SILESIAN UNIVERSITY OF TECHNOLOGYPUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2024
ORGANIZATION AND MANAGEMENT SERIES NO. 197

# THE VISUALIZATION OF EMERGING TRENDS OF CHINESE OUTWARD DIRECT INVESTMENTS

Katarzyna MAZUR-WŁODARCZYK

Opole University of Technology, Faculty of Economics and Management; k.mazur-wlodarczyk@po.edu.pl, ORCID: 0000-0002-4822-9328

**Purpose:** The chapter focuses on presenting the state of research and indicating the emerging trends and gaps within the topic of Chinese outward direct investments. The acquired bibliographic data was presented in the form of maps of term clusters and word clouds appearing in the titles and abstracts.
**Design/methodology/approach**: A recently published work indexed in the Web of Science and Scopus databases was used as the basis for a systematic literature review.
**Findings:** Emerging trends and research gaps related to the terms *Africa, host country, corruption, institutional quality, Pakistan*, and *Belt*, relating the topic of Chinese ODI with the Belt and Road Initiative and sustainable development.
**Research limitations/implications**: The reliance on two databases and the specificity of SLR - subjective selection of watchwords.
**Value:** The text introduces the characteristics of Chinese foreign direct investments and indicates two groups of trends within the researched issues - considering the aspect of popularity and novelty.
**Keywords:** China, foreign direct investment/ FDI, outward direct investment/ ODI, emerging trends, bibliometric analysis.
**Category of the paper:** Literature review, Research paper.

## 1. Introduction

In the foreign direct investment (FDI) area, trends are most often presented in the form of numerical data illustrating inflows or outflows. In general, global flows recovered to pre-pandemic levels (United Nations, 2022). Analyzing global FDI, it can also be noted that in 2022, compared to 2021, there was a downward trend in FDI (The World Bank, 2023a-d): FDI net inflows (as balance of payment, current US$) 2021: US$2.1 trillion → 2022: US$1.83 trillion, and as percent of GDP 2021: 2.1% → 2022: 1.9%; FDI net outflows (as balance of payment current US$) 2021: US$2.22 trillion → 2022: US$2,1 trillion, and as percent of GDP 2021: 2.3% → 2022: 2.2%; which also concerned one of the world's leading economies -

the People's Republic of China (PRC) (The World Bank, 2023e-h): FDI net inflows (as balance of payment current US$) 2021: US$344.07 billion → 2022: US$180.17, and as percent of GDP 2021: 1.9% → 2022: 1%; FDI net outflows (as balance of payment current US$) 2021: US$178.8 billion → 2022: US$149,69 billion, and as percent of GDP 2021: 1% → 2022: 0.8%.

However, comparing indicators presenting inward and outward direct investment is not the only way to analyze and describe emerging changes and their course. Emerging trends result from, among others: the existing challenges and the need to adapt to an extremely turbulent environment (including those related to the Covid-19 pandemic, natural disasters, as well as armed conflicts - the example of Russia's invasion of Ukraine and the energy crisis), and the ongoing development, striving to increase the standard of living and facilitating functioning in the modern world. They are connected with, among others (OECD, 2023a; International Monetary Fund, 2023; Khandal, Hill, 2023): the global economic growth situation that can be unsustainable; the occurrence of tightening global financial conditions; the activity of emerging markets and developing economies, which will remain below the previous level (i.e. pre-pandemic); the occurrence of systemic sovereign debt problems in emerging markets and developing economies; returning inflation to target is generally expected to take until 2025; and the need for increased global cooperation and the introduction of more decisive national policy. Nowadays, there are four main groups of trends that can be understood both as lines of development or change towards something new or different and that is becoming more common (Mariam-Webster Dictionary, n.d.; Cambridge Dictionary, n.d.; Collins Dictionary, n.d.; The Britannica Dictionary, n.d.), and as the general prevailing tendency of economic phenomena (Encyklopedia PWN, n.d.). They combine tech-, business- and commerce aspects and can be characterized by the following keywords (Marr, 2022a, 2022b; Business Incorporation Zone, n.d.; Zande, n.d.; Vogel, 2023): artificial intelligence (AI), Web3, digital transformation, metaverse, nanotechnology, quantum computing, super-app, unified communication as a service (UCaaS); responsibility, including sustainability and green technology; security aspects regarding inflation, supply chain and communication; customer experience, friendly business practices, talent challenge, hybrid work, global teams, lean principles.

This chapter presents a systematic literature review (SLR) of recently published works indexed in the Web of Science and Scopus databases related to the topic of Chinese direct investment abroad. Through quantitative analysis of bibliographic data, visualizations were prepared (maps of term clusters and word clouds appearing with titles and abstracts) illustrating the directions of research on Chinese ODIs chosen by an international group of researchers. It aims to show the state of research today, to indicate the emerging trends and gaps within this issue.

## 2. Chinese outward foreign direct investment

Using the OECD definition, it can be said that the Chinese foreign direct investments (FDI) considered in this chapter are cross-border investments in which an investor representing the Chinese side establishes permanent shares in an enterprise of another economy and a significant degree of influence over it - i.e. has a minimum of 10 % of the voting power (see: OECD, 2023b). Chinese outward direct investment (ODI) are a strategy based on expanding operations outside the borders of the PRC - a strategy focused on generating profit.

Since 1978, FDI has been treated as the main driving force of the Chinese economy (Whalley, Xian, 2010; Shangguan, Guo, 2022). The scale of Chinese ODI has increased over time, supported by the development of the Chinese domestic market and the acceleration of the internationalization of enterprises, leading to China's ODI becoming one of the most important sources of global investment (Wu, 2023). China is currently the fourth largest investor in the world and the first investor in the Asian region (United Nations, 2022), and for many countries, they are the main source of FDI (Molnar et al., 2021). The Chinese ODIs are the result of the PRC's "going out" strategy. China's investment activities have been increasingly stabilizing in recent years (Molnar et al., 2021) and is mainly based on mergers, acquisitions and loans related to infrastructure projects (Stiblarova et al., 2022). Figures 1 and 2 present how Chinese FDI (inflows and outflows) have developed since the introduction of reforms initiated by Deng Xiaoping and the country's opening to the world. These figures indicate, among others: that, with the exception of 2016, net inflows, presented as a percentage of GDP, significantly exceeded net outflows, and the largest difference between these indicators was recorded in the period from 1991/1992-2013. In 2013, China started implementing the Belt and Road Initiative (BRI/One Belt One Road/OBOR) - an open geostrategic project focused on the development of infrastructure connecting China with virtually the rest of the world within 5 corridors (the New Eurasian Land Bridge; the China-Central Asia-West Asia Corridor; the China-Pakistan Corridor; the Bangladesh-China-Myanmar Corridor; the China-Mongolia-Russia Corridor; and the China-Indochina Peninsula Corridor). In addition, it is focused on international cooperation, including: in the area of investment and trade. In Figure 2, declines in Chinese investments (net outflows) coincide with, among others, on the effects of: the IT bubble, then the global economic crisis of the financial and banking market in 2007-2009, Chinese stock market turbulence (2015-2016), the great recession in Europe, and the pandemic caused by the SARS-CoV-2 coronavirus in 2019.

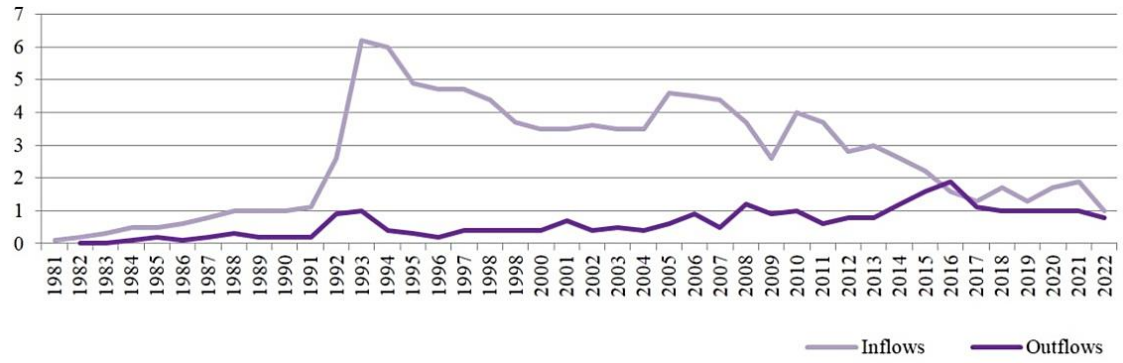



**Figure 1.** Chinese FDI: Net inflows and outflows (% of GDP).

Source: The World Bank (2023f, 2023h).

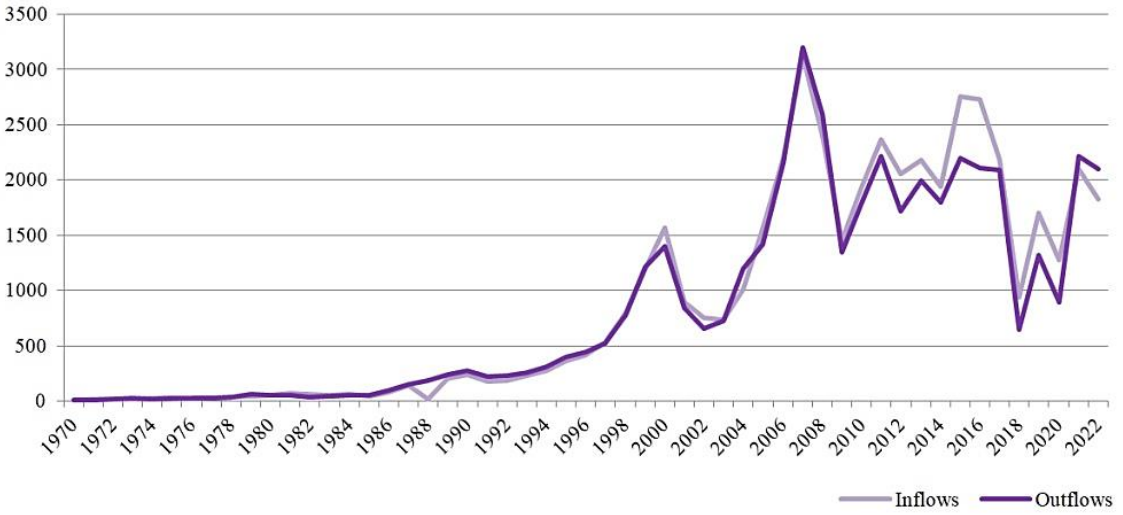
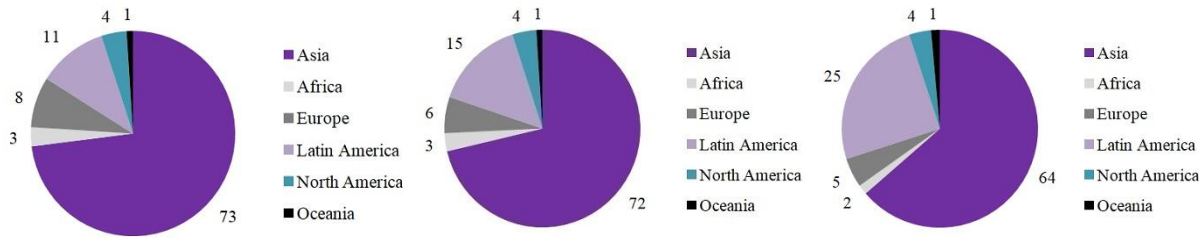



**Figure 2.** Chinese FDI: Net inflows and outflows (current US$, in billion US$).

Source: The World Bank (2023e, 2023g).

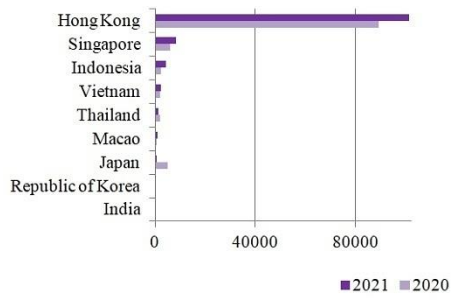
Chinese ODIs were located mainly in the Asian region (over 70% of ODI flow and over 60% of ODI stocks), followed by Latin America and Europe. Details are presented in Figures 3a-c, and for countries included in the official data lists of the National Bureau of Statistics of China - in Figure 4.



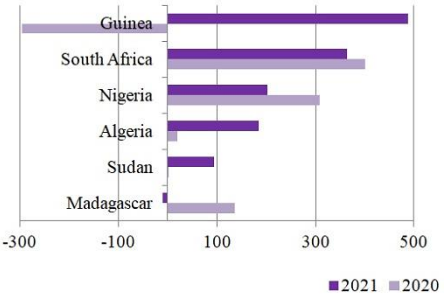

a) 2020 – ODI flow b) 2021 – ODI flow c) 2021 – ODI stocks

**Figure 3a-c.** Chinese ODI flow and stocks by regions (%).

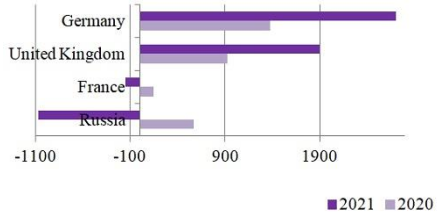
Source: National Bureau of Statistics of China (2022b).



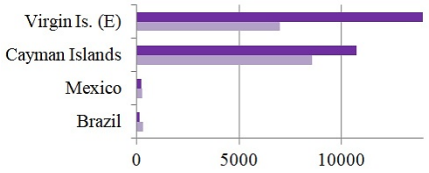

a) Asia



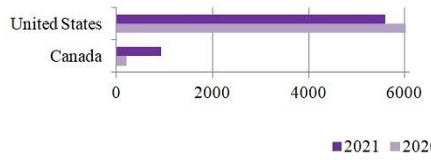

b) Africa



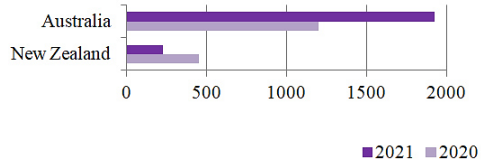

c) Europe




d) Latin America




e) North America

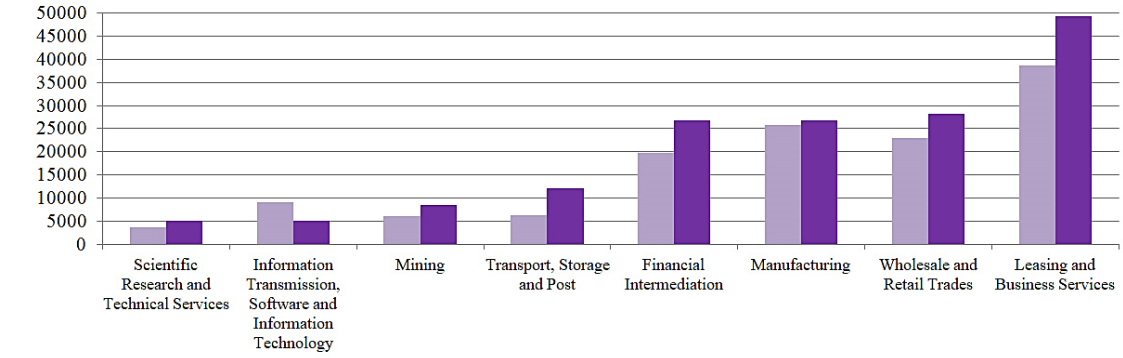



f) Oceania

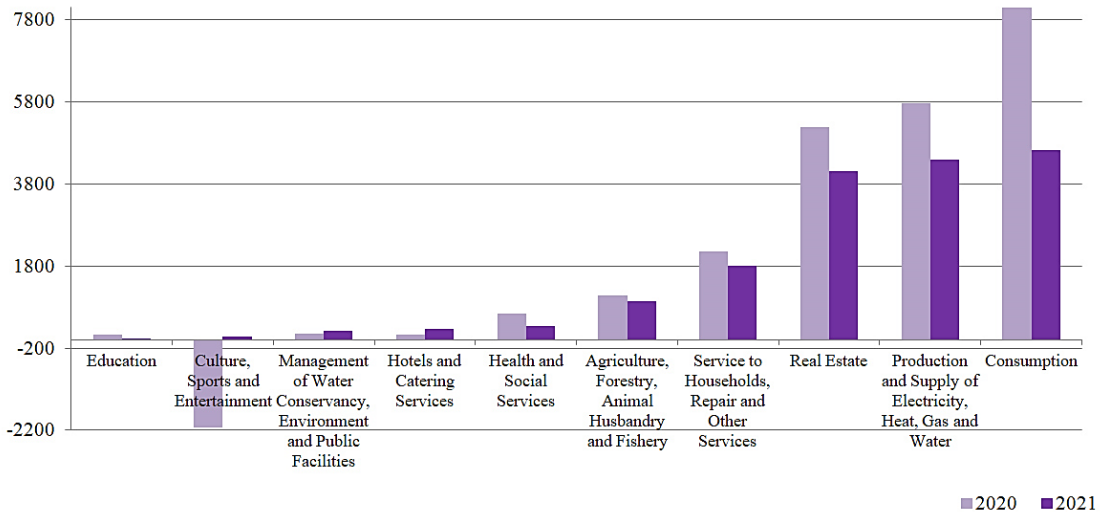
**Figure 4a-f.** Chinese ODI flow by regions and countries (US$ million).

