Research Article

Researching the Impact of Corruption and Organized Crime on FDI in Europe: A Literature Review

Mihai Cazacu[1], Alexandra Horobet[2*], Marinela-Luminita-Emanuela Zlatea[3] and Lucian Belascu[4]

[1]The Bucharest University of Economic Studies, Bucharest
[2]The Bucharest University of Economic Studies, Bucharest
[3]The Bucharest University of Economic Studies, Bucharest
[4]Lucian Blaga" University of Sibiu, Sibiu

Corresponding Author:
Alexandra Horobet; email:
alexandra.horobet@rei.ase.ro

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Abstract.

Eastern European societies and their economies have experienced specific and/or asymmetrical developments over the last 70 years. The political regime changes at the end of the 80s led these countries on the path of market economy and opened the doors for foreign investors' presence, as privatizations of previously state-owned companies were considered beneficial for economic progress. Starting in the mid-90s and more so after the association of countries in the region to the European Union and NATO, foreign investors found interesting opportunities as greenfield projects or partnerships with local entities. However, the presence of foreign direct investments (FDI) in Eastern Europe was uneven across countries and regions, which may be due to a certain extent to corruption and organized crime groups. This paper aims to conduct a systematic review of the literature that has focused on analyzing the influence of corruption and organized crime in attracting foreign direct investment using quantitative methods, focusing on empirical studies conducted in Europe since 2000. Our main purpose is to summarize the different research approaches, to offer a discussion and suggestions for future research, and to provide some relevant and justified answers to the following question: To what extent are corruption, organized crime, and FDI analyzed in European countries?

Keywords: foreign direct investments, organized crime, corruption, GDP, quantitative methods

jel CLASSIFICATION codes

D73, E22, F63

1. INTRODUCTION

The fine connection between wealth and public power takes various forms and equally targets both individuals and actors in the business environment (firms, companies etc.). Corruption and organized crime often intertwine in a strong bond together. They are also

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among the most important factors affecting foreign direct investment (FDI) flows to host countries, presenting different particularities from country to country and from a region to another. A study by Buscaglia and van Dijk (2003) [1] found that high levels of organized crime are associated with a weak state, an inefficient customs service, high tax evasion, protectionism, high levels of financial risk and a weak judicial system. An inefficient application of the law leads to distrust of the population in government institutions, thus creating a level of endemic corruption. Moreover, because of the globalization and Internet development, many organized criminal groups have expanded and built routes for the marketing of various products in several markets. The influence of corruption and organized crime in attracting foreign direct investment is thus an issue that has been intensively analyzed, without being just a simple topic of interest for an academic debate.

The aim of this paper is to conduct a systematic literature review that has focused on analyzing the influence of corruption and organized crime in attracting foreign direct investments using quantitative methods, based on empirical studies conducted in Europe since 2000. Most studies analyzing the European region focus on the role of corruption as an important factor in attracting foreign direct investment through various methods of quantitative and statistical analysis, especially through panel analysis, and less on the part regarding the organized crime. The exception consists in few articles that focus mainly on the Italian region - see in this regard the paper of Vittorio and Ugo (2008) [2]. Their paper examines the impact of organized crime on the regional distribution of foreign direct investment flows (FDI) in Italy and shows that organized crime was a deterrent to investment, suggesting that certain crime levels may be perceived by foreign investors as a signal of an unfavorable business climate. They reach similar results in a study in 2011. Veljović, and Rakočević (2017) instead analyze the Southeast European region, with a focus on Montenegro, from the perspective of the possibility of a preventive action to neutralize security threats, which would strongly contribute to the consolidation of the Silk Road.

In the context of statistical analysis, per capita GDP growth was most often used in the analysis of the change in prosperity, both as a dependent variable and as an independent variable. Also, other indicators are used: the trade openness degree, electricity prices, unit labor cost, inflation, general government final consumption expenditure, but also Economic freedom index and Corruption Perceptions Index.

In this study, the quantitative data collection and analysis and their evaluation mainly helps to shape an image of what has been studied in the literature on this topic after 2000, having as a geographical point Europe, as well as to find out the gaps for which

future detailed studies will be needed. The terminology used by Moher, et al. (2009) [3] to describe the term systematic review refers to the use of statistical and explicit methods (meta-analysis) to analyze relevant research and to collect, analyze and integrate data from studies that are included in the review. We have not identified systematic reviews of the literature on the discouraging effect of corruption and organized crime in attracting FDI flows, which is a motivating element to perform this detailed analysis.

