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Chinese Foreign Direct Investment into Africa:

A comparison with other emerging countries

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Abstract

Foreign direct investment (FDI) has been one of the most important indicators in the economic investment field for a long time, but economists never stop studying it. This study will focus on the Chinese foreign direct investment into Africa. Although China and Africa are far apart, the friendship between China and Africa has a long history and a solid foundation. So, the following questions come: What are Chinese FDI policies over time? Why do African countries attract Chinese foreign investments? Compared with other countries' investors, are Chinese investors different in Africa? In order to better understand these questions, this study will list the common FDI determinants: institutional environment, taxes, market size, geographic distance, infrastructure, government ownership, resource endowment, labor costs, co-location (agglomeration), and trade openness. Then, this study will do empirical analysis with the conditional logit model using fDi Market data from 2003 to 2019. Finally, this dissertation will compare Chinese FDI determinants with those from other emerging countries like India and Russia.

Abbreviation

BC: before Christ
CPC: Communist Party of China
FDI: foreign direct investment
FOCAC: Forum on China-Africa Cooperation
GDP: gross domestic product
IMF: International Monetary Fund
M&A: merge and acquisition
MNC: multinational company
MNE: multinational enterprise
OAU: Organization of African Unity
OECD: Organization for Economic Co-operation and Development
OFDI: outward foreign direct investment
PRC: People's Republic of China
SEZ: special economic zone
UNCTAD: United Nations Conference on Trade and Development
USD: US dollar
USSR: Union of Soviet Socialist Republics

Chapter 1. Introduction

1.1 Definition of Multinational Enterprises

UNCTAD, 1999 defines multinational corporations MNEs (transnational corporations) as "incorporated or unincorporated enterprises comprising parent enterprises and their foreign affiliates." A parent enterprise or firm is defined as "an enterprise that controls assets of other entities in countries other than its home country, usually by owning a certain equity capital stake." A *foreign affiliate* could be defined as "an incorporated or unincorporated enterprise in which an investor, who is resident in another economy, owns a stake that permits a lasting interest in the management of that enterprise." Foreign affiliates may be subsidiaries, associates, or branches. (UNCTAD, 2019b).

The first appearance of MNE was accompanied by the emergence of industrial capitalism and the change in firm behavior until the 19th century. From the late 19th century into the early 20th century, the Second Industrial Revolution, also known as the Technological Revolution, was a phase of rapid scientific discovery, standardization, mass production, and industrialization. Under this background, with the advent of railways and steamships and the introduction of inventions like the telegraph, a transportation and communication revolution occurred, allowing firms to oversee and coordinate the operations of their facilities in previously unimaginable ways. Good delivery and increased speed of information transfer are crucial for multinational enterprises, enabling them to expand their operations and increasingly penetrate national borders. However, during the Second World War, the chaotic political landscape dramatically changed the situation for multinational enterprises, forcing them to change the way they did business. As a result, many MNEs have chosen to concentrate on their local home market and avoid foreign investments.

With the acceleration of globalization in the 1990s and 2000s, foreign direct investment rose sharply due to the gradual reduction of trade barriers. Developing countries have gone through a phase of liberalization and stabilization, their economies have opened up to foreign investment, and improvements in information and communication technologies have helped multinational enterprises to conduct their activities more efficiently than ever before. In addition, the importance of financial activity and increased market liquidity have made it easier for companies to expand their operations abroad.

Market capitalization, 2017
(billions of dollars)

2.8 100 400 1,000

Change 2008-2017
(%)

-70 -30 -6 30 100 greater than 100

Percentage of the top 2,000 in world market capitalization, 2017

65%

© FNSP - Sciences Po, Atelier de cartographie, 2018
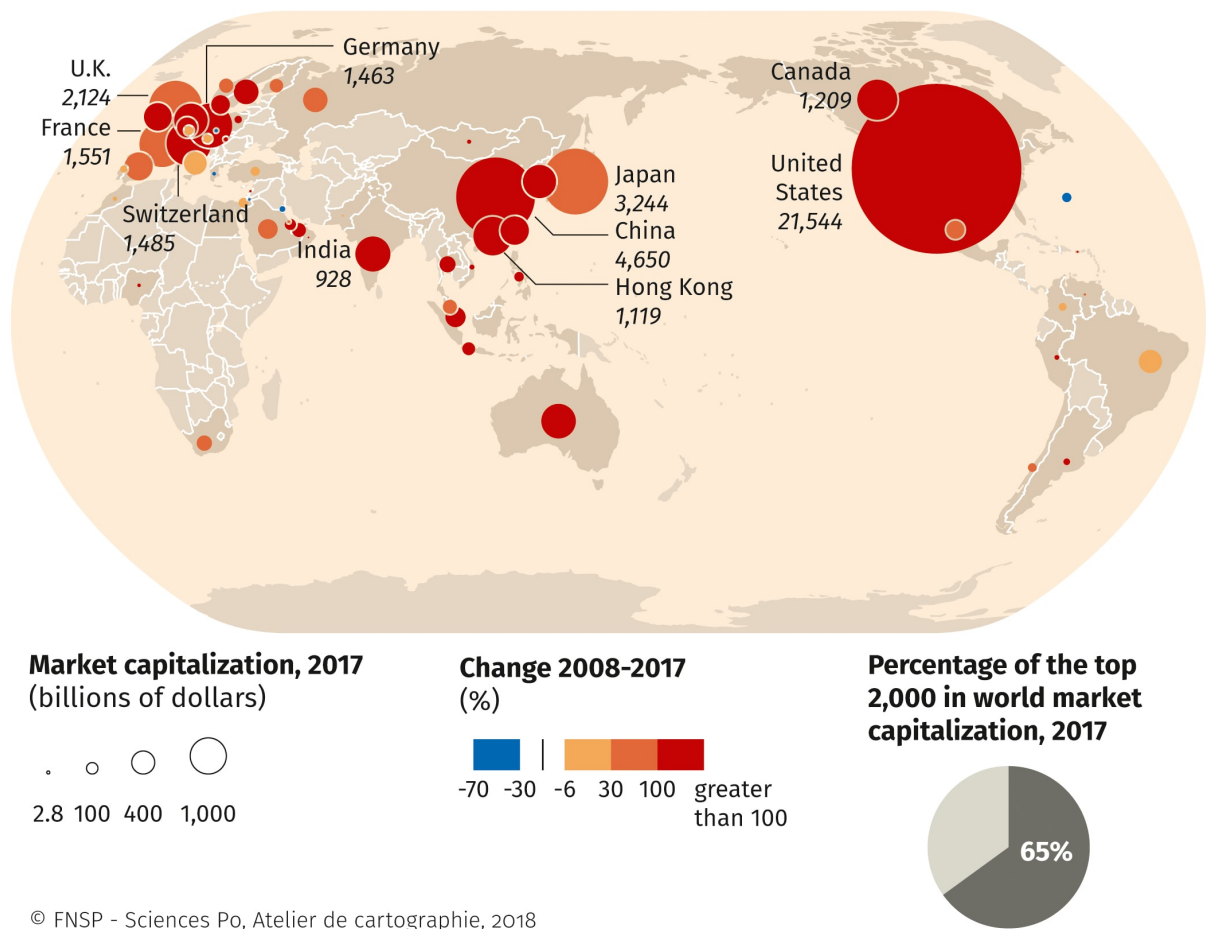
Figure 1 The 2,000 largest multinational companies, 2008-2017

(Sources: Forbes Global 2000; World Federation of Exchanges)

UNCTAD 1999 distinguishes them as follows: (UNCTAD, 2019b). ("FDI Ownership Advantage,")

- A subsidiary is an incorporated enterprise in the host country. Another entity directly claims more than a half of the shareholders' voting power and has the right to approve or remove a majority of the administrative, management, or supervisory body members.
- An associate is an incorporated enterprise in the host country in which an investor owns a total of at least 10%, but not more than a half, of the shareholders' voting power.
- A branch is a wholly or jointly-owned unincorporated enterprise in the host country, which may take the form of a permanent office of the foreign investor or an unincorporated partnership or a joint venture. A branch may also refer to land, structures, immovable equipment, and mobile equipment (such as oil drilling rigs and ships) operating in other countries than the investor's country.

1.2 Definition of Foreign Direct Investment

Foreign direct investment (FDI) is defined as "an investment involving a long-term relationship and reflecting a lasting interest and control by a foreign direct investor, resident in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate enterprise or foreign affiliate)." The phrase "long-term" is used in the last definition in order to distinguish FDI from portfolio investment, the latter characterized by being short-term in nature and involving a high turnover of securities. According to the OECD iLibrary, 10 percent ownership or more voting power in an enterprise in one economy by an investor in another economy is evidence of such a relationship. (OECD, 2021)

The first formal survey of outward foreign direct investment in the United States was done by the United States Department of Commerce towards the end of 1929, sought to measure "… the amount of capital involved in the extension of American enterprise into foreign countries, which include those commercial and industrial properties located overseas that belong to inhabitants of the United States and its Territories…" (Lipsey, 2001)

FDI is a crucial element in international economic integration since it makes steady and long-lasting joins between economies. FDI is an imperative channel for the transfer of innovation between nations, promoting international trade by access to foreign markets, and becomes an essential tool for economic development. The indicators covered in this group are inward and outward values for stocks, flows, and income, by partner country, and by industry and FDI restrictiveness.

Foreign direct investment (FDI) stocks present the total level of direct investment at a given point of time, usually the end of a quarter or a year. The outward FDI stock is the esteem of the resident investors' equity in and net loans to enterprises in foreign economies. The inward FDI stock is the esteem of the foreign investors' equity in and net loans to enterprises resident in the relative economy. FDI stocks are measured in USD and as a share of GDP. (OECD, 2021b)
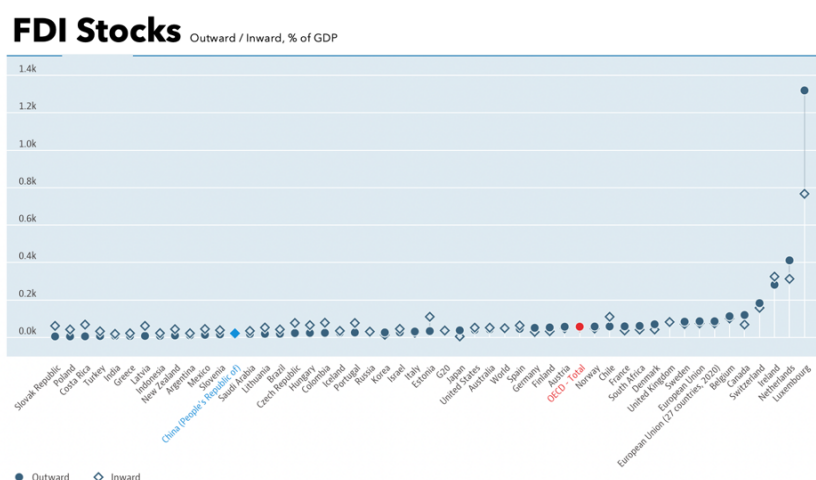
Figure 2 FDI Stocks, 2020 or latest available

(Source: Benchmark definition, 4th edition (BMD4))

Foreign direct investment (FDI) flows record the value of cross-border transactions related to direct investment at a given time, usually the end of a quarter or a year. Outward flows represent exchanges that increment the venture that financial investors within the announcing economy have in enterprises in a foreign economy. Inward flows represent exchanges that increment foreign investors' investment in resident enterprises within the relative economy fewer exchanges that diminish the investment. (OECD, 2021)
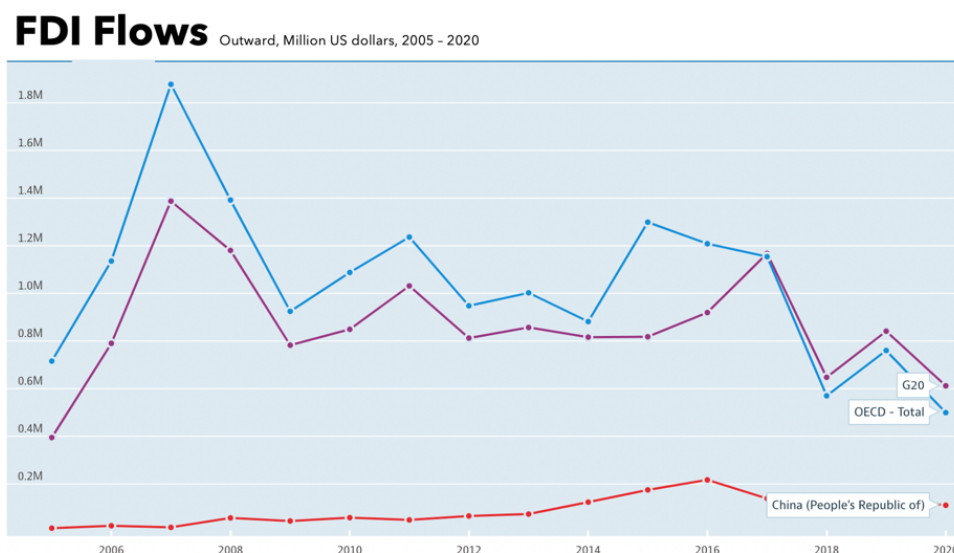
Figure 3 FDI flows

(Source: Benchmark definition, 4th edition (BMD4))

FDI restrictiveness is an OECD index representing the degree of FDI openness of a country. OECD set the rules by "looking at four main types of restrictions: foreign equity restrictions; discriminatory screening or approval mechanisms; restrictions on key foreign personnel and operational restrictions." This index takes a value between 0 and 1, 0 for open and 1 for closed. (OECD, 2021a)

Figure 4 FDI Restrictiveness

(Source: OECD FDI regulatory restrictiveness index)
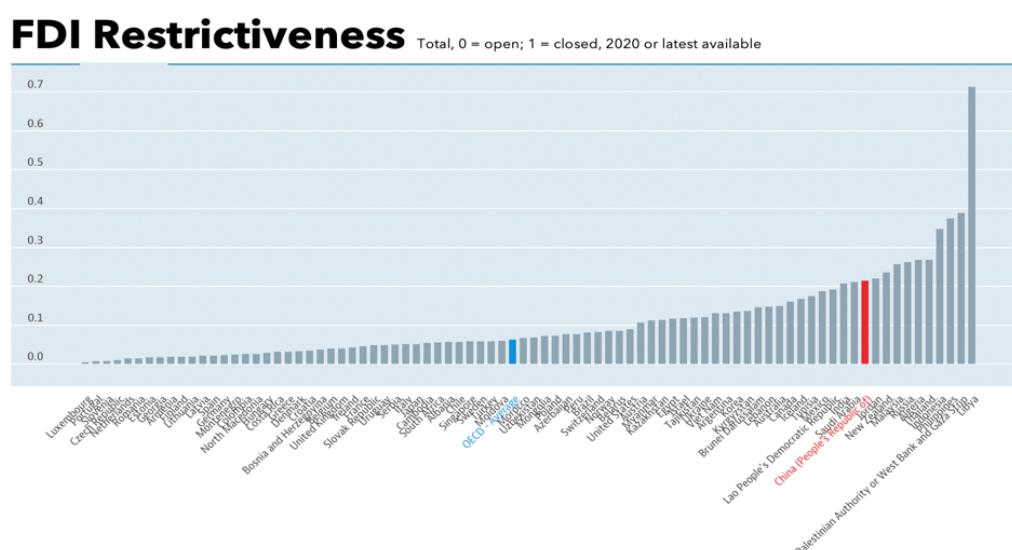
FDI implies making coordinated, stable, and long-lasting joins between (economies) distinctive nationalities and countries. FDI energizes the exchange of innovation and know-how between economies, positively impacting globalisation. (OECD, 2008)

1.3 Current financial data

According to the World Investment Report 2021, "Global foreign direct investment (FDI) flows fell by 35 percent in 2020, reaching $1 trillion, from $1,5 trillion in 2019. It is the lowest level since 2005 and almost 20 percent lower than the 2009 trough after the global financial crisis. In response to the COVID-19 pandemic, the lockdown around the world slowed down existing investment projects, and the prospect of a recession led multinational enterprises (MNEs) to re-assess new projects. The fall in FDI was significantly sharper than the fall in the gross domestic product (GDP) and trade." (UNCTAD, 2021)

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).
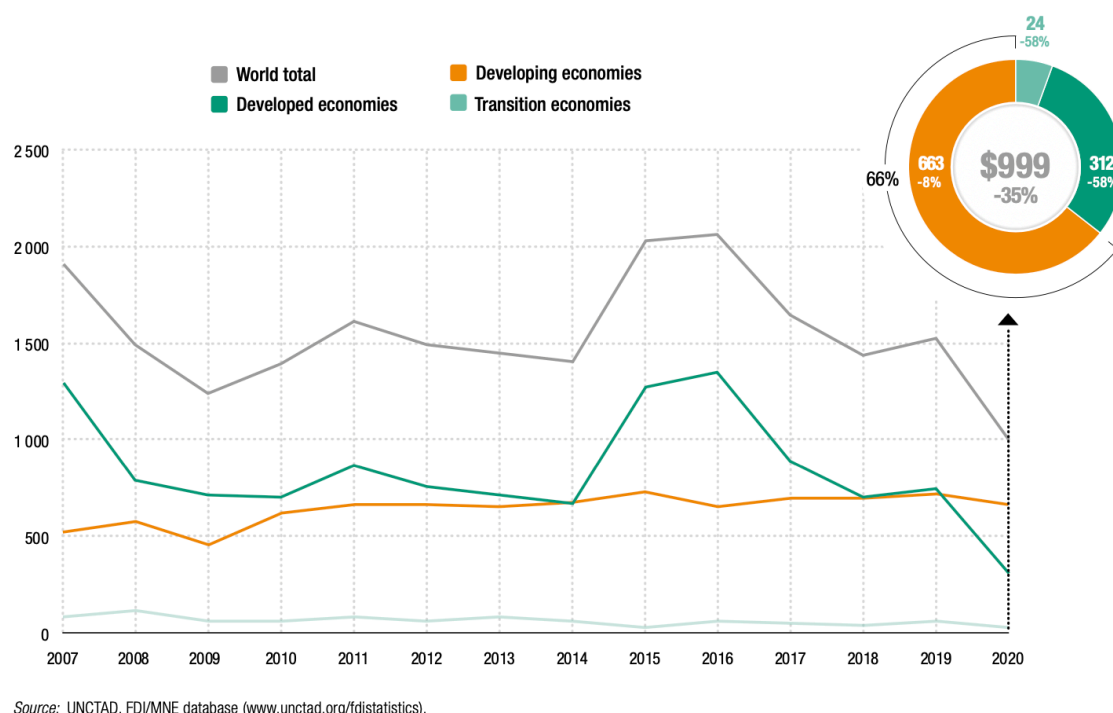
Figure 5 FDI inflows, global and by group of economies, 2007-2020

"FDI plummeted in developed and transition economies, falling by 58 percent in both. However, it decreased by a more moderate 8 percent in developing economies, mainly because of resilient flows in Asia (up 4 percent). As a result, developing economies accounted for two-thirds of global FDI, up from just under half in 2019.
Both the steep decline in developed economies and the relatively strong showing in Asia were influenced to a significant degree by large fluctuations in a small number of conduit economies." (UNCTAD, 2021)

	Value at current prices (Billions of dollars)					
	1990	2005–2007 (pre-crisis average)	2017	2018	2019	2020
FDI inflows	205	1 425	1 647	1 437	1 530	999
FDI outflows	244	1 464	1 605	871	1 220	740
FDI inward stock	2 196	14 607	33 162	32 784	36 377	41 354
FDI outward stock	2 255	15 316	32 851	31 219	34 351	39 247
Income on inward FDI[a]	82	1 119	2 084	2 375	2 202	1 745
Rate of return on inward FDI[b]	*5.4*	*8.8*	*6.3*	*6.9*	*6.2*	*4.7*
Income on outward FDI[a]	128	1 230	2 101	2 330	2 205	1 802
Rate of return on outward FDI[b]	*7.6*	*9.5*	*6.4*	*6.8*	*6.3*	*4.9*
Cross-border M&As	98.0	729.2	694.0	815.7	507.4	475.0
Sales of foreign affiliates	7 615	28 444	30 866	33 203	..	..
Value-added (product) of foreign affiliates	1 588	6 783	8 244	8 254	..	..
Total assets of foreign affiliates	7 305	70 643	114 441	110 220	..	..
Employment by foreign affiliates (thousands)	30 861	68 057	82 600	85 504	..	..
Memorandum						
GDP[c]	23 627	52 546	80 834	85 893	87 345	84 538
Gross capital formation[c]	5 748	13 009	20 938	22 743	23 090	22 260
Royalties and licence fee receipts	31	179	391	427	419	394

Source: UNCTAD.

