affiliate, or acquiring a local company, or forming a joint venture in the host economy. FDI flowing to developing country economies takes at least four distinct forms: FDI in extractive industries; FDI in infrastructure; FDI in manufacturing and assembly; and FDI in services. According to IMF and OECD, a direct investor may be an individual, an incorporated or unincorporated private or public enterprise, a government, a group of related individuals, which have a direct investment enterprise operating in a country other than the country of residence of the direct investor. A direct investment enterprise, instead, is an incorporated or unincorporated enterprise where a foreign investor owns 10% or more of the ordinary shares. Direct investment enterprise may be subsidiaries (direct control of more than 50% of shareholders' voting power), associates (between 10% and 50% of the voting shares) or branches (jointly owned) (Duce, 2003). "Significant degree of influence" and "long-term relationship" are the key terms to distinguish FDI from portfolio investments, which are short-term activities undertaken by institutional investors through the equity market.

FDI can be classified in horizontal and vertical (as for spillovers): in horizontal FDI, multi-plant firms duplicate roughly the same activities in multiple countries; horizontal FDI arise because is too costly to serve the foreign market by exports due to transportation costs or trade barriers. On the other hand, in vertical FDI firms locate different stages of production in different countries.

Furthermore, as shown in Figure 1, vertical FDI consists of two subgroups: backward and forward oriented. In case of backward FDI multinational enterprise establishes its own supplier of input goods which delivers inputs to the parent company. Conducting forward FDI, the firm builds up a foreign affiliate, which draws inputs from the parent company for own production, thus staying after the parent in the production chain.

## 2.1 Types of FDI

### *Dunning Taxonomy*

The issue of FDI motives has not been usually treated as an autonomous field of study and it has crossed different streams of economic literature: international business, international trade theory and the theory of the firm. The most cited taxonomy of FDI motives is the one put forward by Dunning (1993) and built upon his famous OLI Paradigm (Dunning, 1977). This taxonomy distinguishes four different types of FDI: resource seeking, market seeking, efficiency seeking and strategic asset seeking.

- *Resource seeking*: firms invest abroad with the aim of having access to resources that are not available in the country of origin or available at higher cost: we are talking about resources such as raw materials, technological or managerial capabilities or competences, labour force. This type of FDI can be considered as vertical or export-oriented investment (Campos and Kinoshita, 2003) as it involves relocating parts of the production chain to the host country. Clearly, availability of low-cost labor is a prime driver for resource seeking FDI.

- *Market seeking*: firms invest abroad to serve foreign and neighbouring markets and profit from them. Market seeking FDI is also called horizontal, as it involves replication of production facilities in the host country: for this reason, market size and market growth of the host economy are the main drivers (Campos and Kinoshita, 2003). Various reasons can lead to this choice: the need to follow suppliers or customers that have built foreign production facilities, to adapt goods to local needs or tastes, to avoid the cost of serving a market from distance or to have a physical presence on the market to discourage potential competitors. Market seeking FDIs are also encouraged by impediments to accessing local market, such as tariffs and transport costs.
- *Efficiency seeking* target is assigned to actions aimed at rationalizing the productive structure: companies taking advantages of differences in the availability and costs of traditional factor endowments in different countries or taking advantages of economies of scale and scope and of differences in consumer tastes and supply capabilities (Dunning, 1993).
- *Strategic asset seeking*: defined also as *competence creating*, it is assigned to firms investing abroad with the aim of having access to competences and resources considered crucial to better off company portfolio and increase competitiveness.

### *Modified motive-based classification of FDI*

Franco, Rentocchini and Vittucci propose a modified version of the Dunning taxonomy described earlier. They classify FDI in *resource seeking*, *market seeking* and *non-marketable asset seeking*.

- *Resource seeking*: this definition relates to the same motives as Dunning's definition. The difference is that, while Dunning refers to resources as

natural resources, unskilled labour and technological and managerial capabilities, here resources stand for natural scarce resources and labour, both skilled and unskilled. Hence, from the one side these authors exclude technological and managerial capabilities because they are treated as *non-marketable assets*. On the other side, they include also skilled labour because workers' skills can be object of market contracts.

- *Market seeking*: the aim of this type of FDI is to exploit a foreign market by supplying it for goods and services. In this case, FDI can be direct or indirect. In the former case, the market of interest is where FDI is made. In the latter case, the FDI is directed to a country used as a platform from which it is possible to export the surrounding area (Franco, Rentocchini, Vittucci, 2008).
- *Non-marketable asset seeking*: they consist in acquiring assets which cannot be obtained through simple market transactions. It is the case of assets that needs to be exploited in the area where they are created. Non-marketable assets can also be related to the concepts of learning economies and organizational capabilities: assets, produced and hidden inside the firm and not easily transferable, strictly linked to competencies that would be lost if transferred elsewhere. In the presence of this kind of assets, the alternatives to FDI could be Joint Ventures or acquisition of core personnel. Joint Ventures provide great opportunity for exchange of technological competencies and collaboration, but they strongly depend on the degree of competition of the market, since high competition leads to lower probability of accessing the specific asset. The international acquisition of personnel is efficient when the key capabilities are owned by the workforce, while in the case capabilities are owned by the firm as a whole, it would be better to acquire the company through a M&A.
- *Residual motives*: the investments remaining outside this taxonomy are *support investments* defined by Dunning as the FDI whose purpose is “to

support the activities of the rest of the enterprise of which they are part” (Dunning, 1993). They relate to complementary investments or outsourcing decisions.

### *Greenfield and Brownfield FDI*

One of the main distinctions to be done for FDI is the mode through which the investment is done. Based on this distinction, FDI may be *Greenfield* or *Brownfield*.

A Greenfield investment is a type of FDI where a parent company creates a subsidiary in a different country, building its operations from the ground up. Greenfield FDI implies that the MNE constructs new facilities of production, distribution or research in the host country. On the other hand, Brownfield investment refers to cross-border merger and acquisitions where a firm acquires an already existing firm located abroad.

Greenfield FDI and M&A operations differ from several viewpoints. The first aspect is the impact on competition in the local market: on the one hand, greenfield FDIs increase the competition among firms with all consequent positive effects while on the other hand, a cross border M&A generates an increase in market concentration with a loss in welfare.

As for capital, a greenfield FDI leads to an increase in the host country stock of physical capital, while a brownfield FDI should only result in a limited increase in the stock of physical capital since there is a change in ownership rather than an inflow of new capital. Then, in case of brownfield FDI, the productive capacity of the host country does not receive any benefit from the investment, as opposite to what happens with the construction of a new facility in a greenfield FDI: indeed, this latter form of investment generates an increasing demand for workers in the short term, whereas a brownfield FDI

could be able to generate employment only after a certain span of time.

The choice between the two modes of investment depends on the goal of the firm and its own capabilities: undertaking a greenfield FDI, an enterprise brings its capabilities abroad in order export technologies and skills to the host country. Likewise, a brownfield FDI could be made with the aim of restructuring the acquired facility to improve its performances.

## 2.2 FDI Determinants

### *OLI Paradigm*

OLI Paradigm, cited before when introducing the FDI motives, is the most accepted theoretical framework for analysing FDI determinants. OLI comes from the combination of three theoretical concepts (O+L+I) into a single theory of FDI. *O* stands for *Ownership-specific advantages*: it relates to the benefit enjoyed by a firm possessing a product or service or process which other companies cannot use. This broad concept refers also to intangible capital owned by a company, i.e. organizational, managerial, entrepreneurial skills and knowledge. *L* indicates the *Locational advantages*: this concept entails all the features of a specific location, not only in terms of availability of natural resources, but also social, political and economic factors. Market size and its structure, cultural, legal, political and institutional environment, national legislation and policies: these aspects are all part of the locational advantages. Finally, *I* stands for *Internalization advantage* and represents a way to exploit ownership advantage internally instead of selling or transferring it. Ownership and internalization advantage are company specific and are

treated in the theory as micro-determinants whereas locational advantages are country specific and are considered as macro-determinants.

### *Firm Specific*

At the firm level, FDI Determinants represent the decision why a firm would choose to service a foreign market through affiliate production, rather than other options such as exporting or licensing arrangements (Blonigen, 2005). The common answer to this question focuses on the presence of intangible assets which can play a key role for the business of the firm: technologies, managerial skills, habits, etc. The necessity of such assets may lead a firm to have multiple plants, but not necessarily in different countries. The issue is clearly explained in the case of a licensor granting the right of using a specific technology to a licensee: the latter will not offer full value if the intangible asset until the intangible asset is fully disclosed whereas the licensor will not fully reveal the asset until the contract is closed. Hence, the solution is to internalize the market transaction establishing its own production affiliate in the market. Testing these hypotheses is not easy, as the firm-specific factors leading to FDI decision are inherently unobservable. Therefore, there is the necessity to use a proxy for the presence of intangible assets that can be used as explanatory variable in analyses of whether a firm is multinational or not: R&D Intensity and Advertising Intensity are the most widely exploited variables in doing so, indeed it has become standard to include such variables in any firm-level analysis of the FDI decision. The literature suggests that R&D intensity is almost invariably positively correlated with multinationality regardless of the data sample, while the evidence for advertising intensity is much more mixed. An alternative test is provided by Morck and Yeung (1992) which found that publicly-traded U.S. firms announcing foreign acquisitions experienced positive abnormal returns to their stock only if they had a significant level of R&D and advertising intensity. In the final analysis, however, it is not possible

to suggest that these empirical analyses irrefutably confirm the internalization hypothesis. Such measures as R&D and advertising intensity may be proxying for other forces that lead to FDI, rather than those connected with the internalization hypothesis. In addition, there is evidence that firms that are “lacking” R&D intensity (or innovation) relative to their industry competitors are the ones more likely to engage in FDI. For example, Kogut and Chang (1991) and Blonigen (1997) provide evidence that Japanese firms’ acquisition FDI in the US was motivated by accessing firm-specific assets, not necessarily due to internalization of their own firm-specific assets. These motivations may or may not be contradictory to internalization motivations for FDI.

### *Exchange rate*

The common knowledge is that variations in the exchange rate would not reshape the strategy of a firm willing to invest abroad. Indeed, while an appreciation of a firm’s home country’s currency would lower the cost of assets abroad, the expected return goes down as well in the home country, leaving the rate of return identical. However, multiple studies show that there might be either a positive or negative relation. First, a currency appreciation leads to increased firm wealth and provides the firm with greater low-cost funds to invest with respect to the counterpart firms in the foreign country that experience the weakening of their currency (Froot and Stein, 1991). The study, carried out by Froot and Stein, provides empirical evidence of increased inward FDI with currency depreciation through simple regression. The outcome is endorsed by Blonigen (1997), who provides another way in which variations in the exchange rate level may affect the inflow of FDI in the host country. As regards assets that are transferable within a firm across many markets without a currency transaction (e.g. technology, managerial skills,

etc.), the price of that asset will decrease in that foreign currency in case of an exchange rate appreciation. Looking by the other side, a depreciation of a country's currency might allow a fire sale of a transferable asset to foreign firm, which enjoy an enormous competitive advantage over the domestic firms. Blonigen (1997) makes the example of Japanese M&As FDI into the US and the empirical analysis shows that the abovementioned outcomes are mainly for high-technology industries where firm-specific assets play a key role. A final part of literature analyses the effect of uncertainty and expectations about future exchange rate on FDI decisions: two of the main papers in this specific area – Campa (1993) and Goldberg, Kolstad (1995) – have contradictory hypothesis both using US data. Then, the modelling is much stronger than the empirical work and there have been little firm-level empirical analysis of these hypothesis. Thus, the topic keeps on being rich for future work.