Source: National Bureau of Statistics of China (2022b).

The sectors in which China invested in 2020 and 2021 are dominated by: leasing and business services, wholesale and retail trades, manufacturing and financial intermediation (Figure 5a-b).




a)




b)

**Figure 5a-b.** Chinese ODI flow by sectors (US$ million).

Source: National Bureau of Statistics of China (2022a).

The topic of elements that attract Chinese ODIs is chosen by many researchers. The study conducted on Chinese FDI in ASEAN countries in 2005-2016 indicates, among others, that Chinese location choices focused on areas with high market potential and low tax rates. However, the main motivating factors include labor costs in the primary and secondary industries. Moreover, within the agricultural, mining, construction and information industries, the business environment also had a positive impact on the choice of location (Ma et al., 2020). Alena Dorakh (2021) analyzing the determinants of Chinese FDI in Europe, the researcher noted that an important attraction for Chinese FDI was the joining of EU countries to the Belt and Road initiative (BRI), which had an impact on improving connectivity and reducing trade costs. It was also important for the Chinese side to locate its investments in the new Member States, which were treated as potential gateways to other more developed EU countries. (Dorakh, 2021). Research conducted by Roger Fon and Ilan Alon (2022) on the impact of Chinese investments from state-owned enterprises (SOEs) on the quality of governance in African host countries indicates that the quality of governance negatively affects ODI, and the official aid provided negatively modifies the relationship between the quality of governance in the host country and ODI. However, the key motivation is the host country's offering of natural resources (Fon, Alon, 2022). The team of Martins et al. (2023) working on the topic of determinants of economic freedom, innovation and technology and their impact on Chinese ODI, points out, among others, that property rights, patents, research and development, inflation, the official exchange rate and tax burdens have a positive and significant impact. Government spending has a positive but insignificant impact, while economic freedom has a negative and statistically insignificant impact (Martins et al., 2023). Another team - Biglaiser et al. (2023) analyzing the effects of political unrest in countries hosting Chinese ODIs on the decisions of the Chinese side, concluded that Chinese SOEs favor investments with higher political risk. This is related to, among others, except that in countries with violent internal

conflicts there is an opportunity to provide access to key goods at lower prices and influence in the future. Privately-owned enterprises (POEs), on the other hand, avoid countries with violent internal conflicts (Biglaiser et al., 2023). Flora Rencz, on the other hand noted, among others, that the annual number of patent applications, treated as an indicator of innovation, plays an important role in the selection of the Chinese side as an ODI target country. However, elements that do not have a significant impact include market development, political stability, corruption control and trade relations (Rencz, 2023). Table 1 shows a summary of the above-mentioned studies divided into under study period and elements affecting Chinese ODI location.

**Table 1.**
*The main elements affecting the location of Chinese ODIs and the areas of influence of Chinese ODIs mentioned in the literature*

| **Authors** | **Years under study** | **Chinese ODI location** | **Elements affecting Chinese ODI location (conclusions)** | **Areas affected by Chinese ODI/ conclusions** |
|---|---|---|---|---|
| Ma et al. (2020) | 2005-2016 | ASEAN | - high market potential<br>- low tax rates<br>- favorable business environment | |
| Shen et al. (2020) | 2004-2015 | China | | - promotional impact on Chinese entrepreneurial activity in the growing phase of the economic cycle |
| Dorakh (2021) | 2000-2019 | 34 countries | - the status of a new EU member state being gateways to developed EU countries<br>- improved connectivity (result of involvement in BRI)<br>- reduction of trade costs (result of involvement in BRI) | |
| Ly (2021) | 2013-2018 | Cambodia | | - driving economic development in Cambodia |
| Molnar et al. (2021) | 2003-2017/2018 | Global view | | - impact of Chinese ODI on employment in business services |
| Ahmad et al. (2022) | 1990-2019 | Pakistan | | - economic growth |
| Fon, Alon (2022) | 2003-2014 | Africa | - possession of natural resources<br>- low level of management quality with the support of the government of the host country | |
| Stiblarova et al. (2022) | 2010-2018 | UE-15 countries in the region of Central and Eastern Europe | | - Chinese ODIs do not replace investments from the EU-15 countries |

Cont. table 1.

| | | | | |
|---|---|---|---|---|
| Martins et al. (2023) | 2003-2018 | 27 African, European and Asian countries | - property rights<br>- patents<br>- research and development<br>- inflation<br>- official exchange rate<br>- tax charges | |
| Biglaiser et al. (2023) | 2004-2016 | 123 developing countries | - Chinese SOEs favoring higher risk investment<br>- Chinese POEs favoring lower risk decisions | |
| Xu et al. (2023) | 2003-2018 | China | | - improving the innovation potential of China's manufacturing industry |
| Rencz (2023) | 2005-2018 | UE countries | - number of patent applications in the host country (countries with know-how) | |
| Ross & Fleming (2023) | 2003-2018 | 22 Eurasian and Middle Eastern countries | | - economic growth of host countries |

Source: own study.

The second group of topics chosen by the international research community focuses on the elements that are influenced by Chinese ODIs (Table 1). They can be divided into the impact of ODI on the investor's country and the countries receiving investments.

Research conducted by Shen et al. (2020) focusing on the impact of Chinese ODIs on Chinese entrepreneurship show, among others, that due to the variability of economic cycles, they have a positive promotional impact on domestic entrepreneurial activity in the growing economic status of the cycle, and do not have a significant impact in the period following it, i.e. in the years 2009-2015 (Shen et al., 2020). However, these investments result in increased employment in business services (Molnar et al., 2021). Research conducted by the team of Xu et al. (2023) on the relationship between two-way FDI and the mechanism of its impact on improving the innovation potential of China's manufacturing industry also indicate that different degrees of synergistic development contribute to the innovation capacity and modernization of the industrial structure of this industry. The indirect effects in labor-intensive and technologically advanced industries are significantly positive, while in capital-intensive industries they are negative (Xu et al., 2023).

The group of texts devoted to the impact on countries receiving investments presents very different research points of view. Research by the Andrew G. Ross and Neil Fleming team (2023) focusing on the impact of Chinese ODI on the economic growth of host countries does not shed a positive light on the economic interests of countries receiving these investments. According to researchers, overall FDI flows have a positive impact on the economic growth of host countries, but Chinese ODI has a negative impact (Ross, Fleming, 2023). At the other extreme, there are texts emphasizing the positive impact of Chinese ODI on the economy, including Asian countries. In her work, Bora Ly (2021) focused on examining the positive impact of Chinese ODI on the Cambodia economy. Analyzing the data of Chinese investment

in Cambodian on infrastructure development in Diamond Island and the resort Golden Silver Gulf, under the BRI sees a positive impact of building infrastructure on the country's economy and improving its prosperity. The researcher also emphasizes China's key role in the development of Cambodia and friendly Sino-Cambodian relations (Ly, 2021). However, the team of Ahmad et al. (2022) when examining the impact of Chinese ODI on economic growth in Pakistan, notes a significant positive impact especially related to investments in renewable energy (Ahmad et al., 2022). The team of Stiblarov et al. (2022), focusing on the substitution effect between Chinese investments and EU-15 investments in the Central and Eastern European region, notes that Chinese FDI does not replace investments from the EU-15 market. According to the researchers, this may happen, among others, due to the fact that the expectations regarding cooperation between the Chinese side and the countries of Central and Eastern Europe have not been met (Stiblarova et al., 2022).

## 3. Materials and Methods

The article undertakes a systematic literature review (SLR) in order to obtain answers to the research questions related to the topic of Chinese ODI:

**RQ1**: What are the emerging trends?

**RQ2**: What are the research gaps?

Due to the fact that SLR is a method that requires careful selection aimed at minimizing bias (Munn et al., 2018), a thorough approach as well as a structured course (Yazici, Aktas, 2023), the study consisted of several stages. The first one defined the ranges of words connected by AND/OR operators (Table 2). Using them, 141 texts were obtained from Clarivate Analytics' Web of Science (WoS) database and 155 texts from the Scopus abstract and citation database by Elsevier. Both databases mentioned are multidisciplinary and called the titans of bibliographic information in the academic world (Pranckute, 2021). The search was not limited to one database, mainly due to the possibility of different results from different sources, highlighted in other studies (Kumar et al., 2023), as well as because each a database has its own characteristics, including advantages and disadvantages (Suryantoroa et al., 2023). The WoS database is a comprehensive research platform that is described as the world's leading scholarly scientifical material index. A platform that covers issues from the sciences, social sciences, arts, and humanities (Harvard Library, n.d.). The Scopus database is characterized by, among others: as: source-neutral, expertly curated, including 1.8+ billion cited references, 35% of which concern Social Sciences (Scopus, 2022). The first dates back 1864 and the second one - 1788 (Pranckute, 2021). The data was obtained on August 19, 2023 from the WoS database as a tab delimited file and from the Scopus database as a CSV file.

In the next stage, the selected materials were analyzed quantitatively, and their results were presented in the form of maps and wordclouds. The analysis was performed separately for each database. Two visualization methods were used, possible through the freely available software VOSviewer and WoradArt. The first program allows the researcher to work with bibliographic data from five databases, apart from WoS and Scopus, also Dimensions, Lens, and PubMed; and provides a presentation of quantitative data in the form of maps based on bibliographic and text data. VOSviewer is one of the programs described as having great potential, the use of which in descriptive literature reviews is increasing quite intensively (Kirby, 2023).
Text data obtained from the titles and abstracts of the indexed texts were also analyzed using the WordArt program, which allows for the graphical presentation of the most frequently appearing words/phrases. In the created word clouds, the words/phrases that appeared most frequently in the examined text material were marked in the largest font. In this case, the font size is proportional to the frequency of occurrence in relation to other words/phrases in the analyzed text.

**Table 2.**
*SLR process*

| | | |
|---|---|---|
| **Data source** | | |
| WoS | Scopus | |
| **Watchwords** | | |
| OR ↓ | AND → | *abroad* |
| *"Chinese merger"* | | *overseas* |
| *"Chinese takeover"* | | *Europe* |
| *"Chinese FDI"* | | *Africa* |
| | | *America* |
| | | *Australia* |
| | | *Asia* |
| | | *Antarctica* |
| **Reviewed texts** | | |
| WoS: 141 texts | Scopus: 155 texts | |
| **Softwares** | | |
| VOSviewer | WordArt | |

Source: own study.

## 4. Results

### 4.1. WoS results

The text selection process identified 141 materials in the WoS database, of which 51 (72%) are available in open access. Most of these texts were published in English - 136 materials (96%), the rest were published in the following languages: Spanish - 3 texts, Portuguese and Russian - one text each. The indexed materials were published between 2007 and August 2023. More details can be seen in Figure 6. Within this period, the majority of the texts were published

in 2021 - 21 materials (30%). The number of publications shows the fluctuation that is taking place, but it also expresses the growing interest of researchers in the researched issues. The average annual publication number is 8.3 texts.

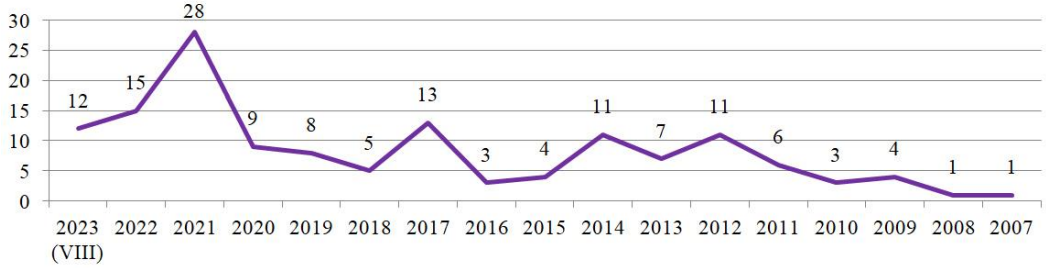



**Figure 6.** WoS: Annual publications (number of texts).

Source: Own study based on WoS database.

The texts represented five document types, most of which were articles published in journals - 126 materials (89%) (Figure 7). The authors of the publication came from 42 countries/territories (Figure 8). The largest number of texts - 37 materials (26%) were assigned to the People's Republic of China and the United States of America.

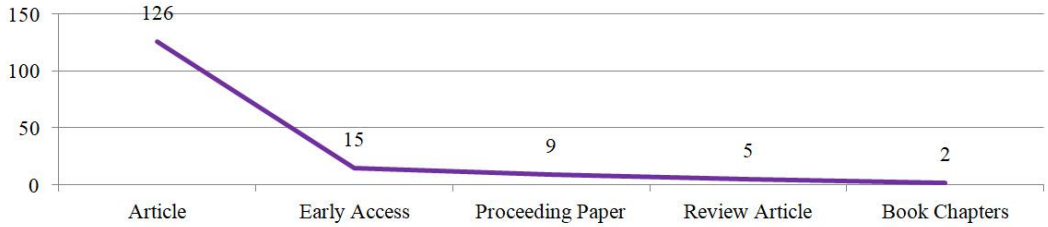



**Figure 7.** WoS: Document type (number of texts).

Source: Own study based on WoS database.