Figure 6 Selected indicators of FDI and international production, 2020 and selected years

The table above used the Data from IMF (2021a), based on data from 168 countries for income on inward FDI and 142 countries for income on outward FDI in 2020, in both cases representing more than 90 percent of global inward and outward stocks, calculated only for countries with both FDI income and stock data. Even though the sharp drop in glocal FDI flows during the crisis, it is easy to find out that international production will continue to play a critical role in fostering economic growth and development. Overall, FDI flows remained positive, contributing to capital stocks in international affiliate networks.

1.4 Dunning's OLI theory and FDI classifications

In September 1993, John H. Dunning and Rajneesh Narula published the theory of international production and the famous eclectic paradigm. (Dunning and Narula, 1993) According to the eclectic paradigm, the motivation and type of a firm's abroad activities are determined by the extent to which they can obtain technology, know-how, resources, or other income-generating assets that their rivals either do not possess or cannot obtain. Ownership (O) specific advantages are defined as mentioned. Then, on the premise of having certain O advantages, to promote FDI, the firm should consider how to own or control these value-adding activities. These are called internalization (I) specific advantages. Last but not least, location (L) specific advantages mean that the parent firms need to benefit from creating assets in a foreign country, combing with or adding value to their home country.

When the parent firm decides to invest overseas is based on different considerations. For this reason, the motivations of FDI are certainly not one of a kind. Usually, the issue of FDI motivations has not been treated as a separate field of study.

According to Dunning's theory, the standard classification of FDI motivations is i) market seeking; ii) resource seeking; iii) efficiency-seeking; iv) strategic asset seeking. (Franco, Rentocchini, and Marzetti, 2008)
   i.   Market seeking: firms invest abroad to profit from foreign markets. Many reasons may lead to these seeking: lack of foreign production facilities; to adapt local needs or tastes; engage new markets in order to discourage potential competitors.
   ii. Resource seeking: it is the most common motivation because the firm may not find available resources in the host country or cheaper labor.
   iii. Efficiency seeking: "FDI that occur when firms take advantage of differences in the availability and costs of traditional factor endowments in different countries; or they take advantage of the economies of scale and scope and differences in consumer tastes and supply capabilities." (Dunning and Lundan, 2008)
   iv. Strategic asset seeking: sophisticated research and development technologies, advanced managerial experience, company branding, high-quality human resources, and logical marketing tactics are the significant strategic assets.

In summary, multinational companies engage in foreign direct investment activities under the guidance of market seeking, with the primary purpose of exploring foreign markets and finding more customers. Resource seekers are looking for things not available in their domestic market or can be obtained at a lower cost abroad. Nevertheless, pursuing efficiency aims to rationalize their existing operations in different locations and reduce their costs. The benefits come from economies of scale and scope because companies can use different factor endowments in different countries. Strategic asset seekers focus on developing strategic resources critical to their long-term strategies, such as patents, advanced management models, and organizational skills. The first two are the main strategic motivations in the initial stage, while the latter is mainly in the higher stage.

According to Dunning's theory, the investment development path can be divided into five stages. In the first stage, a country receives very little FDI and makes no foreign investment. The second stage attracts inward FDI and becomes a net FDI importer, achieving its first outward FDI. In the third stage, the country draws considerable inward FDI due to its new technology competencies and low labor costs, and its multinational companies began to

invest significantly abroad, but the country still plays the role of FDI importer. In the fourth stage, the country is supposed to be developed, and it invests more outwards than it does inward FDI, resulting in a positive FDI balance. In the last stage, the country finally achieves a nearly equal inward and outward FDI balance. (Andreff, 2016)

When a multinational corporation plans to invest abroad, it is necessary to decide to establish a new facility in its host country or purchase a local firm. These are two well-known modes of foreign direct investment: greenfield investment (GF) and brownfield investment (cross-border mergers and acquisitions, M&A). (Haruka, 2021.)
Greenfield FDIs occur when multinational corporations enter host countries to build new production factories or stories. The word "greenfield" refers to structures built on previously undeveloped land. Green is also a synonym for new, referring to new construction projects undertaken by corporations. There are many reasons why a firm decide to establish a new facility instead of purchasing an existing one. The main reason is that a new facility allows for more flexibility while also being more efficient in meeting the project's requirements. In addition, this offers an opportunity for hiring local employees. Countries also provide potential companies with tax advantages, subsidies, and other incentives to encourage them to engage in greenfield projects. However, greenfield FDIs also have downsides, such as more risk for higher construction costs. (Scannell, 2010)

On the other hand, a brownfield investment, also called "cross-border mergers and acquisitions, M&A" is when multinational corporations purchase or lease existing production facilities in host countries. The obvious benefit of a brownfield investment strategy is that the facility is already existed, lowering start-up costs. It is also possible to reduce the amount of time spent on building. However, existing personnel, outdated equipment, entrenched processes, and cultural differences are just a few challenges that firms may encounter. (UNCTAD, 2021.)
In general, greenfield refers to starting from the beginning, and brownfield refers to modifying or updating existing plans or projects.

Another classification depends on the motive for affiliate operations: vertical and horizontal FDI. According to the "Knowledge capital model" by Markusen and Maskus (2002), vertical FDI refers to those multinationals that spatially fragmented production process. They seek to relocate a portion of the production chain abroad to benefit from lower production factors cost or obtain control over local resources. On the other hand, multinational firms choose horizontal FDI because they duplicate the same activities in serval nations. In addition, they stem from a desire to avoid transportation costs or trade barriers. Therefore, they must determine whether to build an alien plant to serve the market through exports. (Franco, Rentocchini, and Marzetti 2008) Actually, it is impossible to distinguish between horizontal and vertical FDI because horizontal FDI affiliates rely on the parent business for some headquarter services, even though the firm duplicates the same industrial activity in multiple countries. As a result, each horizontal multinational corporation has specific vertical characteristics. (Protsenko, 2003)

1.5 FDI in emerging economies

The world of an emerging market is diverse and defies a uniform narrative. Despite the lack of a formal definition, emerging markets are generally defined by characteristics such as sustained market access, progress in reaching middle-income levels, and increased global economic relevance. Nonetheless, these economies are unique, and the distinction between emerging markets and other developing economies is also imprecise. IMF identifies "the following countries in the emerging market group, in alphabetical order: Argentina, Brazil, Chile, China, Colombia, Egypt, Hungary, India, Indonesia, Iran, Malaysia, Mexico, the Philippines, Poland, Russia, Saudi Arabia, South Africa, Thailand, Turkey, and the United Arab Emirates. Two countries were excluded: Nigeria because of its classification as a low-income country (eligible for IMF Poverty Reduction and Growth Trust financing) during the sample period considered (2010-2020) and Qatar because of its population of less than 5 million." (Duttagupta and Pazarbasioglu, 2021)

Following a brief halt in 2001-2004, foreign direct investment in emerging economies is booming. Foreign investors look for local markets and export platforms based on local resources like low-cost labor or natural resources. Although most investors strive to profit from the market, resource-seeking investors found many large projects, giving them significant weight in many FDI indices. Many investors may be driven by only one of the goals at first, but most investors build a range of operations over time and serve domestic and international markets. (Meyer, 2005)

There are several advantages for firms that choose to invest in emerging economies. The first one is that FDI in emerging economies are less sensitive to financial and economic cycles because these kinds of investment are usually greenfield. At the same time, FDI destined for advanced economies predominantly take the form of M&A. Low labor costs, lack of social security, and the openness of internal markets by many developing countries has played a critical role. It has enabled many MNEs to conduct strategic investment activities abroad, reduce costs and seek to reach out directly to a new potential pool of consumers in the target countries.

Now, this dissertation will briefly discuss two cases about Indian FDI and Russian FDI, which are two of the most potent emerging countries in the world.

According to Saikia (2012), the first OFDI from India was established as a textile mill in Ethiopia by Birla in 1955. (Saikia, 2012) In the 1960s, Indian companies invested extensively abroad. However, due to India's restrictive OFDI legislation, the types of foreign investment are limited to small joint ventures and only in some developing countries such as Kenya, Uganda, Nigeria, Malaysia, Thailand, and Sri Lanka. Under the state's strict policy requirements, foreign investment activities are challenging to carry out. As the policy liberalization pushes, Indian OFDI draws a booming. However, the Indian government-supported more joint venture projects than wholly-owned subsidiaries. In order to promote the export of local equipment and goods, they focused on the market, seeking investments not only to neighboring host countries but also to the Middle East and some African countries, especially to countries that have vast numbers of Indian origins people. Compared to other BRICs' multinational companies, Indian MNCs have benefited from a first-mover advantage. (Andreff, 2016)

Most of the Indian companies investing abroad before the 1990s were market-seeking types. They are mainly conglomerates. They stood out from the competition with other developing countries under their sample technology, low product differentiation, and labor-intensive industries. With the liberalization of the Indian government's trade policy, the accumulation of domestic market experience, and the improvement of the industrial level, more and more Indian companies have begun to invest in developed countries. After entering the 20th century, India's foreign direct investment turned to high-tech fields, such as the Indian IT industry. According to Ruet's study in 2010, one of the critical elements of the success of some well-known Indian multinational countries is the conglomeration structure. (Joël Ruet, 2010) Moreover, the aim is for better R&D better skills in infrastructure and strategic assets. Ultimately, Indian MNCs switched from market-seeking to asset-seeking. Indian MNCs are small-sized compared to other countries' MNCs. However, they can acquire foreign companies, which are more significant than themselves by M&A. Since the 2000s, Indian multinational companies have improved their international competitiveness by combining acquired leading global technologies with cheap domestic labor costs. (Andreff, 2016)

The industrial distribution of Indian OFDI reflects a change from essentially market seeking to a more asset-seeking strategy. (Kumar, 2006) According to Andreff's (2016) study, he pointed out that "Since 1991, about 60% of Indian OFDI concentrated in IT, communication, software and media, trade, banking, and finance. Power generation, electronic equipment, telecom, chemicals, pharmaceuticals, and software development were among the predominant investors abroad within the manufacturing industry. Knowledge-based industries- software and IT, depository institutions, professional, technical and scientific services have heavily invested abroad since 2000…….." (Andreff, 2016) He also summarized that large-scale Indian MNCs are increasingly able to utilize their competitive advantages even in developed countries, thanks to their maturing technical strength. As a result, manufacturing has supplanted services as the dominant source of OFDI in the 2000s, and the primary sector's share is currently proliferating. Moreover, due to the 2010's global economic crisis, Indian outward foreign direct investments have turned back into services, including financial and insurance services, entertainment and broadcasting, construction, and telecommunication.

Another powerful emerging country is Russia. Before discussing the Russian foreign direct investment, this dissertation has to analyze the Union of Soviet Socialist Republics' (USSR) foreign investment. Many scholars are willing to compare China and USSR because China and USSR are both communist countries, but there are still many differences between the two countries regarding foreign investment. Compared with other countries, the former Soviet Union opened up to foreign direct investment late. After the Second World War, the domestic policy situation was turbulent, and the investment environment was poor. As a result, after the disintegration of the USSR, Russia did not have an excellent start to foreign direct investment. Therefore, when explaining the evolution of outward FDI from the Russian Federation, one of the crucial elements is the state's role. (Kalotay and Sulstarova, 2010a)

During the presidency of Boris Yeltsin (1991-1999), the Russian government actively facilitated the establishment of large private monopolies that would be the precursors of future Russian multinational companies. However, the President did not propose any other policies to promote foreign direct investment (neither economic policy nor political policy). As a result, it was not until the end of 1998 that the aftermath of the Russian financial crisis saw a rapid increase in Russian OFDI. (Andreff, 2016)

Things changed during the presidency of Vladimir Putin (1999-2008). Since around 1999, most of Russia's 100 largest companies have shifted to multinational. As a result, Russian MNCs benefited from the accelerated globalization of the world in the early 2000s. Thanks to various favorable international factors, including persistently high prices for essential export products, the Russian economy has experienced a remarkable recovery and is now once again a major player in the world economy. (Panibratov and Kalotay, 2009)

Following in the footsteps of the former Soviet Union, the initial foreign investment strategy adopted by Russian multinational enterprises was the type of market seeking through previous exports. Moreover, Russia's resource seeking is concentrated in the oil, gas, and mining extraction industry. However, since the beginning of the 20th century, Russia has started asset-seeking foreign investment by acquiring Western technology and R&D-intensive enterprises. Through cross-border M&A, they can strengthen their international competitiveness, thereby gaining a monopoly or oligopoly in the international market. (Andreff, 2016)

"The expansion of non-natural resource-based companies abroad is a very recent phenomenon. For example, the Russian producer of anti-virus software, Kaspersky Lab as an outward investor is a lonely competitor of the outward software powerhourse of India", said Kalman. (Kalotay, 2005) According to Kalotay and Sulstarova's analysis of Russia's foreign direct investment industrial sector, the largest group is the oil and gas industry, the second largest is metal processing, and the third group is telecommunications. Russian foreign investment characteristics are that Russian MNCs are overrepresented in natural resource exploitation, mining, and metallurgical industries compared to other emerging economies. (Kalotay and Sulstarova, 2010b)

Chapter 2. The evolution of Chinese policies of FDI

On the 1st of October 1949, the Communist Party of China (CPC) president, Mao Zedong, formally proclaimed the establishment of the People's Republic of China (PRC) in Beijing. Over the past 70 years, China has consistently pursued an independent foreign policy peace and conducts friendly cooperation with other countries. The Chinese economy has been closely connected with the world's economy. It has witnessed Chinese Foreign Direct Investment (FDI) from scratch, from hard beginning to comprehensive development. In the following section, the development process of China's FDI has been divided into five stages.

2.2 1949-1978: difficult exploration stage

This stage was from the founding of the PRC (1949) to the Third Plenary Session of the Eleventh Central Committee of the CPC (1978), when the reform and opening-up policy was proposed. On the eve of the founding of the PRC, the Kuomintang authorities transferred a large amount of national wealth and capital to Taiwan. After the North Korean War, China was subjected to severe international embargoes and blockades by the United States and other Western countries. In addition, the poverty and weakness caused by years of war made it impossible for the new China to support the basic construction of the national economy at that time. The top priority is to solve the people's food and clothing problem. Facing the harsh domestic and international economic environment, production factors such as capital, technology, and talents are severely lacking. During this period, China could not carry out large-scale foreign investment activities. The only inherited overseas investment companies are mainly concentrated in Hong Kong. For example, China Merchants Group Limited is responsible for transferring all domestic goods to Hong Kong. China Resources (Holdings) Company, Limited, is responsible for importing materials and organizing exports to Hong Kong. And other state-owned enterprises such as China Travel Service (Holdings) Hong Kong Limited. These "Three State-owned Enterprises" stationed in Hong Kong have accumulated valuable experience for foreign economic, trade, and investment activities. (Gao, Xin, and Sun, 2019)

From the middle and late 1950s to the middle and late 1970s, China assisted Vietnam, Albania, North Korea, Tanzania, Zambia, and other Asian, African, and Latin American countries. However, it belongs to the needs of diplomacy and international political strategy, and the enterprise has no decision-making authority, so it does not belong to the scope of foreign direct investment.

Regarding foreign investment policies, government departments mainly provided adequate policy support to several state-owned enterprises in Hong Kong-based on their development situations. In 1978, the central government approved the "Request for Making Full Use of Hong Kong China Merchants Issues," allowing China Merchants Group Limited to expand its independent management authority and fully carry out economic and trade activities. Hong Kong's political position, Chinese business network, neighboring location, and economic and trade environment make it the only region for China's FDI during this period. It is one of the important reasons Hong Kong became the "first stop" for many Chinese mainland companies' foreign investment. (Gao, Xin, and Sun, 2019)

2.2 1979-1992: initial development stage

In 1978 the Chinese government, dominated by Deng Xiaoping, adopted one of the most critical policies, which Westerners have referred to as the "open-door policy." This policy has altered China's development strategy from one based on self-sufficiency to one of active participation in the world market. In late that year, famous China's economic reforms were launched. Under these conditions, the government subsequently established four special economic zones (SEZs)- Shenzhen, Zhuhai, Xiamen, and Shantou. Furthermore, other areas for foreign investment include the open coastal cities, the economic and technology development zones, the delta open zones, the open peninsula zones, the open border cities, and the high-tech industry development zones. (Chen, 2017)

The promulgation of the Equity Joint Venture Law (Sino-foreign Joint Ventures) in July 1979 formally opened China's market to the world. The law provided foreign investors with a legal framework to form equity joint ventures with Chinese partners. In addition, the law pointed out that China permits foreign companies, enterprises, other economic entities, or individuals to incorporate themselves in the territory of China to joint ventures with local Chinese companies, enterprises, or other economic entities, and the state shall not nationalize or expropriate foreign investment interest. (Kobayashi, 1999)

In August 1979, the State Council promulgated the "Fifteen Measures on Economic Reform." The thirteenth item clearly stated that "going abroad to set up enterprises" was allowed, thus kicking off the prelude to the international cooperation in the form of FDI by Chinese mainland enterprises. Then, in 1992, Deng Xiaoping made a speech on his southern tour. This tour set the scene for China's move away from the formerly uneven regional implementation to a nationwide application of available policies for FDI. (Gao, Xin, and Sun, 2019)

From this, China began to build a socialist market economic system and sought to expand foreign investment and transnational operations of Chinese enterprises actively. During this period, the relatively good domestic policy environment pushed FDI activities to climax.

With the reform of the market-oriented economic system that China began in 1992 and the acceleration of the opening-up process, companies have gained greater operational autonomy. As a result, companies that have achieved leading advantages, particularly to expand market space, began to develop or expand FDI consciously. (Kobayashi, 1999) During this period, FDI was characterized by small investment and mainly expanding trade, with few participating enterprises, mainly concentrated in Beijing, Shanghai, Guangzhou, and other places. The main body of foreign investment is all state-owned enterprises. The investment industry has gradually changed from foreign economic and trade enterprises to multi-industry enterprises, from the initial service industry such as catering and construction engineering to more than 20 industries such as mechanical processing, resource development, and transportation. The establishment of corresponding supporting policies takes standardization and management as the primary function. (Zhou et al., 2009)

2.3 1993-1999: adjustment stage

The domestic and foreign environment of China's FDI changed significantly in 1993. The domestic economy has "overheated" due to total supply and demand imbalance. The government has adopted measures to curb inflation to "tighten money," policies to reduce and control the scale of investment and credit. In addition, Western developed countries have imposed a new round of economic sanctions on China. Some state-owned enterprises have begun to show that blind investment has led to losses, and it seems that foreign investment is a phenomenon of capital flight. Therefore, from 1993 to the first half of 1996, the central government began to clean up and rectify overseas investment enterprises. (Kobayashi 1999) The Ministry of Foreign Trade and Economic Cooperation to issue a notice on strengthening the management of overseas enterprises and draft the "Regulations on the Management of Overseas Enterprises" to clarify the foreign investment management functions of various government departments and strengthen the approval policies and foreign exchange controls. History has proved that for the vast majority of enterprises that had insufficient reserves of capital and technology and other production factors at that time, this was the correct measure to comply with the requirements of the objective environment. (Gao, Xin, and Sun, 2019)

Due to the emergence of the wave of world economic integration in the mid-1990s, which triggered the general prosperity of trade protectionism in various countries, the Chinese government began to pay attention to and encourage FDI. In 1997, the 15th National Congress of the Communist Party of China established the strategic policy of making full use of the "two markets, two resources" at home and abroad and encouraged the development of foreign investment with international comparative advantages. In 1998 at the National Conference on Foreign Trade and Economic Cooperation, the State Council further proposed "actively guiding and promoting China's comparatively advantageous processing and assembly in foreign countries and encouraging enterprises with economic and technical strength to invest and set up factories overseas." After the Asian financial crisis in 1998, the RMB (Yuan, Chinese official currency) experienced a relative appreciation. In order to expand exports, strive for foreign exchange and create employment, the State encourages enterprises to carry out overseas processing and assembly business. It provides preferential policies for domestic enterprises in textile, home appliances, machinery, and electronics industries to invest and set up factories overseas in the form of overseas processing trade. (Gao, Xin, and Sun, 2019; Chen, 2017)

2.4 2000-2012: rapid development stage

In the first few years after entering the 21st century, China's FDI ushered in the second climax of development, mainly due to the changes in the domestic and foreign economic system environment. In 2000, the central government's "going global" opening strategy and China's entry into the World Trade Organization (in 2001) significantly strengthened the motivation of overseas investment by mainland enterprises. As a result, some high-quality private enterprises either rely on trade forms or directly carry out mergers and acquisitions and quickly join the ranks of overseas investment.

