

CORRUPTION AND ORGANIZED CRIME, FDI AND COUNTRIES PERFORMANCE IN THE BUSINESS SECTOR: A RESEARCH REVIEW

Mihai CAZACU¹, Dumitru TROANCĂ², Ilinca Andrada MĂRGĂRITA³, Lucia FRĂTICIU⁴

¹Bucharest University of Economic Studies, 0009-0002-2203-3308

²Lucian Blaga University of Sibiu, 0000-0002-8709-2096

³Lucian Blaga University of Sibiu, 0009-0007-2065-5310

⁴Lucian Blaga University of Sibiu, 0009-0000-7359-2172

Abstract: The goal of this research is to provide insight into the broad topic of corruption and organized crime as defined by FDI ratings and scores, as well as its impact on the global performance of enterprises, with an emphasis on the business sector. In order to provide important insights on the development of scientific papers on this topic, this study includes a thorough examination of the body of current literature as well as a bibliometric analysis. The current study shows the results of a thorough examination of relevant literature using the QDA Miner qualitative analysis tool and the Scopus database. The work shows that there are limitations in respect of scientific literature on corruption and organized crime in correlation with FDI. At the same time, there is a complex and nuanced relationship between economic growth, corruption, and FDI absorption, which is well reflected in the existing academic literature.

Keywords: corruption; organized crime; FDI; institutions; corporate performance

JEL classification: F21, D73, H11, K20

1. Introduction

Organized crime and corruption is one of the main challenges to the rule of law, life chances, and people's livelihoods in Central and Eastern Europe. It is both a cause and consequence of a criminal culture that permeates the region, and the way that corruption is linked to politics suggests a degree of organized corruption and criminality. In the above-mentioned region there is little research on corruption and organized crime, and there is near silence within academia on the subject. Despite the abundance of books and publications on the subject, there will never be enough research done to fully address all of the questions pertaining to corruption in emerging countries in the EU.

According to research completed over the previous two decades, the majority of studies conducted have focused on corruption, and both academic and business research studies have specifically explored corruption. This makes corruption one of the most contentious topics of the day. In recent decades, corruption has been one of the most contentious and discussed topics in both industry and academia. In a 2011 paper, "World Speak," the authors argued that the examination of corrupt practices is just as vital as addressing other pressing problems including unemployment, poverty, homelessness, and health challenges. An estimated 3% of the global GDP is spent on handouts, according to a 2013 World Bank analysis.

Our paper adds to the body of knowledge by providing a comprehensive bibliometric analysis using the Scopus database, which enhances our understanding of the relationship between FDI and

¹ cazacu.mihai@gmail.com* - corresponding author

² dumitru.troanca@ulbsibiu.ro

³ ilinca.margarita@yahoo.com

⁴ lucia.fraticiu@ulbsibiu.ro



economic performance in scientific studies. Additionally, we summarize the key papers that discuss organized crime and corruption and their impact on foreign direct investment.

The research paper is divided into four sections. Firstly, we present a summary of the most pertinent research publications from the Scopus database, highlighting the key similarities and contrasts that are pertinent to the conclusions drawn from the empirical literature. Second, in order to obtain evolution and statistics on empirical work pertaining to organized crime and corruption and their impact on foreign direct investment, we extracted bibliographical data from Scopus using particular keywords. Thirdly, we offer a comprehensive examination of the most pertinent literature study concerning the correlation between the primary codes that are identified as keywords that characterize the research setting. Our primary findings are reported in the conclusions section.

2. Literature review

As mentioned before, there are limited resources on the correlation between corruption and organized crime and the impact on economic growth and Foreign Direct Investments, focusing on Central and Eastern Europe. Nevertheless, Zeneli (2016) focuses on how corruption affects foreign direct investment (FDI) in the Western Balkans, emphasizing how it has a negative influence on economic growth and income levels, recommending using global marketing techniques to improve technology, and combat corruption. Ziberi and Alili (2021) explore the relationship between macroeconomic indicators and economic growth in Western Balkans countries from 2010 to 2019. They note a nonlinear association between foreign direct investments and growth, advocating for better utilization of FDI and improved corruption control measures. Fetai et al. (2017) examine the variables affecting the Western Balkans' economic growth between 1994 and 2015: while unemployment and corruption have a negative impact on growth, education has no discernible impact on it and that foreign direct investments, gross savings, and domestic credit have a favorable impact. Pook (2008) investigates how corruption has affected the growth of the information and communications infrastructures in Romania and Bulgaria, especially considering those countries' recent EU membership. The study suggests that corruption impedes the development of national information infrastructures and may have an impact on a nation's ability to draw in foreign direct investment. The author also addressed the issue of the communication infrastructure in Romania in 2004, pointing to the importance of the field for the EU integration. Mazaraki et al. (2023) examine how corruption affects Ukraine's economic security, pointing out several issues it raises. These include lesser investment, slower economic growth, lower spending on healthcare and education, and lower foreign direct investment. Zyberi, Muço, Rova (2015) investigate Albanian economic policies on FDI during 1990-2009, emphasizing the importance of FDI for economic growth and indicate that monetary and fiscal policies play key roles in attracting FDI, but no significant relationship is observed between FDI and corruption.