## *Taxes*

It is almost intuitive to think that higher taxes discourage FDI, but there might be different situations based on host or parent country's governmental rules and tax treatment. The common rule says that the effects of taxes on FDI can vary substantially by type of taxes, measurement of FDI activity and, as said before, tax treatment in the host and parent countries. One of the main issues is the double taxation in which a MNE potentially incurs, from both parent and host countries: double taxation is treated in different ways based on the country and this further complicates the study of expected effects of taxes on FDI. Hartman's papers (1984 and 1985) are deemed as the inception of the literature. The key insight of his literature is that earnings by an affiliate in foreign country will be subject to parent and host country's taxes and there are no ways to avoid it. Conversely, FDI implies an investment decision with the

transfer of capital from the parent to the affiliate and since this capital does not originate from the host country any foreign taxes have not yet incurred. This last concept has two important implications: first, companies will finance new FDI through retained earnings as much as possible. Second, FDI through retained earnings should only respond to host country tax rates whereas FDI through new transfer of capital will likely face both parent and host country taxes and rates of return. The topic of double taxation is treated thoroughly by Slemrod (1990): he underlies the distinction between territorial countries that do not tax any income coming from “outside” (i.e. not from the parent company) and a universal tax method considering all the earnings potentially taxable but may treat foreign income in different manners to avoid double taxation. Examples of treatments to avoid double taxation might be credits or deductions of foreign tax conducted by the home country towards the MNE. However, several empirical analyses on tax rate effects on FDI have been carried out (Scholes and Wolfson 1990, Auerbach and Hassett 1993, Hines 1996 are some examples) but results and data samples have differed a fair amount: therefore, significant questions about how much tax rates affect FDI still exist.

### *Institutions*

Institutions are an important determining factor for FDI activity, especially for less-developed countries. Quality of institutions includes a variety of concepts fundamental for investments in foreign countries. The macro area of institutions can be divided in two main fields: social and political issues, such as bureaucracy, corruption and infrastructure, and technological environment, related to intellectual property rights (Franco, Rentocchini, Vittucci, 2008).

Infrastructure includes for example transports and ICTs: the effect of a good level of infrastructure is always positive on FDI inflow. Corruption and

bureaucracy represent a sort of enforcement of law.

Concerning the Intellectual Property rights, the concept is quite complex because it is not simple to state which regime is beneficial to FDI: indeed, both strong and weak IP rights regime may encourage a firm to invest abroad. Basically, institutions play a key role in well-functioning markets: inadequacy of institutions increases the cost of doing business and FDI activity decreases. Finally, poor quality of institution in terms of poor legal protection of assets lets the possibility of expropriation of a firm's assets making investments less likely increase. It is clear that quality of institution has a positive effect on FDI but estimating the magnitude of this effect is difficult because there are not any standard measurements of institutions, other than some composite index of a country's political, legal and economic institutions, developed from survey responses. Daude and Stein (2007) show the positive effect of institution on FDI by carrying out an empirical analysis based on a set of governmental indicators developed by Kaufmann et al. (1999). Indicators are six, each representing a different dimension of governance: Voice and Accountability, Political Stability and Lack of Violence, Government Effectiveness, Regulatory Quality, Rule of Law and Control of Corruption. The main outcome of this analysis is that the impact of institutional variables is statistically significant and economically very important.

### *Trade protection*

Most trade economists state that the link between FDI and trade protection is fairly clear: higher trade protection should make firms more likely to substitute affiliate production for exports to avoid the costs of trade production. This is the concept of tariff-jumping FDI: there is not so much evidence of this theory, maybe because it is simple and general, or it is difficult to quantify non-tariff forms of protection in a consistent way. Belderbos (1997)

and Blonigen (2002) find strong evidence of this concept and the results suggest that tariff-jumping FDI are seen by MNEs in developed countries.

### *Trade effects*

Trade effects of FDI are strictly connected with underlying motivations of FDI behaviour: the main idea is that of substitute for exports to a host country. Buckley and Casson (1981) expose the concept according to which exports lead to lower fixed costs but higher variable costs of transportation and trade barriers. Conversely, FDI helps companies to lower variable costs but it involves higher fixed costs than exports. Blonigen (2001) distinguishes two type of trade flows by traded products: one can be a flow of finished products that are substitutes for the product that a MNE would produce in the same area whereas the others might be intermediate products that would be used by MNE's affiliate to produce a finished product. Therefore, the former case suggests a negative correlation between trade and FDI, while the latter situation shows a positive correlation between the two. To explain the concept, the author uses product-level trade and FDI data for Japanese HTS products in the US. Data show that new FDI in the US for Japanese firms increases Japanese exports of related intermediate inputs for these products, while new FDI leads to declines in Japanese exports of the same finished products.

### *Localised knowledge spillovers*

A firm investing abroad through a FDI may benefit from the knowledge ability to spillover of the firms, universities or research centres present in the area. The taxonomy explained by Franco, Rentocchini, Vittucci analyse the effect on the three different categories of FDI. For resource seeking investments, the

effect of localised spillovers is expected to be null because the home country firm will rely on the host country firm able to produce better intermediate goods. Vice versa, in the case of market seeking and non-marketable assets seeking FDI the impact should be positive. Indeed, in the former case the investing firm has the possibility to increase its productivity and therefore, volumes. In the latter case, the foreign company has the possibility to increase the availability of resources and so productivity.

### *Other macroeconomic factors*

Macroeconomic factors play a key role in the explanation of FDI flows, given that FDI itself is an economic concept. Most researchers focus on macroeconomic concepts as main incentives of FDI inflows: market size is the most commonly mentioned. Larger markets will attract a larger volume of FDI due to the influence of the economies of scale in the context of *market-seeking* investments. This variable has been used in several investigations under different names: Gross Domestic Product, GDP per capita, logarithm of GDP, Size of domestic product. All of them refer to the Market size and the most common result show that Market size has a positive effect on FDI flows. The great majority of studies prove that the Market size is one of the most important incentives influencing investors' decisions. Related to this variable, also the Market size growth has been often considered as an important determinant, indeed it can stimulate the attraction of Foreign Direct Investment: few investigations, such as Noorbakhsh & Paloni (2001), Pearson et al. (2012), emphasize a positive influence of Market size growth on FDI, however empirical results do not always show precise results. For this reason, it cannot be considered a reliable determinant.

Another macroeconomic factor that is considered to influence FDI flows is Inflation, which is meant to measure instability at the macro level (Kersan-

Skabic, 2013). However, only two out of four identified researches obtained statistically significant results, although they were opposite and do not provide credible assumptions: Kok & Ersoy (2009) state that inflation affects negatively FDI flows, while Kersan-Skabic (2013) received a positive sign of the relation, contrary to expectations.

## 2.3 FDI Effects on Host Country economy

### *Externalities*

The importance of technology provides an important link between FDI inflows and host country economic growth. Inflows of FDI potentially leads to the increase of the rate of economic growth of the host country for multiple reasons: physical capital inflow, but also technology spillovers deriving from MNEs' superior technology used by domestic firms to improve their productivity. How does technology enhance economic growth? The core concept is the knowledge capital, treated in many studies by Carr et al. (2001) and Markusen and Maskus (2002). Knowledge capital includes intangible assets such as brand, human capital, patents, trademarks and technology. It is fundamental for MNEs since they need large R&D expenditures and produce technically advanced products. Hence, knowledge capital is important for providing competitive advantages to MNEs. Then, firms tend to protect their technology by using intellectual properties with the aim of preventing spillovers of technology to other companies. When spillovers do occur, the result is a positive externality since the social return is greater than the private

return and positive externalities from technology spillovers provide the best possibility for FDI to enhance the rate of economic growth (Johnson, 2006).

### *Physical capital and labour*

Besides of knowledge capital, FDI lead also to an inflow of physical and human capital to the host country. With the entry of MNEs, the host country's capital stock increases leading to an increase in the productive capacity. However, many studies have shown that the impact of physical capital inflow on long-run economic growth is almost insignificant with respect to technological progress. This concept can be explained in the following way: supplementary capital may have positive effects in economies with a low capital-labour ratio, but shrinking returns imply that accrual of physical capital cannot work as a perpetual source of long-run growth. Therefore, physical capital inflow is considered to provide a positive effect on the host country economy mostly in the long-run perspective. Concerning the physical labour, instead, the concept is fairly intuitive: in most cases, MNEs are created to deploy physical labour of the host country, indeed it is correct to state that the creation of MNEs do not provide inflow of additional labour force, except for management section of the company. The result is that FDI is not expected to influence economic growth of the host country through changes in the stock of labour.

Effect on growth of:	Developed economies	Developing economies
<i>Technology spillovers from FDI</i>	<ul style="list-style-type: none"> <li>+ High absorptive capacity implies a high potential to adopt technology leakages and realise spillovers</li> <li>- An already high host country level of technology reduces the potential for further improvements from spillovers</li> </ul>	<ul style="list-style-type: none"> <li>+ Low host country level of technology indicates a high potential for improvement even if spillovers are small</li> <li>- Low absorptive capacity implies that only a limited share of an MNE technology leakage can be turned into spillover through adoption</li> </ul>
<i>Physical capital inflow from FDI</i>	<ul style="list-style-type: none"> <li>+ Market structure implies existence of increasing returns to investment in physical capital</li> <li>- Large per capita stocks of physical capital suggests decreasing return to investment</li> </ul>	<ul style="list-style-type: none"> <li>+ Small per capita stocks of physical capital imply increasing returns to investment</li> <li>- Market structure studies indicate that constant returns to scale dominate in developing economies</li> </ul>

### *Domestic productivity*

FDI brings generally benefits to host economies through productivity spillovers from multinational enterprises, for example through the licensing of a particular technology, through supplier networks or subcontracting arrangements. The evidence of productivity spillovers from inward FDI is mixed, indeed multiple studies have led to mixed results, some showing

evidence of positive horizontal spillovers, while others showing evidence of a negative effect of FDI on domestic productivity. The negative effect is explained through the concept of “market stealing”: a technologically superior MNE may take market share from domestic enterprises, forcing them to produce at lower output levels with increased unit costs (Driffield, Love). If the market stealing effect is greater than the positive spillovers, the effect of FDI may be a reduction in domestic productivity. Thanks to the FDI taxonomies, it is possible to link the *ex-ante* motivations of FDI to the *ex-post* effects (see table below).

<b>FDI Motivation</b>	<b>Anticipated spillover effects</b>	<b>Rationale</b>
<i>Technology sourcing/location advantage</i>	0/-	Technology laggard; may compete on lower labour costs
<i>Technology sourcing</i>	0	Technology laggard; nothing to offer to host economy
<i>Efficiency seeking</i>	+	Superior technology; may also compete on lower labour costs
<i>Ownership advantage</i>	++	Superior technology as a basis for productivity spillovers

The table above resumes the anticipated effects of different types of FDI, slightly different from those presented by Dunning in his taxonomy explained

in the previous chapter. Nevertheless, the first two types of FDI, respectively, involve incoming companies with inferior technology with respect to domestic firms: for this reason, the market stealing effect seems to be remote as result of the FDI activity. Therefore, in case of technology source FDI the impact on productivity will be very low or non-existent. Conversely, the last two types of FDI both offer the prospect of productivity spillovers to the domestic sector arising from the entry of technologically superior foreign firms (Driffield, Love).

## 3. The Balkans

### 3.1 The Balkans area: an overview

The Balkan Peninsula is a geographic area in Southeast Europe characterized by multiple definitions and meanings, both geopolitical and historical. The name “Balkans” takes origin from the mountain chain passing through Bulgaria: it had been used firstly in the 19<sup>th</sup> century, during the reign of Ottoman Empire. The history of the Balkans stands out for the numerous disputes which have drawn its birth. Most of the current countries forming the Balkans Peninsula come from the dissolution of Yugoslavia after the Cold War. Six republics achieved international recognition as sovereign republics: Slovenia, Croatia, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia. Historians state the Balkans encompass Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Greece, Kosovo, Montenegro, North Macedonia, Romania, Serbia and Slovenia, but this study is limited to only a part of these countries (*Figure 1*).