The "going global" strategy was formally proposed during the Third Session of the Ninth National People's Congress in March 2000. Jiang Zemin, the president of the CPC of that period, pointed out that as China's economy continues to develop, people must actively participate in international economic competition and strive to seize the initiative. Therefore, it is necessary to implement the "going global" strategy without losing any opportunity, closely combining the "bringing in" and "going global" strategy, making better use of both domestic and foreign resources and two markets. ("China Going Global" 2017) (Economic Information Department of China Council for the Promotion of International Trade, 2007) The final clarification of the "going global" strategy was held in October 2000 at the Fifth Plenary Session of the 15th CPC Central Committee. This committee was held at the turn of the century when China was about to complete the Ninth Five-Year Plan, and the economic reform, opening up, and modernization drive entered a new stage of development. (Zhou et al., 2009) The plenary meeting reviewed and approved the "Recommendations of the Central Committee of the CPC on Formulating the Tenth Five-Year Plan for National Economic and Social Development." The Proposal pointed out that China's opening to the outside world will enter a new stage during the "Tenth Five-Year Plan" period. In implementing the fundamental national policy of opening to the outside world, an effective content during this period and even a more extended period is implementing the opening strategy of "going global." (Long, 2005)

In October 2007, at the Fifth Plenary Session of the Sixteenth Central Committee of the Communist Party of China, the Recommendation stated that China must continuously deepen its economic reform and opening-up policy and implement a win-win strategy to achieve mutual benefits. For example, support qualified enterprises to "going global," invest overseas following internationally accepted rules, encourage overseas project contracting and labor export and expand mutually beneficial cooperation and joint development. So far, the "going global" strategy has been fully implemented. (China Council, 2007)

During this period, many well-known brand companies and resource-seeking companies such as TCL, Lenovo, and Haier have actively participated in overseas investment and international competition. In addition, China's successful response to the global financial crisis in 2008 created further favorable environmental conditions for China to carry out foreign economic and trade investment, and China also opened the history of affecting the modern world economy. As a result, at the end of 2011, China's FDI was above 50 billion U.S. dollars. (UNCTAD, 2011) (See figure below)

United States (1): 228 / 153
China (2): 106 / 95
Hong Kong, China (4): 69 / 52
Belgium (17): 62 / 24
Brazil (15): 48 / 26
Germany (6): 46 / 38
United Kingdom (3): 46 / 71
Russian Federation (7): 41 / 36
Singapore (22): 39 / 15
France (10): 34 / 34
Australia (16): 32 / 26
Saudi Arabia (11): 28 / 32
Ireland (14): 26 / 26
India (8): 25 / 36
Spain (30): 25 / 9
Canada (18): 23 / 21
Luxembourg (12): 20 / 30
Mexico (21): 19 / 15
Chile (26): 15 / 13
Indonesia (43): 13 / 5
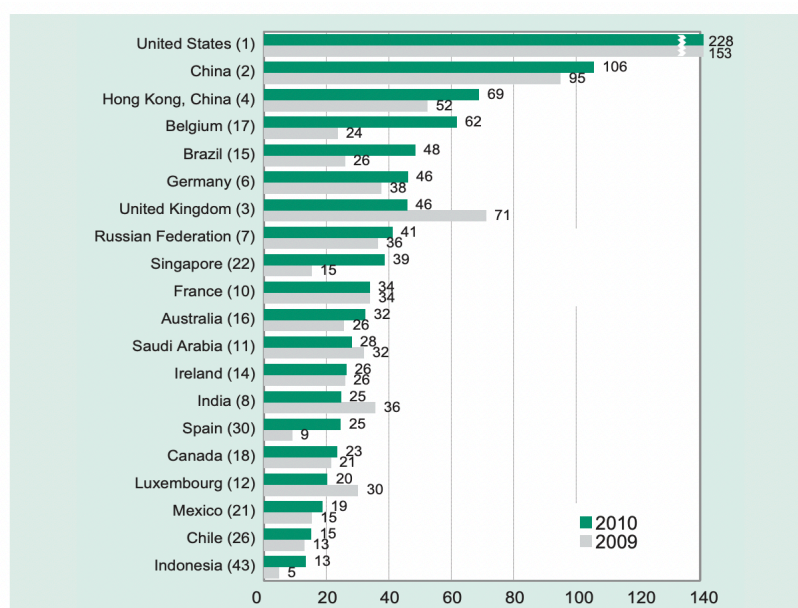
■ 2010
□ 2009

Source: UNCTAD, based on annex table I.1 and the FDI/TNC database (www.unctad.org/fdistatistics).
ᵃ Ranked on the basis of the magnitude of 2010 FDI inflows.
Note: The number in bracket after the name of the country refers to the ranking in 2009. British Virgin Islands, which ranked 12th in 2010, is excluded from the list.

Figure 7 Global FDI inflows, top 20 host economies, 2009 and 2010

During this period, the policy system of FDI has also undergone significant changes. Fifteen years of WTO accession negotiations have forced some economic system reforms in domestic foreign trade and related fields. The government began to attach importance to the economic effects of FDI in economic growth and trade promotion, then issued a series of supporting and guiding policy documents, in particular, the "Decision of the State Council on the Reform of the Investment System" promulgated in July 2004 changed the foreign investment project, and delegate part of the review authority to the local government. (Long, 2005)

2.5 2013- present: full development stage

After the 18th National Congress of the CPC was held in 2012, China's FDI entered a new development stage. As a result, China has gradually been able to elevate itself from adapting to the international investment environment to create an international investment environment. A meaningful sign is to actively promote the joint construction of the "The Belt and Road" initiative. (Gao, Xin, and Sun 2019)

"The Belt and Road" is a brief construction of the "Silk Road Economy" and "21st Century Maritime Silk Road". In September and October 2013, Chinese President Xi Jinping put forward the cooperation of the "New Silk Road Economic Belt" and "21st Century Maritime Silk Road," respectively. Its core content is "policy coordination, infrastructure building, unimpeded trade, financial integration, and people to people exchanges" (referred to as the "five links"). Its strategic goal is to innovate growth and development models through the cooperation options and development momentum for world development and create inclusive development of a community with a shared future for humankind. (Wikipedia, 2021)

Rely on the existing bilateral and multilateral mechanisms between China and relevant countries. Based on the extension of existing and effective regional cooperation platforms, the Belt and Road Initiative invokes historical symbols like the ancient Silk Road to develop economic partnerships with countries along the route actively. Further, the Belt and Road aim to build a community of interests and destiny, i.e., a community of mutual political trust, economic integration, and cultural inclusion. (R. Li and Cheong, 2019) On March 28, 2015, the National Development and Reform Commission, the Ministry of Foreign Affairs, and the Ministry of Commerce jointly issued the "Vision and Actions on Jointly Building Silk Road Economic Belt and 21st Century Maritime Silk Road". It entirely considers the characteristics of China's national condition of "strong foreign exchange reserves but poor returns and surplus production capacity with production advantages but a surplus in the country."

Relying on a policy-driven approach, the Belt and Road policy has enabled China to forge more extensive and comprehensive relationships with these countries. This is because it leverages China's comparative advantages in various areas (e.g., foreign exchange reserves, industrial production capacity, product value for money, etc.) to invest in infrastructure and industrial parks in developing countries with a strong demand for cooperation. (J. Li et al., 2021) The close trade and investment relationship realize an equal and win-win development model that is not commodity dumping and resource seduction. In addition, the "Belt and Road" initiative will help optimize the global layout of China's FDI by adjusting the spatial flow of FDI. The "Belt and Road" region, which accounts for more than 20% of the total global trade, has not yet become a significant investment location in China. However, it has enormous investment potential for traditional manufacturing. Both opportunities and risks coexist. (Ministry of Commerce of the People's Republic of China, 2015) Since then, China has entered a two-way balanced development stage of foreign investment and the use of foreign capital. In addition, the introduction of foreign capital and foreign investment through the domestic free trade zone has further promoted the development of two-way investment.

It is worth noting that in mid-2017, the central government successively promulgated the "Opinions on improving the safety work of overseas enterprises and foreign investment" and the "Guiding Opinions on Further Guiding and Regulating the Direction of Overseas Investment," which stopped the continuous spread and expanded non-real economy FDI. In

addition, the source of funds behind this type of investment is primarily significant domestic financing with a high leverage ratio, which implies more significant financial risks. Facing the strict investment review and complicated investment environment in the United States, Australia, and other countries today, this policy measure appeared to be particularly timely and correct two years ago. (Ministry of commerce of the People's Republic of China 2017; Gao, Xin, and Sun 2019; J. Li et al., 2021)

At present, China's FDI is mainly concentrated in the commercial service industry, manufacturing industry, mining industry, wholesale and retail industry, financial industry, and construction industry. In addition, the investment model covers various types such as greenfield investment, cross-border mergers and acquisitions, equity financing, cooperative alliances, and overseas listings. Among them, cross-border mergers and acquisitions have gradually become the leading investment model, and the proportion of foreign investment that can drive domestic economic development is gradually increasing in market acquisition and technology acquisition. (Ministry of commerce of the People's Republic of China 2018; 2019; 2020)

Summary

Over the past 30 years, China's economic reform and opening-up have made remarkable achievements. However, at the same time, there are also problems such as lack of top-level design, lack of strategy, and lack of attention to improving the international development environment. ("2020 belt and road initiative report,") There is an urgent need to strengthen the system integration of reform and opening measures. Promoting reform through opening up is the whole experience of China's reform and opening up. The secret of its success lies in introducing external supervision for corporate governance and government governance by actively integrating into the world market to improve governance efficiency. However, neither the macro-medium nor the micro-level external supervision created by reforms for more than 30 years is not the real external supervision. The main body for supervision is only the incarnation of the governor to a certain extent, not the main body from outside the governance system. Therefore, the problem of inefficiency still cannot be solved. (Wang 2020) China's reforms urgently need to be intensified comprehensively to address fundamental issues. "The Belt and Road" initiative is not only the general program for China's opening to the outside world but also the general key to comprehensively deepening reforms. At present, in the context of the new normal of the economy and the "idle" of reforms, it is urgent to strengthen the construction of a new open economic system led by "The Belt and Road" initiative and comprehensively promote the reform and development of various fields in China. (Long, 2005; UNCTAD, 2021)

Chapter 3. Description of Chinese FDI in Africa

3.1 The history and current situation of China-Africa relation

Although China and Africa are far apart, the friendship between China and Africa has a long history and a solid foundation. As early as the second century BC, China's Han Dynasty and Africa had begun to understand each other and indirectly exchanged their unique products and treasures.

The Tang Dynasty (6th - 9th centuries) began to formally and directly communicate with the Arab Empire that ruled Northern Africa at that time. The development of the shipping industry during the Song Dynasty (10th – 13th centuries) led to the further development of personnel and product exchanges between China and Africa. As a result, Chinese products appeared in large numbers on Africa's Northern and Eastern coasts and penetrated the inland areas of Africa such as Zimbabwe. The Ming Dynasty (14th – 17th centuries) was the most crucial period in the history of ancient exchanges between China and Africa. In the 3rd Emperor of the Ming Dynasty, China-Africa relations reached their peak, and friendly relations have developed to the point where official representatives of the two sides visited each other. ("The History of Sino-Africa Relations,")

The founding of the PRC and the independence of African countries ushered in a new era of China-Africa relations. For more than half a century, the two sides have had close political relations, frequent exchanges of high-level visits, frequent personnel exchanges, the rapid development of economic and trade relations, fruitful cooperation in other fields, and increasingly strengthened consultations and coordination in international affairs. China has aided within its capacity to African countries, and African countries have also given China much strong support. "Sincerity, equality and mutual benefit, solidarity and common development are the principles guiding China-Africa exchanges and cooperation, and they are also the driving force for the everlasting prosperity of China-Africa relations," China's Africa Policy white paper declares. ("The History of Sino-Africa Relations,"; Li, 2016)

At the Asian-African Conference held in Bandung in April 1955, the leaders of China and Africa had direct meetings and contacts for the first time. The first African country to establish diplomatic relations with China was Egypt (30th May 1956), which marked a new stage of development for China-Africa relations. Since then, African countries that have successively gained independence have established diplomatic relations with China. So far, among African countries, only Swaziland has no diplomatic relations with China.

After 1979, China-Africa relations entered a new stage of development. During this period, China has implemented economic reforms and an "open-door policy," and the focus of its work has shifted to the center of economic construction. (Wang, 2020) As a result, China-Africa relations have become more mature and pragmatic and have further developed on the original basis, some new characteristics have emerged. Since the 1980s, with the development of Sino-African trade, Africa's dependence on China's trade has increased year by year, and the role of China in promoting the African economy has continued to increase. As a result, China and Africa's economic and trade relations have continued to deepen, and cooperation has strengthened.

In October 1999, The president Jiang Zemin personally wrote to the Organization of African Unity (OAU) Secretary-General and relevant heads of state, formally issuing an initiative to host a China-Africa Cooperation Forum, which received a warm response from African countries. As a result, on October 12th, 2000, the first ministerial meeting of the Forum on China-Africa Cooperation (FOCAC) was held in Beijing. (Wang, 2020) The following figure is the FOCAC logo.

Figure 8 FOCAC logo

(source: https://en.wikipedia.org/wiki/Forum_on_China%E2%80%93Africa_Cooperation)

The red "C" on the left wing of the FOCAC represents China, while the whole logo is the letter "a," representing Africa. The logo stands for solidarity and cooperation between China and Africa, with the green color symbolizing peace and development and the red indicating vitality and prosperity. Its objectives are: Equal consultation, enhancing understanding, expanding consensus, strengthening friendship, and promoting cooperation. (Wikipedia, 2021b) According to the consensus reached between China and Africa, the ministerial meeting of the FOCAC is held every three years and alternately held in Chinese and African countries. The establishment of the FOCAC is a pioneering work in the history of China-Africa relations and China's diplomacy. It is an essential and valuable exploration for these Chinese governments to further consolidate friendly relations with African countries and welcome the new century. Since then, six ministerial meetings have been held successively in Addis Ababa, the capital of Ethiopia, Beijing, Sharm el-Sheikh, Egypt, Beijing, Johannesburg, South Africa, and Beijing. (Wang, 2020; Dahman-Saïdi, 2013)

Since its establishment, the FOCAC has gradually expanded from political cooperation based on ideology to comprehensive cooperation in various fields, including politics, economy, culture, society, and security. The fundamental reason why China-Africa cooperation continues to leap to a new level is that the Chinese government has always followed the principles of equality, mutual benefit, and mutual respect in cooperation. More importantly, the philosophy of "true, practicability, amity, and honesty" for the community with a shared future for China and Africa, published in March 2013, became the guiding principles for promoting the construction of a closer relationship. It can be seen that many policy propositions of the FOCAC are in the same line with the "Belt and Road" initiative, which is the principle of mutual consultation, joint construction, and shared benefits. (Wang, 2020;

Dahman-Saïdi, 2013) As a regional cooperation platform, the Forum on China-Africa Cooperation provides solid theoretical support for the multilateral cooperation mechanism of the "Belt and Road" global initiative and plays an important leading role.

In addition, with the ever-expanding and deepening China-Africa cooperation, various sub-forums have been established within the framework of FOCAC. They include the China-Africa People's Forum, China-Africa Yong Leaders Forum, Ministerial Forum on China-Africa Health Cooperation, Forum on China-Africa Media Cooperation, China-Africa Poverty Reduction and Development Conference, FOCAC-Legal Forum, Forum on China-Africa Local Government Cooperation, and China-Africa Think Tanks Forum. (Wikipedia, 2021b)

In general, the relationship between China and Africa is both historical and multidimensional.

3.2 Chinese foreign direct investment into Africa

This section introduces the development trend of Chinese foreign direct investment (FDI) globally, mainly focusing on the African countries. It shows the regional distribution of Chinese FDI into Africa and the distribution of investment sectors. Thanks to the ministry of commerce of the People's Republic of China, they began to organize the compilation and release of "Report On Development of China's Outward Investment and Economic Cooperation" from 2010. All the following data are based on these reports from 2013 to 2020, representing the entire development stage of Chinese FDI.