Other reference points can be found in literature regarding the link between corruption and FDI absorption in Asian countries, such as Fatmawati et al. (2018), treating the impact of FDI in developed and less developed countries and Antoni et al. (2019) who investigate the relationship between corruption and economic growth in Indonesia from 2000 to 2018. Zhanatauova, Baimagambetova, Nurmaganbetova, Belgibayeva, Kudaibergenov (2018) emphasize the mutually beneficial relationship between FDI and developing countries, providing insights into the economic growth of Kazakhstan. Spechler (2011) suggests expanding the state sector and public infrastructure as an alternative approach to foster economic growth and attract capital for Azerbaijan and Central Asian countries.

From a macro perspective, economic growth is debated by Alzeban (2020), who highlights the importance of internal audit in promoting economic growth and suggests policy implications for improving corporate governance and Edison H.J., Levine R., Ricci L., Sløk T. (2002) find no evidence to reject the null hypothesis that international financial integration does not accelerate economic growth, even when controlling for economic, financial, institutional, and policy characteristics. Moosa (2019) indicates sensitivity of results to various factors and the potential for research selection bias, using examples from determinants of economic growth, gender on risk aversion, capital structure, J-curve effect, corruption on FDI, and the Kuznets curve.



Narrowing the issue, at the European level, Beca M.P. and Barabaş C.S. (2016) find that income inequality has a positive and statistically significant impact on economic growth in former communist Central and Eastern European countries and Ziberi and Alili (2021) suggest that policy reforms targeting sectors with declining FDI and remittances, along with better control of corruption, are essential for fostering economic growth in the Western Balkans. Minassian (2002) reviews the economic environment of selected Balkan economies, highlighting Greece's leadership in GDP per capita and foreign direct investment (FDI) attraction as an EU member, and tresses the role of economic institutions and the negative impact of corruption on FDI attraction and economic growth. Economou, Hassapis (2015) examines FDI determinants in distressed South European economies from 1995 to 2013 and identifies market size, exports, imports, labor cost, and corruption perceptions as significant factors affecting FDI inflows, highlighting the impact of the Eurozone crisis. Tsimpida C., Bitzenis A. (2023) find a positive long-run relationship between FDI and growth for both original and new EU members, but in countries characterized by high levels of corruption, corruption seems to hinder the positive effects of both FDI and other determinants of economic growth. A largely discussed topic is the presence of the oil sector in some countries, and its impact on FID flow. Bozkurt Ö.G., Erdem C., Eroglu I. (2015) find that economic growth is positively affected by various factors such as the amount of oil exported, export value index, financial openness index, public expenditures on education, foreign direct investment (FDI), expenditures on research and development (R&D), corruption perception index, economic freedom index, and external debt, depending on the presence or absence of R&D data. Brock G. (2005) analyzes regional economic growth of Russia from 1995 to 2000, with a focus on the role of foreign direct investment, finding it as essential in driving economic growth before the 1998 crisis and Runiewicz (2005) highlights the contribution of the expansion of Russian direct investments in the oil sector in Poland to sustainable economic development through the implementation of environmentally friendly production technologies, but notes negative perceptions due to corruption and political involvement in the expansion of Russian investments in strategic assets.

On a broader sense, corruption is a highly analyzed topic in the academic literature, as Habib and Zurawicki (2002) discuss the conceptual and methodological issues associated with studying corruption in the context of international business and Smith et al. (2013) analyze the relationship between corruption and economic activity in selected countries. According to Detotto C. and Otranto E. (2010), criminal activity constitutes a tax on the economy since it deters both international and local investment, lowers a firm's competitiveness, and causes inefficient resource reallocation, and Gani (2017) identifies economic development, country size, natural resource exports, foreign direct investment, absence of democracy, and colonial legacy as significant factors influencing corruption levels in developing economies. Abotsi (2018) highlight the importance of robust policies, accountable institutions, corruption control, and enhanced regulatory quality in addressing this issue and Tiutiunyk, Cieśliński, Zolkover, and Vasa (2022) investigate the relationship between the shadow economy and investment market development indicators. Regarding the endorsement of corruption by foreign investment entities, Webster and Piesse (2018) find no significant difference in bribery propensity between foreign-owned and domestic firms, suggesting that foreign-owned firms adapt to local norms. Following on local norms, Valdovinos-Hernandez et al. (2019) suggest that certain religions may attenuate or exacerbate corruption practices, based on an analysis of individual surveys and Corruption Perception Index data.

Many studies investigate the relationship between foreign direct investment (FDI), corruption, and economic growth, such as Delgado et al. (2014), finding that corruption weakens the effectiveness of FDI in promoting growth in developing countries., Okada and Samreth (2014), indicating that FDI has a positive impact on growth in the presence of severe corruption, but a negative impact when corruption is below a certain threshold, Gründler and Potrafke (2019) showing that corruption significantly decreases economic growth, especially in autocracies, by reducing FDI and increasing inflation, Delgado, McCloud, and Kumbhakar (2014), suggesting that reducing corruption can substantially benefit countries with insignificant or low returns to FDI and Egger and Winner (2006) find a negative impact of corruption on FDI, indicating that the negative effects of corruption outweigh any potential benefits. Kolstad and Villanger (2004) indicate that law and order promote investment in



