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FOREIGN DIRECT INVESTMENTS FROM EMERGING COUNTRIES.  
CHINESE FDI IN EUROPE.

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## ABSTRACT

The purpose of this thesis work is to analyze Chinese investments in Europe and identify if they have a distinctive character compared to others.

The reasons that justify the choice of the topic under consideration mainly concern the practical implications that the Chinese phenomenon represents in all realities, including the Western one. It is an economy whose enormous development, in a relatively short period, has inevitably influenced global markets. In fact, it is sufficient to look around the various city contexts to understand that economic development cannot ignore the impact of Chinese economies. China today represents a world power to all intents and purposes, the economic policies developed by the Chinese government are all aimed at expanding their economic influence like wildfire and beyond. A striking example of which we will discuss below is the project of the new "silk road" - belt and road initiative.

The work is carried out in four chapters that start from the literature on the subject, up to the final analysis.

After a brief introduction, the first chapter begins with the description of Multinational Enterprises (MNEs) and their appearance on the world stage, which unequivocally started the globalization process. The introduction of a very important financial instrument, namely Foreign Direct Investments, is placed in this context. They will be described in detail, and the determinants of the phenomenon will be explained using literature on the subject. Finally, an overview will be made of the effects and consequences both in the country of origin and destination of the investments.

In the second chapter, however, we will get to the heart of the topic, describing how the flow of FDI has changed over time. Initially the trend described will be on a global level, then we will focus on the different ways of developing FDI in advanced and developing countries, especially for the BRICS group of countries. The aim is to understand how these countries have entered the international scene, what have been the factors that have contributed to their economic development, and finally how their approach as investors has changed over time. Finally, we will see that among these countries China stands out. To fully understand the Chinese economic system, and the present and future projects that the country has, it is necessary to introduce historical references which refer to the economy. Returning to the present, the new Chinese objective will be described, namely the "Belt & Road Initiative", a very ambitious project that aims to create a new trade route, by land and by sea, between China and Europe.

In the third chapter, therefore, we will focus on Chinese investments in Europe. First, we will introduce the European market and analyze the trend of both global and Chinese

investments in Europe. Following, we will try to understand what are the reasons that push Chinese investors to invest in Europe, and where Chinese investments are most directed in terms of geography, sector, and industrial function.

On the basis of the above, the fourth chapter will include a comparison between the Chinese FDI greenfield in Europe and those coming from an aggregation of eight countries from the "rest of the world", therefore EU excluded, chosen mainly for some similarities with China in terms of economy, population, value of investments, or even just representing a geographic area.

In the first part we will describe the database used for the analysis, then the methodology and finally the results. In this case the comparison will be made by country, by sector and by industrial activity, and we will try to explain the results based on the literature and the determinants found in the previous paragraphs.

The thesis will end with conclusions in which we will take stock of the situation.

We specify here that the thesis will not consider the impact of the global COVID-19 pandemic on FDIs and that we will consider the United Kingdom still part of Europe, despite Brexit having entered into force. Undoubtedly these two events have had a strong impact on foreign direct investment around the world, changing directions and trends, and it would have been interesting to study it, but unfortunately the data available are still few.

# 1. FOREIGN DIRECT INVESTMENTS

## 1.1 Introduction

In recent decades, a new and important feature in the dynamics of globalization has been the creation of so-called “global value chains”. In other words, the growing integration of world markets has been accompanied in recent years by the disintegration of production processes; some stages of manufacturing production and some services are delocalized abroad and are combined with those made internally. This phenomenon has been identified in many different ways by economists. In the context of Anglo-Saxon academic literature, for example, the following definitions have been used: Krugman (1996) talks about slicing the value chain, Leamer (1996) prefers the term delocalization, Deardoff (2005) uses the term fragmentation. And still numerous expressions: production sharing, globalized production, offshoring, outsourcing etc.

## 1.2 MNEs: definition

A factor that characterizes the globalization of the economy is the appearance in the international scene of new players, whose decisions are very relevant. Among them we must first mention the large multinational corporations, which, since the 1970s, have exercised increasing control over production worldwide and its distribution in different geographical areas. The foreign investment policy of MNEs has been and is one of the fundamental engines of the internationalization of the economy and of the geographical directions of development (or crisis) of global markets.

The first use of the notion of Multinational Corporations can be found in a speech by David Lilienthal during a conference at Carnegie Mellon University in 1960. The diffusion of this definition and the consequent debate on the function and characteristics of MNEs date back to the second half of '900.

In contemporary academic and economic literature, MNE refers to economic organizations that operate in a geographically large market through a network of foreign investments. They have their headquarters and management center in a single country, the so-called Home State, and one or (usually) more subsidiary companies, located in different countries, called Host-Countries.

Currently the most specific and unambiguously recognized definition of a multinational company is provided by the United Nations Conference on Trade and Development



(UNCTAD), as: “[...] a company that has at least one branch abroad, of which holds at least 10% of the capital and over which it exercises control” (UNCTAD, 2018).

The main character, unanimously recognized to these subjects, is certainly constituted by the transnationality of the economic operations undertaken. MNEs, as already pointed out, interact with States other than the one they belong to, as they establish economic relations by operating across several countries, other than the one to which they are subject or in whose territory they have their registered office. Business management takes place, albeit in a plurality of countries, with a substantially uniform strategy and is, above all, aimed at maximizing profit.

The UNCTAD (United Nations Conference on Trade and Development) recorded that in 2010 MNEs accounted for two-thirds of the marketing of goods and the provision of services globally, and that the turnover of the MNEs’ business was equal to 11% of the world Gross Domestic Product, more than double compared to 1982, when it amounted to only 5%. In 2011, an analysis of the 50 main economic actors of the planet found that, by placing these subjects in a ranking, they appear at the bottom of the list obtained and the greatest control is exercised by a small number of MNEs (which, however, belong to banking institutions). This leads us to believe that their action is certainly reflected on an economic, political and social level and it is able to exercise an influence that is far from marginal in many countries.

### 1.3 Foreign Direct Investment

The phenomenon of globalization has generated a growth in internationalization which has led to an increase in international economic activity. Among the different forms of internationalization, which allow companies to achieve a competitive advantage in foreign markets, we can find: export, foreign direct investment (FDI) and integration with the foreign market. By exporting, companies sell abroad what is produced in the country of origin and country-specific advantages are exploited, therefore low transportation costs linked to the country; through integration with the foreign market, joint venture or franchising agreements are agreed; while with the implementation of FDI a global strategy is adopted. The latter two are predominant strategies when companies have firm-specific factors, independently of the country of origin and which, combined with localization advantages, allow them to achieve a competitive advantage.

### 1.3.1 FDI: definition

Foreign direct investment (FDI) is a category of cross-border investments in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy. Ownership of 10 percent or more of the voting power in an enterprise in one economy by an investor in another economy is evidence of such a relationship. FDI is a key element in international economic integration because it creates stable and long-lasting links between economies. FDI is an important channel for the transfer of technology between countries, promotes international trade through access to foreign markets, and can be an important vehicle for economic development.

It's important to specify that the key to foreign direct investment is the element of control. Control represents the intent to actively manage and influence a foreign firm's operations. This is the major differentiating factor between FDI and a passive foreign portfolio investment.

### 1.3.2 Types of FDI

Depending on the objectives that a company wants to pursue, it can make horizontal or vertical foreign direct investments (Caves, 1971): in both cases the company faces a trade-off between costs of different nature that influence the choice.

#### 1.3.2.1 Horizontal and Vertical FDI

**Horizontal FDI:** a business expands its domestic operations to a foreign country. In this case, the market share of the company increases. Such a choice is made considering on one hand the transportation costs, time needed to satisfy customers, tariffs and bargaining costs with local government, while on the other hand there are fixed and variable costs the company will incur in the duplication of the production activity in a different location.

**Vertical FDI:** a business expands into a foreign country by moving to a different level of the supply chain. In other words, a firm conducts different activities abroad, but these activities are still related to the main business. The trade-off, in this case, is represented by the costs incurred to operate the branch abroad together with commercial costs and lower production costs.

However, two other recent forms of FDI have also been observed: conglomerate and platform FDI.

**Conglomerate:** a business acquires an unrelated business in a foreign country. This is uncommon, as it requires overcoming two barriers to entry: entering a foreign country and entering a new industry or market.

**Platform:** a business expands into a foreign country but the output from the foreign operations is exported to a third country. This is also referred to as export-platform FDI. Platform FDI commonly happens in low-cost locations inside free-trade areas.

### 1.3.2.2 Brownfield vs Greenfield

In a greenfield investment, parent company opens a subsidiary in another country. Instead of buying an existing facility in that country, the company begins a new venture by constructing new facilities in that country. Construction projects may include more than just a production facility. They sometimes also entail the completion of offices, accommodations for the company's staff and management, as well as distribution centres.

There are several reasons why a company may decide to build a new facility rather than purchase or lease an existing one. The primary reason is that a new facility offers design flexibility along with the efficiency to meet the project's needs. An existing facility forces the company to adjust based on the present design. All capital equipment needs to be maintained. New facilities are typically much less costly to maintain than used facilities. If the company wants to advertise its new operation or attract employees, new facilities also tend to be more favourable.

There are also downsides to construct new facilities. Building from scratch can bring more risk as well as higher costs. For example, a company may have to invest more initially, when it decides to build from scratch, to feasibility studies. There may also be problems with local labour, local regulations, and other hurdles that come with brand new construction projects.

Brownfield investments, on the other hand, occur when an entity acquire the control of an already existing facility to begin new production. Companies may consider this approach a great time and money saver since there is no need to go through the motions of building a brand-new building.

Brownfield investments can happen in two different ways:

- through acquisition operations, when an MNE acquires a majority share (at least 50%) of the ownership of a subsidiary, or when it acquires a minority share of the property (at least 10%), but sufficient to guarantee control, of a subsidiary enterprise;

- through merger operations, when two companies, located in different countries, decide to merge: by incorporation, when the acquired company ceases to exist, by affiliation, when the acquired company becomes a subsidiary of the parent company, by union, when setting up a new business.

With brownfield investing, companies scout available buildings in the host country that are compatible with their business models and/or production processes. If the existing national or municipal government requires licenses or approvals, the brownfield facility may already be up to code. In cases where the facility previously supported a similar production process, brownfield investments can be a real coup for the right company.

The clear advantage of a brownfield investment strategy is that the building is already constructed, therefore reducing the start-up costs. The time devoted to construction can be avoided as well.

The sharp increase of investments in the form of mergers and acquisitions explains the growth of FDI since the early 2000s, both in absolute terms and in relation to total FDI. This was therefore the most widespread and fastest growing type of FDI in the years of globalization.

## 1.4 Determinants of FDI

There are multiple determinants which vary according to the type of FDI, the investor country, the country subject to foreign direct investment, the sectors in which these companies operate, and so on. Because of this great diversity, and despite the many contributions on the literature and theories of FDI, still today there is no general rule that can explain the choices of international investments.

If we consider the literature on the phenomenon, it emerges that the roots of the theory about internationalization come from the contribution of Hymer in the '60.

### 1.4.1 Hymer's theory

Hymer focuses on the company and not on the product. He believes that traditional neoclassical theory is not able to explain the existence of reciprocal investments between advanced countries, which is the reason why he looks for the determinants of the internationalization process in the characteristics of the company.

In fact, the life cycle of a company can be divided into various phases. First, the company focuses on its growth at the national level (by increasing market share, acquisitions, and

mergers), with the aim of making profits. At a certain point, however, this growth process at the national level stops and the company begins to look beyond the national borders, investing the high profits obtained with the goal of extending the growth process also abroad.

Of course, in this subsequent phase, the company will face the natural disadvantages that characterize the operations of a company abroad, the so called “liability of foreignness”, arising from the unfamiliarity of the environment, from cultural, political, and economic differences, and from the need for coordination across geographic distance, among other factors.

Hymer lists several potential benefits of MNEs, which allow them to overcome the liability of foreignness and compete successfully against local firms.

Among these there are: brand-name, firm-specific skills, capability to collect capital, economies of scale and scope, vertical integration economies and so on.

Given the existence of these advantages, and depending on the market conditions the company faces, it will choose between exportations or on-site production.

Market imperfections related to the existence of tariff and non-tariff barriers, high transportation costs and discriminating tax treatments are all factors that tend to tip the balance towards local production. Once the on-site production has been chosen over exports, the MNE will have to decide whether to intervene directly (through FDI) or by assigning licenses to local producers. This choice will be conditioned above all by the nature of the specific competitive advantages the company owns. In particular, the FDI will be favoured the more the competitive advantages of the MNE consist in the possession of specialized know-how and other intangible assets, which can hardly be rightly exploited through the sale of licenses. The expansion of the company abroad is therefore for Hymer nothing more than a moment in the company’s development process, in a geographical sense and according to both horizontal and vertical growth paths.

Hymer’s theory lays the foundation for Dunning’s contribution to the subject.

#### 1.4.2 Dunning’s Theory

An important expansion of the theory of internationalization derives from the contribution of Dunning (1981) who proposes an “eclectic” approach, the “OLI paradigm”, which explains the internationalization choices of companies according to the existence of *ownership advantages*, deriving from the ownership control of specific company resources that can be transferred abroad at low cost; from *internalization*, resulting from the integration of

different activities into the company; and finally *location advantages*, connected to the characteristics of the host countries.

- The ownership advantages of company include all competitive factors w.r.t competitors, proprietary information and some ownership rights of a company such as branding, IP, technological innovation, specialized skills and competences, managerial organization, financial capabilities and economies of scale. Ownership advantages are typically considered to be intangible.
- The location advantages, enjoyed by companies located in their territory (national and foreign), will instead be determined by variables such as the presence of natural resources, availability, cost and degree of qualification of the work, infrastructures, the national scientific-technological potential, the size of the markets, the distance (geographical and cultural) from the investing country, institutional factors and public policies.
- The advantages of internalization are instead those described by Buckley and Casson and taken from the approach of transactional costs, which derive from the integration in the company of different activities (possibly even in a purely geographical sense), thanks to the exploitation of economies of variety, risk reduction and opportunistic behaviour in general.

The choice of the company on the internationalization method (export, FDI or “contractual transfer of resources” through licenses) will depend on the intertwining of the different types of advantages. Owning proprietary advantages over foreign competitors is a prerequisite for all forms of internationalization; the existence or not of internalization advantages explains the use of exports and the FDI in relation to licenses; the location advantages favour the decision to give rise to production units abroad through FDI.

Furthermore, Dunning divides the reasons that push a company to FDI into four types:

- *resource seeking*: these are investments aimed at acquiring competitive advantages through access to factors of production that are more efficient than those found in the local market, such as natural resources or low-cost labour typical of developing countries.
- *market seeking*: investments that have as their main objective the entry into new markets or to maintain an existing market share. There are also some other reasons that push a company to make an investment of this type such as: lower production and transaction costs, closer to local tastes, physical presence in the markets served by competitors, commercial restrictions, etc. Dunning (1993) argues that firms choose this type of investment as a defensive strategy out of fear of losing a market rather than finding a new one.

- *efficiency seeking*: investments through which a company trusts in an increase in efficiency by exploiting economies of scale, scope and the advantages of ownership. These types of investments are made following those of resource or market seeking, with the expectation of a further increase in the company's profitability.
- *strategic asset seeking*: investments aimed at protecting or expanding the specific advantages of multinationals or reducing those of competitors. This type of investment has seen a great increase in emerging economies (Dunning & Lundan 2008).

### 1.4.3 Strategic Determinants for the attractiveness of FDI

The basic idea is that FDI are investments and as such they look to the expected profit, with all the related uncertainties.

What determines the attractiveness of an investment, therefore, is the effect on costs and the effect on revenues. For this reason, all the determinants, from the traditional ones to the more modern ones, can be interpreted as a reduction in costs or an increase in revenues. High revenue could be determined by high demand, and therefore the company looks to the existing market. At the same time, the lower costs are determined by a lower labor cost for the same skills, or by a favorable *skills/labor cost* ratio, or also by the presence of infrastructures that allow to minimize costs. At the same time, other factors influence the dynamics of costs and revenues, such as the availability of a particular type of resources in a certain place, a functioning legal system, or even the agglomeration with other firms that give access to external economies of various kinds.

The determinants found in the economic literature, which we will analyze below, return to the fundamental idea that is the maximization of profit and which therefore determine favorable costs or revenues.

*The relative cost of factors.* The fact that there are differences between countries in terms of labor costs is mainly explained by the flows of FDI that take place between developed countries, where wages are usually higher, and developing countries, where wages are lower. According to most analysis about the relationship between relative labor costs and FDI, inflows into developing countries depend on differentials in labor costs in the country of origin and destination.

*The provision of infrastructure.* Several studies show that the productivity of investments is strongly influenced by the level and quality of the infrastructure equipment. Countries which are best equipped with public infrastructure, including ports, highways, railways,

telecommunications and telematics networks, all things being equal, should be more attractive to FDI.

*The size of the market.* In general, it appears that FDI correlates with the market size of target countries, usually measured by GDP or per capita GDP. In fact, the size of the market of the host country positively influences the FDI, especially the horizontal ones, because a large market allows to better exploit economies of scale, thus allowing the MNEs to reduce fixed costs per unit of product. Furthermore, when markets are larger, multinational companies have a greater chance of implementing differentiation strategies, thus increasing the profitability of FDI.

*The tax regime.* The foreign investment strategies of multinational companies are naturally very sensitive to the tax regimes and policies existent in the countries of potential destination of FDI. The possible adoption of fiscal measures in support of foreign investments, widely spread internationally, should encourage the inflow of FDI into the countries that adopt them, to the extent that it increases the profit prospects of MNEs. The effect should be more relevant in the case of vertical FDI, since they are the most sensitive to cost factors. However, MNEs must consider the present value of the expected return flow (rendimenti attesi) of an FDI over a period that is not necessarily short. It follows that they are led to assess not only the existence and extent of tax incentives at the time the investment is made, but also the probability that they will actually be maintained for an adequate time and their effective sustainability for the public accounts of the countries who introduce them.

*The effects of agglomeration.* The factors that determine the location of investments and production have been highlighted in the context of the “geography” and “trade” models proposed by Krugman and Venables. According to this approach, the geographical concentration of investments and production that gives rise to agglomerations or industrial districts must be attributed to the operation of some agglomeration effects. Locating foreign production close to other similar companies allows multinationals to improve the efficiency of investments, thanks to certain factors, including: the possibility of having a higher concentration of production factors, or specialized services; the possibility of exploiting the probable effects of technological spillover and of technical and organizational knowledge that are generated between companies operating in the same sectors; the possibility of easier access to the production chains, both upstream and downstream, in the sector of interest.



*The degree of international openness.* It depends on the existence or not of tariff and non-tariff barriers to international trade. We must distinguish, in this case, two different relationships depending on the type of investment, referring to the incoming FDI.

In the case of horizontal FDI, all other conditions being equal, an inverse relationship is expected between the degree of international openness of countries and inflows of FDI. For example, a reduction in tariff barriers to imports of some products, adopted by the host country, by reducing the costs of trade, should make it cheaper for MNEs producing those products internally and exporting them rather than produce abroad.

In the case of vertical FDI, on the other hand, again all other conditions being equal, a direct relationship is expected between the degree of international openness of countries and inflows of FDI. Vertical FDI relate, in fact, to international exchanges of semi-finished and finished products that take place between branches of the same multinational company, for reasons mainly dictated by cost factors. It follows that, for example, a reduction in tariff and non-tariff barriers, reducing the costs of trade, favours the development of intra firm international trade, and therefore of vertical FDI. The degree of international openness of a country can be measured in different ways: with the export / import ratio on GDP, or by calculating the average impact of tariffs, or with other composite indices.