3.2.1 Development trend of China's FDI in the world

In 2013, China's FDI exceeded $100 billion for the first time, and the flow of foreign direct investment ranked third in the world for two consecutive years. According to the data from the "2013 Statistical Bulletin of China's Outward Foreign Direct Investment ", China's FDI flow was $ 107.84 billion, an increase of 22.8% year on year, and the growth rate was more than four times the growth rate of the global foreign investment flow. As a result, China's outward investment flow accounted for 7.6% of the global FDI outflow, increasing 1.3 percentage points from the previous year. As of the end of 2013, China's stock of FDI was $ 660.48 billion, accounting for 2.5% of the global FDI outflow stock during the same period. (Ministry of Commerce of the Peolple's Republic of China National Bureau of Statistics State Administration of Foreign Exchange, 2013; Ministry of commerce of the People's Republic of China, 2013)

In 2014, China's FDI flow hit a record high of $ 123.12 billion, a year-on-year increase of 14.2%, ranking it as the third-largest foreign investor in the world for three consecutive years. Since the authoritative release of annual data by relevant Chinese authorities in 2003, China's FDI has achieved rapid growth for 12 consecutive years. The average annual growth rate from 2010 to 2014 reached 15.7%. As of the end of 2014, China's FDI stock was $ 882.64 billion, a significant increase of 33.6% from the previous year. (Ministry of Commerce of the Peolple's Republic of China National Bureau of Statistics State Administration of Foreign Exchange, 2014; Ministry of commerce of the People's Republic of China, 2014)

In 2015, China's FDI achieved a historic breakthrough, reaching $ 145.67 billion. For the first time, the FDI flow ranked second globally, accounting for 9.9% of the world. As a result, China has become a well-deserved international investment country. (Ministry of commerce of the People's Republic of China, 2015; National Bureau of Statistics State Administration of Foreign Exchange, 2015)

According to the "Statistical Bulletin of China's Outward Foreign Direct Investment" of the Ministry of Commerce, in 2016, China's outward direct investment developed rapidly, and the outward investment flow reached a record high, reaching $ 196.15 billion, an increase of 34.7%, maintaining the second place in the world and accounting for the global share. It exceeded 10% for the first time and became a major international investment country. (National Bureau of Statistics State Administration of Foreign Exchange, 2016; Ministry of commerce of the People's Republic of China, 2016)

According to the "2017 Statistical Bulletin of China's Foreign Direct Investment", China's two-way direct investment inflows and outflows tend to be balanced, and China's FDI flows

reached $ 158.29 billion, ranking third in the world. (Ministry of commerce of the People's Republic of China, 2017; National Bureau of Statistics State Administration of Foreign Exchange, 2017)

In short, growth momentum in the world economy, slowing growth in trade in goods, and continued shrinking global direct investment flows, China's economy improved steadily in 2018, and FDI developed steadily and orderly. According to the "2018 Statistical Bulletin of China's Foreign Direct Investment", China's FDI flow in 2018 was $ 143.04 billion, a year-on-year decrease of 9.6%, returning from third place in the world last year to second place, accounting for 14.1% of the global share. Although the scale of FDI has shrunk, the investment structure has been further optimized, and investment quality and efficiency have been improved. (National Bureau of Statistics State Administration of Foreign Exchange, 2018; Ministry of commerce of the People's Republic of China, 2018)

In 2019, China's foreign investment cooperation faced complex international and domestic situations. Nevertheless, they maintained a healthy and orderly development, showing new development trends in the distribution of investment regions, industry distribution, investment structure, cooperation with the "Belt and Road," and scale of foreign contracted projects. In 2019, the world economic growth rate dropped to the lowest level since the financial crisis, the growth rate of global trade in goods slowed down significantly, while the outflows of FDI increased by 33.2% year-on-year after three consecutive years of decline. However, the Chinese economy was generally stable, and the level of opening up to the outside world improved continuously. Relevant bureaus actively guided qualified Chinese enterprises to "go global," and the development quality improved steadily. In 2019, China's outward FDI flowed reached $ 136.91 billion, ranking second globally. (Ministry of commerce of the People's Republic of China, 2019; National Bureau of Statistics State Administration of Foreign Exchange, 2019)

The "Interim World Economic Outlook" issued by the Organization for Economic Cooperation (OECD) in September 2020 predicted that due to the COVID-19 outbreak, the global economy would shrink by 4.5% in 2020, and the Chinese economy would become the only G20 country to maintain a positive growth rate of 1.8%. (National Bureau of Statistics State Administration of Foreign Exchange, 2020; Ministry of commerce of the People's Republic of China, 2020)
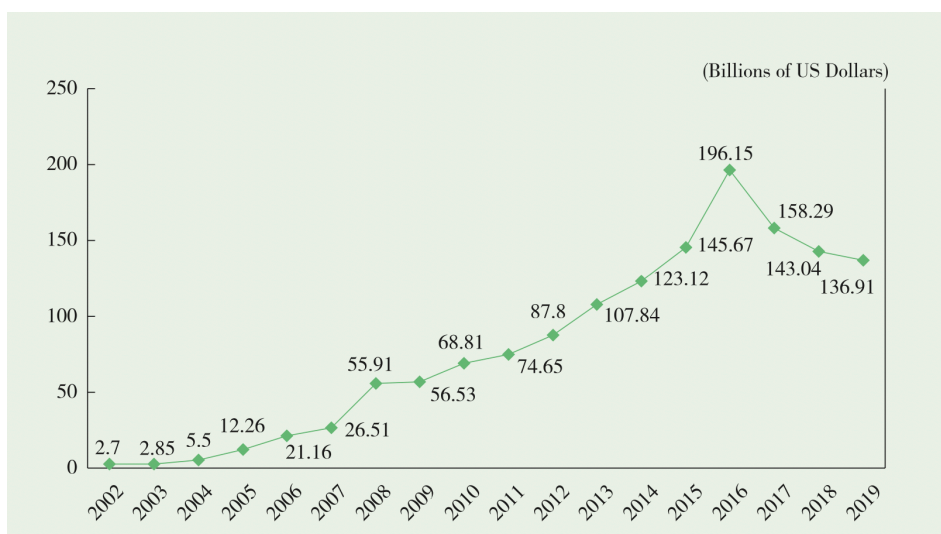
Figure 9 outward of FDI flows of China

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2020)
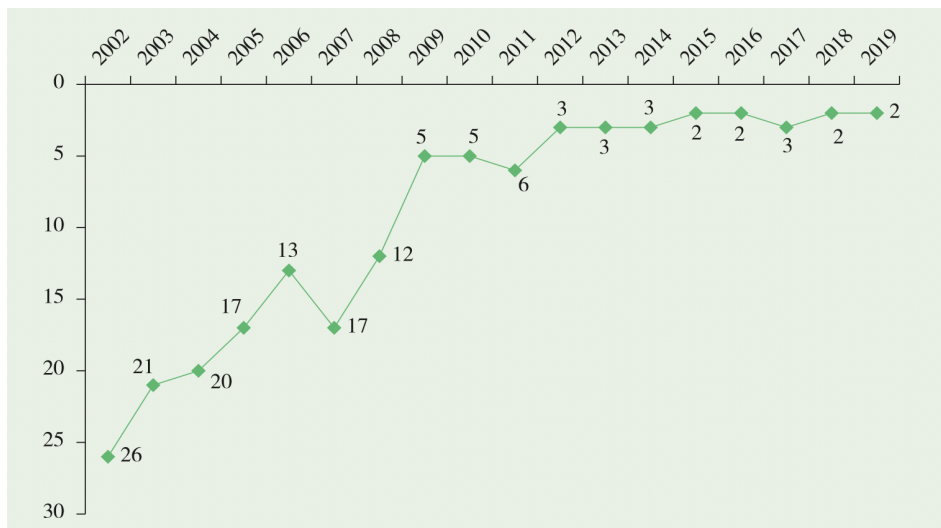
Figure 10 global rankings of China's outward FDI flows

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2020)
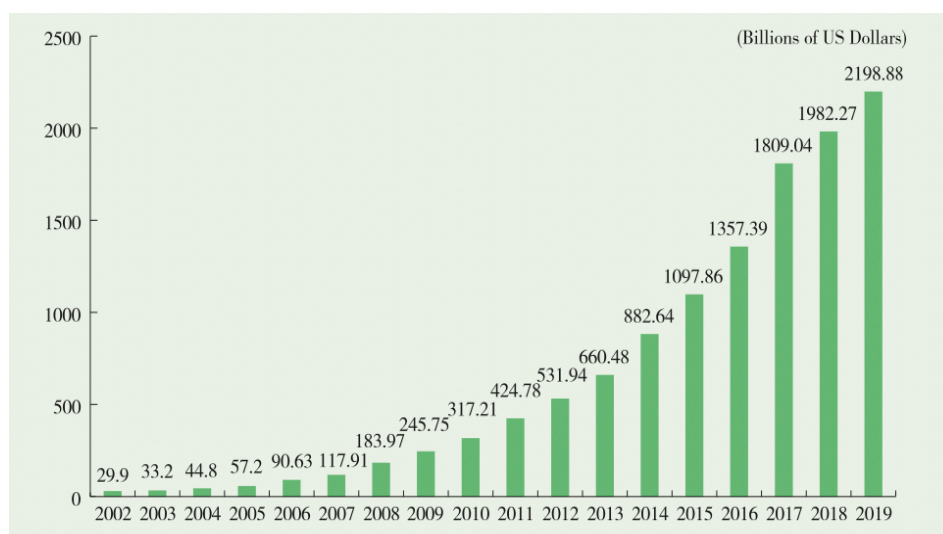
Figure 11 outward of FDI stock of China

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2020)

Figure 12 global rankings of China's outward FDI stock

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2020)

3.2.2 Development trend of China's FDI in Africa

In 2013, China's investment flow in Africa was $ 3.37 billion, increasing 33.9% yearly. As of the end of 2013, the stock of Chinese enterprises' investment in Africa was $ 26.19 billion, increasing approximately 52 times compared with 2003. According to the data released by the "2014 World Investment Report", in 2013, the inflow of foreign capital in Africa was $ 57 billion, and China's direct investment in Africa accounted for 6% of the total inflow of foreign capital in Africa that year. The scale of investment has expanded, but the proportion is still low. (Ministry of commerce of the People's Republic of China, 2013; National Bureau of Statistics State Administration of Foreign Exchange, 2013)

Affected by the weak recovery of the global economy, fluctuations in international commodity prices, and the Ebola epidemic, in 2014, China's direct investment in Africa was $ 3.2 billion, a decrease of 5% from the previous year. It accounted for 2.6% of China's FDI in that year. As of the end of 2014, China's investment stock in Africa was $ 32.35 billion, accounting for 3.7% of China's FDI stock. In general, the scale of investment has declined. (National Bureau of Statistics State Administration of Foreign Exchange, 2014; Ministry of commerce of the People's Republic of China, 2014)

Affected by the global economic environment and other factors, China's outward direct investment to Africa was $ 2.98 billion in 2015, a year-on-year decrease of 7%, and it accounted for 2% of that year's outward direct investment flow. By of the end of 2015, China's investment stock in Africa was $ 34.69 billion, accounting for 3.2% of China's FDI stock. (Ministry of commerce of the People's Republic of China, 2015; National Bureau of Statistics State Administration of Foreign Exchange, 2015)

In 2016, China's outward direct investment in Africa was $ 2.4 billion, a year-on-year decrease of 19%, accounting for 1.2% of that year's outward direct investment. By the end of 2016, China's investment stock in Africa was $ 39.88 billion, accounting for 3.0% of China's foreign investment stock. (National Bureau of Statistics State Administration of Foreign Exchange, 2016; Ministry of commerce of the People's Republic of China, 2016)

In 2017, China's outward direct investment in Africa was $ 4.11 billion, contributing to 70.8%, making it the fastest-growing target market in the continent. That year, direct investment in Africa accounted for 2.6% of the direct investment flow. At the end of 2017, China's investment stock in Africa was $ 43.3 billion, accounting for 2.4% of China's foreign investment stock. (Ministry of commerce of the People's Republic of China, 2017; National Bureau of Statistics State Administration of Foreign Exchange, 2017)

In 2018, when global direct investment fell sharply, and China's outward investment flow also declined, China's outward direct investment to Africa was $ 5.39 billion, a year-on-year increase of 31.5%, making it the second-fastest-growing target market among the five continents. China's direct investment in Africa accounted for 3.8% of the FDI flow that year, increasing 1.2% points from the previous year. As of the end of 2018, China's investment stock in Africa was $ 46.1 billion, accounting for 2.3% of China's foreign investment stock. (National Bureau of Statistics State Administration of Foreign Exchange, 2018; Ministry of commerce of the People's Republic of China, 2018)

In 2019, with the overall reduction in China's outward investment flow, China's outward direct investment to Africa was $ 2.71 billion, a year-on-year decrease of 49.9%, accounting for 2.0% of that year's outward direct investment flow. As of the end of 2019, China's investment stock in Africa was $ 44.39 billion, accounting for 2.0% of China's foreign investment stock. (Ministry of commerce of the People's Republic of China, 2019; National Bureau of Statistics State Administration of Foreign Exchange, 2019)
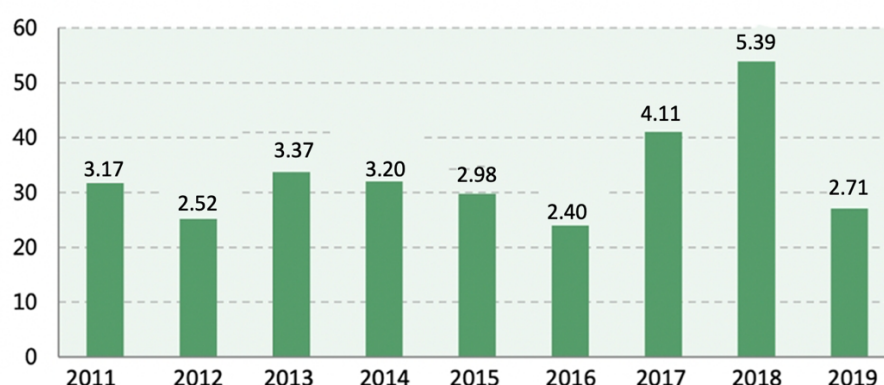
Figure 13 2011-2019 China's outward FDI flows in Africa

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2019)

3.2.3 Regional distribution of China's FDI into Africa

According to data from "2013 Statistical Bulletin of China's Outward Foreign Direct Investment", as of the end of 2013, among the 60 countries (regions) in Africa, 52 of them are covered by Chinese companies' investment, with an investment coverage rate of 86.7 % in Africa. It ranks second in China's investment coverage on the six continents of the world, second only to Asia (97.9%), slightly higher than Europe (85.7%), and much higher than Latin America (60.4%) and Oceania (50%). Although China's investment in Africa has a relatively high country coverage, its investment countries (regions) are more concentrated. In terms of flow, nearly 90% of China's direct investment in Africa in 2013 was concentrated in 17 countries (regions) that accounted for less than one-third of the total number of countries covered by China's investment in Africa. As of 2013, China's cumulative investment in the ten countries (regions) with the most extensive investment stocks, such as South Africa and Zambia, reached $ 17.65 billion, accounting for 67.4% of China's investment stock in Africa. Therefore, both in terms of flow and stock, the distribution of China's FDI in Africa is relatively concentrated. (Ministry of commerce of the People's Republic of China, 2013)

From 2014 to 2015, the country's (regional) distribution of China's FDI in Africa has begun to diversify, and market coverage has gradually increased.

So far in 2016, the country's distribution has been relatively concentrated. By the end of 2019, Chinese companies have invested in 52 countries in the African region, with an investment coverage rate of 86.7%. More than 3,800 overseas companies have been established, accounting for 8.7% of the total number of overseas companies, mainly located

in Zambia, Ethiopia, Nigeria, Kenya, Tanzania, South Africa, Ghana, Angola, Uganda, etc. China's investment in Africa in 2019 will mainly flow to Congo (DRC), Angola, Ethiopia, South Africa, Mauritius, Niger, Zambia, Uganda, Nigeria, Tanzania, and other countries. Among them, direct investment flow in Congo (DRC) was $ 930 million, a year-on-year increase of 44.8%, and the flow of direct investment in Angola was $ 380 million, a year-on-year increase of 41.8%. As of the end of 2019, China's FDI stock in South Africa reached $ 6.15 billion, ranking first in Africa. (Ministry of commerce of the People's Republic of China, 2016)
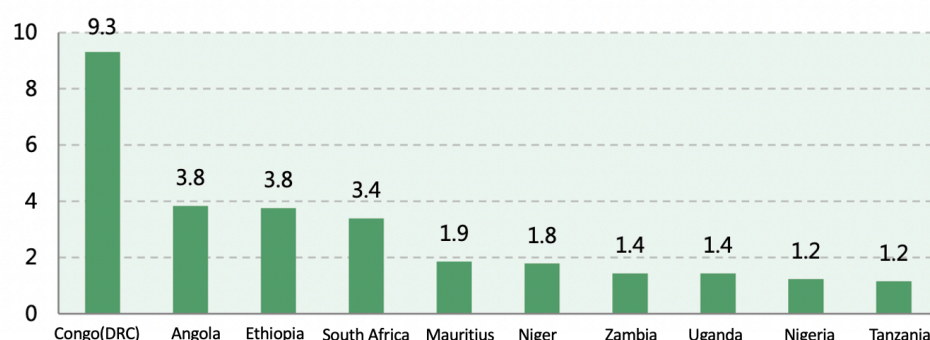
Figure 14 2019 China's FDI flow regional distribution in Africa

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2019)
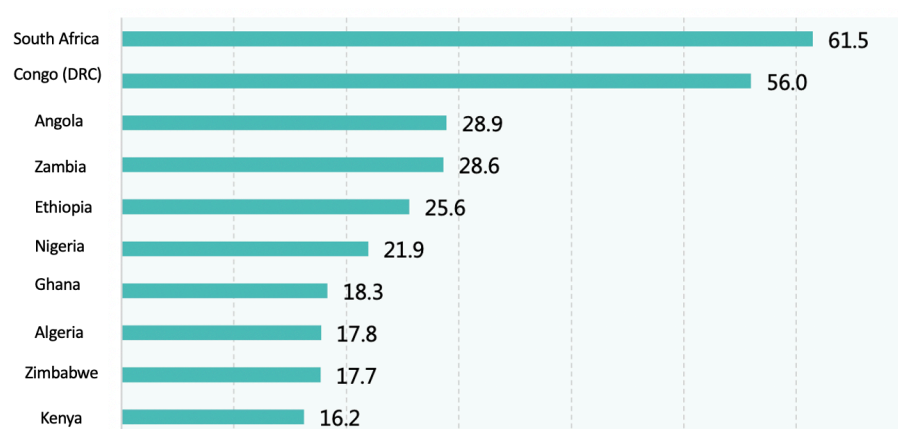
Figure 15 2019 China's FDI stock reginal distribution in Africa

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2019)

3.2.3 Sector distribution of China's FDI into Africa

A few years ago, the field of investment by Chinese companies in Africa had continued to broaden, covering almost all industry sectors, but the distribution of Chinese companies in the investment industry in Africa was still relatively concentrated.

In terms of flow, the distribution of China's investment in Africa in 2013 mainly involved 17 industries, including construction, mining, manufacturing, scientific research and technical services, agriculture, forestry, animal husbandry and fishery, and culture and entertainment. Four industries, including construction, mining, manufacturing, scientific research, and technical services, accounted for 89.9% of China's FDI in Africa that year.
–   The construction industry was $ 1.24 billion, accounting for 36.8%, ranking first.
–   The mining industry was $ 830 million, accounting for 24.7%, ranking second.
–   The manufacturing industry was $ 510 million, accounting for 15.1%.
–   The scientific research and technical service industry were $ 450 million, accounting for 13.3%.
 (Ministry of commerce of the People's Republic of China, 2013; National Bureau of Statistics State Administration of Foreign Exchange, 2013)

In terms of stock, as of the end of 2013, China's mining, construction, financial, manufacturing, and scientific research and technical service industries ranked the top 5 in the stock of China's FDI in Africa, totaling $ 22.27 billion, accounting for 85%. Among them, the mining industry was $ 6.92 billion, accounting for 26.4% of China's FDI in Africa, slightly higher than the construction industry (26.1%). The propaganda in a few media that China's investment in Africa is "grabbing resources" is not in line with reality and is misleading to a certain extent. The construction industry accounted for nearly 40% of China's FDI in Africa in 2013, far exceeding the mining industry (24.7%). The mining industry's share of China's investment stock (26.4%) was the same as the construction industry (26.1%). (National Bureau of Statistics State Administration of Foreign Exchange, 2013; Ministry of commerce of the People's Republic of China, 2013)

As of 2019, China's FDI industry in Africa has continued to expand, and the industry has remained relatively concentrated. In 2019, the five industries where China's investment stock is most concentrated in Africa were construction (30.6%), mining (24.8%), manufacturing (12.6%), finance (11.8%), and leasing and business services industry (5.6%). The construction and mining industries continue to remain in the top two positions. Among them, the mining industry proliferated, accounting for an increase of 2.1 percentage points in the previous year. The total investment stock of the five industries appealed was $ 37.94 billion, accounting for 85.4% of the total. (Ministry of commerce of the People's Republic of China, 2019)
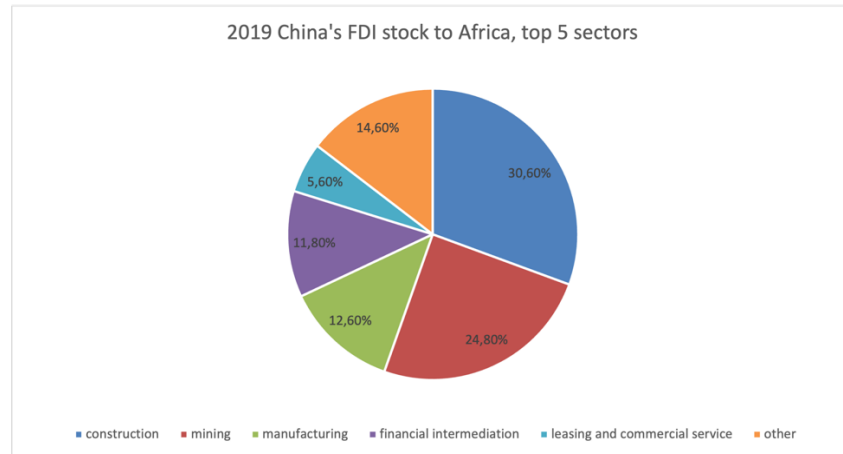
Figure 16 2019 China's FDI stock to Africa, top 5 sectors

(Source: REPORT ON DEVELOPMENT OF CHINA'S OUTWARD INVESTMENT AND ECONOMIC COOPERATION 2019)

3.2.4 The Chinese SOEs in Africa

Given the international community's concerns about China's FDI in Africa, it is necessary to identify a common misunderstanding. Western society generally believes that the Chinese state-owned enterprises are investing heavily in Africa, which could not be the case.