Organised crime is an extended phenomenon, and it represents a threat for any society that passes through a transition process. The Western societies have clearly defined this phenomenon. In the United States, "organized crime refers to those self-perpetuating associations of individuals who operate internationally for the purpose of obtaining power, influence, monetary and/or commercial gains, wholly or in part by illegal means, while protecting their activities through a pattern of corruption and /or violence" [4]. For the Europeans "organized crime constitutes the planned commission of criminal offenses to acquire profit or power. Such criminal offenses must be, each or in their entirety, of a major significance and be carried out by more than two participants who cooperate within a division of labour for a long or undetermined time-span using a) commercial or commercial-like structures, b) violence or other means of intimidation, or c) influence on politics, media, public administration, justice, and legitimate economy" [5]. The activities generally accepted as being part of the organized crime, according to United Nations Office on Drugs and Crime (UNODC), are money laundering, fraud, human trafficking, smuggling of migrants, firearms trafficking, drug production / trafficking, trafficking of goods, counterfeiting. This wide area of activities included in organised crime offers a good understanding of the diversity and complexity of behaviours that foreign investors need to consider when deciding to invest abroad.

The starting point of this paper is the question: To what extent are corruption, organized crime and FDI analyzed in European countries? Therefore, we analyze the articles gradually according to the field, the publication year and the publication scientific journal, as well as the number of the citations. The next step is to analyze the type of methodology used, the regions included and the indicators used.

The structure of our paper includes a detailed analysis of the methodology used, presented in the second part, followed by the results of the analysis in trying to answer as detailed as possible to the research question from which we started. The last part presents the conclusions.

2. Materials and Methods

A bibliometric analysis and a literature systematic review are required for mapping the trends and the future research necessity. This study attempts to get the research directions regarding the way in which corruption, organized crime and FDI have been analyzed in European countries, being contingent on studies published between 2000 and 2022. Thus, a possible limitation given by the data unavailability was consider. At the beginning point the analysis was including articles with focus on European Union countries, but the 2000s flourishing period gave the advantage to append more countries in the analysis. The EU enlargement process paved the way for the huma capital free movement and made smoother the trade of goods and services. But this also came with an increased attention and stricter monitoring mechanisms from government institutions regarding numerous issues such as corruption and organized crime, which are also interest object for the private sector. Fighting organized crime, corruption and money laundering has become a global priority. As far as specialized literature is concerned, it is true that the phenomenon of corruption gains priority and special interest compared to the study of organized crime where few articles manage to capture. But it's noteworthy that corruption, as a social phenomenon, had direct connections with the organized crime phenomenon over time and most efforts were made in support of it.

Systematic Review Process

The research process uses as a guideline the model proposed by Govindan et al. [6].

1. Available studies analysis on this topic in the literature;

2. Elaboration of a classification framework using different criteria;

3. Literature segregation based on the framework;

4. Review the literature using the classification framework;

5. Review analysis and presentation of suggestions for future research.

2.1. Data sources

To meet the study objective, an electronic search was conducted using the Web of Science platform, having the purpose to find relevant articles regarding the way in which corruption, organized crime and FDI were analyzed in European countries. The sample includes articles published between 2000 and 2022. Web of Science is

considered comprehensive and covers many study fields and disciplines, being one of the most important sources of scientific documentation worldwide. It provides the best publications and citation data for secure discovery, access and evaluation. According to E-nformation, [7] Web of Science is a recognized authority for the evaluation of scientific journals and provides access to abstracts of articles from over 12200 scientific journals and 160000 scientific conferences in 256 disciplines and over 30000 books. It gives users the opportunity to analyze information and perceive different trends and research patterns, which is the main reason why we used this platform.

2.2. Inclusion and exclusion criteria

Determining these criteria helped us to select and evaluate various studies which are relevant to the research in this paper.

1. The region analyzed is Europe because most studies, in their attempt to assess the extent to which corruption and organized crime affect the flow of foreign direct investment (FDI) to countries, have found that it differs across countries and regions. Also, the smaller the analyzed geographical area, the more difficult it is to find and interpret relevant data.

2. The general scientific field in which the research operates is "Economics", and the particular one is "International Business and Economics".

