The Effect of Entrepreneurship on Foreign Direct Investment

Wissam B. Fahed

Abstract—Entrepreneurship has become an important and extensively researched concept in business studies. Research on foreign direct investment (FDI) has become widespread due to the growth of FDI and its importance in globalization. Most entrepreneurship studies examined the importance and influence of entrepreneurial orientation in a micro-level context. On the other hand, studies and research concerning FDI used statistical techniques to analyze the effect, determinants, and motives of FDI on a macroeconomic level, ignoring empirical studies on other non-economic determinants. In order to bridge the gap between the theory and empirical evidence on FDI and the theory and research on entrepreneurship, this study examines the impact of entrepreneurship on inward foreign direct investment. The relationship between entrepreneurship and foreign direct investment is investigated through regression analysis of pooled time-series and cross-sectional data. The results suggest that entrepreneurship has a significant effect on FDI.

Keywords—Entrepreneurship, foreign direct investment, globalization, economic freedom.

I. INTRODUCTION

THE forces of globalization in recent years have determined and been determined by great flow of investment, not only between the developed nations but also from developed to underdeveloped nations. The global expansion of transnational corporations (TNCs) has become more widespread following the actions of many governments to remove various barriers. The growing importance of FDI is related to its beneficial impact on both a host-country's economy and a firm's performance and profitability. FDI can have a long-term beneficial impact on a country's development since it is generally directly linked to productive investments. FDI may also assist developing countries through the provision of capital, through the inflow of technology, through the inflow of managerial know-how and marketing skills, and through their impact on the development of efficient markets.

In addition to the importance of FDI in economic growth and improvement in the productivity and performance of businesses, there is a worldwide consensus among economists and business leaders that entrepreneurship is a key factor to economic growth. Moreover, entrepreneurship has been promoted as a key factor of a firm's development. It is now accepted that the economic and social vitality of a business environment greatly depends on the overall level of its entrepreneurial capacity and development potential. Given the

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rapid growth of FDI and the increasing importance of entrepreneurship, it is critical for both the public and private sectors to have a complete understanding of the determinants of FDI and the relationship between entrepreneurship and international investments. However, research pertaining to FDI and entrepreneurship were usually conducted in two different arenas and hence, there is a lack of empirical studies analyzing the effect of entrepreneurship on foreign direct investment. Most entrepreneurship studies examined the importance and influence of entrepreneurial orientation in a micro-level context. On the other hand, studies and research concerning FDI used statistical techniques to analyze the effect, determinants, and motives of FDI on a macroeconomic level, ignoring empirical studies on other non-economic determinants. With the availability of data on foreign direct investment and techniques to measure entrepreneurship, it becomes imperative to test the effect of entrepreneurship on inward FDI in order to bridge the gap between the theory and empirical evidence on FDI and the theory and research on entrepreneurship. In this vein, this study is intended to, empirically, test for a possible relationship between entrepreneurship and FDI. The first part of this paper is devoted to the literature review on FDI and entrepreneurship. The second part discusses the several factors that provide the rationale for the liaison between entrepreneurship and FDI. Based on the review of the literature, hypotheses are developed. Following the development of hypotheses, the methodology is described and the results are then reported. Finally, after presenting some conclusions and implications, the future direction and limitations of the study will be discussed.

II. RESEARCH PURPOSE & OBJECTIVE

Due to the growing importance of FDI and after it became well documented that FDI may have beneficial impact on the host-county's economy, governments in emerging and developing markets became eager to attract their fair share of foreign capital. To promote and attract foreign direct investments, host governments started to offer foreign investors considerable tax holidays, special exemptions, subsidies and many other enticements, in the belief that these kinds of incentives will create the appropriate investment environment. Furthermore, most governments have introduced regulatory changes in the direction of creating a more favorable environment for FDI. However, Helleiner shows that investment incentives such as tax holidays play a limited role in inter-country investment decisions. Similarly, new research from the McKinsey Global Institute finds that the

commonly used incentives to attract foreign direct investment are largely ineffective, costing governments millions of dollars annually [24]. This is because in many cases governments give away significant tax revenues and subsidies for investments that would have been undertaken anyway. A survey of 30 executives at companies that invested in India revealed that financial incentives were the least important factor in the investment decision [15]. Most of the executives stated that they would prefer that the government spend money upgrading the local infrastructure rather than providing some financial incentives. For instance, in the same article a Ford executive explained that the top three factors in their decision to build a plant in India were the availability of a supplier base and skilled labor, as well as the quality of infrastructure.

Evidence also shows that technology is not being transferred to developing countries through FDI [50]. The lack of knowledge transfer is due to the weakness of the national innovation system, social capabilities, and the absorptive capacities of local enterprises. In fact, research suggests that although most developed nations benefit from the inflow of FDI, many developing nations did not reap the benefits of FDI inflow. Studies show that in some countries foreign direct investment failed to have a clearly positive impact on the local economy, and the alleged benefits from FDI such as the transfer of technology, management know-how and marketing skills were at best weak in these developing economies. Thus, as evidence suggests, it is false to assume that socially and economically depressed areas will transform into fast growing areas by injection of external investment funds and external expertise. Without entrepreneurial capabilities, which are potentially available or well developed, external funds will be wasted on projects that will not provide long-term economic growth.

Hence, the purpose of this study is to empirically reveal the importance of entrepreneurship as a determinant of FDI in Central and Eastern European countries (CEE). The research is intended to redirect governments' focus to the foundations of their economy instead of just providing financial incentives, which are not very effective in attracting transnational corporations and in advancing economic growth. Thus, to attract foreign direct investment and to make the most of it, governments must promote entrepreneurship, which generates external economies that benefit existing firms as well as the birth of new ones in the region. The advantages resulting from entrepreneurship development including labor availability, quality infrastructure, variety of supply of other inputs with quality and competitive prices, and formal and informal access to information, and new technologies, will then provide the appropriate enticements to attract FDI. Furthermore, entrepreneurship will create an economic environment better positioned to benefit from FDI, along with the technology and management skills that accompany it. Entrepreneurship is essential to disseminate the impact of foreign investment, for without competitive domestic markets, the entry of foreign players has little effect on inefficient domestic incumbents and their productivity [15].

III. Literature Review

A. Explanations of FDI Inflow

The main stream of literature explaining international production is rooted in the theory of industrial organization - also known as industrial economics. Building on the theory of industrial organization, the product cycle theory, the internalization theory, the resource-based theory, the eclectic paradigm, and other macro theory of FDI were developed to further explain the concept, characteristics and determinants of FDI.