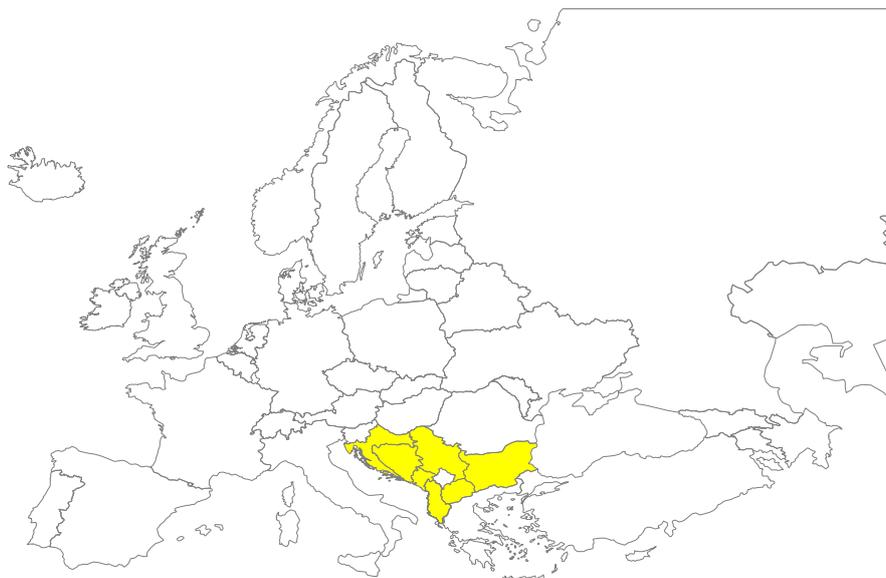


Figure 1 Map of Europe

Currently, all the states are republics and have open economies, most of which are in the upper-middle income range (\$4,000 - \$12,000 per capita), except Croatia that has high income economy (over 12,000\$ per capita) and is classified with very high Human Development Index along with Bulgaria and in contrast to the remaining states.

The average Gross Domestic Product Per Capita (Nominal value) is \$ 7,199.1, with Croatia presenting the highest value with a GDP Per Capita of around \$13,000, while the smallest is that of Albania (\$ 4,537.6). The average GDP per capita on Purchasing Power Parity is instead \$ 18,770.9. On the other hand, the GDP Per Capita growth tells us that Montenegro and Bulgaria are the countries with the highest value (around 4.5%). Data are taken from the World Data Bank (see *Table 1* and *Table 2*).

Balkan economy is fairly backward and poor. The main reason behind this condition is the presence of non-profitable production systems, scarcity of infrastructures and high unemployment. It is clear that other political factors have weighed heavily on the slowdown of Balkan economy, such as political uncertainty, social disorders and ethnic issues. The primary sector plays a key role in the Balkans: indeed, it is characterized by several workers (in Albania half of workforce), but the mechanization and the specialization of crops are low. Moreover, the cultivated areas are limited because of the mountainous territory, hot summers and poor soils, although certain cultures such as olive and grape flourish. Over the centuries forests have been cut down and replaced with bush. The main crops are cereal, fodder, sugar beet, sunflower and tobacco. On the other hand, in the mountains the main activity is the sheep farming.

Industry does not affect the local economy in a decisive manner because facilities are under-developed, and the natural resources are scarce. Some deposits of coal, especially in Bulgaria, Serbia and Bosnia, exist; then, petroleum scarce reserves exist in Serbia and Albania while natural gas deposits are in short supply. Hydropower is in wide use and the often-

relentless bora wind is being exploited for power generation. On the contrary, metal ores are more usual than other raw materials: in some countries there is a considerable amount of copper, zinc and tin.

<b>Country</b>	<b>GDP Per Capita, PPP (US \$)<sup>1</sup></b>
<i>Albania</i>	13,325.6
<i>Bosnia and Herzegovina</i>	14,348.0
<i>Bulgaria</i>	21,960.4
<i>Croatia</i>	27,504.7
<i>Montenegro</i>	20,494.5
<i>North Macedonia</i>	16,358.7
<i>Serbia</i>	17,404.3

Table 1

<b>Country</b>	<b>GDP Per Capita Growth<sup>1</sup></b>
<i>Albania</i>	4.3 %
<i>Bosnia and Herzegovina</i>	3.9 %
<i>Bulgaria</i>	3.8 %
<i>Croatia</i>	3.5 %
<i>Montenegro</i>	4.9 %
<i>North Macedonia</i>	2.6 %
<i>Serbia</i>	4.9 %

Table 2

Note 1: Data refer to year 2018

Data from World Development Indicators demonstrate the inefficient economic condition of the Balkan countries with respect to countries members of EU. To make a comparison between the two categories of nations, it has been chosen the GDP per capita based on Purchasing Power Parity (i.e. GDP per capita, PPP) as it considers the relative cost of living and therefore provides a more accurate picture of the real differences in income. Elaboration of data from WDI outlines an average GDP per capita on PPP basis for EU members of \$ 44,319.58, that is extremely higher than the average of Balkan countries described earlier. Moreover, *Figure 1* illustrates that all the Balkan economies present a value lower than the European average.

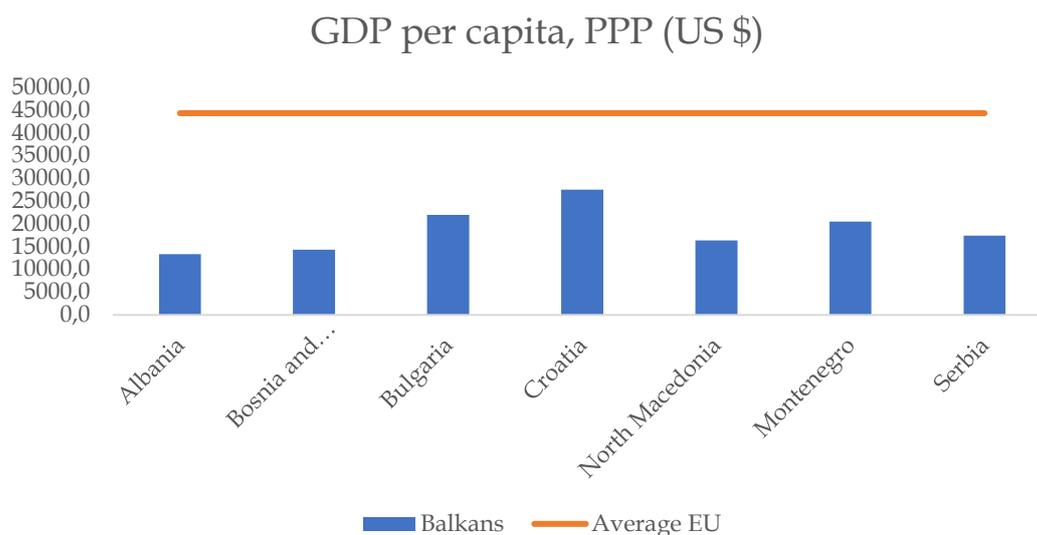


Figure 2 Elaboration based on World Data Bank (2018)

## 3.2 FDI in the Balkans

The European economic context has gone through a 20-year-period of transition to a market economy and foreign capital has played a key role in multiple countries during this transition. During the first decade of transition to a market economy, FDI into most of the Balkan region was limited: probably this fact is linked with the concept explained before, according to which the economic growth in those countries has been delayed due to unstable political environment. Actually, since 1991, a number of political processes and events have had negative implications from an economic point of view for the whole Balkan Region. The above-mentioned dissolution of the Yugoslav federation led to a very deep recession as well as delays in economic reforms and in integration of most countries with the EU (Estrin, Uvalic, 2013). During 1990s, the majority of Balkan countries had negative GDP growth rates: by 2011, Serbia, Montenegro and Bosnia and Herzegovina had still not reached their level of GDP in 1989. This overview can justify why the research focused on the inflow of FDI in the Balkans have not led to clear results. Christie (2003) applies a gravity model to FDI stocks in five Balkans countries in comparison with five European countries belonging to European Community and the results show that FDI to Community's countries is horizontal, i.e. market seeking type. On the other hand, FDI to Balkans has a less clear shape. Brada *et al.* (2006) analyse the impact of transition and political uncertainty on FDI flows to the transition economies of Central Europe, the Baltics and the Balkans. Concerning the Balkans, conflict and instability lowered inward FDI below what one could expect for comparable West European countries and reform and stabilization failures further reduced FDI to the region. Demekas *et al.* (2005) conduct an analysis focused on FDI in South Eastern Europe: the main concept treated is the potential FDI and the deviation from the actual level. The analysis shows that the gap between potential and actual level of

GDP is very large, especially for Macedonia, Croatia, Albania and Bosnia and Herzegovina.

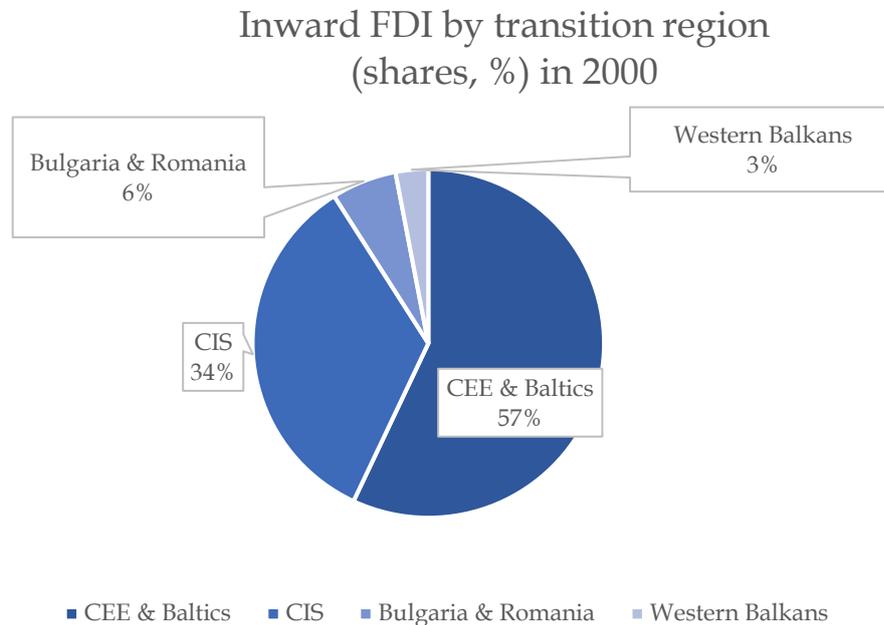


Figure 3 Elaboration by Estrin based on UNCTAD data (2000)

During the 1990s, the Balkans region attracted little FDI because of political and economic reasons described earlier, but also competition from more promising transition economies. By 1996, inward FDI stock in Albania, Bulgaria, Croatia, Macedonia, Romania and FR Yugoslavia amounted to only US\$ 3.4 billion, i.e. 5.7% of total inward FDI stock in all 27 transition economies. This is less than their share in total population of the transition region (7.7%). Over the whole period from 1989 to 2000, the inward FDI stock in the seven countries of Southern-East Europe accounted for the 9.4% of total inward FDI of the considered transition economies (Estrin *et al.*, 2013).