3. The articles have been published in scientific journals.

4. The articles include empirical research, using statistical analysis.

2.3. Literature search strategy

Figure 1 shows the entire selection process of journal articles considered for bibliometric review. At the beginning, we divided the search strategy in two main areas: FDI and corruption, and FDI and organized crime. We thus applied searches series using several keyword combinations. The initial search resulted in 25 articles using the following keywords: Foreign Direct Investment AND Corruption AND European Union. We applied the filter for the document type and selected only the articles, thus reducing the number to 21. The second search resulted in 33 articles using the following keywords: Foreign Direct Investment AND Corruption AND EU. We applied the filter for the document type and selected only the articles, thus reducing the number to 27. The third search resulted in 29 articles using the following keywords: FDI AND Corruption AND EU. We

applied the filter for the document type and selected only the articles, thus reducing the number to 22. The fourth search resulted in 24 articles using the following keywords: FDI AND Corruption AND European Union. We applied the filter for the document type and selected only the articles, thus reducing the number to 17. To further expand the analysis, we decided to use the entire European region. Thus, the fifth search resulted in 44 articles using the following keywords: Foreign Direct Investment AND Corruption AND Europe, reducing the number to 33 articles after we applied the document type filter. Last search returned 35 articles using the following keywords: FDI AND Corruption AND Europe. We applied the filter for the document type and selected only the articles, thus reducing the number to 27 articles. From the final sample, which contained 147 articles, we removed any duplication records, obtaining 56 articles as being relevant for this bibliometric review.
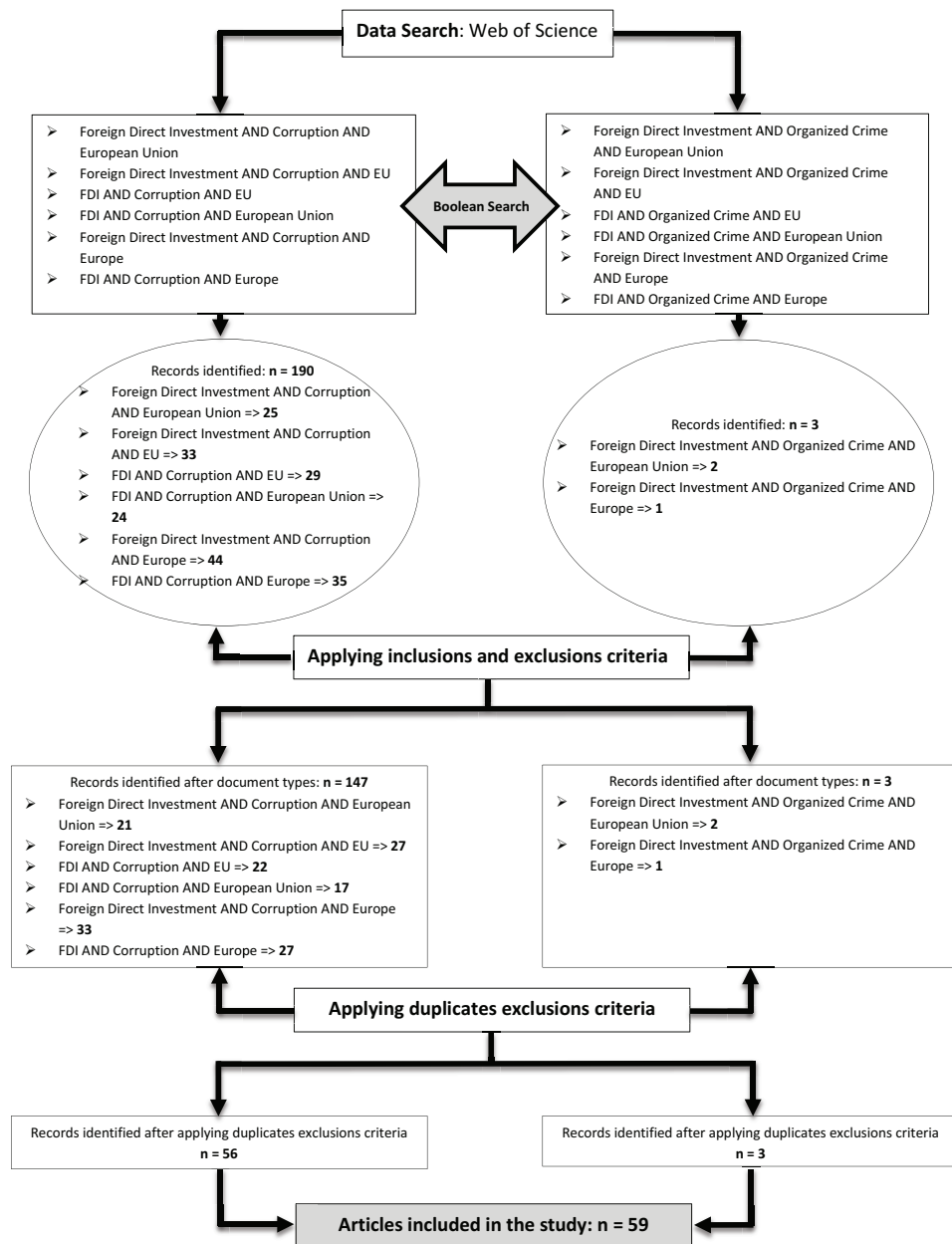
The second search, for FDI and organized crime, was less successful. For the key-words combination Foreign Direct Investment AND Organized Crime AND European Union we found only 2 articles, and for Foreign Direct Investment AND Organized Crime AND Europe we found only one article. We conclude here that this topic has not been researched in much detail with reference to Europe. In addition, from the articles obtained, the only geographical areas of interest were the Italy and Montenegro.