The theory of industrial organization focused on intra-industry rivalry in explaining international production. The possibility that rivalry among firms operating in the same industry, but not necessarily in the same country or countries, can affect FDI behavior was suggested by Hymer both in his doctoral dissertation and in some later work [26]. Kindleberger and Caves developed Hymer's work and explained the motives behind FDI in terms of oligopolistic competition [7], [27]. This theory portrays that MNCs involve in FDI seeking to create an oligopolistic market structure, by building significant barriers to entry. Kindleberger approached the question of direct investment from the standpoint of the perfectly competitive model of neoclassical economics by asserting that in a world of pure competition direct investment cannot exist. Therefore, according to Kindleberger, market imperfections were the reason for the existence of FDI. Knickerbocker noted a "follow the leader" pattern in the timing of FDI by US firms. He interpreted this phenomenon as a rational response to oligopolistic rivalry [29]. Other studies have detected similar patterns in the overseas activities of non-US firms [18]. Also, detailed studies of certain industries have confirmed Knickerbocker's finding for US firms. Finally, Graham suggests that intra-industry FDI may take place as an "exchange of threat"; in which oligopolists imitate each other and invade each other's home markets as part of an oligopolistic rivalry [21], [22].

Vernon developed a theory for FDI based on the product cycle. He pointed out the linkage between the product cycle in technology and the shift from export to direct investment among US firms [51]-[53]. Originally this theory was purely microeconomic, but Vernon introduced it as a theory of the international division of labor. According to this theory, in early stages of the product life cycle, the production will stay in the high-wage country and firms will not have to invest in foreign lower-wage markets because of the low price elasticity of the product. As the product matures and as the technology becomes easy to imitate, the price elasticity will grow and firms will begin to look for low cost production locations, and hence engage in FDI.

Resource based theory was also used to explain FDI. Here the focus was on ownership advantages characterized by firm-specific resources or capabilities that provide a unique advantage to the firm. Casson argued that the explanation of ownership advantage should rest on the "reinstatement of the role of the entrepreneur to a central position in the theory of the firm" [6].

Buckley and Casson suggested a still broader interpretation of the motivations for FDI that has since become more or less the standard point of departure. They argued that ownership-specific advantages argument did not answer why FDI is preferable to arms-length transactions on the market [4]. Buckley and Casson observed that for the multinational enterprise to service foreign markets via direct investment rather than alternative modes of doing business (e.g., exporting or licensing) there must be economies associated with a firm exploiting a market opportunity through internal operations rather than through arm's-length transactions such as the sale of rights to the firm's intangible assets to other firms. These economies might be associated with costs (including opportunity costs) of contract enforcement or maintenance of quality or other standards. This approach, which explains the emergence of MNC as a result of market failures and transaction costs, became known as internalization theory. References [1] and [3] have conceptualized internalization advantages as contractual risks. Contractual risk are the relative cost of making and enforcing contracts, the risk of disseminating proprietary know-how, and the costs of controlling and monitoring product/service quality. Kogut expressed his view revealing that internationalization of a firm's activities is beneficial beyond cost advantages. Internationalization is beneficial since new profit opportunities are gained and new capabilities are developed [31]. Dunning has emphasized that the advantages of internationalization must interact with both firm-specific advantages and location advantages to explain FDI. He also suggests that the reasons for FDI are diverse and thus that no one theory can account for all such investment [11]. The effort to define the advantages of internationalization is ultimately part of the theory of why firms exist. This effort has generated a large literature, which is surveyed by [44].

Finally, in an attempt to integrate many FDI theories, Dunning developed the eclectic, or ownership, locational, internalization (OLI), framework. The eclectic paradigm is not a theory in and by itself, but it is rather an overall organization and integration of the wide range of competing theories explaining international production. Within this framework FDI is undertaken provided three conditions are fulfilled. The TNC has some specific ownership advantages as compared to local firms making it more competitive. Ownership advantages in FDI stem from such firm characteristics as proprietary knowledge, trademarks, known brand names, human capital, technology, economies of joint supply in all functional areas, wider opportunities and ability to diversify risk, etc. But ownership advantages are only necessary, not sufficient factors in explaining international production. There has, also, to be a location advantage of producing in the foreign country rather than producing at home for export. For instance, one major advantage of expanding internationally is to access a wider market for a firm's product or service [12]. Location-specific factors also involve a wide range of political, economic, social and geographical considerations. However, while ownership and locational factors can explain how companies will overcome the disadvantages of internationalization and where companies will invest, they cannot explain why international production is undertaken. Therefore, a third element is required to provide a comprehensive explanation of FDI. This element is the internalization advantage which explains the advantages derived from the reduction in transaction and coordination costs. In this domain, FDI can be explained as a response to problems of control in such areas as production costs and quality, market access, and rights to proprietorial technology or products and services.

Furthermore, Dunning distinguishes among four types of MNC activities, which includes resource seeking, market seeking, efficiency seeking and strategic asset or capability seeking. The resource seeking enterprises invest in foreign markets to acquire specific resources, such as natural resources, human resources and technical capabilities, at a lower real cost than could be obtained in their home country. Market seekers invest in a region or country to supply goods and services to markets in these or neighboring countries. The efficiency seekers aim to exploit economies of scale and diversify risk. As for strategic asset seekers, they usually engage in FDI by acquiring the assets of foreign corporations to promote their long-term strategic objectives. Determinants of foreign activity will thus depend upon the type of activity an enterprise seeks to engage in.

B. Determinants of FDI

The macro theory of FDI compares the costs and benefits of producing in different locations. The profitability of producing in a specific location in turn depends upon the economic environment, the general level of technological development, the industrial structure, the level of human and the more general business environment. Literature on the subject has suggested several economic explanatory variables that affect FDI.

1. Market Size and Growth

The market size in conjunction with the growth prospects of the host country market are important pull factors and theoretically positively related to the level of FDI flows [8], [12]. A big market allows the attainment of economies of scale, and transaction costs are thought to be lower in countries with higher levels of economic development [7], [57]. In fact, for the majority of low-income countries which fail to attract large FDI flows, their small domestic markets are often cited as the main deterrent. However, regional integration is often perceived as a positive mean of compensating for small markets. The growth rate of GDP is also expected to be positively related to inward FDI given a presumption that rapid growth creates a demand for productive assets and human skills that are relatively abundant within multinational firms. But, the United Nations Center on Transnational Corporations survey cited conflicting evidence for the significance of the growth rate, once market size is included [49]. Also, Lunn found that although growth rate was statistically significant, it had the wrong sign showing a negative relationship between growth rate and FDI [36].

2. Factor Cost

As explained by Vernon product cycle theory, location of production will be determined by relative factor cost of production. Factor costs plays a role in the profitability of investing in different geographical locations, and thus, it is believed that the lower the factor costs in a country the higher the inflow of FDI is to that country [20]. For instance, empirical research has found relative labor costs to be statistically significant, particularly for foreign investment in labor-intensive industries and export-oriented sectors (e.g. [17], [45], [34], and [54]). However, studies also revealed that when wage rate variation is minimal from country to country, the skills of labor force are expected to have an impact on TNC decision about FDI location.

3. Infrastructure

Infrastructure is considered a major determinant of FDI. Ranging from roads, ports, railways and telecommunication systems to institutional development in accounting, legal services, financial & banking services, etc, there is little doubt that infrastructure will play a major role in the profitability of TNC investments, and thus, their decision about FDI location. Studies reveal that transport facilities and the proximity of a certain area to a major port have a positive effect on the location of FDI within countries and between countries. Also, studies indicate that poor accounting standards, inadequate reporting system, non-credible financial institutions, and weak legal system deter FDI.