### Inward FDI stock in Southern Europe, by country (millions of US \$) in 2000

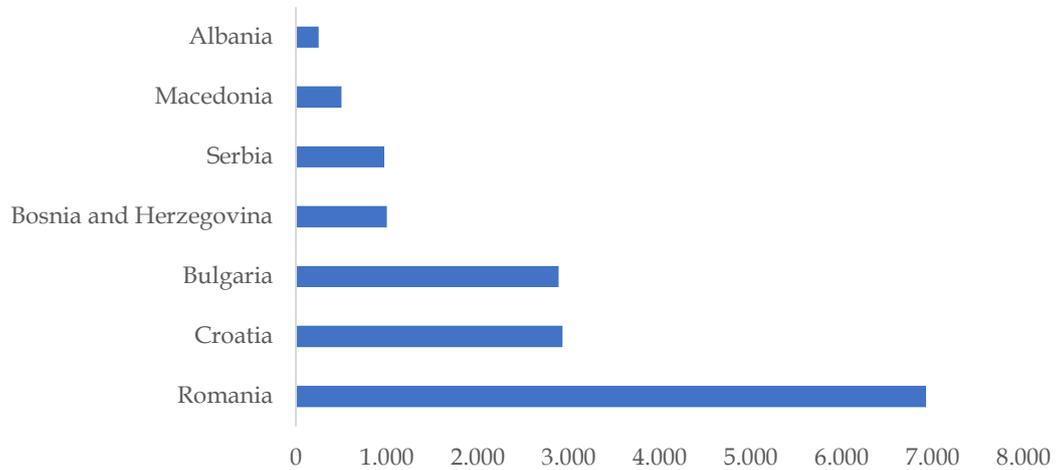


Figure 4 Elaboration by Estrin based on UNCTAD data (2000)

### Inward FDI stock in Southeast Europe, by country (shares, %) in 2000

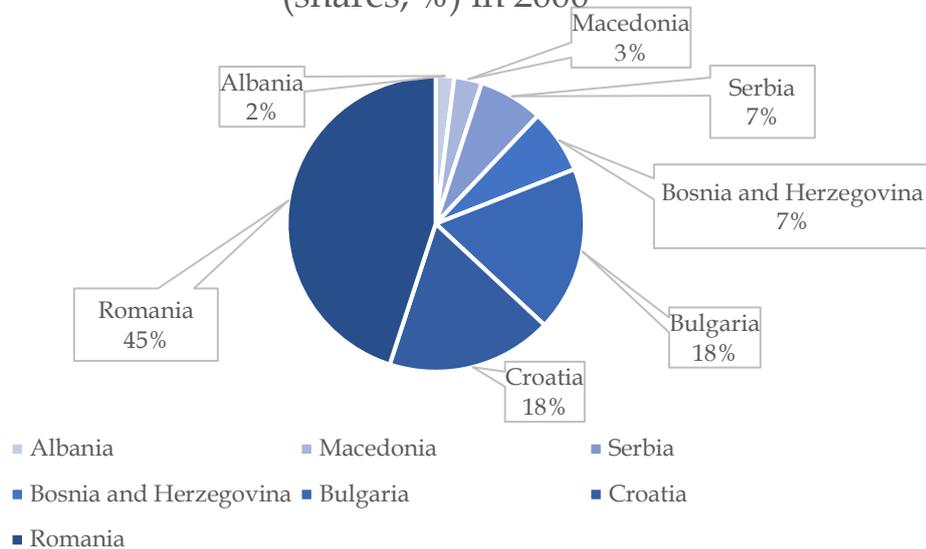


Figure 5 Elaboration by Estrin based on UNCTAD data (2000)

From the early 2000s, the Balkans countries have considerably enhanced their economic performances: Croatia and Serbia have also experienced a transition to more democratic regimes. Macroeconomic stabilization, GDP growth, increasing foreign trade and gradual catching up with the more developed countries in the transition region have characterized the Southern-East region. The strengthening of the economic structure has been developed by means of economic reforms, also in countries that until 2000 had been lagging behind, trade liberalization with EU and within Balkans countries, privatization of many enterprises and also the banking sector: these actions have led to an improvement of the whole business environment (Estrin *et al.* 2013). Another important factor of the enhanced economic climate has been represented by programs proposed by the European Union, the Stabilization and Association Process, offering trade liberalization, financial assistance program and prospects of EU membership: indeed, Bulgaria joined the EU in 2007 and Croatia on 1 July 2013. North Macedonia, Montenegro and Serbia are EU candidates, while Albania and Bosnia and Herzegovina remain potential candidates.

As a consequence of the political and economic improvement, inward FDI stock has increased in the whole Balkans region after 2000. In 2010, the share of the Balkan countries in total inward FDI stock in the transition region increased from 9.4% to 14.7% (UNCTAD). Considering the time period between 2003 and 2018, data from *fdiMarkets* show evidence of the strengthening of the economic body of the Region: from 2003 to 2008, the inward FDI stock registered a strongly increase, almost in all the selected countries. After 2008, the stock of FDI inflow suffered the impact of global economic crisis and fell down: the total inward FDI stock of the Balkans Region registered a drop from around \$30 billion to \$11 billion (*Figure 5*). Bulgaria,

Serbia and Albania were the countries that recorded the largest decline from 2008 to 2009, respectively around 6, 4.5 and 3.5 billion of US dollars.

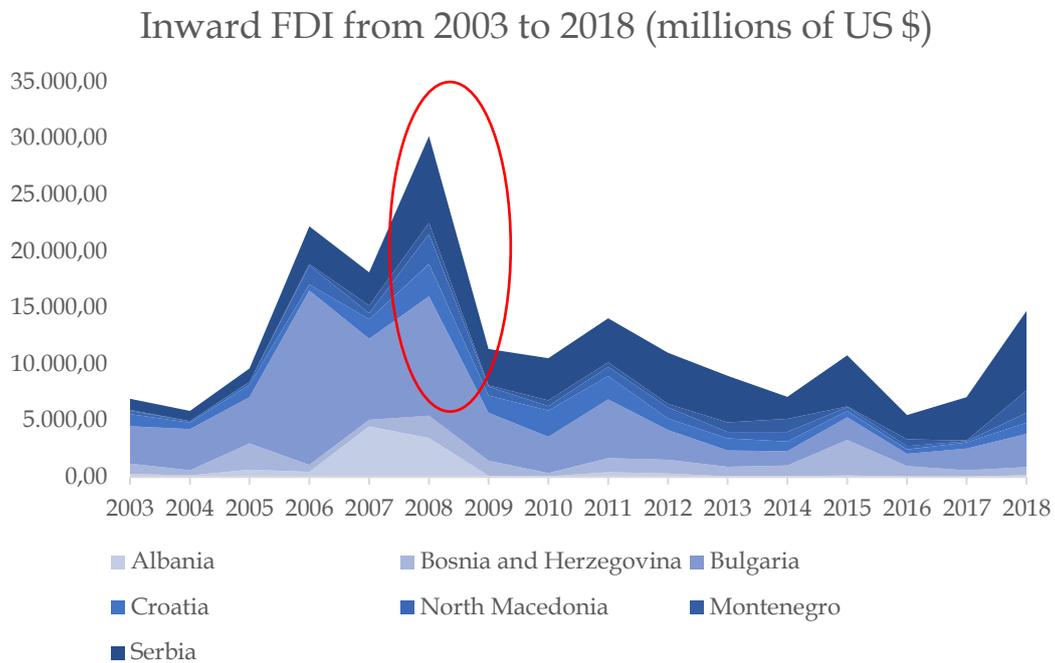


Figure 6 Elaboration based on *fdiMarkets*

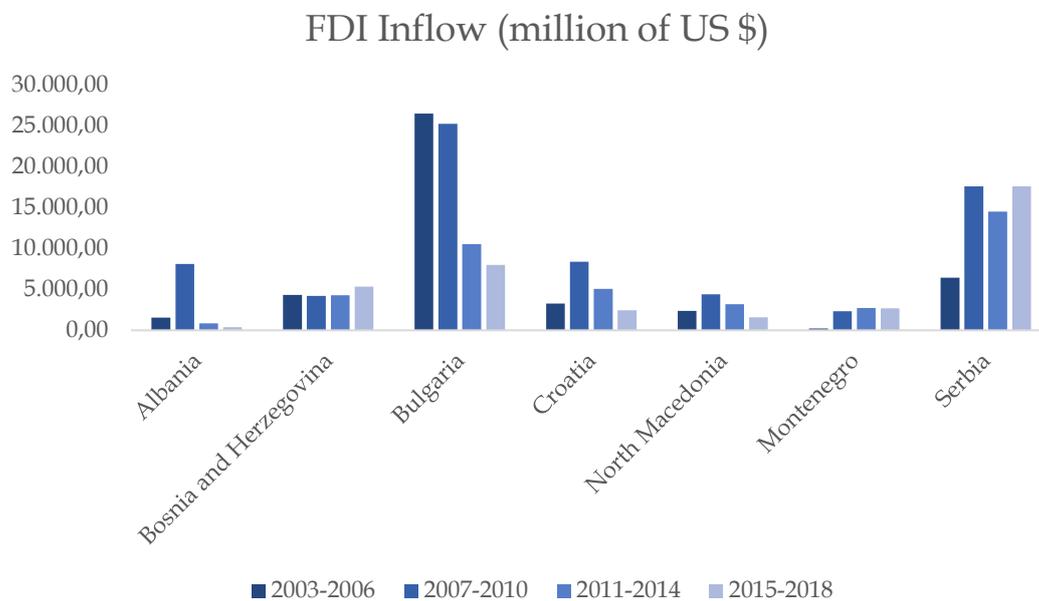


Figure 7 Elaboration based on *fdiMarkets*

Based on the fdiMarkets database, data have been reprocessed to have a deeper understanding of the current situation concerning the stock of FDI inflow in the Balkans. Today, Serbia holds almost half the total stock of Foreign Investment among all the considered countries with more than \$ 7 billion of capital invested in its territory coming from outside (Figure 6 and 7). The current situation is totally different from that found in 2008, where Bulgaria hold most of the stock of inward FDI and the division was more balanced between all the countries (Figure 8). The main reason of this disruption may be linked to two main concepts. First, the strengthening of the whole economic system experienced by the Balkan Region after 2000 had been almost equal and all the regions were able to gain benefits. Second, the response to the global economic crisis has been different and only stronger countries have been able to recover the past condition.

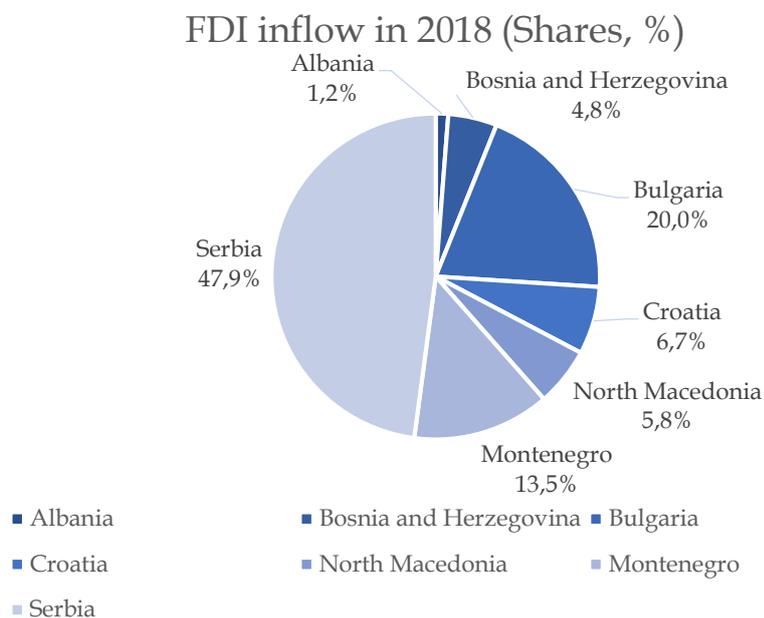


Figure 8 Elaboration based on fdiMarkets (2018)

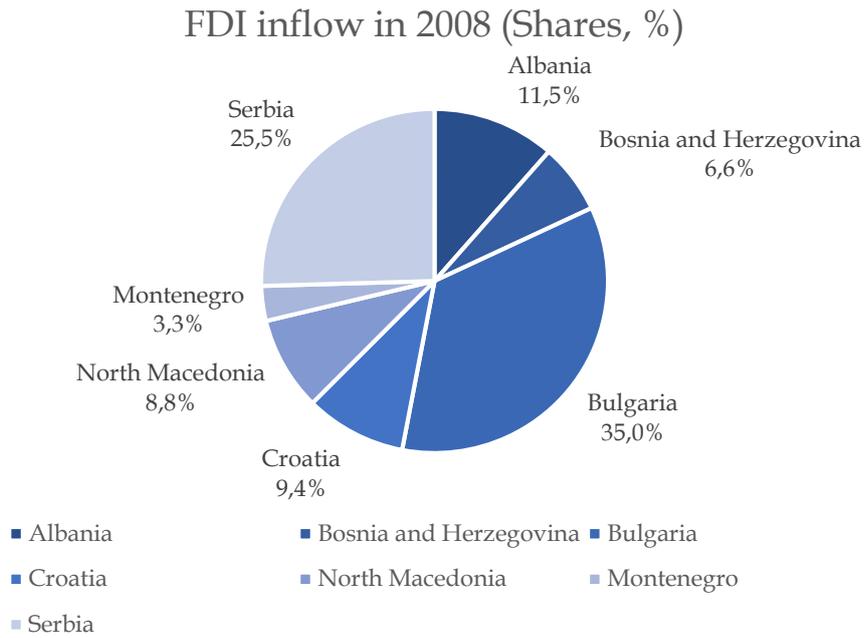


Figure 9 Elaboration based on fdiMarkets (2008)