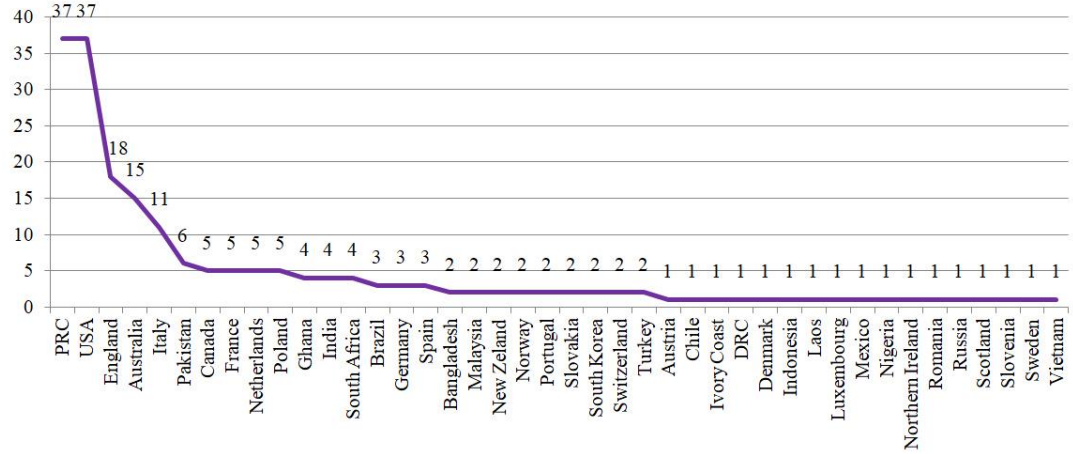



**Figure 8.** WoS: Countries/ territories (number of texts).

Source: Own study based on WoS database.

The authors of the analyzed texts declared 199 affiliations (as shown in Figure 9a), of which scientists from Princeton University prepared 5 texts, and those assigned to Durham University and the University of London prepared 4 texts each. Their materials were published

in 115 sources. More details can be seen in Figure 9b. The most common titles were International Journal of Emerging Markets and Journal of Chinese Economic and Business Studies - 6 papers each. The texts were published by 37 publishers (Figure 9c). The most texts were published by: Taylor & Francis - 32 materials (23%), Springer Nature - 19 (13%), Elsevier and Emerald Group Publishing - 16 each (11%) and Sage and Wiley - 8 texts each (6%). The texts received financial support from 50 founding sponsors, four of which provided patronage to 4 texts each: Economic Social Research Council Esrc, National Natural Science Foundation Of China Nsfc, and Uk Research Innovation Ukri.

Within the WoS database, it is possible to filter texts based on Sustainable Development Goals. The analyzed texts were assigned to 7 goals (Figure 19d), in which the dominant goal was chosen in 89 materials (63%). 09 - Industry Innovation And Infrastructure.


a) affiliations (2-5 texts per affiliation)


b) source titles (2-6 texts per source)


c) publishers (2-32 texts per publisher)


d) Sustainable Development Goals (1-89 texts per goal)

**Figure 9a-d.** WoS: Wordclouds presenting affiliations, source titles, publishers and references to the Sustainable Developments Goals (WordArt). The size of the font indicates the frequency of the phrases. Source: Own study based on WoS database.

The analyzed texts represent eighteen WoS categories (Figure 10), of which most materials refer to the following categories: Economics - 57 materials (40%), Business - 31 (22%), International Relations - 26 (18%), Management - 17 (12%), and Political Sciences – 15 (11%).

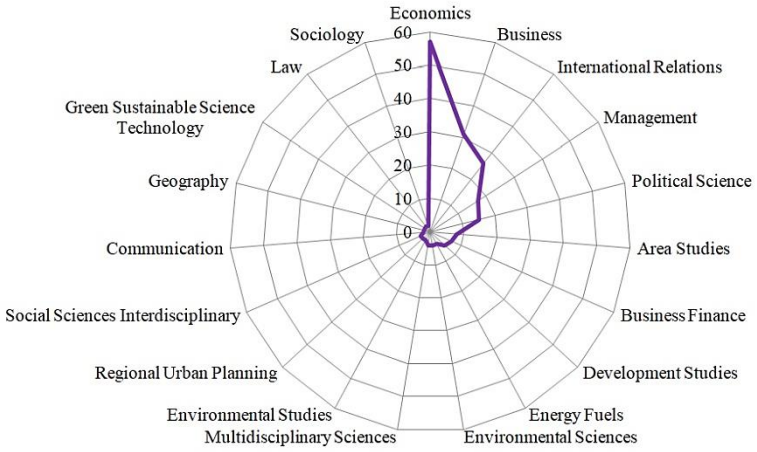
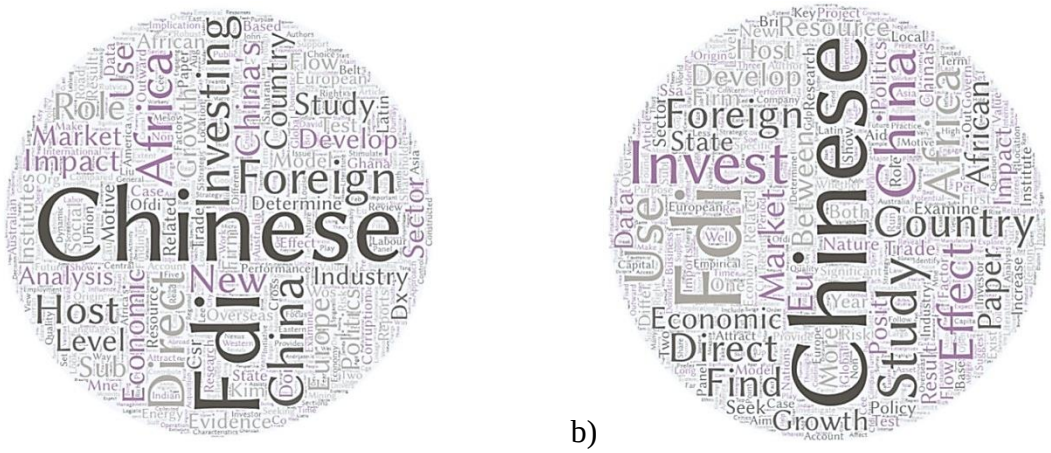



**Figure 10.** WoS: Thematic categories (number of texts).

Source: Own study based on WoS database.

Analyzing the words that appear most often in titles and abstracts, it can be noticed that after omitting the entries used in the selection process, the following appear, among others (largest font): in titles (Figure 11a): *Africa, investing, new, market, impact, host, role, country, develop, economic, study*; and in abstracts (Figure 11b): *invest, study, country, Africa, effect, market, growth, develop, African*.




a) b)

**Figure 11a-b.** WoS: Clouds of words appearing in titles and abstracts (WordArt). The size of the font indicates the frequency of the words.

Source: Own study based on WoS database.

*4.1.1. Maps based on bibliographic data*

Visualization in the form of maps based on bibliographic data in the VOSviewer program began with selecting the only active option related to co-authorship and full counting methods. The minimum number of documents of an author is set to 2. Of the 291 authors, 31 met the threshold. The full list of co-authorships is presented in Table 3. Figure 12 is a map generated on the basis of this table, presenting the network of cooperation between authors, showing the years of publication of joint publications. However, this cooperation was not very intense.

**Table 3.**
*WoS: Co-authorship - authors (VOSviewer)*[1]

| Author | Documents | Total link strength |
|---|---|---|
| Alon Ilan | 2 | 2 |
| Amighini Alessia | 2 | 1 |
| Anderson John | 2 | 5 |
| Atitianti Philip Akrofi | 2 | 0 |
| Avendano Miranda Lilliana Lorena | 2 | 0 |
| Borojo Dinkneh Gebre | 3 | 8 |
| Burgoon Brian | 2 | 2 |
| Cudjoe Derrick Anquanah | 2 | 2 |
| Curran Louise | 2 | 2 |
| Darko Eugene Misa | 2 | 0 |
| Drysdale Peter | 2 | 0 |
| Gallagher Kevin P. | 2 | 0 |
| Hu Hanhui | 2 | 2 |
| Khan Waseem Ahmad | 2 | 2 |
| Khattak Shoukat Iqbal | 2 | 2 |
| Lv Ping | 2 | 3 |
| Mccauley John F. | 2 | 4 |
| Meunier Sophie | 5 | 1 |
| Miao Miao | 3 | 8 |
| Morris Mike | 2 | 0 |
| Pearson Margaret M. | 2 | 4 |
| Peng Xinghao | 2 | 5 |
| Raess Damian | 2 | 1 |
| Sanfilippo Marco | 2 | 1 |
| Spigarelli Francesca | 3 | 3 |
| Sutherland Dylan | 3 | 7 |
| Wang Xiaonan | 2 | 4 |
| Wong Loong | 2 | 0 |
| Wu Ludan | 2 | 5 |
| Yushi Jiang | 3 | 8 |
| Zhang Xiaoyun | 2 | 6 |

Source: own study.

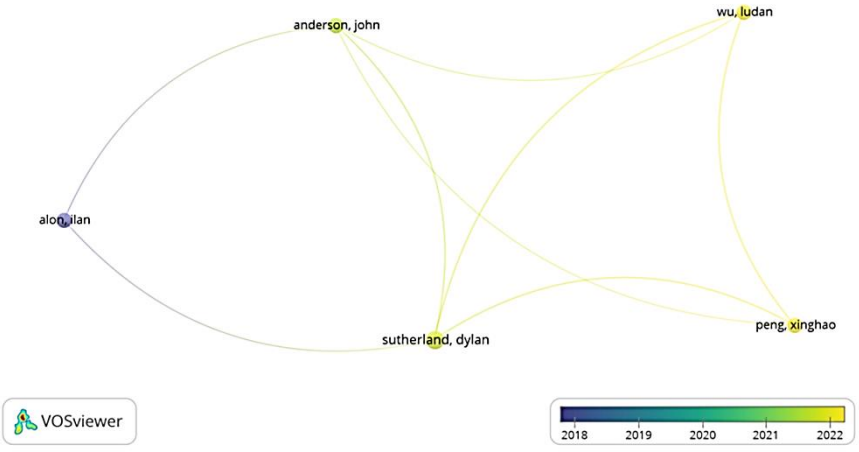



**Figure 12.** WoS: Co-authorship - authors.

Source: Own study based on WoS database.

[1] Citations under all authors in the table is 0.

*4.1.2. Maps based on text data*

In order to generate maps based on text data from titles and abstracts, using full counting methods, the minimum number of occurrence of the term was set to 10. Of the 3346 terms, 86 met the threshold. The terms listed by the VOSviewer algorithm were divided into 5 clusters which determine the groups of scientific data that are relevant (as shown in Figure 13). Cluster 1, red consists of 31 items), cluster 2, green – with 21 items, cluster 3, blue – 16 items, cluster 4, yellow – 15 items, and cluster 5, purple – 3 items. The number of connections among circles indicates the collaboration between items, while the size of the circles indicates a contribution to the examined issue.

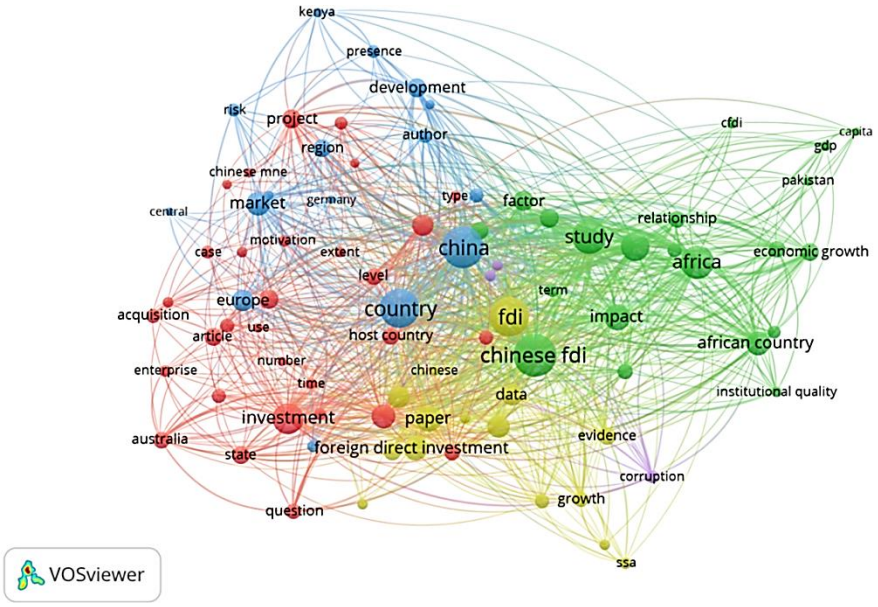



**Figure 13.** WoS: Maps of clusters and its items.

Source: Own study based on WoS database.

Items referring to the latest research trends are marked in yellow in Figure 14, as those published in 2022 and 2023 (items: Pakistan, CFDI - as Chinese foreign direct investment, capita, and Chinese MNE - as Chinese multinational enterprises), as well as light green which represents texts published in 2020 and 2021 (items: corruption, GDP, institutional quality, and belt - as Belt and Road Initiative). The brightest items can be treated as still quite interesting to be explored further.

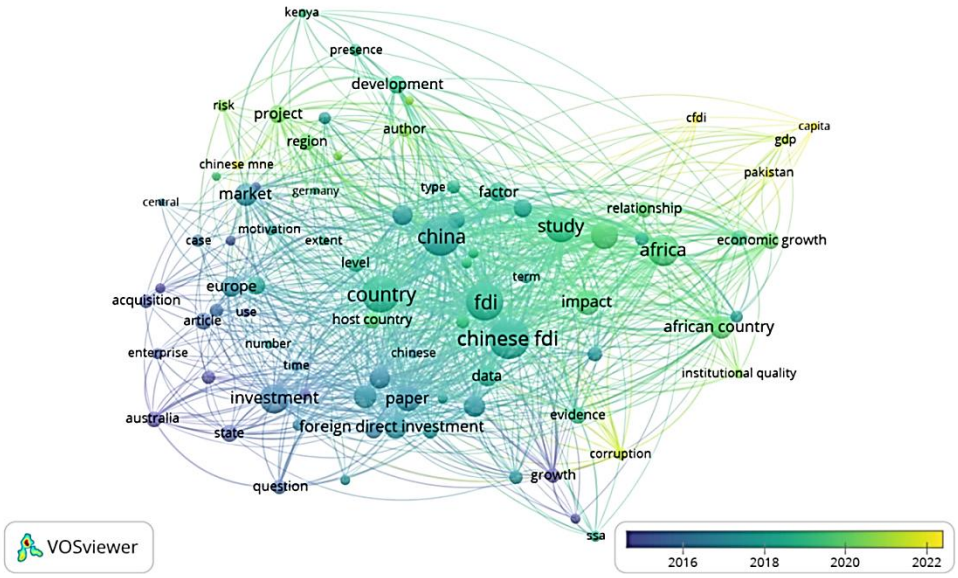
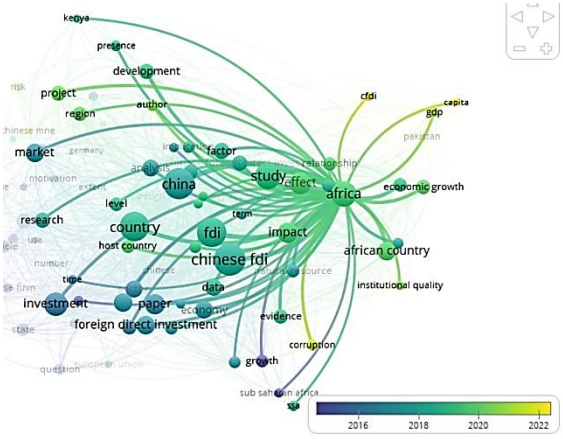


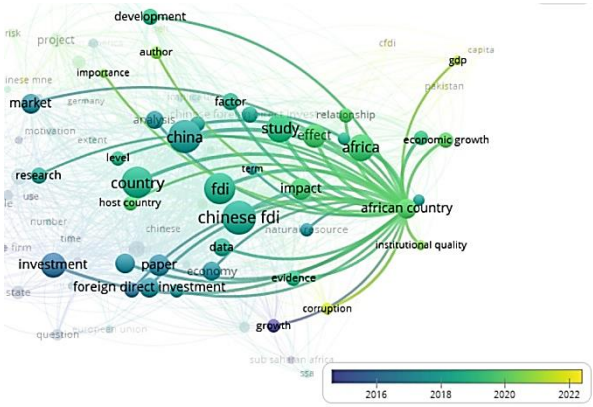

**Figure 14.** WoS: Overlay visualization map.

Source: Own study based on WoS database.