It is undeniable that Chinese state-owned enterprises are one of the crucial players in China's foreign direct investment and are supported by officially-recognized monopolies. Western countries generally suspect that "the investment of Chinese SOEs in Africa also acts like monopolies, a manifestation of the country's soft power." (Andreff, 2016)

According to data from the Ministry of Commerce of China, Chinese private enterprises account for 90% of the Chinese companies that directly invest in Africa and 70% of China's total direct investment in Africa. There is no doubt that, from the perspective of a single investment amount, state-owned enterprises are still investors in large-scale projects, especially in the fields of infrastructure, energy, and resources (strategic sectors). Due to these investments' strategic nature and extended return period, state-owned enterprises have natural investment advantages. For example, since 2010, one-third of Africa's power grids and power infrastructure have been invested and built by Chinese companies. Through the investment of Chinese state-owned enterprises, China has also become the most crucial investment partner in Africa's energy infrastructure. (Ministry of commerce of the People's Republic of China, 2020; UNCTAD, 2021)

Most of China's largest multinational companies are state-owned and subsidized by the Chinese government, although private companies are rapidly growing and expanding globally. Chinese state-owned enterprises (SOEs) are drawn to countries with enormous markets or sizeable natural resource endowments and a risky political environment. Private multinational companies are purely market seekers. Even though all Chinese public and

private companies have a strategic aim to acquire assets, the focus is on commercially viable technology rather than actual research content. Such a technological asset-seeking strategy is most commonly used when Chinese multinational companies invest in highly developed countries to access strategic assets that meet China's strategic goals. (Deng, 2007; Andreff, 2016)

However, most of the Chinese private enterprises' investment in Africa is directly driven by the development prospects of the African market and the connection with China's increasingly deep industrial chain and consumer market.

Chapter 4. Main determinants of FDI

4.1 Literature review about FDI determinants in Africa

Another topic that scholars have widely studied is the determinants of foreign direct investment (FDI). Usually, they can be divided into two major categories, economic determinants and other influence determinants such as policy stability, natural resources, infrastructure level, labor education level, etc. Therefore, this paper will generally discuss some main determinants of FDI.

Morisset utilizes an econometric analysis to look at the data of 29 Sub-Saharan African nations from 1990 to 1997. The author argues that by implementing policy reforms, African countries may be prosperous in attracting FDI that is not dependent on natural resources or focused on the local market. According to the analysis, GDP growth and trade openness may be leveraged to improve the investment climate and attract FDI. (Morisset and Bank, 2000.)

Asiedu uses a database of 71 development countries, roughly half of which are in Sub-Saharan Africa, from 1988 to 1997 to analyze whether factors that affect FDI in developing countries affect countries in Sub-Saharan Africa differently. The findings show that the variables that drive FDI to the developing countries have a distinct influence on FDI to non-SSA countries, not on FDI to SSA countries; trade openness encourages FDI in both SSA and non-SSA countries, although the marginal effect of openness is more negligible for SSA countries. (Asiedu et al., 2002)

Bende-Nabende provides an empirical investigation of the determinants influencing long-term FDI inflows to SSA. The research presents empirical data that implies market growth, export-oriented policies, and FDI liberalization are the most critical long-run factors of FDI in Sub-Saharan Africa. Real exchange rate and market size are the next on the list. This study examines the elements that substantially impact long-term transnational firms' investment decision-making processes in Sub-Saharan Africa. Openness is at the bottom of the list. The conclusions for real wage rate and human capital, on the other hand, are inconclusive. (Bende-Nabende, 2002)

Jenkins and Thomas noted that economic openness, especially to international trade, the quality of institutions and physical infrastructure in the host economy, economic growth, and stability are the most frequently correlated with increased FDI in Africa in cross-country empirical analyses. In investor surveys in Africa, the primary barriers to further FDI have tended to be economic instability and institutional weakness. (Jenkins and Thomas, 2002)

In Onyeiwu and Shrestha's study, they use the fixed and random effects models to explore whether the stylized determinants affect FDI flows to Africa in conventional ways. Their study identified the following determinants as crucial for FDI flows to Africa based on a panel database for 29 African countries from 1975 to 1999: economic growth, inflation, the openness of the economy, international reserves, and natural resource availability. Contrary to popular belief, political rights and infrastructures were proven to be negligible for FDI flows to Africa. It was discovered that the relevance of a variable for FDI flows to Africa is

determined by whether the country and time-specific impacts are fixed or stochastic. (Onyeiwu and Shrestha, 2004)

Moosa and Cardak analyzed the determinants of FDI inflows by examining 8 determining variables of FDI inflows using extreme bounds analysis on a cross-sectional sample of 138 countries. Their investigation discovered three reliable variables: exports as a proportion of GDP, telephone lines per 1000 of the population (infrastructure), and country risk. In addition, they discovered that developed countries with large economies, a high level of openness, and low country risk tend to be more successful and effective than others in attracting FDI. (Moosa and Cardak, 2003)

In 2002, the UNCTAD defined the FDI determinants by policy, business, and economic variables. Especially for economic variables, they also classified them based on Dunning's theory: Market-related economic determinants, Resource-related economic determinants, and Efficiency-related economic determinants. (Table below) (Çeviş, 2007)

The UNCTAD's Classification of FDI Determinants

Determinants Variables	Examples
Policy Variables	Tax policy, trade policy, privatisation policy, macroeconomic policy
Business Variables	Investment incentives
Market-related Economic Determinants	Market size, market growth, market structure
Resource-related Economic Determinants	Raw materials, labour cost, technology
Efficiency-related Economic Determinants	Transport and communication costs, labour productivity

Source: UNCTAD (2002).

Table 1 The UNCTAD's Classification of FDI Determinants

4.2 Variables of FDI determinants and hypothesis

This chapter will describe some key FDI determinants and how they affect FDI. For some controversial determinants, this dissertation will make a hypothesis based on the comparative literature review and make a descriptive summary in the conclusion of this study.

Market size: in theory, the level of foreign direct investment is positively related to the size of the foreign market. As the market increases in size, so do opportunities for the efficient utilization of resources and the exploitation of economies of scale and scope via FDI. Several pieces of research show that FDI flow and market size are positively related. According to Lim's market growth hypothesis, market-oriented and horizontal FDI will be favorably related to growth in demand. Economies that expand quickly have more excellent prospects for profit than those that grow slowly or not. The conclusion is that those host countries with larger market sizes, faster economic growth, and a higher level of economic development will give companies more opportunities to leverage their ownership advantages, attracting more foreign direct investment.
Usually, Gross Domestic Product (GDP) is a proxy for market size. It is the set of all final goods and services produced within a country during a specific period. It is a measurement of the economic importance of a country or a measurement of the size of the economy. Some studies also use GDP per capita as a measurement. It measures the country's income level and is a rough indicator of a country's economic well-being and purchase power of its citizens. It is necessary to distinguish between the two as they represent prospects for FDI from different perspectives. (Jaiblai and Shenai, 2019)This study will use an annual percentage of GDP growth as a proxy.

Labor cost: This determinant should negatively influence foreign direct investment because the firms intended to reduce production costs as much as possible by lowering the labor expenses. One similar determinant can also be discussed here, called Human Resource Development. After all, labor costs depend on the education level of each labor. In 2017, International Monetary Fund (IMF) launched a working paper, "Education Systems and Foreign Direct Investment: Does External Efficiency Matter?" the result supports the evidence that the external efficiency of the education system has a positive effect on FDI. It suggests that in attracting FDI, the ability of the labor force to translate its education correctly into income in the labor market appears to be more critical than the amount of education itself. However, the education system's external efficiency and the number of years spent in school positively influence FDI inflows. Furthermore, by strengthening the external efficiency of their education systems, nations with low human development levels and non-resource-rich countries have a more significant potential to attract FDI. Non-resource-rich counties, in particular, may bridge the gap in terms of FDI attractiveness by investing in high-quality education systems tailored to the demand of economic activity. (Miningou and Tapsoba, 2017)
This study will use the human capital index as a proxy, based on years of schooling and returns to education. As a result, the sector with lower-wage costs should achieve the low-cost advantage, attracting more foreign direct investment.

Trade openness: The ratio of (exports + imports) goods and services to GDP is often used as a proxy of the trade openness of a country but is also interpreted as a measurement of trade restrictions. However, a country's degree of openness to international trade is an important consideration when it comes to investment projects in the tradable sector. (Jaiblai and Shenai,

2019) According to Jordaan, the effect of openness on FDI is dependent on the type of investment. When foreign investments are market-seeking, trade restrictions can positively influence FDI since foreign firms intending to serve local markets may elect to establish subsidiaries in the host country if importing their products is difficult. Multinational companies engaged in export-oriented Investments, on the other hand, may choose to invest in a more open economy because increased defects associated with trade protection often indicate higher transaction costs when exporting. (Jordaan, 2005)

Hp 1: trade openness has a positive effect of Chinese FDI into Africa.

Institutional environment: Using bilateral FDI stocks around the world, (Daude and Stein, 2007) examine the impact of a wide variety of institutional variables as determinants of FDI location and show that prominent institutions have an overall positive and economically significant effect on FDI. In particular, the unpredictability of law, regulations, and policies, excessive regulatory burden, government instability, and lack of commitment play a significant role in deterring FDI. In 2013, Asiedu launched one of his studies, which explained the relationship between FDI and institutions. It considered six measures of institutional quality from two different sources. The measures of institutional quality reflect the effectiveness of the rule of law, the level of corruption, the stability of government, the enforcement of government contracts, and government restrictions on FDI in host countries. (Asiedu, 2013)
This study divided the institutional environment into corruption control, political stability, and the absence of violence/terrorism, focusing on the second term. ÖZBOZKURT investigated the significance of political stability and the absence of violence/terrorism on foreign direct investment. The results suggest that promoting stable and liberal policies attracts more FDI to the host countries. So it is since international investors have long-term objectives and take cognizance of political stability and take the position proportional to the level of political risk in the host country.

Taxes policy: taxes affect the net return on capital and, in the opinion of many policymakers, should influence capital flows between countries. As a result, early research aimed to determine if a favorable tax policy might compensate for other barriers in the business environment, therefore attracting multinational companies. First, the impact of tax policy may be heavily influenced by the tax instruments employed by the authorities. Tax holidays and a general reduction in the statutory tax rate, for example, may have similar impacts on the effective tax rate but have quite the opposite consequences on FDI flows and government income. Second, the efficacy of tax policies and incentives is likely to differ based on the multinational firm's activities and investment objectives. For mobile enterprises or firms that operate in numerous markets, tax incentives, for example, appear to be a critical feature since they allow them to better leverage the various tax regimes across nations. (Morisset and Pirnia, 2000) The influence of taxes on foreign direct investment can vary significantly depending on the king of taxation, how foreign direct investment activities are measured, and how the host and home countries are taxed. For example, if the host country's tax rate is high, the cost of foreign-funded activities will rise, reducing investment returns. As a result, it is often assumed that a high tax burden harms FDI location choice.

Geographic distance: Differing from trade studies, the influence of spatial distance in FDI studies is not foreseeable. However, transportation costs in economics can present the geographic distance. Long geographic distances result in significant transportation expenses for sending personnel and delivering commodities in international commerce. High

transportation costs appear to harm both vertical and horizontal FDI. Costly transportation is a barrier for vertical FDI, which must export its products back to their home country rather than merely sell them in the host market. On the other hand, long geographic distance motivates multinational enterprises to undertake FDI rather than export to the foreign market, demonstrating that FDI flow between regions separated by a longer distance should be more significant than that between regions separated by a shorter distance. (Bi, Ren, and Bao, 2020)

Natural Resource endowment: Dunning (1993) (Dunning, Narula, and Narla, 1993) emphasized the favorable impact of a country's natural resources endowment on FDI inflows, based on the historical requirement for industrialized countries in North America and Europe to guarantee a consistent supply of raw materials. In 2007 UNCTAD reaffirmed this point by highlighting multinational corporations' dominance in exploiting natural resources due to high capital costs and capital intensity, which domestic investors could not sustain. Furthermore, natural resource endowments can have a negative impact on FDI inflows by causing the exchange rate to appreciate as a result of the infusion of capital into the sector. This appreciation reduces the competitiveness of firms in tradable products sectors. As a result, it might lead to a drop in overall FDI. In terms of empirical, many studies have assessed the effect of natural endowment on FDI inflows, particularly in developing countries. However, the results obtained have been ambiguous. Mouanda Makonda and Akylangongo Ngakala analyzed the effects of natural resource endowment on FDI inflows to Sub-Saharan African countries. Given the field of action heterogeneity, the estimates are offered for four partially homogeneous subregions: Central Africa, West Africa, Southern Africa, and East Africa. The natural resource endowments retained are oil, mining, and forest resources approximated by three variables: oil rent, mining rent, and forest rent. They found that forest resources have a beneficial but negligible effect on FDI inflows into Sub-Saharan countries. Oil and mining resources have a significant and negligible adverse impact on FDI inflows in Central Africa and West Africa, respectively; oil and mining resources, in contrast, have significant and negligible positive effects on FDI inflows in Southern Africa and East Africa, respectively. (Makonda and Ngakala, 2021)
This study will use the sum up of ores and metals exports, fuel exports and agricultural exports for total natural resources rents as percentage of GDP as a proxy.

Hp 2: natural resource endowment has a positive effect on Chinese FDI into Africa.

Infrastructure: "soft infrastructure implies market-oriented institutions, governance structures, and hard means physical infrastructure (such as roads, telephone connections, airports, roads, fast distribution networks, electricity transmissions, and railroads)." (Jaiblai and Shenai, 2019) This study will focus on discussing the relationship between complex infrastructure and FDI. Infrastructure that is well-maintained boosts investment productivity and, as a result, FDI flows. Chinese companies do not just invest directly in high-yielding industries. They also participate indirectly, contributing to the filling of Africa's infrastructural gaps and assisting in alleviating supply-side bottlenecks. China has played an essential role in developing the continent's energy-generating capabilities. According to some research, Chinese funding entities were sponsoring important infrastructure that other funding bodies were hesitant to invest in. Chinese investment and financing for telecoms projects substantially accelerated the construction of Africa's mobile network and supported the fast-growing sectors of e-commerce, software, and app development. (Calabrese and Tang, 2020) This study uses the mobile phone index which is the total number of phones and mobile phones users (per 100 people) as a proxy for infrastructure development.

Government support/Ownership: As a typical socialist country, China's principal economic and political strategies are formulated and implemented by the state, so most of its outward foreign direct investments are controlled by state-owned enterprises. In 2012, Cui and Jiang studied the state ownership effect on firms' FDI ownership decisions. From a political perspective, they argued that SOEs could enhance the influence of home country institutions on firm strategic choices, as SOEs are politically subordinate to the home country government and highly dependent on home country institutions for critical resource inputs. (Cui and Jiang, 2012) In 2016, WIadmimir Andreff pointed out that State intervention in Chinse OFDI was based on a high level of regulation and supervision, many state-owned multinational enterprises, and the government's search for natural resources in short supply at home. Chinese SOEs gain from competitive advantages built up through state OFDI regulation and promotion and have greater firm-specific advantages than private enterprises. (Andreff, 2016)

Hp 3: the state ownership has a positive effect on Chinese FDI into Africa.

Co-location: FDI Markets defines "an 'expansion' as the expansion of a current facility to increase overall production capacity or services offered, while a 'co-location' is an addition of a new business function onto the same premises as another business function." Co-location can lead to economic agglomeration. Co-locating with other foreign direct investment enterprises allows foreign investors to access local knowledge. Different aspects of local knowledge, on the other hand, might be gathered through various local companies. As a result, some foreign investors associate with FDI companies from the same country of origin, while others associate with foreign industry peers. Compared to industry FDI agglomeration, country-of-origin agglomeration provides an effective avenue for sharing sensitive and tacit knowledge about local business environments. Therefore, foreign investors who need such local knowledge are more inclined to settle in country-of-origin agglomerations. (Stöllinger, 2015) Co-location may result in positive performance effects because of agglomeration benefits or in adverse outcomes because of fiercer competition. Based on our research data, which contains 368 investment projects from Chinese companies to African countries from 2003 to 2017, 19 companies invested in at least two projects in the same host country in the same year. Moreover, three companies duplicate the investment in more than one country. Egypt, Nigeria, and South Africa are the most favorable destination African countries for co-location projects. This study will use the number of investments made in the same host country by the same company in the same year as a proxy.

Hp 4: co-location has a positive effect on Chinese FDI into Africa.

In this study, the dependent variable is the binary variable *Choice* of FDI investment. If the variable equals 1, the investment project is performed in a particular African country. Otherwise, if the variable equals 0, the investment project will not be performed in a certain African country.

The key FDI determinants mentioned above are the independent variables, which will be considered by different proxy for empirical analysis. This dissertation used the political stability score in negative and positive to measure the Political Stability and Absence of Violence (Institutional environment), the index data is from the World Bank Institute Governance Indicators (WGI); Taxes are approximated on bilateral weighted tariffs on imports and exports, using the data from the UNCTAD database; It is understandable to see

that this dissertation used the annual GDP growth rate to represent Market Size, using data from the World Development Indicators (WDI); The common Cepii's weighted distance (pop-wt, km) is used to denote the geographic distance; Mobile cellular subscriptions (Mobile phone) index which is the total number of phones and mobile phones users (per 100 people) are used to represent the level of infrastructure development; The governance effectiveness index from the World Bank Institute Governance Indicator is used to denote the Governance Ownership; According the data from WDI, This dissertation used the sum-up of ores and metals exports, fuel exports and agricultural exports every year to represent the natural resources endowment. This dissertation used the human capital index from the Penn World Tables for labor costs. Due to the complexity of co-location, this study simplifies the number of investment projects made in the same host country by the same company in the same year. The trade index (% of GDP) indicates the trade variable.