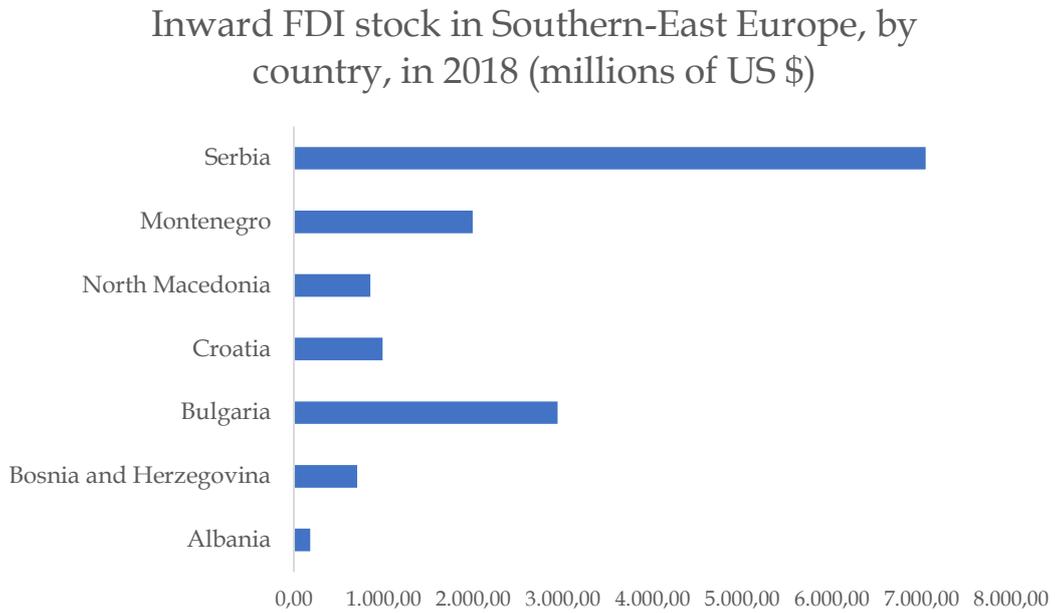


Figure 10 Elaboration based on fdiMarkets (2018)

Table 3 indicates the number of inhabitants of each of the considered countries. In this way, it is possible to account for the very different size of the individual Balkans nations and calculate the FDI stock *per capita* (Figure 10). This reshaping of the stock of inward FDI shows important implications: Montenegro as the smallest Southern East European country, is ahead of all others in FDI *per capita* terms. Furthermore, comparisons made by Estrin based on UNCTAD data, indicate that in a ranking of 13 countries (including 7 Balkans countries and 5 countries of CEE) in terms of FDI *per capita*, Montenegro ranks in high position, close to Hungary and Slovakia.

Country	No. of inhabitants (2018)
<i>Albania</i>	2,866,376
<i>Bosnia and Herzegovina</i>	3,323,929
<i>Bulgaria</i>	7,024,216
<i>Croatia</i>	4,089,400
<i>Montenegro</i>	622,345
<i>North Macedonia</i>	2,082,958
<i>Serbia</i>	6,982,084

Table 3

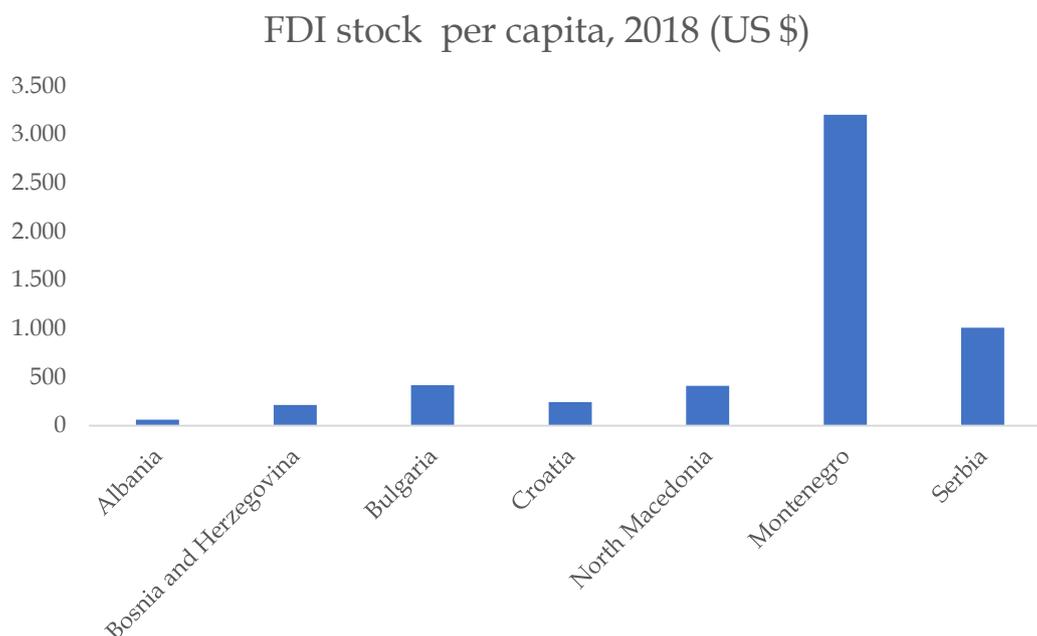


Figure 11 Elaboration based on fdiMarkets

As shown in *Figure 11* and *12*, the dominant industry activity where FDI have been directed is manufacturing, for both capital invested and number of operations. As a matter of fact, between 2003 and 2018, more than \$ 50 billion in 1,321 operations have been invested in manufacturing in the Balkans region (amounting for more than 25% of the total capital invested). *Figure 11* and *12* show the distribution of industry activities by both capital invested and number of operations.

### FDI distribution by industry activity (capital invested) in 2003-2018

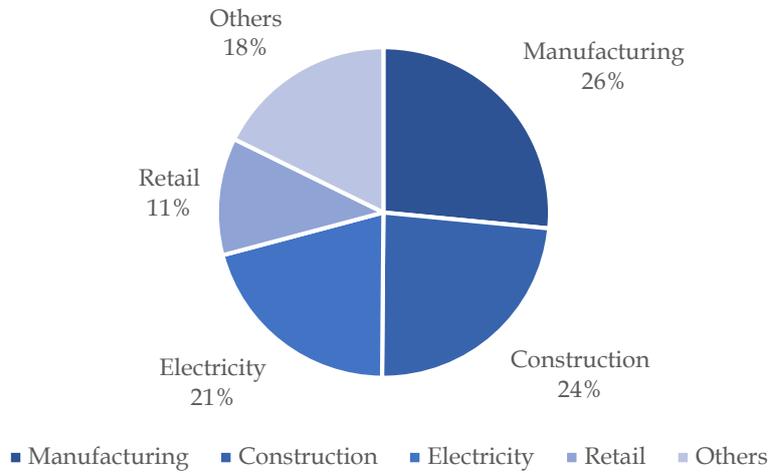


Figure 12 Elaboration based on fdiMarkets

### FDI distribution by industry activity (n. of operations)

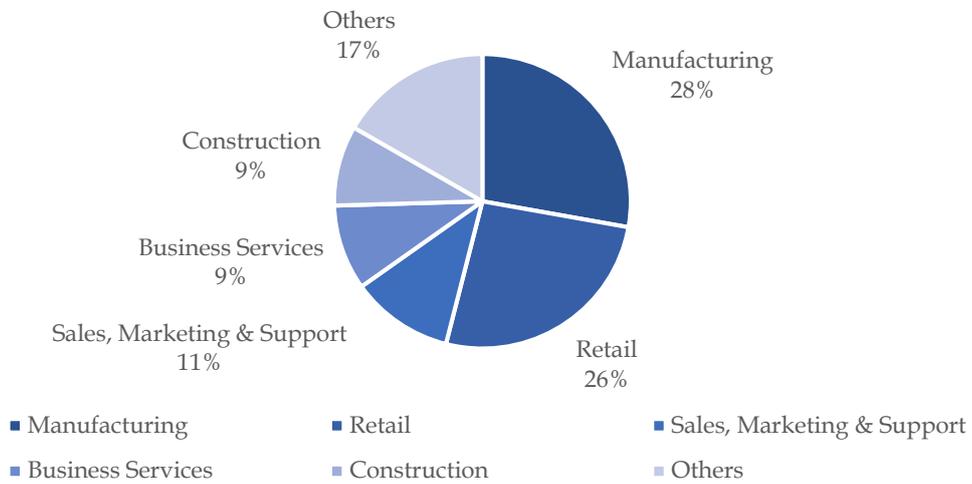


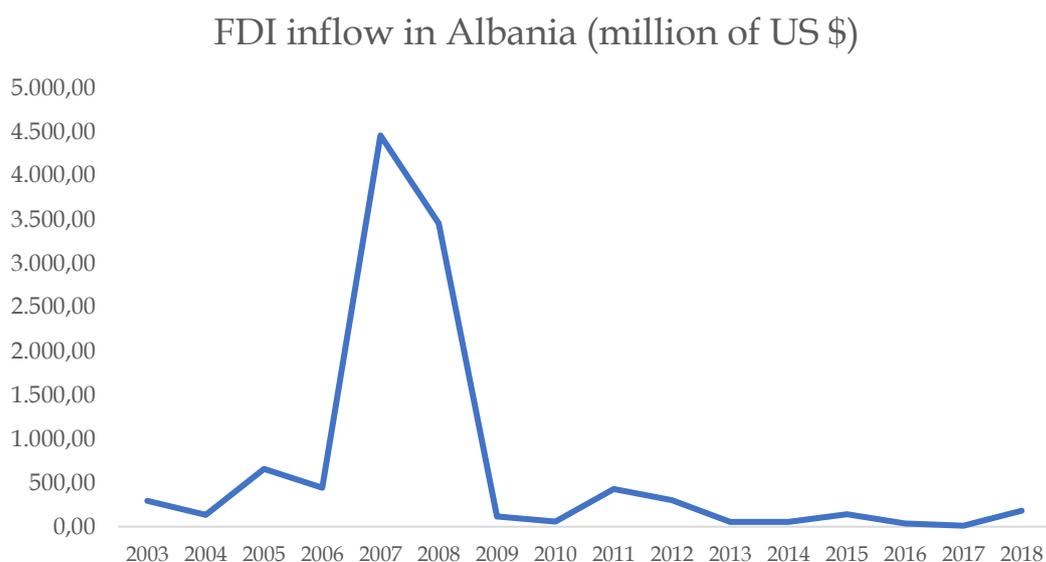
Figure 13 Elaboration based on fdiMarkets

In *fdiMarkets* database, also intra-Balkans FDI are included. In the period from 2003 to 2018, intra-Balkans FDI have amounted more than \$ 6 billion, with Croatia accounting for the 50% with almost \$ 3 billion invested in the other Balkan countries. In the database, 238 operations are of this type.

To better understand the nature and the sectorial distribution of FDI, an in-depth analysis of FDI in each country has been carried out by considering two time periods with the first going from 2003 to 2008 and the second from 2009 to 2018. In this way, it is possible to assess the effects of the global economic crisis on the FDI inflow for each country.

## *Albania*

Albania is the country whose stock of inward FDI in 2018 is the smallest among the set of economies analysed in this study, as shown in *Figure 7* and *Figure 9*, with a value of \$ 180,40 million. Albanian economy suffered the global economic crisis: in *Figure 13* it is visible the heavy drop of FDI inflow from 2008 to 2009 (source: World Data Indicator).