In addition to these (and other) factors of economic nature, the literature on FDI also takes into consideration factors of a geo-political nature. Among them we can recall three.

First, the existence of a *favourable investment climate*. If an environmental context is favourable to production and investments, transaction costs and any external diseconomies, associated with operating abroad, tend to decrease for multinational companies, and therefore the expected profitability of FDI increases. Elements that contribute to determining (or not) a favourable climate for the development of FDI include: a good degree of protection of property rights, reliability of contracts and mechanisms that guarantee compliance with contracts, generally linked to the efficiency of the civil jurisdiction; the level of complexity of the regulations and bureaucratic procedures relating to business and productive investments; the type of regulation about employment relationships; the efficiency of the public administration and the possible spread of corruption.

Another relevant factor is the *political stability* of a country, which by reducing the elements of uncertainty tends to favour the development of incoming FDI. In most analysis, the so-called political risk is considered a factor capable of decisively impacting the decisions of multinational companies to invest abroad. In terms of empirical evidence, however, the impact of political risk on the geographical distribution of FDI is not always very evident and appears more significant when analysing the FDI entering developing countries.

However, also in this case the results of the analysis are affected by the different measurement and stability criteria and by political risk. The most frequently used indicators include: for stability, the probability (or actual number) of government changes, for political risk, the frequency of events such as political strikes, attacks, riots or other.

The third relevant factor is the economic distance between the country of origin and that of destination. It mainly affects transportation costs and can affect FDI flows in different ways. In the case of vertical FDI, in fact, it is likely that a greater economic distance, by increasing transportation costs, disincentives MNEs from investing abroad to exploit any differentials in production costs.

On the contrary, in the case of horizontal investments, aimed at locating production close to the outlet markets, a greater economic distance, by increasing transportation costs, increases the marginal cost of exporting national production. The MNEs, therefore, will find it more convenient to replace the export abroad of the production obtained in the domestic plants with the foreign production and the FDI will increase.

## 1.5 Effects of FDI

FDI are also very important for the effects they have on both the country of destination and country of origin. From the creation of jobs to the transfer of technology, the effects, the positive ones in particular, are really many. In the next paragraphs we will analyze them in detail.

### 1.5.1 Host-country effects

With regard to the host-country, the consequences are divided into direct and indirect, as well as consequences on the workforce, productivity, exports and growth of the host country.

The direct consequences refer to the net transfer of capital to the host country, the creation of production capacity, the transfer of organizational practices.

The indirect consequences, on the other hand, are more difficult to quantify, and could include the identification of the types of technologies used by MNEs and therefore the use of the same by local companies (concept of *spillover*, understood as benefits deriving to local companies from the presence of foreign companies) .

The first indirect effect of FDI in the host country is the **enhancement of the human capital**. Governments, in order to attract FDI, make investments aimed at improving the education system, and creating an environment with a certain degree of security and social acceptance, taking sides against discrimination and abuse, thus upgrading the value of human capital (OECD, 2002).

Another consequence impacts directly on the **workforce** (Robert E. Lipsey, 2002).

It is clear from many studies that foreign companies pay higher wages w.r.t. domestic ones, and there are several theories explaining this. First of all, MNEs invest, both money and time, for training employees, which entails an improvement in the labour force quality. Moreover, the firm constantly risks losing key personnel, who might leave for a local competitor or start their own business, so a higher salary represents a sort of incentive for workers. Another reason consists in the fact that local businesses represent stability for citizens, therefore foreign companies increase wages in order to increase trust in the host country's employees. Of course, in such a way the MNEs impact on the growth of the country, soprattutto se consideriamo gli spillover effects.

In fact, when a part of this workforce, now prepared and trained, decides to change their job, moving to another company or even starting a business on their own, they transfer the acquired knowledge to their new entourage, and therefore an increasing numbers of individuals benefit from it.

It was a coincidence that my analysis began with the list of two positive effects on the country of destination, because in reality the effects can have a double impact, positive or negative.

In fact, if we think about the **consequences on productivity**, we must make a distinction between the positive and negative effects that FDI have on it. First of all, when an MNE is established in a new country, it establishes relationships with local businesses, which inevitably have consequences on productivity.

MNEs may use local businesses as suppliers, helping to increase their productivity and efficiency. Of course, keeping up with the pace of an MNE requires high quality standards, as well as reliability and speed of delivery of the requested products. To this end, therefore, MNEs are not limited only to the acquisition of products, but also support local companies by helping them to diversify their user base, providing assistance for the procurement of raw materials and for the training of employees, and sometimes even financial assistance.

We have already said that foreign MNEs invest heavily in employee training, running the risk that they may leave the company in favor of a local, or to set up their own business. This turnover obviously cannot but produce effects on the productivity of the host country. At the same time, the activity of multinationals stimulates the competitiveness of local businesses, which are strongly stimulated to increase their efficiency, and therefore productivity, in order to survive.

From the negative point of view, that is linked to the lack of productivity of local companies, Lipsey raises a fundamental question: it is possible that foreign companies are actually more efficient because they appropriate the best local realities, whether they are companies or human capital, leaving those less efficient to local management itself.

As for the consequences on exports, scholars unanimously believe that FDI only produce positive effects on the exports of local companies. In fact, they can meet advanced technologies provided by foreign companies, learn about the functioning of foreign markets, have access to worldwide production networks.

We have already mentioned that FDI contribute to the **economic growth** of the host country, and there are many studies confirming this effect. In particular, the incoming FDI contribute to the integration of the host country into the global economy, thus supporting its economic growth. A multinational certainly has a great deal of experience in the internationalization of operations, and thanks to its geographical proximity, local companies can try to copy certain behaviors and try to draw on its know-how. Moreover, a multinational is part of an international network and with its entry into a new market, the companies located in the latter are more 'likely' to become part of it and thus participate in global trade. In addition, local companies can become suppliers and subcontractors of multinationals. But becoming more 'integrated' also has negative consequences. These are linked to the risks of any open economy, more subject to macroeconomic fluctuations and the possibility of running into a trade deficit, given that the actions of multinationals have a greater impact on imports rather than exports (Moura & Forte, 2010).

**Technology transfers** are perhaps the most important channel through which FDI can produce positive externalities in the host economy (OECD, 2002). MNEs are usually equipped with cutting-edge technology, thanks above all to continuous investments in R&D activities. Technology transfers occur through four interconnected channels: vertical relationships with buyers and suppliers, horizontal relationships with rivals and complementaries, migration of skilled labor and internationalization of R&D activities (OECD, 2002).

Again, we can have negative effects. In fact, in order to be more competitive and maintain their production superiority, MNEs could transfer an inadequate technology, or sometimes even not mature, because it is the result of a boost in R&D activity. Or it could happen that local businesses become so dependent on technology imported from foreign MNEs that they lose their spirit of innovation (Moura & Forte, 2010).

Another important effect of FDI on the destination country is the raising of the **level of competitiveness** in the host country's market, resulting not only in greater competitiveness, but also in a better allocation of resources and lower prices (Pessoa, 2007). Due to this great pressure, however, many less productive local companies could go out of business and be replaced by the multinational itself, causing inconvenience. In cases where there are no

policies to support a healthy degree of competition or when the host country market is small and geographically disconnected, FDI could lead to greater market concentration and a reduction in the level of competition (OECD, 2002) . Furthermore, an increase in concentration could occur with the decision of some local companies to merge, to better face the competition deriving from the entry of the MNE (Moura & Forte, 2010).

Finally, we must not overlook the **social and environmental impact** that FDI can have on the country of destination. This effect depends very much on the ethical principles of the MNE, and on the fact that it decides to adopt a certain type of ethically appreciable attitude, such as the adoption of modern and clean practices and technologies, aimed at reducing pollution or waste in general.

### 1.5.5 Home-Country Effect

The effects in the country of origin are more difficult to quantify as they are mostly indirect than those on the country of destination.

First of all, the use of FDI allows MNEs to have access to advantages such as economies of scale and access to low-cost production factors, as well as cutting-edge technologies, thus making the MNEs performance better than that of local or national companies.

Surely, in general, outgoing FDI have an impact on the **labor market**, changing the allocation of production factors also in the parent company.

Necessarily, when an MNE decides to invest abroad, it creates new jobs in the host country, to the detriment of employment in the country of origin.

According to some studies, what happens in the labor market of the country of origin must be analyzed from various points of view. The **level of employment** is undoubtedly affected, as the hiring of new workers takes place in the recipient country of the FDI. In this case, a distinction must be made between vertical and horizontal FDI. In particular, in the case of vertical investments, the MNEs decide to relocate their production abroad, so that there will be an increase in foreign employment and a decrease in that in the country of origin, while in the case of horizontal investments it seems that there are no particular negative effects in the country of origin.

At the same time, however, the training of employees to whom MNEs devote many resources does not only concern those at the headquarters of the host country, but also those of the country of origin, as training takes place at the company level.

Outbound FDI also have a positive effect on home country **trade**. In fact, according to some studies, large companies encourage exports from their country of origin rather than from other countries.

From a technological point of view, many MNEs decide to invest abroad to acquire new technologies and import them into their own country. This **transfer of technology**, where it occurs, has a positive effect on the country of origin.

## 2. CHANGING TREND IN FDI

Starting from the second half of the '80s, and definitively, in the '90s direct investments abroad have assumed a role of primary importance for the development of the world economic system. This development, undoubtedly, comes because of the improvement of world infrastructures, the spread of business services and the emergence of information technologies, capable of reducing the costs of communication and coordination of activities carried out in even very geographically distant countries. Finally, the liberalization of international trade and investment at regional and world level has been of great influence. In the era of globalization, the increasing fluidity with which capital moves from one country to another represents an opportunity for stable and lasting development. In fact, the international mobility of capital has been and still is an important means of economic growth for many countries originally lacking that resource: just think about the successful stories of the so-called "Asian tigers" (Honk Hong, Singapore, Korea) of a few decades ago or, more recently, to the high growth rates experienced by the emerging economies of the so-called BRICS, an acronym used to refer jointly to Brazil, Russia, India, China and South Africa. These successful stories are also explained by the impetuous inflow of capital resources to these countries, a consequence of the investment policies of the MNEs, attracted by the interesting and various opportunities that these countries offered, in terms of both lower production costs and expansion.

### 2.1 Foreign Direct Investment over time

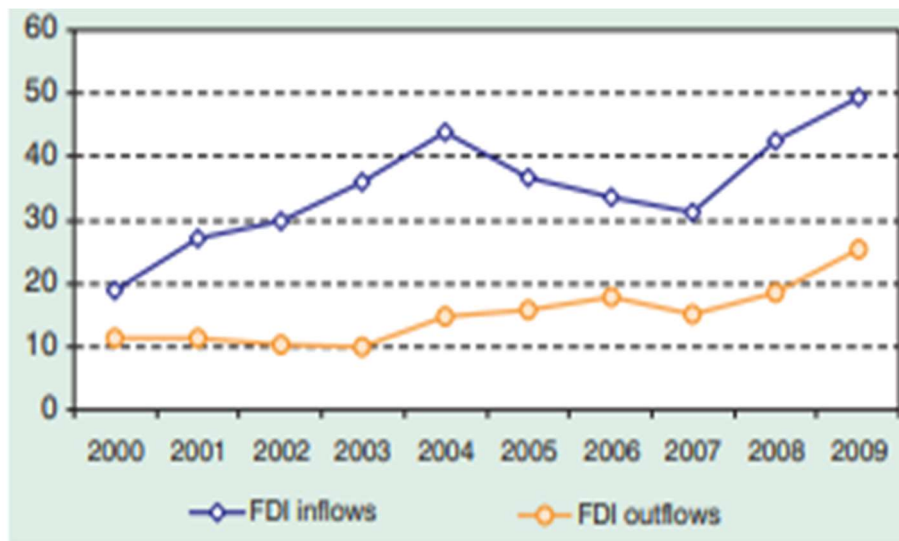
Global FDI have grown tremendously since the second half of the 1990s and into the 2000s, when they reached their first peak of \$1400 billion. After the attacks of 11 September 2001, the phenomenon experienced a sharp slowdown; it must be specified, however, that this slowdown has affected, for the most part, countries with a developed economy, which have seen both a significant decline in industrial economic activities and a net decrease in transactions in the stock market. On the other hand, the high level of uncertainty due to these events, including a greater perceived political risk associated with war and terrorism, may have led companies to take a wait-and-see attitude; it is known, in fact, that many companies, after 11 September 2001, blocked the investments they had planned.

The resumption of FDI activity took place only a few years later, in 2003, and in an even more intense way so that in 2007 they reached a new record level of \$ 1,833 billion, surpassing the previous peak of 2000s. (UNCTAD, 2008).

However, after these years of uninterrupted growth, the explosion of the global financial crisis of 2008 led to a collapse of global FDI, registering a return to the levels of the 2000s.

It is important to note that the crisis had a different initial impact in the three major economic groups. Indeed, the strong regression was concentrated, once again, in the countries with the most developed economies, those where the financial crisis originated, whereas in developing countries and the transition economies FDI continued to increase, reaching a share of 43% in 2008 (UNCTAD, 2009).

Fig. 1: Shares of developing and transition economies in global FDI inflows and outflows, 2000-2009 (%)

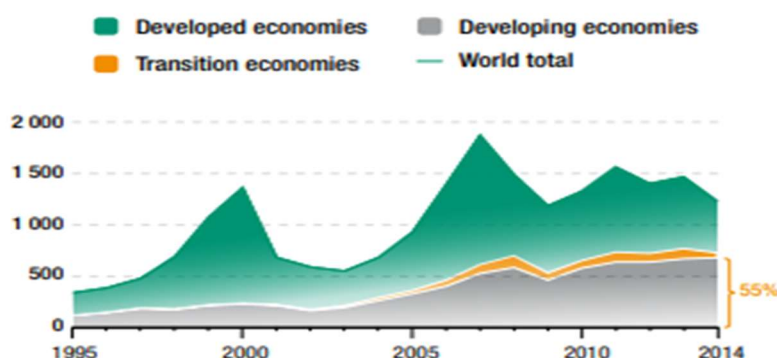


Source: UNCTAD, based on data from the FDI/TNC database

The years following the crisis show a very fluctuating trend in FDI flows, with a new and significant surge in 2010 and 2011 and then a new decline in 2012, due to the sovereign debt crisis. Once again, the decline mainly affected the more developed countries both in inflows and outflows (respectively by 32% and 23%), while the developing countries continued their growth trend. Indeed, for the first time, FDI flows to developing countries and transition economies have outstripped flows to developed countries. Furthermore, developing economies' outflows reached \$ 426 billion, a record 31 per cent of the world total, with the BRICS countries (Brazil, the Russian Federation, India, China and South Africa) being the leading sources of FDI among emerging investors. The same year, in the ranks of top investors, China moved up from the sixth to the third largest investor in 2012, after the United States and Japan (UNCTAD, 2013).



Fig. 2: FDI inflows, global and by group of economies, 1995-2014 (billions \$)



Source: UNCTAD, FDI/MNE database

A new growth then takes place in 2015, in which the highest FDI value since the 2008 financial crisis is recorded, and which sees a strong recovery of FDI towards advanced countries (more than 70%) which return to prevail over developing and transition economies.

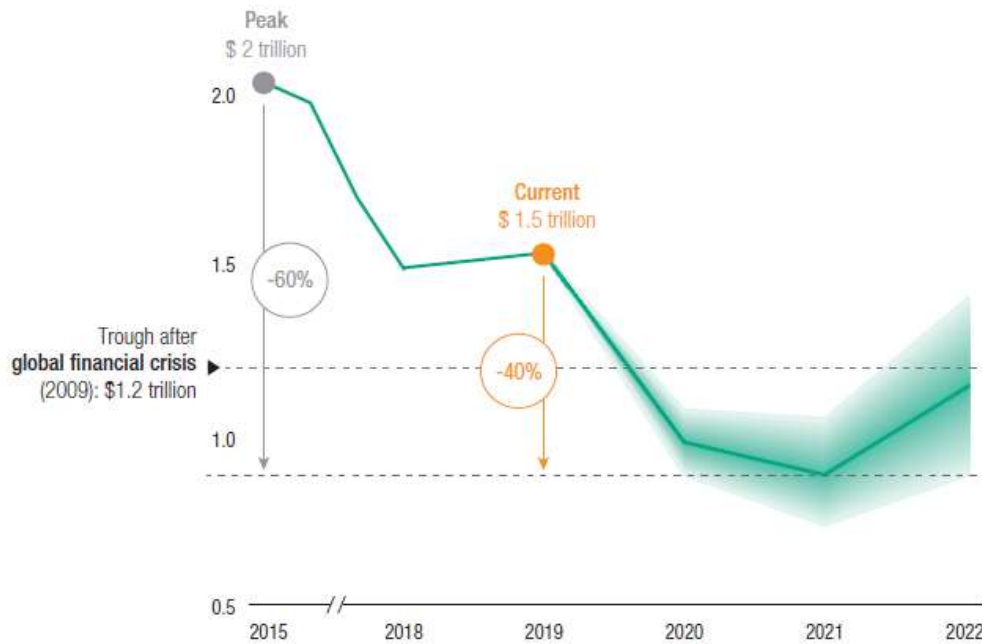
From 2016 to today, foreign direct investments have fallen again, due to factors such as the fragility of the global economy, the persistent weakness of aggregate demand, the introduction of policies to counteract mergers aimed at tax reversal and the decline in profits of multinational companies.

Moreover, in the last year the situation worsened due to the Covid-19 pandemic that spread all over the world.

Global FDI flows are forecast to decrease by up to 40 per cent in 2020, from their 2019 value of \$1.54 trillion. The downturn caused by the pandemic follows several years of negative or stagnant growth; as such it compounds a longer-term declining trend. This would bring FDI below \$1 trillion for the first time since 2005. FDI is projected to decrease by a further 5 to 10 per cent in 2021.

In relative terms the projected fall is expected to be worse than the one experienced in the two years following the global financial crisis. At their lowest level (\$1.2 trillion) then, in 2009, global FDI flows were some \$300 billion higher than the bottom of the 2020 forecast (UNCTAD, 2020).

Fig. 3: Global FDI inflows, 2015-2019 and 2020-2021 forecast (billions \$)



Source: UNCTAD

## 2.2 The changing trend: emerging economies as key players

Initially, FDI flows went exclusively from North to South, involving the primary sectors of the economy (agriculture and extractive industry) and the railways, and were aimed at establishing new activities in the destination countries (greenfield investments).

In the last quarter of the century, the number of countries involved in international trade has significantly increased as a result of the collapse of the communist regimes in Eastern Europe, the dissolution of the Soviet Union and the opening of China's economy to international trade. These processes have profoundly transformed the level, composition and direction of trade and financial flows worldwide. In fact, more recently, foreign direct investments see developing countries no longer only as recipients of investments, but also as actors from which outflows of investments originate, directed both towards economically advanced countries and towards other developing countries.

Furthermore, the most recent FDIs mainly concern the manufacturing industry and services (with particular reference to financial intermediation, commercial distribution and the vast sector of business services) even if there is a recovery of those aimed at the primary sector (especially by China, with its huge investments in the African continent).

The increased participation in global markets by many developing countries is only one aspect of a much larger phenomenon, namely the gradual shift of the center of gravity of

the world economy from the Atlantic to the Pacific, made evident by the fact that the most advanced Western countries have for years recorded a decrease in the growth rates of their economies, as opposed to the expansion of the "emerging" countries.