3. Results and discussion

Following the application of the criteria selection, only fifty-nine studies were considered relevant for review. In this section we describe the identified papers chronologically, by the publishing journals, the main scientific areas and the received citations, further accompanied by a variables analysis, measurements and methodologies employed.

3.1. Publications per year

The first criteria that we applied from the beginning phase was that of the analyzed period, considering the eventual limitation deriving from data unavailability. Figure 2 summarizes the volume of articles per year that examined the extent to which corruption, organized crime and FDI have been analyzed in European countries. Thus, the annual distribution of articles shows a slow research movement in the period 2002-2010, followed by fluctuations in the following period. However, many articles are concentrated in 2011, 2015, 2017, 2018 and 2019; in 2021 the trend will follow that of 2011.

Data Search: Web of Science

- Foreign Direct Investment AND Corruption AND European Union
- Foreign Direct Investment AND Corruption AND EU
- FDI AND Corruption AND EU
- FDI AND Corruption AND European Union
- Foreign Direct Investment AND Corruption AND Europe
- FDI AND Corruption AND Europe

Boolean Search

- Foreign Direct Investment AND Organized Crime AND European Union
- Foreign Direct Investment AND Organized Crime AND EU
- FDI AND Organized Crime AND EU
- FDI AND Organized Crime AND European Union
- Foreign Direct Investment AND Organized Crime AND Europe
- FDI AND Organized Crime AND Europe

Records identified: **n = 190**
- Foreign Direct Investment AND Corruption AND European Union => **25**
- Foreign Direct Investment AND Corruption AND EU => **33**
- FDI AND Corruption AND EU => **29**
- FDI AND Corruption AND European Union => **24**
- Foreign Direct Investment AND Corruption AND Europe => **44**
- FDI AND Corruption AND Europe => **35**

Records identified: **n = 3**
- Foreign Direct Investment AND Organized Crime AND European Union => **2**
- Foreign Direct Investment AND Organized Crime AND Europe => **1**

Applying inclusions and exclusions criteria

Records identified after document types: **n = 147**
- Foreign Direct Investment AND Corruption AND European Union => **21**
- Foreign Direct Investment AND Corruption AND EU => **27**
- FDI AND Corruption AND EU => **22**
- FDI AND Corruption AND European Union => **17**
- Foreign Direct Investment AND Corruption AND Europe => **33**
- FDI AND Corruption AND Europe => **27**

Records identified after document types: **n = 3**
- Foreign Direct Investment AND Organized Crime AND European Union => **2**
- Foreign Direct Investment AND Organized Crime AND Europe => **1**

Applying duplicates exclusions criteria

Records identified after applying duplicates exclusions criteria **n = 56**

Records identified after applying duplicates exclusions criteria **n = 3**

Articles included in the study: n = 59

Source: Authors' work

Figure 1: Article Search Scheme.