**Figure 14** *Elaboration based on fdiMarkets*

In the time-frame between 2003 and 2008, the total stock of inward FDI amounted around \$ 9 billion with the 50% of the capital invested in the sector of Coal, Oil and Gas with Italy being the main source country with more than \$ 5 billion invested. As explained, after the crisis the amount of FDI inflow fell to a bit more the one hundred million dollars. Henceforth, the Albanian economy has not been able to attract FDI as before and the stock of inward investments has remained steadily low. In 2018, the main industry sector has been that of electronic components, which accounted for more than 50% of the whole stock.

Table 3 provides a deeper understanding of the main sectors and sources of FDI in Albania in the two selected time-frames.

Main Industry sectors	
2003-2008	2009-2018
Coal, Oil and Gas (48,5%), Renewable energy (23,1%), Building materials (13,6%)	Building materials (15,1%), Food and tobacco (13,6%), Consumer product (11,6%), Transportation (10%), Real Estate (8%)
Main Source country	
2003-2008	2009-2018
Italy (54,1%), Austria (15,9%), Germany (6%)	Germany (21,3%), Greece (13,5%), Austria (9,5%), Turkey (8,3%)

Table 3

## Bosnia and Herzegovina

From 2003 to 2018, Bosnia and Herzegovina has registered an inflow of FDI of almost \$ 20 billion with a steadily constant flow, except for a peak in 2015 when a stock of inward FDI of more than \$ 3 billion was recorded (see *Figure 14*). Throughout the selected period, the dominant attraction of foreign capital has been the field of renewable energy, especially in the last decade, when one third of the whole stock of FDI has been invested in this sector. In the early 2000s, instead, most of the capital was invested in metals.

In recent years, United Arab Emirates have played a key role in FDI for Bosnia and Herzegovina, being the main source of capital: indeed, between 2015 and 2016, around \$ 2.5 billion have been invested from UAE in the country in real estate, hotels and tourism. The Arabic investments are aimed at creating new cities from scratch which will represent the state-of-the-art of the entire country.

Other sectors and source are listed in *Table 4*.

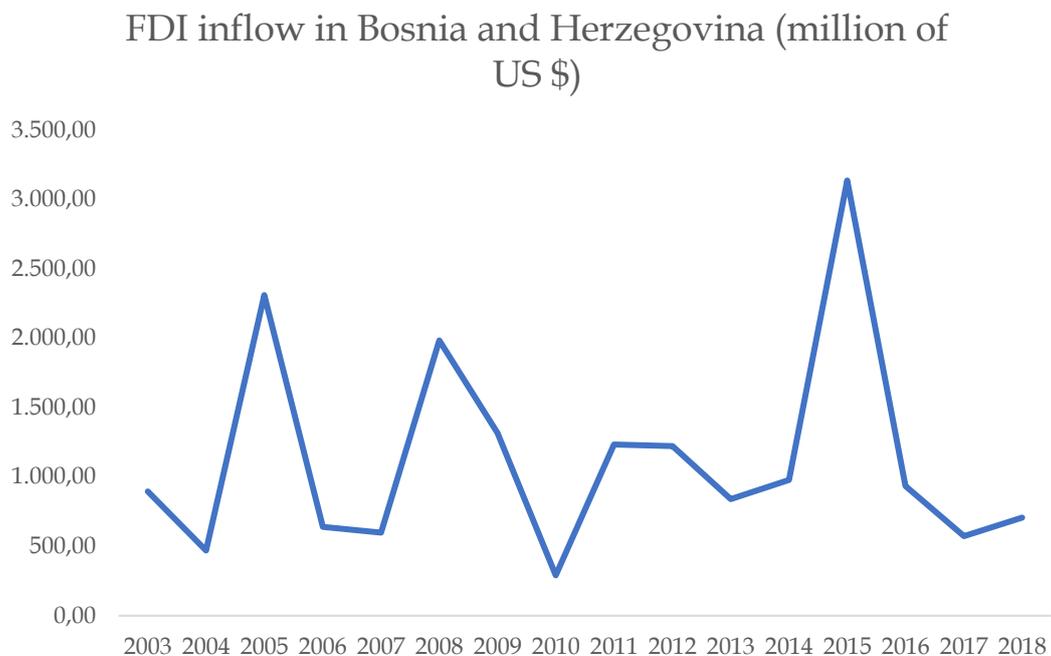


Figure 15 Elaboration based on *fdiMarkets*

Main Industry sectors	
2003-2008	2009-2018
Metals (21,4%), Renewable energy (17,4%), Coal, oil and gas (10%), Financial Services (10%), Food and tobacco (9,9%)	Renewable energy (29,1%), Real estate (25,4%), Coal, oil and gas (14,6%)
Main Source country	
2003-2008	2009-2018
Germany (11,9%), Austria (11,5%), Slovenia (10,3%), Russia (7,5%), Croatia (6,6%)	UAE (23,7%), Austria (8,6%), Russia (8%), Germany (6,6%), China (6,2%)

Table 4

## *Bulgaria*

Among the selected countries, Bulgaria is the nation who first became EU member (2007). In the last two decades Bulgaria has been the most attractive location in the Balkans, which has expressly been pointed out after 2007, when it joined the EU. Between 2003 and 2018 Bulgaria has enjoyed \$ 70 billion of foreign capital. The country has attracted investors by macroeconomic and financial stability, strategic geographical position and various support programs by the Government.

Renewable energy has been the central sector in attracting foreign capital with United States, Germany and Japan being the main investor countries. During the years before crisis, also real estate had a determinant role: Spain, Israel, Turkey, United Kingdom, Lithuania and Austria invested more the one billion US dollar each between 2006 and 2008.

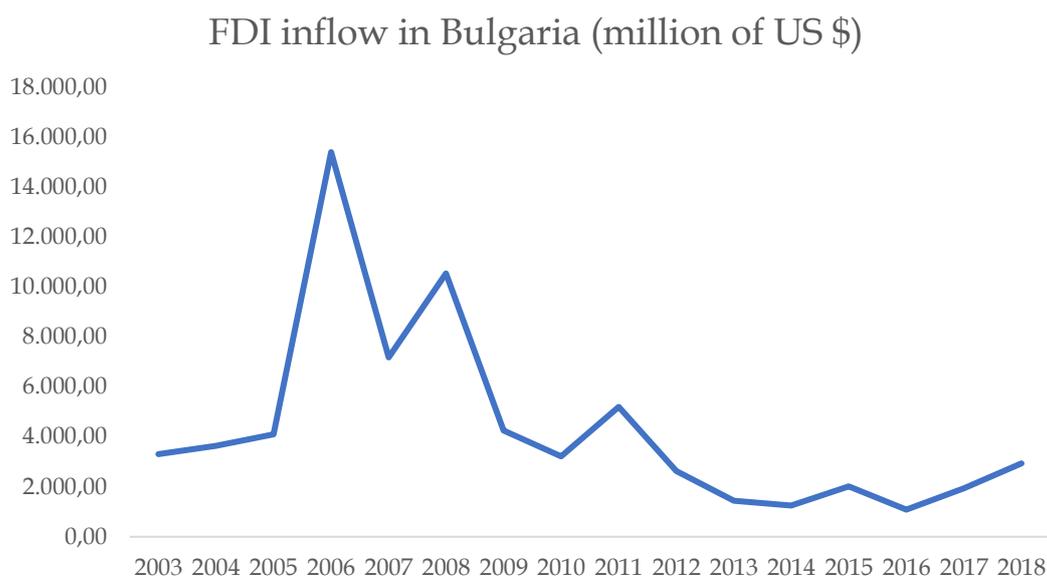


Figure 16 Elaboration based on fdiMarkets

#### Main Industry sectors

2003-2008	2009-2018
Real estate (24,7%), Coal, oil and gas (20,7%), Renewable energy (12,7%), Food and tobacco (6,7%), Metals (4,2%)	Renewable energy (33,5%), Food and tobacco (15,2%), Real estate (8%), Coal, oil and gas (4,7%), Transportation (4,6%), Software and IT services (4,4%)

#### Main Source country

2003-2008	2009-2018
Germany (15,3%), United States (9,4%), Italy (7,8%), Spain (7,1%), Austria (6,4%), Russia (5,9%), Greece (5,4%)	Germany (16,1%), United States (12,3%), Japan (9,9%), Turkey (7,2%), France (6,1%), Italy (5,7%)

Table 5

## Croatia

Croatia is the second Balkan country joining EU, in 2013. FDI in Croatia have had a constant flow with some jumps or drops. In *Figure 16* it is possible to assess the trend of FDI: the stock of inward capital reaches a peak of almost \$ 3 billion in 2008 and after the accession of Croatia to EU it embarks on a negative trend reaching the smallest amount of stock of FDI inflow in the analysed period, almost \$ 400 million. In 2018, Croatia registered a slight increase in FDI, achieving again the performances got before joining EU.

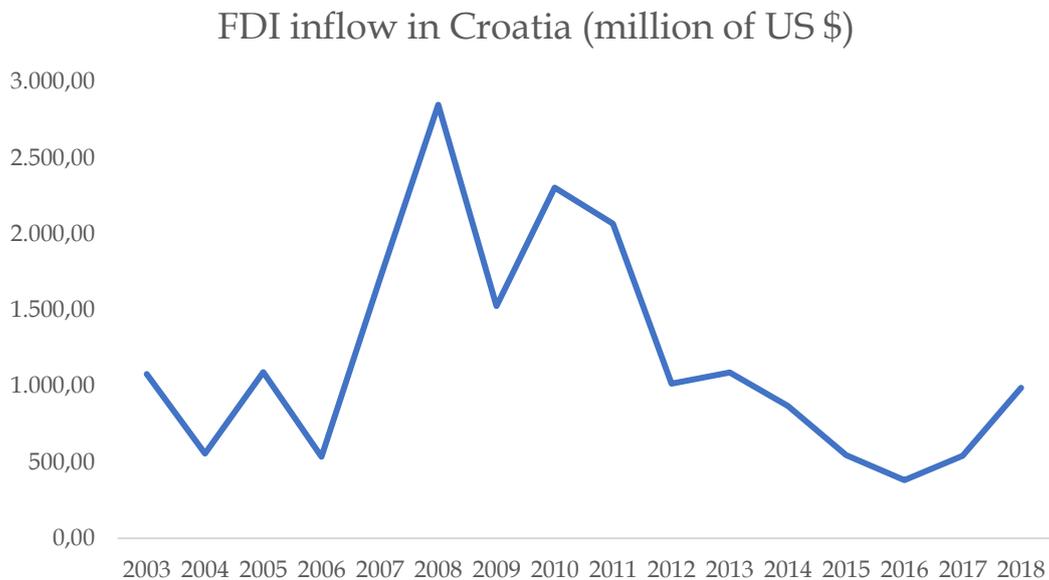


Figure 17 Elaboration based on *fdiMarkets*

Before the global economic crisis, Austria and Netherlands among several invested almost \$ 1.5 billion in real estate, making this industry sector the most attractive for Croatia. Austria was also registered as the main source country of FDI in those years, with capital invested also in financial services and consumer products. After 2008, real estate is still considered one of the main

sectors in attracting FDI, together with renewable energy which has been capable to attract more than \$ 2 billion in the last decade, the half of which coming from United States.

Main Industry sectors	
2003-2008	2009-2018
Real estate (37,1%), Hotels and tourism (10%), Coal, oil and gas (7,6%)	Renewable energy (18,2%), Real estate (16,1%), Coal, oil and gas (13,7%), Consumer products (8,6%)
Main Source country	
2003-2008	2009-2018
Austria (18,4%), Germany (11,5%), Netherlands (10,2%), United States (8,7%), Slovenia (8,7%)	Germany (16,1%), Austria (14,5%), United States (13,7%), Hungary (9,7%)

Table 6

## *Montenegro*

Among all the selected countries, Montenegro is that one whose cumulative stock on inward FDI is the smallest in the considered time period. Indeed, Montenegro started the economic development later than other countries mostly because of the political questions regarding its independence from Serbia, declared in 2007. Henceforth, FDI inflow has represented a fundamental source of wealth for Montenegro, who became the first Balkan country in terms of inward FDI per inhabitants (as described in the previous

section). The stock of FDI inflow is still growing and in 2018 it registered its maximum amount ever, almost \$ 2 billion, as shown in *Figure 17*.