4. Exchange Rates, Interest Rates & Inflation

The literature has linked exchange rates to FDI inflow. Given less than efficient capital markets, currency depreciation may make a country's assets undervalued, thereby encouraging FDI. Other studies argued that given inefficient markets, a depreciating currency will signal future depreciation of that currency to future investors, thereby negatively influencing FDI. Interest rates can also affect FDI since higher rates tend to slow the growth of an economy and reduce the demand for the TNC's products. Similarly, inflation can affect the purchasing power of consumers and therefore the consumer demand for TNC's goods [49].

5. Openness of Economy

While the size, growth, and other characteristics of the domestic market plays an important role in attracting FDI, domestic market factors are predictably less relevant in export-oriented firms. Many studies have suggested the importance of an open economy in attracting FDI in export-oriented sectors [41], [14], [47]. In an open economy, it is easier to import raw materials and capital goods which are necessary for domestic and foreign investment. Reference [47] found that export, particularly manufacturing exports, is significant determinants of FDI flows. In a similar vein, there is strong evidence in the literature that exports precede FDI inflow.

6. Political Risk

TNCs usually assess political risk before investing in a certain county. There are many forms of political risks, but the extreme form is the possibility that the host country will take over a subsidiary. However, this form of political risk is an extreme case and not very common in today's global world. The more common forms of political risk include negative attitude of host government to TNCs, blockage of fund transfer, currency inconvertibility, war, bureaucracy, and corruption. Political risk in general distorts competition and investment, and hinders free and fair trade.

C. Entrepreneurship Literature

The concept of entrepreneurship has a wide range of meaning. On the one extreme an entrepreneur is a person of very high aptitude who pioneers change, possessing characteristics found in only a very small fraction of the population. On the other extreme of definitions, anyone who wants to work for himself or herself is considered to be an entrepreneur.

1. The Roots of Entrepreneurship

The early entrepreneurship literature equated the idea of entrepreneurship with working for oneself rather than working for someone else for a wage [5]. In a business context, it means to start a business. The Webster Dictionary presents the definition of an entrepreneur as one who organizes, manages, and assumes the risks of a business or enterprise. This definition is rooted in the meaning of the French word "entreprendre", which means "to undertake". Entrepreneurship has a long history associated with human activities. In the 1870's Carl Menger's defined entrepreneurship as the "act of will and supervision". Later, others attempted to make the meaning of the word more commonly acceptable, and it became defined as "one who manages and assumes the risks of a business or enterprise." A well known definition is that of Knight who defined entrepreneurship as the ability to control and organize productive processes under conditions of risk and uncertainty [30]. In fact, Cantillion, who was first to formally define the term, argued that the major factor that differentiate entrepreneurs from hired employees was the uncertainty the self-employed faces. Thus, the concept of "risk-taking" is a quality that is often used to describe entrepreneurship [5].

2. The Schumpeterian View

The idea of equating entrepreneurship with self-employed business person changed with the work of the Austrian economist Joseph Schumpeter. Schumpeter was the first to elaborate on the role of entrepreneurship in the economy and society. Schumpeter definition of entrepreneurship placed an emphasis on innovation, such as new products, new production methods, new markets, and new forms of organization [10]. The Schumpeterian view the function of the entrepreneur "is to reform or revolutionize the pattern of production by exploiting an invention or, more generally, an untried technological possibility for producing a new

commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry". Schumpeter outlined an economic process of "creative destruction" by which wealth was created through the discovery of new technologies, products, markets, processes and organizational forms that create clear alternatives to existing products and practices. In Schumpeter's view, the key to this cycle of activity was entrepreneurship – the competitive entry of innovation that propelled the dynamic evolution of the economy. Since Schumpeter most economic scholars have emphasized the importance of innovation in the entrepreneurial process. This dimension of entrepreneurship is frequently mentioned in the literature as "innovativeness" [10].

3. The Kirznerian Entrepreneur

Unlike Schumpeter, Kirsner did not look at the entrepreneur as the innovative person with supernatural characteristics [28]. In Kirzner's view, the entrepreneur is an agent who by exercising alertness "…grasps the opportunities for pure entrepreneurial profit created by temporary absence of full adjustment". An entrepreneur is simply a person who is able to perceive opportunities for entrepreneurial profits; that is, he is able to see where a good can be sold at a price higher than that for which it can be bought. Hence, an entrepreneur would, immediately notice profit opportunities that exist because of the initial ignorance of the original market participants and that have persisted because of their inability to learn from experience [28]. According to Kirzner, entrepreneurship is not so much the ability to break away from routine as the ability to perceive new opportunities which others have not yet noticed.

Kirsner view converges with the Misesian view of entrepreneurship. The Misesian view of an entrepreneur as someone who notices price discrepancy, between products sold in different markets, before others do. "Entrepreneur means acting man in regard to the changes occurring in the data of the market." [28]

To contrast the Schumpeterian view with the Kirsnerian view; for Schumpeter, entrepreneurship is reserved for the brilliant, imaginative, daring, resourceful innovator. For Kirsner, entrepreneurship is exercised whenever a market participant recognizes that doing something even a little different from what is currently being done may more accurately anticipate the actual opportunities available [28]. Since Kirsner, many scholars have focused on initiative the entrepreneur takes in pursuing new opportunities. This characteristic of entrepreneurship is often referred to as "proactiveness".

5. Development of Entrepreneurship Thought

In the development of entrepreneurship definition, the idea of entrepreneurship as working for oneself, thus, has been supplemented by the concept of risk-taking, innovativeness and proactiveness [10]. The trend has been to use these dimensions - risk-taking, innovation, & proactiveness – in studies pertaining to firm-level entrepreneurship [39], [9], [40]. Much of this has built on [39]. Miller suggested that a

firm's degree of entrepreneurship could be seen as the extent to which it takes risks, innovates, and acts proactively. These were the three "entrepreneurial" dimensions of strategy out of a total of eleven such dimensions discussed by [40]. The focus on innovation, proactiveness and risk taking, referred to as entrepreneurial orientation, puts the focus on the process of entrepreneurship, rather than on the actor behind it [19], [46]. This has moved entrepreneurship research focus from the individual level of analysis to a focus on entrepreneurship as firm-level behavior. But this focus has led to further disagreements about the definition and the explanation of the process of entrepreneurship. Some studies argued that the three dimensions of entrepreneurship are not necessary conditions. For instance, some researchers suggested that some entrepreneurs may avoid risk under certain circumstances. Others argued that entrepreneurial firms need not be innovative and that in many instances these firms benefit more from imitation than from innovation. Aldrich and Martinez averred that overestimating the innovating capacity and personal traits of entrepreneurs has hidden the major role of imitation in entrepreneurial process [2]. Zahra explained that "to treat all firm-level entrepreneurial activities as requiring the same skills is misleading". Zahra noted that to engage in entrepreneurial activity a firm need not exhibit high levels in all entrepreneurship dimensions, innovativeness, risk-taking and proactiveness. For instance, a firm that introduces an existing product to a new market need not be innovative, but is exhibiting high levels of proactiveness. Petrin believes that entrepreneurship need not involve anything new from a global or even national perspective, but rather the adoption of new forms of business organizations, new technologies and new enterprises producing goods not previously available at a location [42].