The first time the term "emerging countries" was used it was in early 1980s and it is attributed to the economist Antoine van Agtmael with the aim of linking new positive associations to what was originally referred to as the third world. There is no single definition of "emerging market". For our study, we consider "emerging" markets those characterized by the coexistence of some purely economic factors, including: reduced per capita wealth, backwardness of the capital market, impetuous economic development approximated by the growth rate of gross domestic product, the degree of industrialization (increasing) and the opening (also increasing) to foreign investments (Khanna et al. 2010; Cavusgil et al. 2012).

Among all emerging markets, then, there are some that are considered more interesting than others due to the better combination of economic dynamics (growth of wealth) and demographic dynamics (population size, rate of demographic development), as in the case of Oriental countries.

Another factor explains the rise of emerging countries in the global FDI scenario. In the previous paragraph, we saw that historical, political and economic events have impacted more on developed economies, and lower on emerging or transition ones. It should be borne in mind that investment flows are strongly influenced by the performance of share prices in world markets. Hence the strong volatility of FDI, with a growth trend characterized by important cyclical fluctuations, which largely reflect the trend of the stock market. In particular, the correlation between FDI flows and stock markets concerns the brownfield component of the FDI, i.e. the one relating to acquisition and merger activities, rather than the greenfield type, whose trend is relatively more stable over time.

In general, FDI destined for advanced economies predominantly take the form of M&A, while those directed to emerging countries are typically greenfield, which is why they are less sensitive to financial and economic cycles.

Furthermore, low labour costs, poor social protection and the opening of internal markets by many developing countries have played a significant role. This has allowed many MNEs to carry out strategic investment operations abroad, aimed at reducing costs and attempting to approach directly the new potential pool of consumers located in the region of interest. On the other hand, as we will see in the next paragraph, from a socio-demographic point of view, these countries are characterized above all by three aspects: they have very numerous,

young and growing populations, both from a cultural point of view and as regards economic possibilities.

### 2.2.1 BRICS Countries

One of the innovations that has most characterized and changed the international scenario since the beginning of the new millennium is the gradual affirmation of a geo-economic aggregate, which takes the name of BRICS, formed by Brazil, Russia, India, China and South Africa. The acronym was used for the first time in 2001 by analyst Jim O'Neill, in a document drawn up for the Goldman Sachs Investment Bank. Initially the acronym created was BRIC and therefore did not include South Africa, which later joined in 2010.

O'Neill aggregated the countries above on the basis of some common characteristics such as: the condition of "developing economies", a large population, a vast territory, abundant strategic natural resources, and characterized by a more recent strong growth in GDP and share in world trade.

According to O'Neill, these nations would probably have dominated the world economy of the new century and it was therefore necessary to incorporate them into the world economy dominated, until that moment, by the Western system. Given the sudden growth of these countries, many studies have been aimed at identifying which are the most important factors that have favoured their growth.

In a first analysis, it must certainly be considered that it is a group of five large countries (about a quarter of the total extension of the Earth) with a population that reaches about half of the global one. In fact, according to the latest data available, in the BRICS the number of the population amounts to more than 3 billion of which 1,38 billion in India, 1,4 billion in China, 211 million in Brazil, 145 million in Russia and 59 million in South Africa.

The vast population must be analysed from two different perspectives. First, it necessarily translates into the availability of labour, especially at low cost. This, in fact, is one of the main elements that influenced the growth of the BRICS.

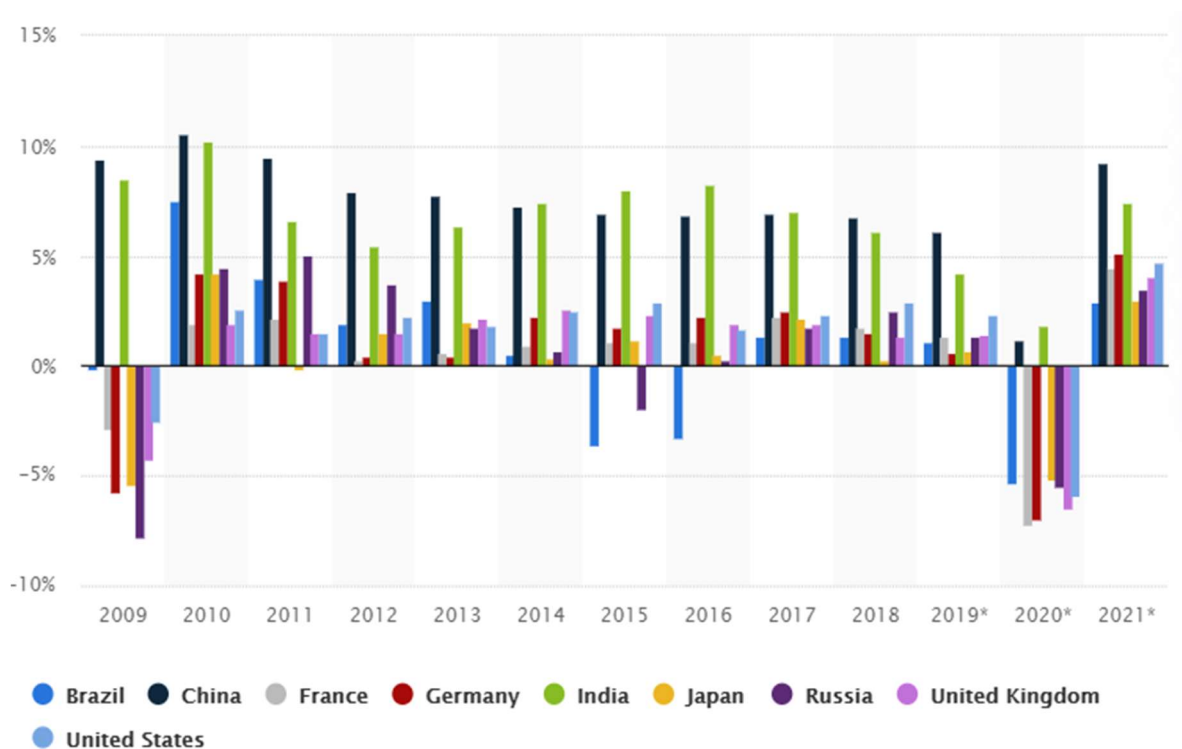
In particular, China and India have made the availability of low-cost labour their strength for their economic development, while other countries, such as Russia and Brazil, have focused on the great availability of mineral resources and on "speculation on international markets". Furthermore, these are young populations, who have seen their living conditions to improve and who have gradually abandoned rural areas to live in increasingly urbanized ones. In a short time, they are becoming the new consumers that Western markets must address in order to gain an important share of the market.

The demographic boom experienced by the BRICS in recent years has been such as to push some governments to introduce policies to contain births; this has led to a slowdown in growth, even if the trend is still positive.

A peculiar characteristic of the countries belonging to the BRICS group is the strong and uninterrupted GDP growth, mainly since the mid-1990s. In 1992, the sum of the GDP of the four BRICS countries (excluding South Africa) was about 5.4% of the total world economy, while in 2019 it amounts to about a quarter.

In the previous paragraph, we saw how the 2008 economic crisis represented the real turning point for the world economy. Although it has had a greater impact on advanced economies, there were also some repercussions in the BRICS countries, albeit in a different and milder way. Analysing the countries of the BRICS group individually, in particular in the pre and post crisis periods, we see how in the early 2000s, the percentage change in Chinese gross domestic product grew by two figures (+ 10% in 2003 and 2004, 14% in 2007) , while in India and Russia in the pre-crisis period it was between 7% and 10%. South Africa and Brazil remained at lower levels, despite recording growth peaks of 6%. Following the crisis, China and India simply slowed down their development, but gross domestic product continued to grow at rates between 6% and 11%. Brazil, South Africa and above all Russia entered the negative field and 2009 marked a period of decline after years of strong economic development. In fact, they are economies based on the great availability of raw materials, whose demand and consequently the prices have collapsed during the crisis. The recovery, however, did not take long to arrive and, in 2010, all countries recovered part of the losses recorded the previous year, showing a recovery capacity that does not belong to Western economies.

Fig. 4: GDP growth of BRICS countries compared to main Developed Countries, 2009-2021



Source: statista.com

Another factor that explains the sudden growth of the economies of the BRICS countries is the key role they had in world trade. Since 2002, the value of trade has increased significantly, mainly due to China which has become the first country in the ranking of world exports of goods and the second in that of imports after the United States. Overall, the BRICS countries move about 16% of world exports and 15% of imports, more than double w.r.t data from the beginning of the new millennium.

In addition to the international trade in goods, the BRICS countries have also experienced a phase of expansion as regards the exchange of services. China and India are once again the driving force of emerging economies: if China in 2000 was in 13th place in the ranking of countries exporting services, in 2010 and it became the fourth, just as India moved from 25th to seventh position. At the same time, China is in third place in the ranking of importing countries (it was tenth in 2000) and India in seventh. Overall, 10% of the exports of services and 13% of imports arrive from the BRICS countries.

Fig. 5: BRICS export volumes, 1990-2020

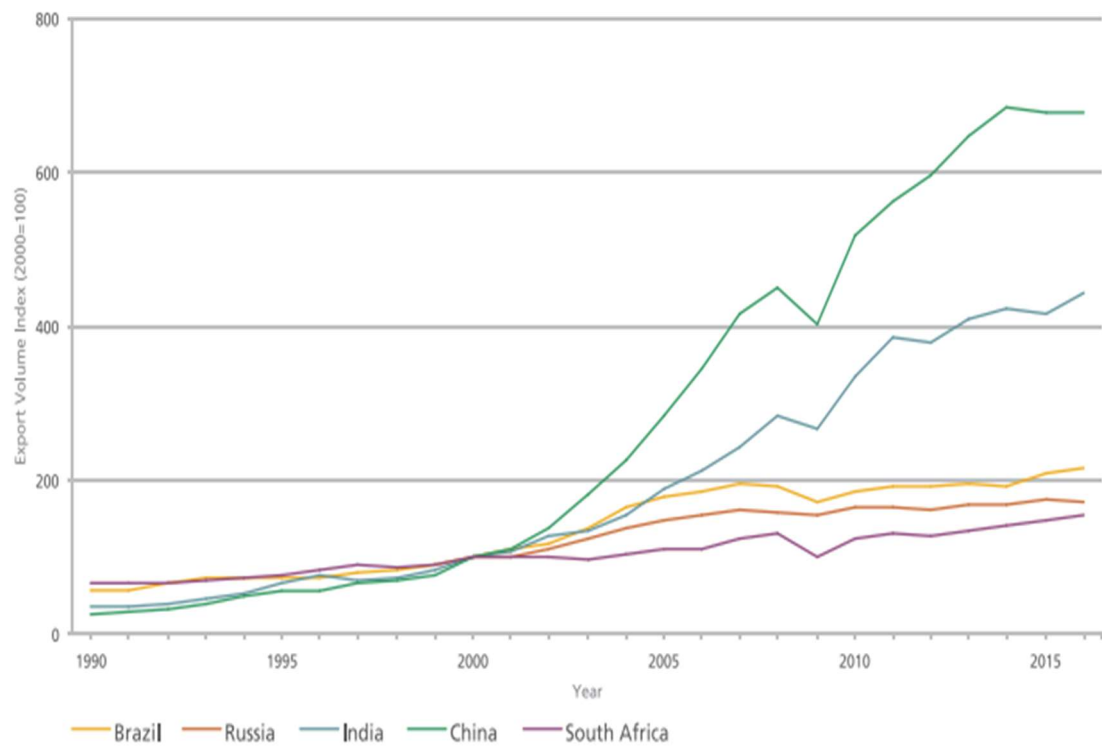
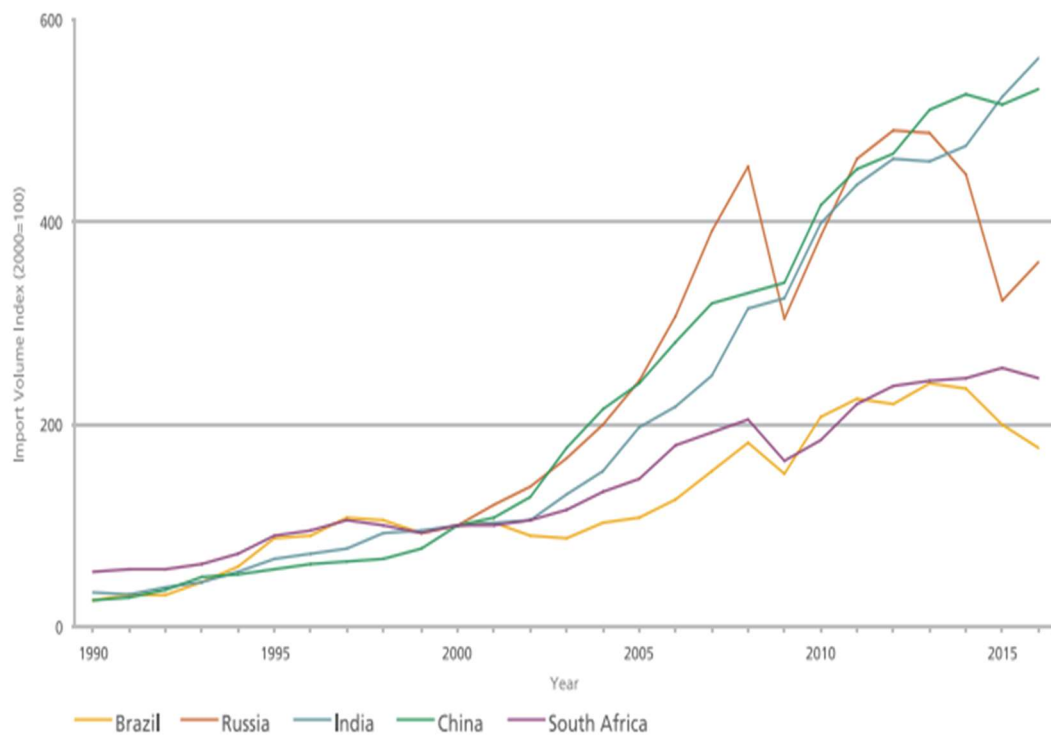


Fig. 6: BRICS import volumes, 1990-2020



Source: UNCTAD

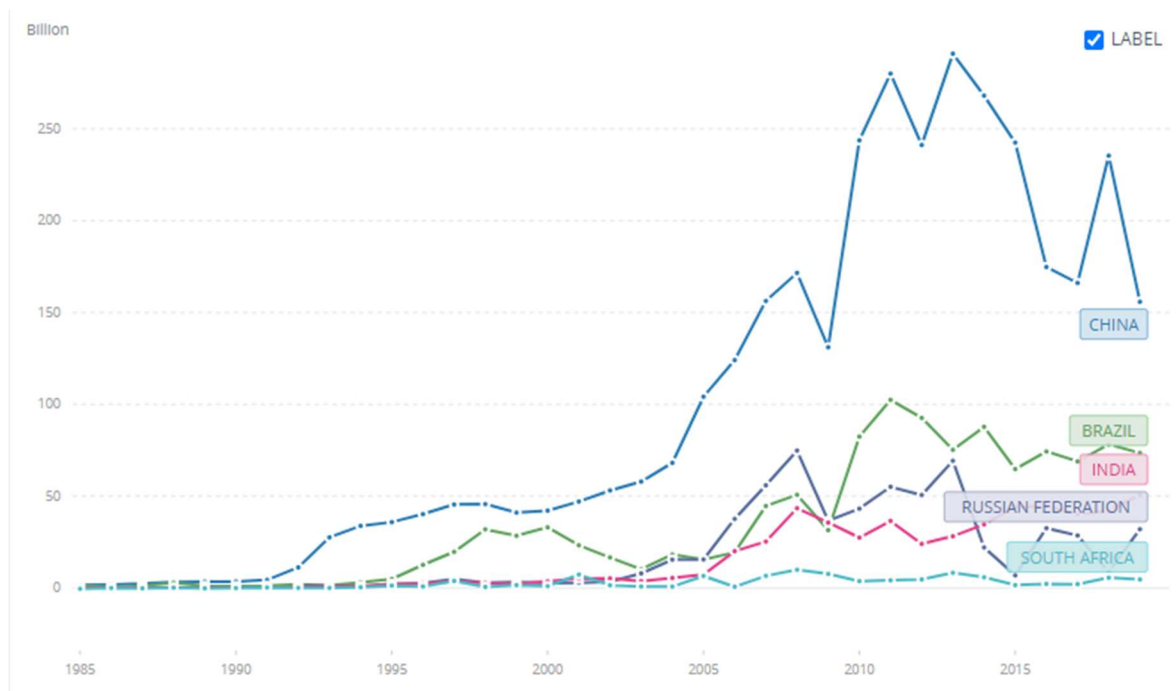
All these factors captured the attention of many MNEs, which consequently have moved their operations to these countries, so much that in recent decades the BRICS countries have been the predominant recipients of FDI. In fact, FDI flows destined for the BRICS have more than tripled, going from 6% of the total in 2000 to over 20% from 2012 to today (UNCTAD, 2019).

However, the evolution of FDI inflow shows very distinct trajectories for the five countries. Until 1984, Brazil was the major FDI recipient country among the BRICSs, overtaken by China in 1985. From that moment China continues to be a major destiny of FDI, and thanks to the country's efforts to integrate with the world economy, it became the world major recipient of FDI in the 1990s. South Africa and India received an almost constant and small part of the world total FDI flows during last two decades. India has many restrictions to FDI inflows, where, public enterprises dominate in many key sectors. Equally, the low and constant inflow applies to the Russian Federation since 1990.

It is also worth of pointing out that the type of FDI received by each country has been significantly different and that the type depends on policies of the host countries. For instance, some of BRICS countries like Brazil, Russian Federation and South Africa liberalized their economies in more unconditional way and received more portfolios of FDI. For these countries, FDI was directed to the productive sectors, mostly by way of acquisitions of local firms. China and India have not liberalised the Capital account, where the FDI flows seem to be concentrated on greenfield investments in new production capacity.



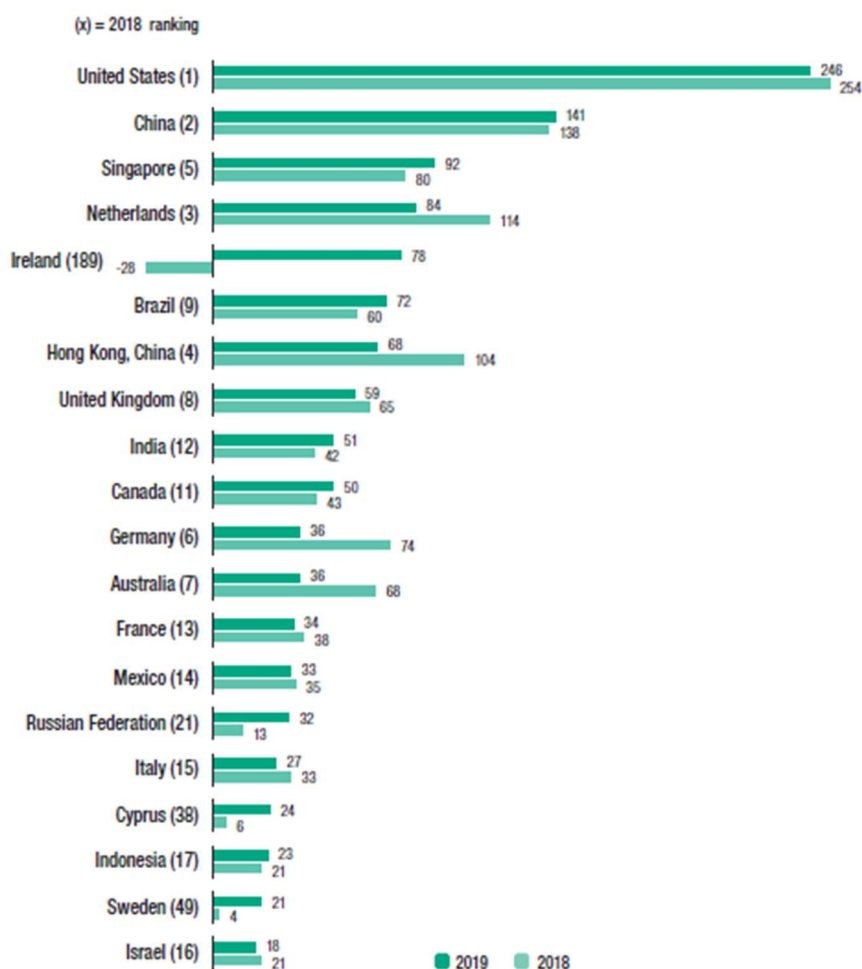
Fig.7: Foreign direct investments of BRICS countries, net inflows (BoP, current US\$)



Source: [data.worldbank.org/indicator](https://data.worldbank.org/indicator)

According to UNCTAD data, in 2019, the BRIC countries (excluded South-Africa) are in the top 20 host economies. China is leading the group, with a value of inward FDI of 141.2 billion dollars, about 9% of total world FDI (1540 billion dollars), following only the United States.