Variables(s) notation in regression measurement	Symbol	Measurement	Expected sign	Data source
Dependent Variable (DV)				
FDI Choice	Choice$_{noit}$	If an investment n from country o hold in a certain African country i	/	/
Independent Variables (IV)				
Political Stability and Absence of Violence	Pol_sta	Score political stability in negative and positive, from year i	+	WGI
Taxes	Tariff taxes	Tariff rate, applied, simple mean, all products (%) from year i	-	UNCTAD
Market Size	gdp_growth pop	Annual percentage of GDP growth form year i to represent the growth rate of market size	+	WDI
Distance	distwces	Weighted distance (pop-wt, km) CES distances with theta=-1	-	Cepii
Infrastructure	Mobile phones	Mobile cellular subscriptions (mobile phone) index which is the total number of phones and mobile phone users (per 100 people)	+	WDI
Government ownership	gov_effectiveness	Score government effectiveness in negative and positive, from year i	+	WGI
Natural resources	nat_res_rents	The sum up of ores and metals exports, fuel exports for total natural resources rents as percentage of GDP	+	WDI
Labor costs	hc	Human capital index, based on years of schooling and returns to education; see Human capital in PWT10.0	-	PWT
Co-location	fdi_stock fdi_stock2	The number of investments made in the same host country by the same company in the same year	+	UNCTAD
Trade	trade_sh	Annual percentage of trade regards to GDP in year i	+	WDI

Table 2 Variables, measurements and data source

4.3 Data and methodology

In this case study, the data source is from the database of Financial Times Ltd, *fDi Markets*, an online database of cross-border greenfield investments, covering around 110 countries and sectors worldwide. The entire database contained more than 10,000 FDI projects in Africa in 2003-2019. The database shows that the foreign direct investment from 2003 has fluctuated and multiplied. From 2008 to 2010, the total amount of investment projects has dropped significantly. The main reason for the decline in the growth rate is the impact of the financial crisis and the uncertainty related to the economic situation of some African countries. In 2011, the number of investment projects had reached a relative peak. However, the total investments have declined significantly in the following years, affected by the global environment and other factors. Furthermore, from 2017 the global economy has gradually recovered. As a result, the total number of foreign direct investment projects has increased relatively.
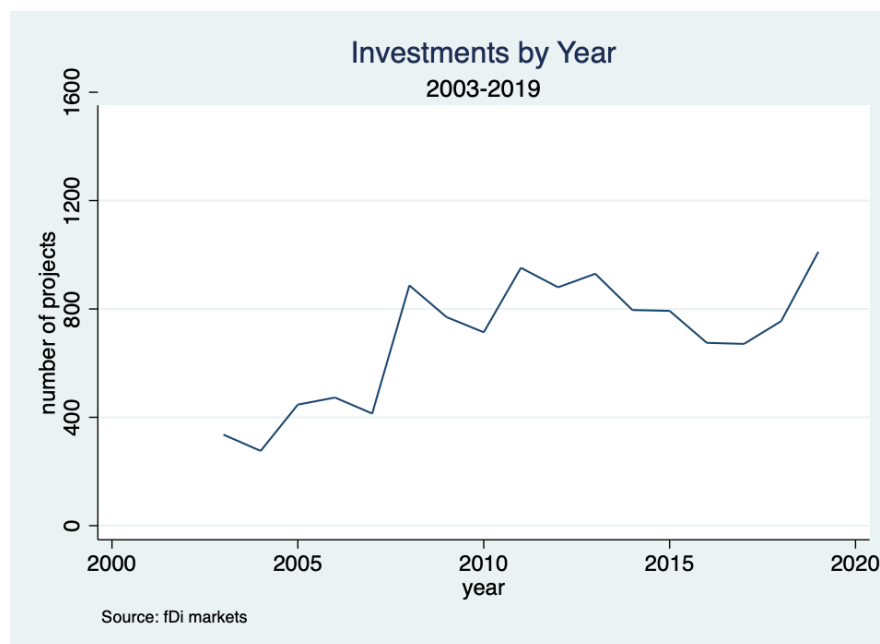
Figure 17 FDI Investment Projects by Year

In terms of the destination country, the ones who receive the most investment from other countries worldwide are South Africa, Egypt, Morocco, Kenya, and Nigeria. The cumulative proportion for these top 5 destination countries is more than half, accounting for 17,66%, 10,14%, 9,8%, 6,43% and 6,4% respectively. The figure shows that almost all countries with a relatively large proportion are African countries.

Investments by Destination Country
2003-2019

Number of investments

Source: fDi markets
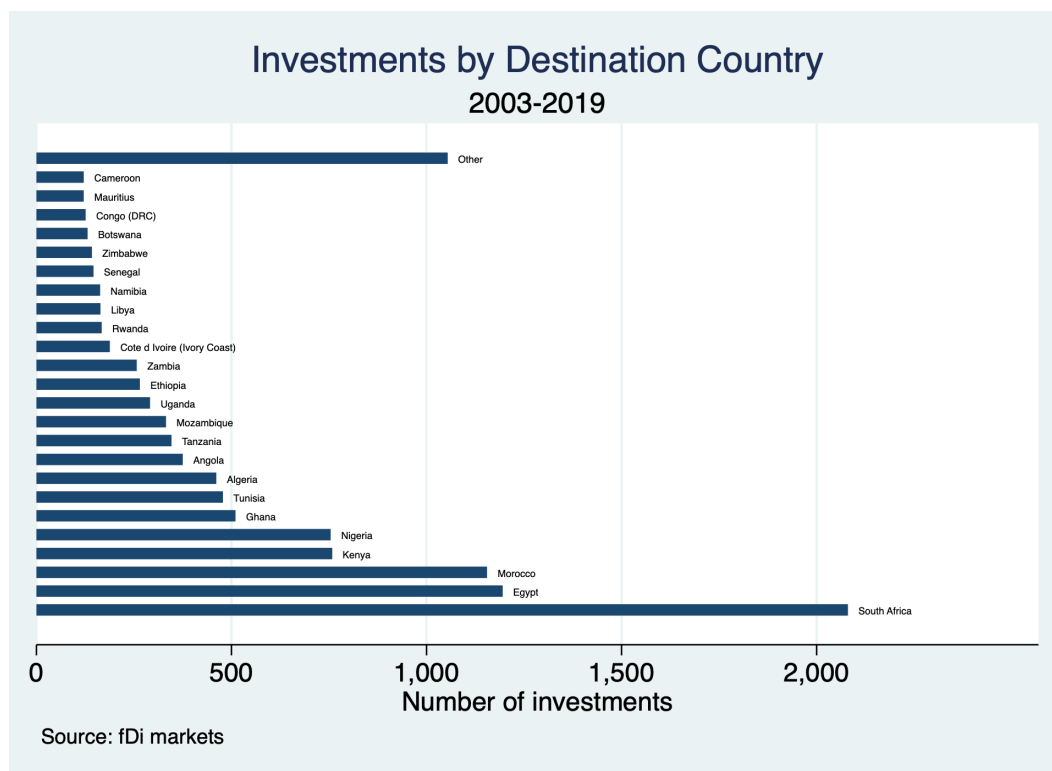
Figure 18 FDI Investments by Destination Country

This study focuses on analyzing the three most important emerging countries globally, the members of BRICS countries: China, India, and Russia. Regarding the total amount of investment projects, China and India are more or less the same. From 2003-to 2019, India has invested only three projects more than China. (All the data used for China, in this case, is only the one of China Mainland, not including Hong Kong, Macau, and Taiwan) For Russia, there were only 112 investment projects during this period.

China has invested in 507 projects to other countries during this period. Most FDI flows to South Africa, Egypt, Kenya, Nigeria, and Ethiopia. The cumulative proportion for these destination countries is more than half, which accounting for 17,95%, 12,43%, 8,28%, 7,1% and 6,11% respectively. South Africa is the second-largest economy in Africa and is also a member of important international organizations such as the G20 and BRICS. It is the preferred destination for foreign investment in Africa. The advantages of South Africa in attracting FDI include political & economic stability, sound financial and legal system, rich mineral resources, and excellent natural conditions. For a long time, the West has generally misunderstood China's investment in Africa. They believe that China's investment in Africa is another form of resource plunder. The industry activity which occupies the most proportion of China's FDI, nearly about 50%, is Manufacturing. Another important industry activity for China is Sales, Marketing & Support. The cumulative percentage of these two activities is over 60%. However, the high-profile Extraction activities only accounted for 4,16%, which ranked sixth.

The total amount of foreign direct investment projects for India is 510. The most FDI flows to South Africa (18,43%), Kenya (11,37%), Nigeria (9,8%), Egypt (7,65%), and Tanzania (7,65%). There is a reason Kenya holds second place in India's foreign investment—short

distance advantage. It is known that the distance between the source country and the destination country has a negative relation with FDI attracting ability, which means the distance between two countries is short, the destination country would be more attractive of FDI to the source country. Similarly for India, the most extensive industrial activity is Manufacturing, which accounted for 32,16%, then the other industrial activities with a more significant proportion are Business Services (19,22%) and Sales, Marketing & Support (14,51%). Compared with Chinese Extraction activity, India pays less attention to investing in extraction activity.

The last but not least country is Russia, with only 112 investment projects. Russia has different characteristics: the most three significant FDI flows to South Africa (19,64%), Egypt (17,86%), and Nigeria (11,61%), the proportion of these three regions is very similar, the geographical location is separated and scattered, so there is no distance advantage as mentioned earlier. The top three industrial activities also accounted for a similar percentage for Russia, with no discernible difference. They are Business Services (30,36%), Sales, Marketing & Support (25,89%) and Manufacturing (20,54%). However, one thing worth noting is that Russian Extraction activity accounted for 8,93%, which is twice that of China and India.

So, in summary, Russian FDI has a unique industrial distribution compared to other BRIC's FDI. Russian MNCs are concentrated in a few industries. However, they are also overrepresented in natural resource exploitation, mining and metallurgical industries, and traditional manufacturing industries, all inherited from the former Soviet system's top pecking order of heavy industries. Also, a resource-seeking strategy of Chinese MNCs is at work in mining. Is there any difference between China and Russia? The answer is, of course. Russian MNCs invest abroad in search of new supply sources and new markets for oil and gas stations, while Chinese strategy is almost entirely focused on securing raw material suppliers for the domestic economy. Chinese MNCs are looking for ways to guarantee their natural resource supply worldwide. (Andreff, 2016)
Therefore, it is not entirely credible for Western countries to claim that China is the predator of the African continent's natural resources.
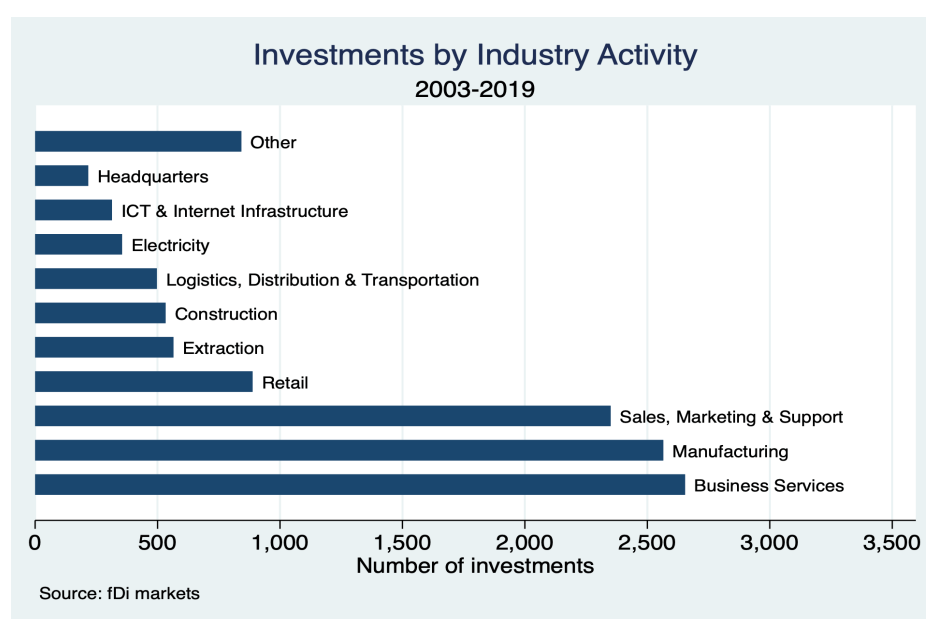
Figure 19 FDI Investments by Industry Activity

4.4 Empirical model

In order to do the empirical analysis on Chinese Foreign Direct Investment into Africa, this study now introduces the conditional logit model. Firstly, this analysis assumes that investors would choose the destination country with the highest utility, and utility is calculated as a linear function that varies by the destination country or investment-destination country. The utility for investment n from original country o invested in specific African country i at time t is:

$$U_{niot} = \alpha' x_{it} + \beta' y_{oit} + \gamma' z_{nit} + \varepsilon_{niot}$$

Xit is the vector that represents the characteristics of the destination country. This study includes Market Size, Infrastructure, Governance Ownership, Natural Resources, and Labor costs; Yoit is the vector that represents the bilateral origin-destination regressors, such as Geographic Distance; Znit is another investment-destination regressor vector that indicates industry agglomeration co-location. The α, β and γ are the parameter vectors that need to be estimated. The error term ε_{niot} is iid extreme value.

The probability of an investment project n from an origin country o choose to locate in a specific African country i in year t is the probability that the utility yielded by locating in the country i exceeds that of locating in other African countries j ($j \neq i$), j is another African country expect that country i. In this model, the total number of investments by decision-makers is N, if the set of countries J has chosen at least once as an FDI destination, the combination of choices under consideration is $J \times N$. If a certain alternative was finally chosen, the dependent variable "*Choice*" equals to one, while the other possibilities in the choice set are zero. The choice to locate in a specific country depends only on the difference in utility that the specific country i has the highest utility, no matter its absolute value. As a result, characteristics of the alternatives that do not cause a difference in utility or characteristics of the decision maker that do not change over alternatives will have no impact on the choice and will not be considered. It means that variables are invariant by investment. On the other hand, bilateral variables relative to origin-destination country and country-of-origin agglomeration, which cause a difference in utility over alternatives, will be considered in the model. According to Train's explanation, when the choice probability is neither very likely nor very unlikely, it can be expressed like Pniot = 1 – Pniot. (Train, 2002; Benfratello, D'Ambrosio Sangrigoli, and Scabbia, 2022)

4.5 Main Results

4.5.1 Standard model for all countries

The table below shows the result of the standard model's conditional (fixed effects) logistic regression, explaining the relationship between all countries' FDI choices and various variables discussed above. The model also uses South Africa (zaf) and Egypt (egy) dummy variables. In the later discussion, the political stability will not be considered because it is not significant in any cases, and in order to reduce the high degree of fit, the square of variables would be introduced to the model too.

```
Conditional (fixed-effects) logistic regression

                                           Number of obs   =     345,279
                                           LR chi2(15)     =    16195.89
                                           Prob > chi2     =      0.0000
Log likelihood = -28475.908                Pseudo R2       =      0.2214

------------------------------------------------------------------------------
          choice |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
      lfdi_stock |   .4528226    .070622     6.41   0.000     .314406     .5912392
     lfdi_stock2 |  -.0196221   .0046081    -4.26   0.000    -.0286539   -.0105904
 gov_effectiveness |   .7272913   .0389845    18.66   0.000     .650883     .8036996
 ores_exports_stock |   .0326635   .0030707    10.64   0.000     .0266451    .0386819
ores_exports_stock2 |  -.0004257   .0000433    -9.83   0.000    -.0005106   -.0003409
 fuel_exports_stock |  -.0032462   .0025271    -1.28   0.199    -.0081992    .0017068
fuel_exports_stock2 |  -7.97e-06   .0000252    -0.32   0.752    -.0000574    .0000415
   lmobile_phones |   .1293081   .0288899     4.48   0.000     .072685     .1859312
             lhc |   1.528512   .1221311    12.52   0.000     1.28914     1.767885
       ldistances |  -.8890468   .0194626   -45.68   0.000    -.9271928   -.8509007
        trade_sh |   .0017072   .0008701     1.96   0.050     1.91e-06    .0034126
            lpop |   .6726146   .0335063    20.07   0.000     .6069434    .7382858
      gdp_growth |   .0355339   .0041807     8.50   0.000     .0273399    .0437279
           1.zaf |   .2680822   .0679545     3.95   0.000     .1348938    .4012706
           1.egy |  -.2468222   .0726369    -3.40   0.001    -.3891878   -.1044566
------------------------------------------------------------------------------
```

Table 3

The first thing is to interpret the P-value. The P-value for both fuel_exports_stock (0,199) and fuel_exports_stock2 (0,752) is greater than the common alpha level of 0,05, which indicates that they are not statistically significant. Moreover, they are statistically significant for the remaining variables whose P-value is zero, even for the trade_sh (0,05).

In more detail, the variable lfdi_stock (Inward FDI), a proxy of co-location, has a positive coefficient, which means that the greater the co-location phenomenon, the more FDI attracted. The government's effectiveness has a considerable and positive impact on FDI choice. The variable ores_exports_stock, which is one of the proxies of the natural resources, has a positive coefficient with FDI choice, which means the more natural resources, the more FDI attracted. There is no doubt about the positive value of the lmobile_phones, which represents the effect of the infrastructure. lhc represents the level of human capital, it has an enormous positive value of the coefficient, so it is easy to conclude that the level of human capital plays a crucial role in attracting FDI choice. As predicted, the geographic distance negatively correlates with the FDI choice for all countries. Also, for the variable lpop, countries' FDI prefer to choose places with a larger population, in other words, with larger

market size. In this standard model, trade has a slightly positive relationship with FDI choice. For both dummy variables, they have significant P-value, so it is not easy to make a conclusion for South Africa's FDI and Egypt's FDI in this standard model.

4.5.2 Case with cum_activity and cum_bilateral for all countries

In this case, it will focus on the analysis of the effect of co-location. The variable cum_activity and cum_bilateral have been considered based on the standard model. Cum_activity represents the cumulated number of industry activities; meanwhile, adding cum_bilateral is to study the mutual bilateral phenomenon of co-location.

```
Conditional (fixed-effects) logistic regression

                                        Number of obs    =    345,279
                                        LR chi2(17)      =  16894.76
                                        Prob > chi2      =    0.0000
Log likelihood = -28126.471            Pseudo R2        =    0.2310


------------------------------------------------------------------------------
          choice |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
     cum_activity |   .0007666   .0001936     3.96   0.000     .0003872    .0011461
     cum_bilateral |   .0056624    .000227    24.95   0.000     .0052176    .0061073
       lfdi_stock |   .5224082   .0710587     7.35   0.000     .3831357    .6616806
      lfdi_stock2 |  -.0278377   .0046617    -5.97   0.000    -.0369744    -.018701
  gov_effectiveness |   .7162679   .0394594    18.15   0.000     .6389289     .793607
  ores_exports_stock |   .0247388   .0031216     7.93   0.000     .0186206     .030857
 ores_exports_stock2 |  -.0003017   .0000442    -6.83   0.000    -.0003882   -.0002151
  fuel_exports_stock |  -.0011449   .0025254    -0.45   0.650    -.0060945    .0038047
 fuel_exports_stock2 |  -.0000184   .0000252    -0.73   0.466    -.0000677     .000031
     lmobile_phones |   .2509854   .0297356     8.44   0.000     .1927048     .309266
              lhc |   1.250113   .1252566     9.98   0.000     1.004615    1.495612
        ldistances |  -.7919264   .0198042   -39.99   0.000     -.830742   -.7531108
          trade_sh |   .0009661     .000881     1.10   0.273    -.0007605    .0026928
             lpop |   .5289871   .0344704    15.35   0.000     .4614264    .5965478
        gdp_growth |   .0450814   .0042604    10.58   0.000     .0367311    .0534317
            1.zaf |   .0346463   .0696236     0.50   0.619    -.1018134     .171106
            1.egy |  -.1956806    .072773    -2.69   0.007    -.3383132   -.0530481
------------------------------------------------------------------------------
```

Table 4

It is easy to observe that the output differs slightly from the standard model. P-value for fuel_exports_stock (0,650) and fuel_exports_stock2 (0,466) are statistically insignificant. The P-value for trade_sh increases significantly and is more than the common alpha level (0,05). Hence, in this case, the trade is non more a significant variable of the FDI choice. Cum_activity and cum_bilateral have a P-value close to zero and a positive coefficient, which means they have a slightly positive relationship with the FDI choice. Although these two values are not remarkable as others, the coefficient of cum_bilateral is a little greater than the coefficient of cum_activity. It means that a country is more willing to invest in those countries that have already invested in its homeland rather than an agglomeration of industrial activities. Furthermore, Egypt remains a negative relationship with the FDI choice for dummy variables, while South Africa is statistically insignificant (0,619).