Unfortunately, research in the field of entrepreneurship has been hampered by the lack of a clear paradigm of research and a common definition of the topic. In fact, there is a growing concern that the debate over the central definition of entrepreneurship has directed research efforts away from the development of a distinctive theory of entrepreneurship. [32] expressed his concerns by stating that his "pet peeve is the disproportionate and unproductive time (spent) trying to define entrepreneurship". "The definition of the entrepreneur and entrepreneurship has become such a terminological jungle that virtually anyone can plant his/her own tree. Most existing definitions of entrepreneurship are based on the outcome of entrepreneurial activity or process based on the creation of new enterprises or organizations." [56] This definitional chaos led Bull and Willard to state that writers in the field of entrepreneurship are somehow obsessed with defining the word entrepreneur. They claimed: "the term has been used for more than two centuries, but we continue to extend, reinterpret, and revise the definition. We suggest that this desire to invent a better definition has misdirected research efforts away from a useful theory of entrepreneurship". And according to Low and MacMillan, researchers should define entrepreneurship as the creation of new organizations, and the purpose of entrepreneurship research should be to facilitate

and explain the role of new organizations in furthering economic progress [33].

For the purpose of this paper, entrepreneurship is defined by outcome not intentions. In other words, the outcome of entrepreneurial activity based on the creation of new enterprises will be the central focus. The three dimensions – innovativeness, risk-taking, proactiveness- previously discussed were useful in characterizing entrepreneurial processes and not in representing entrepreneurship which is defined as new business creation. Firm creation explains what entrepreneurship is about, while entrepreneurial orientation describes how new firms are undertaken. The essential act of entrepreneurship is firm creation and in the following sections entrepreneurship refers to the creation of new private businesses.

IV. Research Need & Rationale

Based on the review of literature, there was a wide range of theories concerning FDI, however in the past there was a lack of empirical studies analyzing the effect of entrepreneurship on foreign direct investment. Not only was there a lack of studies examining the effect of entrepreneurship on FDI, but as stated above, the main stream of literature explaining international investments is rooted in the theory of industrial organization, which looks at FDI as a mean to create an oligopolistic market structure by building significant barriers to entry and by seeking a first mover advantage to exploit previously unexploited markets. In other words, these theories predicted that FDI will flow to countries with less contestable markets and with fewer firms -local or multinationals- serving these markets. Contrary to previous views, this paper intends to show that FDI will flow to competitive markets where local firms are abundant and entrepreneurship flourishes.

There is a lack of integration and cross-fertilization between entrepreneurship studies and international business studies in general [56]. Low and MacMillan analyzed the levels of analysis in published entrepreneurship research and found that entrepreneurship research is dominated by micro-level analysis, predominantly using the firm or the individual as the level of analysis. Westhead and Wright averred that studies are still urgently required to focus upon the relationships between the entrepreneur and the external environment. In summary, international business research cannot afford to ignore the growing power of entrepreneurship, nor can entrepreneurship researchers ignore the internationalization of the marketplace [38]. This provides evidence to the need for this study, which will bridge the gap between international business research and entrepreneurship research.

The rationale behind the relationship between entrepreneurship and FDI is based on several factors including, the importance of entrepreneurship for the competitive advantage of nations, the importance of local firms in joint ventures and other cooperative alliances, and the role of entrepreneurs in the creation of a strong business condition and adequate infrastructure. The first argument is based partly on Porter "diamond", where the importance of local firms lies in their ability to increase the competition in the local market and pressure companies to innovate and develop new products, thus gaining a competitive advantage over companies operating in non-competitive nations. Therefore, foreign firms will prefer to invest in such economies that have superior industries and dynamic entrepreneurs [43].

The second argument focuses on the entry mode of TNCs, and the creation of cooperative networks. Most firms enter foreign markets through mergers & acquisition, joint ventures or use other forms of cooperative alliance with local firms. The focus on cooperative alliances explained the importance of these alliances from the TNCs and local firms' point of view. The growth of cooperative alliances and their importance to FDI strategy provides evidence that TNCs will consider the availability and quality of local supplier, distributors and firms, before investing in a foreign market.

The final argument for a positive relationship between entrepreneurship and FDI is build on the fact that foreign investors require supportive domestic, public, and private policies, and the resulting economic, social, and institutional infrastructure in the host country. In this context, entrepreneurs play a major role in providing these requirements. Entrepreneurs exert pressure on the government, create a need for a regulated banking and economic system, and provide the basis for good systems to be instituted. Thus, the presence of local firms signals to investors that an appropriate infrastructure and good business conditions are present in that specific market.

These arguments provide the building blocks for this research to test for a possible relationship between entrepreneurship and FDI in CEE countries. If empirical evidence supports the relationship between entrepreneurship and inward FDI, entrepreneurship could emerge as a determinant of FDI and be included in further FDI models. The contribution of this study will have several implications on TNCs, local entrepreneurs and local governments. The research will highlight a new determinant that companies engaged in FDI should consider in their assessment and decision making models. Also, this study will reveal the importance of entrepreneurship to countries' economy, and will provide insight for policy makers, involving their role in generating policies that encourages and supports entrepreneurship.

V. Hypotheses Development

Based on the theoretical contributions and previous empirical findings, and due to the lack of empirical evidence for a possible positive relationship between entrepreneurship and foreign direct investment, the central hypothesis to be tested in this research is that entrepreneurship is a determinant of foreign direct investment to the host country.

Entrepreneurship shapes the local environment by building institutions and attracting resources. Entrepreneurs exert pressure on the government, create a need for a regulated banking and economic system, and provide the basis for good systems to be instituted. In addition, these entrepreneurial firms enhance the competition in the local market and pressure

companies to innovate and develop new products. Furthermore, entrepreneurs tend to form social networks where reputation becomes an important mechanism, which limits opportunistic behavior. All these positive externalities provide the needed enticement for foreign investors. Foreign investors require the supportive domestic, public and private policies, and the resulting economic, social, and institutional infrastructure, in the host country. Since entrepreneurs play a major role in providing these requirements, the presence of local firms signals to investors that an appropriate infrastructure and good business conditions are present in that specific market. TNCs managers view the presence of local industries and entrepreneurship as a strategic resource. They will prefer to invest in such economies that have superior industries and dynamic entrepreneurs. Thus, entrepreneurship is going to lead to an increased inflow of foreign direct investment.

H1. Foreign direct investment is positively associated with entrepreneurship in the host country.

Economic freedom is another factor that is expected to influence the inflow of foreign direct investment. TNCs usually assess economic freedom before investing in a certain country. In many countries, companies are not free to work and do business the way they want. They cannot import what they need, or own private property. Due to these restrictions, TNCs will avoid investing in countries that are not economically free. They avoid countries whose governments most tightly control their economies. Thus, it is expected that foreign direct investment will flow to countries with higher economic freedom.