both secondary and tertiary sectors, while internal conflict deters investment in the secondary sector. Corruption increases FDI flows in the tertiary sector, particularly in the trade industry. Al-Faryan (2022) finds that corruption negatively affects prosperity and development, with the world's wealthiest nations experiencing increased corruption levels while Padmanabhan et al. (2020) suggest that corruption-prone countries should improve corruption, financial depth, and domestic gross capital simultaneously to attract FDI. Many articles debate the issue of the impact of FDI flow in developed or developing countries, focusing on different levels of corruption. Okada K. and Samreth S. (2014) indicate that FDI alone does not promote economic growth, but when considering the interaction between FDI and corruption, it has a significant impact. FDI positively affects economic growth in countries with severe corruption but negatively affects growth in countries with lower corruption levels. Reiter and Steensma (2010) find that FDI inflows positively impact human development when FDI policy restricts foreign investors and corruption levels are low. Kolstad and Villanger (2004) analyse how social development affects both foreign direct investment and domestic investment, showing that reducing corruption leads to increased domestic investment, while improvements in political rights and civil liberties tend to increase FDI, political freedom has a negative effect on domestic investment and religious tensions deter FDI but have no impact on domestic investment. Khamfula (2007) and Freckleton et al. (2012) find that corruption negatively influences FDI and economic growth in both types of countries but has a greater magnitude in economically less developed countries. Kholdy and Sohrabian (2008) did not find evidence that FDI reduces political corruption, highlighting the need for further research on the influence of FDI on political and economic traditions.

The environmental sector is also debated in various articles. Chang (2015) suggests that in high-corruption countries, FDI and improved environmental quality are conflicting objectives, while in low-corruption countries, they are compatible and higher trade liberalization in low-corruption countries may lead to negative environmental consequences due to increased economic activity while Liu and Dong (2021) point that foreign direct investment influences the sensitivity of pollution to government corruption levels.

The importance of institutional quality and aligning the political needs and wants with the potential benefits of countries is another relevant topic for the issue, that was broadly analysed by various academic articles. Sabir, Rafique, Abbas (2019) find that institutional quality positively affects FDI across all countries, with a stronger influence observed in developed nations, while Budiono and Survanto (2018) find that corruption impedes economic growth while FDI boosts it, particularly in the presence of weak political and economic institutions. Other papers that link economic growth, institutional quality, FDI absorbance, corruption, and the alignment of political with national needs are Teixeira and Guimarães (2015), Qureshi et al. (2021), Budiono G.L. and Survanto T. (2018), Chengying, Wang, Shah, Chang, Zhou (2023) and Leitão, Capucho (2021). Raza, Shah, and Arif (2021) examine the relationship between FDI, economic growth, and good governance in OECD countries, while Tun, Azman-Saini, and Law (2012) investigate the link between foreign direct investment (FDI) and institutional quality across 77 countries from 1981 to 2005. Farug, Webb, Yi (2016) indicate that weak property rights and bureaucratic quality hinder the development of an effective supply chain and suggests that the impact of corruption on local supplier quality may vary based on whether corruption is centralized or decentralized. Martins et al. (2023) find that e-government serves as a deterrent to corrupt activities, particularly in countries with moderate to high corruption levels and lower economic development. On the non-governmental sector, Epperly and Lee (2015) find a strong negative association between corruption and NGO sustainability, suggesting that corruption undermines the legal environment and fiscal viability of the NGO sector.

Regarding the role of institutions in the EU sphere, Tsanana, Chapsa, and Katrakilidis (2016) find that corruption and bureaucracy affect growth differently across old and new EU members, highlighting the importance of institutional factors in economic development, Rădulescu, Bănică, Druică (2016) indicate that in Romania, high-skilled labor attracts FDI, while poor infrastructure and political instability deter it, while in Bulgaria, lax laws and weak governance attract investors seeking cheap labor, but corruption remains a concern, Gherghina, Simionescu, and Hudea (2019) suggest that FDI and



institutional quality play significant roles in promoting sustainable economic growth in the region. Katsaitis and Doulos (2009) indicate that the effectiveness of Structural Funds on FDI inflows depends on the quality of institutions in receiving countries, as countries with high-quality institutions, Structural Funds have a positive impact on FDI, while in countries with poor institutional quality, the impact is negative due to potential misallocation of resources caused by corruption and rent-seeking behavior. Burlea-Schiopoiu, Brostescu, Popescu (2023) identify similarities and differences in factors influencing FDI inflows across countries, emphasizing the importance of GDP, corruption perception index, and tax policies. Snider (2005) hypothesizes that smaller winning coalitions increase political risk by necessitating the distribution of private goods to maintain loyalty, reducing foreign direct investment per capita. Neshkova and Kostadinova (2012) examines the impact of civil service reform on government transparency and foreign direct investment, while Avdulaj, Merko, Muço (2021) indicate that government efficiency and rule of law in Eastern European Transition Countries positively affect GDP per capita growth and FDI flow while control of corruption has a negative impact.

To sum up, the review of the literature has highlighted the complicated relationship of organized crime, corruption, foreign direct investment (FDI), and economic growth in both developed and developing nations. Research indicates that organized crime and corruption may serve as major barriers to foreign direct investment (FDI), impeding opportunities for economic growth and development. FDI inflows, on the other hand, can lessen organized crime's hold on host nations and reduce corruption by encouraging accountability and openness. But the relationship between foreign direct investment (FDI) and economic growth is still context-specific, depending on several variables such as institutional quality, governance frameworks, and level of development. Strong legal systems and efficient law enforcement agencies frequently lessen the negative consequences of organized crime and corruption on foreign direct investment and economic expansion in industrialized nations. On the other hand, because of their inadequate governance and poorer institutional capacities, developing nations have more difficulty resolving these problems. However, focused policy initiatives that reinforce legal frameworks, increase institutional capacity, and promote transparency can all work together to combat organized crime and corruption, draw in foreign direct investment, and promote economic growth. Considering Central and Eastern Europe, where socio-economic environments have been moulded by transition processes, the connection between organized crime, FDI, economic growth, and corruption assumes particular importance. While these areas have made significant progress toward becoming marketoriented economies rather than centrally controlled ones, persistent corruption and organized crime continue to be major obstacles. To further the region's integration into the global economy, maintain economic growth, and promote prosperity for its people, it is imperative that these concerns be addressed.