4.5.3 Case with coloc_parent for all countries

This model adds another variable relative to the co-location (agglomeration), called 'coloc_parent,' based on the model above. Coloc_parent is the abbreviation of the parent companies which make co-location choice of FDI.

```
Conditional (fixed-effects) logistic regression

                                          Number of obs   =     345,279
                                          LR chi2(18)     =    18532.88
                                          Prob > chi2     =      0.0000
Log likelihood = -27307.414               Pseudo R2       =      0.2534

------------------------------------------------------------------------------
          choice |     Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
    coloc_parent |   1.403667   .0340521    41.22   0.000    1.336926    1.470407
    cum_activity |   .0008437   .0001963     4.30   0.000    .0004589    .0012285
   cum_bilateral |    .004428   .0002358    18.78   0.000    .0039659    .0048901
      lfdi_stock |   .5122067    .071316     7.18   0.000      .37243    .6519835
     lfdi_stock2 |  -.0272191   .0046841    -5.81   0.000   -.0363997   -.0180385
 gov_effectiveness|  .6896148   .0400745    17.21   0.000    .6110701    .7681594
ores_exports_stock|  .0226259   .0031396     7.21   0.000    .0164725    .0287793
ores_exports_stock2| -.0002776   .0000444    -6.25   0.000   -.0003647   -.0001906
fuel_exports_stock| -.0007644   .0025498    -0.30   0.764   -.0057618    .0042331
fuel_exports_stock2| -.0000225   .0000254    -0.89   0.376   -.0000724    .0000273
   lmobile_phones |    .253747   .0299207     8.48   0.000    .1951036    .3123905
             lhc |   1.017319   .1263365     8.05   0.000     .769704    1.264934
       ldistances |  -.7246887   .0202712   -35.75   0.000   -.7644196   -.6849578
        trade_sh |   .0012552   .0008824     1.42   0.155   -.0004743    .0029847
            lpop |   .4764855   .0346985    13.73   0.000    .4084777    .5444932
      gdp_growth |   .0456141   .0043102    10.58   0.000    .0371662    .0540619
           1.zaf |   .0047647   .0704338     0.07   0.946   -.1332829    .1428123
           1.egy |  -.1988778   .0734698    -2.71   0.007    -.342876   -.0548796
------------------------------------------------------------------------------
```

Table 5

Looking for the P-value, the results are similar with the previous case. Moreover, it is glad to see that the variable coloc_parent has a positive relationship with the FDI choice. Another variable worth paying attention to is the dummy variable for South Africa. Its value increases a lot and remains statistically insignificant.

4.5.4 Interaction of China

The output (table 6) of the interaction of China shows a similar result with other countries. Looking at the P-value, it is easy to find that some variables have a P-value higher than 0,05, which are statistically insignificant, such as lfdi_stock, gov_effectivenss, fuel_exports_stock, ldistance, trade_sh, gdp_growth, and two dummy variables for South Africa (1. zaf) and Egypt (1. egy).

The cumulated number of investments positively correlates with the FDI choice in general (0,530). For the value of Chinese cum_inv, it can be calculated by the difference between the cum_inv of all countries and the chn#c.cum_inv, the final value remains positive (0,306), which means when Chinese companies make the FDI choice, they would check the cumulated investment number but pay less attention to it, compared with other countries. So,

following the same principle, it is easy to summarize that when compared with other countries, China has a more positive relationship with FDI choice in terms of the ores_exports_stock, which is a proxy for the natural resources and the market size (c.lpop). It is not surprising that for cum_activity, the coefficient is more optimistic, which means that Chinese companies would prefer to invest in areas with the same industrial activity. The bottling line is that the Chinese government is leading most Chinese companies. Therefore, it is a risk information variable.

The specific characteristics of the Chinese FDI choice will be described in detail. The first variable is cum_bilateral. Unlike other countries, the value of this variable is negative, which means China investors would rely less on the economies arising from country-of-origin agglomeration. The second one is c.lhc, which represents the level of infrastructure. China's FDI choice has a negative relationship with the infrastructure, which means that China is more willing to invest in countries whose infrastructure level is not very high. It is a fact that since the early 2000s, China's presence in Africa has increased dramatically in terms of trade, investment, and infrastructure financing. The following variable is human capital. It already shows a positive relationship with the FDI choice for other countries. However, looking for the coefficient for China could indicate that for Chinese investors, human capital is one of the crucial factors. They would prefer to hire employees who have higher education levels. The last variable is the geographic distance between the home country and China.

Now, based on China's standard interaction, another variable representing the tariff taxes (tariff) is introduced to do the robustness check (Table 7). Compared with the standard interaction output, this result differs slightly. However, one noticeable change is that finally, the P-value for fuel_exports_stock is statistically significant, and it has a positive relationship with the FDI choice. Furthermore, for the tariff taxes, due to the higher P-value, it is statistically insignificant. So now, the dummy variable of Egypt has a significant and positive effect on the Chinese FDI choice.

4.5.5 Interaction of India

Before analyzing the output for the interaction of India (table 8), it is easy to observe that the P-value for cum_bilateral, lfdi_stock, gov_effectiveness, ores_exports_stock, fuel_exports_stock, trade_sh, gdp_growth, and two dummy variables for South Africa (1. zaf) and Egypt (1. egy) are statistically insignificant.

The cumulated number of investments has a more positive effect on Indian FDI choice. Also, Indian investors would prefer to invest more in areas with the same industrial activities.

Unlike the geographic distance is a statistically insignificant variable for Chinese FDI choice, it has a significant adverse effect on the interaction of India. India's top FDI destination country is South Africa, Kenya, Nigeria, Egypt, and Tanzania. Expect Nigeria. All the remaining countries have a distance advantage. Another variable has a different effect on the Chinese situation, called lmobile_phones, a proxy for the infrastructure level. The Indian investors would prefer to invest in areas with a higher infrastructure level. The reason is easy to find out. In these years, Indian OFDI has changed to asset-seeking strategy, and it concentrated in IT, communication, software, and media industry sectors. In order to develop well in these sectors, a sufficient infrastructure level is indispensable. It could also explain

why Indian investors pay more attention to human capital. When looking at the coefficient of the lpop, which is a proxy of the market size, it has a less positive effect on Indian FDI choice than other countries. Because since 1991, Indian OFDI reflects a change from essentially market seeking to more asset seeking strategy, so the effect of market size on Indian FDI choice can be neglected.

Based on the standard interaction of India, the tariff tax is introduced to check the robustness (table 9). In this case, the cum_activity becomes statistically insignificant, and its P-value is higher than 0,05. Also, the tariff tax has an unmeaningful P-value. Finally, it is surprising that the fuel_exports_stock becomes a statistically significant variable, and it has a notable negative effect on the FDI choice. Unlike other countries, Indian FDI is the type of asset seeking, so this negative relationship between investment choice and natural resources could be explained.

4.5.6 Interaction of Russia

By analyzing the interaction of Russia, the result differs slightly from China (Table 10). The lfdi_stock, gov_effectiveness, fuel_exports_stock, lmobile_phones, lhuman capital, trade_sh, gdp_growth, and dummy variable of South Africa are statistically insignificant.

Unlike Chinese investors, Russian investors would prefer to invest in areas with less investment because the cumulated investment harms Russian FDI choice. It is not surprising that for cum_activity, the coefficient is more optimistic, which means that Russian companies would prefer to invest in areas with the same industrial activity. This phenomenon also happens in China, and both two countries pay attention to industry FDI agglomeration. One specific characteristic of the Russian FDI choice is cum_bilateral. Unlike other countries, the value of this variable is negative, which means Russian investors would invest in those areas in which the country-of-origin agglomeration is small. On the other hand, the coefficient of ores_exports_stock, a proxy of the natural resources, has a more positive effect on the FDI choice. Russian investors would prefer to invest in areas where the geographic distance is short and large market size.

Based on the standard interaction of India, the tariff tax is introduced to check the robustness (Table 11). In this case, the variable tariff tax is statistically insignificant. As a result, the variable lpop, which represents the market size, becomes insignificant. Meanwhile, the dummy variable of Egypt becomes a significant variable, and the coefficient is positive, which means Russian investors would invest more in Egypt.

Chapter 5. Political role of Chinese government

When governments want to boost their domestic economy and attract new technologies, corporate know-how, and capital to their country, they decide to promote FDI. However, to achieve their domestic, economic, political, and social goals, many countries continue to manage and control the type, quantity, and nationality of FDI. Moreover, how can government encourage FDI? First, the government provides businesses with tax incentives and loans to invest in. In order to support companies' oversea investments, the government may give a combination of insurance, loans, and tax benefits. The government also provides a better environment or infrastructure in some sectors, such as energy, transportation, and communications—the process of establishing offices or production in their countries. The government also reduces bureaucracy and regulatory environments. An educated and skilled workforce is essential for multinational firms, so enhancing education and job training are essential methods to achieve it. Last but not least, the government needs to provide a stable and transparently political, economic, and legal environment. In the following, the China-Africa case will be discussed in detail. (Mariadoss, 2021)

As mentioned before, the China-Africa friendship has a long history. China's influence in Africa is high on the world stage, as China has become a prominent political and economic force in the African continent just in a few decades. Indeed, its rise to prominence as a major economic and political actor in Africa could be the most significant development since the end of the Cold War. China has always respected Africa, loved Africa, and supported Africa for a long time. The Chinese people have always shared the same destiny with the African people, shared the same heart and helped each other, and have blazed a path of win-win cooperation with distinctive features. China and Africa have continuously enriched and improved the intergovernmental dialogue, consultation, and cooperation mechanism and gave full play to the overall coordination role to promote the overall development of China-Africa cooperation in various fields. China and African countries have conducted close exchanges between political parties, legislative and consultative institutions, and established multi-level, multi-channel, multi-form, and all-round friendly cooperation. Based on the principles of independence, complete equality, mutual respect, and non-interference in each other's internal affairs, the Communist Party of China has continued to intensify exchanges and cooperation with political parties in African countries and build a new type of political party relationship featuring seeking common ground while reserving differences, respects each other, and learns from each other. Both sides exert positive influence in legislation and supervision and provide policy support and guarantee of China-Africa cooperation and exchanges. (State Council Information Office of the People's Republic of China, 2021)

Since 2004, when the Chinese government implemented several policies, including investment funds, to stimulate foreign investment, Chinese FDI to Africa has expanded rapidly. During the global financial crisis of 2008, Chinese FDI in Africa soared as local governments implemented preferential loan programs. (World Bank Group, 2000) From 2013 to 2018, China's foreign aid amounted to 270,2 billion yuan, of which aid to African countries accounted for 44,65%, including free aid, interest-free loans, and preferential loans. (State Council Information Office of the People's Republic of China, 2021)
Investments in infrastructure have helped address the physical infrastructure constraints many African countries face. In realizing its development, China has always paid attention to and supported African countries in their efforts to improve people's livelihood and seek

development. Entering a new era, China has continued to increase aid to Africa based on its ability. From 2000 to 2020, more than 13,000 kilometers of highways and railways have been built, more than 80 large-scale power facilities have been built, and more than 130 medical facilities, 45 gymnasiums, and more than 170 schools have been aided, involving all aspects of economic and social life. China supports Africa to take infrastructure construction as a priority for economic revitalization and encourages and supports Chinese enterprises to participate in Africa's infrastructure construction, investment, operation, and management in various modes. From 2016 to 2020, the total amount of infrastructure projects under construction in Africa is nearly 200 billion US dollars, and the proportion of projects implemented by Chinese enterprises in 2020 has reached 31,4%. Since the Forum on China-Africa Cooperation, Chinese enterprises have used various funds to help African countries. Those measures included:

– added and upgraded nearly 1,000 bridges, nearly 100 ports,
– upgrade and installed 66,000 kilometers of power transmission lines,
– installed power capacity is 120 million kilowatts,
– installed 150,000 kilometers communication backbone network,
– covered nearly 700 million user terminals network services.

(State Council Information Office of the People's Republic of China, 2021)

An official visit by Chinese Foreign Minister Wang Yi to Seychelles on January 31, 2021, is an example of Chinese diplomacy policy in Africa. He claimed that China supports multilateralism and opposes power polities; it supports "democracy in international relations" and the United Nation's legitimate role in international relations. China's non-interference policy seems to have the support of Africa's elites. From the perspective of the West, this gives China an advantage in business relations with African countries because African political elites prefer "loans, aid, and business agreements from a great power that does not demand certain liberal rights, corruption-free governance, sustainability, transparency, nor democracy." (Stein and Uddhammar, 2021)

China actively strengthens strategic communication and alignment with Africa on scientific and technological innovation, shares the experience and achievements of scientific and technological development, and promotes the exchange and training of scientific and technological talents, technology transfer and innovation, and entrepreneurship between the two sides. China vigorously supports the development of education in Africa, helps Africa cultivate urgently needed talents according to African countries' economic and social development needs, and supports outstanding young Africans to study in China by setting up several special scholarships. (State Council Information Office of the People's Republic of China, 2021) While investing in Africa has provided new opportunities for Chinese firms, African countries have benefited from the skills and techniques that it has brought. (World Bank Group, 2000)

Without a peaceful and stable environment, the development would be impossible. China is a constructive participant in African peace and security affairs and has always been committed to supporting Africans in solving African problems in African ways, adheres to addressing both the symptoms and root causes, insists on win-win cooperation, support African countries and the African Union in playing a leading role in African peace and security affairs, and supports Africa in enhancing its independence peacekeeping, stability maintenance, and counter-terrorism capabilities. (State Council Information Office of the People's Republic of China, 2021)

Wladimir Andreff summarized, "State interventions over Chinese OFDI relied on a high degree of regulation and control, many state-owned MNCs, and the government quest for natural resources in short supply at home. The government formally pushed Chinese firms to go overseas by releasing motiving policies and providing support from the bureaucratic administration; informally, it shapes their choices through propagating firm state ideology and national pride…." (Andreff, 2016)

Facing the sudden outbreak of COVID-19, China and Africa have withstood the severe test, showing solidarity and fighting side by side. After the epidemic outbreak in Africa, China immediately rushed to Africa and launched the most extensive and complicated humanitarian assistance operation since the founding of the People's Republic of China. (Ministry of Commerce of the People's Republic of China, 2020) In order to help African countries cope with the impact of the epidemic and overcome temporary difficulties, China supports reducing the debt burden of African countries and actively implements the G20's "Debt Repayment Suspension Initiative for the Poorest Countries." African countries signed a debt suspension of the G20 Debt Suspension Initiative to the end of 2021 and will work with relevant members to implement the Common Framework for Follow-up Debt handing of the Debt Suspension Initiative. For countries with particularly severe epidemics and tremendous pressure, China has also worked with relevant parties to provide support through case-by-case handling. (State Council Information Office of the People's Republic of China, 2021)

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Appendix

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Table 6

```
Conditional (fixed-effects) logistic regression

                                              Number of obs   =    345,279
                                              LR chi2(36)     =   18220.43
                                              Prob > chi2     =     0.0000
Log likelihood = -27463.637                   Pseudo R2       =     0.2491

------------------------------------------------------------------------------
           choice |     Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-----------------+------------------------------------------------------------
          cum_inv |  .5299777   .0175662    30.17   0.000     .4955486    .5644068
     cum_activity |  .0008779   .0002009     4.37   0.000     .0004841    .0012718
    cum_bilateral |  .0048124   .0002374    20.27   0.000      .004347    .0052777
       lfdi_stock |  .5238785   .0726082     7.22   0.000      .381569     .666188
      lfdi_stock2 |  -.028624   .0047723    -6.00   0.000    -.0379777   -.0192704
 gov_effectiveness|  .7185158   .0406692    17.67   0.000     .6388056     .798226
ores_exports_stock|  .0220077   .0031966     6.88   0.000     .0157424    .0282729
ores_exports_stock2| -.0002705  .0000455    -5.94   0.000    -.0003597   -.0001812
fuel_exports_stock| -.0011501   .0025967    -0.44   0.658    -.0062395    .0039393
fuel_exports_stock2| -.0000177  .0000259    -0.68   0.494    -.0000684     .000033
   lmobile_phones |  .2853677   .0304114     9.38   0.000     .2257624    .3449729
              lhc |  1.033604   .1293031     7.99   0.000     .7801746    1.287033
       ldistances | -.7730568   .0202306   -38.21   0.000    -.8127082   -.7334055
         trade_sh |  .0013331   .0008992     1.48   0.138    -.0004292    .0030955
             lpop |  .4734096   .0352775    13.42   0.000      .404267    .5425523
       gdp_growth |  .0470844   .0043936    10.72   0.000     .0384731    .0556958
            1.zaf |  .0563844   .0715912     0.79   0.431    -.0839318    .1967006
            1.egy | -.1864834   .0749231    -2.49   0.013      -.33333   -.0396368
            1.chn |         0  (omitted)
                  |
   chn#c.cum_inv  |
                1 | -.2242741   .0759728    -2.95   0.003    -.3731781   -.0753702
                  |
chn#c.cum_activity|
                1 |   .002091   .0010305     2.03   0.042     .0000712    .0041108
                  |
chn#c.cum_bilateral|
                1 | -.0291778    .005712    -5.11   0.000    -.0403732   -.0179825
                  |
 chn#c.lfdi_stock |
                1 |  .5853089   .4277035     1.37   0.171    -.2529745    1.423592
                  |
chn#c.lfdi_stock2 |
                1 | -.0352829   .0278402    -1.27   0.205    -.0898487    .0192829
                  |
chn#c.gov_effectiveness|
                1 | -.1226598   .2077039    -0.59   0.555    -.5297519    .2844323
                  |
chn#c.ores_exports_stock|
                1 |   .057599   .0246304     2.34   0.019     .0093243    .1058738
                  |
chn#c.ores_exports_stock2|
                1 | -.0005854   .0003127    -1.87   0.061    -.0011983    .0000275
                  |
chn#c.fuel_exports_stock|
                1 |  .0175551   .0125744     1.40   0.163    -.0070902    .0422005
                  |
chn#c.fuel_exports_stock2|
                1 |  -.000077   .0001264    -0.61   0.542    -.0003246    .0001707
                  |
chn#c.lmobile_phones|
                1 | -.9874818   .1929671    -5.12   0.000     -1.36569   -.6092733
                  |
        chn#c.lhc |
                1 |  3.994115   .6920475     5.77   0.000     2.637727    5.350504
                  |
 chn#c.ldistances |
                1 | -1.238576   .8337496    -1.49   0.137    -2.872695    .3955432
                  |
   chn#c.trade_sh |
                1 | -.0032133    .004828    -0.67   0.506    -.0126759    .0062493
                  |
       chn#c.lpop |
                1 |  1.171051   .2255907     5.19   0.000     .7289012      1.6132
                  |
 chn#c.gdp_growth |
                1 |  .0171867   .0218128     0.79   0.431    -.0255657    .0599391
                  |
          zaf#chn |
              1 1 |  .7443624     .45111     1.65   0.099     -.139797    1.628522
                  |
          egy#chn |
              1 1 | -.6040229   .5160152    -1.17   0.242    -1.615394    .4073483
------------------------------------------------------------------------------
```