Fig. 8: FDI inflows, top 20 host economies, 2018 and 2019 (billion \$)



Source: UNCTAD, FDI/MNE database

Of course, the inflow of foreign capital has greatly contributed to the growth of these countries, which account for more than 62 percent of the total outflows of FDI from developing countries, with China alone accounting for 36 percent. (World Bank Group, 2018).

The growth of outward FDI (from now, OFDI) was favoured by the fact that there was a growing awareness that investments stimulate innovation and exports to the country of origin (World Bank Group, 2018). Thus, governments have begun to open up to foreign investments and, in some cases, they have even begun to provide incentives for some strategic sectors with the aim of favouring OFDI.

Let us extend our analysis, for a moment, to developing countries, rather than to those of the BRICS group, which are naturally included. In this way, by analysing in detail the

evolution of FDI flows out of developing countries, we can distinguish three different "waves".

The first was during the 60's and 70's, in which there was an import substitution-based industrialization aimed at promoting domestic industry and holding capital in one's country, thus leading to restrictions on both FDI entry and potential exit. Competitiveness on an international scale and the possibility of expansion into foreign markets for companies were discouraged by the protectionist measures of those years, and the few investments outgoing from developing countries were destined for other developing countries geographically close, and for most were resource-seeking or market-seeking.

The following twenty years saw the second wave significantly change investment schemes and methods. In particular, the introduction of new reforms and an industrialization aimed at export have favoured the opening of developing countries to FDI outwards to attract knowledge, capital and skills from other countries. For this reason, two-thirds of outflows went to developed countries, and investments had become mostly efficiency-seeking. These liberalization and deregulation reforms have resulted in increased competition in many developing countries, pushing businesses out of their home market. Hence, a third "wave", which began in the early years of the 21st century until 2015/16, has registered a growth in both the flow and the stock of OFDI from developing countries. The percentage share (compared to the total) of outflows from developing countries rose from 4 percent in 1995 to an average of 30 percent of global flows in the post-crisis period, with a peak of 42.5 percent in 2014. Furthermore, the share of FDI stocks of the countries in question also tripled compared to the global total, from 4 percent to 12 percent between 1995 and 2015 (ICE report, 2016).

In addition to the functions already listed, such as attracting capital, technologies, knowledge and having access to foreign markets, companies in developing economies have used OFDI as a strategy aimed at increasing efficiency in the allocation of resources and to diversify risk of shock in a country. The third "wave" was also favoured by the global economic conditions that pushed companies in developing countries in the direction of OFDI, helping them to grow and prosper and consequently to internationalize. It should also be noted that for companies exporting raw materials, the increase in commodity prices has provided the liquidity necessary to finance OFDI (World Bank Group, 2018).

Moreover, one has to keep in mind, though, that especially the “**China factor**” has been the key driver of foreign direct investment outflows from developing countries: More than 30 percent of these came from China in 2018. This share was even higher in the years before, while China’s share in global FDI inflows has been at a constant level of about 20 percent for several years in a row now.

## 2.3 Focus on China

The economy of China in the last twenty years has undergone a process of enormous transformation that has led it to be one of the most important countries in the most recent phase of globalization both from an economic and a political point of view. . During the 90s, following the delocalization policies of European and North American countries, China had won the title of "factory of the world", as it was concentrated in the production of all consumer products destined for the most developed, the so-called "first world". This has allowed Beijing to increase its industrial power exponentially to the point of becoming the driving force of the world economy and to the point of being affected only to a limited extent by the 2008 world economic crisis which strongly affected the richest countries.

Before getting to the heart of the subject, to understand the economic development and not only of China, it is necessary to refer to some historical events that have characterized the country. We will see, in fact, that since 1978 the Chinese government has implemented numerous reforms, which have been fundamental not only for its process of economic growth, but also for its maintenance throughout these years. When it comes to China, the role and importance of central government must be kept in mind. The Chinese Communist Party tends to impose its rules in a very rigid way within the country, trying to preserve the identity of the country as much as possible, and it is for this reason that despite the great economic development, China is still considered today a country not yet completely ready to open up to new cultures, and for this reason it is viewed with great distrust by the major world economies.

The turning point, as already mentioned, was 1978. Starting this year, China began its process of liberalization and opening the economy, first under the leadership of Deng Xiaoping, and later with Zhu Rongji. Until then, China had seen the Soviet Union as its main economically. However, Deng Xiaoping realized that, to reach higher levels, it was necessary to introduce advanced Western technologies, giving rise to the so-called "Open Door" policy, or the opening of China to foreign investment by the countries concerned. In fact, the large availability of low-cost labor attracted the attention of industries in many countries, thus increasing its manufacturing production. This first opening to trade, however, was closely linked to the will of the state. The investment projects mainly came from state-owned companies and were audited and approved by a government agency. Only since 1985 have private companies begun to develop and propose projects (UNCTAD, 2007). The massive state footprint in the economy is also evidenced by the fact that in the 1980s almost 80% of industrial production came from companies controlled directly by the state, or at least with strong state participation; over the 1990s, the percentage gradually decreased until it reaches, today, around 30% (Snoriguzzi, 2018). In the next paragraph we will recall some

historical events that were fundamental for China's internationalization to take place, with particular attention to the period of the reforms and their effect.

### 2.3.1 History

The People's Republic of China was proclaimed on October 1, 1949 by Mao Zedong. The Mayan period was characterized by numerous ups and downs, accelerations and failures aimed at building a Soviet-style economy. The economic conditions in which the country found itself, as soon as Mao Zedong came to power, were really serious, so he decided to move in two different directions. On the one hand, he tried to create a mixed economy, in which the state owned the ownership of large banks and large industries, so much so that in 1956 the state controlled both directly and indirectly the totality of production. On the other hand, Mao Zegond focused on the more equitable redistribution of land to citizens, despite the fact that the property remained in private hands.

Later, however, this model was abandoned, and replaced by a more gradualist approach, based on a planned economy, so much so that the "first five-year plan" (1953-1957) was born. In this period the priorities were industry and the collectivization of the economy, which however did not bring the desired results. Most of the planned investments were aimed at industry, with the aim of creating a strong industrial apparatus over time, so much so that in five years, coal production doubled, that of cast iron tripled, and industrial production even quadrupled. (Lemoine, 2005).

The effect of the collectivization of the economy, on the other hand, was the gradual disappearance of private property, due to the fact that peasants began to create production cooperatives. Despite this, these reforms accentuated the gap between industry, which was in the midst of its development, and the conditions of agriculture. Consequently, at the end of the five years there was a period of instability, to which Mao Zedong reacted by inaugurating a new period of reform that took the name of "great leap forward" and which, in reality, turned out to be an exacerbation of the previous Five Year Plan. To try to improve agricultural conditions, the "popular communes" were established, which grouped the newly created agricultural cooperatives, and had the task of organizing and managing life in the countryside. Therefore, they were concerned not only with agricultural production, but with the social services of members of the commune, and with the mobilization of work for the small industries necessary for the life of the commune itself.

Further measures concerned a decentralization of investment planning in the hands of local governments based on a national strategy. This decentralization, however, was purely administrative and accompanied by an economic one, which provided for an alignment of prices and the market, which is why it did not prove effective. The great leap forward failed

after a few years, it had not been able to bridge the imbalance between industrial and agricultural production. Furthermore, food shortages, already dramatic, were exacerbated by a powerful famine that caused a million deaths, as well as a reduction in industrial production. From 1960, an attempt was made to re-implement a moderate economic model, with the reactivation and improvement of the agricultural system, to which many workers returned thanks to the downsizing of industrial investments, and with the administrative centralization of the national economy.

In 1978, after the death of Mao Zedong, China began a new phase of reform, under the leadership of Deng Xiaoping, with the aim of getting out of the previous planned system, thus giving way to the "demaioization" of the economy. In the twenty-year course that follows the 1978, it is possible to distinguish 5 different phases (Chiarlone & Amighini, 2007).

The first phase, which took place in the years 1978-1984, was characterized by the launch of an economic liberalization, with a reform of the agricultural system and the relaunch of productivity. Agricultural production, much more backward than industrial production, needed strong incentives, which were introduced with the abolition of popular communes in favor of a semi-private land management system. With the green light for the exploitation of the land by the families, agricultural production and consequently the income of the peasants had a strong increase, allowing them to devote themselves to other activities, and thus giving life to the "township and village enterprises" (TVE). These were a kind of collective enterprises, in which families could decide whether to sell on the market or keep for themselves the production in excess of that required by the state. Of course, the resulting profits not only had an immediate impact on consumption, but at the same time, they could be reinvested to carry out commercial, transport or craft activities. All this led to a 4.52% growth in the agricultural sector from 1978 to 2003, compared to 2.02% in the years of Mao Zedong (Maddison, 2007). Despite the establishment of TVEs through the entrepreneurial initiative of farmers, they remained in the hands of local governments, which therefore had the right to the net income of companies (Musu, 2011). It must be said that, in this area, local governments played a fundamental role, as, for example, they acted as guarantors so that companies were able to obtain the necessary credit, thus stimulating the birth of new entrepreneurial initiatives and, at the same time, fueling a competition between governments that was lifeblood for economic development through the promotion of new businesses.

Alongside the TVEs there were state owned enterprises (SOEs), which, as can be seen, were under state control and ownership.

In this period, however, unlike the Maoian period, state-owned companies were given greater managerial autonomy, as well as the possibility of keeping their profits entirely. In this way, companies could distribute bonuses to employees, as an incentive to increase productivity and work performance. As for trade with the rest of the world, the country was still very closed, especially due to the policies undertaken before 1978.

Exports of manufactured products were mostly addressed to developing countries, while to industrialized countries they were direct raw materials and agricultural products. A limitation was also placed on imports, as the government pursued a policy that aimed at rapid industrialization, and which therefore favored national products.

A further limit to imports was represented by a limited inflow of foreign capital, a consequence of the few exports. The state had a monopoly on foreign trade, which was operationally managed by the Foreign Trade Companies (FTC), which were branches of the Ministry of Foreign Trade. These were the only companies that could export or import, and specifically each of them traded only one category of goods. In this way, foreign trade was completely controlled, and in no way appeared to be an incentive for other companies to increase productivity.

The state appeared to be the only beneficiary of these exchanges, as the FTCs bought cheaper foreign products and resold them domestically at the highest prices set by the government, so that the final consumer could not have preferences, while generating an income that ended up in the state coffers.

Of course, all this did not benefit companies in terms of international competitiveness.

Although therefore the process of opening the country towards foreign countries began in 1978, therefore in the first phase, it was even more explicit in the second, which runs from 1984 to 1988, encouraged above all by the successes obtained in the agricultural sector, and aimed at this time mostly to the industrial sector. The major reforms applied were the expansion of decision-making autonomy, price liberalization and for the first time the decentralization of trade abroad.

In addition, a special institutional mechanism was established, the dual track system, according to which the sale of the planned production took place at a price decided by the authorities, while the excess production could be sold at market prices. Naturally this was a source of profit for companies, which were trying to produce an ever greater quantity to be able to sell on the market, as well as a strong incentive for managers who began to have a strong decision-making importance based on competitiveness (Musu, 2011).

As already mentioned before, for the first time the country opened to foreign countries, through the so-called "open door policy", which had as its primary objectives the promotion of exports and the modernization of the production system. In particular, China opened its doors to foreign companies that were interested in the growing weight of the Chinese

economy, as well as in the large availability of factors that the country made available, and at the same time gave authorization to trade to a greater number of companies, through the introduction of the principle of competition between the FTCs.

Four Special Economic Zones (SEZs) were established for this purpose: Shenzhen, Zhuhai, Shantou and Xianmen. They enjoyed tax and customs incentives to encourage the influx of foreign capital, business initiatives and foreign technologies. Later, a liberalization of international trade was also introduced in 14 port cities, called "open port cities", strategically chosen to encourage and attract foreign investors (Chiarlone & Amighini (2007). The latter, as well as the Zes, had the role of "windows on the world" (Musu, 2011), because they showed China's willingness to trade abroad and to deal with other economies. Coastal development also had effects within the country, thus accelerating the development of the entire Chinese economy.

The third phase, from 1988 to 1991, was characterized by high inflation, which led to a freeze on reforms, and to the re-establishment of administered prices.

With the fourth phase, 1991-1998, there was a new relaunch of the reforms, under the leadership of Zhu Rongji, who became deputy prime minister in 1991, whose goal this time was the creation of a socialist market economy. Once again, the focus was on the liberalization of prices, while those administered remained applied only to a minimal percentage of trade (Lemoine, 2005).

The turning point, however, came with the abolition of the dual-track system, thus allowing the company to finally confront itself only with the market. In this phase, a fundamental step was the promulgation of the Corporate Law and the recognition of the compatibility of the ideals of socialism with private property, which were the basis for the birth of many private enterprises. At the same time, there was talk of privatization and listing on the stock exchange of many state-owned companies, so much so that the number of state-controlled companies went from about 40% in 1998 to less than 20% in 2003; while the private ones went from about 100,000 units to over 3 million, representing more than 70% of the total (Chiarlone & Amighini, 2007).

This shift towards the non-state sector, but also towards foreign companies, has led to a reallocation of productive resources, favoring the growth of national productivity. During these years the currency reform was also implemented, which gave a further boost to the internationalization movement begun in the country. We said that, prior to the reforms, it was the government that established the price and currency market, usually opting for an overvalued exchange rate value, thus favoring imports over exports. In 1994, the exchange rate was finally liberalized and brought to its true level. It must be recognized that the liberalization of the exchange rate is still subjected and bound to continuous interventions



by the government, which adjusts it in its favor, through a very controlled fluctuation regime. Furthermore, in 1997, the first private FTCs and those controlled by foreign investors were authorized to operate on the market. From this moment on, the number of companies authorized to trade abroad grew incessantly, passing from only 12 FTCs before 1978, to 175,000 units (of which 150,000 foreign and 35,000 domestic) in the new century.

The last phase, the one from 1998 to 2003, is the one that was mainly aimed at the international opening of the country.

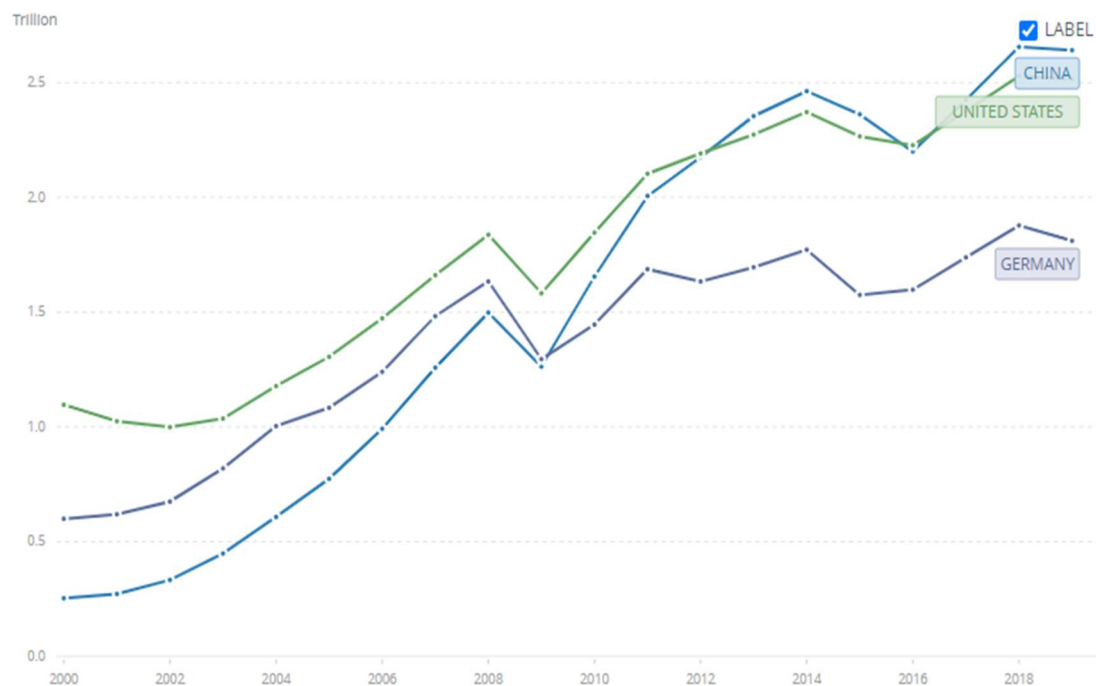
First, in 1999, the government promoted a new policy, the "Go Global", with the aim of encouraging Chinese companies to invest abroad, and then later, on 11 December 2001 by joining the World Trade Organization (WTO), which establishes the rules of world trade.

As a member of this organization, the country takes part in the General Agreement on Trade Services (GATS), Trade-Related Aspects of Intellectual Property Rights (TRIPS), and on the Trade-Related Investments Measures (TRIMS), thus committing to gradually liberalize the business.

On the other hand, joining the organization has forced the country to abolish its system of tariff and non-tariff barriers, and greater openness to FDI, as well as compliance with some general principles regarding trade rights. Undoubtedly, this was the springboard for the Chinese economy, which has increased the value of both imports and exports exponentially. According to data from the World Bank, from 2001 to 2006 exports went from 20% to a peak of 35% of the country's GDP, while imports increased by 10 percentage points, from 18% to about 28%, becoming the third country in the world for both exports and imports, after the United States and Germany.