H2. There is a direct relationship between economic freedom and the flow of foreign direct investment.

For entrepreneurship to grow and prosper, entrepreneurs must be free to work, keep most of what they earn, and trade with whom they want. Businesses must be free to produce the goods and services they want, in quantities they desire, and to market these goods and services at the prices they consider appropriate. Thus, it is supposed that in the presence of economic freedom, entrepreneurship will have a more powerful effect on FDI inflow. Therefore, the research will test for the interaction effect between entrepreneurship and economic freedom hypothesizing that in the presence of economic freedom, there would be a stronger positive relationship between entrepreneurship and FDI.

H3. In a freer economy, there is a higher positive relationship between entrepreneurship and FDI.

A. Control Variables

While previous literature on FDI had suggested several possible explanatory variables, such as: exchange rate, openness of the economy, growth, location specific advantages, wage rate, natural resources, corruption, tax rates …etc, it is not possible to include all variables. A model can never be a completely accurate description of reality. Using the principle of parsimony, the most relevant control variables will only be included in the model, which will seek to explain much by little. They include: market size, economy growth rate, economic and political stability, infrastructure, openness of the economy and corruption.

1. Market Size

Upon identifying determinants of inward FDI, and based on previous analysis revealing that foreign investors looking towards the CEE region are mainly seeking market access, it is expected that market size will have an effect on inward FDI. Large markets provide a reasonable scope for investment and hence influence market-seeking FDI. Market size is typically proxied using the level of GDP or population and a positive relationship is expected between market size and FDI inflow.

2. Growth Rate

When talking about market seekers and the size of the market, it is important to include the market size in conjunction with the growth prospects of the host country market. Market growth is an important pull factor and theoretically positively related to the level of FDI flows. Therefore, the model will include growth rate as a control variable.

3. Interest Rates

Another factor that is very important and affects investments is economic and political instability. The EBRD report revealed that political and economic instability were identified as major obstacles by foreign investors intending to invest in the CEE region. Economic and political instability increases interest rates in host country economy. High interest rates will raise the user cost of capital, and thus, affect the profitability of FDI negatively, so acting as an FDI deterrent. Hence the level of interest rates, used as a proxy to measure political and economic stability, is supposed to be a determinant of FDI in the CEE region. Therefore, a negative relationship is expected to exist between interest rate level, in the host country, and FDI inflow [13].

4. Infrastructure

The EBRD research has identified poor physical and institutional infrastructure to be a major FDI obstacle in CEE countries. Foreign firms need an appropriate infrastructure in order to operate in the host country. Also, countries with better institutional infrastructure will provide an incentive for TNCs to better operate, since TNCs will have to cooperate with local firms that provide inputs, information, channel of distribution etc… Therefore, it appears to be important for TNCs to invest in countries were the business condition of other firms and the institutional infrastructure is well developed. Hence, infrastructure condition will be used as another control variable.

5. Openness of the Economy

One aspect that has received considerable attention is the role the openness of the economy plays in affecting FDI. Open economies encourage more confidence and foreign direct investment. Singh and Jun found that the relative size of the export sector is the strongest explanatory variable for FDI flows. Thus it is important to include the openness of the

economy as one of the independent variables, since a direct relationship could exist between the openness of the economy and FDI in CEE region [47].

6. Corruption

Last but not least, corruption and bureaucracy cannot be excluded when discussing Central and Eastern European Countries. Corruption and bureaucracy might deter foreign participation in the domestic economy, and hence, there is usually a negative relationship between corruption and FDI.

VI. Research Methodology

Estimation of multiple linear regression model, autoregressive model and log-linear model, using cross-sectional and time series data set (called panel or longitudinal data), will be used to test the absolute and relative effect of entrepreneurship on foreign direct investment and the above-mentioned hypotheses. The dataset is a yearly panel from 1995 through 2001, which includes 10 source countries, all located in Central and Eastern Europe. These countries, within Central and Eastern Europe, where chosen based on the availability of consistent data. Because the study is using a pooled model, the analysis focuses on attempting to explain variations of FDI flows over time and across countries. The time series portion of the data captures intra-country variation.

As compared with cross-sectional and time series data, panel dataset presents a larger set of observations thereby increasing the number of degrees of freedom as well as reducing collinearity between the independent variables. With pooled time-series cross-sectional data, the reliability of the estimates of the regression parameters can be greatly increased. Yet, care must be taken in pooling time-series and cross-sectional data for the purposes of estimation. Inappropriate pooling can introduce an unacceptable degree of aggregation bias. One problem with a pooled model is that countries that are structurally different may be forced to exhibit identical coefficients. But since the data pool in this study is limited to transition economies in CEE and does not cover countries of different developmental characteristics, it is assumed that there will be no significant structural difference, and using a pooled model would be appropriate. The basic assumption of panel data models is that: given the observed explanatory variables the effects of all omitted variables are driven by individual time-invariant, period individual-invariant and individual time-varying variables [25]. Variables varying between countries being constant across time may refer to climate, geography, natural resources and so forth. The second type of omitted variables refers to external economic shocks taking place at a specific time and affecting all countries in the sample.

In addition to the independent effect of entrepreneurship on FDI, the interaction effect between entrepreneurship and economic freedom will be examined. While previous literature on FDI had suggested several possible explanatory variables, such as: exchange rate, openness of the economy, growth, location specific advantages, wage rate, natural resources, tax

rates …etc, it is not possible to include all of them. The basic full formulation of the model to be tested is as follows:

FDI = f(Entrepreneurship, Economic Freedom, Market Size, Growth Rate, Stability, Infrastructure, Corruption, Openness of Economy)

The 2 versions of the basic model are the following:
A. Log-linear model
B. Autoregressive model

Log-Linear Model A:

$$\log Y = \alpha + \alpha_2 X_1 + \alpha_3 X_2 + \alpha_4 X_3 + \alpha_5 X_4 + \alpha_6 X_5 + \alpha_7 X_6 + \alpha_8 X_7 + \alpha_9 X_8 + u \qquad (1)$$

$$\log FDI = f(\log En\text{-}n, EF\text{-}n, \log GDP, G, Stab, Infr, Corr, Open) \qquad (2)$$

$$\log FDI = \alpha + \alpha_2 \log En\text{-}n + \alpha_3 EF\text{-}n + \alpha_4 \log GDP + \alpha_5 G + \alpha_6 Stab + \alpha_7 Infr + \alpha_8 Corr + \alpha_9 Open + u \qquad (3)$$

where:
FDI= Absolute Foreign Direct Investment (measured by FDI inflow)
En-n= Entrepreneurship (number of enterprises lagged n years)
EF-n= Economic Freedom (n years lagged Economic Freedom Index)
GDP= Domestic market size measured by GDP
G= Growth rate measured by change in real GDP
Stab= Economic and political stability measured by interest lending rate
Infr= Infrastructure condition measured by number of telephone lines in use
Open= openness of the economy measured by the relative size of export and import
Corr= Corruption measured by corruption Index
u= Stochastic error term

For model (A) the study expect to reject the null hypothesis that $\alpha_2 = 0$ and accept the alternative hypothesis that $\alpha_2 > 0$. The same is expected for α_4, α_5, α_7, α_9. The study expects to reject the null hypothesis $\alpha_3 = 0$ and accept the alternative hypothesis that $\alpha_3 < 0$. The same is expected for α_6 and α_8.