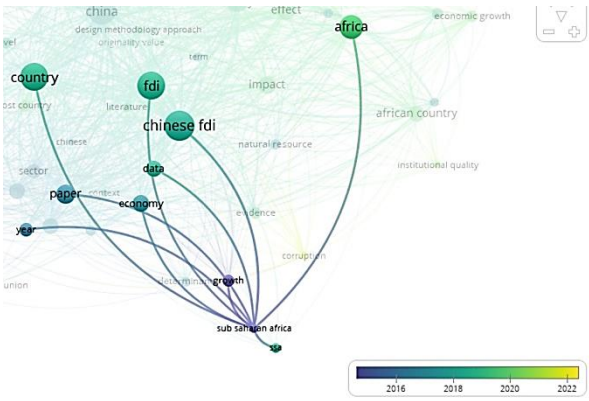
Figure 15a-j shows several overlay visualization maps narrowed down to specific items representing countries/territories. It is visible, among others, that the following items have the most coverage: Africa and African country, within which the most recent topics selected for research are those related to corruption and institutional quality, as well as items risk related to items Kenya and Australia.



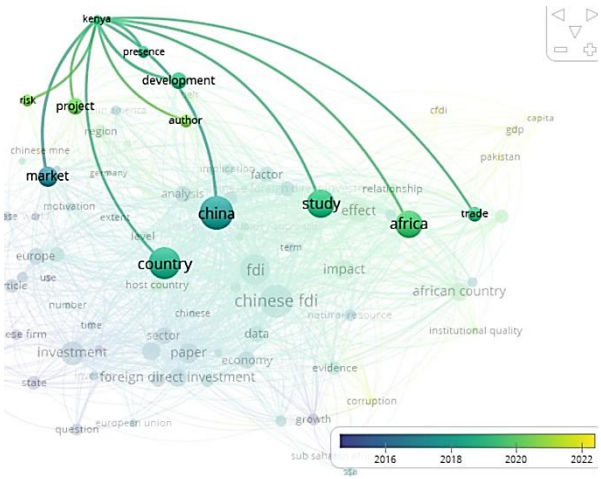

a) item: Africa



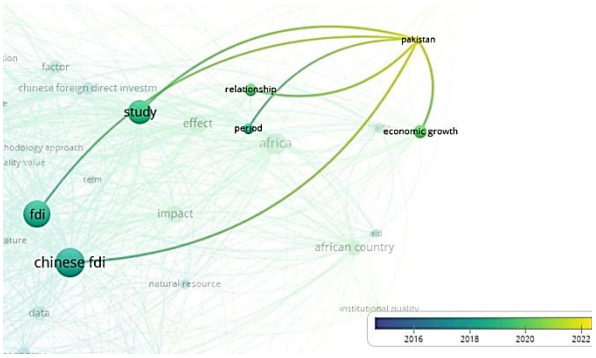

b) item: African country



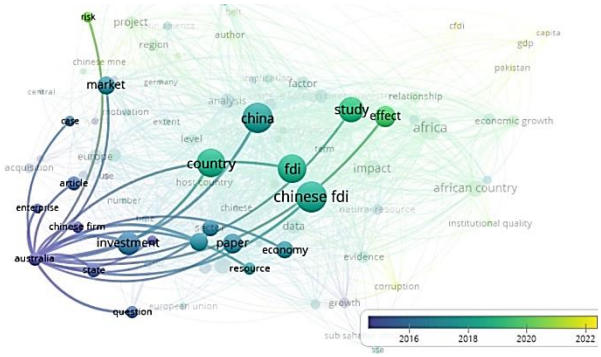

c) item: Sub-Saharan Africa



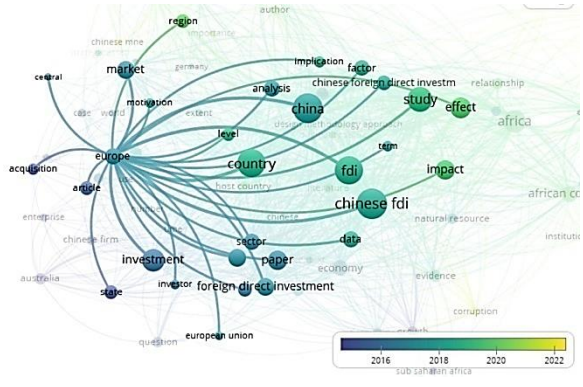

d) item: Kenya



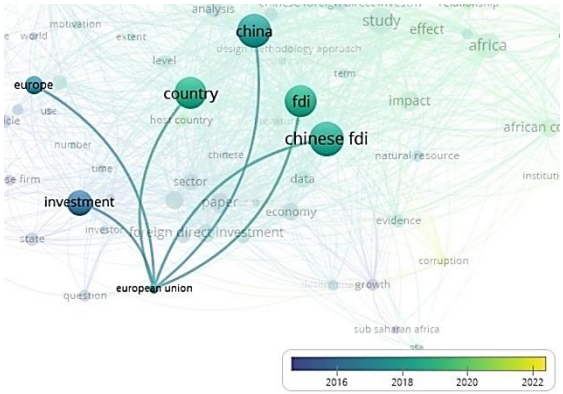

e) item: Pakistan



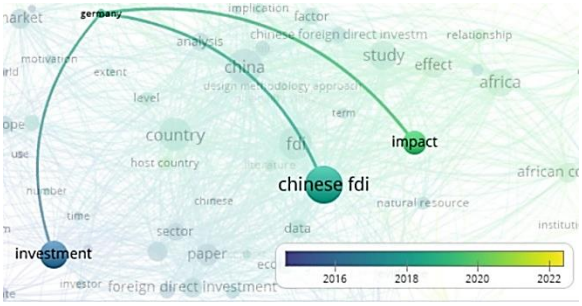

f) item: Australia



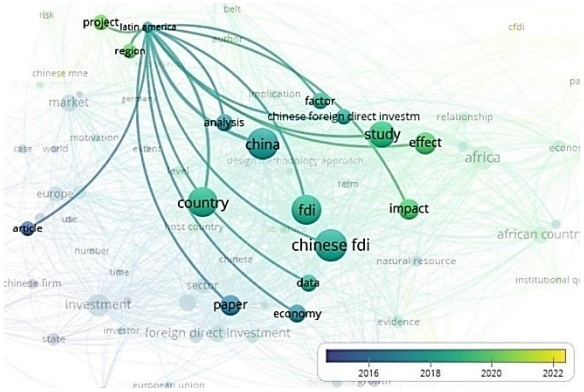

g) item: Europe




h) item: European Union




i) item: Germany




j) item: Latin America

**Figure 15a-j.** WoS: map of connections between selected items (VOSviewer).

Source: own study based on WoS database.

Among the items in Figure 10, only one directly refers to issues of nature/environment – natural resources. It is associated, apart from China, with Africa/African country (as shown in Figure 16).

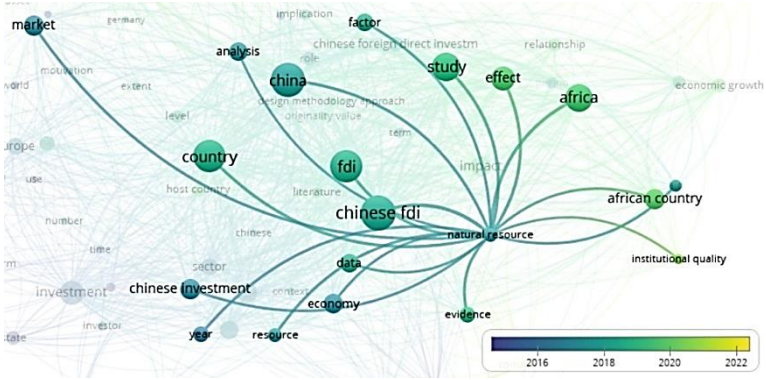



**Figure 16.** WoS: map of connections for item Chinese FDI (VOSviewer).

Source: own study based on WoS database.

In the density visualization map (Figure 17), the yellowest areas represent the highest concentration of research areas. This focus is influenced, among others, by: the number of elements located close to each other and the weight of the surrounding items. These include: Chinese FDI/ FDI/ foreign direct investment, China, country, and Africa. However, the least researched items include: items: Kenya, risk, Australia, European Union, SSA - as Sub-Saharan Africa, corruption, institutional quality, Pakistan, Germany, natural resource, and Chinese firm.

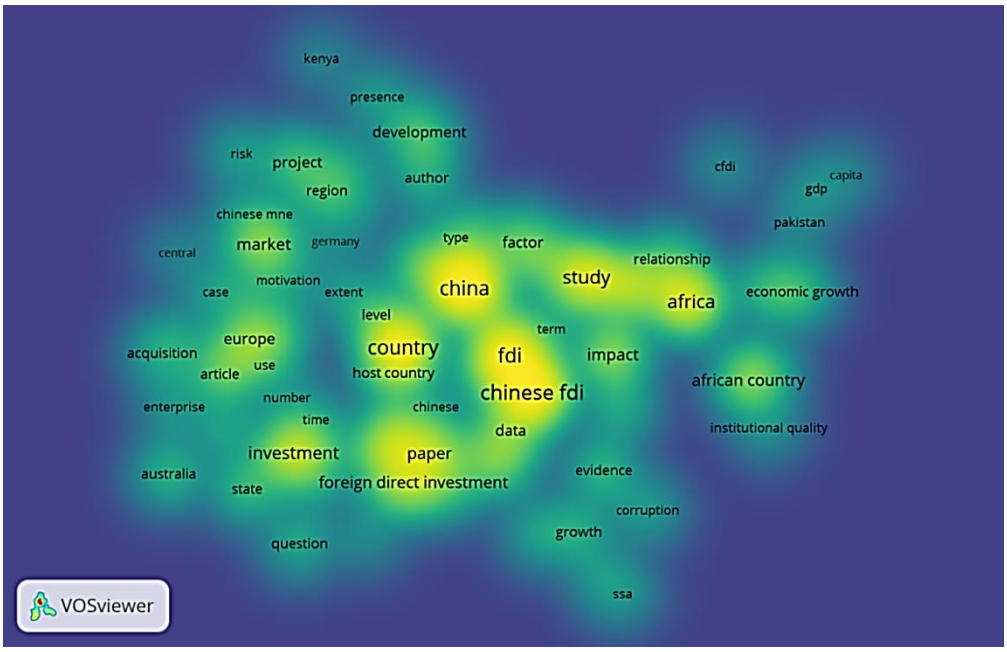



**Figure 17.** WoS: Density visualization map.

Source: Own study based on WoS database.

### 4.2. Scopus results

The text selection process identified 155 materials in the Scopus database, 50 (32%) of which are available on open access. Most of these texts were also published in English - 152 materials (98%), the rest were published in the following languages: Chinese, Russian, and Spanish - one text each. The indexed materials were published between 2001 and August 2023 (Figure 18). The most intense period was 2020-2022, in which 19-20 texts appeared annually. An average annual publication number is 8.6 texts.

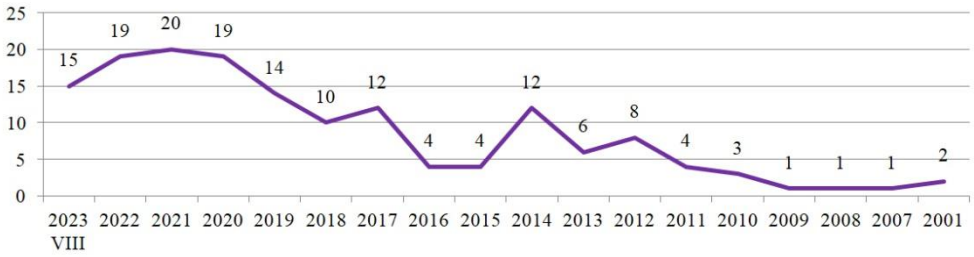



**Figure 18.** Scopus: Annual publications (number of texts).

Source: own study based on Scopus database.

The texts represented six document types, most of which were articles published in magazines - 120 materials (80%) (Figure 19). The authors of the publication came from 43 countries/territories (Figure 20). Most texts - 43 materials (28%) came from China, and 41 materials (26%) from the United States.

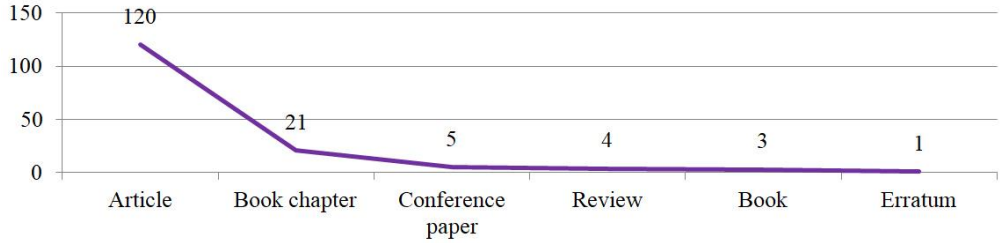



**Figure 19.** Scopus: Document type (number of texts).

Source: own study based on WoS database.

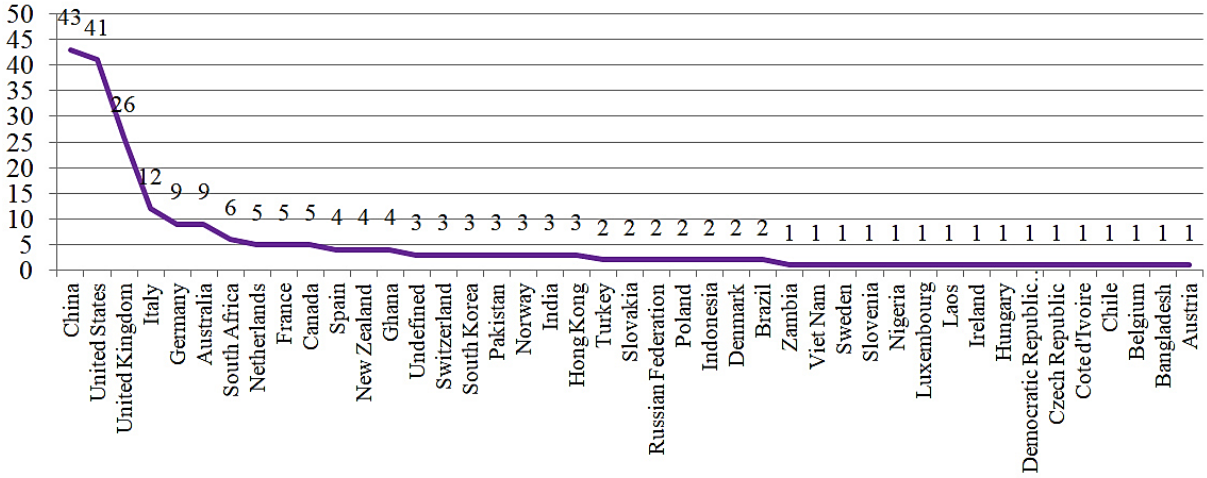



**Figure 20.** Scopus: Country/ territory (number of texts).

Source: own study based on Scopus database.