Table 6

```
Conditional (fixed-effects) logistic regression

                                            Number of obs    =     249,228
                                            LR chi2(38)      =    16211.88
                                            Prob > chi2      =      0.0000
Log likelihood = -21449.927                 Pseudo R2        =      0.2743

--------------------------------------------------------------------------------
             choice |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
--------------------+-----------------------------------------------------------
            cum_inv |   .5642347   .0206837    27.28   0.000     .5236954    .604774
       cum_activity |    .000899   .0002162     4.16   0.000     .0004753   .0013228
       cum_bilateral |   .0047669   .0002627    18.14   0.000     .0042519   .0052818
            ltariff |   -.124237   .0442548    -2.81   0.005    -.2109748  -.0374992
         lfdi_stock |   .6380714   .0820808     7.77   0.000      .477196   .7989469
        lfdi_stock2 |  -.0365287   .0054946    -6.65   0.000     -.047298  -.0257595
     gov_effectiveness |   .7977096   .0465962    17.12   0.000     .7063828   .8890364
   ores_exports_stock |   .0164247   .0036629     4.48   0.000     .0092455    .023604
  ores_exports_stock2 |  -.0001818   .0000521    -3.49   0.000    -.0002839  -.0000798
   fuel_exports_stock |   .0081363   .0030858     2.64   0.008     .0020882   .0141844
  fuel_exports_stock2 |  -.0001055   .0000311    -3.39   0.001    -.0001664  -.0000446
      lmobile_phones |    .315064   .0333903     9.44   0.000     .2496202   .3805079
                lhc |   .9487767   .1517912     6.25   0.000     .6512714   1.246282
          ldistances |   -.805215   .0227083   -35.46   0.000    -.8497225  -.7607075
           trade_sh |   .0002552   .0010455     0.24   0.807    -.0017939   .0023043
               lpop |   .4285224   .0402371    10.65   0.000     .3496591   .5073856
         gdp_growth |   .0637332   .0051487    12.38   0.000      .053642   .0738245
              1.zaf |   .0580289   .0824197     0.70   0.481    -.1035108   .2195685
              1.egy |  -.3082436   .0880762    -3.50   0.000    -.4808698  -.1356175
              1.chn |          0  (omitted)
                    |
        chn#c.cum_inv |
                  1 |  -.3224823   .0796504    -4.05   0.000    -.4785942  -.1663703
                    |
     chn#c.cum_activity |
                  1 |   .0022669   .0011156     2.03   0.042     .0000804   .0044534
                    |
    chn#c.cum_bilateral |
                  1 |  -.0336463   .0061739    -5.45   0.000     -.045747  -.0215457
                    |
        chn#c.ltariff |
                  1 |  -.1034197   .2705896    -0.38   0.702    -.6337657   .4269262
                    |
      chn#c.lfdi_stock |
                  1 |   .6000966   .4999098     1.20   0.230    -.3797085   1.579902
                    |
     chn#c.lfdi_stock2 |
                  1 |  -.0338274     .03352    -1.01   0.313    -.0995254   .0318706
                    |
  chn#c.gov_effectiveness |
                  1 |  -.0420531   .2624095    -0.16   0.873    -.5563662     .47226
                    |
  chn#c.ores_exports_stock |
                  1 |   .0630268   .0271723     2.32   0.020     .0097701   .1162834
                    |
 chn#c.ores_exports_stock2 |
                  1 |  -.0005954   .0003515    -1.69   0.090    -.0012842   .0000935
                    |
  chn#c.fuel_exports_stock |
                  1 |   .0488585   .0155341     3.15   0.002     .0184123   .0793047
                    |
 chn#c.fuel_exports_stock2 |
                  1 |  -.0003931   .0001549    -2.54   0.011    -.0006967  -.0000894
                    |
   chn#c.lmobile_phones |
                  1 |  -1.082492    .212241    -5.10   0.000    -1.498477  -.6665075
                    |
          chn#c.lhc |
                  1 |   3.588451   .8168524     4.39   0.000      1.98745   5.189452
                    |
     chn#c.ldistances |
                  1 |  -1.627542   .9480411    -1.72   0.086    -3.485668   .2305846
                    |
       chn#c.trade_sh |
                  1 |  -.0047017   .0056762    -0.83   0.407    -.0158269   .0064235
                    |
          chn#c.lpop |
                  1 |   1.253041   .2647547     4.73   0.000     .7341316   1.771951
                    |
     chn#c.gdp_growth |
                  1 |   .0040764   .0278925     0.15   0.884    -.0505919   .0587446
                    |
            zaf#chn |
                1 1 |   .6894252   .5107572     1.35   0.177    -.3116405   1.690491
                    |
            egy#chn |
                1 1 |  -1.289469   .5899067    -2.19   0.029    -2.445665  -.1332733
--------------------------------------------------------------------------------
```

Table 7

```
Conditional (fixed-effects) logistic regression

                                      Number of obs   =    345,279
                                      LR chi2(36)     =   18192.01
                                      Prob > chi2     =     0.0000
Log likelihood = -27477.85            Pseudo R2       =     0.2487
```

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
cum_inv	.5067619	.0171763	29.50	0.000	.473097	.5404269
cum_activity	.0007655	.0002002	3.82	0.000	.0003732	.0011578
cum_bilateral	.0048196	.0002371	20.33	0.000	.004355	.0052842
lfdi_stock	.5438925	.0734482	7.41	0.000	.3999367	.6878483
lfdi_stock2	-.0291055	.0048158	-6.04	0.000	-.0385443	-.0196667
gov_effectiveness	.724469	.0409499	17.69	0.000	.6442086	.8047294
ores_exports_stock	.0245583	.0032148	7.64	0.000	.0182573	.0308592
ores_exports_stock2	-.0002941	.0000456	-6.45	0.000	-.0003834	-.0002047
fuel_exports_stock	.0016725	.0025804	0.65	0.517	-.0033849	.0067299
fuel_exports_stock2	-.0000428	.0000257	-1.66	0.096	-.0000932	7.62e-06
lmobile_phones	.2587659	.0306347	8.45	0.000	.198723	.3188088
lhc	1.052884	.1294444	8.13	0.000	.7991781	1.306591
ldistances	-.7691057	.0203222	-37.85	0.000	-.8089364	-.729275
trade_sh	.0012757	.0009009	1.42	0.157	-.0004901	.0030415
lpop	.4950523	.0355363	13.93	0.000	.4254024	.5647022
gdp_growth	.0474277	.0044191	10.73	0.000	.0387664	.056089
1.zaf	.033854	.0718876	0.47	0.638	-.107043	.1747511
1.egy	-.2157508	.0747546	-2.89	0.004	-.3622671	-.0692346
1.india	0	(omitted)				
india#c.cum_inv						
1	.2347873	.1136493	2.07	0.039	.0120388	.4575357
india#c.cum_activity						
1	.0034933	.0011376	3.07	0.002	.0012637	.0057229
india#c.cum_bilateral						
1	-.0021995	.0053013	-0.41	0.678	-.0125899	.0081909
india#c.lfdi_stock						
1	-.4949114	.364438	-1.36	0.174	-1.209197	.2193739
india#c.lfdi_stock2						
1	.0260486	.0249411	1.04	0.296	-.022835	.0749323
india#c.gov_effectiveness						
1	-.3053449	.1804592	-1.69	0.091	-.6590385	.0483487
india#c.ores_exports_stock						
1	.0081975	.0212554	0.39	0.700	-.0334624	.0498574
india#c.ores_exports_stock2						
1	-.0000797	.000278	-0.29	0.774	-.0006246	.0004652
india#c.fuel_exports_stock						
1	-.0682428	.0160888	-4.24	0.000	-.0997763	-.0367093
india#c.fuel_exports_stock2						
1	.000702	.0001592	4.41	0.000	.00039	.0010139
india#c.lmobile_phones						
1	.4023189	.1513448	2.66	0.008	.1056887	.6989492
india#c.lhc						
1	2.107733	.6783751	3.11	0.002	.7781424	3.437324
india#c.ldistances						
1	-1.81537	.4993499	-3.64	0.000	-2.794078	-.836662
india#c.trade_sh						
1	-.0057247	.0048096	-1.19	0.234	-.0151514	.0037019
india#c.lpop						
1	-.3324078	.1838514	-1.81	0.071	-.69275	.0279343
india#c.gdp_growth						
1	-.0150645	.0188461	-0.80	0.424	-.0520022	.0218732
zaf#india						
1 1	-.4037964	.390738	-1.03	0.301	-1.169629	.362036
egy#india						
1 1	-.3177096	.4745137	-0.67	0.503	-1.247739	.6123201

Table 8

```
Conditional (fixed-effects) logistic regression

                                        Number of obs     =     249,228
                                        LR chi2(38)       =   16164.87
                                        Prob > chi2       =     0.0000
Log likelihood = -21473.433             Pseudo R2         =     0.2735

--------------------------------------------------------------------------------
             choice |      Coef.   Std. Err.      z    P>|z|    [95% Conf. Interval]
--------------------+-----------------------------------------------------------
            cum_inv |   .5314125   .0201353    26.39   0.000     .4919481    .570877
       cum_activity |   .0008024   .0002152     3.73   0.000     .0003805   .0012242
       cum_bilateral|   .0047752    .000262    18.23   0.000     .0042617   .0052886
            ltariff |  -.1102307   .0444245    -2.48   0.013    -.1973011  -.0231603
          lfdi_stock |   .6772935   .0832471     8.14   0.000     .5141321   .8404549
         lfdi_stock2 |  -.0381533   .0055605    -6.86   0.000    -.0490516   -.027255
     gov_effectiveness|  .8014697   .0468705    17.10   0.000     .7096053   .8933341
    ores_exports_stock|  .0188166   .0036826     5.11   0.000     .0115989   .0260343
   ores_exports_stock2| -.000204    .0000522    -3.91   0.000    -.0003062  -.0001017
    fuel_exports_stock|  .0111704   .0030678     3.64   0.000     .0051576   .0171832
   fuel_exports_stock2| -.0001334   .0000309    -4.32   0.000     -.000194  -.0000729
       lmobile_phones|   .2878643   .0335439     8.58   0.000     .2221195   .3536092
                lhc |   .9237409   .1521104     6.07   0.000     .6256099   1.221872
          ldistances |  -.8018864   .0228037   -35.16   0.000    -.8465809   -.757192
           trade_sh |   .0001751   .0010463     0.17   0.867    -.0018757   .0022258
               lpop |   .4420464   .0404405    10.93   0.000     .3627844   .5213084
         gdp_growth |   .0636241   .0051763    12.29   0.000     .0534788   .0737694
              1.zaf |   .0570653    .082753     0.69   0.490    -.1051277   .2192582
              1.egy |  -.3263117   .0879541    -3.71   0.000    -.4986986  -.1539248
            1.india |          0  (omitted)
                    |
   india#c.cum_inv  |
                  1 |   .1812427   .1176889     1.54   0.124    -.0494233   .4119086
                    |
india#c.cum_activity|
                  1 |   .0039175   .0012655     3.10   0.002     .0014372   .0063977
                    |
india#c.cum_bilateral|
                  1 |  -.0082672   .0060478    -1.37   0.172    -.0201207   .0035863
                    |
   india#c.ltariff  |
                  1 |  -.1828345   .2259716    -0.81   0.418    -.6257306   .2600617
                    |
 india#c.lfdi_stock |
                  1 |  -.5793092   .4102252    -1.41   0.158    -1.383336   .2247175
                    |
india#c.lfdi_stock2 |
                  1 |   .0288085   .0286395     1.01   0.314    -.0273239    .084941
                    |
india#c.gov_effectiveness|
                  1 |  -.0730882   .2236568    -0.33   0.744    -.5114476   .3652711
                    |
india#c.ores_exports_stock|
                  1 |    .008455   .0237328     0.36   0.722    -.0380604   .0549704
                    |
india#c.ores_exports_stock2|
                  1 |   -.00003   .0003132    -0.10   0.924     -.000644   .0005839
                    |
india#c.fuel_exports_stock|
                  1 |  -.060028   .0193491    -3.10   0.002    -.0979516  -.0221044
                    |
india#c.fuel_exports_stock2|
                  1 |   .0006372   .0001928     3.30   0.001     .0002593   .0010152
                    |
india#c.lmobile_phones|
                  1 |   .2795422   .1735959     1.61   0.107    -.0606995   .6197839
                    |
     india#c.lhc    |
                  1 |   2.554849    .815844     3.13   0.002     .955824   4.153874
                    |
india#c.ldistances  |
                  1 |  -1.50466    .5592228    -2.69   0.007    -2.600717  -.4086035
                    |
 india#c.trade_sh   |
                  1 |  -.0060963    .005622    -1.08   0.278    -.0171153   .0049226
                    |
   india#c.lpop     |
                  1 |  -.0139735   .2236704    -0.06   0.950    -.4523594   .4244124
                    |
india#c.gdp_growth  |
                  1 |  -.0188277   .0231672    -0.81   0.416    -.0642345   .0265791
                    |
       zaf#india    |
               1 1  |  -.5960776   .4541991    -1.31   0.189    -1.486291   .2941362
                    |
       egy#india    |
               1 1  |  -.4714669   .5549591    -0.85   0.396    -1.559167    .616233
--------------------------------------------------------------------------------
```

Table 9

```
Conditional (fixed-effects) logistic regression
```

		Number of obs	=	345,279
		LR chi2(36)	=	18149.75
		Prob > chi2	=	0.0000
Log likelihood = -27498.978		Pseudo R2	=	0.2481

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
cum_inv	.516358	.0171101	30.18	0.000	.4828227	.5498932
cum_activity	.0008605	.0001976	4.35	0.000	.0004731	.0012478
cum_bilateral	.0048538	.0002369	20.49	0.000	.0043895	.0053181
lfdi_stock	.5454016	.0719688	7.58	0.000	.4043453	.6864579
lfdi_stock2	-.0298669	.0047233	-6.32	0.000	-.0391245	-.0206094
gov_effectiveness	.7147233	.0400123	17.86	0.000	.6363006	.793146
ores_exports_stock	.0220912	.003154	7.00	0.000	.0159095	.0282728
ores_exports_stock2	-.000261	.0000446	-5.85	0.000	-.0003485	-.0001736
fuel_exports_stock	-.000354	.0025425	-0.14	0.889	-.0053439	.004636
fuel_exports_stock2	-.0000254	.0000254	-1.00	0.316	-.0000752	.0000243
lmobile_phones	.2658616	.0300472	8.85	0.000	.2069702	.3247531
lhc	1.142211	.1267562	9.01	0.000	.8937734	1.390648
ldistances	-.7763805	.0201335	-38.56	0.000	-.8158415	-.7369195
trade_sh	.001198	.0008868	1.35	0.177	-.0005401	.0029362
lpop	.5004879	.0348012	14.38	0.000	.4322788	.5686971
gdp_growth	.0472469	.0043162	10.95	0.000	.0387872	.0557065
1.zaf	.0303594	.0705498	0.43	0.667	-.1079157	.1686345
1.egy	-.2208219	.0736344	-3.00	0.003	-.3651427	-.076501
1.russia	0	(omitted)				
russia#c.cum_inv						
1	-.6933849	.3149831	-2.20	0.028	-1.31074	-.0760294
russia#c.cum_activity						
1	.0067946	.0024041	2.83	0.005	.0020828	.0115065
russia#c.cum_bilateral						
1	-.1156189	.0552839	-2.09	0.036	-.2239733	-.0072645
russia#c.lfdi_stock						
1	-1.394005	.8206795	-1.70	0.089	-3.002507	.2144974
russia#c.lfdi_stock2						
1	.1022042	.0589276	1.73	0.083	-.0132917	.2177001
russia#c.gov_effectiveness						
1	-.1204672	.4013665	-0.30	0.764	-.9071311	.6661967
russia#c.ores_exports_stock						
1	.0724276	.0358299	2.02	0.043	.0022024	.1426528
russia#c.ores_exports_stock2						
1	-.0012648	.00057	-2.22	0.027	-.002382	-.0001475
russia#c.fuel_exports_stock						
1	-.0328977	.037623	-0.87	0.382	-.1066375	.040842
russia#c.fuel_exports_stock2						
1	.0004521	.0003879	1.17	0.244	-.0003082	.0012124
russia#c.lmobile_phones						
1	.3431356	.3390103	1.01	0.311	-.3213123	1.007584
russia#c.lhc						
1	.7475078	1.561132	0.48	0.632	-2.312255	3.80727
russia#c.ldistances						
1	2.634859	.7660087	3.44	0.001	1.133509	4.136208
russia#c.trade_sh						
1	-.0173713	.0092451	-1.88	0.060	-.0354913	.0007488
russia#c.lpop						
1	-.7412283	.3744152	-1.98	0.048	-1.475069	-.007388
russia#c.gdp_growth						
1	-.0548026	.0400522	-1.37	0.171	-.1333035	.0236983
zaf#russia						
1 1	-1.810281	1.081232	-1.67	0.094	-3.929457	.3088956
egy#russia						
1 1	3.106115	1.161029	2.68	0.007	.8305395	5.381691

Table 10

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Conditional (fixed-effects) logistic regression
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		Number of obs	=	249,228
		LR chi2(38)	=	16126.43
		Prob > chi2	=	0.0000
Log likelihood = -21492.651		Pseudo R2	=	0.2728

choice	Coef.	Std. Err.	z	P>|z|	[95% Conf. Interval]	
cum_inv	.5424006	.0200029	27.12	0.000	.5031957	.5816055
cum_activity	.0008947	.0002128	4.20	0.000	.0004776	.0013118
cum_bilateral	.0048008	.000262	18.32	0.000	.0042873	.0053142
ltariff	-.1272215	.0436955	-2.91	0.004	-.2128631	-.0415798
lfdi_stock	.6635288	.0814139	8.15	0.000	.5039605	.8230971
lfdi_stock2	-.0380691	.0054423	-6.99	0.000	-.0487359	-.0274023
gov_effectiveness	.8014675	.045968	17.44	0.000	.711372	.8915631
ores_exports_stock	.0164	.0036209	4.53	0.000	.0093032	.0234968
ores_exports_stock2	-.0001675	.0000512	-3.27	0.001	-.0002678	-.0000672
fuel_exports_stock	.0097301	.003029	3.21	0.001	.0037934	.0156667
fuel_exports_stock2	-.0001206	.0000305	-3.95	0.000	-.0001803	-.0000608
lmobile_phones	.2949407	.0329654	8.95	0.000	.2303296	.3595518
lhc	1.031144	.1490737	6.92	0.000	.7389645	1.323323
ldistances	-.8086287	.0225997	-35.78	0.000	-.8529234	-.764334
trade_sh	.0001558	.0010322	0.15	0.880	-.0018672	.0021788
lpop	.4589495	.0397233	11.55	0.000	.3810932	.5368059
gdp_growth	.0638497	.0050729	12.59	0.000	.0539069	.0737924
1.zaf	.0284387	.0812191	0.35	0.726	-.1307479	.1876252
1.egy	-.3528415	.0865628	-4.08	0.000	-.5225015	-.1831816
1.russia	0	(omitted)				
russia#c.cum_inv 1	-.8877129	.3710741	-2.39	0.017	-1.615005	-.160421
russia#c.cum_activity 1	.0072359	.0026219	2.76	0.006	.0020971	.0123748
russia#c.cum_bilateral 1	-.1443355	.0596956	-2.42	0.016	-.2613368	-.0273342
russia#c.ltariff 1	.1296865	.4632008	0.28	0.779	-.7781704	1.037543
russia#c.lfdi_stock 1	-1.804443	.9356749	-1.93	0.054	-3.638332	.0294466
russia#c.lfdi_stock2 1	.1366438	.0689424	1.98	0.047	.0015191	.2717684
russia#c.gov_effectiveness 1	-.2859755	.4614624	-0.62	0.535	-1.190425	.6184742
russia#c.ores_exports_stock 1	.0758437	.0378245	2.01	0.045	.0017091	.1499783
russia#c.ores_exports_stock2 1	-.0014773	.000641	-2.30	0.021	-.0027336	-.000221
russia#c.fuel_exports_stock 1	-.0206821	.0390466	-0.53	0.596	-.097212	.0558478
russia#c.fuel_exports_stock2 1	.0002646	.0004097	0.65	0.518	-.0005384	.0010677
russia#c.lmobile_phones 1	.0835574	.3576548	0.23	0.815	-.6174331	.7845478
russia#c.lhc 1	1.818049	1.732333	1.05	0.294	-1.577262	5.21336
russia#c.ldistances 1	2.680168	.9346115	2.87	0.004	.8483636	4.511973
russia#c.trade_sh 1	-.0188127	.0103749	-1.81	0.070	-.0391472	.0015217
russia#c.lpop 1	-.5469345	.4090815	-1.34	0.181	-1.348719	.2548505
russia#c.gdp_growth 1	-.0727318	.0420469	-1.73	0.084	-.1551422	.0096785
zaf#russia 1 1	-2.131984	1.289735	-1.65	0.098	-4.659819	.3958507
egy#russia 1 1	2.58761	1.202244	2.15	0.031	.2312555	4.943965