3. Research methodology

The search for literature was performed in the Scopus database for the 2002-2023 period, using the following research strategy: (TITLE-ABS-KEY ("foreign direct investment" OR "FDI") AND TITLE-ABS-KEY (corruption OR corrupt OR "organized crime" OR "organised crime" OR "crime" OR "shadow economy" OR "underground economy") AND TITLE-ABS-KEY ("economic growth" OR "economic development" OR "economic advancement")) AND PUBYEAR > 1999 AND PUBYEAR < 2024 AND (LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "BUSI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (LANGUAGE , "English")) AND (EXCLUDE (EXACTKEYWORD , "China") OR EXCLUDE (EXACTKEYWORD , "Africa") OR EXCLUDE (EXACTKEYWORD , "India") OR EXCLUDE (EXACTKEYWORD , "South Africa") OR EXCLUDE (EXACTKEYWORD , "BRICS") OR EXCLUDE (EXACTKEYWORD , "Brazil") OR EXCLUDE (EXACTKEYWORD , "Vietnam") OR EXCLUDE (EXACTKEYWORD , "Brazil") OR EXCLUDE (EXACTKEYWORD , "Asia, LAC") OR EXCLUDE (EXACTKEYWORD , "ECOWAS") OR EXCLUDE (EXACTKEYWORD , "Asia, LAC") OR EXCLUDE (EXACTKEYWORD , "Asia") OR EXCLUDE (EXACTKEYWORD , "Asia, LAC") OR EXCLUDE (EXACTKEYWORD , "Asia") OR EXCLUDE (EXACTKEYWORD , "Asia, LAC") OR EXCLUDE (EXACTKEYWORD , "EXCLUDE (EXACTKEYWORD , "Asia, LAC") OR EXCLUDE (EXACTKEYWORD , "Asia") OR EXCLUDE (EXACTKEYWORD , "Armenia") OR EXCLUDE (EXAC



EXACTKEYWORD, "African Nations") OR EXCLUDE (EXACTKEYWORD, "African Economy") OR EXCLUDE (EXACTKEYWORD, "African Economies") OR EXCLUDE (EXACTKEYWORD, "AFrican Countries") OR EXCLUDE (EXACTKEYWORD, "ASEAN-3") OR EXCLUDE (EXACTKEYWORD, "APEC Country") OR EXCLUDE (EXACTKEYWORD, "APEC Country") OR EXCLUDE (EXACTKEYWORD, "APEC Countries")). This strategy allowed us to identify the most relevant works for our topic while excluding those that only marginally addressed the domain under scrutiny.

The search returned 127 papers in journals indexed in the Scopus database. The abstracts of these papers were further downloaded and analysed using the QDA Miner 6.0 software. By integrating visual aids such as proximity plot graphs, word frequency analysis, and co-occurrence analysis, we extract significant data from the papers obtained from the Scopus database. Through the exploration of a complex structure of semantic settings and conceptual relations, we intend to explain the logical connections that bind corruption, economic growth, and FDI absorption, aiding in the development of academic knowledge and assisting well-informed governance.

This approach that relies on analysing abstracts of relevant papers by coding them around keywords using QDA Miner and revealing clusters of keywords and proximity features is an innovative way of conducting a literature review. This method offers several originality features that differentiate it from traditional literature review methods such as bibliometric analysis or systematic reviews. The most important originality features of this approach are, in our opinion, the following: (i) By coding abstracts around keywords and analysing their co-occurrence and proximity, underlying patterns and themes that may not be apparent through bibliometric analysis or manual coding can be revealed; (ii) Instead of relying solely on citation counts or bibliometric indicators, we focus on the content of the abstracts and the keywords used by authors, which allows for a more nuanced understanding of the research landscape and the relationships between different concepts and themes; (iii) The identification of keyword clusters and their proximity features provides a unique perspective on the interconnectedness of different research topics and concepts, which can reveal emerging research areas, interdisciplinary connections, or gaps in the literature that may not be evident through traditional review methods; (iv) By using QDA Miner, we benefit from automation and scalability, which supports the analysis of a larger corpus of literature more efficiently, potentially revealing patterns and insights that may be overlooked in manual reviews or smaller-scale analyses. Until now, only a few scholarly papers have employed similar techniques or have used text mining and qualitative data analysis in literature reviews: Nunez-Mir et al. (2016) used text mining and natural language processing techniques to analyse a large corpus of ecological literature, demonstrating the potential of these methods in literature reviews, while Syed and Spruit (2018) used latent dirichlet allocation (LDA) to analyse full-text articles and abstracts, exploring the coherence of topics identified through text mining.