3.2. Publication by journals

Another important selection criteria includes only papers published in scientific journals. We have thus considered Journal Citation Reports (JCR) for 2021 as a means of identifying the top journals in the academic publishing landscape in the field of economics, as well as for ensuring the quality of the sample. Table 1 includes the top 5 journals in which most of the papers in our sample were published, as well as relevant elements
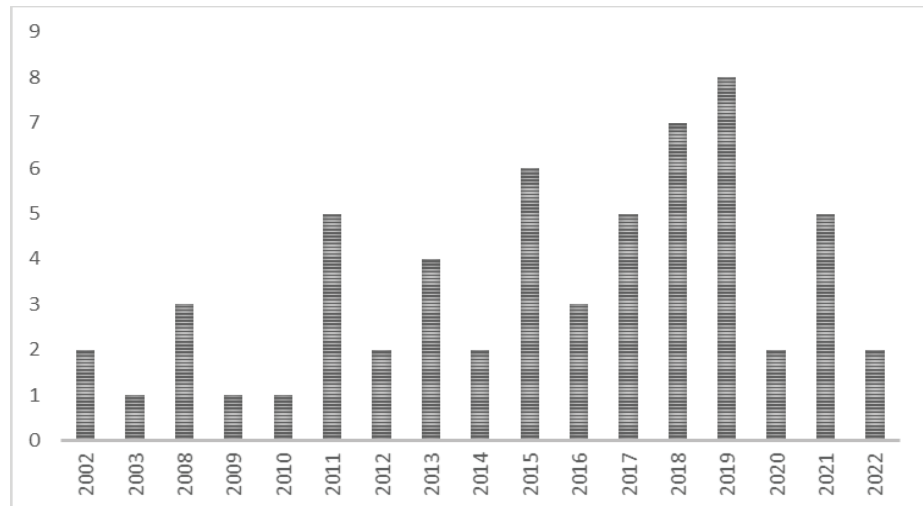
Source: Authors' work

Figure 2: Publications per Year.

such as citation indicators, including the Journal Impact Factor (JIF) and the Journal Citation Indicator (JCI). [8,9]

According to Clarivate, the Journal Impact Factor (JIF) is a journal-level measure, calculated as an average of the number of citations received in a given year compared to the previous two years of a journal's publication, divided by the amount of "citable" publications in the last two years. The Journal Citation Indicator (JCI) is a new field-normalized metric and represents the average impact of the standardized citation by categories (CNCI) of the cited articles (articles and reviews) published by a journal in a recent three-year period. According to Clarivate, the average JCI in a category is 1, therefore journals with a JCI of 1.5 have 50% more impact on citations than the average in that category. The Journal of International Business Studies is the only one of the five journals in Table 1 with a JCI score that exceeds 1.5.

Furthermore, the journals within a category are sorted in turn, in descending order, considering both the impact factor of the journal (JIF) and the journal citation indicator (JCI). Each rank in the table classifies for the year 2021 the five journals according to JIF and JCI on one or more categories, and the quartiles are assigned for each category according to rank.

3.3. Publication by citations

In Table 2 we highlighted the first 10 most cited articles out of the 59 in our sample. It should be mentioned that the article published by Pajunen [10] has the highest number of citations (159), followed by Abid [11] with 106/107.

TABLE 1: Top 5 journals.

Journal	Category	Rank by JIF (2021)	JIF quartile(2021)	Rank by JCI (2021)	JCI quartile(2021)	JIF (2021)	JCI (2021)	Number of papers
International Business Review	Business	35/154	Q1	44/295	Q1	8.047	1.46	3
Ekonomicky Casopis	Economics	359/379	Q4	443/570	Q4	0.544	0.25	3
Journal of International Business Studies	Business Management	14/154 14/226	Q1 Q1	14/295 18/391	Q1 Q1	11.103	2.17	2
Emerging Markets Finance and Trade	Economics Business International Relations	56/379 79/154 7/96	Q1 Q1 Q3	109/570 71/295 40/153	Q1 Q2 Q1	4.859	1.17	2
Applied Economics	Economics	203/379	Q3	253/570	Q2	1.916	0.63	2
International Journal of Finance & Economics	Business-Finance	84/111	Q4	119/221	Q3	1.634	0.56	2

Source: Authors' work

3.4. Subject areas

The specialized literature that has been concerned with analyzing the influence of corruption and organized crime in attracting foreign direct investment in European countries covers various fields of research. Figure 3 shows that 70% of the analyzed papers are concerned with the field of Business and Economics (for example, Sakova & Hansenova, 2002; Du et al., 2008; Bojnec and Ferto, 2017), only 4% were published in journals in areas of Business & Economics Government & Law (Hanousek & Kocenda, 2011; Janickova & Baranova, 2013) and Business & Economics; International Relations (Jimenez, 2011; Doytch & Eren, 2012). The remaining 2% were published in journals in various fields such as: Business & Economics; Public Administration (Krammer, 2015), Development Studies (Barros et al. 2014), Environmental Sciences & Ecology (Abid, 2017) or Social Issues; Sociology (Kersan-Skabic, 2013) [20].