The authors of the analyzed texts declared 160 affiliations (Figure 21a), and their materials were published in 126 different sources (Figure 21b). They also received financial support from a total of 48 founding sponsors (Figure 21c) [2].


a) affiliation (2-7 texts per affiliation)


b) source title (2-6 texts per source)

[2] 118 publications did not have founding sponsors indicated.


c) founding sponsors (2-6 texts per sponsor)

**Figure 21a-c.** Scopus: Wordclouds presenting affiliations, source titles, and founding sponsors (WordArt). The size of the font indicates the frequency of the phrases.

Source: Own study based on Scopus database.

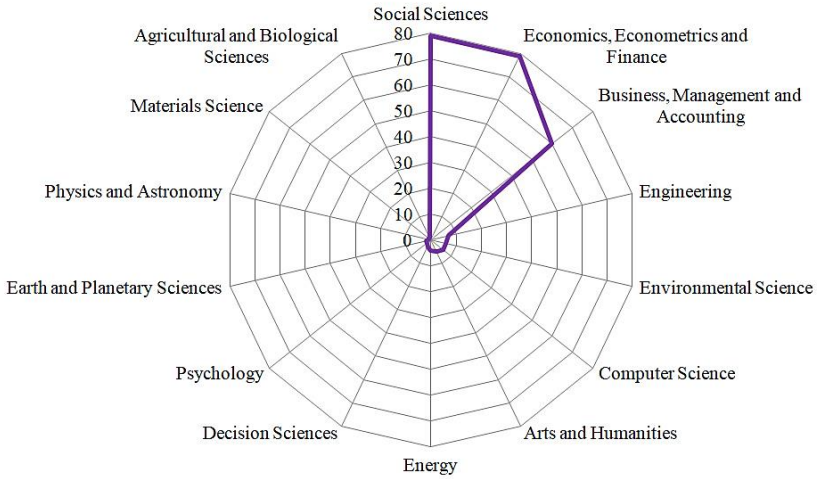
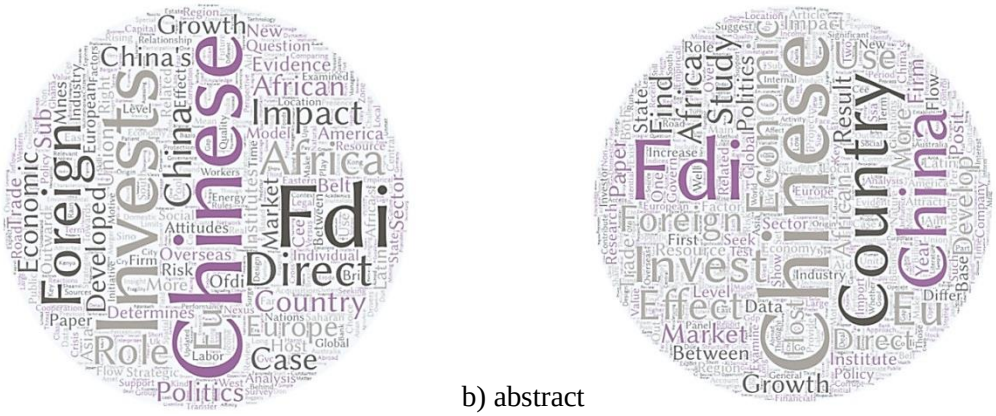



**Figure 22.** Scopus: Subject area (number of texts).

Source: own study based on Scopus database.

By analyzing the titles and abstracts in terms of the words that appear most frequently (largest font), several terms can be specified, among others: in titles (Figure 23a): invests, *Africa*, *role*, *politics*, *country*, *Europe*, *growth*, *African*; and in abstracts (Figure 23b): *country*, *invest*, *effect*, *EU*, *economic*, *Africa*, *growth*, *develop*, *market*.




a) Title b) abstract

**Figure 23.** Scopus: Clouds of words appearing in titles and abstracts (WordArt). The size of the font indicates the frequency of the words.

Source: own study based on Scopus database.

*4.2.1. Maps based on bibliographic data*

Visualization in the form of maps based on bibliographic data in the VOS viewer program similarly started with selecting the option related to co-authorship (full counting methods). The minimum number of documents of an author is set to 2. Of the 148 authors, 3 meet the threshold. The full list of collaborations between authors is presented in Table 4, of which Sophie Meunier had the highest number of citations - 123 citations.

**Table 4.**
*Scopus: Co-authorship - authors (VOSviewer)*[3]

| Authors | Documents | Citations |
|---|---|---|
| Auffray Cyrielle, Fu Xiaolan | 2 | 21 |
| Fofana Kankou Hadia, Xia Enjun, Traore Mamadou Bado | 2 | 5 |
| Meunier Sophie | 5 | 123 |

Source: Own study based on Scopus database.

The option of cooperation between countries was also active within the Scopus database. Using full counting methods, the minimum number of documents of a country was defined as 5. Of the 42 countries, 10 meet the threshold. The full list of cooperation between countries is presented in Table 5, of which the largest number of citations was United Kingdom - 530, United States - 489 and Australia - 383 citations. Figure 24 shows a map based on this table, which presents the network of cooperation between countries, indicating the years of publications. The largest bases of cooperation - "bridges" - are China and the United States.

[3] For all authors, the total link strength was 0.

**Table 5.**
*Scopus: Co-authorship - authors (VOSviewer)*[4]

| Country | Documents | Citations | Total link strength |
|---|---|---|---|
| Australia | 9 | 383 | 1 |
| Canada | 5 | 44 | 6 |
| China | 43 | 214 | 21 |
| France | 5 | 31 | 6 |
| Germany | 9 | 43 | 9 |
| Italy | 12 | 150 | 15 |
| Netherlands | 5 | 64 | 5 |
| Aouth Africa | 6 | 221 | 6 |
| United Kingdom | 26 | 530 | 13 |
| United States | 41 | 489 | 14 |

Source: Own study based on Scopus database.

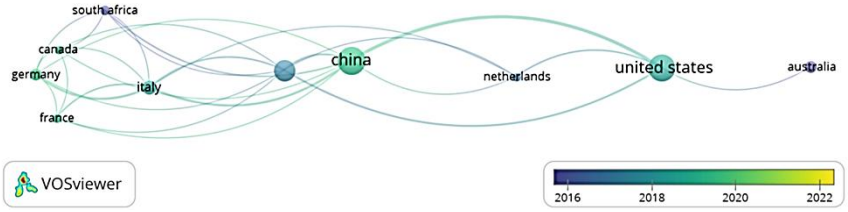



**Figure 24.** Scopus: Co-authorship - countries.
Source: Own study based on Scopus database.

*4.2.2. Maps based on text data*

To create maps based on text data from titles and abstracts (full counting methods), the minimum number of occurrence of the term was set to 10. Of the 3,884 terms, 102 meet the threshold. Items were divided into 4 clusters (Figure 25), each of which constitutes a group of research activities related to publications. Cluster 1, red - includes 55 items), cluster 2, green - 28 items, cluster 3, blue - 12 items, and cluster 4, yellow - 7 items).

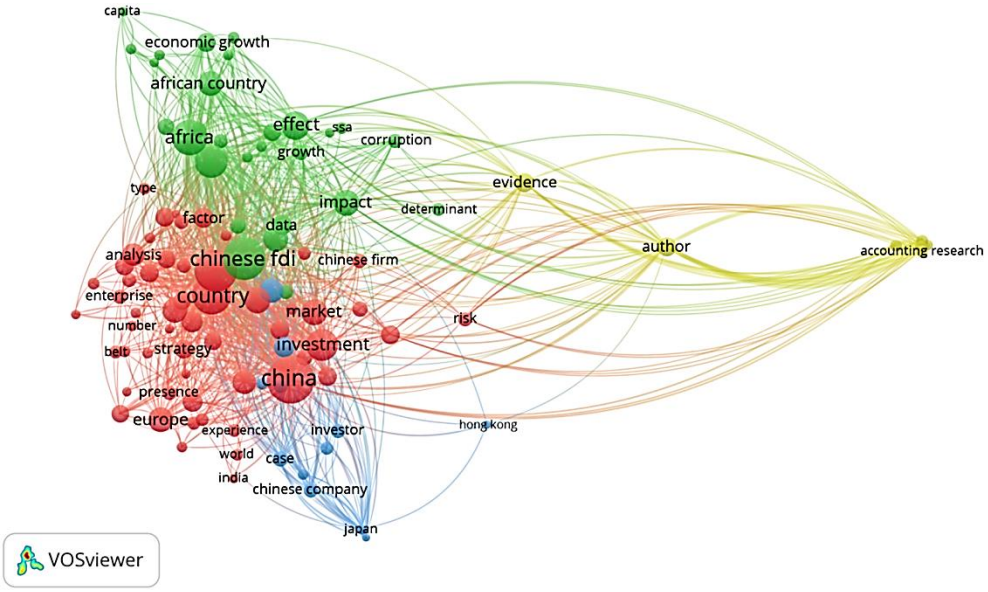



**Figure 25.** Scopus: Map of clusters and their items.
Source: own study based on Scopus database.

[4] For all authors, the total link strength was 0.

Figure 26 presents an overlay visualization map that to shows the progress of publications over time. The latest publications are marked in yellow, i.e. those issued in 2022 and 2023 (items: capita and Chinese MNE) and in light green - publications from 2020 and 2021 (items: accounting research, corruption, belt, and BRI).

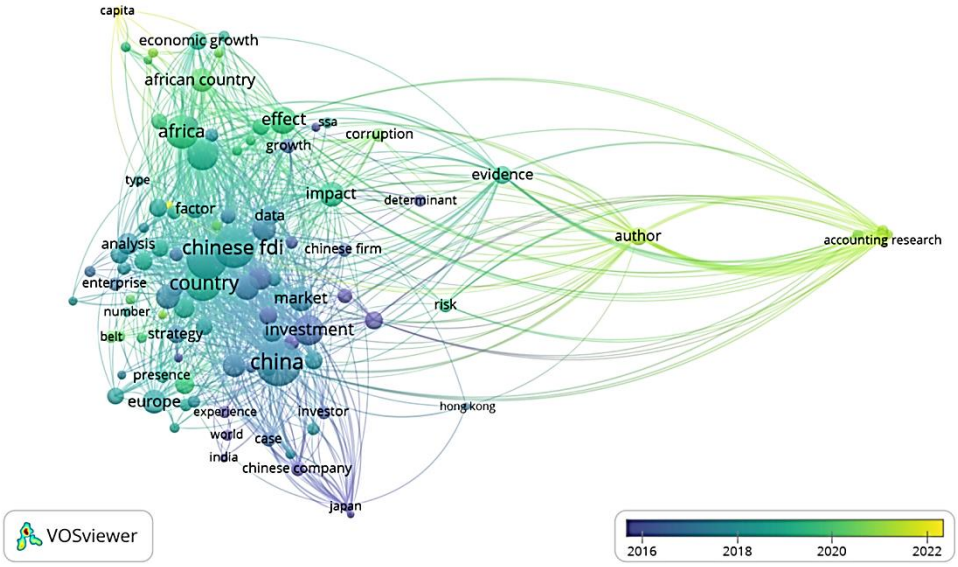
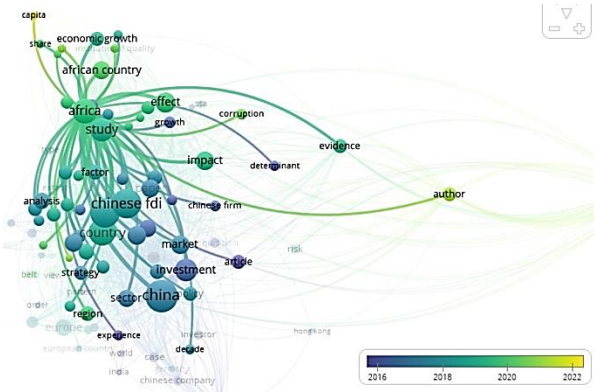
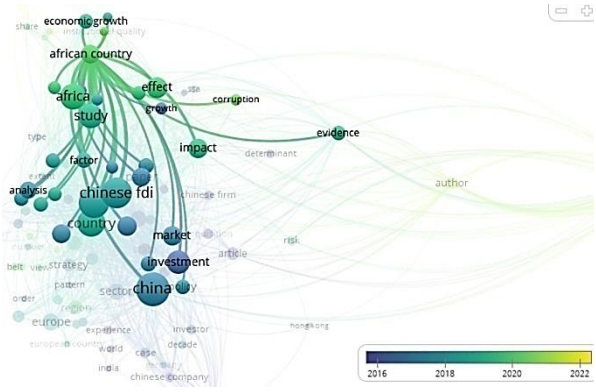



**Figure 26.** Scopus: Overlay visualization map.
Source: own study based on Scopus database.

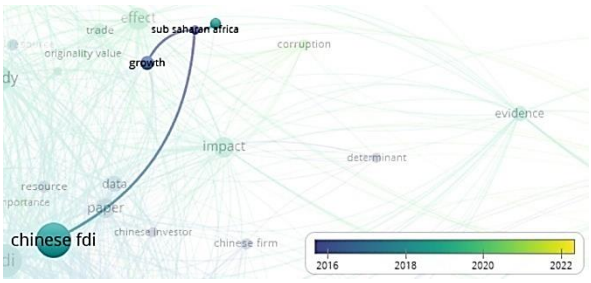
Figure 27a-l shows several overlay visualization maps for items showing countries/territories. They show, among other things, that the following items have the most relationships: Africa and African, followed by Europe. The items ‘Africa’ and ‘African’, among those listed, are also marked in the lightest color, so they are the most recent publications.