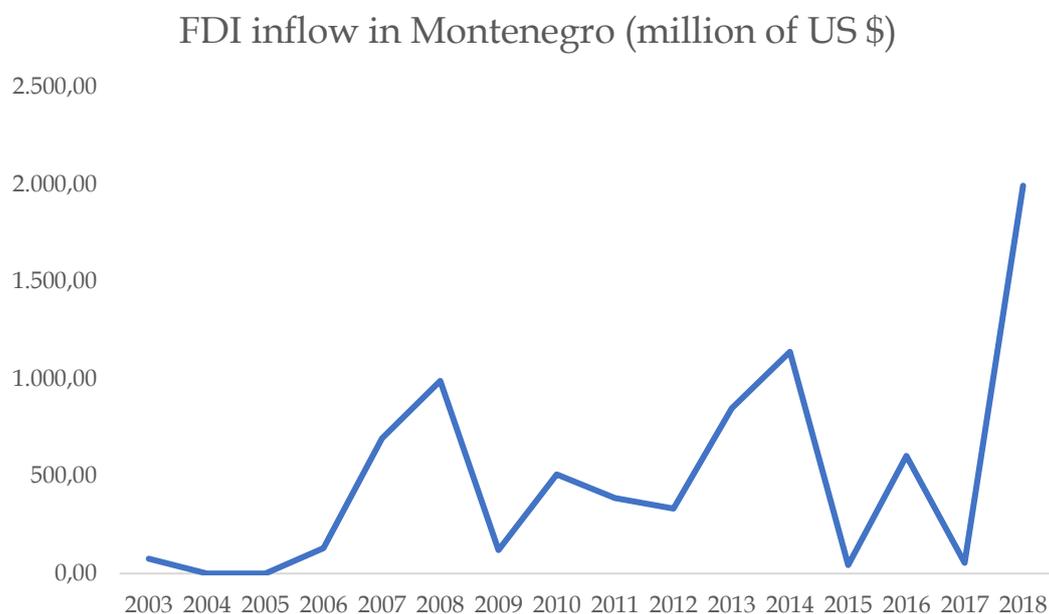


Figure 18 *Elaboration based on fdiMarkets*

The dominant industry activity has always been the construction, especially in the sectors of real estate and hotel and tourism: in the last fifteen years, almost the 50% of stock of inward FDI in Montenegro related to construction. Before 2008 the dominant sectors were real estate, hotel and tourism and building materials with Germany and Russia being the main source of capital. In the last decade, foreign capital in Hotel and Tourism has still dominated the scene with more than \$ 3 billion invested from Azerbaijan and Qatar among several. During these last years, it's been notable the FDI inflow in Coal, Oil and Gas from Italy (around \$ 1 billion).

Main Industry sectors	
2003-2008	2009-2018
Real estate (26,4%), Hotels and tourism (21,7%), Building materials (19,4%)	Hotel and tourism (55,2%), Coal, oil and gas (17,2%)
Main Source country	
2003-2008	2009-2018
Germany (19,4%), Italy (19,4%), Russia (17,3%)	Azerbaijan (23%), Italy (16,8%), Qatar (9,4%), Spain (6,6%), United States (6,2%)

Table 7

### *North Macedonia*

Between 2003 and 2018 North Macedonia has collected more than \$ 10 billion of inward FDI: the level of FDI inflow reached the highest value (more than \$ 2.5 billion) with the subsequent drop connected with the global crisis (see *Figure 18*). In the early 2000s, investments related mostly to Electricity, Construction and Retail in the field of renewable energy (from Israel), real estate (from Slovenia), coal, oil and gas and food and tobacco. After 2008, there has been a substantial change: 32.1% of inward FDI has been invested in manufacturing and 25.8% in construction, with electricity and retail representing minorities.

### FDI inflow in North Macedonia (million of US \$)

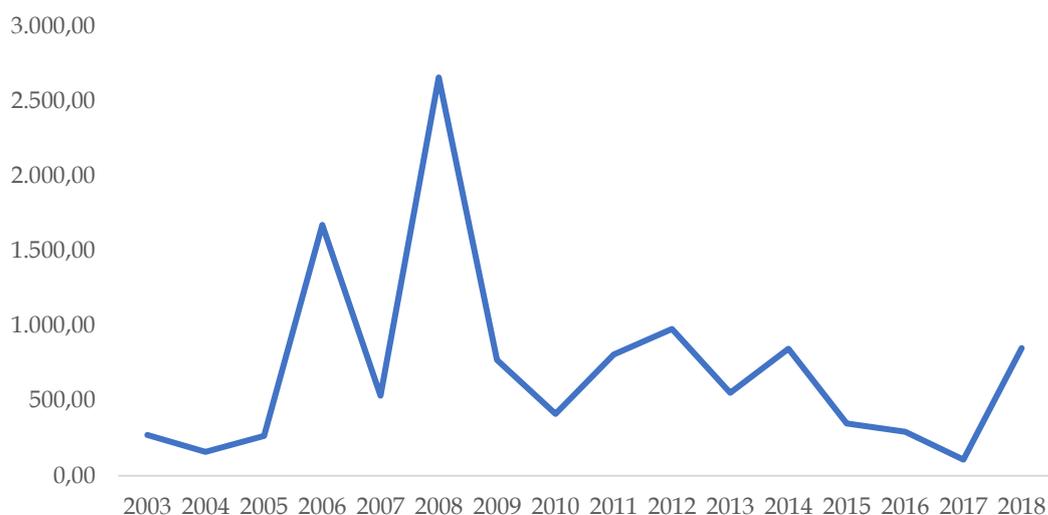


Figure 19 Elaboration based on fdiMarkets

#### Main Industry sectors

2003-2008	2009-2018
Coal, oil and gas (25,3%), Real estate (21,5%), Renewable energy (18,7%), Food and tobacco (17,5%)	Real estate (18,5%), Automotive components (10,4%), Textiles (9%), Renewable energy (8,1%), Hotels and tourism (7,8%) , Metals (7,2%)

#### Main Source country

2003-2008	2009-2018
Slovenia (34%), Israel (13,1%), Austria (12,3%), United States (11,4%)	Turkey (21,9%), Germany (11,9%), Albania (8,6%), United States (7,8%), Belgium (7,2%), China (6,7%)

Table 8

## Serbia

Serbia is currently the country with the highest level of stock of inward FDI: in 2018 the capital invested has exceeded \$ 7 billion. As shown in *Figure 19*, the inflow of foreign capital suffered the global crisis after 2008 recording a large drop but thanks to economic e political development the number and the amount of investments have increased again reaching the past level.

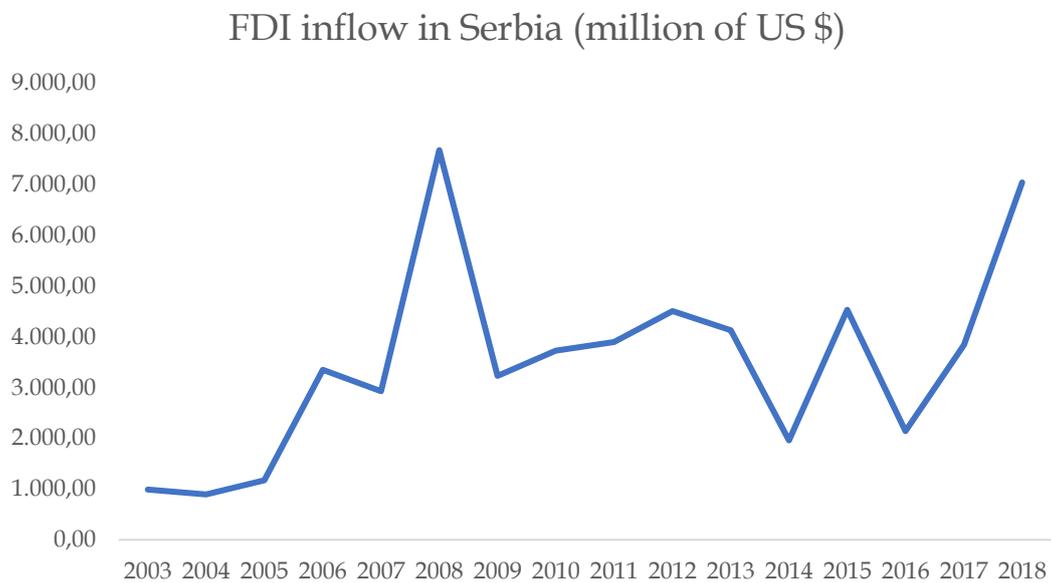


Figure 20 Elaboration based on *fdiMarkets*

The two dominant activities have always been manufacturing and construction covering together more than 50% of total FDI inflow throughout the selected period. Before 2009, a quarter of the stock was invested in real estate, with most of capital arriving from Israel, United States and Hungary, and warehousing, with Russia investing around \$ 2 billion in 2006. From 2009 to the present, real estate has been confirmed as the most attractive industry sector with more than \$ 3 billion invested in the last decade.

### Main Industry sectors

2003-2008	2009-2018
Real estate (26,3%), Warehousing (14,1%), Food and tobacco (13,8%), Automotive OEM (8,4%), Financial services (8,2%)	Real estate (23%), Renewable energy (15,8%), Coal, oil and gas (11,6%), Consumer products (6,5%), Food and tobacco (5,4%)

### Main Source country

2003-2008	2009-2018
Austria (16,5%), Russia (14,2%), Italy (8,2%), Croatia (7,6%), Slovenia (7,5%), United States (6,9%)	Italy (15,4%), Germany (9,6%), UAE (8,1%), Russia (7,4%), United States (6,9%), China (6,4%)

Table 9

### 3.3 FDI Determinants in the Balkans

Multiple studies on determinants of FDI in the Balkans have been carried out with the aim of assessing the motives that affect the inflow of FDI in those countries.

Kurtovic (2014) groups FDI according to motives based on Dunning taxonomy described earlier. Determinants of market-seeking FDI are market size, geographical and cultural proximity, economic integration, human capital, technology and privatization. In the case of resource-seeking FDI, determinants entail trade, labour, infrastructure and transport cost. All these determinants include macroeconomic stability, political environment in terms of corruption, geographical and cultural connections. Kurtovic tried to define the determinants of FDI in the Western Balkans carrying out a panel regression analysis in the time period from 1994 to 2012. In his analysis, the dependent variable was the net stock of inward FDI and the independent variables were GDP per capita, GDP growth, share of trade in GDP and the inflation rate. By applying panel regression, it is possible to estimate parameters relating to market size (GDP), market growth (GDP growth), the index of economic openness (share of trade in GDP) and macroeconomic stability (inflation rate). The results show that both GDP and trade openness have a significant and positive impact on FDI inflows, while GDP growth and rate of inflation have no significant impact.

In 2015 Garoseanu executed a study with the aim of estimating the determinants of FDI inflows in the European developing economies in South-Eastern, Eastern and Central Europe (hence, including Balkans) from a set of developed economies. The paper firstly provides one model with FDI inflows being the dependent variable and host country GDP, home country GDP and distance between the capital cities being the independent variables. The author

chose the log-model so that results are in the form of expected percentage change in FDI. Other independent variables have been then added to the model: average monthly gross wages, host country change in GDP, trade (sum of exports and imports over GDP), exchange rate, education (in terms of enrolment in tertiary education), technology exports and finally two dummy variables, one for EU membership and the other for Balkans region, in order to show whether geographic position affect volumes of FDI. The results show firstly that macroeconomic performances of both countries have a positive effect on FDI inflow in the host country, while distance, as expected, is negatively correlated to FDI volumes. The host country change in GDP, as the education, does not impact the FDI inflows. Labour cost and trade openness affects negatively and significantly FDI inflows. Concerning the exchange rate, the close the local currency unit is to the value of Euro, the more attractive is to invest in that country. Finally, the two dummies affect FDI in a different way: the EU membership has a positive impact on FDI, while being a Balkan country affects negatively the inflow of FDI. The author shifts the blame of the negative correlation to weaker institutional arrangements, smaller markets and lower technological level.