Using the keywords provided by the authors of the collected papers we have constructed several conceptual categories that were further applied to the abstracts. Each category contains several codes that accommodate unigrams or bigrams relevant to the specific code. Table 1 presents the categories and codes.



Table 1: Categories and codes

Category Codes	
Foreign Direct Investments	FDI
	Investment
	Attractiveness
	FDI determinants
	Remittances
	Globalization
	Economic growth
Economic growth and development	Economic development
	Economic development Economic security
	Environment and sustainability Wealth
	Social development
	Human development
	Knowledge economy
	Employment
	Consumption
Extent of Corruption	Corruption
	Bribe
	Fraud
Quality of Institutions	Institutional quality
	Bureaucracy
	Institutions
	Governance
	Rule of law
Business and competitiveness	Competitive
	Competitiveness
	GDP
	GDP growth
	Gross Domestic Product
	Private goods
	Market
	Capital
	Innovation
	Infrastructure
Multinational Corporations	MNC
	Corporations
	International Business
	Supply Chain
Policies	Financial development
	Monetary policies
	Education
	Fiscal policies
Criminality	Crime
	Theft
	Tax evasion
	Tax evasion



Source: Authors' work

4. Results

In a society impacted by increasing globalization, the association between corruption, economic growth, and the influx of Foreign Direct Investment constitutes an important topic in the context of worldwide financial and business development. The severe threat of corruption might compete against the appealing prospect of FDIs as an economic growth and development accelerator, as corruption compromises institutional integrity and reduces investor confidence. Under these circumstances, it becomes essential to understand the complex link between corruption, economic growth, and FDI absorption. Based on the principles derived from both empirical research and robust theoretical evaluation, this graphical analysis is an essential instrument for interpreting the complex interplay between corruption, FDI absorption, and economic growth, through the examination of the main themes, recurring patterns, and concept clusters.

The scope of this research encompasses 127 scholarly articles published between 2002 and 2023 as seen in Figure 1. An analysis of the publication data reveals an emerging trend, wherein the topic of corruption and its economic ramifications has garnered increasing research interest over the past five years, as evidenced by the rising number of relevant articles indexed in the Scopus database during this period. This observation suggests that the intersections between corruption and economic factors represent an evolving area of academic inquiry that has gained prominence in recent years.

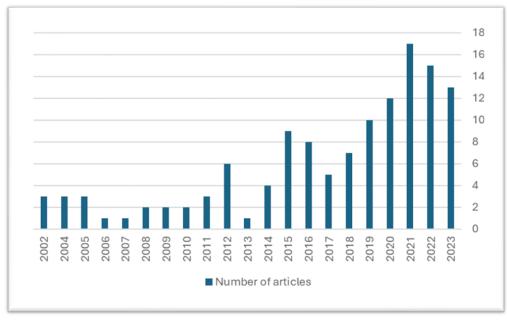


Figure 1: Evolution of research over time

Source: Authors' work in Scopus

The identified corpus of papers exhibits disciplinary diversity, with the majority (37%) originating from the domain of Economics, Econometrics, and Finance, though not limited to this field. An in-depth analysis reveals that the topic of corruption and its economic impact has been explored across various domains, including Environmental Science, Arts and Humanities, and Computer Science – see Figure 2. This multidisciplinary representation underscores the broad relevance and implications of the research topic, transcending the boundaries of a single academic discipline.

An analysis of the authors' countries of affiliation reveals that the United States of America appears to be the most prolific nation in researching the topic of corruption and its impact on foreign direct investment (FDI). However, the issue has also garnered significant scholarly attention in several Asian countries, including Malaysia, China, Indonesia, and Pakistan. These findings, as presented in Figure 3, suggest a widespread and transcontinental interest in understanding the intricate relationships

between corruption, FDI inflows, and economic factors. Notably, Romanian authors feature prominently among those investigating this subject matter. This observation could potentially be attributed to the anti-corruption measures implemented by the Romanian government over the past decade, which may have stimulated domestic research efforts to evaluate the effectiveness and consequences of such initiatives. The presence of Romanian scholars in this domain of inquiry highlights the relevance of country-specific contexts and policy environments in shaping academic discourse on corruption and its economic implications.

Arts and Computer Decision carm and nvironmental Humanities_Science Sciences Planetary Science 2% Sciences 3% 3% Engineering 0% Energy Economics, Econometrics an Finance 37% locial Sciences Business, Management and Accounting 25%

Figure 2: Distribution of research across scientific domains

Source: Authors' work in Scopus

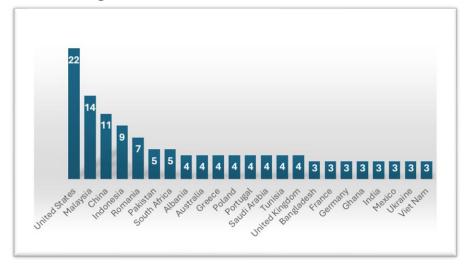


Figure 3: Distribution of research over countries

Source: Authors' work in Scopus

The qualitative data analysis using QDA Miner software provides a comprehensive overview of the prevalent terms employed across the analysed corpus of articles, as depicted in Figure 4. This analysis enables the identification of primary themes and subject matters addressed in the literature concerning the influence of corruption on foreign direct investment (FDI) absorption and economic growth.