3.5. Countries' importance

Similarly, as the previous criterion, an overview of the geographic areas could be given. This criterion shows the number of the Member states studied in the articles. Only 30% of the papers that referred to corruption and FDI, did research on all 27 member states, while 25% of the papers research were focused on Eastern European Countries.

TABLE 2: Top 10 most cited articles.

Authors	Title	Times Cited, WoS Core	Times Cited, All Databases
Pajunen (2008)	Institutions and inflows of foreign direct investment: a fuzzy-set analysis	159	159
Abid (2017)	Does economic, financial and institutional developments matter for environmental quality? A comparative analysis of EU and MEA countries	106	107
Du et al. (2008) [12]	FDI location choice: Agglomeration vs institutions	52	56
Tintin (2013) [13]	The determinants of foreign direct investment inflows in the Central and Eastern European Countries: The importance of institutions	43	47
Ledyaeva et al. (2015) [14]	Offshore Foreign Direct Investment, Capital Round-Tripping, and Corruption: Empirical Analysis of Russian Regions	32	34
Jimenez (2011) [15]	Political Risk as a Determinant of Southern European FDI in Neighboring Developing Countries	30	30
Brada et al. (2019) [16]	National levels of corruption and foreign direct investment	29	29
Bilan et al. (2019) [17]	Shadow Economy and its Impact on Demand at the Investment Market of the Country	25	25
Doytch & Eren (2012) [18]	Institutional Determinants of Sectoral FDI in Eastern European and Central Asian Countries: The Role of Investment Climate and Democracy	22	24
Lee et al. (2015) [19]	The impact of home country institutions on new venture export: examining new ventures in transition economies	20	20

Source: Authors' work

6.25% of the papers that referred to organized crime and FDI were analyzing only Italian regions. (see, for example, Daniele and Marani, 2008) [21].

3.6. Variables studied

We have also analyzed the variables used to study the subject area in the sample papers. A common feature of most of the papers is their focus on FDI inflows as the main dependent variable. Considering the important role of FDI inflows in the economic and social development of host countries, most of the papers identify some macroeconomic determinants of FDI inflows into these economies. The description of common characteristics of these states will help them in designing the best FDI strategies to attract more foreign capital (Su, W. at all 2018) [22].
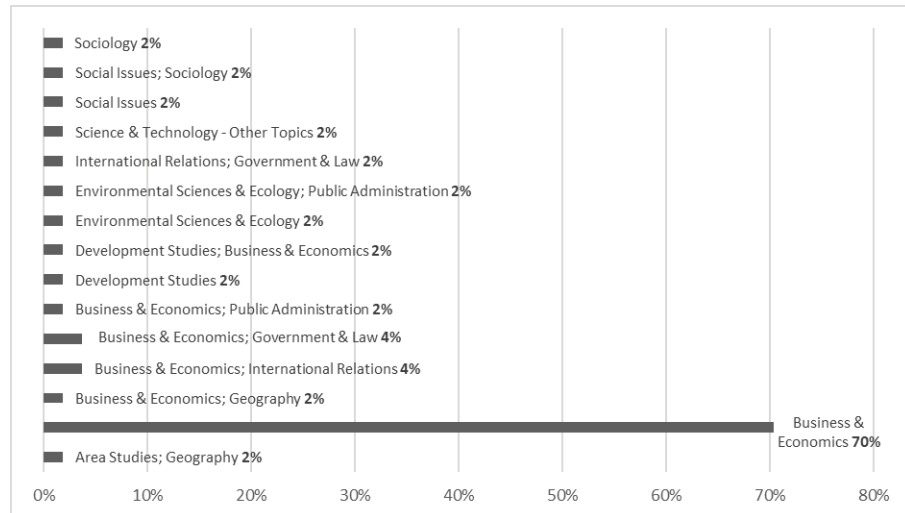
Source: Authors' work

Figure 3: Articles by research areas.