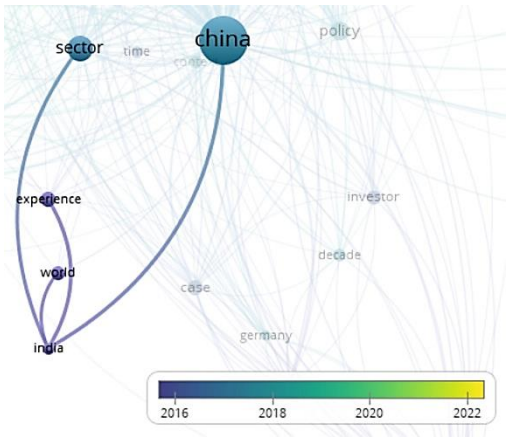

a) item: Africa



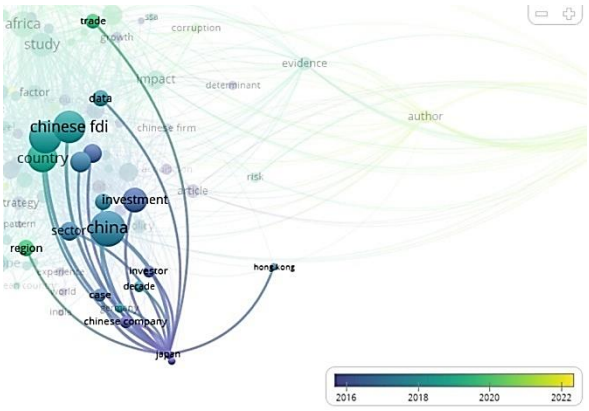

b) item: African country



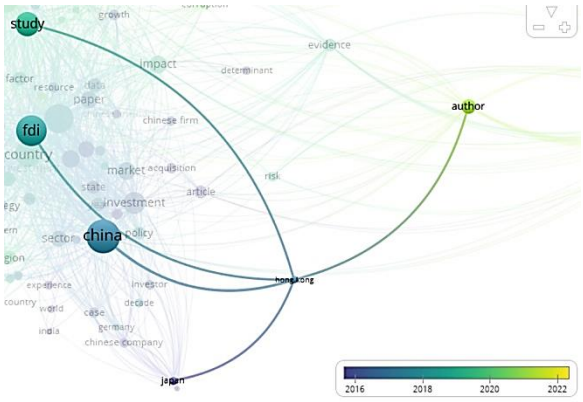

c) item: Sub-Saharan Africa



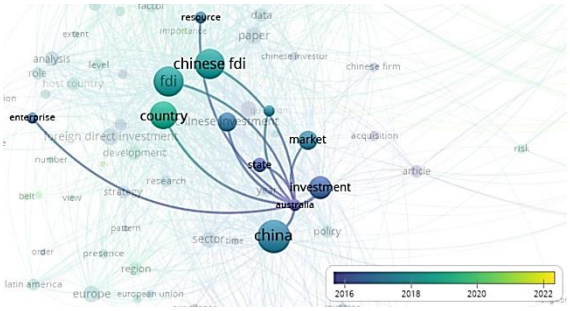

d) item: India



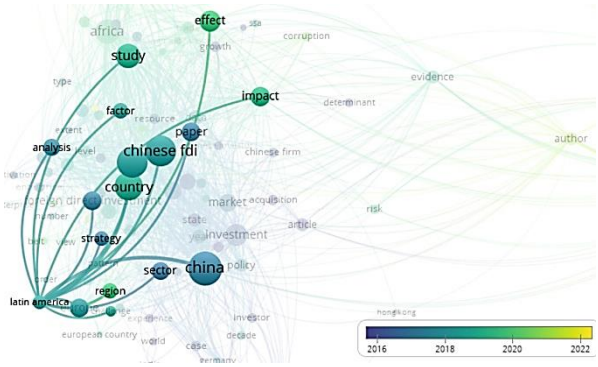

e) item: Japan



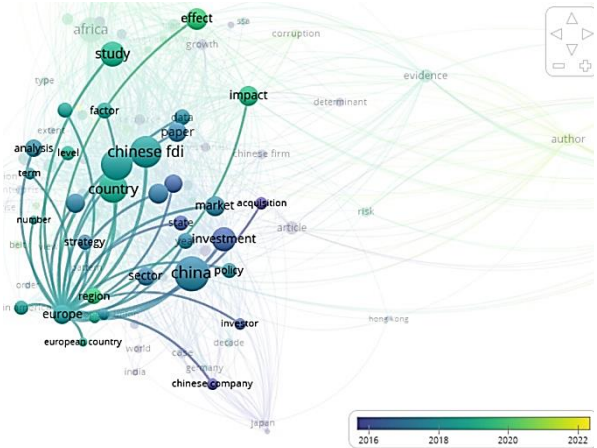

f) item: Hong Kong



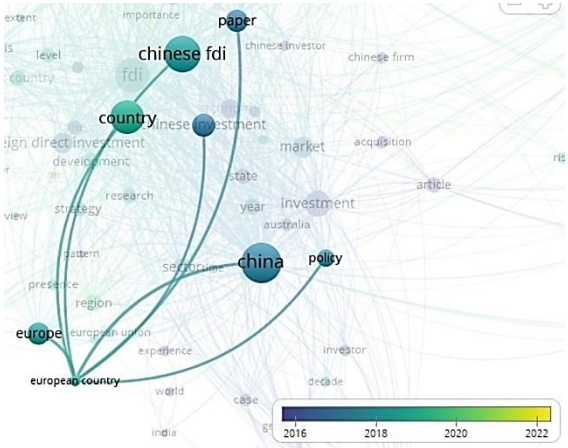

g) item: Australia



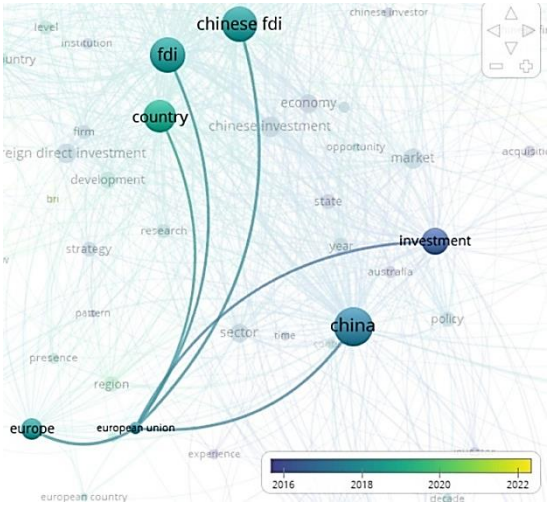

h) item: Latin America



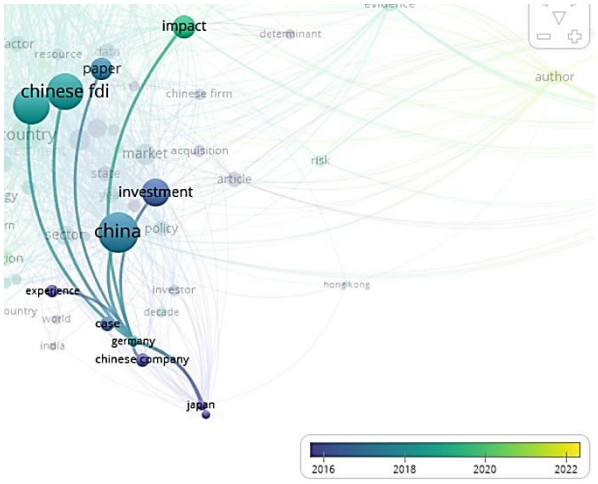

i) item: Europe




j) item: European country



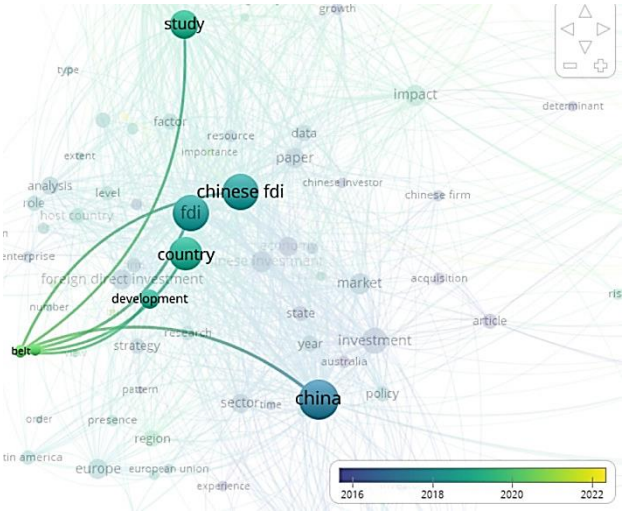

k) item: European Union



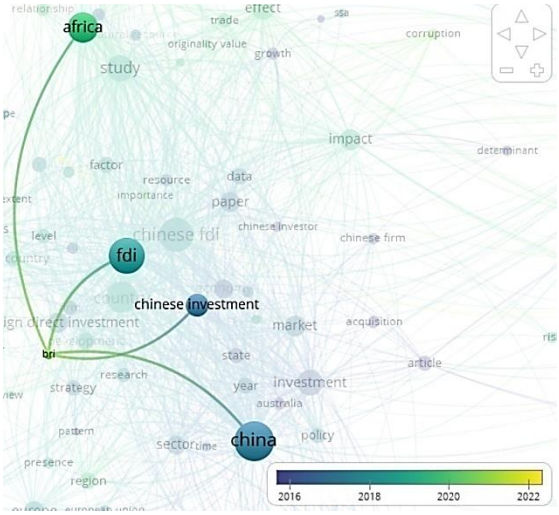

l) item: Germany

**Figure 27a-l.** Scopus: map of connections between selected items (VOSviewer).
Source: own study based on Scopus database.

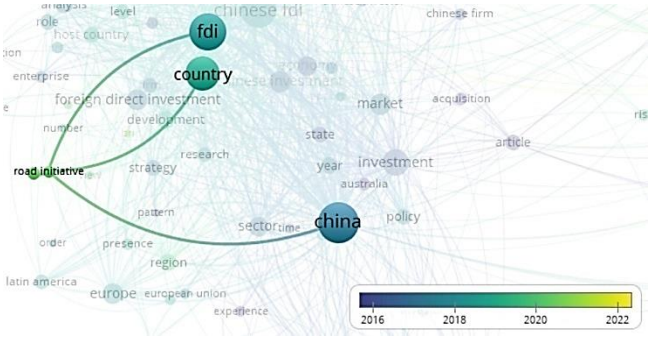
Three of the items refer thematically to the Belt and Road Initiative: ‘belt’, ‘BRI’ and ‘road initiative’, of which the item ’belt’ has the most connections with the remaining items (Figure 28a-c).




a) item: belt




b) item: BRI




c) item: road initiative

**Figure 28a-c.** Scopus: map of connections for items related to the Belt and Road Initiative (VOSviewer).
Source: own study based on Scopus database.

Among the items in Figure 29, as in the case of WoS, only one refers to issues of nature/environment - natural resources. It is associated with China and the African country (Figure 25).

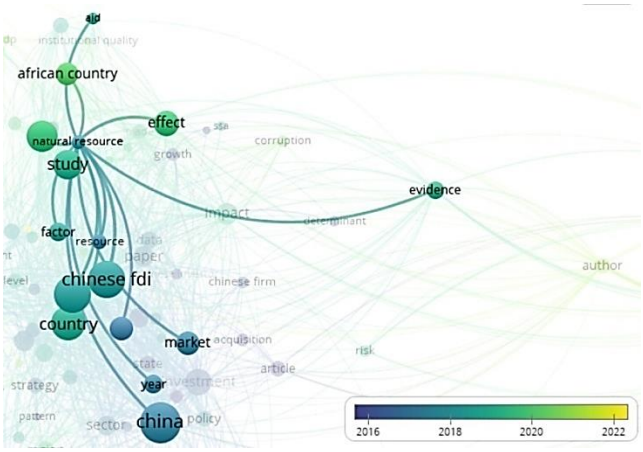



**Figure 29.** Scopus: map of connections for the item natural resource (VOSviewer).
Source: own study based on Scopus database.

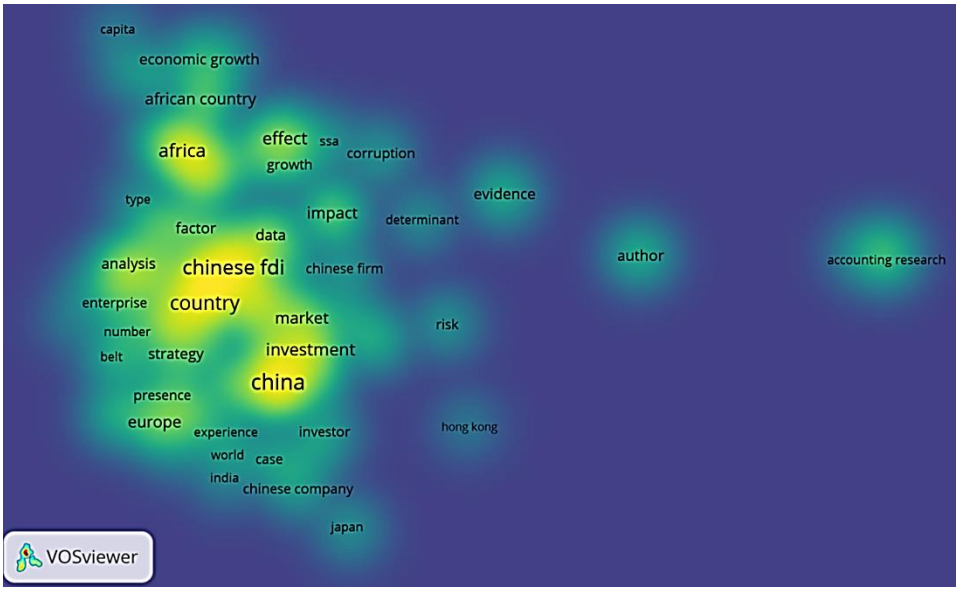



**Figure 30.** Scopus: Density visualization map.
Source: own study based on Scopus database.

On the density visualization map (Figure 30), the most researched areas include: Chinese FDI, investment, China, country, and Africa. However, the least researched items include: risk, Hong Kong, Japan, India, Chinese enterprises, capita and corruption.

## 5. Discussion

Using the WoS and Scopus databases, a total of 296 publications on Chinese ODI were obtained. The VOSviewer and WordArt programs made it possible to visually compare the frequency of terms in titles and abstracts. The results of the analysis allow us to specify the most popular contemporary topics, as well as the newest and least researched issues within the researched issues, i.e.: 1. frequent occurrence and high exploration: Africa, and host country; 2. rarely occurrence, the newest, and little exploration: *capita, corruption, institutional quality,* and *Pakistan*; 3. the rest of the newest, distinctive beyond the standard terms associated with ODI: *Belt*.

### 5.1. Term: 'Africa'

Africa, in the context of China's ODI is described in the light of developing trade and financial cooperation with China, its economic revival and industrialization, which are supported by the abundance of natural resources, a growing market and the regulatory reforms being introduced. However, the continent requires improvements in terms of: strengthening the management structure, control over corruption and accountability in public offices (Munjal et al., 2022). Chinese ODIs are compared, among others: with American investments (Lemi et al., 2021), Indian (Munjal et al., 2022), French and German (Donou-Adonsou, Lim, 2018), their impact on CO2 emissions (Claudio-Quiroga et al., 2023) and China's investments in Europe (Keers, Pennink, 2010).

Research on the determinants of Chinese ODI is conducted in a cross-sectional approach (Miao et al., 2021; Waqar et al., 2021; Cudjoe et al., 2023; Atitianti, Asiamah, 2023) and taking into account individual countries within regions, including: North Africa (Akatugba et al., 2023) and Sub-Saharan Africa (Kaplinsky, Morris, 2009; Larue, 2019; Zakari, Khan, 2021; Megbowon et al., 2019; Wang, 2023). These include factors positively related to the inflow of Chinese ODI, including: market size, openness, inflation rate, institutional quality, i.e. control of corruption and government effectiveness. (Akatugba et al., 2023) also called attention to management quality (Miao et al., 2021), as well as imports of oil/minerals and agricultural products (Gold, 2022). Research by Kafilah Lola Gold (2022) also indicates that political instability also stimulates Chinese ODIs.