Unsurprisingly, the term "corruption" emerges as the most frequently used word, which is consistent with its central role in discourses surrounding economic environments and investment climates. The results indicate that corruption is a critical concern that significantly influences FDI inflows and economic growth. Furthermore, the high frequency of terms such as "economic growth," "FDI," and "economic development" suggests that a substantial portion of the research articles examined the impact of corruption on these aforementioned concepts. This observation highlights the strong interconnectivity between corruption, FDI absorption, and economic growth as prominent area of inquiry within the analysed literature.

FINANCIAL INTERNATIONAL INSTITUTIONAL INSTITUTIONAL INDEX POLICIES
INSTITUTIONAL INDEX GOVERNMENT
DEVELOPED VOILD MAY RELATIONSHIP
INSTITUTIONAL INDEX FOR EIGHN INPACT
INFORMANT
INFOR

Figure 4: Cloud of most frequently used words

Source: Authors' work in QDA Miner

The analysis indicates a strong association between the term "corruption" and terminology affiliated with the economic domain, explicitly connecting the prevalence of corruption to its ramifications on foreign direct investment (FDI) absorption. This finding suggests that a considerable portion of the examined literature explores the intricate relationship between corruption and FDI inflows, positioning corruption as a critical factor influencing the attraction and retention of foreign investments within an economy – see Figure 5.

Conversely, the relatively lower frequency of words such as "study," "analysis," and "research" may signify a potential emphasis on the methodological approaches employed within the studied articles. This observation could be interpreted as a reflection of the analytical rigor and empirical foundations that characterize the body of literature, wherein authors place substantial emphasis on the robustness of their analytical frameworks and research methodologies in examining the nexus between corruption, FDI, and other economic variables. The lower prevalence of these terms could potentially indicate a focus on the analytical process and techniques employed to elucidate the relationships between the primary concepts under investigation.

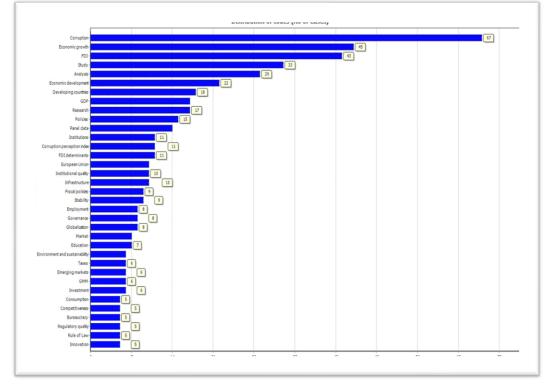


Figure 5: Associations of "corruption"

Source: Authors' work in QDA Miner

The proximity plot analysis investigates the frequency of co-occurrence or near closeness of specific terms in the text corpus with the terms "Corruption" and "FDI" (Foreign Direct Investment). This analysis can offer valuable insights into the contextual links between these terms and other pertinent ideas.

Several significant findings can be derived from the proximity map depicted in Figure 6.

The term "Economic growth" gets a greater proximity score, meaning it appears more frequently in close vicinity, with "Corruption" compared to "FDI". This implies that conversations on corruption have a stronger relation with economic growth compared to debates around foreign direct investment (FDI).

Furthermore, it is observed that terms such as "study", "analysis", and "economic development" are more likely to appear in close proximity to the term "Corruption" rather than "FDI". Therefore, it can be inferred that the text corpus has a greater amount of study and analysis on corruption compared to research that particularly concentrates on FDI.

On the other hand, the word "Developing countries" is more closely related or has a higher correlation with "FDI" than with "Corruption". This suggests that conversations about Foreign Direct Investment (FDI) tend to focus primarily on developing nations, whereas debates about corruption may encompass a wider range of topics.

The closeness scores are indicated by the lengths of the blue ("Corruption") and red ("FDI") bars in the graph. Bars of greater length indicate a greater frequency of co-occurrence or closer closeness between the relevant phrase and the primary terms of concern ("Corruption" and "FDI").

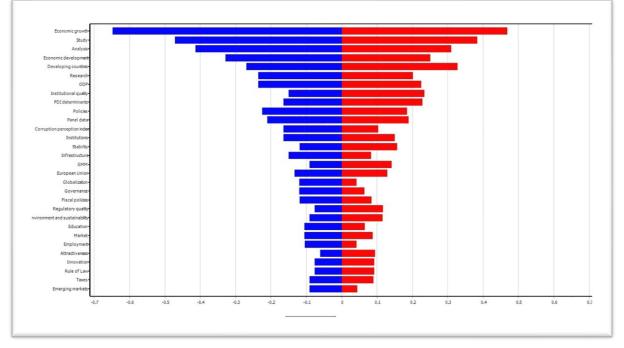


Figure 6: Proximity analysis for "corruption" and "FDI"

Source: Authors' work in QDA Miner

The conducted co-occurrence cluster analysis undoubtedly focused on text data pertaining to corruption, economic growth, and foreign direct investment (FDI). The analysis presents a visual representation of how codes or phrases are grouped into clusters based on their patterns of appearing together in the text.

The explanation mainly concerns the interpretation of the distinct clusters identified in Figure 7, which is a visual depiction of the outcomes of the cluster analysis.

The main arguments presented regarding the clusters are:

Purple Cluster: - The purple cluster is quite noticeable in the co-occurrence graph (Figure 7). The prominent terms in this cluster include "corruption," "economic growth," and "FDI." The terms mentioned encompass the central thematic domain of the study, centering on the potential impact of corruption on economic growth, foreign direct investment, economic development, emerging countries, and their institutions and rule of law.