Autoregressive Model B:

$$Y = \alpha + \alpha_1 Y\text{-}1 + \alpha_2 X_1 + \alpha_3 X_2 + \alpha_4 (X_1)(X_2) + \alpha_5 X_3 + \alpha_6 X_4 + \alpha_7 X_5 + \alpha_8 X_6 + \alpha_9 X_7 + \alpha_{10} X_8 + u \qquad (4)$$

$$RFDI = f(RFDI\text{-}1, ENTCAP\text{-}n, EF\text{-}n, (EF)(ENTCAP), Pop, G, Stab, Infr, Corr, Open) \qquad (5)$$

$$RFDI = \alpha + \alpha_1 RFDI\text{-}1 + \alpha_2 ENTCAP\text{-}n + \alpha_3 EF\text{-}n + \alpha_4 (EF)(ENTCAP) + \alpha_5 POP + \alpha_6 G + \alpha_7 Stab + \alpha_8 Infr + \alpha_9 Corr + \alpha_{10} Open + u \qquad (6)$$

where:

RFDI= Relative Foreign Direct Investment (measured by FDI/GDP)

RFDI-1= Relative Foreign Direct Investment Lagged by 1 year

ENTCAP-n= Entrepreneurship (lagged number of enterprises/capita)

EF-n= Economic Freedom (lagged Economic Freedom Index)

EF*En= Interaction effect between Entrepreneurship and Economic freedom in the host country

POP= Domestic market size measured by population

G= Growth rate measured by change in real GDP

Stab= Economic and political stability measured by interest lending rate

Infr= Infrastructure condition measured by number of telephone lines in use

Open= Openness of the economy measured by the relative size of export and import

Corr= Corruption measured by corruption Index

u= Stochastic error term

For model (B) the study expect to reject the null hypothesis that $\alpha2=0$ and accept the alternative hypothesis that $\alpha2>0$. The same is expected for $\alpha4$, $\alpha5$, $\alpha6$, $\alpha8$, $\alpha10$. The study expects to reject the null hypothesis $\alpha3=0$ and accept the alternative hypothesis that $\alpha3<0$. The same is expected for $\alpha7$ and $\alpha9$.

Given that entrepreneurship may have little immediate impact upon foreign investment due to delays in the decision processes of large transnational corporations; this impact may, however, manifest itself after a lag of three or four years. Thus, the above models will be tested using various time lags to determine the appropriate time lag between entrepreneurship and FDI. Also, the model will be tested without any lags in order to check the possibility of simultaneous relationship between entrepreneurship and FDI.

In order to test for these hypotheses, data related to both the independent variables and the dependent variable should be collected. Data related to FDI and countries' economic determinants such as GDP, population, GDP growth rate, and interest lending rate would be based on the International Monetary Fund (IMF), international financial statistics handbook, 2003. This handbook publishes yearly economic data for most of the world countries.

To capture the independent variable "economic freedom", the "Index of Economic Freedom" published by the Heritage Foundation and the Wall Street Journal will be used. This index is based on 50 variables such as trade policy, monetary policy, property rights, and fiscal burden of the government and so on. The index ranges between 1 and 5, where one reflects that the country have a great deal of economic freedom and 5 reflects that the country have little economic freedom.

One indicator of openness on the economy is the relative size of the export and import sector. Openness of the economy will therefore be computed by the ratio of import plus export to GDP (X+M/GDP). Data on export, import and GDP will be obtained from the 2003 IMF international financial statistics handbook.

Measuring corruption is challenging, as there is no consensus among researchers regarding what should be considered when measuring corruption. In addition, it is difficult to get an objective measure because of the secrecy of corruption dealings. Subjective measures based on questionnaire-based surveys that are conducted by independent organizations, such as Transparency International, Political Risk Services, and World Economic Forum, are alternatives for this problem. However, it is important to note that these surveys measure the perception of corruption rather than corruption per se. To capture corruption in Central and Eastern Europe, this study uses the "Corruption Perception Index" published by Transparency International. This index relates to perceptions of the degree of corruption as seen by businesspeople, risk analyst and the general public and ranges between 10 which corresponds to an uncorrupt environment and 0 which corresponds to a highly corrupt environment. Since its inception in 1995, researchers have used the Corruption Perception Index extensively.

Infrastructure will be captured using number of telephone lines in use as a proxy. These data are published in the European Marketing Data and Statistics, 2003. For many years academics have used the number of telephone lines as a proxy to measure infrastructure. And although the telephone is no longer the major medium for communication, having a telephone line is necessary for using alternative network, such as the internet.

Finally, although there is no consensus on how to measure entrepreneurship on a country level, and even though numerous characteristics were associated with entrepreneurship, this study perceives entrepreneurship as the number of companies established in local economies by local residents. This definition is consistent with the view reflected by abundant research (e.g. [33], [55], [37], [32], [19], [35], and [56]). Therefore, entrepreneurship will be captured by the number of private enterprises/capita. Though we have offered a very simple definition, it is always problematical to define the term entrepreneurship. Any attempt at rigid definition will be avoided here, because whatever attributes are selected, they are sure to prove excessively restrictive [56].

Concerning enterprises data, they could be obtained from the European Observatory for SMEs, which provides a structured and updated overview of European small and medium sized enterprises, in both quantitative and qualitative terms (The European Observatory, 2000). However, time series data of this kind is not available at the European Observatory of SMEs and hence, enterprise statistics will be obtained from the World Bank database, Finance Ministry' of CEE countries, and the EBRD report.

As stated previously, the sample consists of 10 Central and Eastern European countries through the period 1995-2001 (7 years in total). The countries represented are: Estonia, Moldova, Poland, Czech Republic, Slovakia, Romania, Bulgaria, Croatia, Albania and Slovenia.

To test the hypotheses, regression analysis was used, and is considered appropriate since all variables in the model are continuous, and assuming no serial correlation, homoscedasticity, and no multicollinearity.

Two different models are used in this study to analyze the effect of entrepreneurship on inward FDI. The first model (A) is a log-linear regression model, devised to assess the impact on FDI of the differences in entrepreneurship levels. The log form is used in the analysis to render the distributions nearly normal and the error term homoscedastic. To test this model, the OLS approach is appropriate given the use of continuous variables in the study. In this model, the dependent variable is the log of FDI.

Regarding the independent variables, both the GDP variable and entrepreneurship variable were represented using the logarithmic form. This is because the study is interested in finding the percentage change in the regressand (FDI) for a percentage change in the regressors (GDP) and (entrepreneurship). In addition, log transformation helps to ameliorate heteroscedasticity.