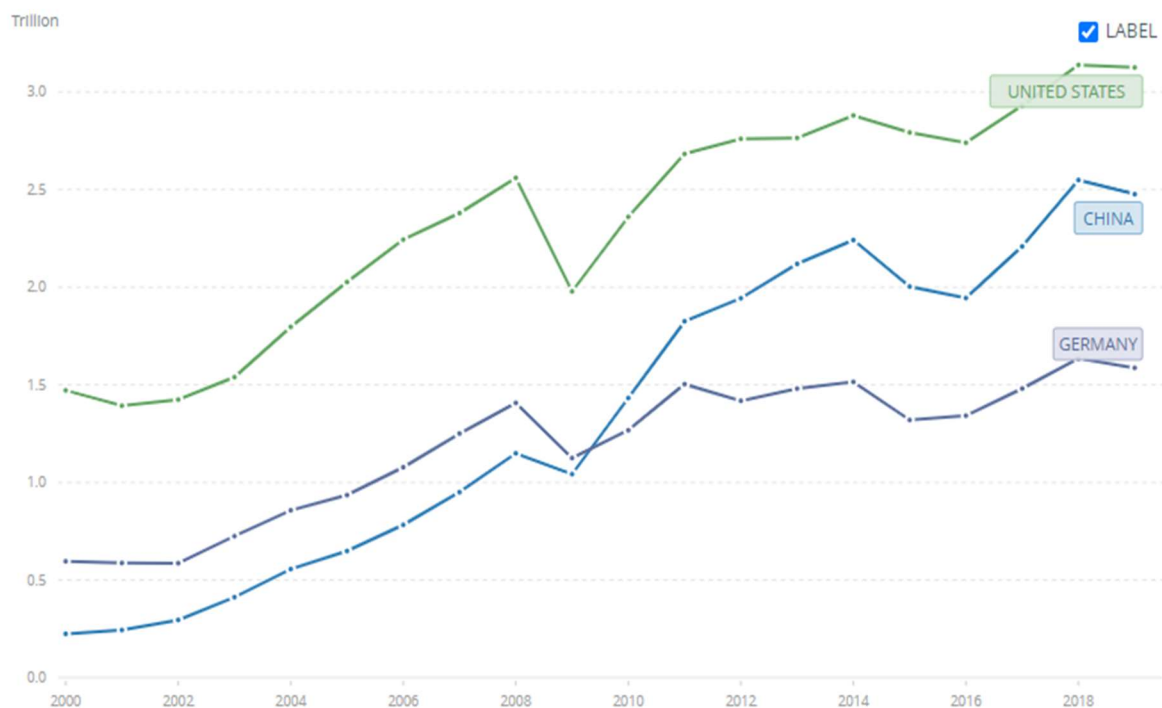
In the following years, although the percentage value of imports and exports relative to the country's GDP has decreased, China has continued its rise, becoming in 2019 the first country in the world for exports, and second only to the United States for imports.

Fig. 9: Export of good and services (current US\$), USA, China, Germany from 2000 to 2019.



Source: World Bank data

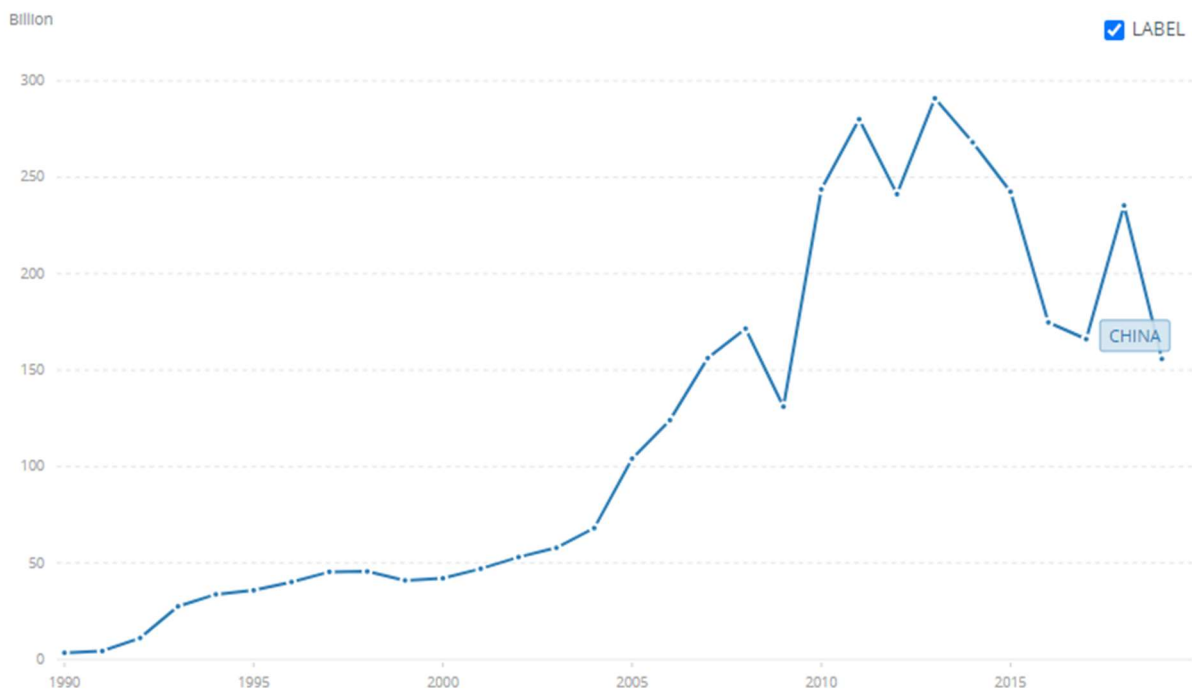
Fig. 10: Import of good and services (current US\$), USA, China, Germany from 2000 to 2019.



Source: World Bank data

Furthermore, with joining the WTO, foreign direct investments have taken off dramatically; at the beginning of the 90s the value of incoming investments was around 3 billion dollars, in 2001 it had reached about 47 billion dollars and in 2013 it reached its peak of almost 300 billion dollars. Since then, the trend has been downward, probably driven by the trade war with the US, with a slight increase in 2018 that was around 235 billion.

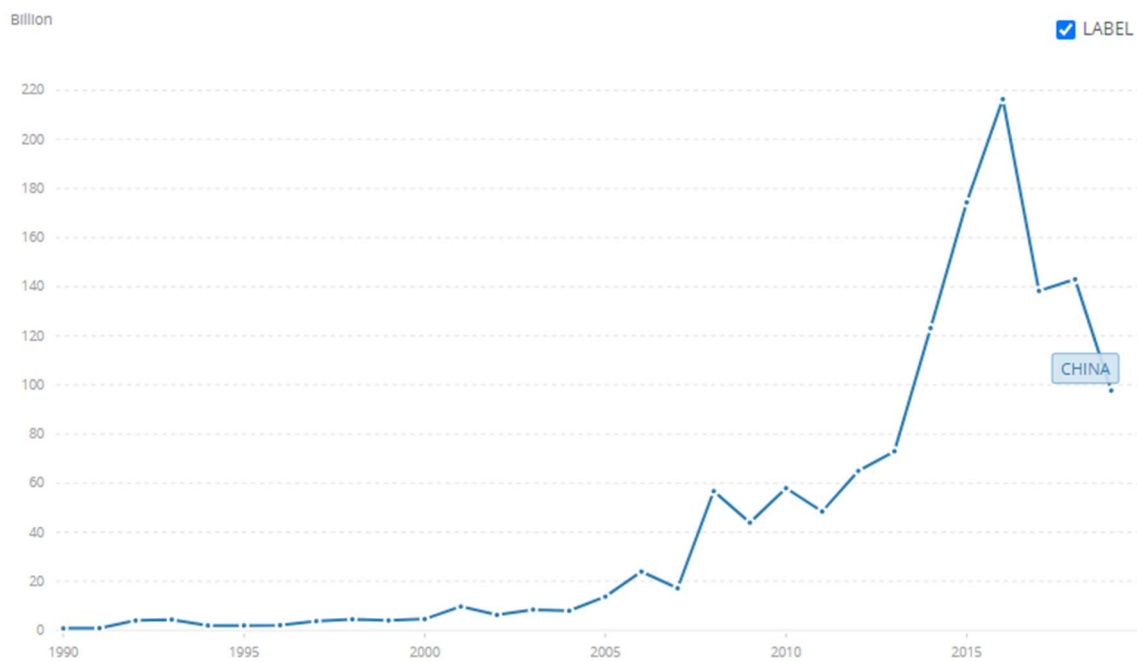
Fig. 11: Chinese foreign direct investments, net inflow (from 1990 to 2019).



Source: World Bank data.

At a slower pace, since 2001, direct investments out of the country have also started to increase, going from a value of less than 10 billion in the early 2000s to a peak of around 216 billion dollars in 2016, for the first time. greater than the value of incoming investments which amounted to approximately 170 billion in the same year.

Fig. 12: Chinese foreign direct investments, net outflow (from 1990 to 2019).



Source: World Bank data

Beyond the numbers, it is important to underline that the opening up abroad has brought many benefits to China, especially as regards the contribution of new technologies and new business systems and personnel training for Chinese companies. In addition, the Chinese industrial system had to interface with the growing number of foreign companies in the area, which represented a real competitive challenge in the domestic market. All this has increased productivity and the technological level, thus allowing Chinese companies to expand abroad in turn. The state once again played a crucial role, in fact given the large availability of foreign currency it contributed to the financing of a lot of FDI, especially in the major public companies.

### 2.3.2 Belt and Road initiative

Opening to foreign countries finds its best expression in a new and very ambitious project, the "Belt and Road initiative - BRI", announced by the Chinese government in 2013, under the leadership of Xi Jinping.

The initiative aims to revive ancient Silk Roads in a modern way, by encouraging new trade and improving connectivity. It provides for a series of investments worth over 1000 billion dollars aimed at the construction or enhancement of commercial infrastructures - roads, ports, railways, airports - and communication systems between China with Europe and East

Africa, involving 72 countries, covering more than 60% of the global GDP and about 70% of the world population (World Bank Group, 2018).

This major project involves the opening of two corridors, one on land and the other on the sea, complementary to each other but developed following two different logics, whose routes have not yet been precisely defined as they depend on the agreements reached between the various states.

The land corridor is called the "Silk Road Economic Belt" and involves the construction of a series of railway or motorway "bridges", which connect Beijing with Western Europe through Asia Minor, the Middle East, or Central Russia, with the aim of creating new trade routes and meeting points between the countries concerned. Among the various "bridges" planned, the most important are undoubtedly the "China-Pakistan Economic Corridor (CPEC)" and the New Eurasian Land Bridge which will connect China to Germany, passing through Russia and Kazakhstan.

As for the maritime corridor, the "21st Century Maritime Silk Road", it will start from the South China Sea, then it will affect Hong Kong and Guangzhou, with destination the coasts of Africa through the Pacific Ocean, to continue along the Red Sea until to the Mediterranean. Other channels could be China-Mongolia-Russia and China-Thailand-Indonesia / Singapore.

Furthermore, the Chinese government recently announced its interest in the Arctic, defining some "polar routes" that would allow not only to reduce by 40% the time needed to reach Europe, but also the exploitation of gas reserves and oil present in the area, as well as access to fish stocks influencing the dynamics of world fishing.

During the Belt and Road Summit in May 2017, the joint communique stated a list of cooperation objectives of BRI. Among many, the two most important objectives are:

1. to strengthen physical, institution and people-to-people connectivity among BRI countries;
2. to expand economic growth, trade and investment.

The communique envisions the future of BRI countries to be a win-win situation by creating "prosperous and peaceful community with shared future" (Maggie Xiaoyang Chen Chuanhao Lin, 2018).

Undoubtedly, the BRI project will transform the international economic environment, reducing commercial time and costs and creating a new model of globalization, in which China can emerge as an alternative center of gravity to the now consolidated US-Central system worldwide. In fact, the BRI is an agglomeration of relations, including commercial, infrastructural, but also digital, political, cultural and financial relations.

At the same time, it is a state goal of the People's Republic of China, inserted into the constitution with well-declared and defined pillars and souls.

In this regard, two aspects must be kept in mind: the first, the communicative one, is nothing more than a very skilled and brilliant application of the principles of international marketing, because there is the creation of a brand, the investment of a large budget, and the involvement of a large number of economic agents, from governments to workers.

The other aspect is the operational one and concerns the aggregation of bilateral relations that China has built over the last 15 years, therefore a set of agreements between states that make up a large group of partners.

In addition, although most of the investments are destined for the transport system, there is a large slice of BRI-classified projects involving the energy, logistics, financial and telecommunications sectors.

Although the Chinese authorities present it as a win-win situation, in reality the initiative has not been welcomed in the same way by the governments of developed and developing countries, as it is quite clear that the impact of the BRI will be different for these countries. The enthusiasm with which some of the emerging countries, particularly in Southeast Asia and Central Asia, have welcomed the initiative is justified by the fact that they are completely lacking in suitable infrastructures, and therefore will benefit more.

The same cannot be said for countries such as Europe, the USA, or Japan, which instead underline the lack of transparency of the Chinese government and express the fear that the project is oriented only in favor of the Chinese economy. What these countries accuse of China is the possibility that it undertakes predatory investments, that is, favorable only to the country making the investment rather than also to the country that receives it. In fact, if we look at the data, the export capacity to China has increased for those countries that have shared supply chains with China (Cambodia, Myanmar, Laos, Vietnam), in which almost all or a large part of Chinese textiles are located, while in other countries where this link is lacking, export capacity has increased to very low levels.

Of course, the BRI has a great impact on foreign direct investment.

We can distinguish two categories of investments, construction contracts and FDI. There is scientific evidence that, looking at the geographical distribution of these two types of investment, construction contracts are concentrated in developing countries or even in low-income countries, while Chinese OFDI are mainly directed towards developed countries (Maggie Xiaoyang Chen Chuanhao Lin).

The analysis of these foreign direct investments towards developed countries, and in particular Europe, will be addressed in the next chapter.

### 3. CHINESE FOREIGN DIRECT INVESTMENTS IN EUROPE

#### 3.1 Dimension of the European phenomenon

The European Union has one of the most open investment regimes in the world, in fact over 35% of its total assets belong to foreign companies. At the end of 2017, the stocks of foreign direct investment (FDI) held by investors outside the Union amounted to € 6,295 billion, with a contribution for European citizens of 16 million related direct jobs.

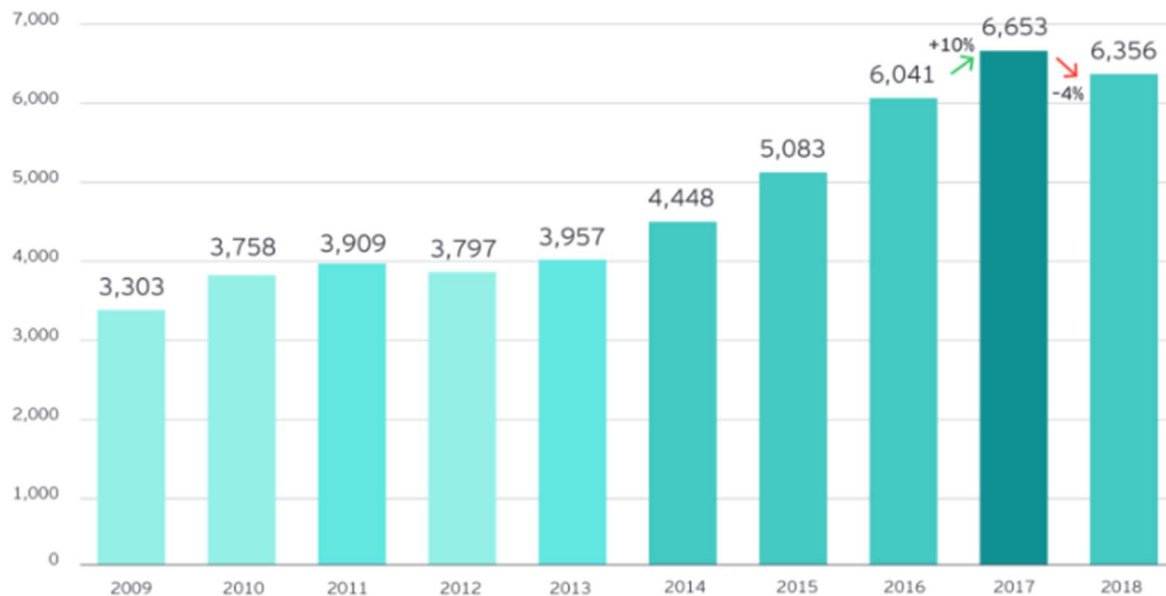
According to a detailed report published by the European Commission on the situation of EU FDI, foreign ownership in European companies has steadily increased over the past 10 years, and is particularly high in some key EU sectors, including oil refining, pharmaceutical, electronic and optical products, and electrical equipment. Furthermore, although 80% of total inward investment across all sectors comes from traditional investors such as the United States, Canada, Japan, Australia, Norway, corporate acquisitions from Russia and the United Arab Emirates, along with those of emerging countries tripled between 2007 and 2017. Among these countries, China stands out.

According to a 2019 survey by EY of more than 500 international businesses, compared to other regions, Western Europe is now seen as more attractive than at any time in the past decade as a place to establish operations. Furthermore, Eastern Europe moved from fourth to second place as the most attractive region for investment.

For a couple of years, however, companies around the world have been holding back FDI in Europe, due to a mix of economic and political uncertainty affecting the country.

Indeed, in 2018, for the first time in the last six years, foreign direct investment (FDI) in Europe declined. In total, companies around the world completed 6,356 projects in Europe in 2018, an annual decline of 4% compared to the previous year.

Fig. 13: FDI projects in Europe (2009-2018)



Source: EY survey

The causes of this decline are linked to a 13% decrease in FDI in the two largest European economies - Germany and the United Kingdom - which together account for around one third of FDI. Furthermore, after two years of large investments, France also suffered a setback as regards inbound FDI.

At the same time, however, investments in Spain, Poland and Ireland increased by more than 30%.

Another relevant factor that has contributed to the decrease in foreign investment is the introduction by the European Union in April 2019 of a new regulation to monitor direct investments entering the community. The aim is to preserve Europe from predatory investments that represent a threat to the continent, given however the high attractiveness for investments that it possesses.

In fact, particular attention is paid to Chinese incoming investments.

The flow of European investments in China has always been greater than that of Chinese MNE investments in Europe, until 2014, when Chinese investments in Europe began to grow exponentially. In 2016, for the first time, Chinese FDI in Europe was four times higher (reaching an all-time high of \$ 42 billion), compared to direct European investments in China, which was worth only \$ 8 billion. China has thus become the second largest investor in Europe, after the United States.

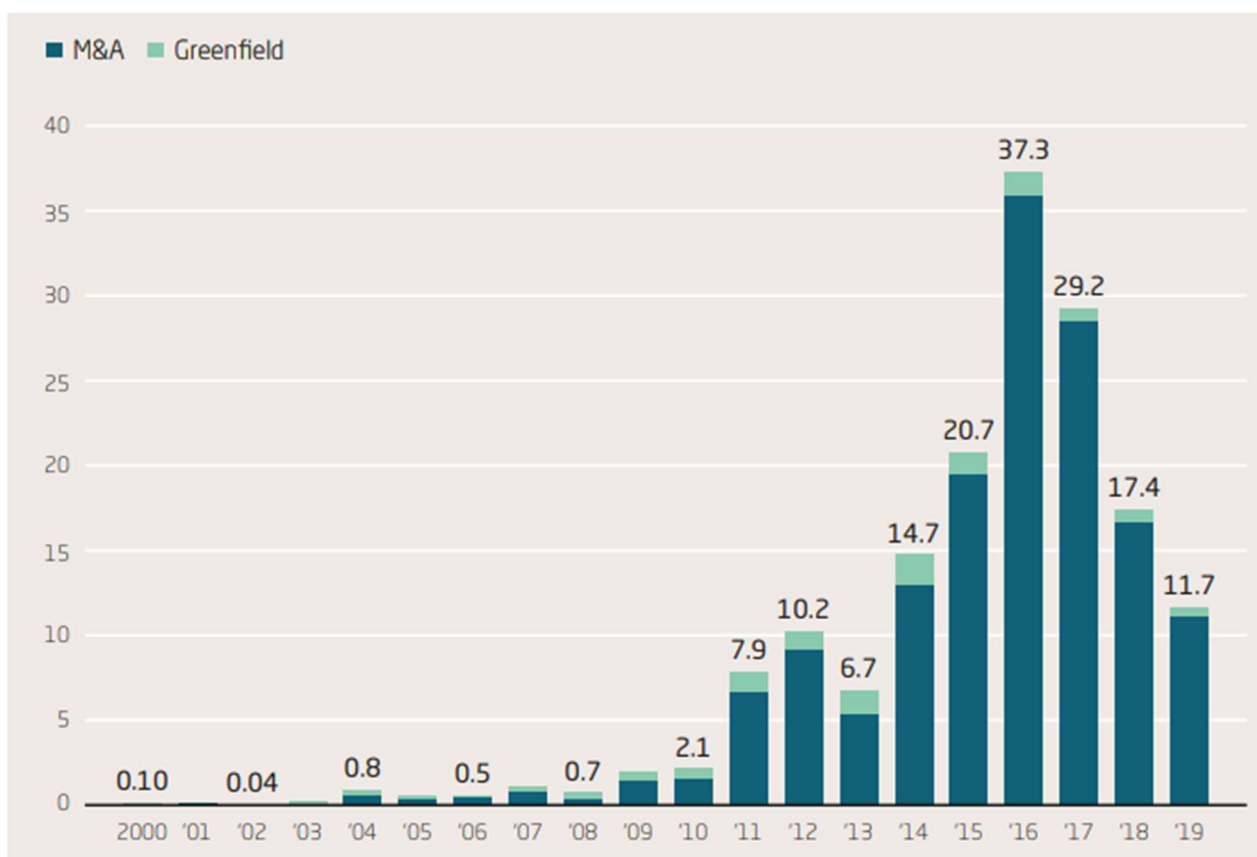


The pace and volumes of Chinese investments in Europe, however, have experienced a marked decline in the last two years, in line with the rest of investments.