Green Cluster: - The presence of terms such as "GDP," "Market," "employment," "globalization," "competitiveness," and "corruption perception index" indicates a topic that revolves around the economic success and well-being of European Union (EU) member states.

Smaller Clusters: - A smaller cluster comprises terms such as "E-participation," "Economic Security," and "Crime," suggesting a correlation between the occurrence of crime and worries regarding economic security.

The inclusion of "E-participation," however uncommon, may indicate that the growing utilization of electronic means for citizen involvement could hinder the influence of specific forms of economic misconduct on a nation's economic stability.

The analysis emphasizes the frequent occurrence of phrases like "Economic growth," "study," "analysis," and "economic development" in close proximity to "Corruption," while also noting their substantial presence near "FDI."

The co-occurrence cluster analysis offers valuable insights into the links and themes found in the text data, namely regarding the major subjects of corruption, economic growth, and foreign direct investment, as well as their associations with other related concepts.

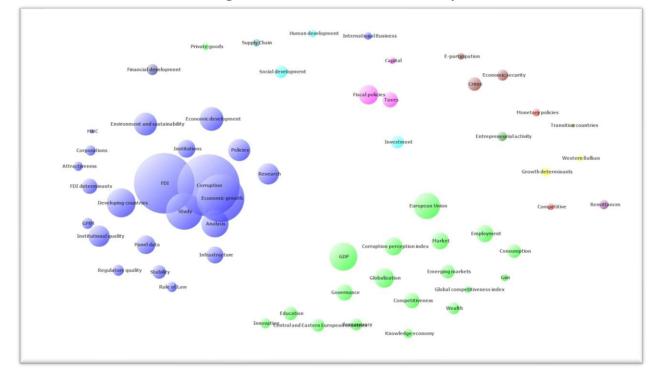


Figure 7. Co-occurrence (cluster) analysis

Source: Authors' work in QDA Miner

5. Conclusions

Collectively, these findings emphasize the intricate relationships and interconnections between corruption, economic growth, analytical methodologies, economic development, and foreign direct investment, as evidenced by the co-occurrence patterns observed in the examined literature corpus.

It is evident that there is a complex and nuanced relationship between economic growth, corruption, and FDI absorption. By using QDA Miner to assist data analysis and the abundance of papers in the Scopus database as a source of insight, we have been able to obtain significant knowledge into this multifaceted interaction. The examination of proximity plots, co-occurrence graphs, and word frequency analysis led to many fascinating discoveries. We have seen how concepts link to one another, how particular terms group together, and how corruption casts a shadow over the FDI and economic growth picture. In the end, it is anticipated that this research will improve our understanding of the relationship between economic growth, corruption, and FDI absorption, shaping strategic decisions and directing research in the future. By presenting this significant subject to public attention, we hope to stimulate debate, encourage meaningful change, and provide a pathway for a more just and productive worldwide economy.

References

- Abotsi, A. K. (2018). Corruption, economic fragility, and political freedom: An empirical investigation. Credit and Capital Markets, 51(2), 247-273.
- Al-Faryan, M. A. S. (2022). Impact of corruption on prosperity, development, and sustainability: A global perspective. In A. Al-Faryan & Z. Chen (Eds.), Handbook of Research on Developing and Sustaining Leadership for Sustainable Organizational Growth (pp. 34-56). IGI Global.
- Antoni, A., Indudewi, F. Y. O., Djaja, A., Saputra, W., & Kuswantoro, F. (2019). The relationship between corruption and economic growth in Indonesia from 2000 to 2018. Economics Management and Sustainability, 4(1), 6-19.