Some texts prove the positive impact of Chinese investments, including: on: urban development resulting from the high concentration of development projects in China (based on the example of the main cities of South Africa) (Wang, 2023), domestic investments (Miao et al., 2021; Atitianti, Dai, 2022), including construction infrastructure and appropriate technologies in labor-intensive projects (Zhang, 2022), promotion of the African economy (Debongo et al., 2022), employment and training of local employees, however, the effectiveness and durability of knowledge transfer depends on the sector and country (Park, Tang, 2021).

The "dark side" of these investments is mainly related to the debt trap and the lack of job creation (Zhang, 2022). A study conducted by McCauley et al. (2022) also provides information on local people's perception of China's ODI projects. People living in the immediate vicinity of manufacturing investments are positive about China's contribution, those living near resource projects express concerns about land grabs and threats to jobs, while those living near service projects express mixed views. (McCauley et al., 2022).

### 5.2. Terms: 'corruption' and 'institutional quality'

The issues of corruption and Chinese ODI are described mainly in relation to the host country - Africa and related to the slogans: institutional quality and corruption control (Miao et al., 2020; 2021; Shan et al., 2018; Karavardanyan, 2022; Landry, 2021), which is also referred to as 'governance standard' and covering the expected high standards of accountability (Munjal et al., 2022). The articles raise concerns about whether Chinese investments will increase the phenomenon of corruption in African countries. Research by Christopher Culver (2021) indicates, among others: that the impact of ODI on corruption depends on the investor country, however, Chinese ODI is not different in terms of impact on corruption from investments from other sources. However, corruption is less of a deterrent to Chinese investors (Culver, 2021). Some of the published research also refers to the impact of corruption on investment in Africa. A study by Yuan et al. indicates, among others, that host countries with a low level of corruption receive more ODI, including from the PRC (Yuan et al., 2022). Other studies indicate that the level of corruption in the host country and Chinese ODI show a non-linear U-shaped relationship (Wu, 2019). Tawiah et al.'s team (2022) however, indicates that the impact of corruption on China's investments in Africa varies depending on the availability of natural resources and the nature of the involvement (Tawiah et al., 2022).

The topic of corruption and Chinese ODI also appears in connection with the issues of the Chinese anti-corruption campaign introduced in 2013 and its negative impact on the growth of SOE's ODI. This effect increases with increasing anti-corruption efforts, the level of SOE monopolization and the higher institutional quality of the host country (Qi et al., 2022).

The third strand of issues is related to investments in Latin America and the political risk that does not facilitate cooperation within the BRI framework (Leiva, 2021).

### 5.3. Term: 'Pakistan'

Pakistan lies on the BRI route as part of the China-Pakistan Economic Corridor (CPEC). Research relating this term to Chinese ODI focuses on exploring the impact of investment on banking performance (Ullah et al., 2021) and Pakistan's economic growth in the context of renewable energy use (Ahmad et al., 2022; Ullah et al., 2022; Farooq et al., 2022) and human capital (Farooq et al., 2022). Pakistan also faces high institutional risks, including those related to terrorism, which, according to Yuan Yuan Li (2023b) does not negatively affect the

investment interest of the Chinese side. According to this researcher, this has to do with bilateral political relations playing a role in mitigating this risk (Li, 2023b).

### 5.4. Term: 'Belt'

The term 'Belt' is part of the term One Belt One Road initiative, which also appears as part of the analysis results under the acronym BRI. This geopolitical strategy is described as ambitious and recently promoted (Ly, 2021), as well as enjoying great interest from the media and research communities (Li, 2023a). Countries along the BRI route are examined in terms of the impact of China's ODI on: global value chain positions, which also depends on the level of infrastructure and institutional quality (Wang, Zhong, 2023); development of the financial sector of host countries (Khattak, Khan, 2023); increasing local African participation (Kodzi, 2021); reducing poverty (Kyophilavong et al., 2017); ecosystems and local communities (Pramono et al., 2021).

As well as elements affecting the size of Chinese ODIs, including: host country institutional instability, particularly enhanced by the presence of BRI (Sutherland et al., 2020). However, research relating to China as an investor country shows, among others, that: in the long term, there is a possibility of benefits from BRI for all countries involved (due to the development of infrastructure and economy), however, China is positioned as the center of trade and investment, and in some cases - security (Parepa, 2020); companies from eastern provinces of China with a large amount of incoming FDI are more likely than companies from western provinces to transfer their investments to countries involved in BRI (Li, 2023a); BRI does not only focus on building infrastructure, and private companies (90%) control the majority (90%) of China's ODI projects (Li, 2023a); the positive impact of BRI is more pronounced in POE, and therefore BRI is more market-oriented than policy-oriented (Han et al., 2022); BRI influences the development of China's western provinces and is also a source of economic prosperity for its eastern provinces (Li, 2023a); Chinese banks are in an experimental phase of expansion in Europe (Balmas, Dörry, 2023).

China's ODIs targeting South-East European markets reflect its BRI plans and China's complex and dynamic relationship with host countries. An example of a country that actively facilitated Chinese investments is Serbia, which is a target country for greenfield and brownfield investments. Greece, on the other hand, was treated as a strategic gateway to the European market. Within countries that are not EU members, Chinese POEs choose greenfield investments, while SOEs choose brownfield investments and acquisitions. (Krstinovska, Alexandris, 2023). Moreover, within this group, more Chinese ODIs are attracted by non-EU countries than by those that have easier access to EU funds (Bielinski et al., 2019). However, China is most encouraged to invest in South-Eastern Europe countries: markets of developing countries, access to the larger EU market, strategic assets - technology and previous relationships with Central and Eastern Europe (Ramasamy, Yeung, 2022).

## 6. Summary

The study provides valuable information on emerging trends (RQ1) and research gaps (RQ2) related primarily to the terms: *Africa* and *host country* (frequent occurrence; high exploration), *corruption, institutional quality, Pakistan* (rarely occurrence; the newest; little exploration), and *Belt* (also the newest, and distinctive). And within them, key drivers relating the topic of Chinese ODI with the Belt and Road Initiative. Efforts were also made to find information on how the researched topic contributes to sustainable development. Of the global trends mentioned in the introduction, only a few references to the responsibility, including the above-mentioned sustainability, were found.

Specific emerging trends and research gaps can be used both by scientists and research institutions to determine their own strategy for future research, as well as by journal editors looking for new interesting topics related to Chinese ODI. Possible strategies may include: the decision of whether to follow popular trends, currently accepted by magazine editors and publishing houses, or to choose directions not yet explored, new directions for further research - topics not yet popular and not yet fully explored.

The limitation of this study is primarily the reliance on only two databases (WoS and Scopus), indexing not only some of the published scientific texts, but also mainly texts published in English. In the future, it is worth undertaking analysis using other databases supported by VOSviewer, such as Dimensions and PubMed, or using the options available in other data visualization programs. Moreover, limitations are related to the specificity of SLR, which requires the definition of specific watchwords used during text selection, which may at the same time narrow the area of research too subjectively.

## References

1. Ahmad, M.S., Szczepankiewicz, E.I., Yonghong, D., Ullah, F., Ullah, I., Loopesco, W.E. (2022). Does Chinese Foreign Direct Investment (FDI) Stimulate Economic Growth in Pakistan? An Application of the Autoregressive Distributed Lag (ARDL Bounds) Testing Approach. *Energies, 15, 2050*. https://doi.org/10.3390/en15062050.
2. Akatugba, O.D., Orubu, C.O., Maku, O.A., Oniore, J.O. (2023). Determinants of Chinese Foreign Direct Investment in Selected North African Countries. *International Journal of Management Studies and Social Science Research, 5(4),* pp. 144-163. https://doi.org/10.56293/IJMSSSR.2022.4670.
3. Atitianti, P.A., Asiamah, S.K. (2023). Chinese foreign direct investment and business start-ups in Africa. *African Journal of Science Technology Innovation & Development*, http://dx.doi.org/10.1080/20421338.2023.2176612.

4. Atitianti, P.A., Dai, Q. (2022). Does Chinese Foreign Direct Investment Improve the Welfare of Africans? *Journal of African Business, 23(4),* pp. 964-983. http://dx.doi.org/10.1080/15228916.2021.1969192.
5. Balmas, P., Dörry, S. (2023). Chinese bank networks in Europe: FDI-oriented by legal and strategic design. *Eurasian Geography and Economics*. https://doi.org/10.1080/15387216.2023.2182805.
6. Bielinski, T., Markiewicz, M., Oziewicz, E. (2019). Do Central and Eastern Europe Countries Play a Role in the Belt and Road Initiative? The Case of Chinese OFDI into the CEE-16. *Countries Comparative Economic Research-Central and Easters Europe, 22(2),* pp. 7-22. http://dx.doi.org/10.2478/cer-2019-0009.
7. Biglaiser, G., Lu, K.L., Lee, H. (2023). Domestic Political Unrest and Chinese Overseas Foreign Direct Investment. *Studies in Comparative International Development*. https://doi.org/10.1007/s12116-023-09391-2.
8. Business Incorporation Zone (n.d.). *Top Emerging Business Trends in 2023*. Retrieved from: https://businessincorporationzone.ae/business-trends-for-2023/, 20.08.2023.
9. Cambridge Dictionary (n.d.). *Trend*. Retrieved from: https://dictionary.cambridge.org/dictionary/english/trend, 8.2023.
10. Claudio-Quiroga, G., Gil-Alana, L.A., Maiza, A. (2023). Persistence and trends in CO2 emissions in Africa: is Chinese FDI behind these features? *Applied Economics, 55(30).* http://dx.doi.org/10.1080/00036846.2022.2115452.
11. Collins Dictionary (n.d.). *Trend.* Retrieved from: https://www.collinsdictionary.com/dictionary/english/trend, 20.08.2023.
12. Cudjoe, D.A., He, Y.M., Hu, H.H. (2023). The impact of China's trade and FDI on Africa's GVC participation and economic upgrading. *International Journal of Emerging Markets*. http://dx.doi.org/10.1108/IJOEM-07-2022-1184.
13. Culver, C. (2021). Chinese investment and corruption in Africa. *Journal of Chinese and Business Studies, 19(2),* pp. 119-145. http://dx.doi.org/10.1080/14765284.2021.1925822.
14. Donou-Adonsou, F., Lim, S. (2018). On the importance of Chinese investment in Africa. *Review on Development Finance, 8(1),* pp. 63-73. http://dx.doi.org/10.1016/j.rdf.2018.05.003.
15. Dorakh, A. (2021). FDI Determinants in Europe and Chinese Influence. *Serbian Journal of Management, 16(1),* pp. 21-37. https://doi.org/10.5937/sjm16-22279.
16. Debongo, D.Y.S., Wu, H.Q., Chang, H.R., Diane, L.K., Nzabana, V., Djossouvi, A.C.D., Osei-Kusi, F., Nguefio, P.N., Fatoumata, T., Awadji, F.B. (2022). The impact of China's foreign direct investment on Africa's inclusive development. *Social Sciences & Humanities Open, 6(1),* 100276. https://doi.org/10.1016/j.ssaho.2022.100276.
17. Encyklopedia PWN (n.d.). *Trend*. Retrieved from: https://encyklopedia.pwn.pl/szukaj/trend.html, 20.08.2023.

18. Farooq, M., Rao, Z.-u.-R., Shoaib, M. (2022). Surge in Economic Growth of Pakistan: A Case Study of China Pakistan Economic Corridor. *Front. Psychol., 13.* https://doi.org/10.3389/fpsyg.2022.900926.
19. Fon, R., Alon, I., (2022). Governance, foreign aid, and Chinese foreign direct investment. *Thunderbird International Business Review*, pp. 1-23. https://doi.org/10.1002/tie.22257.
20. Gold, K.L. (2022). The determinant of Chinese foreign direct investments in oil exporting African countries. *Contemporary Economic Policy, 40(3),* pp. 476-490. https://doi.org/10.1111/coep.12568.
21. Han, Y.H., Wang, K., Wie, D.M. (2022). The Belt and Road Initiative, sister-city partnership and Chinese outward FDI. *Economic Research-Ekonomska Istraživanja, 35(1),* pp. 3416-3436. https://doi.org/10.1080/1331677X.2021.1997618.
22. Harvard Library (n.d.). *Web of Science*. Retrieved from: https://library.harvard.edu/services-tools/web-science, 21.08.2023.
23. International Monetary Fund (2023). *World Economic Outlook: A Rocky Recovery*. Washington: DC.
24. Kaplinsky, R., Morris, M. (2009). Chinese FDI in Sub-Saharan Africa: Engaging with Large Dragons. *European Journal of Development Research, 21*, pp. 551-569. http://dx.doi.org/10.1057/ejdr.2009.24.
25. Karavardanyan, S. (2022). Short-Term Harm, Long-Term Prosperity? Democracy, Corruption and Foreign Direct Investments in Sino-African Economic Relations. *Comperative Economic Studies, 64(3),* pp. 417-496. http://dx.doi.org/10.1057/s41294-021-00176-x.
26. Keers, I., Pennink, B.J.W. (2010). Chinese Economic Activities in Sub Saharan Africa: A Substitute for Europe? *South East Asian Journal of Management, 4(2).* http://dx.doi.org/10.21002/seam.v4i2.5635.
27. Khandal, J., Hill, S. (2023). *The Global Economic Outlook in Five Charts*. Retrieved from: https://blogs.worldbank.org/developmenttalk/global-economic-outlook-five-charts-0, 25.08.2023.
28. Khattak, S.I., Khan, W.A. (2023). Chinese Overseas Foreign Direct Investment–International Foreign Portfolio Investment–Financial Sector Development Nexus in the Belt and Road Initiative Economies: A Regional Analysis Based on Third-Generation Techniques. *Journal of the Knowledge Economy.* https://doi.org/10.1007/s13132-023-01151-w.
29. Kirby, A. (2023). Exploratory Bibliometrics: Using VOSviewer as a Preliminary Research Tool. *Publications, 11, 10.* https://doi.org/10.3390/publications11010010.
30. Kodzi, E.T. (2021). Inclusive growth in Africa: are Chinese investment and local industry participation compatible? *International Journal of Emerging Markets.* http://dx.doi.org/10.1108/IJOEM-06-2020-0609.
31. Krstinovska, A., Alexandris, E.I. (2023). Chinese direct investment in South-East Europe: the story behind the numbers, ELIAMEP. *Policy Paper, 138*.