In 2017 Petrović-Ranđelović, V. Janković-Milić, I. Kostadinović carried out a similar analysis with the same objective. As before, the dependent variable is the annual FDI net inflow. The authors put into the regression four independent variables: GDP per capita, as indicator of market size, GDP growth rate, as indicator of market growth, trade openness and finally population size, in order to determine the scale of the internal market. Concerning the trade openness, a greater degree contributes to the achievement of economies of scale and encourages specialization and efficient absorption of the technology transferred through FDI (Petrović-Ranđelović, V. Janković-Milić, I. Kostadinović, 2017). The analysis is based on the following hypothesis: there is a statistically significant relationship between FDI and GDP per capita, between FDI and GDP growth, between FDI and population

size, while trade openness is not significantly related to FDI. The results are consistent with the hypothesis with population size having the highest relative impact on FDI inflows. Furthermore, trade openness has a negative, but non significant impact.

## 4. Methodology

The main objective of this paper is to determine which determinants affect mostly the choice of the location of FDI in the Balkans. Hence, after analysing the literature standing behind the study, we provide an econometric model in order to show the empirical results. The first step of the empirical part is the creation of the dataset from which both the dependent variable and the independent variables are taken. Then, the used methodology will be explained together with the results obtained from the model.

### 4.1 Dataset

An econometric model needs to be initialized by creating a dataset entailing data necessary for the analysis. Concerning the dependent variable, we extracted data from *fdiMarkets* (Financial Times), i.e. the most comprehensive and efficient online database of cross-border investments, covering all countries and sectors worldwide. This database entails projects from 2003 to the present and provides, for each of them, all the information needed: date, source and destination country (and city), industry sector and activity, amount of the capital invested, type of investment (see *Figure 21*).

#	Project Date	Year	Investing Company	Parent Company	Source Country	Source State	Source City	Destination Country	Destination State	Admin Region	Destination City	Industry Sector	Sub-Sector	Cluster	Industry Activity	Capital Investment
1	nov 2018	2018	Cineplexx	Constantin Film-Holding	Austria	Ostosterrreich	Vienna	Albania	County of Tirane (Qarku i Tiranes)	District of Tirane (Rrethi i Tiranes)	Tirane	Leisure & entertainment	Performing arts, spectator sports, & related	Creative Industries	Retail	20.8
2	oct 2018	2018	Koton	Koton	Turkey	Turkey	Istanbul	Albania	County of Tirane (Qarku i Tiranes)	District of Tirane (Rrethi i Tiranes)	Tirane	Textiles	Clothing & accessories	Retail Trade	Retail	6.1
8	lug 2018	2018	Unak Holding	Unak Holding	Turkey	Turkey	Ankara	Macedonia FYR	Macedonia	Macedonia (MK)	Skopje	Hotels & tourism	Accommodation	Tourism	Construction	292.78
10	giu 2018	2018	Telamon	Telamon	United States	Indiana	Carmel (IN)	Macedonia FYR	Macedonia	Macedonia (MK)	Skopje	Industrial equipment	General purpose machinery	Industrial	Manufacturing	4.67
11	giu 2018	2018	Skopje East Gate Real Estate Development	Balfin Group	Albania	County of Tirane (Qarku i Tiranes)	Tirane	Macedonia FYR	Macedonia	Macedonia (MK)	Skopje	Real estate	Residential building construction	Construction	Construction	163.674
20	dic 2017	2017	Murat Ticaret	Murat Ticaret	Turkey	Turkey	Istanbul	Macedonia FYR	Macedonia	Macedonia (MK)	Skopje	Electronic components	Communication & energy cables	ICT & Electronics	Manufacturing	7.78
21	dic 2017	2017	Thomas Sabo	Thomas Sabo	Germany	Bayern	Pegnitz	Macedonia FYR	Macedonia	Macedonia (MK)	Podgorica	Consumer products	Jewellery & silverware	Retail Trade	Retail	38.3
22	nov 2017	2017	Makedonski Telekom	Deutsche Telekom	Germany	Nordrhein-Westfalen	Bonn	Macedonia FYR	Macedonia	Macedonia (MK)	Tetovo	Communications	Communications equipment	Retail Trade	Retail	3.7
23	nov 2017	2017	Samres	Samres	Sweden	Sweden	Lund	Albania	Not Specified	Not Specified	Not Specified	Business services	Other support services	Professional Services	Customer Contact Centre	0.5

Figure 21 Extract of data from fdiMarkets

We have considered all the transactions from 2003 to 2018 having type of investment “*new*”, hence *co-location* and *expansion* investments have been excluded for reasons of consistence with the model. The destination countries which have been considered in the study are 7: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Montenegro, North Macedonia and Serbia.

After defining the dependent variable, the focus shifts to the regressors. Regressors should be chosen in a consistent way with both the literature and the available data. The first type of regressors are exogenous and entail the market-specific determinants as market size and attractiveness. These independent variables are taken from WDI (World Development Indicators), provided by World Bank Data, which include data of worldwide development with global, regional and national estimations. The second type of regressors, instead, are endogenous and country-specific: they include indicators of political stability and quality of institutions and are extracted from WGI (World Governance Indicators) provide by World Bank Data.

**Variable 1. “gdp\_pc”**

It is the *GDP per capita* (current US\$): it used as an approximation of the market size, as it is given by the total GDP of a country divided by its population.

**Variable 2. “gdp\_pc\_growth”**

It is the *GDP per capita growth* (%): it is used as an approximation of the market attractiveness as it provides an overview of the market growth and opportunities.

**Variable 3. “pop\_urb”**

*Urban population* is the percentage of inhabitants living in the urban area over the total population. This variable is utilized as an approximation of the scale of internal market.

**Variable 4. “inflation\_gdp”**

*Inflation, GDP deflator (%)*: this definition of inflation provides the rate of price change in the economy as a whole. It is measured by the annual growth rate of the GDP implicit deflator. This indicator shows the macroeconomic stability of the country.

**Variable 5. “contr\_corrupt”**

The *control of corruption* is the opposite of the level of corruption of the governmental system of a country.

**Variable 6. “enrol\_sec”**

*School enrolment, secondary (% of gross)* provides the percentage of students enrolled in secondary school over the total population in the study age. This indicator gives the investors an overview regarding the level of competences of the host country's labour force.

**Variable 7. “gov\_effectiveness”**

*Government effectiveness: estimate* captures perceptions of the quality of public services, the quality of civil services and the degree of its independence from political pressures, the quality of policy formulation and implementation.

**Variable 8. “trade”**

*Trade*, as percentage of GDP, is the sum of exports and imports of goods and services measured as a share of gross domestic product.

**Variable 9. “EU”**

*EU* is a dummy variable which takes the value of 1 if the transaction has been directed to Croatia after 2012, so starting from its entry in EU. This variable has been inserted in the analysis in order to assess the potential effect of EU membership on the choice of FDI location.

## 4.2 Model

The objective of the paper is to find the determinants which affect the choice of the destination country in the case of a FDI in the Balkan Region. Hence, we need a model where the dependent variable expresses the probability of investing in a country and not in another one: the *Conditional logit model* has been chosen for the analysis. Before starting the analysis, the dataset has been improved to fit perfectly with the chosen model. First, a progressive *id* number has been assigned to each investment. Then, the rows corresponding to each investment has been replicated for each country in the dataset (in our case, 7 countries) and a variable *choice* has been created. Choice has value 1 if that investment has been directed to that specific country, 0 otherwise. Therefore, for each investment, there will be seven rows, one having choice equal to 1 and others with choice equal to 0. *Choice* is the dependent variable of the model.

Then, all the utilized databases (fdiMarkets, WDI, WGI) have been merged to create the final database on which carry out the regression with the software Stata.

## 4.3 Results

*Figure 21* shows the output of the regression model. All the regressors are significant with a *p-value* lower than 1%, except for GDP per capita growth which presents a high *p-value* and thus non significant impact.

Concerning the market specific determinants, both GDP per capita and urban population have a strong and positive impact on the decision of the location,

in line with the literature described earlier. GDP per capita growth, instead, appears negative but non-significant ( $p$ -value higher than 36%).

As for country specific determinants, the analysis shows some peculiar results. The governmental effectiveness has a negative impact on the dependent variable while the control of corruption positively affects the choice of FDI location in the Balkans.

Surprisingly, the secondary school enrolment has a negative impact: this could be linked to the fact that most of investments interest manufacturing and thus they do not need a too high level of competencies.

Trade as percentage of GDP is significant and negatively affects the dependent variable: this strange outcome might be explained by means of the concept of tariff jumping: in our case, imports and exports represent an obstacle in the choice of FDI location.

Finally, the dummy variable related to EU membership gives us some important insights. The variable negatively affects the choice of the location. This topic is confirmed also by the descriptive statistics related to FDI in Croatia shown in *Figure 16*, according to which FDI decreased after Croatia joined EU.

```

Conditional (fixed-effects) logistic regression   Number of obs   =   17926
                                                LR chi2(8)      =   2559.95
                                                Prob > chi2     =   0.0000
Log likelihood = -4279.4485                    Pseudo R2       =   0.2302

```

choice	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
gdp_pc	.0000686	.0000197	3.48	0.001	.0000299 .0001073
gdp_pc_growth	-.0161563	.0177513	-0.91	0.363	-.0509482 .0186357
enrol_sec	-.0411988	.0073513	-5.60	0.000	-.055607 -.0267906
gov_effectiveness	-1.241718	.2265137	-5.48	0.000	-1.685677 -.7977598
contr_corrupt	2.418004	.2068966	11.69	0.000	2.012494 2.823514
pop_urb	6.11e-07	1.99e-08	30.67	0.000	5.71e-07 6.50e-07
trade	-.0139705	.0016562	-8.44	0.000	-.0172166 -.0107243
EU	-.3148372	.1185667	-2.66	0.008	-.5472236 -.0824508

Figure 22 Output of the clogit function in Stata

The same regression is carried out by considering only Manufacturing as Industry activity. Results are in line with the ones above with some little difference. First, the robustness of model is reduced, in fact we have a smaller number of observations and the two variables, GDP per capita and GDP per capita growth, loose significance with a *p-value* greater than 5%. Other variables maintain the same shape of the previous case, with the control of corruption and urban population affecting positively the choice of FDI location and school enrolment, government effectiveness, trade and EU recording a negative coefficient and high significance.

```

Conditional (fixed-effects) logistic regression   Number of obs   =       3815
                                                LR chi2(8)      =       699.90
                                                Prob > chi2     =       0.0000
Log likelihood = -840.63309                    Pseudo R2       =       0.2939

```

choice	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
gdp_pc	-.0000238	.0000446	-0.54	0.593	-.0001112 .0000635
gdp_pc_growth	-.0724461	.0393133	-1.84	0.065	-.1494987 .0046064
enrol_sec	-.0816672	.0174282	-4.69	0.000	-.1158259 -.0475085
gov_effectiveness	-1.416485	.5101742	-2.78	0.005	-2.416408 -.4165616
contr_corrupt	3.141327	.4506511	6.97	0.000	2.258067 4.024587
pop_urb	7.58e-07	5.20e-08	14.58	0.000	6.56e-07 8.60e-07
trade	-.0305529	.0039718	-7.69	0.000	-.0383375 -.0227684
EU	-1.781029	.4348491	-4.10	0.000	-2.633318 -.9287408

Figure 23 Output of the clogit function in Stata

The results are partially in line with the literature. The most cited determinants in the literature have been GDP per capita, trade openness and population size. These have been the most significant determinants with a positive impact on FDI inflow, while GDP growth has often non-significant impact, together with inflation. The main outcome of our analysis is the fact that control of corruption and urban population are extremely important in the choice of FDI location in the Balkan countries. The trend of the dummy variable EU helps us to understand the effect of the EU membership on FDI. The negative impact was already noticeable in the graph showing the trend of

FDI inflow in each country, with the stock of inward FDI decreasing after 2007 for Bulgaria and 2013 for Croatia. The regression analysis confirms this theme, showing a negative coefficient with high significance.

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