The second model (B) is an autoregressive model, where the lagged value of the dependent variable RFDI is included in the regression model. This inclusion of the lagged dependent variable reduces autocorrelation considerably. Relative measures of FDI and entrepreneurship are employed to control for any large country effects. The dependent variable, henceforth referred to as RFDI, is FDI flows relative to GDP, and the independent variable, referred to as ENTCAP, reflects entrepreneurship relative to total population.

SPSS software was used to test for a relationship between the dependent variable FDI and the independent variables: entrepreneurship, market size, growth rate, lending rate, corruption, infrastructure and economic freedom. In model (B), the independent variables, economic freedom and entrepreneurship, were mean centered to avoid multicollinearity since an interaction effect was being tested for. The correlation matrices and variance-inflation factor (VIF) were verified for detecting evidence of multicollinearity. Collinear variables were removed when there was evidence that their presence affects some other variables. Durbin-Watson statistic was examined to check if there is evidence of serial correlation in error terms. Note that all analyses were conducted assuming a 90% confidence level, alpha equals 10%.

VII. Empirical Results & Analysis

This section presents the main empirical results regarding the effect of entrepreneurship on FDI inflows after controlling for other FDI determinants.

A. Model (A) Results

The regression results for the log-linear model are presented in Table I. Two regression models are run. Initially, LogFDI is regressed with log of entrepreneurship, log of GDP, economic freedom, corruption, openness of the economy, lending rate, growth rate, and infrastructure.

In model 1, logGDP ($p=0.000<0.1$), corruption ($p=0.004<0.1$), economic freedom ($p=0.01<0.1$) and log of entrepreneurship ($p=0.001<0.1$) are significant, while lending rate ($p=0.087<0.1$) is marginally significant and openness of economy ($p=0.216>0.1$), growth rate ($p=0.853>0.1$) and infrastructure ($p=0.978>0.1$) are not significant. Consistent with the literature, logGDP, lending rate, and corruption have the expected signs. Economic freedom and entrepreneurship are also significant with the expected signs. The overall model is significant ($F=48.04$, $p=0.000<0.1$, $R2=84.5\%$). This provides support for hypothesis 1 and hypothesis 2.

The correlation matrices were examined for evidence of multicollinearity. Relatively high correlation between infrastructure and other independent variables such as openness of the economy, and corruption was detected.

In addition a test of multicollinearity among independent variables using the variance-inflation factor (VIF) did not suggest any serious problem, except with infrastructure (Table II). The VIF of infrastructure is 6.691 while none of the other VIF values exceeded 5.3. Note that Hair, Anderson, Tatham and Black and Studenmund have suggested VIF values of 5.3 and 10, respectively, as cutoffs for multicollinearity [23]-[48].

Hence, since the VIF of infrastructure was above the 5.3 cutoff, the variable "infrastructure" was dropped from the model. Also, the growth variable was dropped since it was highly insignificant ($p=0.853>0.1$) and since some conflicting evidence exists, in the literature, regarding economic growth. For instance, the United Nations Center on Transnational Corporations survey cites conflicting evidence for the growth rate of GNP, once market size is included. Lunn found that growth rate lagged in the second period was significant, but had the wrong sign.

Model 2 is the adjusted log-linear model that excludes the independent variables growth and infrastructure. The overall model is also significant ($F=66.11$, $p=0.000<0.01$, $R2=86.3\%$). In model A2, logGDP ($p=000<0.1$), openness of the economy ($p=0.076<0.1$), lending rate ($p=0.057<0.1$), corruption ($p=0.001<0.1$), economic freedom ($p=0.000<0.1$) and the log form of entrepreneurship ($p=0.000<0.1$), are all significant and have the expected signs.

Note that in models 1 and 2, entrepreneurship was lagged by 4 years since the results using a 4-year lag were superior to other lags. With a 3 years lag, entrepreneurship variable remain significant and still provide support for hypothesis1.

Table II shows that there exists no evidence of multicollinearity in Model 2, as none of the VIF values exceeds the 5.3 cutoff suggested by Hair, Anderson, Tatham and Black [23].

Also, the Durbin-Watson statistic reveals that there is no evidence of positive or negative autocorrelation. In Model 2, Durbin-Watson $d=2.226$. Since, $du=1.68<2.226<4–1.68$, it implies that Durbin-Watson statistic is not significant.

B. Model (B) Results

The regression results for the autoregressive model are presented in Table IV. Five regression models are run. Initially, RFDI is regressed with entrepreneurship as an

independent variable. Model 4 is a simple regression including entrepreneurship per capita as the only independent variable. Model 4, reveals that entrepreneurship per capita is statistically significant (p=0.008<0.01, R2=8.6%) and have the expected sign. Note that both 3 years and four years lags in entrepreneurship were considered a priori to be appropriate and were both investigated. The results using 4 years lag were superior to the three years lag. However, even with a 3 years lag model, entrepreneurship variable remains significant and provide support for hypothesis 1. But, since the 4-year lag was more appropriate, it was applied to all models.

Model 5 introduces the economic freedom variable and multiple regression was used to analyze the model. The results indicate that economic freedom as a stand-alone variable is significant (p=0.000<0.01) and overall model 2 is significant (F=17.13 p=0.000<0.01, R2=31.9%).

Model 6 adds the interaction effect between entrepreneurship and economic freedom. The results indicate that the interaction effect is not significant (P=0.99>0.05) and thus, hypothesis 3 was rejected and the interaction effect was dropped from the model.

Model 6 is the full autoregressive model previously specified. This model includes, together with entrepreneurship per capita and economic freedom, all control variables including, population, lending rate, growth rate, openness of economy, corruption, infrastructure and the lagged value of the dependent variable RFDI. In model B4, population (p=0.077<0.1), openness of the economy (p=0.008<0.1), corruption (p=0.002<0.1), economic freedom (p=0.051<0.1) and entrepreneurship (p=0.012<0.1) are significant, while lending rate (p=0.113>0.1) is marginally non-significant and growth rate (p=0.935>0.1) and infrastructure (p=0.978>0.1) are not significant. Consistent with the literature, population, openness of the economy, and corruption have the expected signs. Economic freedom and entrepreneurship are also significant with the expected signs. Once again, this provides support to hypothesis 1 and hypothesis 2. The overall model is also significant (F=10.5, p=0.000<0.1, R2=61.2%).

The correlation matrices were also examined for evidence of multicollinearity. Relatively high correlation between infrastructure and other independent variables such as openness of the economy, corruption and entrepreneurship was detected.

Hence, due to the relatively high correlation between the infrastructure variable and other independent variables, and since infrastructure was not significant, the variable "infrastructure" was dropped from the model. Also, the growth variable was dropped since it was highly insignificant (p=0.935>0.1). As stated previously, some conflicting evidence exists regarding economic growth [36]

Model 5 is the adjusted autoregressive model that excludes the independent variables growth and infrastructure. The overall model is also significant (F=13.95, p=0.000<0.1, R2=61.2%). In model 5, population (p=0.051<0.1), openness of the economy (p=0.003<0.1), corruption (p=000<0.1), economic freedom (p=0.047<0.1) and entrepreneurship

(p=0.001<0.1) are significant and have the expected signs, while lending rate is marginally significant (p=0.097<0.1).