In 2019, the value of Chinese direct investments in Europe was around 10 billion dollars, even below the level of investments in 2014.

There were three main reasons for this decline: tighter administrative controls in China on outward investment from 2017; a clampdown on the “irrational” acquisitions of a few key investors; and a deleveraging campaign that reduced Chinese firms’ ability to finance overseas assets purchases (Mherics & Rhodium, 2020).

Fig. 14: Annual value of completed Chinese FDI in the EU-28, from 2000 to 2019 (Billion €)



Source: Rhodium Group

Despite this, in the last 10 years the total of Chinese investments in Europe, therefore M&A and greenfield investments, has added a value of 348 billion dollars, counting as many as 350 acquisitions of companies across Europe by Chinese multinationals.

### 3.2 Chinese companies invest in Europe

Before analyzing in detail the amount of Chinese investments in Europe and looking for a motivation behind them, it is necessary to make a clarification regarding Chinese MNEs.

When we talk about Chinese MNEs, in fact, we must somehow make a distinction between state-owned multinationals, or at least those in which there is state participation, and private multinationals. This distinction is necessary because, as we saw in the previous chapter, although the number has decreased over time and thanks to liberalization, there are still many state-owned MNEs in China. According to some studies, the consequence of this is that the participation of the state in companies influences their investment choices. That is to say that in these cases the choice to make some investments could reflect political objectives, rather than being due to the maximization of profits, as is the case in private companies. Moreover, the sectoral and industry distribution reflects the priorities of State owners, who wish to control more directly key resources and key infrastructure networks (UNCTAD, 2017).

Once this premise has been made, and to fully understand the reasons that push Chinese companies to invest in Europe, let's make a general overview of the main destinations for Chinese investments.

First, it must be said that the bulk of Chinese investments actually remain in Asia, indeed Chinese investment in ASEAN is becoming increasingly significant mainly because of BRI projects. In 2018, M&A sales to Chinese MNEs more than tripled, and the value of greenfield projects in ASEAN announced by Chinese MNEs increased five-fold (UNCTAD, 2019).

Another large part, on the other hand, goes to Africa, those that have as their objective the acquisition of natural resources or agricultural products. The stock of China's FDI in Africa increased by more than 50 per cent between 2013 and 2017 (UNCTAD, 2019).

Finally, only a small part of Chinese investments is destined for the US and Europe, even if it is increasing. In fact, at the beginning of the new millennium, the percentage of Chinese FDI in Europe was about 2/3%, while in 2019 it rose to about 8% of total Chinese outbound investments, worth about 117 billion dollars (UNCTAD, 2020).

Although, therefore, Chinese investments in Europe are only a small part of the total, they are crucial. Let's see why.

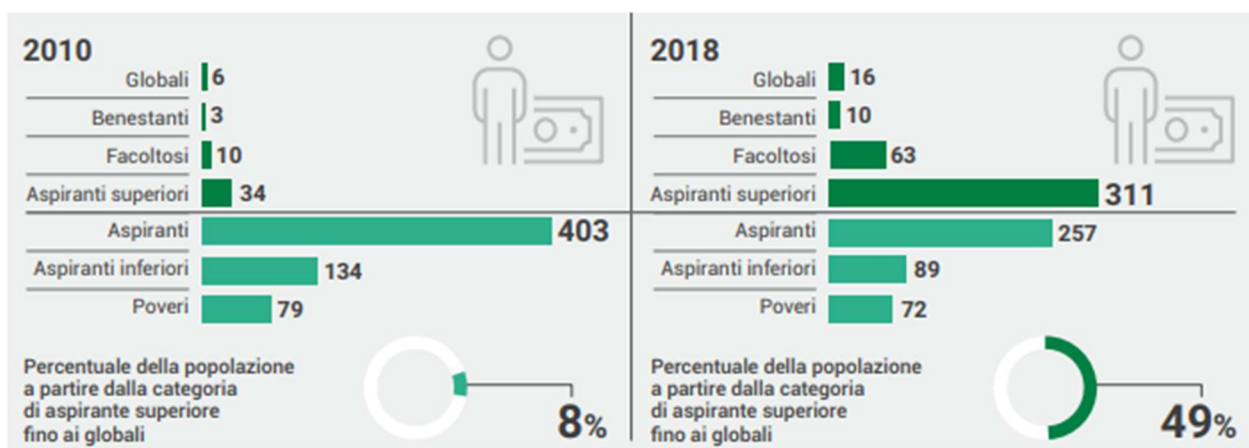
### 3.2.1 Determinants of Chinese investments in Europe

The entry of Chinese partners into the range of possible investors in Europe was substantially motivated by Beijing's interest in finding in the European experience the answers to those new questions that emerged with arrogance within the country as a result of the process of economic transformation and social in progress.

The long wave of the boom known in the first decade of the 2000s, in fact, triggered a change in the production system, from industrial to post-industrial. This has resulted in a progressive marginalization of the secondary sector which has prompted China to make a historic transition from being the so-called factory of the world to developing a service economy.

This evolution has gone hand in hand with a substantial improvement in the standard of living (especially in urban centers) and the increase of the middle class, which, in turn, have led to the emergence not only of new consumption habits but also new needs. The development of a welfare system, the implementation of a social security plan, the improvement of the health system, the adoption of environmental policies and effective solutions to combat pollution well represent the new priorities that have emerged internally and for respond to which the Chinese government has begun to set qualitative rather than quantitative growth as a strategic objective.

Fig. 15: urban population in china by income class



Source: McKinsey Institute

Therefore, the choice of turning to mature economies with high intellectual capital, such as the European one, responded to the need of the Chinese leadership to bridge the gap between the supply of its companies and the changed demand from its own population. Furthermore, the preference for investment operations in the form of acquisitions or mergers has highlighted the willingness of Chinese companies to find abroad that quality and high knowledge content that would allow them to gain a strong added value later on the market. indoor.

If we refer to Dunning's theories, explained in the first chapter, there are two main reasons why Chinese MNEs invest in the European Union: the search for new markets (market-seeking investments) and the search for strategic assets (strategic-asset seeking). To these we can also add the interest in the natural resources present on the continent, in particular the water.

### **1) Search for new market (market seeking investments)**

Europe is an extremely important market, which has more than 500 million consumers with a per capita income of € 25,000. Furthermore, the European Union is a conglomeration of developed countries, equipped with cutting-edge technologies and abundant capital. This means that it is the destination of many investments by all countries of the world, including China.

On the other hand, the Chinese market has always been a low-income market, but following the government-encouraged foreign policy, the Chinese middle class has begun to be more demanding from a qualitative point of view, which is why which the Chinese MNEs have been forced to move abroad to adapt to the needs of growing domestic demand, as well as to expand their catchment area and their sales channels.

Furthermore, Chinese companies with their presence in Europe aim to promote their brands, improving their reputation in international markets as well as in the domestic one (Pietrobelli C. et al., 2011).

China is currently very present on the European market through product exports, but sometimes it is better to be physically present on the market, through brownfield or greenfield investments, with the aim of exploring new opportunities and attracting a slice of high-income consumers (exploration).

Just think for example of the "Haier", a Chinese MNE, currently the largest company in the world to produce household appliances and consumer electronics. The company has numerous branches around the world, headquartered in China, and in 2018 purchased 100% of the Italian company Candy Hoover Group S.R.L, which has become Haier's headquarters in Europe, for \$ 475 million. The reason is that MNE prefers to produce high-end appliances

in Europe, more suited to the European market, rather than export them. Therefore, the production that serves the Asian and developing countries, the lowest-income countries, is in China, while the production necessary to serve the higher-income market segment is in Europe.

Furthermore, the strategic objective of the investment should not be underestimated. Suffice it to say that European production was exported to the Chinese market during the first months of the COVID-19 pandemic, thus compensating for the inactivity of the Chinese domestic market which was the first to be hit hard.

The second fundamental reason why Chinese MNEs invest in Europe is strategic.

## **2) Acquisition of technology and strategic assets**

In this case we are talking about "strategic asset seeking" investments, that is, those investments made with the aim of acquiring skills, technology, human capital. FDI are a very important channel for China to achieve the goal that China has set itself, namely that of becoming a power in the field of technology and innovation by 2050.

China has always attracted foreign capital thanks to the great availability of cheap labor, so much so that for many years it has been attributed the role of "factory of the world". These investments have contributed to the development of the Chinese economy, which, however, was late compared to those of other countries, thus creating a technological gap between Chinese companies and those of developed countries. Furthermore, Chinese companies do not have the managerial skills and know-how necessary to be able to absorb imported technology, without considering that, when foreign MNEs invested in the country, they brought with them an already mature or even backward technology. The only possibility that the Chinese MNEs had to bridge the technological gap was to come into direct contact with the cutting-edge technology of developed countries. For this reason, the Chinese MNEs have begun to make investments aimed at the acquisition of foreign companies and the creation of research and development centers, with the aim of acquiring existing technologies, developing the necessary capacity to make them their own and the related skills, so as to be competitive on the international scene.

The acquisition of skills takes place through two different channels.

The first is a direct channel, in the sense that when a Chinese company acquires a European company, it consequently acquires all the skills of it, because it acquires human capital, patents if there are any and technological capacity.

The other channel, on the other hand, is the indirect one, and is linked to the fact that the companies that are acquired are in territories in which they have relationships and are therefore within an ecosystem. Therefore, if a Chinese company acquires an Italian company in the Turin automotive cluster, for example, not only does it acquire the skills of that company, but this acquisition offers the Chinese company the opportunity to locate itself in the area of Turin, and create relationships with other companies in the same sector located in that area, or with the university or research centers in the area. Obviously, these relationships represent opportunities for the company making the investment to improve its technological capacity.

The main recipients of investments of this type were Germany, Italy, France and the United Kingdom, which are among other things world leaders in some technological sectors. As evidence of this, the fact that investments in R&D are mainly addressed in Europe, and that they have increased over time. In fact, in 2003 the share of investments in R&D was about 5% of the total, while in 2017 it reached almost 20%.

Think of the case of Huawei, a Chinese giant in the telephony sector, which opened a research center in the incubator of the University of Pavia in 2020, and which has about 10,000 employees in Europe, of which 15% are researchers working in 18 research centers in different countries.

As regards brownfield investments, the number of acquisitions of foreign companies has increased considerably since 2010. In the three-year period 2015-2017 there were some very important acquisitions by Chinese companies in Europe.

In 2015, the Chinese ChemChina invested 7 billion to buy Pirelli. In 2016, another 6.7 billion was used, by a consortium led by Tencent, to buy the Finnish betting company Supercell. The Chinese company Midea bought the German robot manufacturer Kuka for 4.4 billion. Another 2.8 billion ended up in Great Britain to buy 49% of Global Switch, the data center giant in Europe and Asia.

Finally, some MNEs invest in Europe with the aim of finding new business models, implementing their marketing strategies, acquiring highly qualified human capital.

### **3) Acquisition of resources**

Many Chinese investments in Europe have been made with the aim of procuring natural resources, although in any case most of the resource-seeking investments are aimed at the African continent and some Asian countries.

Europe is not scarce in resources, especially as regards mining and energy, but over the years these resources have gradually been depleted, which is why they are not a source of attraction for Chinese MNEs.

If we think of the coasts of northern Europe, or those bordering the Mediterranean, it is inevitable not to understand that one of the most important natural resources that Europe has is certainly water. Chinese MNEs have exploited this resource in two different ways.

On the one hand, the investments have turned to the fishing business. In fact, about a third of the world's sea fishing areas are concentrated along the European coasts, and these waters possess a great variety of marine species. By acquiring fish companies, as in the case of the Spanish HIJOS DE CARLO ALBO, acquired in 2016 by Shanghai Creation International Ocean Resources Co., Chinese companies can have easy access to European marine resources, as well as the opportunity to enter the market.

The other side of the investments, which is also the most substantial, turned instead to the acquisition of port resources. Undoubtedly, these investments are part of the BRI project, and in particular the "21th Century Maritime Silk Road" which aims to implement a new commercial channel by sea between China and Europe, which is among the main buyers of Made products. in China. Between May 2015 and June 2017, China invested over 3.7 billion dollars in eight ports between the Mediterranean and Northern Europe, which are Haifa, Ashdod, Ambarli, Piraeus, Rotterdam, Vado Ligure, Bilbao and Valencia.

The portfolio is mainly opened by two companies: Cosco (China Ocean Shipping Company), a state-owned company that for more than 10 years has launched a real purchasing campaign for ports around the world, and China Merchants Group International which manages 15 terminals in eight different European countries.

But the Chinese aims are not limited to the purchase of ports: they extend to the acquisition of companies that manage commercial shipping. This is the case of the CMA CGM Group of Marseille of which Cosco has also bought 49% of the shares with an investment of 400 million euros (the second most expensive investment).

Similar case for 51% of Noatum Port, a company that manages the internal commercial network of Spain through ports and railways. The terminals include the ports of Bilbao and Valencia, and the ports of Madrid and Zaragoza, obtained thanks to an investment of 203 million in 2017 (EPRS, 2019).

### 3.2.2 Geography of investments

The geographical and sectoral analysis of Chinese investments in Europe was made using mainly two sources. The first is a database of the Financial Times which includes about 6000 Chinese direct investments in the world of greenfield type, from which I have separated the

European ones. As for brownfield investments, the reference taken is the Bloomberg article "How China is buying its way into Europe", which analyzes the major Chinese investments in Europe.

The Chinese investment strategy in Europe is guided by the fact that MNEs look at the continent as if it were divided into three major macro-areas, the West made up of the main EU countries, Eastern Europe, and Southern Europe. This classification is based on the variation of economic wealth, technological progress, geographical position, and institutional framework of the countries that are part of each block.

Following this vision, we can see a diversified strategy of Chinese MNE investment activity, with a flow of capital destined mainly to the western area, which includes the main European countries, while in the periphery of the continent the Chinese MNEs have focused on infrastructural development.

Most of Chinese foreign direct investment in the last 10 years has been concentrated in the main Western European countries, the most developed ones. This is a predictable trend, as it is in line with the main reason why Chinese companies invest in Europe, namely the acquisition of cutting-edge technology and strategic assets, R&D networks, as well as entering a new market of high-income consumers, which is concentrated in these regions.

### 3.2.2.1 Geography of Brownfield FDIs in EU

First, we will discuss brownfield investments, so we will refer to mergers and acquisitions, and we consider the last 10 years.

The primacy of Chinese investments in Europe is held by Great Britain, with 227 agreements worth over 70 billion dollars. It is one of the most open economies on the planet, supported, among other things, by a legal system that is among the most solid, simple, and therefore friendly to investors. A system that has transparency and predictability as its cornerstones. The second European state to be affected by the largest flow of Chinese investments, understood as the number of agreements, is Germany. Considered a world power, with a very advanced industrial apparatus, where the automotive and robotics jewels are lost, Germany has 225 agreements for a total value of about 20 billion dollars. Among other things, precisely in Germany, in Duisburg, the Chinese have built their main strategic hub in Europe, a key hub of the BRI project, creating more than 50,000 jobs. Here 80% of freight trains from China arrive, whose cargo is then sorted to the rest of Europe, and to the North, up to the United Kingdom.



In terms of agreements, it follows France with 89 agreements for a value of over 13 billion, Italy with 89 agreements for a total value of almost 23 billion, and the Netherlands with 82 agreements for a value of approximately 11.5 billion dollars.

Italy is the subject of particular interest on the part of Chinese MNEs for various reasons. First, the first factor that encourages Chinese investments in Italy is the small size of the target companies. Investing in an Italian company, acquiring control or even 100% of the capital, is within the reach of the large Chinese MNEs, and requires less effort than German or French ones, except for some exceptions including Pirelli or the fashion company Krizia. The second factor is undoubtedly the Italian know-how, which the Chinese need to absorb, directly or acquired, to become globally competitive in typical sectors of Italian production, including mechanics or fashion.

Finally, the geographical position of Italy, in the south of Europe, and window into the Mediterranean Sea, makes them an important commercial hub in the "21st Maritime Silk Road" project, as demonstrated by the purchase of 40% of the port of Vado Ligure by the Chinese Cosco (China Ocean Shipping Company) for 53 million euros in 2016, and the interest in the ports of Venice, Trieste, and Ravenna, which together with the Slovenian one of Koper and the Croatian one of Fiume, would create the so-called "five ports alliance"

Still considering the implementation of the BRI project, Chinese investments in Eastern and Southern Europe have also grown over the years, mostly involving the creation of infrastructures. In 2008, China took over the management of the Greek port of Piraeus for 35 years in exchange for more than \$ 4 billion. In 2016, Cosco then acquired 51% of the port's shares for 280 million dollars, with an agreement that provides for the purchase of a further 16% by 2021 for about 90 million dollars. In this way, Piraeus has become Beijing's outpost in the Mediterranean, therefore the main commercial maritime outlet. But once the goods arrive by sea, they must also be sorted to the rest of Europe by traveling by land. This is the reason why the Chinese MNEs have made many investments in the creation of roads and railways in the countries of Eastern Europe. The country that received the most investments in this area of all was Hungary, with over 2 billion dollars, as it geographically represents the perfect corridor for made in China goods destined for shops throughout Europe, and not only that of the east.

In the last year, the map of the Chinese presence on the Continent has changed. The gaze of Chinese investors has turned to the North, towards the Scandinavian countries, which received 53% of total Chinese investments (Rhodium & Merics, 2019). Finland was the first recipient of resources from the People's Republic, a record to which the acquisition for 4.6 billion of Amer, a company specializing in sports equipment, by the Anta group contributed, while Evergrande's investment amounted to 830 million. In the Swedish car manufacturer Nevs, as part of the real estate group's strategy to establish itself in the electric car market.