32. Kumar, R., Saxena, S., Kumar, V., Prabha, V., Kumar, R., Kukreti, A. (2023). Service innovation research: a bibliometric analysis using VOSviewer. *Competitiveness Review*. https://doi.org/10.1108/CR-01-2023-0010.
33. Kyophilavong, P., Wong, M.C.S., Souksavath, S., Xiong, B. (2017). Impacts of trade liberalization with China and Chinese FDI on Laos: evidence from the CGE model. *Journal of Chinese Economic and Business Studies, 15(3),* pp. 215-228. http://dx.doi.org/10.1080/14765284.2017.1346923.
34. Landry, D. (2021). Making It Rain? Comparing the Determinants of Chinese and Western FDI Flows to Africa. *Global Policy, 12(4),* pp. 468-481. http://dx.doi.org/10.1111/1758-5899.12996.
35. Larue, P. (2019). The determinants of Sub-Saharan African attitudes towards Chinese FDI. *Journal of Chinese Economic and Foreign Trade Study*, http://dx.doi.org/10.1108/JCEFTS-07-2018-0025.
36. Leiva, D. (2021). BRI and railways in Latin America: how important are domestic politics? *Asian Education and Development Study, 10(3),* pp. 386-398. http://dx.doi.org/10.1108/AEDS-08-2019-0127.
37. Lemi, A., Liu, L.Y., Wright, I.A. (2021). Location choice determinants of Chinese and US firms in Africa: Does spatial interdependence play a role? *World Economy, 40(10),* pp. 2966-2997. http://dx.doi.org/10.1111/twec.13124.
38. Li, D. (2023a). Research on the Relationship between Pakistan's Institutional Risks and China's Foreign Direct Investment in Pakistan from the Perspective of Bilateral Political Relations. In: B. Gao, Z. Zhen (Eds.), *The Political Economy of the China-Pakistan Economic Corridor* (pp. 77-105). Singapore: Palgrave Macmillan. https://doi.org/10.1007/978-981-19-6868-6_4.
39. Li, Y.Y. (2023b). Impacts of the Belt and Road Initiative on regional outward FDI from China based on evidence from 2000 to 2015. *ZFW – Advances in Economic Geography, 67(1)*, pp. 20-32.
40. Ly, B. (2021). The implication of FDI in the construction industry in Cambodia under BRI Cogent. *Business & Management, 8(1),* pp. 1875542, https://doi.org/10.1080/23311975.2021.1875542.
41. Ma, S., Xu, X.X., Zeng, Z.Q., Wang, L. (2020). Chinese Industrial Outward FDI Location Choice in ASEAN Countries. *Sustainability, 12, 674.* https://doi.org/10.3390/su12020674.
42. McCauley, J.F., Pearson, M.M., Wang, X.N. (2022). Does Chinese FDI in Africa inspire support for a china model of development? *World Development, 150, 105738.* http://dx.doi.org/10.1016/j.worlddev.2021.105738.
43. Marr, B. (2022a). *The Top 10 Tech Trends In 2023 Everyone Must Be Ready For*. Retrieved from: https://www.forbes.com/sites/bernardmarr/2022/11/21/the-top-10-tech-trends-in-2023-everyone-must-be-ready-for/?sh=6a1e42d57df0, 20.08.2023.

44. Marr, B. (2022b). *The 5 Biggest Business Trends In 2023 Everyone Must Get Ready For Now*. Retrieved from: https://www.forbes.com/sites/bernardmarr/2022/10/03/the-5-biggest-business-trends-for-2023/?sh=186a9c2b4217, 20.08.2023.
45. Mariam-Webster Dictionary (n.d.). *Trend*. Retrieved from: https://www.merriam-webster.com/dictionary/trend, 20.08.2023.
46. Martins, J.M., Gul, A., Mata, M.N., Haider, S.A., Ahmad, S. (2023). Do economic freedom, innovation, and technology enhance Chinese FDI? A cross-country panel data analysis. *Heliyon, 9, e16668.* https://doi.org/10.1016/j.heliyon.2023.e16668.
47. Megbowon, E., Mlambo, C., Adekunle, B. (2019). Impact of china's outward fdi on sub-saharan africa's industrialization: Evidence from 26 countries. *Cogent Economics & Finance, 7(1), 1681054*. https://doi.org/10.1080/23322039.2019.1681054.
48. Miao, M., Dinkneh, G.B., Jiang, Y.S., Tigist A.D. (2021). The impacts of Chinese FDI on domestic investment and economic growth for Africa. *Cogent Business & Management, 8(1), 1886472*. https://doi.org/10.1080/23311975.2021.1886472.
49. Miao, M., Lang, Q.Q., Borojo, D.G., Yushi, J., Zhang, X.Y. (2020). The Impacts of Chinese FDI and China-Africa Trade on Economic Growth of African Countries: The Role of Institutional Quality. *Economies, 8(3),* http://dx.doi.org/10.3390/economies8030053.
50. Molnar, M., Yan, T., Li, Y.S. (2021). China's outward direct investment and its impact on the domestic economy. *OECD Economics Department Working Papers, No. 1685*. OECD.
51. Munjal, S., Varma, S., Bhatnagar, A. (2022). A comparative analysis of Indian and Chinese FDI into Africa: The role of governance and Alliance. *Journal of Business Research, 149,* pp. 1018-1033, https://doi.org/10.1016/j.jbusres.2022.05.087.
52. Munn, Z., Peters, M.D.J., Stern, C., Tufanaru, C., McArthur, A., Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology, 18(143).* https://doi.org/10.1186/s12874-018-0611-x.
53. National Bureau of Statistics of China (2022a). *China Statistical Yearbook 2022*. Retrieved from: http://www.stats.gov.cn/sj/ndsj/2022/html/E11-20.jpg, 27.08.2023.
54. National Bureau of Statistics of China (2022b). *China Statistical Yearbook 2022*. Retrieved from: http://www.stats.gov.cn/sj/ndsj/2022/html/E11-19.jpg, 27.08.2023.
55. OECD (2023a). *OECD Economic Outlook, Iss. 1*. Retrieved from: https://www.oecd-ilibrary.org/sites/ce188438-en/index.html?itemId=/content/publication/ce188438-en, 25.08.23.
56. OECD (2023b). *Foreign direct investment (FDI),* OECDiLibrary. Retrieved from: https://www.oecd-ilibrary.org/finance-and-investment/foreign-direct-investment-fdi/indicator-group/english_9a523b18-en, 27.08.2023.
57. Parepa, L.-A. (2020). The Belt and Road Initiative as continuity in Chinese foreign policy. *Journal of Contemporary East Asia Studies, 9(2),* pp. 175-201. https://doi.org/10.1080/24761028.2020.1848370.

58. Park, Y.J., Tang, X.Y. (2021). Chinese FDI and impacts on technology transfer, linkages, and learning in Africa: evidence from the field. *Journal of Chinese Economic and Business Studies, 1(4),* pp. 257-268. http://dx.doi.org/10.1080/14765284.2021.1996191.
59. Pramono, A.H., Fuad, H.A.H., Haryanto, B., Indrawan, M., Khasanah, N., Mandini, M.D., Pratiwi, K., Sari, D.A., Siregar, R.S.E., Supriatna, J., Winarni, N.L., Gallagher, K.P., Ray, R., Simmons, B.A. (2021). Mitigating social-ecological risks from the surge in China's overseas investment: an Indonesian profile. *Discover Sustianability, 2(1).* http://dx.doi.org/10.1007/s43621-021-00069-0.
60. Pranckute, R. (2021). Web of ˙ Science (WoS) and Scopus: The Titans of Bibliographic Information in Today's Academic World. *Publications, 9, 12.* https://doi.org/10.3390/ publications9010012.
61. Ramasamy, B., Yeung, M. (2022). China's outward foreign direct investment (OFDI) to developing countries: the case of Central and Eastern Europe (CEE). *Journal of the Asia-Pacific Economy, 27(1),* pp. 124-146. http://dx.doi.org/10.1080/13547860.2020.1790182.
62. Rencz, F. (2023). The determinants of Chinese foreign direct investment in the European Union. *Asia Europe Journal.* https://doi.org/10.1007/s10308-023-00673-x.
63. Ross, A.G., Fleming, N. (2023). The impact of Chinese foreign direct investment on host country economic growth. *Local Economy, 37(6),* pp. 1-19. https://doi.org/10.1177/0269094223116285.
64. Qi, Z., Kenderdine, T., Tang, T.F., Liu, Q.R. (2022). China's anti-corruption campaign and outward foreign direct investment by state-owned enterprises. *The World Economy,* pp. 2950-2976. https://doi.org/10.1111/twec.13244.
65. Scopus (2022). *Scopus Fact Sheet 2022*. Retrieved from: https://www.elsevier.com/__data/assets/pdf_file/0017/114533/Scopus-fact-sheet-2022_WEB.pdf, 21.08.2023.
66. Shan, S., Lin, Z.B., Li, Y.L., Zeng, Y. (2018). Attracting Chinese FDI in Africa: The role of natural resources, market size and institutional quality. *Critical Perspectives on International Business, 14,* pp. 139-153. http://dx.doi.org/10.1108/cpoib-11-2016-0055.
67. Shangguan, Y.W., Guo, W.S. (2022). Is FDI a high-quality investment? evidence from the changes in the Chinese FDI after HSR opening. *Applied Economics, 54(60),* pp. 6863-6874. https://doi.org/10.1080/00036846.2022.2084019.
68. Shen, L., Koveos, P., Zhu, X.D., Wen, F., Liao, J.X. (2020). Outward FDI and Entrepreneurship: The Case of China. *Sustainability, 12, 5234.* https://doi.org/10.3390/su12135234.
69. Štiblárová, L., Junáková, A., Gregová, J. (2022). Is There "a Chinese Effect" On EU-15 Foreign Direct Investment in Central and Eastern Europe? *Czech Journal of International Relations, 57(2),* pp. 39-68. https://doi.org/10.32422/cjir.5.
70. Suryantoroa, S., Udinb, U., Qamarib, I.N. (2023). A bibliometric analysis using VOSviewer: Leadership in infection prevention and control. *Multidisciplinary Sciences Journal, 5(2), e2023022*. https://doi.org/10.31893/multiscience.2023022.

71. Tawiah, V., Kebede, J., Kyiu, A. (2022). Corruption, Chinese Investment, and Trade: Evidence from Africa. *Journal of Emerging Market Finance, 21(2),* pp. 123-151. https://doi.org/10.1177/09726527221073981.
72. The Britannica Dictionary (n.d.). *Trend*. Retrieved from: https://www.britannica.com/dictionary/trend, 20.08.2023.
73. The World Bank (2023a). *DataBank*. Retrieved from: https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?end=2022&start=2000, 24.08.2023.
74. The World Bank (2023b). *DataBank*. Retrieved from: https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?end=2022&start=2000, 24.08.2023.
75. The World Bank (2023c). *DataBank*. Retrieved from: https://data.worldbank.org/indicator/BM.KLT.DINV.CD.WD?end=2022&start=2000, 24.08.2023.
76. The World Bank (2023d). *DataBank*. Retrieved from: https://data.worldbank.org/indicator/BM.KLT.DINV.WD.GD.ZS?end=2022&start=2000, 24.08.2023.
77. The World Bank (2023e). *Foreign direct investment, net inflows (BoP, current US$)*, DataBank. Retrieved from: https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?end=2022&locations=CN&start=2000, 24.08.2023.
78. The World Bank (2023f). *Foreign direct investment, net inflows (% of GDP) – China*, DataBank. Retrieved from: https://data.worldbank.org/indicator/BX.KLT.DINV.WD.GD.ZS?end=2022&locations=CN&start=2000, 24.08.2023.
79. The World Bank (2023g). *Foreign direct investment, net outflows (BoP, current US$)*, DataBank. Retrieved from: https://data.worldbank.org/indicator/BM.KLT.DINV.CD.WD?end=2022&locations=CN&start=2000, 24.08.2023.
80. The World Bank (2023h). *Foreign direct investment, net outflows (% of GDP) – China*, DataBank. Retrieved from: https://data.worldbank.org/indicator/BM.KLT.DINV.WD.GD.ZS?end=2022&locations=CN&start=2000, 24.08.2023.
81. Ullah, S., Muhammad, Z., Gul, R. (2021). Chinese Investment under China-Pakistan Economic Corridor: Implications on Banking Performance in Pakistan. *Public Finance Quarterly – Hungary, 66(4),* pp. 568-583. http://dx.doi.org/10.35551/PFQ_2021_4_7.
82. Ullah, S., Hussain, S., Kartawinata, B.R., Muhammad, Z., Fitriana, R. (2022). Empirical nexus between Chinese investment under China–Pakistan Economic Corridor and economic growth: An ARDL approach. *Cogent Business & Management, 9(1).* http://dx.doi.org/10.1080/23311975.2022.2032911.
83. United Nations (2022). *World Investement Report. International Tax reforms and sustainable investement.* UNCTAD/WIR/2022, Geneva.
84. Vogel, K. (2023). *The top 12 business trends to watch in 2023*. Retrieved from: https://www.ringcentral.com/us/en/blog/business-trends-2023/, 20.08.2023.
85. Waqar, S., Ahmed, S., Badshah, I. (2021). Chinese FDI for Infrastructure Development in Africa - Assessing the Impact of Cooperation. *Estudis de Economia Aplicada, 39(3).* http://dx.doi.org/10.25115/eea.v39i2.3761.

86. Wang, K. (2023). Impact of Chinese FDI Stock on Urban Development of South African Cities. *Highlights in Business, Economics and Management, 5*, pp. 65-77.
87. Wang, H., Zhong, X. (2023). An Empirical Study on the Impact of Chinese OFDI on the Global Value Chain Positions of Countries Along the Belt and Road and Threshold Effects. *SAGE Open*, pp. 1-21. https://doi.org/10.1177/21582440231158027.
88. Whalley, J., Xian, X. (2010). China's FDI and Non-FDI Economies and the Sustainability of Future High Chinese Growth *China Economic Review, 21(1),* pp. 123-135. https://doi.org/10.1016/j.chieco.2009.11.004.
89. Wu, M. (2023). Implications of MNC Theory for Chinese Outward FDI. *Highlights in Business, Economics and Management, 11*, pp. 308-315.
90. Wu, Y.P. (2019). The Impact of Corruption on Chinese OFDI—Based on the Binary Marginal Perspective. *Modern Economy, 10(7),* pp. 1671-1683. https://doi.org/10.4236/me.2019.107109.
91. Xu, L., Tang, Q., Xu, L., Yang, H. (2023). Research on the Innovation-Driving Mechanism for the Synergistic Development of Two-Way FDI in China's Manufacturing Industry: Based on the Perspective of the New Development Pattern of "Dual Circulation". *Systems, 11, 17.* https://doi.org/10.3390/ systems11010017.
92. Yazici, I.M., Aktas, M.S. (2023). A Systematic Literature Review on Data Provenance Visualization. In: F.P. García Márquez, A. Jamil, S. Eken, A.A. Hameed (Eds.), *Computational Intelligence, Data Analytics and Applications* (pp. 479-493). ICCIDA 2022. Lecture Notes in Networks and Systems, 643. Cham: Springer. https://doi.org/10.1007/978-3-031-27099-4_37.
93. Yuan, S.L., Chen, H.Y., Zhang, W. (2022). Impact of corruption on Chinese investment in African countries. *Chinese Management Studies, 16(4),* pp. 904-923. https://doi.org/10.1108/CMS-12-2020-0576.
94. Zakari, A., Khan, I. (2021). Boosting economic growth through energy in Africa: the role of Chinese investment and institutional quality. *Journal of China Economic and Business Studies, 20(1),* pp. 1-21. http://dx.doi.org/10.1080/14765284.2021.1968709.
95. Zande, J.V. (n.d.). *2023 business trends: What's poppin'*. Retrieved from: https://www.the-future-of-commerce.com/2022/11/25/2023-business-trends-roundup/, 20.08.2023.
96. Zhang, K.H. (2022). Chinese Foreign Direct Investment in Africa: Its Motivations, Determinants, and Impact on the African Economies. In: E.F. Wamboye, B. Fayissa (Eds.), *The Palgrave Handbook of Africa's Economic Sectors* (pp. 603-624). Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-030-75556-0_23.