- Avdulaj, A., Merko, F., & Muço, K. (2021). The impact of government efficiency and rule of law on GDP per capita growth and FDI flow in Eastern European Transition Countries.
- Beca, M. P., & Barabaş, C. S. (2016). Income inequality and economic growth in former communist countries. *Economics Bulletin*, *36*(1), 480-490.
- Bozkurt, Ö. G., Erdem, C., & Eroglu, I. (2015). The effects of R&D, foreign direct investment, domestic investment, and oil export on economic growth: Evidence from oil exporting countries. *Turkish Economic Review*, 2(4), 220-238.
- Brock, G. (2005). Regional growth in Russia during the 1990s—What role did FDI play? *Post-Communist Economies*, 17(3), 319-329.
- Budiono, G. L., & Suryanto, T. (2018). Regional institutions: Moderating effect on corruption, foreign direct investment, and economic growth in Indonesia. *Asia Pacific Journal of Management Research and Innovation*, 14(1-2), 4-13.
- Burlea-Schiopoiu, A., Brostescu, C. S., & Popescu, M. C. (2023). Determinants of FDI flows in selected EU and non-EU countries: An empirical analysis. In *Finance and Risk Management for International Logistics and the Supply Chain* (pp. 167-192). Academic Press.
- Chang, C. C. (2015). Foreign direct investment, corruption, and environmental degradation in high-and low-income countries. *Environmental Science and Pollution Research*, 22(12), 9419-9427.
- Chengying, H., Wang, X., Shah, S. A. A., Chang, I. S., & Zhou, Z. (2023). FDI inflows, institutional quality, and economic growth: Comparative evidence from upper-middle-income and high-income countries. *Journal of Risk and Financial Management*, 16(1), 35.
- Delgado, M. S., McCloud, N., & Kumbhakar, S. C. (2014). A generalized empirical model of corruption, foreign direct investment, and growth. *Journal of Macroeconomics*, 42, 298-316.
- Detotto, C., & Otranto, E. (2010). Does crime affect economic growth? *Kyklos*, 63(3), 330-345.
- Economou, P., & Hassapis, C. (2015). Modeling determinants of FDI inflows in distressed Southern European Union economies. *Economic Modelling*, 1(3), 39-57.
- Edison, H. J., Levine, R., Ricci, L., & Sløk, T. (2002). International financial integration and economic growth. *Journal of International Money and Finance*, 21(6), 749-776.
- Egger, P., & Winner, H. (2006). How corruption influences foreign direct investment: A panel data study. *Economic Development and Cultural Change*, 54(2), 459-486.
- Epperly, B., & Lee, M. (2015). Corruption and NGO sustainability: An analysis of concurrent effects. *Voluntas*, 26(1), 25-49.
- Faruq, H. A., Webb, D. J., & Yi, D. (2016). Corruption, bureaucracy, and firm productivity in Africa. *Review of Development Economics*, 20(4), 1127-1142.
- Fatmawati, G., Meylanov, T., & Sugarda, P. (2018). The impact of FDI on economic growth: Evidence from developed and developing countries. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi dan Pembangunan, 19*(2), 198-212.
- Fetai, B., Ziberi, B., Mazllami, J., & Fetai, L. (2017). Exploring the effects of unemployment, corruption, and education on economic growth in the Western Balkans. *European Journal of Economic Studies*, 6(1), 211-220.
- Freckleton, M., Wright, A., & Craigwell, R. (2012). Economic growth, foreign direct investment, and corruption in developed and developing countries. *Journal of Economic Studies*, 39(6), 639-652.
- Gani, A. (2017). Corruption and development. In *International Encyclopedia of Geography: People, the Earth, Environment, and Technology* (pp. 1-13).



- Gherghina, R., Simionescu, L. N., & Hudea, O. S. (2019). Exploring foreign direct investment-economic growth relationships: A cross-country analysis on OECD sample and non-OECD countries. *Foreign Trade Review*, 54(2), 79-96.
- Gründler, K. & Potrafke, N. (2019). Corruption and economic growth: New evidence from 130 countries. *Economic Modelling*, 75, 456-474.
- Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of International Business Studies, 33*(2), 291-307.
- Katsaitis, O., & Doulos, D. (2009). The impact of EU structural funds on FDI. *Kyklos, 62*(4), 563-578.
- Khamfula, Y. (2007). Foreign direct investment and economic growth in EP economies of Sub-Saharan Africa: Evidence from panel data analysis. *Global Business & Economics Anthology, 2*, 117-144.
- Kholdy, S., & Sohrabian, A. (2008). Foreign direct investment, financial markets, and political corruption. *Journal of Economic Studies, 35*(6), 486-500.
- Kolstad, I., & Villanger, E. (2004). How does social development affect FDI and domestic investment? *CMI Report No. R 2004:2*. Chr. Michelsen Institute.
- Leitão, J., & Capucho, A. M. (2021). Corruption, democracy, and economic growth in transition economies. *Eurasian Economic Review*, 1-25.
- Liu, X., & Dong, Y. (2021). Corruption, FDI, and pollution transfer: A cross-national study. *Economics of Transition and Institutional Change, 29*(2), 259-270.
- Martins, C. B., Delis, M., Ferreira, F. A., Fontana, R., & Matos, P. V. (2023). E-government as an instrument to fight corruption. *European Journal of Political Economy, 73*, 102241.
- Mazaraki, A., Melnychenko, S., Duginets, G., & Lopa, L. (2023). Corruption as an Obstacle to Economic Security of Ukraine. *Business Ethics and Leadership, 7*(1), 31-40.
- Minassian, G. (2002). An economic overview of selected Balkan economies. In *Europe's Balkan Dilemma: Paths to Civil Society or State-to-State Cold War* (pp. 65-97).
- Moosa, I. A. (2019). Publish or perish and the risk of perishing even if one publishes: A critique. *Palgrave Macmillan*.
- Neshkova, M. I., & Kostadinova, T. (2012). The effectiveness of administrative reform in reducing corruption in Eastern Europe. *Public Administration Review, 72*(3), 324-335.
- Nunez-Mir, G. C., Iannone, B. V., Pijanowski, B. C., Kong, N., & Fei, S. (2016). Automated content analysis: Addressing the big literature challenge in ecology and evolution. *Methods in Ecology and Evolution, 7*(11), 1262-1272.
- Okada, K., & Samreth, S. (2014). Corruption and economic growth: OECD countries and non-OECD countries. *CESifo Working Paper Series No. 7840*.
- Syed, S., & Spruit, M. (2018). Full-text or abstract? Examining topic coherence scores using latent Dirichlet allocation. In *2018 IEEE International Conference on Data Mining Workshops (ICDMW)* (pp. 165-172). IEEE.
- Zeneli, V. (2016). Corruption affects foreign direct investment (FDI) in the Western Balkans. *Journal of Balkan and Near Eastern Studies, 18*(2), 189-202.
- Ziberi, B., & Alili, A. (2021). The relationship between macroeconomic indicators and economic growth in Western Balkans countries from 2010 to 2019. *Economic Research-Ekonomska Istraživanja, 34*(1), 1001-1015.