### 3.2.2.2 Geography of greenfield FDIs in EU

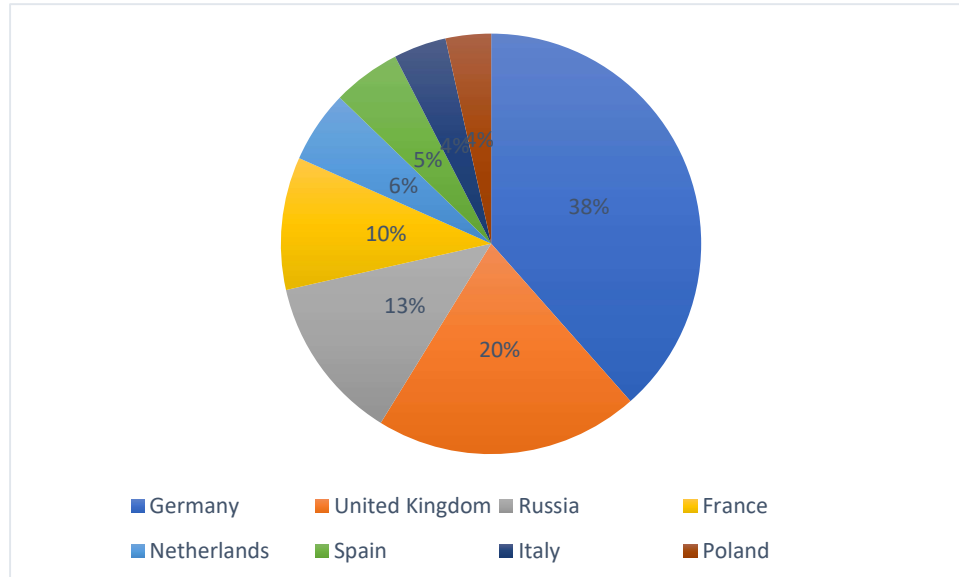
The situation changes slightly regarding greenfield investments, i.e. those related to the creation of new factories in the host country.

First, analyzing the available data, it immediately becomes apparent that the percentage of greenfield investments in Europe in the last 10 years is greater not only than brownfield investments, but also than greenfield investments leaving China and destined for the rest of the world. Of the total of 6,316 greenfield investments leaving China, as many as 37% went to Europe.

In this case the primacy is held by Germany, with 674 investments, almost double those made in the UK, which are 356. These two countries alone absorb almost 50% of total investments in Europe. Then follow Russia with 222 investments, and France with 179 investments.

These greenfield initiatives mainly concern the activities further down the value chain (marketing & sales) and are mostly aimed at facilitating the Chinese investor in penetrating the European market, for the reasons listed in the previous paragraphs.

Fig. 16: Greenfield FDI in EU by geography



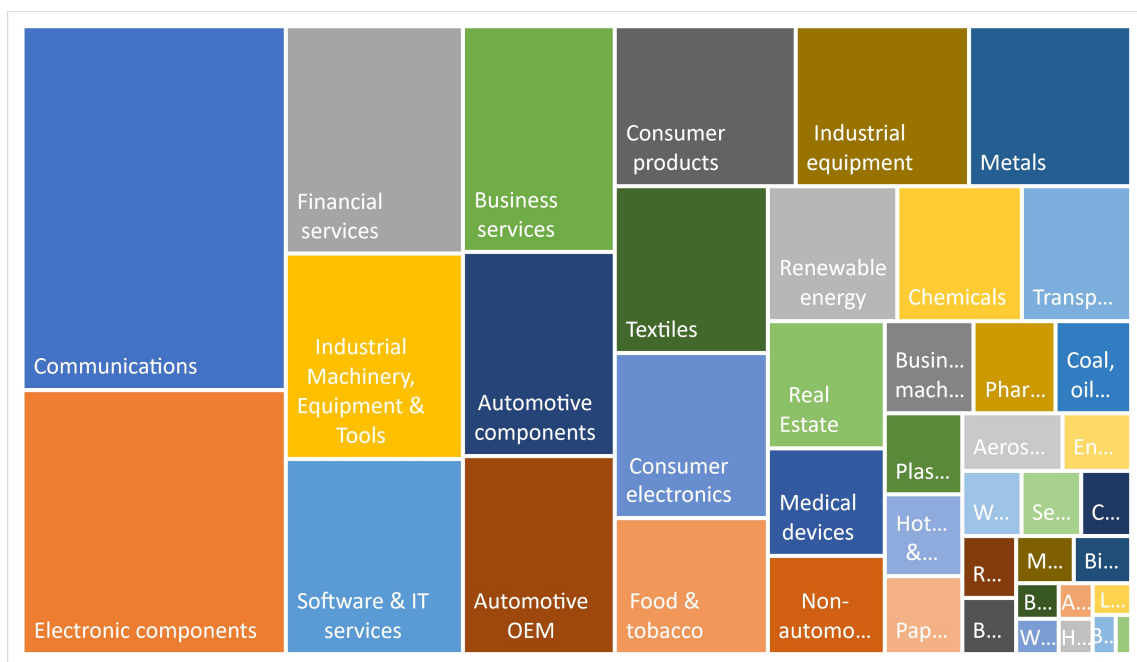
In addition to these, a large chunk of greenfield investments involves Eastern European countries. In total, about 320 investments have been made in eastern Europe, with Poland and Hungary in the lead, followed by Romania and Turkey. The strategic position of these countries is perfect to meet two of the main Chinese objectives: transportation networks for the Belt and Road Initiative and investment goals for further capital expansion across the

EU. But there is also another aspect of these countries to take into consideration. In fact, many investments in this area are driven by the desire to achieve substantial cost savings. The location in these countries - characterized by significant wage differentials compared to the rest of the EU - seems to have offered significant competitive advantages in terms of reducing labor costs and, in general, structural costs. This basic strategic objective, however, is not limited to the more mature traditional sectors, where recourse to unskilled labor may be prevalent, but also involves those sectors with greater technological content that require more specialized skills. The sectors that are particularly sensitive to cost differentials are manufacturing and standardized services, where services can be provided by telephone or through the internet (insurance, technical or commercial assistance).

### 3.2.3 Sectors of investments

The European market is a vast market with lots of opportunities and the sectors in which MNEs can invest are really many.

Fig. 17: Greenfield FDI in Europe by sectors



A quarter of Chinese greenfield investments in Europe are destined for the communications and electronic components sectors, with 318 and 231 investments respectively. The automotive sector follows, of which Europe, and in particular Germany, is an important hub, with about 200 investments.

Other important investments concern services, including business, financial and software and IT, to which approximately 15% of the total is destined.

Furthermore, the Chinese MNEs are also investing in a broad range of strategic assets such as industrial equipments, electricity, transportation, oil, health, and are entering the world of renewable energy.

Investments related to mergers and acquisitions are also concentrated in these same sectors.

A small difference between the two types of investment lies in investments in real estate and in entertainment activities, which mainly affect brownfield investments, just think of the acquisitions of European sports clubs by the Chinese, which have been appearing in recent times. to the world of sport, and in particular football. It must be said that investments in these sectors have also been decreasing recently, due to restrictions imposed by the Chinese government, as we will explain in the next paragraph.

### 3.2.3.1 Chinese regulation about sectors

As regards the sectors in which Chinese MNEs invest, it is important to keep in mind what has already been said before, namely that a distinction must be made between private and state MNEs.

The choice of investment sectors, in the Chinese case, is greatly influenced by the decisions of the state. Recently, Beijing has begun to review ODI regulations to limit the initiative of private companies interested in making acquisitions in companies belonging to sectors considered not of primary importance to central authorities.

As evidence of this, the government has changed the subdivision in force since the 1990s for investments within the country, classifying FDI outwards into three types: those that should be encouraged, those whose transactions are restricted, and those that are prohibited, for which the control by the authorities is maximum.

All those activities that are linked to the implementation of the BRI project, and that favor the development of Chinese industry and the export of technological capacity, are part of the encouraged investments, together with those that concern the sectors related to high technology in manufacturing and Research and Development, the energy sector (oil, natural gas and other sources), compatibly with national priorities and needs, investments in the financial sector that facilitate Chinese banking institutions to open branches and service networks abroad, as well as in commercial, cultural and logistic services; the food, timber and livestock industries.

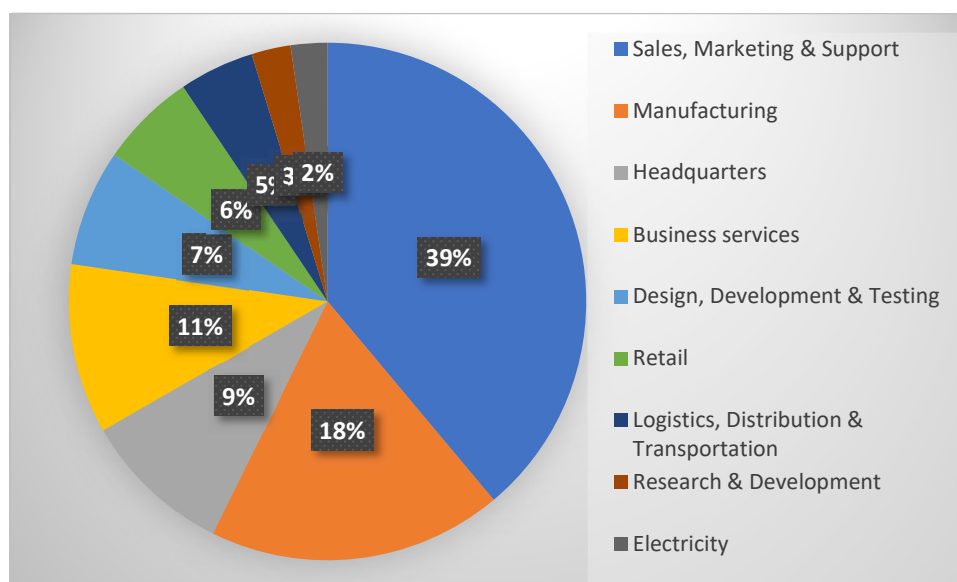
Restricted transactions, on the other hand, include investments in countries and regions that do not have diplomatic relations with Beijing or that are in a state of war or crisis; in the entertainment, sports teams, film and real estate sectors; investment funds or platforms for speculative purposes, investments in obsolete technology and equipment or which do not comply with the standards set by environmental legislation.

Finally, the third category, namely those of prohibited transactions, includes all investments that could compromise national security or interests, such as the unauthorized export of weapons materials and military technologies, technologies or products for which it is sales abroad, investments in the gambling industry and, more generally, any investment in violation of sanctioning treaties signed by the Chinese government are prohibited (Manenti, 2019).

### 3.2.3 FDIs in Europe by industry Activity

Finally, to have greater clarity about where Chinese investments are directed, we have made a further classification, that by industrial activity.

Fig. 18: Greenfield FDIs in Europe by industry activity



In the graph shown, we have considered only the main assets targeted by Chinese FDI. Investments in the “Sales, Marketing & Support” function prevail, with almost 40% of the total. These are activities aimed at creating sales branches, commercial offices and after-

sales support, which certainly are not part of the Chinese industrial apparatus which is instead very productive and geared towards manufacturing. It seems legitimate to think that MNEs relocate this business function to countries where market support activities are better, as they operate in a more advanced market, as in the European case.

Finally, a small parenthesis should be opened on Research and Development activities. Generally this type of activity is very common in countries with a very advanced industrial apparatus, but this is not true in the case of China. In fact, China has been very skilled in acquiring technology from foreign companies and importing it into the country through, exploiting both outward and inbound investments, rather than devoting itself to internal research for new technologies.

Interest in this activity has been growing in recent years, and also quite quickly.

Joint R&D is an increasingly important dimension of China's economic engagement with many OECD economies, and a natural next step for technology collaboration. Recently, there has been an expansion in R&D collaborations between Chinese firms and European entities (Rhodium & MERICS, 2020).

## 4. ANALYSIS OF GREENFIELD FOREIGN DIRECT INVESTMENTS IN EUROPE

At this point we enter the detail of our analysis. The aim will be to understand if Chinese direct investments in Europe are homologated to those of the main world countries, or if they have some distinctive trait. The subject of our analysis will be greenfield investments, for which a greater amount of data was available, and for which the analysis could be considered more complete.

### 4.1 Database Description

Let's start with the description of the database we used for data analysis. It is called "FDI markets" and it is taken by the Financial Times.

In a first analysis we have extrapolated only direct Chinese investments worldwide, in the period 2003 - 2019, for a total of 6,313 transactions.

For each transaction are reported:

- *ProjectDate*: date on which the investments by the MNE were announced. It is assumed that all announced investments have actually been made;
- *Investment Company*: the name of the company that made the investment;
- *ParentCompany*: the name of the company present in the country of origin;
- *SourceCountry*: country from which the investment started and where the parent company is based;
- *SourceState*: region from which the investment started;
- *SourceCity*: city from which the investment started;
- *DestinationCountry*: country that received the investment and in which the new plant was created;
- *DestinationState*: region that received the investment and in which the new plant was created;

- *AdminRegion*: province that received the investment and in which the new plant was created;
- *DestinationCity*: city that received the investment and where the new plant was created;
- *IndustrySector*: investment sector;
- *SubSector*: specific to the investment sector
- *Cluster*: grouping of investment sectors in macro-areas;
- *IndustryActivity*: function that the company decides to relocate abroad;
- *CapitalInvestment*: the capital investment envisaged for the transaction, expressed in millions of dollars;
- *Estimated*: indicates whether the capital investment was actually announced by the company or if it was estimated;
- *JobsCreated*: number of jobs created in the destination country following the investment;
- *S*: indicates whether the number of jobs created has been actual or estimated;
- *ProjectType*: indicates the type of project and is divided into three categories:

**New**: if the investment involves the creation of a new plant;

**Co-location**: if the investment involves the opening of a new function close to an existing one in the same place;

**Expansion**: if the investment involves the expansion of an existing factory.

## 4.2 Methodology

Among all the variables described in the previous paragraph, those we took into consideration for our analysis were SourceCountry, DestinationCountry, IndustrySector; IndustryActivity.



First, we isolated Chinese investments in Europe, and determined which countries MNEs invest the most in.

Table 1: Chinese FDIs in Europe by Country

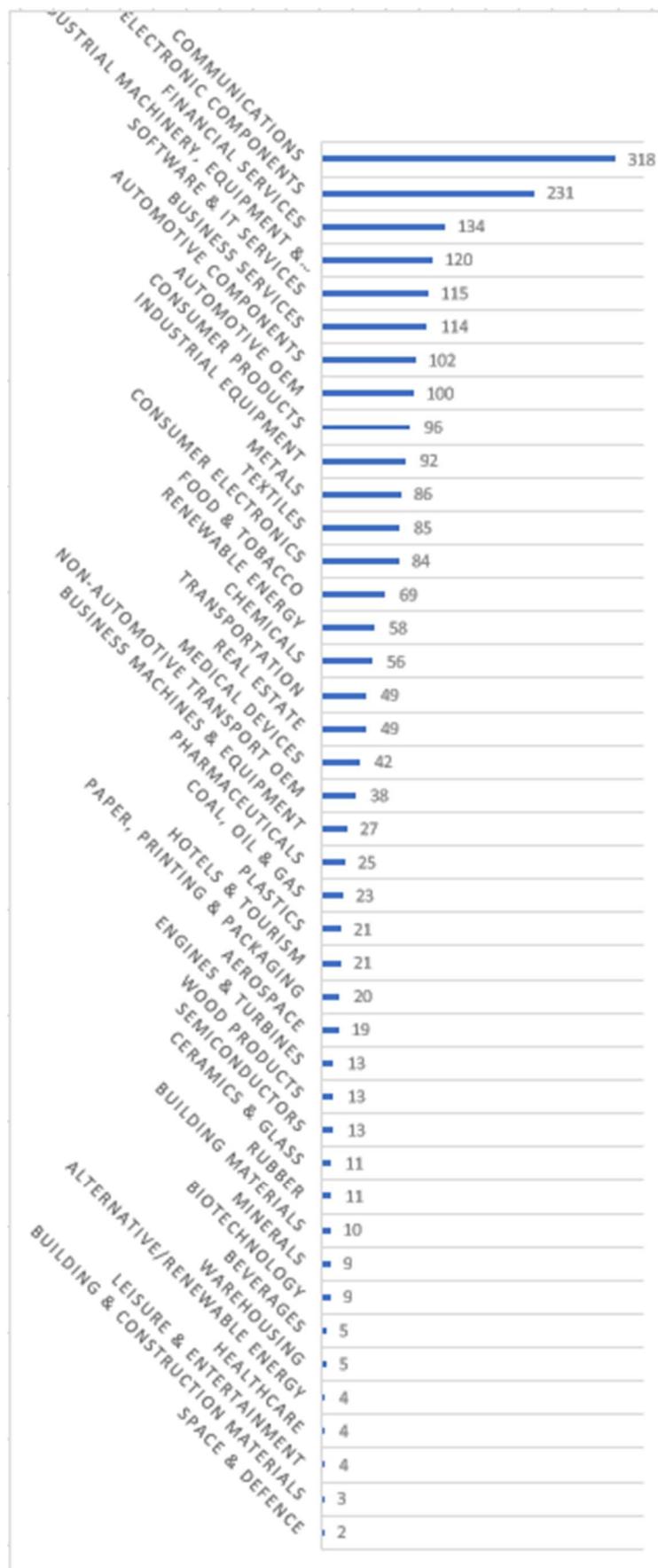
DestinationCountry	Investments	%
Germany	674	29%
United Kingdom	356	15%
Russia	222	10%
France	179	8%
Netherlands	97	4%
Spain	92	4%
Italy	71	3%
Poland	61	3%
Belgium	52	2%
Hungary	51	2%
Denmark	46	2%
Romania	41	2%
Turkey	39	2%
Czech Republic	38	2%
Sweden	31	1%
Switzerland	31	1%
Belarus	27	1%
Austria	22	1%
Ireland	22	1%
Bulgaria	20	1%
Finland	18	1%
Greece	17	1%
Serbia	17	1%
Ukraine	15	1%
Luxembourg	14	1%
Slovakia	13	1%
Lithuania	10	0%
Portugal	10	0%
Altri	24	1%
	2310	

<b>ALTRI</b>	
Norway	5
Bosnia-Herzegovina	4
Croatia	4
Cyprus	2
Latvia	2
Malta	2
Moldova	2
Andorra	1
Estonia	1
Macedonia FYR	1

The analysis of the data obtained from this first subdivision was made in the previous chapter, in the paragraph dedicated to the geographical location of investments.

We then split the Chinese FDI headed to Europe for Industry Sector. Similarly, the analysis was addressed in the previous chapter.

Table 2: Chinese FDIs in Europe by Industry Sectors



Finally, a further classification was made for industrial functions, namely Industry Activities.

Table 3: Chinese FDIs in Europe by Industry Activity

Industry Activity	Investments	%
Sales, Marketing & Support	846	37%
Manufacturing	400	17%
Headquarters	204	9%
Business services	231	10%
Design, Development & Testing	158	7%
Retail	130	6%
Logistics, Distribution & Transportation	102	4%
Research & Development	53	2%
Electricity	50	2%
Construction	47	2%
ICT & Internet Infrastructure	26	1%
Maintenance & Servicing	15	1%
Education & Training	15	1%
Technical Support Centre	10	0%
Extraction	9	0%
Customer Contact Centre	7	0%
Recycling	4	0%
Shared Services Centre	3	0%
	<b>2310</b>	

At this point, the next step was to extrapolate from another database of the same kind information about FDI directed to Europe from other countries in the world, in order to compare them with Chinese ones and identify the existence of similarities or anomalies.

The second Database contained direct FDI in all European countries from around the world. We decided to exclude from the analysis foreign direct investments in Europe from countries that do not make many investments, and which therefore would have been irrelevant for the purposes of our analysis.

We have also excluded investments from European countries to Europe itself.

Among the remaining countries, we decided to take those which could be related, for a variety of reasons, to China, and which also covered various parts of the world.

The group of eight countries that we have aggregated in order to compare the investment trend with the Chinese one is composed of:

- Australia, representing Oceania;
- Brazil, representing South America;
- Canada, representing North America;
- India, also an emerging country like China, and comparable in terms of population;
- Japan, due to its geographical proximity to China and the number of investments;
- Korea, an emerging country with a background similar to the Chinese one;
- South Africa, representative of the southern hemisphere and the African continent;
- United States, which naturally has the highest number of investments in the world and therefore significantly influences the trend of investments in the world.