Another measure that prevails in corruption and FDI research is the *level of corruption*, typically through a corruption perception index. The UNDP Global Anti-corruption initiative (GAIN), in its User's Guide to Measuring Corruption and Anti-corruption published in 2015 mentioned that *"The fact that corruption takes various forms – ranging from embezzlement, fraud, nepotism, bribery, extortion and money laundering – makes it impossible to capture corrupt practices in a single indicator....Assessing the effectiveness or impact of anti-corruption initiatives is hard "due to the non-linear and complex environment that enables corruption."* [23]. Therefore, the main indicator used in 99% of the research papers is Transparency International Corruption Perception Index, as being the most reliable source of data as an index that scores countries on the perceived levels of government corruption by country. As the corruption perceptions index increases, foreign direct investment is expected to decrease [24] Only one paper was determining the level of corruption using Freedom House's Nations in Transit rating, acknowledging limitations of Transparency International Corruption Perception index (i.e., subjective measurement from expert groups and slow changes over time), therefore seeking to conduct a robustness check with a different measure of corruption [25].

Other variables used are GDP per capita, employment/unemployment rate and economic growth as being indicators that foreign direct investors are interested when asses the host market potential. The data source for this independent variable are mainly from World Bank in 50% of the researched papers as per Desli, [26]. Additionally, 22% of the papers are using data from Eurostat and 15% from UNCTAD [27].

3.7. Measuring organized crime

It is not easy to quantify the territorial spread of organized crime. Organized crime is an extended phenomenon, and it represents a threat for any society that passes through a transition process. Data are often lacking, and, for certain crimes, the number of complaints tends to under-report the effective dimension of the phenomenon. This wide area of activities included in organized crime offers a good understanding of the diversity and complexity of behaviors that foreign investors need to consider when deciding to invest abroad.

Notwithstanding these limitations, in the studied papers the models employed were based on official data in order to estimate the incidence of different crimes. It should be made clear that not all offences are typical of organized crime: some, such as theft, corruption or sexual violence are not, generally, typical of criminal organizations, above all the mafia. For these reasons, and based on studies on the subject, researchers constructed an index of organized crime based only on certain crimes: extortion, bomb attacks, arson and criminal associations as seen at Daniele and Marani (2011).

3.8. Methodologies used

In the 59 scientific articles included in the literature review there were different approaches and methodological investigations. It is important to mention is that we could not identify any qualitative analysis used, but only quantitative methods.

Therefore, 54% of the researched papers used panel data as a methodology for analyzing the data (i.e. Tsanana E. et al., 2016), while the remaining used time-series analysis (Epperly, B. & Lee, T. 2015), cross-sectional analysis and Bayesian models [28].

In addition, these empirical studies have employed a variety of tests such as the Spearman and Shapiro-Wilk test as in the Bilan et al. (2019), the Granger causality tests as in the paper of Lau et al. [29], or tests to identify the potential existence of cross-sectional dependence.

4. CONCLUSION

This paper presented a systematic review of the literature that has focused on analyzing the influence of corruption and organized crime in attracting foreign direct investment using quantitative methods, focusing on empirical studies conducted in the Europe since 2000. There have been hundreds of papers published in this area, many of them

in the past decade, however European countries were less represented. A possible explanation is that the region is overall perceived as displaying lower levels of corruption that worry foreign direct investors compared to Latin American or African countries, better represented in the literature.

The extent to which corruption and organized crime in attracting foreign direct investment have been studied using quantitative methods for EU members states was initially examined. The analysis concerned the number of articles per year of publication and the scientific journal in which they were published, the subject areas and the citations per article. Subsequently, research was carried out about the type of methodology used, the regions included and what kind of indicators were used. Research papers in the context of corruption and foreign direct investment exist, while corresponding studies based on organized crime and its impact on foreign direct investments are very few, the main identified cause being the lack of data sources. Another interesting finding is that scholars have predominantly preferred quantitative analyses of the link between corruption and organized crime and FDI.

Therefore, it could be a suggestion for academics to deepen the research on European countries, making use of qualitative methods – surveys, interviews - to understand the differences between EU and non- EU countries, former communist countries, Central Europe vs Eastern Europe.

Also working towards the development of databases on organized crime indicators to facilitate a good understanding of complexity of the phenomenon that foreign investors may be wary about would be another recommendation.

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