Because an autoregression model is used, the Durbin-Watson statistic is not strictly applicable, although it does give some indication of the extent of autocorrelation. In Model B5, Durbin-Watson d=2.269. Since, du=1.68<2.269<4–1.68, it implies that Durbin-Watson statistic is not significant, and therefore, there is no evidence of neither positive autocorrelation nor negative autocorrelation. In addition, as shown in Table IV, there is no evidence of multicollinearity in model 5, as none of the VIF values exceeds the 5.3 cutoff suggested by Hair, Anderson, Tatham and Black [23].

VIII. DISCUSSION AND CONCLUSION

The study examined the relationship between entrepreneurship and foreign direct investment inflow in Central and Eastern European countries. The findings suggest that entrepreneurship is an important determinant of FDI. This suggests that governments seeking to attract FDI inflow must redirect their focus to the foundations of their economy by promoting and encouraging entrepreneurship. Instead of hinging on the commonly used incentives and spending millions of dollars in tax holidays and subsidies to attract foreign direct investment, policy makers should foster entrepreneurship by providing an environment that is conducive to business start-ups. For entrepreneurship to flourish, governments need to dismantle all barriers to competition and to relax employment regulations, bankruptcy legislations and tax systems to allow businesses to perform more dynamically and to encourage entrepreneurial activity.

Entrepreneurs, in the process of furthering their individual interests, act collectively to shape their local environment by building institutions that further their industry needs. The success of entrepreneurs attracts resources such as venture capital and specialized labor, which further augment local institutions [16]. In addition, entrepreneurship increases the competition in local market and puts more pressure on companies to innovate and develop new products. As businesses grow and become more innovative and populated with talented people, they become a magnet for transnational companies, since TNCs managers view distinctive national environment and the presence of local industries and entrepreneurship as a strategic resource.

In addition, this study highlights the importance of economic freedom, political and economic stability, corruption, and openness of the economy to FDI inflow. The findings are consistent with the arguments presented in the literature. The positive relationship between economic freedom and FDI suggests that foreign firms are not willing to invest in countries that lack economic freedom. It also suggests that governments must liberate their economies if they want to attract foreign capital and help their economy prosper. The evidence of this study also indicates that political and economic stability does have an effect on FDI inflow. Foreign investors are concerned about instability, and to diminish their exposure to risk, they would direct their investments to stable host countries. Regarding the negative

relationship between corruption and FDI, the results suggest that foreign firms do not support corruption. Therefore, governments, businesses and citizens should take an aggressive stance to combat corruption and to create accountable and transparent systems. Finally, the results support the notion that openness of the economy is a significant determinant of FDI flows. This implies that countries should liberalize trade and seek to develop a vibrant import/export sector as a mean to attract consistent inflow of FDI.

IX. LIMITATIONS AND FUTURE RESEARCH

The study is subject to some limitations that also suggest fruitful avenues for further research. The study relied on outcome-based measure of entrepreneurship, which is a broad measure. Using different measures of entrepreneurship in future analysis can help uncover important inferences. Another limitation of this study is that it was limited to Central and Eastern European countries. Researcher might wish to include entrepreneurship as a determinant of FDI in models that apply to other countries and test whether entrepreneurship is a consistent determinant of FDI, in both developed and developing countries. Also, researchers can apply data on FDI by type of investment and by sector, which may lead to valuable implications regarding the industry in which entrepreneurship has a greater significance in determining FDI inflow.

APPENDIX

TABLE I
LOG-LINEAR MODEL (A)

Variables	Model 1 (A)	Model 2 (A)
Dependent variable	LogFDI	LogFDI
Constant	-2.294 (-1.123)	-2.267 (-1.689)
Log-Entrepreneurship-4	.338*** (3.358)	.335*** (4.612)
EF (economic freedom)	-.762*** (-3.381)	-.760*** (-3.790)
LogGDP	.855*** (9.553)	.856*** (11.092)
Stability (lending rate)	-.827* (-1.737)	-.843* (-1.942)
G (GDP growth rate)	.104 (.186)	
Open (openness of economy)	.621 (1.250)	.618* (1.801)
Corrpt (corruption)	-.352** (-2.984)	-.348*** (-3656)
Infra (telephone line per capita)	0.0457 (.027)	
F-Value	48.04	66.111
R^2	.863	.863
Adj. R^2	.845	.850
Durbin-Watson	2.222	2.226
Observations	70	70

Note: T-values are in parenthesis
*** Significance at the 0.01 level
** Significance at the 0.05 level
* Significance at the 0.1 level

TABLE II
VIF - MODEL (A)

Variables	Model 1 (A)	Model 2 (A)
	VIF	VIF
Log-Entrepreneurship-4	2.499	1.343
EF (economic freedom)	2.521	2.058
LogGDP	2.651	2.034
Stability (lending rate)	1.538	1.319
G (GDP growth rate)	1.217	
Open (openness of economy)	5.078	2.500
Corrpt (corruption)	3.068	2.060
Infra (telephone line per capita)	6.691	

TABLE III
AUTOREGRESSIVE MODEL (B)

Variables	Model 1 (B)	Model 2 (B)	Model 3 (B)	Model 4 (B)	Model 5 (B)
Dependent Variable	RFDI	RFDI	RFDI	RFDI	RFDI
Constant	0.03129 (6.164)	.119 (6.496)	0.05469 (.199)	0.0793 (2.311)	.07921 (2.358)
RFDI-1				.328*** (2.800)	.329*** (2.882)
ENTCAP-4	8.124E-04*** (2.730)	8.218E-04*** (3.199)	-1.517E-03 (-.024)	8.91E-04*** (2578)	8.89E-04*** (3.408)
EF		-2.768E-02*** (-4.926)	24.791 (1.687)	-1.50E-02* (-1.987)	-1.49E-02** (-2.025)
(En)(EF)			4.073E-06 (.001)		
POP				6.162E-07* (1.799)	6.159E-07* (1.991)
Stab				-2.625E-02 (-1.608)	-2.64E-02* (-1.685)
Open				3.89E-02*** (2.735)	3.89E-02*** (3.143)
Corrpt				-1.22E-02*** (-3.189)	-1.21E-02*** (-3.689)
G				1.461E-03 (.082)	
Infra				1.194E-03 (.027)	
F-Value	7.452	17.135	.079	10.50	13.949
R^2	.099	.338	.002	.612	.612
Adj. R^2	.086	.319	-.027	.553	.568
Durbin-Watson	2.083	2.047	1.875	2.267	2.269
Observations	70	70	70	70	70

Note: T-values are in parenthesis
*** Significance at the 0.01 level
** Significance at the 0.05 level
* Significance at the 0.1 level

TABLE IV
VIF - MODEL (B)

Variables	Model 5 (B)
	VIF
RFDI-1	1.971
ENTCAP-4	1.626
EF	2.713
POP	2.290
Stab	1.689
Open	3.176
Corrpt	2.414

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