We can notice that among these countries there are all those belonging to the BRICS group. The transactions carried out by these countries in Europe were then aggregated and compared with the Chinese ones by country of destination, by industrial sector and by industrial activity.

## 4.3 Results

The results of the comparison between Chinese FDI in Europe and those of the rest of the world will be analyzed here.

### 4.3.1 By Geography

Let's start by analyzing the trend of Chinese FDIs in the various European countries with respect to the other group of aggregate countries, which from now on we will call "Rest of the world" for simplicity. The following table shows the comparison, and the ranking is made on the basis of China, whose investment destinations are in descending order.

Table 4: Comparison between FDIs from the Rest of the World and China, by countries.

Rest of the world			CHINA		
DestinationCountry	Investments	%	DestinationCountry	Investments	%
Germany	3915	13%	Germany	674	29%
United Kingdom	8154	27%	United Kingdom	356	15%
Russia	1389	5%	Russia	222	10%
France	2888	10%	France	179	8%
Netherlands	1385	5%	Netherlands	97	4%
Spain	1624	5%	Spain	92	4%
Italy	767	3%	Italy	71	3%
Poland	1158	4%	Poland	61	3%
Belgium	849	3%	Belgium	52	2%
Hungary	531	2%	Hungary	51	2%
Denmark	363	1%	Denmark	46	2%
Romania	537	2%	Romania	41	2%
Turkey	575	2%	Turkey	39	2%
Czech Republic	561	2%	Czech Republic	38	2%
Sweden	400	1%	Sweden	31	1%
Switzerland	680	2%	Switzerland	31	1%
Belarus	26	0%	Belarus	27	1%
Austria	258	1%	Austria	22	1%
Ireland	1505	5%	Ireland	22	1%
Bulgaria	226	1%	Bulgaria	20	1%
Finland	276	1%	Finland	18	1%
Greece	113	0%	Greece	17	1%
Serbia	147	0%	Serbia	17	1%
Ukraine	189	1%	Ukraine	15	1%
Luxembourg	118	0%	Luxembourg	14	1%
Slovakia	241	1%	Slovakia	13	1%
Lithuania	366	1%	Lithuania	10	0%
Portugal	184	1%	Portugal	10	0%
Norway	112	0%	Norway	5	0%
Bosnia-Herzegovina	19	0%	Bosnia-Herzegovina	4	0%
Croatia	68	0%	Croatia	4	0%
Cyprus	19	0%	Cyprus	2	0%
Latvia	51	0%	Latvia	2	0%
Malta	29	0%	Malta	2	0%
Moldova	21	0%	Moldova	2	0%
Andorra	6	0%	Andorra	1	0%
Estonia	49	0%	Estonia	1	0%
Macedonia FYR	32	0%	Macedonia FYR	1	0%
	<b>29831</b>			<b>2310</b>	

As we already knew, a third of Chinese investments in Europe go to Germany. What immediately stands out is that investments from the rest of the world in Germany are about half in percentage terms. In fact, the countries of the rest of the world favor the United Kingdom, which attracts about 27% of total investments.

First, it must be borne in mind that three of the countries we have grouped in the “rest of the world” category speak English, including United States which naturally has its weight in terms of investments. Furthermore, history teaches that the United States and the United Kingdom are linked by a strategic alliance that has been going on since the First World War. So surely these two factors influence the direction of investment of the rest of the world in the UK.

The fact is that the difference between the data is substantial, and it is necessary to understand the reasons why Germany has such an advantage for the Chinese.

Since these are greenfield investments, we can think that Germany is in a strategic position for the Chinese. In fact, it overlooks the North Sea and the Baltic Sea, and its coasts are an excellent connection with the countries in Northern Europe. We have also already mentioned the fact that in Germany the Chinese have created a strategic hub for trade in the city of Duisburg. Finally, it borders to the south with many countries of Eastern Europe. This is important if we think that Beijing is building a lot of railway and highway infrastructures in that area to facilitate trade between China and Europe, and of course the Chinese are aiming for more advanced and rich markets, including Germany.

There are several other reasons why Chinese investors favor Germany in Europe.

Taking a more in-depth analysis of the investment sectors in which Chinese MNEs invest in Germany, we see that those that receive the most investments are the "Electronics Components" and "Industrial Machinery, equipments & tools" sectors.

It is interesting to note that all investments made in Europe in the "Industrial Machinery, equipment & tools" sector are directed exclusively to Germany.

Industrial machinery is in fact industrial machinery that is used to produce goods. It is natural to think that a nation that produces a lot, like China, needs these machineries and equipment. To be clear, if a certain country is interested in the tourism sector, it is obvious that it would not invest in industrial machineries, because of course it does not need it. If, on the other hand, a country is production oriented, it is clear that "Industrial Machinery, equipment & tools" is a crucial upstream sector.

However, the Electronics Components sector is not far behind, as it receives 50% of investments.

Table 5: Major sectors of Chinese investments in Germany

Sectors	Destination Country	Investments	%
Industrial Machinery, Equipment & Tools	Germany	120	100%
Electronic components	Belarus	1	0%
	Belgium	5	2%
	Bosnia-Herzegovina	1	0%
	Bulgaria	2	1%
	Czech Republic	2	1%
	Denmark	4	2%
	France	16	7%
	Germany	112	48%
	Greece	2	1%
	Hungary	8	3%
	Italy	9	4%
	Moldova	2	1%
	Netherlands	9	4%
	Poland	4	2%
	Portugal	1	0%
	Romania	3	1%
	Russia	5	2%
	Serbia	2	1%
	Slovakia	2	1%
	Spain	10	4%
	Sweden	1	0%
	Switzerland	5	2%
	Turkey	6	3%
	UK	19	8%

In fact, in the last twenty years, Chinese growth has made the fortune of the German economy because companies needed components, robots and many other components that have allowed the dragon to become the factory of the world.

Finally, if we think about the strategic objective of acquiring technology, we can assume that the Chinese have made greenfield investments in Germany to exploit the so-called industrial districts or clusters. These are usually created when a certain location, be it a specific country or city, has a high concentration of businesses, as in the case of Germany. According to M. Porter's popular definition (The Competitive Advantage of Nations, 1998), the cluster is "a geographic agglomeration of interconnected firms, specialized suppliers, service firms, firms in related sectors and associated organizations all operating in a particular field, and characterized by the simultaneous presence of competition and cooperation between companies." The cluster owes its strength to collective efficiency, that is to the "competitive advantage that derives from the presence of local external economies and joint actions" (J.H. Schmitz, 1995). External economies are advantages extrinsic to the single company but internal to the cluster, such as the local presence of skilled labor and suppliers and the rapid



diffusion of knowledge. This undoubtedly represents a way for Chinese MNEs to acquire cutting-edge technology and knowledge, as well as become part of the Chinese market.

Returning to the comparison between FDI in Europe between China and the rest of the world, another difference is that China goes more to Russia than the rest of the world. Certainly, the geographical proximity between the two countries matters a lot, moreover Russia is a very large country, and represents a strategic link with central Europe, therefore fertile ground for BRI project initiatives.

For the rest there are no other substantial differences, China is quite in line with the investments made by the rest of the world in Europe.

#### 4.3.2 By Industrial Sector

The second field of confrontation between Chinese investments and those of the rest of the world in Europe concerns the industrial sectors. In the following table the results of the classification. Also this time, the ranking is based on China and the sectors are sorted in descending order, from the one that receives the most investments to the one that receives the least.

The first thing we notice is that compared to the case of the comparison between countries, the investment sectors favored by china are very different from those of the rest of the world.

China focuses more on the "Communications" and "Electronic components" sectors than the others do, while it invests much less in "Software and IT services" and even less in "business services".

Table 6: Comparison between FDIs from the Rest of the World and China, by Industry Sector

Rest of the world			CHINA		
Sectors	Investments	%	Sectors	Investments	%
Communications	1559	5%	Communications	318	14%
Electronic components	776	3%	Electronic components	231	10%
Financial services	1603	5%	Financial services	134	6%
Industrial Machinery, Equipment & Tools	373	1%	Industrial Machinery, Equipment & Tools	120	5%
Software & IT services	6522	22%	Software & IT services	115	5%
Business services	2848	10%	Business services	114	5%
Automotive components	1096	4%	Automotive components	102	4%
Automotive OEM	682	2%	Automotive OEM	100	4%
Consumer products	1174	4%	Consumer products	96	4%
Industrial equipment	1207	4%	Industrial equipment	92	4%
Metals	555	2%	Metals	86	4%
Textiles	1737	6%	Textiles	85	4%
Consumer electronics	428	1%	Consumer electronics	84	4%
Food & tobacco	987	3%	Food & tobacco	69	3%
Renewable energy	219	1%	Renewable energy	58	3%
Chemicals	782	3%	Chemicals	56	2%
Transportation	710	2%	Transportation	49	2%
Real Estate	785	3%	Real Estate	49	2%
Medical devices	600	2%	Medical devices	42	2%
Non-automotive transport OEM	171	1%	Non-automotive transport OEM	38	2%
Business machines & equipment	606	2%	Business machines & equipment	27	1%
Pharmaceuticals	768	3%	Pharmaceuticals	25	1%
Coal, oil & gas	273	1%	Coal, oil & gas	23	1%
Plastics	551	2%	Plastics	21	1%
Hotels & tourism	486	2%	Hotels & tourism	21	1%
Paper, printing & packaging	206	1%	Paper, printing & packaging	20	1%
Aerospace	292	1%	Aerospace	19	1%
Engines & turbines	98	0%	Engines & turbines	13	1%
Wood products	39	0%	Wood products	13	1%
Semiconductors	308	1%	Semiconductors	13	1%
Ceramics & glass	123	0%	Ceramics & glass	11	0%
Rubber	175	1%	Rubber	11	0%
Building materials	29	0%	Building materials	10	0%
Minerals	24	0%	Minerals	9	0%
Biotechnology	335	1%	Biotechnology	9	0%
Beverages	168	1%	Beverages	5	0%
Warehousing	85	0%	Warehousing	5	0%
Alternative/Renewable energy	21	0%	Alternative/Renewable energy	4	0%
Healthcare	74	0%	Healthcare	4	0%
Leisure & entertainment	107	0%	Leisure & entertainment	4	0%
Building & Construction Materials	9	0%	Building & Construction Materials	3	0%
Space & defence	63	0%	Space & defence	2	0%
	29654			2310	

The communications sector receives about 14% of total investments from Chinese investors, while the rest of the world invests only 5%.

Analyzing in detail, we note that most of the investments in this sector still concern Germany, accompanied this time by France.

Table 7: FDI from China in Communication Industry by Countries

Communications	Andorra	1	0%
	Austria	5	2%
	Belarus	6	2%
	Belgium	5	2%
	Bosnia-Herzegovina	1	0%
	Czech Republic	10	3%
	Denmark	4	1%
	Finland	1	0%
	France	41	13%
	Germany	42	13%
	Greece	9	3%
	Hungary	10	3%
	Ireland	4	1%
	Italy	19	6%
	Latvia	2	1%
	Lithuania	1	0%
	Luxembourg	1	0%
	Malta	1	0%
	Netherlands	14	4%
	Norway	1	0%
	Poland	6	2%
	Portugal	5	2%
	Romania	15	5%
	Russia	27	8%
	Slovakia	1	0%
	Slovenia	1	0%
	Spain	24	8%
	Sweden	10	3%
	Switzerland	6	2%
	Turkey	6	2%
	Ukraine	4	1%
	UK	35	11%
		318	

To better understand the direction of these investments, we can refer to the “Cluster” variable.

Table 8: Chinese FDI in communication sector by clusters

Industrial Sector	Clusters	Investments	
Communication	ICT & Electronics	245	77%
	Retail Trade	52	16%
	Creative Industries	6	2%
	Environmental Technology	1	0%
	Financial Services	1	0%
	Industrial	1	0%
	Transport Equipment	1	0%
		318	

We can notice that 77% of these investments belong to the “ICT & Electronics” category, which is a very strategic sector to acquire technology, therefore in line with Beijing's objectives.

Investments in “Electronic Components” can also be explained in the same way, attracting 10% compared to 3% in the rest of the world. Once again, the technological motive is the predominant one in Chinese investments in Europe.

It is not surprising, however, that the percentage of Chinese investments in the "Business Services" sector is lower than that of the rest of the world. In fact, we have already said that the Chinese lack managerial skills and expertise, which they are looking for in European countries, but the best channel to acquire this type of skills is undoubtedly that of corporate acquisitions or mergers, rather than greenfield investments.

Finally, it is interesting to note that Chinese investments in the pharmaceutical industry are still very few, even though it requires a lot of research and development and the use of advanced technologies. However, it is not excluded that in the next few years the Chinese could look out into this new world, for now even a little distant from their culture.

#### 4.3.3 By Industrial Activity

The last part of the analysis concerns the Industrial Activity, or what are the business functions that the Chinese MNEs decide to localize compared to those of the rest of the world.

Table 9: Comparison between FDIs from the Rest of the World and China, by Industry Sector

Rest of the world			CHINA		
Industry Activity	Number	%	Industry Activity	Number	%
Sales, Marketing & Support	8157	27%	Sales, Marketing & Support	846	37%
Manufacturing	5033	17%	Manufacturing	400	17%
Headquarters	2332	8%	Headquarters	204	9%
Business services	4176	14%	Business services	231	10%
Design, Development & Testing	1920	6%	Design, Development & Testing	158	7%
Retail	2696	9%	Retail	130	6%
Logistics, Distribution & Transportation	1489	5%	Logistics, Distribution & Transportation	102	4%
Research & Development	656	2%	Research & Development	53	2%
Electricity	190	1%	Electricity	50	2%
Construction	722	2%	Construction	47	2%
ICT & Internet Infrastructure	731	2%	ICT & Internet Infrastructure	26	1%
Maintenance & Servicing	253	1%	Maintenance & Servicing	15	1%
Education & Training	280	1%	Education & Training	15	1%
Technical Support Centre	266	1%	Technical Support Centre	10	0%
Extraction	169	1%	Extraction	9	0%
Customer Contact Centre	381	1%	Customer Contact Centre	7	0%
Recycling	69	0%	Recycling	4	0%
Shared Services Centre	279	1%	Shared Services Centre	3	0%
	<b>29799</b>			<b>2310</b>	

The substantial difference lies in the fact that the percentage of investments that the Chinese devote to the "Sales, marketing & support" activity is higher than that of the rest of the world.

This type of activity concerns market support, including for example contact centers or after-sales services, but also resellers and commercial offices. This tendency to relocate the "Sales, Marketing & Support" activities seems consistent if we consider that China is a country with many production plants, and since it is MNEs, it is obvious that they need sales branches also abroad, and not just locally.

If we focus on the sectors, once again the reference to the technological determinant returns, with the "Electronics Components" sector taking over.

Table 10: Chinese FDIs in Sales, Manufacturing &amp; Support by sectors in Europe

<b>Sales, Marketing &amp; Support</b>	Aerospace	8	1%
	Alternative/Renewable energy	2	0%
	Automotive components	32	4%
	Automotive OEM	9	1%
	Beverages	5	1%
	Biotechnology	2	0%
	Building & Construction Materials	3	0%
	Building materials	1	0%
	Business Machines & Equipment	14	2%
	Ceramics & Glass	2	0%
	Chemicals	25	3%
	Coal, oil & gas	7	1%
	Communications	107	13%
	Consumer electronics	32	4%
	Consumer products	46	5%
	Electronic components	140	17%
	Engines & turbines	1	0%
	Financial services	4	0%
	Food & tobacco	17	2%
	Healthcare	1	0%
	Hotels & tourism	5	1%
	Industrial equipment	27	3%
	Industrial Machinery, Equipment & Tools	79	9%
	Leisure & entertainment	2	0%
	Medical devices	33	4%
	Metals	47	6%
	Minerals	3	0%
	Non-automotive transport OEM	19	2%
	Paper, printing & packaging	3	0%
	Pharmaceuticals	9	1%
	Plastics	8	1%
	Real Estate	8	1%
	Renewable energy	10	1%
	Rubber	6	1%
	Semiconductors	6	1%
	Software & IT services	66	8%
	Space & defence	1	0%
	Textiles	32	4%
	Transportation	22	3%
	Warehousing	1	0%
	Wood products	1	0%
		<b>846</b>	

Finally, we make a consideration for R&D activities. First, we note that there are two research and development activities for which investments are intended. One is pure "R&D", the other is Design, "Development and Testing", which represents applied R&D. The investment rates basically do not change between China and the rest of the world. Given that China is recently emerging in this area, one thinks that in fact the Dragon is already making great strides.

## Conclusions

After entering the world of FDI, and having studied their types and determinants, we understood how much they are in fact a fundamental tool in the economy, especially in the context of globalization. Over the years, direct foreign investment, both in and out, has grown more and more, both in developed countries, but especially in developing countries. In fact, at the beginning of the new millennium some of the developing economies appeared on the international scene, those of the so-called BRICS group. Brazil, Russia, India, China and South Africa have for decades received investments from the world's major economies, which have allowed them to have some economic growth, even taking on the role of investors themselves. Of course, some to a greater extent and some to a lesser extent, the fact is that these countries have begun to have a fundamental weight in world economic dynamics.

Among these, China certainly stands out, which has undergone a process of exorbitant economic growth, following some liberalization policies implemented in the country since 1978. In the space of a few decades, China has gone from being a country only recipient to one of the world's largest investors, above all thanks to the implementation of the "Go Global" policy, promoted by the Beijing government.

In this context, we asked ourselves what was the interest of Beijing in Europe, and we tried to understand if there were any distinctive patterns of Chinese investments in Europe, different from those of other companies in the world.

What arouses curiosity is that China is a country with substantial differences from the rest of the world. First of all, the presence of the Chinese government in the economy is very strong, so much so that the direction of outgoing investments is not only dictated by the Chinese government, but must also be aimed at activities or sectors that contribute to the country's economic growth.

At the same time, we remember that China started from being the factory of the world, therefore the place where all foreign MNEs relocated their production plants, above all, given the low cost of available manpower. Now, however, China is a crazy industrial power although it lacks R&D, managerial skills and expertise. We wondered exactly how this development came about, and we saw that Chinese investors prefer Europe as a destination from which to acquire cutting-edge technology, new business models, and also managerial skills and abilities.

Based on the analysis of both the data provided by the Financial Times' "FDI markets" database on greenfield investments, and on those extrapolated from the Bloomberg article



"how China is buying its way into Europe", we noticed that some distinctive traits of Chinese investment does indeed exist.

The results of our analysis tell us that Chinese investments in Europe are mainly concentrated in Germany, from a geographical point of view, and at the same time are concentrated in sectors in which Germany is a leader.

Since these are greenfield investments, it is reasonable to think that the Chinese tend to take advantage of knowledge spillovers, locating themselves in areas where the geographical concentration of industries of interest to them is very high. In this way I can take advantage of the existing relationships in the area with other companies in the same sector or of a complementary one, with specialized suppliers, who favor an exchange of knowledge.

Similarly, we have seen that brownfield-type transactions, therefore linked to acquisitions and mergers, on the one hand allow Chinese MNEs to serve the European market, and on the other are aimed at the acquisition of technologies in strategic sectors. It is no coincidence that the trend is that Chinese investors acquire leading companies in the industrial or service sectors, with the aim of absorbing not only their technology but also their know-how. Again, from a geographical point of view, Germany is in the top three of the favorite destinations.

The two results therefore converge in thinking that Chinese investments manifest the peculiarities of China, and explain the country's economic advance.

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